

z/OS Communications Server  
3.2

*SNA Messages*



**Note:**

Before using this information and the product it supports, be sure to read the general information under [“Notices” on page 1875](#).

This edition applies to 3.1 of z/OS® (5655-ZOS), and to subsequent releases and modifications until otherwise indicated in new editions.

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## About this document

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This document is intended to help network operators and system programmers in a VTAM® environment understand the meaning of VTAM messages. You can use this document as a reference for specific VTAM messages. For background reading to help understand concepts involved in VTAM operations and for examples of message output for a variety of DISPLAY commands, see [z/OS Communications Server: SNA Operation](#).

The information in this document supports both IPv6 and IPv4. Unless explicitly noted, information describes IPv4 networking protocol. IPv6 support is qualified in the text.

## Who should read this document

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This document is for anyone required to interpret a VTAM message. Familiarity with VTAM concepts and terms is assumed.

## How this document is organized

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The messages are listed in alphanumeric order by message ID. For each message ID, the book contains the text and a description of the message. This book contains the following chapters:

- Chapter 1, “Introduction,” on page 1 contains information about message text formats, message description format, message groups and subgroups, message routing, message suppression, the online message facility, and user-selected message changes.
- Chapter 2, “ELM messages for logon manager network operators,” on page 7 contains all logon manager messages.
- Chapter 3, “IKT messages for TSO/VTAM network operators,” on page 31 contains all TSO/VTAM messages for network operators.
- Chapter 4, “IKT messages for TSO/VTAM terminal users,” on page 61 contains all TSO/VTAM messages for terminal users.
- These chapters contain VTAM messages for network operators organized in message number order:
  - Chapter 5, “IST messages for VTAM network operators IST001I - IST399I,” on page 65
  - Chapter 6, “IST messages for VTAM network operators IST400I - IST799I,” on page 211
  - Chapter 7, “IST messages for VTAM network operators IST800I - IST1199I,” on page 401
  - Chapter 8, “IST messages for VTAM network operators IST1200I - IST1599I,” on page 661
  - Chapter 9, “IST messages for VTAM network operators IST1600I - IST1999I,” on page 953
  - Chapter 10, “IST messages for VTAM network operators IST2000I - IST2467I,” on page 1171
- Chapter 11, “ISTH messages for IBM Health Checker for z/OS,” on page 1585 and Chapter 12, “ISTM messages for migration checks for IBM Health Checker for z/OS,” on page 1613 contains the messages that are issued by IBM® Health Checker for z/OS.
- Chapter 13, “IUT messages for VTAM network operators,” on page 1623 contains the IUT VTAM messages for network operators.
- Chapter 14, “IVT messages for VTAM network operators,” on page 1625 contains the IVT VTAM messages for network operators.
- Chapter 15, “USS messages,” on page 1677 contains information on unformatted system services (USS) messages.
- Chapter 16, “Command and RU types in VTAM messages,” on page 1683 lists the command and request/response unit (RU) types displayed in VTAM operator messages.
- Chapter 17, “Node and ID types in VTAM messages,” on page 1699 lists the node and ID types displayed in VTAM operator messages.

- [Appendix A, “Message additions and changes,” on page 1701](#)
- [Appendix B, “Message-flooding prevention,” on page 1703](#)
- [Appendix C, “Message routing and suppression,” on page 1705](#)
- [Appendix D, “Messages affected by the MSGLVL option,” on page 1775](#)
- [Appendix E, “Message text for VTAM operator messages,” on page 1785](#)
- [Appendix F, “Related protocol specifications,” on page 1849](#) lists the related protocol specifications for TCP/IP.
- [Appendix G, “Architectural specifications,” on page 1869](#) lists documents that provide architectural specifications for the SNA protocol.
- [Appendix I, “Accessibility,” on page 1873](#) describes accessibility features to help users with physical disabilities.
- [“Notices” on page 1875](#) contains notices and trademarks used in this document.
- [“Bibliography” on page 1879](#) contains descriptions of the documents in the z/OS Communications Server library.

## How to use this document

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IP addresses in messages are displayed as either dotted decimal for IPv4, or colon-hexadecimal for IPv6.

## How to provide feedback to IBM

We welcome any feedback that you have, including comments on the clarity, accuracy, or completeness of the information. See, [How to send feedback to IBM](#) for additional information.

## Conventions and terminology that are used in this information

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Commands in this information that can be used in both TSO and z/OS UNIX environments use the following conventions:

- When describing how to use the command in a TSO environment, the command is presented in uppercase (for example, NETSTAT).
- When describing how to use the command in a z/OS UNIX environment, the command is presented in bold lowercase (for example, **netstat**).
- When referring to the command in a general way in text, the command is presented with an initial capital letter (for example, Netstat).

All the exit routines described in this information are *installation-wide exit routines*. The installation-wide exit routines also called installation-wide exits, exit routines, and exits throughout this information.

The TPF logon manager, although included with VTAM, is an application program; therefore, the logon manager is documented separately from VTAM.

Samples used in this information might not be updated for each release. Evaluate a sample carefully before applying it to your system.

z/OS no longer supports mounting HFS data sets (The POSIX style file system). Instead, a z/OS File System (zFS) can be implemented. The term hierarchical file system, abbreviated as HFS, is defined as a data structure that has a hierarchical nature with directories and files. References to hierarchical file systems or HFS might still be in use in z/OS Communications Server publications.

### Network Express and Open Systems Adapter-Express (OSA-Express) terminology:

- The Network Express feature is introduced with the IBM z17 processor family. The Network Express feature is the next generation of Open Systems Adapter (OSA) technology. The term OSA (Open Systems Adapter) is carried forward with Network Express. The IBM z17 processor supports both the Network Express and the OSA-Express7S features. In this information, when a general reference is made to OSA that applies to all these features, then the term OSA is used, and the acronym will appear in italics. This

formatting style and guideline for usage for the term OSA is used throughout this document. When a distinction is necessary, then the specific feature name is used such as the Network Express feature

- The Network Express feature is defined as channel (CHPID) type OSH (Open System Adapter for Hybrid networks) that might operate in either 10 GbE or 25 GbE link speed. When this term is used in this information, the processing being described applies to either link speed. If processing is applicable to only one link speed, the full terminology, for instance, IBM 25 GbE Network Express will be used.
- Network Express is defined with new system architecture called Enhanced Queued Direct I/O (EQDIO). In this information there are many references to QDIO or OSA/QDIO. When the reference applies to both QDIO and EQDIO the reference just indicates OSA. When the reference is specific to the QDIO or EQDIO architecture, then the specific architecture is referenced, for example, OSA/QDIO or OSA/EQDIO. Some OSA references also use or include the channel type for OSA such as OSD (QDIO). When the reference applies to both features, then the term OSA is used. When a distinction is necessary then the specific channel or architecture type is used, OSD/QDIO or OSH/EQDIO.

### **Shared Memory Communications over Remote Direct Memory Access (SMC-R) terminology**

- *RoCE* , which is a generic term representing IBM® 10 GbE RoCE Express, IBM 10 GbE RoCE Express2, IBM 25 GbE RoCE Express2, IBM 10 GbE RoCE Express3, IBM 25 GbE RoCE Express3, IBM 10 GbE Network Express and IBM 25 GbE Network Express feature capabilities. When this term is used in this information, the processing being described applies to all of these features. If processing is applicable to only one feature, the full terminology, for instance, Network Express will be used.
- RoCE Express2, which is a generic term representing an IBM RoCE Express2 feature that might operate in either 10 GbE or 25 GbE link speed. When this term is used in this information, the processing being described applies to either link speed. If processing applies to only one link speed, the full terminology, for instance, IBM 25 GbE RoCE Express2 will be used.
- RoCE Express3, which is a generic term representing an IBM RoCE Express3 feature that might operate in either 10 GbE or 25 GbE link speed. When this term is used in this information, the processing being described applies to either link speed. If processing applies to only one link speed, the full terminology, for instance, IBM 25 GbE RoCE Express3 will be used.
- Network Express, which is a generic term representing an Network Express feature that might operate in either 10 GbE or 25 GbE link speed. When this term is used in this information, the processing being described applies to either link speed. If processing is applicable to only one link speed, the full terminology, for instance, IBM 25 GbE Network Express will be used. When configured with a CHPID type of NETH, the Network Express feature may operate as an RDMA network interface card.
- RDMA network interface card (RNIC), which is used to refer to the IBM 10 GbE RoCE Express, IBM 10 GbE RoCE Express2, IBM 25 GbE RoCE Express2, IBM 10 GbE RoCE Express3, or IBM 25 GbE RoCE Express3, IBM 10 GbE Network Express or IBM 25 GbE Network Express feature.
- Shared RoCE environment, which means that the *RoCE* feature can be used concurrently, or shared, by multiple operating system instances. The feature is considered to operate in a shared RoCE environment even if you use it with a single operating system instance.

### **Clarification of notes**

Information traditionally qualified as Notes is further qualified as follows:

#### **Attention**

Indicate the possibility of damage

#### **Guideline**

Customary way to perform a procedure

#### **Note**

Supplemental detail

#### **Rule**

Something you must do; limitations on your actions

#### **Restriction**

Indicates certain conditions are not supported; limitations on a product or facility

**Requirement**

Dependencies, prerequisites

**Result**

Indicates the outcome

**Tip**

Offers shortcuts or alternative ways of performing an action; a hint

## Prerequisite and related information

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z/OS Communications Server function is described in the z/OS Communications Server library. Descriptions of those documents are listed in “Bibliography” on page 1879, in the back of this document.

**Required information**

Before using this product, you should be familiar with TCP/IP, VTAM, MVS, and UNIX System Services.

**Softcopy information**

Softcopy publications are available in the following collection.

Titles	Description
<i>IBM Z Redbooks</i>	The IBM Z <sup>®</sup> subject areas range from e-business application development and enablement to hardware, networking, Linux <sup>®</sup> , solutions, security, parallel sysplex, and many others. For more information about the Redbooks <sup>®</sup> publications, see <a href="http://www.redbooks.ibm.com/">http://www.redbooks.ibm.com/</a> and <a href="http://www.ibm.com/systems/z/os/zos/zfavorites/">http://www.ibm.com/systems/z/os/zos/zfavorites/</a> .

**Other documents**

This information explains how z/OS references information in other documents.

When possible, this information uses cross-document links that go directly to the topic in reference using shortened versions of the document title. For complete titles and order numbers of the documents for all products that are part of z/OS, see [z/OS Information Roadmap \(SA23-2299\)](#). The Roadmap describes what level of documents are supplied with each release of z/OS Communications Server, and also describes each z/OS publication.

To find the complete z/OS library, visit the [z/OS library in IBM Documentation](#) (<https://www.ibm.com/docs/en/zos>).

Relevant RFCs are listed in an appendix of the IP documents. Architectural specifications for the SNA protocol are listed in an appendix of the SNA documents.

The following table lists documents that might be helpful to readers.

Title	Number
<i>DNS and BIND</i> , Fifth Edition, O'Reilly Media, 2006	ISBN 13: 978-0596100575
<i>Routing in the Internet</i> , Second Edition, Christian Huitema (Prentice Hall 1999)	ISBN 13: 978-0130226471
<i>sendmail</i> , Fourth Edition, Bryan Costales, Claus Assmann, George Jansen, and Gregory Shapiro, O'Reilly Media, 2007	ISBN 13: 978-0596510299
<i>SNA Formats</i>	GA27-3136
<i>TCP/IP Illustrated, Volume 1: The Protocols</i> , W. Richard Stevens, Addison-Wesley Professional, 1994	ISBN 13: 978-0201633467
<i>TCP/IP Illustrated, Volume 2: The Implementation</i> , Gary R. Wright and W. Richard Stevens, Addison-Wesley Professional, 1995	ISBN 13: 978-0201633542

<b>Title</b>	<b>Number</b>
<i>TCP/IP Illustrated, Volume 3: TCP for Transactions, HTTP, NNTP, and the UNIX Domain Protocols</i> , W. Richard Stevens, Addison-Wesley Professional, 1996	ISBN 13: 978-0201634952
<i>TCP/IP Tutorial and Technical Overview</i>	GG24-3376
<i>Understanding LDAP</i>	SG24-4986
<a href="#">z/OS Cryptographic Services System SSL Programming</a>	SC14-7495
<a href="#">z/OS IBM Tivoli Directory Server Administration and Use for z/OS</a>	SC23-6788
<a href="#">z/OS JES2 Initialization and Tuning Guide</a>	SA32-0991
<a href="#">z/OS Problem Management</a>	SC23-6844
<a href="#">z/OS MVS Diagnosis: Reference</a>	GA32-0904
<a href="#">z/OS MVS Diagnosis: Tools and Service Aids</a>	GA32-0905
<a href="#">z/OS MVS Using the Subsystem Interface</a>	SA38-0679
<a href="#">z/OS Program Directory</a>	GI11-9848
<a href="#">z/OS UNIX System Services Command Reference</a>	SA23-2280
<a href="#">z/OS UNIX System Services Planning</a>	GA32-0884
<a href="#">z/OS UNIX System Services Programming: Assembler Callable Services Reference</a>	SA23-2281
<a href="#">z/OS UNIX System Services User's Guide</a>	SA23-2279
<a href="#">z/OS C/C++ Runtime Library Reference</a>	SC14-7314
<a href="#">OSA-Express Customer's Guide and Reference</a>	SA22-7935

## Redbooks publications

The following Redbooks publications might help you as you implement z/OS Communications Server.

<b>Title</b>	<b>Number</b>
<i>IBM z/OS Communications Server TCP/IP Implementation, Volume 1: Base Functions, Connectivity, and Routing</i>	SG24-8096
<i>IBM z/OS Communications Server TCP/IP Implementation, Volume 2: Standard Applications</i>	SG24-8097
<i>IBM z/OS Communications Server TCP/IP Implementation, Volume 3: High Availability, Scalability, and Performance</i>	SG24-8098
<i>IBM z/OS Communications Server TCP/IP Implementation, Volume 4: Security and Policy-Based Networking</i>	SG24-8099
<i>IBM Communication Controller Migration Guide</i>	SG24-6298
<i>IP Network Design Guide</i>	SG24-2580
<i>Managing OS/390 TCP/IP with SNMP</i>	SG24-5866
<i>Migrating Subarea Networks to an IP Infrastructure Using Enterprise Extender</i>	SG24-5957
<i>SecureWay Communications Server for OS/390 V2R8 TCP/IP: Guide to Enhancements</i>	SG24-5631
<i>SNA and TCP/IP Integration</i>	SG24-5291

<b>Title</b>	<b>Number</b>
<i>TCP/IP in a Sysplex</i>	SG24-5235
<i>TCP/IP Tutorial and Technical Overview</i>	GG24-3376
<i>Threadsafe Considerations for CICS</i>	SG24-6351

## **Where to find related information on the Internet**

### **z/OS**

This site provides information about z/OS Communications Server release availability, migration information, downloads, and links to information about z/OS technology

<http://www.ibm.com/systems/z/os/zos/>

### **z/OS Internet Library**

Use this site to view and download z/OS Communications Server documentation

<http://www.ibm.com/systems/z/os/zos/library/bkserv/>

### **z/OS Communications Server product**

The page contains z/OS Communications Server product introduction

<https://www.ibm.com/products/zos-communications-server>

### **IBM Communications Server product support**

Use this site to submit and track problems and search the z/OS Communications Server knowledge base for Technotes, FAQs, white papers, and other z/OS Communications Server information

<https://www.ibm.com/mysupport>

### **IBM Communications Server performance information**

This site contains links to the most recent Communications Server performance reports

<http://www.ibm.com/support/docview.wss?uid=swg27005524>

### **IBM Systems Center publications**

Use this site to view and order Redbooks publications, Redpapers, and Technotes

<http://www.redbooks.ibm.com/>

### **z/OS Support Community**

Search the z/OS Support Community Library for Techdocs (including Flashes, presentations, Technotes, FAQs, white papers, Customer Support Plans, and Skills Transfer information)

[z/OS Support Community](#)

### **Tivoli® NetView for z/OS**

Use this site to view and download product documentation about Tivoli NetView for z/OS

<http://www.ibm.com/support/knowledgecenter/SSZJDU/welcome>

### **RFCs**

Search for and view Request for Comments documents in this section of the Internet Engineering Task Force website, with links to the RFC repository and the IETF Working Groups web page

<http://www.ietf.org/rfc.html>

## Internet drafts

View Internet-Drafts, which are working documents of the Internet Engineering Task Force (IETF) and other groups, in this section of the Internet Engineering Task Force website

<http://www.ietf.org/ID.html>

Information about web addresses can also be found in information APAR II11334.

**Note:** Any pointers in this publication to websites are provided for convenience only and do not serve as an endorsement of these websites.

## DNS websites

For more information about DNS, see the following USENET news groups and mailing addresses:

### USENET news groups

comp.protocols.dns.bind

### BIND mailing lists

<https://lists.isc.org/mailman/listinfo>

#### BIND Users

- Subscribe by sending mail to [bind-users-request@isc.org](mailto:bind-users-request@isc.org).
- Submit questions or answers to this forum by sending mail to [bind-users@isc.org](mailto:bind-users@isc.org).

#### BIND 9 Users (This list might not be maintained indefinitely.)

- Subscribe by sending mail to [bind9-users-request@isc.org](mailto:bind9-users-request@isc.org).
- Submit questions or answers to this forum by sending mail to [bind9-users@isc.org](mailto:bind9-users@isc.org).

## The z/OS Basic Skills Information Center

The z/OS Basic Skills Information Center is a web-based information resource intended to help users learn the basic concepts of z/OS, the operating system that runs most of the IBM mainframe computers in use today. The Information Center is designed to introduce a new generation of Information Technology professionals to basic concepts and help them prepare for a career as a z/OS professional, such as a z/OS systems programmer.

Specifically, the z/OS Basic Skills Information Center is intended to achieve the following objectives:

- Provide basic education and information about z/OS without charge
- Shorten the time it takes for people to become productive on the mainframe
- Make it easier for new people to learn z/OS

To access the z/OS Basic Skills Information Center, open your web browser to the following website, which is available to all users (no login required): <https://www.ibm.com/support/knowledgecenter/zosbasics/com.ibm.zos.zbasics/homepage.html?cp=zosbasics>





## Summary of changes for SNA Messages

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This document contains terminology, maintenance, and editorial changes, including changes to improve consistency and retrievability. Technical changes or additions to the text and illustrations for the current edition are indicated by a vertical line to the left of the change.

### Summary of message changes for z/OS 3.2 Communications Server: SNA Messages for z/OS 3.2

---

The following messages are new, changed, or no longer issued for z/OS 3.2 Communications Server: SNA Messages in z/OS 3.2.

#### Message changes for z/OS 3.2 Communications Server: SNA Messages

##### **New**

The following messages are new.

None.

##### **Changed**

The following messages are changed.

None.

##### **Deleted**

The following messages are no longer issued.

None.

### Changes made in z/OS Communications Server 3.1

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The following content is new, changed, or no longer included in z/OS 3.1.

##### **New information**

###### **June 2025 refresh**

IST2468I  
IST2469I  
IST2470I  
IST2471I  
IST2472I  
IST2473I  
IST2474I  
IST2475I  
IST2476I  
IST2477I  
IST2478I  
IST2479I  
IST2480I

IST2481I  
IST2482I  
IST2483I  
IST2484I  
IST2485I  
IST2486I  
IST2487I  
IST2488I  
IST2489E  
IST2490E

## **Changed information**

### **June 2025 refresh**

IST1230I  
IST1236I  
IST1578I  
IST1631I  
IST1650I  
IST1715I  
IST1720I  
IST1722I  
IST1750I  
IST1752I  
IST1753I  
IST1756I  
IST1810I  
IST1811I  
IST2361I  
  
IST134I  
IST315I  
IST1090I  
IST1091I  
IST1105I  
IST1166I  
IST1221I  
IST1314I  
IST1342I  
IST1411I  
IST1485I  
IST1613I  
IST1716I  
IST1717I  
IST1886I  
IST2160I  
IST2396I  
IST2419I  
IST2444I

## Deleted information

IST1021I  
IST1293I  
IST1331I  
IST1332I  
IST1396I - IST1399I  
IST1443I  
IST1444I  
IST1553I  
IST1554I  
IST1555I  
IST1556I  
IST1557I  
IST1558I  
IST1559I  
IST1562I  
IST1656I  
IST1657I  
ISTH031I  
ISTH032E  
ISTH035I  
ISTH036E  
ISTM013I - ISTM032E  
ISTM037I  
ISTM038E  
ISTM041I - ISTM050E  
ISTM051I  
ISTM052E  
ISTM053I  
ISTM054E



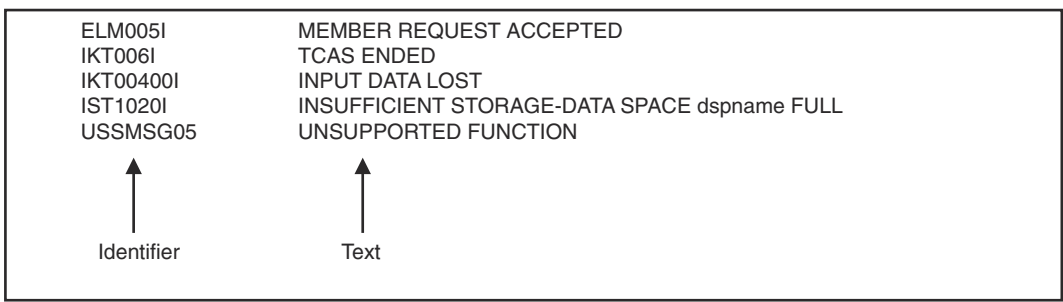
# Chapter 1. Introduction

This topic contains the following information about SNA message standards:

- [“Message text formats” on page 1](#)
- [“Message description format” on page 3](#)
- [“Message groups and subgroups” on page 3](#)
- [“Message routing” on page 4](#)
- [“Message suppression” on page 4](#)
- [“User-selected message changes” on page 4](#)
- [“DATE and TIME formats” on page 6](#)

## Message text formats

Most VTAM messages are preceded by an identifier, as illustrated in [Figure 1 on page 1](#). Unformatted system services (USS) messages that have been coded by the user might or might not have identifiers.



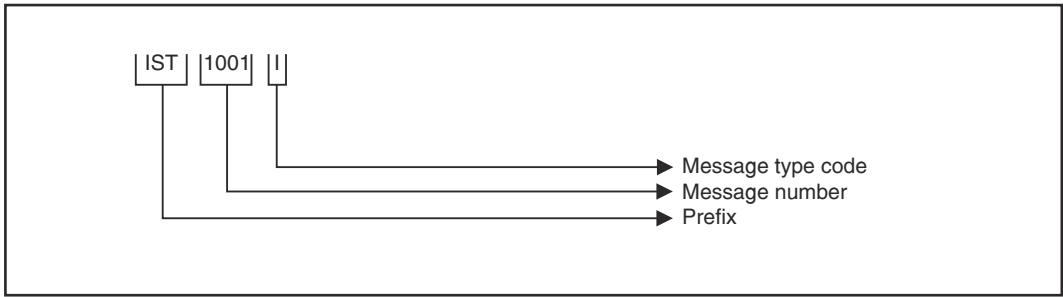
*Figure 1. Sample message format*

See [Appendix C, “Message routing and suppression,” on page 1705](#) for additional information on message formats and message format differences.

## Message identifiers

All message identifiers include the following sections:

- Prefix
- Message number
- Message type code



*Figure 2. Sample VTAM message identifier*

## Prefix

Message identifiers include a prefix that identifies the source of the message.

### Prefix

#### Source

#### ELM

Logon manager messages

#### IKT

TSO/VTAM messages

#### IST

VTAM network operator messages

#### IUT

MPC connection manager messages

#### IVT

Communications Storage Manager (CSM) messages

#### USS

Unformatted system services messages

## Message number

Message identifiers include a unique 2- through 5-digit message number.

## Message type code

The following type codes are used in VTAM messages:

### A Action:

The system is waiting for you to respond. For information about how to respond to VTAM operator messages, see [“Responding to a VTAM message” on page 2](#).

### E Eventual Action:

You must eventually take some action to correct a problem. The system continues processing without waiting for your response.

### I Information:

The message is for your information. This type code can be used to notify you of an error. No response is necessary, but you might need to take some action.

The following message type code is used only in IKT messages for TSO/VTAM network operators:

### D Decision:

You must decide among several alternatives.

## Responding to a VTAM message

The format of your response to a VTAM message, such as IST095A, is operating system dependent.

The response format for MVS and an example follow:

### Format

#### Example

#### r (reply ID),(response)

r 6,YES

Enter the following response to display the reply ID:

d r,r

You might be able to customize the response format. See your operating system documentation for additional information.

## Syntax notation in message text

In this document, VTAM messages are described with the following syntax notation:

### UPPERCASE CHARACTERS

Represent the actual text of the message.

### *italic characters*

Represent message variables. The variables are replaced by their values in the actual message.

### Braces { }

Represent a group of text strings, only one of which is displayed in the actual message. The text strings are separated by or-signs (|) in the braces.

The braces and or-signs are not displayed in the actual message.

### Brackets [ ]

Represent optional messages or optional parts of a message. Optional messages or optional parts of a message are displayed only under certain circumstances which are described in the "Explanation" section of the message. If an optional part has more than one possible value, or-signs separate the possibilities.

The brackets and or-signs are not displayed in the actual message.

## Message description format

---

A message consists of several sections. Not all categories are used for each message. For messages that are always issued as a group, the "Explanation" section of the first message usually contains a complete description of the other messages in the group.

### Explanation

Explains why VTAM issued the message and describes all text and variables in the message.

### System action

Explains the state of VTAM or the operating system after VTAM issues the message. This section also indicates whether the system is waiting for a reply.

### Operator response

Describes actions that the operator can or must take at the console.

### Programmer response

Suggests actions, programming changes, or system definition changes that isolate or correct errors or improve the efficiency of the system.

### User response (USS messages only)

Describes actions that the user can or must take at the terminal.

## Message groups and subgroups

---

### Message Groups

A message group contains two or more messages that are displayed together in response to a specific command or error condition. The following example is a message group.

```
IST1188I  VTAM level STARTED AT time ON date
IST1349I  COMPONENT ID IS dddd-ddddd-ddd
IST1348I  VTAM STARTED AS nodetype
IST1189I  option = current_value [option = current_value]
:
IST314I  END
```

In most cases, the "Explanation" section of the first message in the group contains an example of the group and information about all messages in the group. The message descriptions of members of the group refer back to the first message for complete information.

Message groups that are in response to DISPLAY commands are an exception. For these groups, each individual message in the group usually contains a complete message description. See [z/OS Communications Server: SNA Operation](#) for examples of these types of groups.

### Message Subgroups

A message subgroup contains two or more messages that are displayed together in response to a specific command or error condition. The major differences between a group and a subgroup are that a subgroup is always displayed in a larger group, and one message in the subgroup is always displayed with the other.

Some subgroups are optional parts of the group, and this is indicated by the use of brackets at the beginning and end of the subgroup. Subgroups can also be repeated, and this is indicated by three vertical dots following the last message in the subgroup.

The following example contains several message subgroups.

```
IST951I  DISPLAY DISK INFORMATION FOR ncpname
[IST957I  NO NCP LOAD MODULE OR DUMP ON DISK]
[IST952I  DUMP NAME      DATE      TIME
IST953I  dumpname      date      time]
...
[IST954I  LOAD MODULE    DATE      TIME  STORE STATUS  [ACTIVE]
IST955I  loadmodname    date      time
status   [YES|NO]]
...
[IST924I  -----]
[IST1065I LOAD MODULE    REQUESTED IPL  ESTIMATED IPL
IST1066I  load_module    requested_time
estimated_time]
...
IST965I  AUTO DUMP/LOAD: {YES|NO}
IST314I  END
```

In this example, the following three subgroups exist in the group headed by IST951I:

- IST952I and IST953I
- IST954I and IST955I
- IST1065I and IST1066I

These subgroups are always displayed in the larger IST951I group.

## Message routing

See [Appendix C, “Message routing and suppression,”](#) on page 1705 for information on message routing.

For an explanation of message percolation and a list of percolated VTAM operator messages, see [“Message rerouting and percolation”](#) on page 1707.

## Message suppression

For information on message suppression levels, see [“Message suppression levels”](#) on page 1711.

For an explanation of suppression rules for message-flooding prevention and an example of message suppression, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Unsupported characters in WTO messages

Some characters in a message are not supported and will not be displayed by MVS. MVS documents these in a table in the [z/OS MVS Programming: Assembler Services Guide](#).

## User-selected message changes

The messages that VTAM issues appear exactly as listed in this document unless:



- You have added the name of the VTAM module to the message text by using the MSGMOD start option or the MODIFY VTAMOPTS or MODIFY MSGMOD command.
- You have changed the message text or other message characteristics.
- You have translated messages using the LANGTAB USS tables or the MVS Message Service (MMS).

## Adding the originating module to the message text

You can add the name of the VTAM module that issued the message to the message text. This can be done by using the MSGMOD start option when VTAM is started or by entering the MODIFY VTAMOPTS or MODIFY MSGMOD command.

If you specify MSGMOD=YES, the last 5 characters of the name of the VTAM module that issued the message are inserted into each VTAM message between the message identifier and the message text.

For example:

- If you specify MSGMOD=NO, message IST285I will appear as follows:

**IST285I** *dumptype* **DUMP OF** *resourcename status*

- If you specify MSGMOD=YES, message IST285I will appear as follows:

– **IST285I INFXI** *dumptype* **DUMP OF** *resourcename status*

VTAM module ISTINFXI issued the message.

**Note:** If you specify MSGMOD=YES, some VTAM messages might be truncated on the right. Significant information might be lost if this occurs.

The MSGMOD start option is described in the [z/OS Communications Server: SNA Resource Definition Reference](#). See [z/OS Communications Server: SNA Operation](#) for information on the MODIFY VTAMOPTS and MODIFY MSGMOD commands.

## Changing message characteristics

You can change the following VTAM message characteristics:

- Descriptor codes
- Message text
- Routing codes
- Suppression level
- Suppression of extra blanks

See Appendix C, “Message routing and suppression,” on page 1705 for information on message descriptor codes, message routing codes, and message suppression levels. See Appendix B, “Message-flooding prevention,” on page 1703 for information on message flooding prevention.

For additional information on changing other message characteristics, see the description of the USS macro in the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Selecting USS language tables

End users can select a USS table at the time a USS command is entered. This table, selected with the LANGTAB operand on USS commands, takes priority over standard USS tables when messages are issued. This allows the end user to select a language of choice for USS messages.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for additional information. For more information on the LANGTAB operand, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Translating end-user messages

End users can select a language to be used to translate USS and TSO/VTAM end-user messages using the MVS Message Service (MMS). This language is selected using the LANG operand on USS commands.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information. For more information on the LANG operand, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## DATE and TIME formats

---

When a date is displayed in an IST message for VTAM network operators, the format of the *date* value is based on the DATEFORM start option. See the information about the [DATEFORM start option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

Possible *date* values are:

**DATEFORM|DATEFRM=DMY**  
*DD/MM/YY*

**DATEFORM|DATEFRM=MDY**  
**(default)** *MM/DD/YY*

**DATEFORM|DATEFRM=YMD**  
*YY/MM/DD*

When a time is issued in a message, the *time* value is expressed in 24-hour system (*hh:mm:ss*). For example, 1:00 p.m. is displayed as 13:00:00.

## Module

---

If you want the name of the module that issued a message to be displayed in a VTAM message when the message is issued, use the modifiable VTAM start option MSGMOD=YES. You can set the MSGMOD start option in the following ways:

- Specify MSGMOD=YES in your VTAM start list.
- Specify MSGMOD=YES on the START command when you start VTAM.
- Modify the start option with the F *procname*,MSGMOD=YES command.
- Modify the start option with the F *procname*,VTAMOPTS,MSGMOD=YES command.

See the information about the [START command](#), the [MODIFY MSGMOD command](#), or the [MODIFY VTAMOPTS command](#) in [z/OS Communications Server: SNA Operation](#). See the information about the [MSGMOD start option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

---

## Chapter 2. ELM messages for logon manager network operators

This chapter lists logon manager messages that can appear on a network operator's console.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for information on logon manager.

---

**ELM001I****REDEFINITION COMPLETE**

### Explanation

The logon manager MODIFY MEMBER command was entered. The new configuration definition is now in effect.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2,8

### Descriptor code

6

---

**ELM002I****LOGON MANAGER INITIALIZATION COMPLETED**

### Explanation

The logon manager is prepared to accept requests.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2,8

## Descriptor code

6

---

ELM003I

NO SUBAREAS DETECTED IN CONFIGURATION DEFINITION

---

## Explanation

The logon manager MODIFY MEMBER command was entered. The logon manager input data set contains no subarea definition records. The logon manager requires subarea definitions to process requests.

## System action

The redefinition request is processed, and an empty subarea configuration takes effect.

## Operator response

Reenter a logon manager MODIFY MEMBER command specifying a data set that contains a valid subarea configuration.

## System programmer response

Correct the configuration-definition data set member adding required subarea definition records.

## Routing code

2,8

## Descriptor code

6

---

ELM004I

REDEFINITION IN PROGRESS — COMMAND QUEUED

---

## Explanation

An operator command was entered during logon manager redefinition.

## System action

The command is queued for later processing.

## Operator response

None.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

6

---

ELM005I

MEMBER REQUEST ACCEPTED

---

**Explanation**

The logon manager MODIFY MEMBER command entered by the operator was accepted by the logon manager.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

6

---

**ELM006I** **REDEFINITION IN PROGRESS**

**Explanation**

The configuration specified by the logon manager MODIFY MEMBER command is being processed. Subarea distance and index tables are updated for all subtasks.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

6

---

**ELM007I** **REDEFINITION UNSUCCESSFUL**

**Explanation**

Logon manager redefinition failed.

### **System action**

Processing continues with the previous configuration definition.

### **Operator response**

Save the system log for problem determination.

### **System programmer response**

Use the information issued in ELM017I, ELM020I, or ELM021I to correct the problem.

### **Routing code**

2,8

### **Descriptor code**

6

---

**ELM008I****REPLY TRUNCATED**

### **Explanation**

The response to a logon manager MODIFY HELP or logon manager MODIFY INFO command is incomplete because of a buffer shortage.

### **System action**

Processing continues.

### **Operator response**

Reenter the command. If the condition persists, save the system log for problem determination.

### **System programmer response**

If necessary, increase the number of buffers by configuration definition.

### **Routing code**

2,8

### **Descriptor code**

6

---

**ELM009I****STOP REQUEST ACCEPTED**

### **Explanation**

A logon manager MODIFY STOP command entered by an operator was accepted.

### **System action**

Termination processing begins.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

6

---

<b>ELM010I</b>	<b>INFO REQUEST ACCEPTED</b>
----------------	------------------------------

**Explanation**

A logon manager MODIFY INFO command entered by an operator was accepted by the logon manager.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

6

---

<b>ELM011I</b>	<b>MINLINK REQUEST ACCEPTED</b>
----------------	---------------------------------

**Explanation**

A logon manager MODIFY MINLINK command entered by an operator was accepted by the logon manager.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

6

---

**ELM012I****SELECTED RESOURCE NOT FOUND****Explanation**

An operator command was entered that specified a resource not known to the logon manager.

**System action**

Processing continues.

**Operator response**

Reenter the command, specifying a valid resource.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

6

---

**ELM013I****MINLINK REQUEST COMPLETED****Explanation**

A logon manager MODIFY MINLINK command was completed.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

6



## Explanation

This message is the first in a group of messages in response to a logon manager MODIFY INFO command. A complete description of the message group follows.

ELM014I	NAME:	TYP:	STATUS:	CURRENT:	CONTROL:	REASON:	INITS:
ELM040I	name	type	status	curop=curcnt	conop=concnt	reason	inits

*name* indicates the name of the resource.

*type* indicates the type of the resource and is either an application (**APPL**) or channel-attached control point LU (**CLU**).

*status* indicates the status of the resource and can be one of the following values:

### ACTIVE

Active

### INACTIVE

Inactive

### PENDACTV

Pending active

### PENDINAC

Pending inactive

If *type* is **APPL**,

*curop* is link count (**LNKCNT**).

*curcnt* is the number of CLUs that support (handle session initiations for) application *name*.

*conop* is minimum link count (**MINLNK**).

*concnt* is the smallest link count at which application *name* remains active.

If *type* is **CLU**,

*curop* is session count (**SESCNT**).

*curcnt* is the number of sessions initiated across CLU *name* as reported by the CLU.

*conop* is session limit (**SESLMT**).

*concnt* is the largest number of sessions that can be initiated across CLU *name*.

*reason* indicates the reason for the current status of the resource (when known).

*inits* indicates the number of session initiations sent to application *name* or across CLU *name* as determined by the logon manager.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2,8

**Descriptor code**

6

---

**ELM015I****NO PENDING RESOURCES FOUND****Explanation**

A logon manager MODIFY INFO command for pending resources was completed. No resources were found in the pending state.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

6

---

**ELM016I****LOGON MANAGER CLOSEDOWN COMPLETED****Explanation**

Logon manager termination completed.

**System action**

Logon manager session is completed and control returns to MVS.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

6

---

**ELM017I****REQUIRED STORAGE UNAVAILABLE**

## Explanation

An operator command was entered that required the logon manager to acquire additional storage.

## System action

If the condition occurs during logon manager initialization, initialization fails and ELM110I is issued. Otherwise, the logon manager continues processing.

## Operator response

If the logon manager continues processing, try the operation again.

## System programmer response

Respond to MVS messages for a storage shortage. A larger region might be required.

## Routing code

2,8

## Descriptor code

6

---

**ELM018I****SA RECORD CAUSES MAXSUBA PARAMETER TO BE EXCEEDED**

## Explanation

The logon manager MODIFY MEMBER command was entered. The number of unique or adjacent subareas encountered in the system-definition data set exceeds the number specified in the MAXSUBA parameter at system startup.

## System action

The SA record is ignored and processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Ensure that the subarea configuration in the specified member is consistent with the job-step parameters. Adjust the MAXSUBA parameter if necessary.

## Routing code

2,8

## Descriptor code

6

---

**ELM019I****LMAPPL RECORD CAUSES MAXAPLC VALUE TO BE EXCEEDED**

## Explanation

The logon manager MODIFY MEMBER command was entered. The number of applications defined in the LMAPPL statement exceeds either the default value or the value specified in the MAXAPLC statement.

## System action

The LMAPPL record is processed. Storage fragmentation might result.

## Operator response

Save the system log for problem determination.

## System programmer response

Adjust the MAXAPLC value in the specified member.

## Routing code

2,8

## Descriptor code

6

---

ELM020I	UNABLE TO ACCESS CONFIGURATION DEFINITION DATA SET MEMBER
---------	---

## Explanation

A logon manager MODIFY MEMBER command was entered. Either data set ELMDEFDS could not be opened, or the member specified could not be found in the data set.

## System action

Processing continues with the previous configuration definition.

## Operator response

Save the system log for problem determination.

## System programmer response

Validate the data-set name associated with data set ELMDEFDS and the member specified in the command.

## Routing code

2,8

## Descriptor code

6

---

ELM021I	ERROR ENCOUNTERED IN READING CONFIGURATION DEFINITION DATA SET MEMBER
---------	--

## Explanation

The logon manager MODIFY MEMBER command was entered. A READ error was encountered while processing the member.

## System action

Processing continues with the previous configuration definition.

## Operator response

Save the system log for problem determination.

## System programmer response

Check the integrity of the data set ELMDEFDS.

## Routing code

2,8

### Descriptor code

6

ELM022I HELP REQUEST ACCEPTED

### Explanation

A logon manager MODIFY HELP command was accepted by the logon manager.

### System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

6

**ELM023I** **VALID COMMAND PARAMETERS ARE:**

### Explanation

This is the first message of the HELP message group, which is displayed after message ELM022I. The entire message group is listed below.

```
ELM022I  HELP REQUEST ACCEPTED
ELM023I  VALID COMMAND PARAMETERS ARE:
ELM024I  HELP                ...GET VALID COMMANDS FORMATS
ELM025I  INFO,ID=NNNNNNNN    ...GET STATUS FOR RESOURCE NAMED NNNNNNNN
ELM026I  INFO,ID=CLU         ...GET STATUS FOR EACH CONTROL LOGICAL UNIT
ELM027I  INFO,ID=CLU,PEND    ...GET STATUS FOR EACH PENDING CLU
ELM028I  INFO,ID=APPL        ...GET STATUS FOR EACH SUPPORTED APPLICATION
ELM029I  INFO,ID=APPL,PEND   ...GET STATUS FOR EACH PENDING APPL
ELM030I  INFO,ID=ALL         ...GET STATUS FOR EACH CLU AND APPL
```

ELM031I	INFO,ID=ALL,PEND	...GET STATUS FOR EACH PENDING CLU AND APPL
ELM032I	MEMBER=MMMMMMMM	...PROCESS DEFINITION MEMBER MMMMMMMM
ELM033I	MINLINK=VVV,ID=ALL	...SET MINLINK VALUE TO VVV (1 - 255)
ELM034I		FOR EACH SUPPORTED APPLICATION
ELM035I	MINLINK=VVV,ID=NNNNNNNN	...SET MINLINK VALUE FOR APPL NNNNNNNN
ELM036I	STOP	...REQUESTS CLOSEDOWN

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

6

---

<b>ELM024I</b>	<b>HELP ...GET VALID COMMAND FORMATS</b>
----------------	--

## Explanation

This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

## Routing code

2,8

## Descriptor code

6

---

<b>ELM025I</b>	<b>INFO,ID=NNNNNNNN ...GET STATUS FOR RESOURCE NAMED NNNNNNNN</b>
----------------	---

## Explanation

This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

## Routing code

2,8

## Descriptor code

6

---

<b>ELM026I</b>	<b>INFO,ID=CLU ...GET STATUS FOR EACH CONTROL LOGICAL UNIT</b>
----------------	--

## Explanation

This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

## Routing code

2,8

## Descriptor code

6

---

ELM027I	INFO,ID=CLU,PEND ...GET STATUS FOR EACH PENDING CLU
---------	---

---

## Explanation

This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

## Routing code

2,8

## Descriptor code

6

---

ELM028I	INFO,ID=APPL ...GET STATUS FOR EACH SUPPORTED APPLICATION
---------	---

---

## Explanation

This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

## Routing code

2,8

## Descriptor code

6

---

ELM029I	INFO,ID=APPL,PEND ...GET STATUS FOR EACH PENDING APPL
---------	---

---

## Explanation

This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

## Routing code

2,8

## Descriptor code

6

---

ELM030I	INFO,ID=ALL ...GET STATUS FOR EACH CLU AND APPL
---------	---

---

## Explanation

This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

---

<b>ELM031I</b>	<b>INFO,ID=ALL,PEND ...GET STATUS FOR EACH PENDING CLU AND APPL</b>
----------------	---

---

## Explanation

This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

## Routing code

2,8

## Descriptor code

6

---

<b>ELM032I</b>	<b>MEMBER=MMMMMMMM ...PROCESS DEFINITION MEMBER MMMMMMMM</b>
----------------	--

---

## Explanation

This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

---

<b>ELM033I</b>	<b>MINLINK=VVV,ID=ALL...SET MINLINK VALUE TO VVV (1-255)</b>
----------------	--

---

## Explanation

This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

## Routing code

2,8

## Descriptor code

6

---

<b>ELM034I</b>	<b>FOR EACH SUPPORTED APPLICATION</b>
----------------	---------------------------------------

---

## Explanation

This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

## Routing code

2,8

## Descriptor code

6

---

<b>ELM035I</b>	<b>MINLINK=VVV,ID=NNNNNNNN ...SET MINLINK VALUE FOR APPL NNNNNNNN</b>
----------------	---

---



**Explanation**

This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

**Routing code**

2,8

**Descriptor code**

6

---

<b>ELM036I</b>	<b>STOP ...REQUESTS CLOSEDOWN</b>
----------------	-----------------------------------

**Explanation**

This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

**Routing code**

2,8

**Descriptor code**

6

---

<b>ELM037I</b>	<b>LMAPPL RECORD IGNORED – WOULD CAUSE MAXAPLC LIMIT TO BE EXCEEDED</b>
----------------	---

**Explanation**

The logon manager MODIFY MEMBER command was entered. One or more LMAPPL records were encountered, either exceeding the number of applications specified for MAXAPLC or resulting in more than 4095 applications being defined to the logon manager.

**System action**

Processing continues.

**Operator response**

Save the system log for problem determination.

**System programmer response**

Check the member specified to ensure that no more than 4095 applications are defined to the logon manager.

**Routing code**

2,8

**Descriptor code**

6

---

<b>ELM040I</b>	<i>name type status curop=curcnt conop=concnt reason inits</i>
----------------	--

## Explanation

This message is issued as part of a message group. The first message of the group is ELM014I. See the explanation of that message for a complete description.

## Routing code

2,8

## Descriptor code

6

---

ELM050I	SYNTAX ERROR [AFTER <i>keyword</i> ] [AT <i>token</i> ] IN <i>type</i>
---------	--

---

## Explanation

A syntax error has been encountered in an operator command, definition member, or job parameters.

*type* indicates the type of error and can be one of the following types:

**OPERATOR COMMAND**  
**DEFINITION MEMBER**  
**JOB PARAMETERS**

If any valid input was recognized, the token at which the error was detected is indicated by *token*.

If a keyword was recognized before the error was detected, the keyword is indicated by *keyword*.

## System action

The input is ignored.

## Operator response

Ensure that you entered the command correctly. If problems persist, save the system log for problem determination.

## System programmer response

Correct the definition member or job parameters.

## Routing code

2,8

## Descriptor code

6

---

ELM051I	INCORRECT VALUE SPECIFIED FOR <i>operand</i> IN <i>type</i>
---------	---

---

## Explanation

The value for the indicated operand is out of range.

*type* indicates the type of error and can be one of the following types:

**OPERATOR COMMAND**  
**DEFINITION MEMBER**  
**JOB PARAMETERS**

**System action**

The operand is ignored. Processing continues.

**Operator response**

For an operator command, check the command for errors, correct them, and try the command again. If problems persist, save the system log for problem determination.

**System programmer response**

Correct the definition record or job parameter.

**Routing code**

2,8

**Descriptor code**

6

---

**ELM060I** NO VALID VALUE FOR PARAMETER *parameter* PROVIDED

**Explanation**

Parameter *parameter* is missing or invalid.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

6

---

**ELM061I** CURRENT VALUE OF MEMBER PARAMETER IS *membername*

**Explanation**

One or more parameters are missing or invalid. VTAM provides the value of the MEMBER parameter for the operator's information.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

6

---

<b>ELM062I</b>	<b>CURRENT VALUE OF MAXSUBA PARAMETER IS <i>value</i></b>
----------------	---

**Explanation**

One or more parameters are missing or invalid. The value of the MAXSUBA parameter is provided for the operator's information.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

6

---

<b>ELM063A</b>	<b>ENTER LOGON MANAGER START PARAMETERS (OR 'END')</b>
----------------	--

**Explanation**

One or more parameters required to start the logon manager are missing or invalid.

**System action**

Prompts for valid parameters.

**Operator response**

Enter the valid parameters. The value for any parameter specified in response to this message overrides the current value for that parameter. If you enter END instead of a parameter string, the logon manager terminates.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

6

---

<b>ELM070I</b>	<b><i>macro</i> FAILURE [FOR APPLICATION <i>applname</i>][, RETURN CODE <i>value</i>]</b>
----------------	---

---

## Explanation

The macro indicated by *macro* failed.

If the macro failure affected the processing of a session initiation for a specific application, the application name is indicated by *applname*.

If available, a return code (as indicated by *value*) is provided for problem determination.

*value*, displayed in decimal, can be one of the following values:

**32**

GETMAIN failure

**38**

Logon manager not available

**39**

CLU not found

**52**

APLB not found

**56**

Subarea address not found

**60**

Function code not valid

**70**

Logon manager exit not initialized

If *macro* is ISTIECIV and *value* is not listed above, *value* might have been returned by ELMCLUEX, the CLU search exit routine. See your ELMCLUEX exit routine for the meaning of those return codes. See [z/OS Communications Server: SNA Customization](#) for more information on the CLU search exit routine.

## System action

Begins termination processing.

## Operator response

Save the system log for problem determination.

## System programmer response

For failure information concerning the specified macro, see [z/OS Communications Server: SNA Programming](#) or the appropriate MVS manual. For information on the APPCCMD macro, see the [z/OS Communications Server: SNA Programmer's LU 6.2 Guide](#).

## Routing code

2,8

## Descriptor code

6

---

**ELM075I****SESSION SETUP FOR *olu* TO *dlu* FAILED, SENSE = *code***

---

## Explanation

A dependent secondary logical unit (SLU) *olu* attempted to log on to a Transaction Processing Facility (TPF) application *dlu*, but session setup failed.

*olu* is the origin logical unit.

*dlu* is the destination logical unit.

*code* is the sense code and provides information about the cause of the failure. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

The cause of this message is usually a definition or line problem. Take the following actions:

1. Ensure that *olu* is defined to the TPF system on which the TPF application *dlu* resides.
2. Ensure that the TPF application *dlu* is active and accepting session requests.
3. Ensure that VTAM has a valid session to the TPF system.
4. If you cannot identify a definition or line problem, dump Logon Manager.
5. If this message is the result of an apparent software error, take the following actions:
  - If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
  - If you do not have access to IBMLink, report the problem to the IBM software support center.

For additional information on Logon Manager and TPF, see the [z/OS Communications Server: SNA Network Implementation Guide](#).

## Routing code

2,8

## Descriptor code

6

---

**ELM080I****ATTACH FAILED FOR SUBTASK *taskname***

---

## Explanation

The logon manager attempted to ATTACH subtask *taskname*. The ATTACH failed.

### System action

If the condition occurs during logon manager initialization, initialization fails and ELM110I is issued. Otherwise, the logon manager continues processing.

### Operator response

If the message recurs, enter the logon manager MODIFY MINLINK command to stop activation attempts for this subtask.

### System programmer response

None.

### Routing code

2,8

### Descriptor code

6

---

ELM081I	BUFFER STORAGE NOT AVAILABLE FOR RECEIVE FROM CLU <i>cluname</i>
---------	--

### Explanation

No buffer is available to issue a receive for the channel-attached control-point logical unit (*cluname*).

### System action

The session with the channel-attached control-point logical unit is ended.

### Operator response

Save the system log for problem determination.

### System programmer response

If necessary, increase the number of buffers by configuration definition.

### Routing code

2,8

### Descriptor code

6

---

ELM090I	SEND TO CLU <i>cluname</i> FAILED[, RC/FB= <i>value</i> ]
---------	---

### Explanation

A SEND to channel-attached control-point LU *cluname* failed.

When the associated RPL can be read, the return code and feedback values are indicated by *value*. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *value*.

### System action

Processing continues.

## Operator response

Try the operation that caused the SEND macro to fail again. If the condition persists, save the system log for problem determination.

## System programmer response

For additional information on the SEND macro, see [z/OS Communications Server: SNA Programming](#).

## Routing code

2,8

## Descriptor code

6

---

ELM091I	RECEIVE FROM CLU <i>cluname</i> FAILED[, RC/FB= <i>value</i> ]
---------	--

---

## Explanation

A RECEIVE from channel-attached control-point LU *cluname* failed.

When the associated RPL can be read, the return code and feedback values are indicated by *value*. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *value*.

## System action

The session with the channel-attached control-point LU is terminated.

## Operator response

Save the system log for problem determination.

## System programmer response

For additional information on the RECEIVE macro, see [z/OS Communications Server: SNA Programming](#).

## Routing code

2,8

## Descriptor code

6

---

ELM100I	ACB RELEASE-LEVEL VECTOR INDICATES INCORRECT VTAM LEVEL
---------	---

---

## Explanation

The active version of VTAM is pre-V3R2.

## System action

Begins termination processing.

## Operator response

Save the system log for problem determination.



### System programmer response

Ensure that a V3R2 VTAM or higher is installed before activating the logon manager.

### Routing code

2,8

### Descriptor code

6

---

<b>ELM101A</b>	<b>ENTER 'CONTINUE' WHEN VTAM IS ACTIVE (OR 'END')</b>
----------------	--

---

### Explanation

The logon manager attempted to open its ACB and determined that VTAM was not active.

### System action

Waits for operator input.

### Operator response

Enter CONTINUE when VTAM message IST020I indicates that VTAM is active. Enter END to stop the logon manager.

### System programmer response

None.

### Routing code

2,8

### Descriptor code

6

---

<b>ELM110I</b>	<b>INITIALIZATION UNSUCCESSFUL</b>
----------------	------------------------------------

---

### Explanation

The logon manager initialization failed.

### System action

Termination processing begins.

### Operator response

Save the system log for problem determination.

### System programmer response

Use the information in previous messages to assist you in correcting the problem.

**Routing code**

2,8

**Descriptor code**

6

---

## Chapter 3. IKT messages for TSO/VTAM network operators

This chapter lists TSO/VTAM messages that can appear on a network operator's console.

These messages have a different prefix than TSO messages. TSO/VTAM issues messages that begin with IKT; TSO issues messages that begin with IKJ.

TSO/VTAM messages for terminal operators are described in [Chapter 4, "IKT messages for TSO/VTAM terminal users,"](#) on page 61.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for information on TSO/VTAM. For information on diagnosing TSO/VTAM problems, see [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#).

---

**IKT001D*****nnnn USER(S) ACTIVE REPLY 'U', 'SIC', OR 'FSTOP'***

### Explanation

An operator entered a start command to activate TCAS. *nnnn* users were found to be active from a previous session. This situation can occur if TCAS previously failed, and users were not properly terminated.

### System action

The system waits for the operator to reply.

### Operator response

Check to determine whether the users tried to enter a logoff command before a new start command for TSO was entered. If logoff was entered and the users' address space is still active, there might be a VTAM/TSO interface problem. Otherwise, take one of the following actions:

- Reply "U" to continue start command processing and to allow the active users to remain active.
- Reply "SIC" to cancel the active users normally, allowing any messages queued for them to be received. Start command processing will then continue.
- Reply "FSTOP" to force immediate cancellation of the active users. Start command processing will then continue. Use "FSTOP" only if "SIC" is ineffective.

### System programmer response

None.

### Routing code

1,8

### Descriptor code

\*\*\*

---

**IKT002I*****TCAS IS TERMINATING, REASON CODE=code***

### Explanation

TCAS was unable to continue its normal processing because of an error, indicated by *code*:

**04**

The attempt to activate TCAS was invalid because TCAS was already active in the system.

**16**

The TCAS main task was unable to attach the VTAM interface subtask.

**20**

The TCAS main task was unable to attach the user interface subtask.

**24**

The TCAS main task was unable to attach the console communication subtask.

**28**

TCAS was unable to obtain storage for the TCAS table (TCAST) in the common service area (CSA).

**32**

The TCAS main task was abnormally terminated and unable to recover.

**48**

The VTAM interface subtask was abnormally terminated and unable to recover.

**52**

The user interface subtask was abnormally terminated and unable to recover.

**56**

The console communication subtask was abnormally terminated and unable to recover.

## System action

TCAS terminates normally for codes 04, 48, 52, and 56. TCAS terminates abnormally for codes 16, 20, 24, 28, and 32.

## Operator response

Obtain a dump by specifying "DUMP" in response to TCAS termination message IKT012D. Save the system log for problem determination.

## System programmer response

The reason code indicates the reason TCAS is terminating. Correct the problem as determined from the TCAS dump and console output provided by the operator. See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on termination problems.

## Routing code

1,8

## Descriptor code

\*\*\*

**IKT003D**

**TCAS UNABLE TO ACCEPT LOGONS, REASON CODE=*code* REPLY  
'RETRY' OR 'TERM'**

## Explanation

TCAS issues this message when VTAM fails to open the TCAS access method control block (ACB) or to accept logons to TSO. This is either an OPEN ACB or SETLOGON macro failure.

*code* (in decimal) indicates the reason for the problem.

**16**

The SETLOGON macro, issued by TCAS to allow VTAM to accept logons, failed.

**20**

A VTAM OPEN macro could not be processed because of a temporary shortage of storage.

**36**

TCAS tried to open an ACB. The password in the ACB did not match the password in the corresponding APPL entry, or the ACB did not specify a password when one was specified in the APPL entry.

**82**

The VTAM operator entered a HALT command, and VTAM is shutting down.

**84**

Either the address supplied in the ACB's APPLID field lies beyond TCAS's addressable range, or the name indicated by the ACB's APPLID field is not defined to VTAM. If the OPEN macro was specified correctly, you might have left out TSO's application program ID (which is TSO) during VTAM definition.

**86**

A match for application program ID TSO was found, but it was for an entry other than an APPL statement.

**88**

Another ACB, already opened by VTAM, indicates the same application program ID (TSO) that this ACB does. You might have assigned the same application program ID to two different versions of TSO. This is valid only if the programs do not run (or at least do not open their ACBs) concurrently.

**90**

The name (TSO) indicated by the ACB's APPLID field is not defined to VTAM. This error might have occurred because:

1. No APPL definition statement was coded for TSO.
2. The major node containing the APPL definition statement for TSO has not been activated.
3. The major node containing the APPL definition statement for TSO has been deactivated.

**92**

VTAM has been included as part of the operating system, but it is inactive.

**96**

An apparent system error occurred. Either there is a defect in VTAM's logic, or there is an error in TCAS's use of the OPEN macro that VTAM did not properly detect.

**112**

The ACB failed to open because close processing was not completed.

## **System action**

Processing continues.

## **Operator response**

- Reply 'RETRY' to cause TCAS to try again to accept logons.
- Reply 'TERM' to cause TCAS to terminate.

Save the system log for problem determination.

## **System programmer response**

See [z/OS Communications Server: SNA Programming](#) for a description of the OPEN ACB and SETLOGON macros. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on logon problems.

## **Routing code**

1,8

## Descriptor code

\*\*\*

---

**IKT004D**

**INVALID PARAMETERS SPECIFIED, RESPECIFY OR REPLY 'U'**

## Explanation

One or more invalid parameters were specified when trying to start, modify, or stop TCAS. For more information, see [z/OS MVS Initialization and Tuning Reference](#).

## System action

The system waits for the operator to reply.

## Operator response

Check for an invalid parameter. Respecify all the parameters, or reply 'U' to cause the command to be ignored.

## System programmer response

None.

## Routing code

1,8

## Descriptor code

\*\*\*

---

**IKT005I**

**TCAS IS INITIALIZED**

## Explanation

TCAS initialization began in response to a START TSO command and is now complete.

## System action

Unless they are suppressed, logons to TSO/VTAM are now accepted.

## Operator response

None.

## System programmer response

None.

## Routing code

1,8

## Descriptor code

\*\*\*

---

**IKT006I**

**TCAS ENDED**

**Explanation**

TCAS has ended normally.

**System action**

TSO/VTAM is terminated.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

1,8

**Descriptor code**

\*\*\*

---

**IKT007I****TCAS ACCEPTING LOGONS****Explanation**

Logons are allowed with an operator START or MODIFY command.

**System action**

Logons to TSO/VTAM are now accepted.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

1,8

**Descriptor code**

\*\*\*

---

**IKT008I****TCAS NOT ACCEPTING LOGONS****Explanation**

TCAS has stopped accepting logons in response to an operator's command (for example, MODIFY TSO USERMAX=...). No new logons will be accepted until requested by the operator.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

1,8

### Descriptor code

\*\*\*

---

**IKT009I**

**TPEND HAS OCCURRED, TCAS TERMINATION IN PROGRESS**

### Explanation

VTAM has notified TCAS of a VTAM abend (TPEND exit driven). A HALT command was entered to stop VTAM, or TCAS is terminating.

### System action

TCAS performs termination processing.

### Operator response

None.

### System programmer response

None.

### Routing code

1,8

### Descriptor code

\*\*\*

---

**IKT010D**

***nnnnn* USER(S) ACTIVE, REPLY 'SIC' OR 'FSTOP'**

### Explanation

A STOP command was entered to stop TCAS, but *nnnnn* terminal users are still active.

### System action

The system waits for the operator to reply.



## Operator response

The two acceptable replies are:

- Reply 'SIC' to cancel the active users normally. This allows them to receive any messages queued for them. It allows TSO/VTAM to perform its normal termination processing.
- Reply 'FSTOP' to force immediate cancellation of the active users. The users will not receive any messages queued for them. TSO/VTAM will not perform its normal termination processing; that is, task resource manager processing will be circumvented. Use 'FSTOP' only if 'SIC' did not work in a previous attempt.

## System programmer response

None.

## Routing code

1,8

## Descriptor code

\*\*\*

---

<b>IKT011I</b>	<b>TCAS UNABLE TO {ACCEPT QUIESCE} LOGONS, REASON CODE=code</b>
----------------	---

---

## Explanation

TCAS issues this message in response to a TSO MODIFY command requesting that TCAS accept or quiesce logons. VTAM either failed to open the TCAS ACB or failed to accept or quiesce logons to TSO.

*code* (in decimal) indicates the reason for the problem.

**16**

The SETLOGON macro, issued by TCAS to request VTAM to accept or reject logons, failed.

**20**

A VTAM OPEN macro could not be processed because of a temporary storage shortage.

**82**

The VTAM operator entered a HALT command, and VTAM is shutting down.

**84**

Either the address supplied in the ACB's APPLID field lies beyond TCAS's addressable range, or the name indicated by the ACB's APPLID field is not defined to VTAM. If the OPEN macro was specified correctly, you might have left out TSO's application program ID (which is TSO) during VTAM definition.

**86**

A match for application program ID TSO was found, but it was for an entry other than an APPL entry.

**88**

Another ACB, already opened by VTAM, indicates the same application program ID (TSO) that this ACB does. You might have assigned the same application program ID to two different versions of TSO. This is valid only if the programs do not run (or at least do not open their ACBs) concurrently.

**90**

The name (TSO) indicated by the ACB's APPLID field is not defined to VTAM. This error might have occurred because:

1. No APPL definition statement was coded for TSO.
2. The major node containing the APPL definition statement for TSO has not been activated.
3. The major node containing the APPL definition statement for TSO has been deactivated.

**92**

VTAM has been included as part of the operating system, but it is inactive.

96

An apparent system error occurred. Either there is a defect in VTAM's logic, or there is an error in TCAS's use of the OPEN macro that VTAM did not properly detect.

100

No more TSO user APPLIDs are available. You might have defined too few TSO user APPLIDs.

### System action

Processing continues.

### Operator response

Save the system log for problem determination.

### System programmer response

Use the system log and reason code to assist you in correcting the problem. See [z/OS Communications Server: SNA Programming](#) for a description of the OPEN ACB and SETLOGON macros. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on TSO/VTAM logon problems.

### Routing code

1,8

### Descriptor code

\*\*\*

---

**IKT012D**

**TCAS TERMINATION IN PROGRESS – SPECIFY ‘U’ OR ‘DUMP’**

---

### Explanation

TCAS is terminating. An SVC dump can be requested. This message might be due to an abend. See IKT002I for more information.

### System action

The system waits for the operator to reply.

### Operator response

- Reply ‘U’ to continue termination processing without a dump.
- Reply ‘DUMP’ to produce a dump of virtual storage.

### System programmer response

None.

### Routing code

1,8

### Descriptor code

\*\*\*

---

**IKT013I**

**PARAMETER FILE CANNOT BE OPENED - DEFAULT PARAMETERS USED**

---

### Explanation

An error occurred while TCAS was trying to open the TSO parameter file. This caused TSO/VTAM default parameters to be used. The parameter file can be found in:

- The data set defined by the PARMLIB DD statement in the TSO start procedure
- A data set in the logical parmlib concatenation (for z/OS)
- SYS1.PARMLIB

### System action

TCAS initialization continues.

### Operator response

If the defaults are not acceptable, stop TSO/VTAM. Save the system log for problem determination.

### System programmer response

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on TSO/VTAM problems.

### Routing code

1,8

### Descriptor code

\*\*\*

---

IKT014I	I/O ERROR READING MEMBER <i>member_name</i> - DEFAULT PARAMETERS USED
---------	---

---

### Explanation

An I/O error occurred while TCAS was reading TSO/VTAM parameters from the parameter member *member\_name*. This caused TSO/VTAM default parameters to be used. The parameter member *member\_name* can be found in:

- The data set defined by the PARMLIB DD statement in the TSO start procedure
- A data set in the logical parmlib concatenation (for z/OS)
- SYS1.PARMLIB

*member\_name* is the name of the member of the parameter data set.

### System action

TCAS initialization continues.

### Operator response

If the defaults are not acceptable, stop TSO/VTAM. Save the system log for problem determination.

### System programmer response

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on TSO/VTAM problems.

## Routing code

1,8

## Descriptor code

\*\*\*

---

**IKT015I****MODIFY COMMAND REJECTED, INVALID PARAMETERS SPECIFIED**

---

## Explanation

A TSO MODIFY command entered to modify TCAS specified one or more invalid parameters.

## System action

The command is ignored.

## Operator response

Reenter the command using the correct parameters. See [z/OS MVS System Commands](#) for additional information on commands.

## System programmer response

None.

## Routing code

1,8

## Descriptor code

\*\*\*

---

**IKT016D****INVALID REPLY – RESPECIFY**

---

## Explanation

While processing the STOP command, TCAS asked the operator a question and the operator gave an invalid reply.

## System action

The system waits for the operator to reply.

## Operator response

Specify a valid reply, either 'FSTOP' or 'SIC'. See IKT010D for descriptions of 'FSTOP' and 'SIC'.

## System programmer response

None.

## Routing code

1,8

## Descriptor code

\*\*\*

---

IKT017I

FILE FOR PRINTING TSO/VTAM TIME SHARING PARAMETERS CANNOT  
BE OPENED

## Explanation

An error was encountered during TCAS initialization while trying to open the file for printing TSO/VTAM parameters.

## System action

The parameters are not printed, but TCAS initialization continues.

## Operator response

None.

## System programmer response

Determine if the file should be open and if so, open it.

## Routing code

1,8

## Descriptor code

\*\*\*

---

IKT018I

I/O ERROR PRINTING TSO/VTAM TIME SHARING PARAMETERS,  
PRINTING STOPPED

## Explanation

An error was encountered during TCAS initialization while printing TSO/VTAM parameters.

## System action

Printing of the parameters is stopped, but TCAS initialization continues.

## Operator response

None.

## System programmer response

None.

## Routing code

1,8

## Descriptor code

\*\*\*

**Explanation**

A TCAS subtask abended.

**System action**

TCAS reattaches the terminated task.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

1,8

**Descriptor code**

\*\*\*

**Explanation**

TCAS is abending. You can request an SVC dump.

**System action**

The system waits for the operator to reply.

**Operator response**

- Reply ‘U’ to continue termination processing without a dump.
- Reply ‘DUMP’ to produce a dump of virtual storage.

**System programmer response**

None.

**Routing code**

1,8

**Descriptor code**

\*\*\*



**01**

CLSDST to terminal *termid* failed.

**02**

INQUIRE device characteristics failed.

**03**

INQUIRE session parameters failed.

**04**

OPNDST to terminal *termid* failed.

**06**

OPNDST to terminal *termid* failed when trying to issue message IKT0020I to indicate that the maximum number of users are logged on.

**20**

GETMAIN for work area failed.

**21**

Invalid session parameters.

**22**

Invalid device characteristics.

**bb**

If an RPL-based macro failed, *bb* contains the RPLRTNCD field in the RPL. Otherwise, it is 0.

**cc**

If an RPL-based macro failed, *cc* contains the RPLFDB2 field in the RPL. Otherwise, it is 0.

If *bb* and *cc* are not 0, see the [z/OS Communications Server: IP and SNA Codes](#) for a description of these codes.

If an RPL-based macro failed, *code* is the sense code and represents the RPLFDBK2 field in the RPL. Otherwise, it is 0. If *code* is not 0, see the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

*termid* is the terminal identifier. If VTAM issues a network-qualified name, *termid* is in the form *netid.name*.

## System action

Processing continues, and TCAS tries to release the terminal.

## Operator response

If you VARY LOGON to TSO either by using the VARY LOGON command or by specifying LOGAPPL=TSO in a definition statement, a new logon attempt is made when the user session ends, even if it ends in error. If this occurs, this message is issued repeatedly with **SENSE=0821**. Enter the VARY NOLOGON command to correct the situation.

Otherwise, save the system log for problem determination.

## System programmer response

Use the system log and the description of *aabbcc* and *code* to assist you in correcting the problem.

- If **RC = 220000**, this might indicate that FEATUR2=EDATS is coded on the LOCAL definition statement for a channel-attached non-SNA device. To correct this error, remove the FEATUR2 operand from the LOCAL definition statement. Deactivate and reactivate the major node to use the new definition. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for additional information on coding the LOCAL definition statement and the FEATUR2 operand.
- If **RC = 061001**, this might indicate that FASTPASS=NO should be coded on the SLU definition statement so that the SLU can support the type of session initiation required. See the section on common subarea network problems, in the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information about this problem.



## Routing code

1,8

## Descriptor code

\*\*\*

---

IKT030I	TCAS LOGON PROCESS FAILURE PLU= <i>pluname</i> SLU= <i>sluname</i> [SENSE= <i>code</i> ]
---------	--

---

## Explanation

TCAS has received notification in its NSEXIT that a session failure occurred while processing a logon request to TSO.

*pluname* is the primary logical unit.

- If *pluname* is the name of the TCAS address space, no sense information is displayed, and the session has been terminated for one of the following reasons:
  - Session outage occurred.
  - The operator terminated the session.
  - A logoff TYPE(FORCE) was entered.
- If *pluname* is not the name of the TCAS address space, *code* is the sense code and indicates the reason for the failure. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

*sluname* is the secondary logical unit. If VTAM issues a network-qualified name, *sluname* is in the form *netid.name*.

## System action

The address space created for the logon request is canceled. Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the system log and explanation of *code*, if issued, to assist you in correcting the problem.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on TSO/VTAM logon problems.

## Routing code

1,8

## Descriptor code

\*\*\*

---

IKT031I	PARAMETER(S) SPECIFIED IN MEMBER <i>member_name</i> NOT VALID
---------	---

---

## Explanation

One or more parameters that are not valid were specified in the *member\_name* member of the parameter data set. This caused TSO/VTAM default parameters to be substituted for the parameters that are not valid. The parameter member *member\_name* can be found in:

- The data set defined by the PARMLIB DD statement in the TSO start procedure
- A data set in the logical parmlib concatenation (for z/OS)
- SYS1.PARMLIB

*member\_name* is the name of the member of the parameter data set.

## System action

Default values are substituted for the values that are not valid. Processing continues.

## Operator response

If the defaults are not acceptable, stop TSO/VTAM. Save the system log for problem determination. Save the output from the procedure used to start TSO/VTAM.

## System programmer response

See the TSO/VTAM output to identify parameters that are not valid. This output will be on the device specified by the PRINTOUT DD statement of the procedure or on the device specified by the device name operand of the MVS operator START command. For additional information on the MVS START command, see [z/OS MVS System Commands](#).

## Routing code

2,8

## Descriptor code

\*\*\*

**IKT032I**

***macro FAILED FOR gname RPLRTNCD aa RPLFDB2 bb***

## Explanation

TSO/VTAM issues this message when an error occurs from a macro used to create or terminate a generic name association.

*macro* specifies the failing request type and can be either:

- SETLOGON OPTCD=GNAMEADD
- SETLOGON OPTCD=GNAMEDEL.

*gname* is the generic resource name.

*aa* is the RPLRTNCD field in the RPL (return code).

*bb* is the RPLFDB2 field in the RPL (feedback code).

## System action

When the request type is SETLOGON GNAMEADD:

- If there are no active users, TSO/VTAM processing stops.
- If there are active users, processing continues but no generic name support is available for TSO/VTAM.

When the failing request type is SETLOGON GNAMEDEL, TSO/VTAM processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of the return and feedback codes.

## Routing code

1,8

## Descriptor code

\*\*\*

---

**IKT033I****TCAS USERMAX VALUE SET TO *count***

## Explanation

TSO/VTAM issues this message to indicate the successful completion of an MVS MODIFY TSO, USERMAX command.

*count* is the number of TSO/VTAM users that can be active concurrently.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

1,8

## Descriptor code

\*\*\*

---

**IKT100I****USERID *userid* CANCELED DUE TO UNCONDITIONAL LOGOFF**

## Explanation

A VTAM USS unconditional logoff command was entered by a terminal user *userid*. The session with *userid* is terminated.

## System action

The address space created for the session is canceled. Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

4

---

**IKT103I****UNKNOWN ENTRY CODE *code* TO VTAM LOSTERM EXIT**

---

## Explanation

The return code given to the LOSTERM exit routine of TSO/VTAM is not recognized. Either a list of entry codes is outdated or there is a parameter list error.

*code* is the return code in error.

## System action

*code* is written to the LOGREC data set. Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on the LOGREC data set.

## Routing code

2,8

## Descriptor code

4

---

**IKT105I****LOGON REJECTED DUE TO INVALID APPLICATION ID**

---

## Explanation

TCAS assigned an invalid application program ID to a terminal user attempting to log on to TSO/VTAM.

## System action

The terminal user's address space is terminated and dumped. System processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Find the invalid application ID (offset 0 in TVWA) in that dump. SYS1.VTAMLST contains valid application IDs.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on TSO/VTAM logon problems.

## Routing code

1,8

## Descriptor code

4

---

**IKT106I****LOGON REJECTED, CANNOT OPEN ACB, ACBERFLG=X'*nn***

---

## Explanation

A terminal user was unable to log on to TSO/VTAM because of an OPEN ACB failure.

*nn* is the ACB error flag value in hexadecimal. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *nn*.

## System action

The OPEN ACB failure causes a dump. The user address space is terminated. System processing continues.

## Operator response

Save the system log and dump for problem determination.

## System programmer response

Correct the problem as determined from the ACB error flag *nn*, and the output from the system log and dump.

## Routing code

1,8

## Descriptor code

4

---

**IKT109I****TSO/VTAM LOSTERM FAILED DUE TO VTAM SHORTAGE OF UECB/VRPL**

---

## Explanation

The TSO/VTAM LOSTERM exit could not be scheduled because of a shortage of storage for required control blocks.

## System action

The user's address space is terminated.

## Operator response

If VTAM continues to issue this message, save the system log and request a dump to determine current storage usage.

## System programmer response

Increase storage as required.

## Routing code

2,8

## Descriptor code

4

**IKT111I**

**APPLNAME=applname FAILED DUE TO: reason**

---

## Explanation

This message always follows IKT117I.

*applname* is the application name running in this TSO user's address space.

*reason* indicates the reason for the failure. The following reasons are valid:

**GETMAIN FAILURE (GLOBAL 239)**  
**GETMAIN FAILURE (LOCAL 229)**  
**INSUFFICIENT STORAGE FOR QUEUE ELEMENTS**  
**INVALID TERMINAL TYPE**  
**OPEN ACB, INSUFFICIENT STORAGE**  
**OPEN ACB, VTAM IS NOT ACTIVE**  
**OPNDST, INSUFFICIENT STORAGE**  
**OPNDST, RPLRTNCD= aa, RPLFDB2= bb, RPLFDBK2= code**  
**SETLOGON GNAME SUB, RPLRTNCD= aa, RPLFDB2= bb**  
**TCAS CLSDST PASS FAILURE**  
**TCAS TERMINATED**

## System action

Logon is terminated. The user's address space is terminated.

## Operator response

For insufficient storage errors, if VTAM has been initialized, wait a short time and reenter the command. If VTAM continues to issue this message, save the system log and request a dump to determine current storage usage.

If VTAM initialization failed, save the system log for problem determination.

## System programmer response

*reason* determines the recommended action.

### **GETMAIN FAILURE (GLOBAL 239)**

Review CSA storage requirements. Increase storage as required.

### **GETMAIN FAILURE (LOCAL 229)**

Review storage requirements for TCAS. Increase storage as required.

### **INSUFFICIENT STORAGE FOR QUEUE ELEMENTS**

Contact the IBM software support center. This is a TSO/VTAM control block problem.

### **INVALID TERMINAL TYPE**

Ensure the terminal is supported by TSO/VTAM.

### **OPEN ACB, INSUFFICIENT STORAGE**

The OPEN ACB return code from VTAM indicates a storage shortage. Review VTAM storage requirements.

### **OPEN ACB, VTAM IS NOT ACTIVE**

Make sure VTAM is active.

### **OPNDST, INSUFFICIENT STORAGE**

The OPNDST return code from VTAM indicates a storage shortage. Review VTAM storage requirements.

### **OPNDST, RPLRTNCD= aa, RPLFDB2= bb, RPLFDBK2= code**

OPNDST failed.

*aa* is the RPLRTNCD field in the RPL (return code), and *bb* is the RPLFDB2 field in the RPL (feedback code). See the [z/OS Communications Server: IP and SNA Codes](#) for a description of these codes.  
*code* is the sense code and represents the RPLFDBK2 field in the RPL. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

#### **SETLOGON GNAME SUB, RPLRTNCD= *aa*, RPLFDB2= *bb***

SETLOGON failed.

*aa* is the RPLRTNCD field in the RPL (return code), and *bb* is the RPLFDB2 field in the RPL (feedback code). See the [z/OS Communications Server: IP and SNA Codes](#) for a description of these codes.

#### **TCAS CLSDST PASS FAILURE**

TCAS issued a CLSDST PASS to place the terminal in ownership of the newly created user address space, and the CLSDST has failed. Examine the API records in the VTAM internal trace to determine the cause for the CLSDST failure in TCAS. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information.

#### **TCAS TERMINATED**

Make sure TCAS is active and not in the process of terminating or abending when the logon is attempted.

### **Routing code**

2,8

### **Descriptor code**

4

**IKT112I**

---

**{SEND|RECEIVE} ERROR DURING QUERY PROCESSING FOR  
*applname*, RPLRTNCD= *aa*, RPLFDB2= *bb*, SENSE= *code***

### **Explanation**

During logon for application *applname*, TSO/VTAM tried to issue a QUERY 3270 data stream to a terminal in order to determine the terminal's characteristics. The SEND or RECEIVE failed for the reason described by the return code *aa*, feedback code *bb*, and sense code *code*.

*aa* is the RPLRTNCD field in the RPL (return code) and *bb* is the RPLFDB2 field in the RPL (feedback code). See the [z/OS Communications Server: IP and SNA Codes](#) for a description of these codes.

*code* is the sense code and represents the RPLFDBK2 field in the RPL. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of sense information for a 3270 SNA or non-SNA device.

### **System action**

The logon continues. Default terminal characteristics as specified by the LANG operand of the terminal's MODEENT entry in the logon mode table were assumed.

### **Operator response**

Save the system log for problem determination.

### **System programmer response**

Use the system log and the descriptions of *aa*, *bb*, and *code* to assist you in correcting the problem.

See [z/OS Communications Server: SNA Programming](#) for information on the SEND and RECEIVE macros.

### **Routing code**

2,8

## Descriptor code

4

---

**IKT115I**

**TSO UNABLE TO DISCONNECT TERMINAL *luname***

---

## Explanation

A terminal user logged off from TSO/VTAM. The VTAM ACB associated with the user was closed, but a VTAM error has prevented the user's disconnection from TSO. *luname* is the logical unit that TSO was unable to disconnect. If VTAM issues a network-qualified name, *luname* is in the form *netid.name*.

## System action

The user address space terminates with ABEND code hexadecimal 0AB (register 15 contains X'0105'). The terminal that could not be disconnected is not available to other users.

## Operator response

Try to make the terminal available to other users by varying it offline, deactivating it, and then reactivating it.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

4

---

**IKT116I**

***userid* {SEND|RECEIVE} ERROR,RPLRTNCD= *aa*, RPLFDB2= *bb*, SENSE=  
*code*, WAITING FOR RECONNECTION *termid***

---

## Explanation

A SEND or RECEIVE request entered by the TSO/VTAM user *userid* at terminal *termid* had an I/O error. If VTAM issues a network-qualified name, *termid* is in the form *netid.name*.

*aa* is the RPLRTNCD field in the RPL (return code) and *bb* is the RPLFDB2 field in the RPL (feedback code). See the [z/OS Communications Server: IP and SNA Codes](#) for a description of these codes.

*code* is the sense code and represents the RPLFDBK2 field in the RPL. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of sense information for a 3270 SNA or non-SNA device.

## System action

The user's connection to *termid* has failed, and the LOSTERM exit is scheduled. The user's address space is still intact. It can be reconnected to a terminal with a LOGON *userid* RECONNECT command. If the command is not entered, the address space will terminate at the end of the reconnect time limit (RECONLIM) specified in the TSO/VTAM parameter file.

## Operator response

This is probably a hardware error. Save the system log for problem determination.



## System programmer response

Use the system log and the descriptions of *aa*, *bb*, and *code* to assist you in correcting the problem.

See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on TSO/VTAM problems and terminal problems. See [z/OS Communications Server: SNA Programming](#) for information on the SEND and RECEIVE macros.

## Routing code

2,8

## Descriptor code

4

---

<b>IKT117I</b>	<b>TSO/VTAM INITIALIZATION FAILED FOR APPLNAME=<i>applname</i>, LUNAME=<i>luname</i></b>
----------------	--

---

## Explanation

This message always precedes message IKT111I.

*applname* is the application name running in this TSO user's address space.

*luname* is the LU name of the device being used. If VTAM issues a network-qualified name, *luname* is in the form *netid.name*.

See the explanation of message IKT111I for additional information.

## Routing code

2,8

## Descriptor code

4

---

<b>IKT118I</b>	<b>INVALID QUERY REPLY, TERMINAL ID: <i>termid</i></b>
----------------	--

---

## Explanation

During a logon for the TSO application, TSO/VTAM issued a QUERY 3270 data stream to a terminal in order to determine the terminal's characteristics. The response to the query had a field length of zero, which is an invalid length value.

*termid* is the terminal identifier. If VTAM issues a network-qualified name, *termid* is in the form *netid.name*.

## System action

The logon continues. It will use the terminal characteristics from the valid part of the query response.

## Operator response

Terminal *termid* has a hardware problem. Save the system log for problem determination. Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on service aid programs.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

## System programmer response

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

2,8

## Descriptor code

4

---

**IKT119I** *langcode* **MESSAGES NOT AVAILABLE FOR LU *luname*, USING DEFAULT**

## Explanation

TSO/VTAM issues this message when a TSO/VTAM terminal user message cannot be sent to a terminal in the desired language. This might occur for one of the following reasons:

- The terminal user message was defined using a double-byte character set, but the terminal does not support double-byte character sets.
- The desired language is not currently available from the MVS message service.

**Note:** This message is not issued when *langcode* is **ENU**, the default language.

*langcode* is a 3-character language code that indicates the preferred language for TSO/VTAM terminal user messages.

- *langcode* corresponds to the value of the PLANG operand on the PROFILE command or is passed on the CINIT during session initiation. See the [z/OS Communications Server: SNA Customization](#) for additional information.
- See the [z/OS Communications Server: SNA Programming](#) for a list of valid language code settings.

*luname* is the name of the LU to which the message is being sent. If VTAM issues a network-qualified name, *luname* is in the form *netid.name*.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

This message might be useful for problem determination if a terminal user is not receiving translated messages as desired. The MVS message service might need to be updated to support the desired language.

## Routing code

2,8

## Descriptor code

4

## Explanation

TSO/VTAM issues this message when CLOSE ACB failed during the termination of a TSO session with application program *applname*.

*returncode* provides information about the cause of the failure and is one of the following register 15 values:

### Value

#### Meaning

#### 4 (X'04')

One or more ACBs were not successfully closed. Depending on the type of error, the OFLAGS field can indicate that the ACB is closed even though the CLOSE has failed (for example, the ACB might never have been opened).

#### 8 (X'08')

One or more ACBs were not successfully closed. Inspect the ERROR field for the cause of the failure. Another CLOSE macro can be used.

#### 12 (X'0C')

One or more ACBs were not successfully closed. Another CLOSE macro cannot be issued.

*acberflag* is the value set by VTAM in the ERROR field of the ACB. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *acberflag*.

- A nonzero value in this field provides additional information about the cause of the failure.
- If *acberflag* is **0**, this indicates that the operating system rejected the close.

## System action

The session is terminated. Other processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the system log and the values of *returncode* and *acberflag* to assist you in correcting the problem. For more information about the CLOSE macro, see [z/OS Communications Server: SNA Programming](#).

## Routing code

2,8

## Descriptor code

4

## Explanation

During a logon for the TSO application, TCAS issued a 3270 data stream to a terminal. Terminal *termid* is not responding to the TCAS SEND/RECEIVE request.

This message is issued to the system console, rather than a TSO/VTAM terminal, because TCAS cannot issue an IKTnnnnnI message to the terminal for this error.

## System action

The logon is terminated, and the terminal is released by TCAS.

## Operator response

Terminal *termid* has a hardware problem. Save the system log for problem determination. Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on service aid programs.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

## System programmer response

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

See the *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for more information on TSO/VTAM problems and terminal problems. See [z/OS Communications Server: SNA Programming](#) for information on the SEND and RECEIVE macros.

## Routing code

2,8

## Descriptor code

4

---

IKT122I	IPADDR..PORT <i>ipaddr</i> .. <i>portno</i>
---------	---

## Explanation

TSO/VTAM issues this message when a TN3270 client attempts to logon to TSO/VTAM but fails to do so.

*ipaddr* is the IP address of the TN3270 client that is attempting to log on.

*portno* is the port number associated with the IP address.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the system log, the *ipaddr*, and the *portno* to assist you in correcting the problem.

## Routing code

1,8

## Descriptor code

4

**Explanation**

TSO/VTAM issues this message when a TN3270 client attempts to logon to TSO/VTAM but fails to do so.

It is issued when a DNS Name is available and an APPL, CDRSC, or LU resource is associated with a TN3270 connection. This message is optional and will only be displayed if a DNS name is received from the TN3270 Server. If the message ends with the (..) characters, it means that the DNS name was truncated as passed to z/OS Communications Server from the TN3270 Server. See the [z/OS Communications Server: IP Configuration Reference](#) for information about enabling messages.

*dns\_name* is the DNS NAME of the TN3270 client.

**System action**

Processing continues.

**Operator response**

Save the system log for problem determination.

**System programmer response**

Use the system log and the *dns\_name* to assist you in correcting the problem.

**Routing code**

2

**Descriptor code**

5

**Explanation**

This message is a continuation of message IKT123I. It is issued as many times as necessary to display the entire DNS name. If the message ends with the (..) characters, it means that the DNS name was truncated as passed to z/OS Communications Server from the TN3270 Server.

*dns\_name\_continued* is the continuation of the DNS NAME displayed in IKT123I.

**System action**

Processing continues.

**Operator response**

Save the system log for problem determination.

**System programmer response**

Use the system log and the *dns\_name\_continued* to assist you in correcting the problem.

**Routing code**

2

## Descriptor code

5

**IKT125I**

---

**TSO LOGON REJECTED: QUERY REPLY TOO LARGE - TERMINAL ID:**  
*termid*

## Explanation

During a logon for the TSO application, TSO/VTAM issued a QUERY 3270 data stream to determine the characteristics of the terminal. The response to the query was more than the allowed 4096 bytes.

In the message text:

***termid***

The LU name of the terminal.

## System action

The user address space ends and ABEND0AB RC 204 is issued. System processing continues.

## Operator response

Save the dump and system log for problem determination. Contact the system programmer.

## System programmer response

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM Software support center.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server TCP/IP: TSO/SNA

## Module

IKTXINIT

## Routing code

1,8

## Descriptor code

4

## Automation

Not applicable.

## Example

```
IKT125I TSO LOGON REJECTED: QUERY REPLY TOO LARGE - TERMINAL ID: NETA.L7201A
```





---

## Chapter 4. IKT messages for TSO/VTAM terminal users

This chapter lists TSO/VTAM messages that can appear on a terminal user's console.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for information on TSO/VTAM. For additional information on diagnosing TSO/VTAM problems, see [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#).

---

### IKT00201I

### MAXIMUM USERS LOGGED ON, TRY LATER

#### Explanation

TSO issues this message when a logon to TSO fails because it exceeded the maximum number of TSO users allowed on the system.

#### System action

Processing continues.

#### Operator response

If you want to temporarily allow more users to log on to TSO concurrently, issue the system MODIFY command. If the maximum allowed users should be changed permanently, contact the system programmer.

See [Modifying TSO/VTAM Time Sharing](#) in [z/OS MVS System Commands](#).

#### System programmer response

If you want to permanently allow more users to log on to TSO concurrently, update the USERMAX parameter in the system parmlib member, TSOKEY00.

See [Statements/parameters for TSOKEY00](#) in [z/OS MVS Initialization and Tuning Reference](#).

#### User response

If your user ID is in a disconnect state, you can attempt to logon again using LOGON user ID RECONNECT. If your logon attempts continue to fail, contact the operator.

#### Problem determination

Not applicable.

#### Source

z/OS Communications Server VTAM: TSO/VTAM

#### Example

```
IKT00201I MAXIMUM USERS LOGGED ON, TRY LATER
```

---

### IKT00202I

### INSUFFICIENT STORAGE AVAILABLE FOR REQUIRED CONTROL BLOCKS

## Explanation

During the logon process, TCAS issued a GETMAIN to obtain storage for control blocks. The GETMAIN failed, and the LOGON is terminated.

---

**IKT00203I ADDRESS SPACE CREATION FAILED**

---

## Explanation

During the logon process, TCAS issues an SVC 34 to obtain address space. The return code indicates that no more storage is available for address spaces. The logon is terminated.

---

**IKT00204I LOGON FAILED, NO USER APPLID AVAILABLE**

---

## Explanation

During logon processing, no VTAM application program name was available to assign to the user's address space. The logon is terminated.

---

**IKT00300I LOGON RECONNECT SUCCESSFUL, SESSION ESTABLISHED**

---

## Explanation

A TSO/VTAM terminal session was successfully reestablished.

---

**IKT00301I LOGON RECONNECT UNSUCCESSFUL DUE TO SYSTEM ERROR**

---

## Explanation

A TSO/VTAM terminal session could not be reestablished because storage for the I/O manager could not be obtained.

---

**IKT00400I INPUT DATA LOST**

---

## Explanation

Data was not properly received by VTIOC, data could not be placed on a VTIOC input queue, or data was lost from a VTIOC input queue.

---

**IKT00401I OUTPUT DATA LOST**

---

## Explanation

Data was lost from a VTIOC output queue.

---

**IKT00402I REENTER DATA BEGINNING WITH *text***

---

## Explanation

A BREAKIN TPUT occurred during input. *text* indicates the last text received during input processing. Reenter data including what is indicated by *text*.

---

**IKT00403I ERROR ON OUTPUT, RETRY IN PROGRESS**

---

## Explanation

VTIOC encountered a problem while sending output to the terminal. It is attempting to resend the output.

---

**IKT00405I SCREEN ERASURE CAUSED BY ERROR RECOVERY PROCEDURE**

---

**Explanation**

TSO/VTAM erased the screen as part of the I/O error recovery procedure.



---

## Chapter 5. IST messages for VTAM network operators

### IST001I - IST399I

This chapter lists the VTAM messages beginning with IST in the range of IST001I through IST399I. These messages can appear on a network operator's console.

See [Appendix E, "Message text for VTAM operator messages,"](#) on page 1785 for a list of the text of all VTAM operator messages.

**Note:** Messages that begin with the prefix **ISTF** are issued by the VTAM dump analysis tool and the VTAM internal trace (VIT) analysis tool. Help information is available as a part of each tool by pressing F1. Therefore, **ISTF** messages are not documented in [z/OS Communications Server: SNA Messages](#). See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information.

---

#### IST001I VTAM START REJECTED — *reason*

##### Explanation

VTAM initialization has been terminated for one of the following *reasons*:

##### **CANNOT LOCATE *name***

Load of module *name* failed.

##### **CANNOT LOCATE *name* IN ISTCSLOD**

Module *name* could not be located in ISTCSLOD.

##### **CANNOT LOCATE *name* IN *library***

Member *name* could not be located in *library*.

##### **ERROR DEFINING TABLE *tablename***

An error occurred while defining table *tablename*.

##### **ESTAE FAILED**

An attempt to create an ESTAE exit was unsuccessful. The necessary storage is not available if VTAM abends before initialization has completed.

##### **FAILURE ATTEMPTING TO FIX STORAGE**

Not enough real storage is available for VTAM to make required pages nonpageable.

##### **INCONSISTENT VTAM RELEASE STARTED**

A different release of VTAM than was previously active was started without re-IPLing MVS.

##### **INSUFFICIENT 24-BIT CSA AVAILABLE**

There is not enough 24-bit CSA storage available to initialize VTAM.

##### **INSUFFICIENT 31-BIT CSA AVAILABLE**

There is not enough 31-bit CSA (ECSA) storage available to initialize VTAM.

##### **INVALID ENVIRONMENT**

The current release of VTAM has been initialized on an unsupported operating system.

##### **ISTCSLOD SET *name* AS AN ALIAS**

Either the alias module *name* could not be located in the vector list of its load module or the alias module was loaded before the vector list.

##### **LOAD SUBTASK *name* INOPERATIVE**

An abend occurred in the directed load subtask *name*.

##### ***name* NOT A VALID USS TABLE**

Table *name* did not have the USS table format that VTAM expected.

##### ***name* TABLE HAS NO TYPE ID**

Table *name* did not have a valid control block ID field (CBID).

***name* TABLE LOAD HAD I/O ERROR**

An attempt to load table *name* during a search of load library directory data on a disk caused a permanent I/O error.

***name* TABLE LOAD HAD I/O TIMEOUT**

An attempt to load table *name* caused a timeout while building a directory entry list from load library directory data on a disk. The disk I/O might be hung.

***name* LIBRARY NOT APF AUTHORIZED**

Named VTAM load library is not APF-authorized.

**OPERATOR REQUESTED TERMINATION**

Termination was selected in response to message IST1216A.

**PROCESSING ERROR**

VTAM internal resources failed because of a duplicate resource name.

**TERMINATION IN PROGRESS**

VTAM was terminating during an initialization call.

**UNABLE TO ALLOCATE STORAGE**

Request for storage has failed during initialization.

**System action**

VTAM initialization has terminated. An attempt to start VTAM has failed.

**Operator response**

Save the system log for problem determination.

**System programmer response****CANNOT LOCATE *name***

Verify that *name* is present in the definition library. Verify that SYS1.SISTCLIB is APF authorized. Also, ensure that the linkage editor output from the VTAM generation and maintenance has appropriate entries.

**CANNOT LOCATE *name* IN ISTCSLOD**

Contact the IBM Support Center.

**CANNOT LOCATE *name* IN *library***

Check the directory of *library*, and determine if *name* is present. If not, add *name* to *library*. If *name* is of the form ATCSTRxx or ATCCONxx, verify that the xx that was specified on the LIST or CONFIG start option correctly identifies the number.

**ERROR DEFINING TABLE *tablename***

You must correct the definition of *tablename*. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

**ESTAE FAILED**

Increase the size of the VTAM address space prior to restarting VTAM. See the [z/OS Communications Server: New Function Summary](#) for help to determine the storage requirements for VTAM.

**FAILURE ATTEMPTING TO FIX STORAGE**

See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.

**INCONSISTENT VTAM RELEASE STARTED**

If you are trying to start a different release of VTAM than was previously active, you must re-IPL MVS, then restart the different VTAM release. If you are trying to start the release of VTAM that was previously active, specify the correct release.

**INSUFFICIENT 24-BIT CSA AVAILABLE**

You must define a sufficient amount of 24-bit CSA storage. See the [z/OS Communications Server: New Function Summary](#) to determine the amount of 24-bit CSA storage required.

**INSUFFICIENT 31-BIT CSA AVAILABLE**

You must define a sufficient amount of 31-bit CSA (ECSA) storage. See the [z/OS Communications Server: New Function Summary](#) to determine the amount of ECSA storage required.

**INVALID ENVIRONMENT**

Run this VTAM only on MVS licensed processors and operating systems.

**ISTCSLOD SET *name* AS AN ALIAS**

Contact the IBM Support Center.

**LOAD SUBTASK *name* INOPERATIVE**

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on diagnosing VTAM problems.

***name* NOT A VALID USS TABLE**

Check the contents of the CSECT for the table *name*. If errors are found, rebuild the load library with the corrected CSECT.

***name* TABLE HAS NO TYPE ID**

Check the contents of the CSECT for the table *name*. If errors are found, rebuild the load library with the corrected CSECT.

***name* TABLE LOAD HAD I/O ERROR**

Determine if the disk containing the load library is accessed correctly and access it again if it is not.

***name* TABLE LOAD HAD I/O TIMEOUT**

Check the disk and determine whether the problem is poor I/O performance or hung disk I/O for the directed load subtask.

***name* LIBRARY NOT APF AUTHORIZED**

Authorize the named VTAM load library.

**OPERATOR REQUESTED TERMINATION**

None.

**PROCESSING ERROR**

Check the definition library to ensure that all requirements for VTAM are correct for your system.

**TERMINATION IN PROGRESS**

None.

**UNABLE TO ALLOCATE STORAGE**

Use the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.

**Routing code**

2

**Descriptor code**

5

---

**IST003I**

**ABEND OCCURRED DURING NETWORK DEFINITION OF CONFIG**  
***configname*, CODE = *code***

**Explanation**

VTAM issues this message when the VTAM network definition of configuration *configname* has abnormally terminated. Network definition occurs:

- During VTAM start processing to process the CONFIG operand
- In response to one of the VARY commands

*code* is the abend code. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

## System action

*configname* is not defined to VTAM and must be activated or deactivated with a VARY command. Other processing continues.

## Operator response

Save the system log and dump for problem determination.

## System programmer response

Use the system log and the description of *code* to assist you in correcting the problem. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on the abend procedure.

## Routing code

2

## Descriptor code

5

---

**IST009I**

**VTAM IS ALREADY ACTIVE – START REJECTED**

## Explanation

VTAM issues this message when the operator attempted to start VTAM, and VTAM is already active.

## System action

VTAM ignores the start request.

## Operator response

If you want to restart VTAM, halt the first instance of VTAM.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST010I**

***command* COMMAND INVALID**

## Explanation

VTAM issues this message when the *command* failed because an incorrect command format was entered through the program operator interface. The only valid commands are VARY, MODIFY, and DISPLAY.

The most frequent cause for this message is that a START or HALT command was entered.



## System action

VTAM does not execute *command*. Other processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Correct the program operator application. See the [z/OS Communications Server: SNA Programming](#) for information about writing program operator applications.

## Routing code

2

## Descriptor code

5

---

**IST011I**

***command FOR ncpname status***

---

## Explanation

VTAM issues this message in response to a MODIFY DUMP command for NCP *ncpname*.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *command*.

*status* can be one of the following values:

### **COMPLETE**

The dump is complete.

### **FAILED, SENSE = *code***

The dump failed.

### **REJECTED — NCP LEVEL**

The NCP is an NCP release prior to V5R2. MODIFY DUMP,ACTION=PURGE is valid only for NCP V5R2 and later releases.

## System action

Other processing continues.

## Operator response

### **COMPLETE**

None

### **FAILED, SENSE = *code***

Check the value of *code* for a possible hardware problem. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

### **REJECTED — NCP LEVEL**

Ensure that you do not enter a MODIFY DUMP command for an NCP release prior to V5R2.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST013I****I/O ERROR FOR *member* IN *datasetname***

---

## Explanation

VTAM attempted to load *member* in the data set associated with DDNAME *datasetname* and encountered an I/O error.

## System action

If *member* is critical to VTAM, another message will be issued. Otherwise, VTAM continues processing.

## Operator response

This is probably a hardware error. If *member* is not critical to the VTAM task, but is needed by an application program, halt VTAM and try to restart it with alternate devices or volumes.

If problems persist, save the system log for problem determination. Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on using EREP.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

## System programmer response

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

2,10

## Descriptor code

4

---

**IST015A****ERROR PROCESSING LIST IDENTIFIER – ENTER LIST ID OR BLANK**

---

## Explanation

VTAM detected an error while processing the LIST start option.

## System action

VTAM waits for a reply to this prompt.

- If a list identifier *xx* is entered, VTAM will attempt to read the specified start list, ATCSTR*xx*.
- If a blank is entered, VTAM will not process any list. It will use the previously processed start options.

After the reply is received, VTAM will process any additional options specified by the operator in response to a previous prompt for start options, or when the START command was entered.

## Operator response

Enter the list identifier specified by your installation (2 characters) or use the previously processed start options by entering a blank.

## System programmer response

Check that the identifier to be used is valid and has been correctly communicated to the VTAM operator, or respond with the identifier for the default start option list.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information on the LIST start option. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation of starting VTAM and a description of the types of start options and how start options are processed.

## Routing code

1

## Descriptor code

2

---

**IST018I**

**CONFIG COULD NOT BE INITIALIZED – VTAM START CONTINUES**

---

## Explanation

This message is the first in a group of messages that VTAM issues when the network configuration specified on the CONFIG start option could not be initialized. A complete description of the message group follows the example.

```
IST018I CONFIG COULD NOT BE INITIALIZED – VTAM START CONTINUES
IST523I REASON = reason
IST314I END
```

The second message in the group explains the reason for the failure. *reason* can be one of the following values:

### ERROR IN CONFIG LIST

The configuration list contains an error. This error might be caused by a missing data set definition statement.

### ERROR READING VTAMLST FILE

The specified configuration list could not be found, or an error occurred while reading the list. For example, CONFIG=xx was specified, but there is no corresponding ATCCONxx configuration list in the appropriate library.

Another cause might be that a syntax error in the ATCCONxx configuration list is discovered and reported in the IST1249I message group. When a list itself contains a syntax error, the entire list is ignored.

### INSUFFICIENT STORAGE

There is not enough storage available.

### NAME IN CONFIGURATION LIST IS NOT VALID

The configuration list contains a major node name or a path definition name that does not follow the correct naming convention. VTAM will issue the message, but proceed with the remaining nodes.

## System action

VTAM initialization continues.

- If the list itself contains a syntax error, the entire list is ignored.

- If reason is NAME IN CONFIGURATION LIST IS NOT VALID, VTAM continues processing the remaining nodes in the list.
- For all other reasons, VTAM ignores the rest of the nodes in the list after the error was encountered.

## Operator response

To make the network usable while this error is being investigated, activate parts (or all) of the network using VARY ACT commands for specific nodes in the network.

- If *reason* is **INSUFFICIENT STORAGE**, enter the DISPLAY BFRUSE command or the DISPLAY STORUSE command. Save the system log and request a dump for problem determination.
- For all other *reasons*, save the system log for problem determination.

## System programmer response

- If *reason* is **INSUFFICIENT STORAGE**, verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See the [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
- For all other *reasons*, if you want the specified configuration, halt VTAM and correct the configuration list specified by the start option or a start list. Then have the operator restart VTAM.

## Routing code

2

## Descriptor code

5

---

**IST020I**

**VTAM INITIALIZATION COMPLETE FOR *level***

## Explanation

VTAM issues this message when initialization of VTAM is complete. Previous messages identify start options that were not processed.

*level* is the version (x) and release (y) of VTAM for z/OS Communications Server that is being run. . For example, **CS x.y** is displayed for VTAM for z/OS Communications Server x.y.

This message is followed by message IST1348I, which provides the node type of this host, and message IST1349I, which provides the component identifier of the version of VTAM that is running.

## System action

Processing continues.

## Operator response

You can now enter VTAM network operator commands (VARY, MODIFY, DISPLAY, or HALT) and start VTAM application programs.

If the logon manager has been activated, you should now enter END or CONTINUE in response to message ELM101A.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST025I	BLDL FAILED FOR <i>member</i> IN <i>library</i>
---------	---

## Explanation

Build link-list failed because VTAM could not find *member* in *library*.

## System action

VTAM issues another message stating the VTAM action taken as a result of this condition.

## Operator response

Save the system log for problem determination.

## System programmer response

Check *library* for *member*. If the *member* does not exist and is needed, add it.

## Routing code

2

## Descriptor code

5

---

IST033I	<i>command</i> COMMAND CANCELLED
---------	----------------------------------

## Explanation

VTAM cancelled *command* as a result of unavailable resources. For example, VTAM might not be able to obtain a lock.

*command* is either the START trace option or the MODIFY TRACE command.

## System action

VTAM does not execute the command.

## Operator response

When the resources become available, reenter the command. If problems persist, save the system log for problem determination.

## System programmer response

Check the system log provided by the operator to ensure that all requirements for VTAM are correct for your system. When you have corrected the error condition, ask the operator to reenter the command.

## Routing code

2

## Descriptor code

5

---

**IST037I** *command FAILED – SYNTAX ERROR*

---

## Explanation

The *command* failed because of one or more of the following syntax errors:

- Does not have expected delimiters or punctuation
- Has an operand that exceeds 8 characters in length
- Might have quotation marks around a keyword
- Might have a non-EBCDIC character in one of the operands.

See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *command*.

## System action

VTAM rejects the command. Other processing continues.

## Operator response

Reenter the command with the correct format. For information on command formats, see [z/OS Communications Server: SNA Operation](#).

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST038I** *VARY FAILED FOR ID = *cdrmname* – HOST CDRM IS NOT ACTIVE*

---

## Explanation

A VARY ACT command to activate an external cross-domain resource manager *cdrmname* failed because this domain's CDRM has not been activated.

## System action

VTAM rejects the command.

## Operator response

To start a session with *cdrmname*, enter a VARY ACT command to activate the host's CDRM. Enter a DISPLAY ID command for your host's CDRM to make sure that it is active before reentering the command for *cdrmname*.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST039I**

***command* FAILED – CANNOT IDENTIFY COMMAND TYPE**

## Explanation

The *command* does not contain an identifiable keyword that distinguishes the type of command. For example, the VARY command does not contain an identifiable keyword such as ACT, ACQ, or LOGON.

## System action

VTAM rejects the command. Other processing continues.

## Operator response

Reenter the command with the correct keyword. See [z/OS Communications Server: SNA Operation](#) for a list of operands.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST040I**

**START OPTION *option* REQUIRED – REENTER WHEN PROMPTED**

## Explanation

VTAM issues this message when a required start option was either not specified or was specified incorrectly. *option* is the name of the start option in error.

## System action

VTAM continues processing the other start options and prompts for additions or corrections. VTAM initialization cannot complete until a valid value for *option* is entered.

## Operator response

Enter the required option when prompted.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST043I** *value* **INVALID VALUE FOR KEYWORD** *keyword*

## Explanation

An unacceptable value was specified for *keyword* in a VTAM operator command. *value* is the first 8 characters of the invalid value.

## System action

VTAM rejects the command.

## Operator response

Correct the keyword *keyword* and reenter the command.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST049I** **VTAM START REJECTED –** *macroname* **FOR [acbtype] ACB FAILED**

## Explanation

This message is the first in a group of messages issued when VTAM is terminated because an access method control block (ACB) or SETLOGON macro failed.

*macroname* is the name of the macro that failed. Possible values are: **OPEN** or **SETLOGON**.

The second message in the group explains the reason for the failure. Possible message groups follow:



- If *macroname* is **OPEN**, the following message group is displayed.

```
IST049I  VTAM START REJECTED - OPEN FOR [acbtype] ACB FAILED
IST1218I  ACB ERROR FIELD = acberflg
IST314I  END
```

#### IST049I

- *acbtype* describes the ACBs associated with VTAM and indicates which host ACB failed.
  - If the **OPEN** ACB failed for a control point, *acbtype* is **CP**.
  - If the **OPEN** ACB failed for an SSCP, *acbtype* is not displayed.

#### IST1218I

*acberflg* is the error field of the ACB. It is a hexadecimal value returned by the OPEN macro and indicates the specific nature of the error encountered. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *acberflg*.

- If *macroname* is **SETLOGON**, the following message group is displayed.

```
IST049I  VTAM START REJECTED - SETLOGON FOR [acbtype] ACB FAILED
IST1219I  RTNCD = rtncd, FDB2 = fdb2
IST314I  END
```

#### IST049I

- *acbtype* describes the ACBs associated with VTAM and indicates which host ACB failed.
  - If the **SETLOGON** ACB failed for a control point, *acbtype* is **CP**.
  - If the **SETLOGON** ACB failed for an SSCP, *acbtype* is not displayed.

#### IST1219I

*rtncd* is the error field RPLRTNCD. It is a hexadecimal value returned by the SETLOGON macro.

*fdb2* is the feedback field RPLFDB2. It is a hexadecimal value returned by the SETLOGON macro.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of the *rtncd-fdb2* combination.

## System action

VTAM is terminated.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the system log and return code information to assist you in correcting the problem.

For a description of *acberflg* in message IST1218I, see the [z/OS Communications Server: IP and SNA Codes](#).

For a description of the *rtncd-fdb2* combination in message IST1219I, see the [z/OS Communications Server: IP and SNA Codes](#).

For additional information on the OPEN and SETLOGON macros, see [z/OS Communications Server: SNA Programming](#).

## Routing code

2

## Descriptor code

5

## Explanation

In response to a *command*, VTAM attempted to open data set *datasetname*, which could not be opened but is required to continue processing.

## System action

VTAM rejects the command. Other processing continues.

## Operator response

Ensure that you entered the command correctly. If the problem persists, save the system log for problem determination.

## System programmer response

Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system. Review the system definition, the VTAM definition statement, and the VTAM start procedure. Verify VTAM data set construction and allocation. When you have corrected the error condition, ask the operator to reenter the command.

## Routing code

2

## Descriptor code

5

## Explanation

VTAM issues this message when the PROMPT start option was coded in the default start list, ATCSTR00. VTAM is prompting the operator to enter start options to override the default start options already stored or to provide additional options.

## System action

VTAM waits for the reply and then processes the options entered.

## Operator response

Take one of the following actions:

- Enter the start options recommended by the system programmer or contained in your operator instructions. (If you cannot fit all the required start options on one line, put a comma after the last option on the line. This causes message IST1311A to be issued, allowing you to specify more start options.)
- Enter a blank to cause VTAM to use the start options from the default start list.

**Note:** If you enter a LIST start option, ensure that you enter it correctly. VTAM will not give you an opportunity to correct a spelling error. You cannot enter the LIST start option in response to message IST1311A. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on VTAM start options.

## System programmer response

None.

## Routing code

1

## Descriptor code

2

---

IST052I	<i>parameter</i> IS AN INVALID START OPTION KEYWORD – IGNORED
---------	---

---

## Explanation

The operator specified parameter *parameter* as a VTAM start option, but this is an invalid keyword.

## System action

VTAM ignores this option and continues processing any other start options.

## Operator response

When prompted by VTAM, enter the correct keyword and options, or enter a blank to indicate that you do not want to enter any options.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST054I	<i>member</i> IN <i>library</i> {NOT FOUND IS EMPTY} – START PROCESSING CONTINUES
---------	--

---

## Explanation

VTAM issues this message during start processing when a specified library member is empty or is not found.

*member* is either **ATCSTR00** or **ATCSTRxx**, where xx is from the LIST start option.

*library* is the DDNAME specified for the definition library.

## System action

VTAM ignores *member* and continues processing the other start options.

## Operator response

Save the system log for problem determination.

## System programmer response

Verify that *member* was either intentionally left empty or not found. If *member* is necessary to your system, halt and restart VTAM with the correct library member.

## Routing code

2

## Descriptor code

5

---

**IST056A**

**LIST = *listid* IS INVALID – ENTER LIST ID OR BLANK**

---

## Explanation

The value specified for *listid* in the LIST start option is invalid. One of the following situations is true:

- No corresponding member exists for this identifier.
- The identifier is more than the allowable 2 characters long. If more than 3 characters were entered, only the first 3 are printed in the message.
- The identifier contains characters other than the allowed alphanumeric characters.

## System action

VTAM waits for a reply to this message.

## Operator response

If you enter an identifier in response to this message, VTAM will attempt to process the options in the definition library.

If you select a default list, VTAM will prompt you to enter individual start options. Take one of the following actions:

- Determine the correct identifier, and enter it.
- Invoke the default list by entering a blank.

## System programmer response

Ensure that the specified member actually exists. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on VTAM start options.

## Routing code

1

## Descriptor code

2

---

**IST057I**

**KEYWORD MISSING AFTER TRACE/NOTRACE OPTION ON START  
PARMS**

---

## Explanation

VTAM issues this message when a required keyword did not follow the TRACE or NOTRACE keyword in the start options.

## System action

VTAM does not process the TRACE or NOTRACE options but continues to process any remaining start options.

## Operator response

Correct the trace option by responding to IST1311A or ignore the error by entering a blank.

## System programmer response

Examine the VTAM start options contained in ATCSTRxx, and verify that the correct options are specified. See the [z/OS Communications Server: SNA Resource Definition Reference](#) to verify the appropriate options for ID or TYPE keywords on the TRACE/NOTRACE start option and for more information about VTAM start options.

## Routing code

2

## Descriptor code

5

---

**IST058I** *keyword1 AND keyword2 OPTIONS HAVE DUPLICATE VALUES*

## Explanation

The same value was specified for start options *keyword1* and *keyword2*. This situation occurs when you enter values for the HOSTPU and SSCPNAME start options or two VTAM coupling facility structures have been assigned the same name.

## System action

If *keyword1* is HOSTPU and *keyword2* is SSCPNAME, then HOSTPU defaults to ISTDUS. VTAM issues message IST1311A, which prompts you to reenter any start option overrides.

## Operator response

If the duplicate keywords were in a start list, save the system log for problem determination. If not, enter any start option overrides when prompted by message IST1311A. For coupling facility structures, you will continue getting prompted with IST1311I until the options specified by *keyword1* and *keyword2* have unique values.

## System programmer response

If the duplicate keywords were in a start list, change them so that they have unique values. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information about VTAM coupling facility structures. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on VTAM start options.

## Routing code

2

## Descriptor code

5

---

**IST059I** *text IGNORED – INSUFFICIENT STORAGE*

## Explanation

VTAM could not obtain sufficient storage to complete the operation indicated by *text*:

### **TRACE FOR *nodename***

A TRACE start option for node *nodename*.

### **PATH *pathname* FOR *nodename***

Update of dynamic path update set named *pathname* for node *nodename*.

## System action

If *text* indicates:

### **TRACE FOR *nodename***

If the *nodename* value is **VTAM** and you are trying to start an internal trace (for example, type=VTAM), initialization continues without a VTAM internal trace table.

If the *nodename* value is anything other than **VTAM**, VTAM issues message IST1311A, which prompts you to reenter any start option overrides.

### **PATH *pathname* FOR *nodename***

VTAM does not update dynamic path update set *pathname*.

## Operator response

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

For a VTAM internal trace, enter a MODIFY TRACE command, specifying a smaller buffer size.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST061I*****command FOR nodename FAILED – NODE UNKNOWN TO VTAM***

## Explanation

The operator entered a *command* for a resource *nodename* that is not defined to VTAM. A null name (one consisting entirely of blanks) is also an identifier that is not valid.

## System action

VTAM rejects the command.

## Operator response

Ensure that you entered the command correctly.

- If you were trying to activate a minor node, the message indicates that there is no such minor node in any currently active major node. In this case, the major node containing minor node *nodename* must be activated first. You can issue the DISPLAY MAJNODES command to determine which major nodes are active.
- If you were trying to activate a major node, the message indicates that there is no such major node in the definition library.
- If you were trying to deactivate either a major or minor node, the message indicates that there is no such node currently defined to VTAM.

Save the system log for problem determination.

## System programmer response

Validate that the *nodename* value is correct, and provide the operator with the correct name. If necessary, change the VTAM definition statements to use the correct name.

## Routing code

2

## Descriptor code

5

---

IST066I

***command* FAILED – CONFLICTING OR INVALID OPTIONS**

---

## Explanation

The operator entered the *command* with an operand or combination of operands that was not valid. Two or more options might be mutually exclusive, or a particular option might be valid only for some types of nodes. This message might also occur when an NCP or channel-to-channel adapter is already activated with different parameters.

## System action

VTAM rejects the command.

## Operator response

Ensure that you entered the command correctly. If the problem persists, save the system log and print the major node definition for problem determination.

## System programmer response

Check the command description for restrictions on the use of operands.

- If this message was the result of the activation of a major node that was already active, such as an NCP, the conflict is probably between an operand on the command and either:

- An operand on a definition statement, or
- An operand specified on the prior activation.
- If the major node in question is not active, instruct the operator to simply reenter the command with corrected options.
- If, however, the major node is already active and the conflict is between an operand specified on the new activation and the one used on a prior activation, you will need to deactivate the major node if the new operand is required, then reactivate it.

**Note:** Deactivating the major node will disrupt any active sessions that use the node.

## Routing code

2

## Descriptor code

5

---

**IST072I** *command* FOR ID = *nodename* FAILED DURING NETWORK DEFINITION

---

## Explanation

VTAM issues this message when the *command* entered to activate or acquire the major node *nodename* failed during network definition.

*command* is the command that failed. Possible values are:

### **VARY ACT or VARY ACQ**

The VARY ACT or VARY ACQ command for a major node definition is in error.

### **VARY DRDS**

Processing of a VARY DRDS (dynamic reconfiguration data set) command failed, and the entire definition was rejected.

### **MODIFY DR**

A MODIFY DR command failed.

*nodename* is the name of the major node specified on the command.

## System action

The command fails. The major node or DRDS definition and its resources remain inactive, and VTAM cannot use them.

## Operator response

Save the system log and print the major node definition for problem determination.

## System programmer response

Previous messages provide information about the cause of the failure.

- If this is a definition error, correct the major node definition or DRDS definition to resolve the problem before the operator reenters the command.
- If this is not a definition error, tell the operator to reenter the command using the correct major node name. See [z/OS Communications Server: SNA Operation](#) for more information about *command*.

## Routing code

2



## Descriptor code

5

---

**IST073I**

***command* FOR ID = *nodename* FAILED — MORE POWERFUL REQUEST IN PROGRESS**

## Explanation

VTAM issues this message when the *command* fails because *nodename* has a deactivation request pending.

**Note:** If the command was a VARY INACT command, the pending deactivation is of a stronger type (Immediate or Force).

## System action

VTAM rejects the command.

## Operator response

Monitor the progress of the deactivation by using the DISPLAY command. When *nodename* is deactivated, reenter the command.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST074I**

***command* FOR ID = *nodename* FAILED — INSUFFICIENT STORAGE**

## Explanation

A *command* for *nodename* failed because VTAM could not obtain a work area to process the request.

## System action

VTAM rejects the command.

## Operator response

Messages IST561I, IST562I, IST563I, IST564I, IST565I or IST566I might be issued prior to this message to indicate the type of storage affected.

Issue the DISPLAY BFRUSE command to display storage used by VTAM buffer pools and information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a dump for problem determination.

If *nodename* is an independent logical unit that is being converted to a definition for a resource in another domain, then the NCP major node for *nodename* must be deactivated. Activate the NCP major node when the storage shortage no longer exists.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST075I** **NAME = *name*, TYPE = *type***

## Explanation

This message is part of several different message groups that VTAM issues in response to one of the following commands:

- DISPLAY ID=*nodename*
- DISPLAY EE
- DISPLAY GRPREFS
- DISPLAY LUGROUPS
- DISPLAY MODELS, ID=*model\_name*
- DISPLAY TRACES,TYPE=NODES,ID=*nodename1, nodename2,..., nodenamen*
- DISPLAY TRACES,TYPE=NODES,ID=\*
- DISPLAY TRACES,TYPE=ALL
- DISPLAY TRL,TRLE=*trl\_element*
- DISPLAY TSouser,ID=*nodename*
- DISPLAY TRACES,TYPE=EXIT,ID=*exitname*
- DISPLAY VTAMSTOR,NETADDR=(*subarea\_address,element\_address*)
- DISPLAY VTAMSTOR,RESOURCE=*resource\_name*
- MODIFY NOTRACE,TYPE=EXIT,ID=*exitname*,OPT=*optionlist*
- MODIFY TRACE,TYPE=EXIT,ID=*exitname*,OPT=*optionlist*.

*name* is the name of the resource or ID type that is displayed.

See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for a description of *type*.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST077I** **SIO = *sio* CUA = *device\_address* [, SLOWDOWN = YES]**

**Explanation**

VTAM issues this message in response to a DISPLAY ID command requesting the status of a channel-attached node. For a DISPLAY ID command for a local NCP, this message is issued for every channel-attached link station defined from the host to the PU type 4.

*sio* is the number of start I/O operations counted for the channel. This number is cumulative (from the time that the node was last activated) and is expressed in decimal. The value of *sio* is never larger than 65535. If *sio* is 65535, its value is reset to 0 when the next start I/O operation takes place.

*device\_address* is the hexadecimal address of the channel-attached device. This field contains **\*NA** if the device address is not available.

**SLOWDOWN=YES**, if present, indicates that the node is in slowdown.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

5

---

**IST080I** ***resource1 status1 resource2 status2 resource3 status3***

## Explanation

This message is part of a group of messages that VTAM issues in response to one of the following commands:

### **DISPLAY APPLS command**

This message lists the resources and gives the status of each.

### **DISPLAY ID command**

This message lists the resources and gives the status of each.

### **DISPLAY LINES command**

This message lists the resources and gives the status of each.

### **DISPLAY LUGROUPS command**

This message lists the resources but does not display status since *resource* represents a symbolic resource name.

### **DISPLAY PENDING command**

This message lists the resources and gives the status of each.

### **DISPLAY TERMS command**

This message lists the resources and gives the status of each.

If there are more than three nodes, the message is repeated as many times as necessary to display all the nodes. This message is preceded by a message that identifies the type of resources that are listed.

*resource* is the name of the resource.

If a DISPLAY APPLS, DISPLAY ID, DISPLAY LINES, DISPLAY PENDING, or DISPLAY TERMS command was entered, see the [z/OS Communications Server: IP and SNA Codes](#) for *status* information.

If a DISPLAY LUGROUPS command was entered, the *status* field is blank.

See [z/OS Communications Server: SNA Operation](#) for information on commands. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information on LUGROUPS.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST081I** **LINE NAME = *linename*, LINE GROUP = *groupname*, MAJNOD = *nodename***

## Explanation

VTAM issues this message in the following situations:

- In response to a DISPLAY ID command

- When a connection request for resource *nodename* in message IST680I has been rejected. See the description of IST680I for more information.
- When a switched connection between VTAM and a physical unit was unsuccessful because the station identifier *stationid* displayed in message IST690I did not resolve to a node name in an active switched major node. See the description of IST690I for more information.

*linename* is the line to which *nodename* is connected.

*groupname* is the line group to which the line *linename* belongs.

*nodename* is the major node with which the line is associated.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

**IST082I** **DEVTYPE = *devicetype* [, CONTROLLING LU = *luname*]**

### Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command.

*devicetype* is the device type. If *devicetype* is **INDEPENDENT LU / CDRSC**, the node is an independent LU that is represented by a CDRSC.

*luname* is the name of the controlling LU that was previously specified on the LOGAPPL operand of the definition statement or on the LOGON operand of the VARY LOGON command. If there is no controlling application program, VTAM does not display **CONTROLLING LU = *luname***.

### System action

Processing continues.

### Operator response

None

### System programmer response

None.

### Routing code

2

## Descriptor code

5

---

**IST084I**

**NETWORK RESOURCES:**

## Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY ID command requesting status of a line, local SNA major node, or switched SNA major node. The message immediately following this message will provide details about subordinate nodes associated with the displayed node.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST085I**

**DISPLAY FAILED — INFORMATION NOT AVAILABLE**

## Explanation

VTAM cannot execute a DISPLAY PATHTAB or a DISPLAY STATS,TYPE=CFS command because VTAM cannot gather the requested information.

If the operator specified ADJSUB on the DISPLAY PATHTAB command, there are no routes passing through the named adjacent subarea. If the operator specified DESTSUB on the DISPLAY PATHTAB command, there are no routes going to the named destination subarea.

If the message was issued in response to a DISPLAY STATS,TYPE=CFS command, it will be followed by message IST1366I. See the description of that message for more information.

## System action

VTAM rejects the command.

## Operator response

For the DISPLAY PATHTAB command ensure that you entered the command correctly. If problems persist, save the system log for problem determination.

For the DISPLAY STATS,TYPE=CFS command see the description of message IST1366I.

## System programmer response

For the DISPLAY PATHTAB command see the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more problem determination information.

For the DISPLAY STATS,TYPE=CFS command see the description of message IST1366I.

## Routing code

2

## Descriptor code

5

---

**IST087I** **TYPE = *line\_type*, CONTROL = *line\_control*, HPDT = *hpdvalue***

---

## Explanation

This message is part of several different message groups that VTAM issues in response to DISPLAY ID or DISPLAY TRL commands.

*line\_type* indicates the type of line and can be one of the following values:

**LEASED**  
**SWITCHED DIAL-IN**  
**SWITCHED DIAL-OUT**  
**SWITCHED DIAL-INOUT**

*line\_control* can be one of the following values:

**BSC**  
Binary synchronous communication

**CTCA**  
Channel-to-channel attached

**ISM**  
Internal shared memory

**MPC**  
Multipath channel

**NCP**  
Channel-attached NCP

**ROCE**  
Remote Direct Memory Access (RDMA) over Converged Ethernet

**SDLC**  
Synchronous data link control

**SS**  
Start-stop

**TCP**  
Transmission Control Protocol

**USER**  
User-defined protocol

**XCF**  
Cross-system coupling facility

**ZCX**  
z/OS Container Extensions

*hpdvalue* can be one of the following values:

**YES**  
Indicates the connection is capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.

## NO

Indicates the connection is not capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.

## \*NA\*

Is displayed when *line\_control* is not MPC or when the connection is not active.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

IST089I

*nodename* TYPE = *search=nodeid.nodetype, search=rescd.status*  
{[,CUA=*device\_address*] | [, PHYS=*puname*]}

## Explanation

This message is part of several different message groups that VTAM issues in response to DISPLAY ID commands or DISPLAY commands that display the status of a particular category of resources in a domain.

*nodename* is the name of the resource or ID type that is displayed.

See [Chapter 17, “Node and ID types in VTAM messages,” on page 1699](#) for a description of *nodetype*.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *status*.

*device\_address* is the hexadecimal channel address of the node. It provides attachment for the communication controller normally attached by the physical unit type 4 *nodename*. VTAM issues **\*NA** if *device\_address* is not available.

*puname* is the name of the PU that is the physical resource for *nodename* and is specified on the PHYSRSC operand of the GROUP definition statement. *puname* is issued only with **TYPE=LINE** or **TYPE=LINE GROUP**.

If the physical unit, defined in the NCP definition, whose name is specified by the PHYSRSC keyword is a switched PU that is not currently connected, then *highernode* is the physical line.

## System action

Processing continues.

## Operator response

For more information about the *nodename* value, enter a DISPLAY ID command.

**Note:** The DISPLAY ID command is not valid for model LU or PU nodes. For more information about a model LU or PU node, enter a DISPLAY MODELS command.



## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST092I

REQUESTED *limit* LESS THAN CURRENT ALLOCATION – REQUEST  
{REJECTED|ACCEPTED}

## Explanation

The value specified on the CSALIMIT start option, the CSA24 start option, or the MODIFY CSALIMIT command, is less than the common service area (CSA) size currently being used by VTAM. VTAM rejects a MODIFY CSALIMIT request unless F was indicated in the command to force the change.

During VTAM start, the requested start option is always rejected.

*limit* is one of the following:

- **CSALIMIT**, which indicates total CSA
- **CSA24 LIMIT**, which indicates CSA below 24-bit addressable storage.

## System action

- If **ACCEPTED** is indicated, the operator entered a MODIFY CSALIMIT command with the F operand.  
VTAM sets the *limit* to the new value specified in the command.
- If **REJECTED** is indicated after the operator entered a MODIFY CSALIMIT command, VTAM rejects the command and the *limit* remains unchanged.
- If **REJECTED** is indicated during VTAM start, VTAM rejects the command, the *limit* remains unchanged, and the operator is prompted to enter an acceptable (larger) value for *limit*.

## Operator response

If VTAM accepts the request, no action is required. If VTAM rejects the request:

- For a START command, reenter either the CSALIMIT option or the CSA24 option with an acceptable (larger) value.
  - **Restriction:**
    - If the specified *limit* is too low and you force this limit to take effect by using the F operand of the MODIFY CSALIMIT command, you cannot enter other VTAM commands (except HALT and CANCEL) until usage falls below the specified limit. This is because this storage is needed to process all VTAM operator commands except HALT or CANCEL.
- If the CSA usage does not fall below the new level, you can use the MODIFY VTAMOPTS command to revise the CSALIMIT value. Verify that circumstances warrant limiting the amount of common service area (CSA) available to VTAM to an amount less than the size that is already in use.

## System programmer response

If necessary, redefine either CSALIMIT or CSA24 limit with an appropriate value. Otherwise, no response is necessary.

## Routing code

2

## Descriptor code

5

---

**IST093I*****nodename* ACTIVE**

---

## Explanation

VTAM issues this message in response to a VARY command when resource *nodename* has been successfully activated. Active states of resources include the connectable (CONCT) state.

### Notes:

1. If you specify or accept the default value BASE for the MSGVLV option, you receive this message twice if the resource is the host SSCP. See [Appendix D, "Messages affected by the MSGVLV option,"](#) on page 1775 for additional information.
2. If you are expecting this message to confirm activation of a resource and it is not issued, this can occur if the VARY command was overridden by other VTAM processing.

For example, if an NCP INOPs prior to completion of a VARY ACT command and recovery is attempted, then VTAM activates the resource rather than the operator command. In this situation, message IST493I or IST1141I might be displayed indicating that the VARY ACT command was overridden.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST095A****OPTION TO DUMP *controller* AVAILABLE – REPLY 'YES' OR 'NO' OR  
'YES,DUMPSTA=*linkstaname*'**

---

## Explanation

This message prompts the VTAM operator to determine whether VTAM should dump the communication controller associated with the network control program represented by *controller*.

The prompt occurs when the communication controller has failed and AUTODMP has not been specified on the PCCU macro. Therefore, the operator can choose whether or not to dump the contents of the communication controller.

## System action

VTAM waits for a valid reply.

## Operator response

- Reply YES for a dump of the contents of the communication controller using the link station specified at NCP generation or by the VARY ACT command.
- Reply YES,DUMPSTA=*linkstaname*, where *linkstaname* is the value coded for the DUMPSTA operand of the PCCU macro in the NCP generation.

If you specify YES,DUMPSTA= without naming the link station, VTAM selects a default dump station.

- Reply NO if you do not want to dump the contents of the communication controller.

## Notes:

1. You should have instructions from the system programmer as to which of the replies you should enter at your console. Operators of multiple-channel or multiple-link attached communication controllers should avoid replying YES simultaneously to this message. Only one operator should reply YES to this message. Other operators should wait for that operator's dump to be completed and then should enter NO.
2. For additional information on how to respond to this message, see [“Responding to a VTAM message” on page 2](#).

## System programmer response

None.

## Routing code

1

## Descriptor code

2

IST096I

---

**command FAILED – DUPLICATE *parameter* PARAMETERS SPECIFIED**

## Explanation

VTAM issued this message when *parameter* was specified more than once in the *command*.

## System action

VTAM rejects the command. Other processing continues.

## Operator response

Reenter the command as many times as necessary, but specify *parameter* only once each time.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST097I**

***command* ACCEPTED**

---

## Explanation

VTAM accepted the *command* for initial processing. See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *command*.

## System action

The syntax of the command is correct and VTAM begins processing *command*.

## Operator response

Wait until VTAM completes any command for a node before entering another affecting that node.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST101I**

***command* FAILED — *operand\_name* NOT SPECIFIED**

---

## Explanation

VTAM issues this message when the *command* was entered without the required operand *operand\_name*. See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *command*.

## System action

VTAM rejects the command. Other processing continues.

## Operator response

Reenter the command with the required operand. See [z/OS Communications Server: SNA Operation](#) for more information about *command*.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

**Explanation**

VTAM has terminated, either because of an error or because of a HALT command.

**System action**

System processing continues. VTAM processing stops.

**Operator response**

No response is required unless you need to restart VTAM. In that case, follow your normal VTAM start procedure.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

4

**Explanation**

The operator successfully deactivated the node *nodename*. In most cases, this is the result of a VARY INACT command. If *nodename* is a cross-domain resource manager (CDRM) in another domain, then deactivation could be the result of a deactivation request from the domain of *nodename*.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

## Explanation

VTAM found the time-of-day clock in the host processor to be in error or not operational. Therefore VTAM did not set the time and the date in the NCP *ncpname* after it was loaded.

## System action

VTAM completes activation of *ncpname* normally except for setting the time and date.

## Operator response

If time and date are required in the communication controller, deactivate the NCP, set the time-of-day clock in the host processor, and reactivate the NCP.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST109I** *function IS NOW TERMINATED*

## Explanation

VTAM issues this message when an ABEND occurred while processing was in the tuning statistics (TNSTAT) subtask.

*function* will always be TNSTAT.

## System action

Tuning statistics support ended.

## Operator response

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information about collecting documentation for an abnormal end (ABEND.)

## System programmer response

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information about collecting documentation for an abnormal end (ABEND) then contact the IBM Software Support Center for service.

## Routing code

2

## Descriptor code

5

---

**IST113I** *uservar IS A USERVAR WITH VALUE value IN NETWORK netid*

## Explanation

VTAM issues this message in response to a DISPLAY SESSIONS or DISPLAY ID=*uservar* command.

*uservar* is a user-defined name for a network resource with the value of *value* in network *netid*.

If *uservar* is both a user variable and a network resource, VTAM will display the resource and ignore the user variable value. Otherwise, VTAM will display the resource represented by the value of the USERVAR, *value*. Message IST075I contains the name of the resource being displayed for DISPLAY ID.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST115I</b>	<b>INSUFFICIENT STORAGE TO READ <i>member</i> MEMBER OF VTAM DEFINITION LIBRARY</b>
----------------	---

## Explanation

VTAM issues this message when insufficient storage existed in the common service area (CSA) or partition to read *member* in the definition library. A subsequent message indicates which VTAM function is affected.

## System action

See the **System Action** of the next message that appears on the console.

## Operator response

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.

- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST116I** **MEMBER *member* NOT FOUND ON VTAM DEFINITION LIBRARY**

---

## Explanation

VTAM searched the definition library, and failed to locate *member*. A subsequent message indicates which VTAM function is affected.

## System action

If *member* is a resource specified in a VARY ACT command, the VARY ACT command fails. If *member* is a model name table or an associated LU table, the table is not defined, but the VARY ACT command is not affected.

## Operator response

If VTAM issues this message because the USSTAB start option is not valid, you can enter a MODIFY TABLE command to supply a new USS table represented by ISTNOP. Save the system log for problem determination.

## System programmer response

Check the VTAM definition library, and correct the problem.

## Routing code

2

## Descriptor code

6

---

**IST117I** **I/O ERROR READING *member* MEMBER OF VTAM DEFINITION LIBRARY**

---

## Explanation

An I/O error prevented VTAM from reading *member* in the definition library.

## System action

See the **System Action** of the next message that appears on the console.

## Operator response

See the **Operator Response** of the next message that appears on the console.

## System programmer response

See the **Programmer Response** of the next message that appears on the console.



## Routing code

2,10

## Descriptor code

4

---

**IST118I**

**ANOMALY FOUND NEAR RECORD *count* IN MEMBER *member* – CODE = *code***

## Explanation

VTAM detected inconsistent syntax in the coding of a definition statement in *member* in the definition library.

VTAM issues this message when the syntax used in the statement being processed leaves the intent of the statement unclear. The message does not indicate a syntax error. The error is probably an error of omission or text placement.

*count* is the approximate count of 80-byte logical records read from the beginning of the member (including all comment lines) to the point of detection. This number will be equivalent to the line or record number seen for that record when the member is viewed under an editor.

*code* can be one of the following:

### Code

#### Description

**2**

While processing major node *member*, VTAM detected a record that ended in a comma, indicating continuation, but column 72 was blank, indicating no continuation records follow. Major node activation continues.

**3**

While processing major node *member*, VTAM detected a properly structured record with a non-blank character in column 72, indicating continuation. However, the continuation record began in column 17 or beyond, which caused VTAM to consider it a comment and ignore it. A scan of the ignored record shows that it contains an equal sign (=), and might therefore contain operands which were not intended to be ignored.

**4**

While processing major node *member*, VTAM detected a record containing an asterisk (\*) in column 1, indicating that it is a full-line comment. Column 72 contained a nonblank character, indicating to VTAM that the next record should also be treated as a comment.

VTAM will consider each proceeding line a comment, and ignore it, until it reads a record in which column 72 is blank, indicating that the records should no longer be considered a comment. This code will be issued for each of the ignored records, which will most probably be sequential records in a group.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the information provided by *member*, *count*, and *code* to confirm that the syntax of the record is correct. If the syntax is correct, then this message can be ignored, or you can restructure the text to eliminate the message.

## Routing code

2

## Descriptor code

5

---

**IST120I****NODE *nodename* NOW HAS CONTROLLING LU *luname***

---

## Explanation

VTAM has finished processing the LOGON operand of either a VARY ACT or VARY LOGON command. When logical unit *nodename*, or the logical units associated with *nodename*, are not in session with another application program, VTAM will automatically log them on to application program *luname*. Resources must be active in order for the logon to complete. This does not mean that a session with the application program has been initiated.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST122I****ATTACH OF VTAM SUBTASK *subtask* FAILED**

---

## Explanation

VTAM cannot attach one of the VTAM subtasks, *subtask*, because VTAM could not find the named subtask on SYS1.LINKLIB.

## System action

A message will follow indicating the action that the system takes as a result of this error.

## Operator response

Save the system log for problem determination.

## System programmer response

Make sure that *subtask* is in the system library and restart VTAM.

## Routing code

2

## Descriptor code

6

---

**IST124I**

**STOP COMMAND REJECTED – NOT SUPPORTED FOR VTAM**

## Explanation

The operator entered a STOP command for the VTAM task. VTAM does not support this command.

## System action

VTAM rejects the command. Other VTAM processing continues.

## Operator response

To stop the VTAM task, enter a HALT command.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST126I**

***modename* MODE NOT SUPPORTED DUE TO LOADING FAILURE**

## Explanation

VTAM cannot load *modename*.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

No action is necessary if the absence of the indicated mode will not affect operations. Otherwise, check the system libraries for the presence of *modename*. If it is not there, you must include it. This message follows message IST001I or IST013I, which identifies the module and system library to be checked.

## Routing code

2

## Descriptor code

5

---

**IST127I**

***modename* STILL ACTIVE – VTAM TERMINATION WAITING FOR *text***

**Explanation**

VTAM cannot terminate because application program *modename* has not yet closed its ACB.  
*text* is **JOB = *jobname* STEP = *stepname***.

**System action**

VTAM waits for **JOB = *jobname* STEP = *stepname*** to close its ACB.

**Operator response**

Either wait for **JOB = *jobname* STEP = *stepname*** using *modename* to be completed, or cancel **JOB = *jobname* STEP = *stepname*** to allow VTAM to terminate.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

6

---

**IST128I** **HALT OF VTAM ALREADY IN PROGRESS**

**Explanation**

The operator entered a HALT command, but a previously entered HALT command is in progress. The only valid duplication of HALT commands is HALT followed by HALT QUICK or HALT CANCEL.

**System action**

VTAM rejects the command.

**Operator response**

If you want to close down the VTAM network at once, enter a HALT QUICK or HALT CANCEL command. Otherwise, allow the normal HALT to continue.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

6

---

**IST129I** **UNRECOVERABLE OR FORCED ERROR ON NODE *nodename* – VARY INACT SCHED**

## Explanation

VTAM scheduled a VARY INACT command for the resource *nodename* because one of the following occurred:

### Reason

#### Description

- 1**  
An unrecoverable error occurred in a communication controller, physical unit, logical unit, link, or link station. Message IST259I precedes this message and provides additional information.
- 2**  
The operator issued a VARY INACT,TYPE=FORCE command.
- 3**  
If the maximum RU size was exceeded on the SSCP-LU session or the SSCP-PU session, VTAM scheduled an internal VARY INACT,TYPE=FORCE command.

## System action

VTAM automatically issues a VARY INACT command for the resource *nodename*.

## Operator response

- For **Reason 1**, save the system log for problem determination. See the explanation of message IST259I for additional problem determination actions.
- For **Reason 3**, save the system log for problem determination. A buffer trace can provide additional information regarding the cause of the error.

## System programmer response

- For **Reason 1**, use the system log and the explanation of message IST259I to assist you in correcting the problem. If you cannot determine the cause of the problem and need additional assistance, contact the IBM hardware support center.
- For **Reason 3**, use the system log and buffer trace, if provided, to assist you in correcting the problem.
  - Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the EREP User's Guide for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert or an event was recorded for this problem.

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

- If this message is the result of an apparent software error, take the following actions:
  - If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
  - If you do not have access to IBMLink, report the problem to the IBM software support center.

## Routing code

2,8,1

## Descriptor code

5

---

**IST130I****VTAM SUBTASK *subtask* INACTIVE – ABEND THRESHOLD EXCEEDED**

## Explanation

VTAM issues this message when *subtask* abnormally terminated more than four times in the last 30 minutes. VTAM tried to reattach it by using the ETXR exit routine but could not because the abend threshold for the subtask was exceeded.

## System action

VTAM will make no further attempts to attach the subtask. VTAM continues without the support of the subtask.

*subtask* can be one of the following subtasks:

### **ISTATM00**

VTAM termination subtask

### **ISTINCAV**

ACTLINK/DACTLINK subtask

### **ISTINCDP**

Dump/load/restart subtask

### **ISTINCTS**

Tuning statistics subtask.

### **ISTINMLS**

Directed load subtask

### **ISTCSCEX**

Configuration services XID exit subtask

### **ISTCSCSD**

SDDL exit subtask

### **ISTPDCLU**

LU subtask interface with session monitor or NLDM

### **ISTPUCX0**

Virtual route selection subtask

## Operator response

Save the system log for problem determination. It might be necessary to halt VTAM and start it again if you need this subtask.

## System programmer response

Examine the output from the operator to determine the cause of the problem. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on the abend procedure.

## Routing code

2

## Descriptor code

4

---

**IST132I****VTAM SUBTASK *subtask* NOT REATTACHED – CANNOT BE FOUND**

## Explanation

VTAM issues this message when *subtask* ended abnormally. *subtask* was not reattached because VTAM could not find it in the system library.

**System action**

VTAM continues but without the support of the subtask.

*subtask* can be one of the following:

**ISTATM00**

VTAM termination subtask

**ISTINCDP**

Dump/load/restart subtask

**ISTINCTS**

Tuning statistics subtask.

**ISTINMLS**

Directed load subtask

**ISTCSCEX**

Configuration services XID exit subtask

**ISTCSCSD**

SDDL exit subtask

**ISTPDCLU**

LU subtask interface with session monitor or NLDM

**ISTPUCX0**

Virtual route selection subtask

**ISTSDCLM**

System definition subtask

**Operator response**

Save the system log for problem determination.

**System programmer response**

Ensure that *subtask* is present in the system library and restart VTAM.

**Routing code**

2

**Descriptor code**

5

---

**IST133I**

**VTAM TERMINATION IN PROGRESS**

**Explanation**

VTAM is terminating, either because of an unrecoverable error or because the operator issued a HALT command.

**System action**

The reason for termination of VTAM can be one of the following:

- The operator entered the HALT command.
- The operator entered the HALT QUICK command.
- The operator entered the HALT CANCEL command.
- VTAM detected an unrecoverable error.

For detailed descriptions of the processing of the different HALT commands, see [z/OS Communications Server: SNA Operation](#). If VTAM detected an unrecoverable error, the processing is similar to that which follows the HALT CANCEL command. See that description in [z/OS Communications Server: SNA Operation](#).

## Operator response

If this message is the result of a HALT command, no response is required. If it is caused by an abnormal termination, determine the cause of the termination from prior messages.

## System programmer response

None.

## Routing code

2

## Descriptor code

4

---

**IST134I** **GROUP = *groupname*, MAJOR NODE = *nodename***

## Explanation

This message is part of a group of messages that VTAM issues in response to:

- A DISPLAY ID command for a line

When the message is issued in response to a DISPLAY ID command, *groupname* is the symbolic name of the line group in which the line being displayed is defined.

*nodename* is the name of the major node in which the line group is defined.

## Routing code

2

## Descriptor code

5

---

**IST135I** **PHYSICAL UNIT = *puname* [,CUA = *device\_address*]**

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for a logical unit.

*puname* is the name of the physical unit associated with the logical unit.

*device\_address* is the hexadecimal device address of the physical unit and is issued only if the display is for a logical unit in a local SNA major node.

## System action

Processing continues.

## Operator response

None.



## System programmer response

None.

## Routing code

2

### Descriptor code

5

IST136I	[{SWITCHED LOCAL}] SNA MAJOR NODE = <i>majornode</i>
---------	--

### Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command.

- **SWITCHED** or **LOCAL** is the type of SNA major node in which the logical unit or physical unit exists (if it is defined in a local or remote SNA major node).
  - **SWITCHED** means that the node is accessed by dial lines.
  - **LOCAL** means that the node is channel-attached to the host processor.
- *majornode* is the name of the local or remote SNA major node.

### System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

### Descriptor code

5

**IST137I** CONFIG *configname* BYPASSED – LOCAL ADDRESS OF LU *luname* IS INVALID

### Explanation

The local address (LOCADDR) value specified in the definition statement of configuration *configname* for logical unit *luname* is not valid. A local major node definition or switched definition containing dependent LUs requires all dependent LUs to have a unique valid value coded for LOCADDR.

### System action

Processing continues. VTAM does not include the configuration containing *luname* in the VTAM network.

## Operator response

Save the system log and print the major node or switched definition for problem determination.

## System programmer response

Correct the local address statements and file them in the definition library using the same name originally assigned to that local major node or switched definition. You need to deactivate and reactivate the major node or switched definition to use the new definition values.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM definition statements.

## Routing code

2

## Descriptor code

5

---

<b>IST142I</b>	<b>CONFIG <i>configname</i> BYPASSED – PATH MACRO <i>macroname</i> ERROR, REASON CODE <i>code</i></b>
----------------	---

---

## Explanation

While processing macro *macroname* during activation of a switched SNA major node, VTAM bypassed configuration *configname* because of an error shown by *code*, as follows:

### Code

#### Meaning

- 1** The MAXDLUR, MAXNO, or MAXGRP value on the VBUILD definition statement is zero or is the default.
- 2** The MAXPATH value on the preceding physical unit definition statement is zero or is the default.
- 3** The number of paths specified exceeds the MAXPATH value of this physical unit.
- 4** The number of unique dial numbers and unique line names exceeds the MAXNO value specified on the VBUILD definition statement.
- 5** The number of unique group names exceeds the MAXGRP value specified on the VBUILD definition statement.
- 6** The number of unique dial numbers and unique line names exceeds the MAXNO value specified on the VBUILD definition statement.
- 7** The number of PATH definition statements that code DLCADDR for a single switched major node exceeds the maximum allowed.

## System action

Processing continues. VTAM does not add the configuration specified in the message to the VTAM network.

## Operator response

Save the system log for problem determination. Keep a record of the occurrences of this message.

## System programmer response

Correct the problem indicated by *code* in this message. After correcting the error, tell the operator to use the VARY command to activate the configuration again.

## Routing code

2

## Descriptor code

5

---

**IST146I** **LINE NAME = *linename*, STATUS = *status***

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY TERMS command requesting the status of all LUs in a domain. The message gives the status of the line *linename* that provides attachment for subsequently listed LUs.

For *status* information, see the [z/OS Communications Server: IP and SNA Codes](#).

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST148I** **DIAL OUT PATH INFORMATION FOR PHYSICAL UNIT *puname***

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY PATHS command for physical unit *puname*. The message gives the name of the physical unit for which the paths are being displayed. This physical unit is a minor node in a switched SNA major node and can use the displayed paths to communicate with an NCP.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST149I</b>	<b>LINE GRP TELEPHONE NUMBER OR LINE NAME PID GID CNT</b>
----------------	---

---

## Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY PATHS command. A complete description of the message group follows.

```
IST149I  LINE GRP  TELEPHONE NUMBER OR LINE NAME  PID GID CNT
IST168I  linegroup  {phonenum|linename|blanks} pid gid cnt {AVA|NAV} {MAN|AUT|DIR}
[IST1575I DIALNO PID: pid[instance]]
[IST1318I parameter_value]
[IST1319I   parameter_value]
[IST1680I type IP ADDRESS ip_address]
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
:
IST314I  END
```

### IST149I

This message is a header message for the information displayed in message IST168I.

### IST168I

*linegroup* is the line group name for this path.

*phonenum* is a telephone number (for non-X.21 lines). This information is not displayed for PATH statements that describe Enterprise Extender (HPR/IP) connections.

*linename* is a line name for X.21 lines only.

*pid* is the path identifier (PID).

*gid* is the group identifier (GID) for a group of paths across all physical units.

*cnt* is the number of times the dial operation is to be tried again at the NCP.

**AVA** indicates that the path is available for use by VTAM.

**NAV** indicates that the path is not available for use by VTAM.

**MAN** indicates manual dial.

**AUT** indicates automatic dial for non-X.21 lines.

**DIR** indicates direct dial for X.21 lines.

### IST1318I

*parameter\_value* is the first 60 characters of the DIALNO value specified on the PATH definition statement, when the number of characters exceeds 32.

### IST1319I

This message is used to display overflow information from *parameter\_value* in message IST1318I.

### IST1575I

- This message is issued when the DIALNO operand specified on the PATH definition statement exceeds 32 characters and cannot be displayed in message IST168I.

*pid* is the path identifier specified on the PATH definition statement.

*instance* indicates that *parameter\_value* in messages IST1318I and IST1319I that follow correspond to the *instance* instance of the message IST168I with *pid* of **000**. You must count the group of IST168I messages to find the *instance* instance of message IST168I with a *pid* of **000**. *instance* is only displayed when *pid* is **000**.

**IST1680I**

- This message is issued when the PATH definition statement describes an Enterprise Extender (HPR/IP) connection to a remote node.
  - *type* is REMOTE.
  - *ip\_address* is the the IP address of the remote Enterprise Extender node. An **\*\*\*\*\*NA\*\*\*\*\*** in this field indicates that the value is not available because the name-to-address resolution of the HOSTNAME value associated with this PATH definition has not completed or was unsuccessful.

**IST1909I**

- This message is issued when the PATH definition statement describes an Enterprise Extender (HPR/IP) connection to a remote node, and the HOSTNAME operand was specified on the PATH definition statement.
  - *value* is the value, or up to the first 44 characters of the value, specified on the HOSTNAME operand on the PATH definition statement. If the value is longer than 44 characters, then the first 44 characters are displayed as *value* and the remaining characters are displayed using one or more IST1911I messages.

**IST1911I**

*value* is the continuation of *value* on IST1909I. IST1911I is repeated as often as necessary to display the entire *value*.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

<b>IST150I</b>	<b>RRT LOAD MODULE <i>rrtname</i> DOES NOT CONTAIN RESOURCE SEGMENT [EXTENSION]</b>
----------------	---

**Explanation**

While processing definition statements, VTAM could not find the resource segment or resource segment extension in the resource resolution table (RRT) named *rrtname*. The RRT was produced during NCP generation. VTAM uses the resource segment (together with its entries) to correlate a minor node with its network address, and uses the resource segment extension to correlate the name of a physical unit type 4 with a transmission group number. Both the resource segment and resource segment extension are stored in the data set where the NCP load module is linked.

## System action

The activation of the NCP fails. Processing continues.

## Operator response

You can use the network only if the NCP is not essential. Save the system log for problem determination.

## System programmer response

Do one of the following:

1. If the NCP generation process did not complete successfully, check the output from the NCP generation to see whether the resource resolution table was produced. If it was, restart VTAM definition processing. If it was not, regenerate the NCP, restart VTAM definition processing.
2. If the resource resolution table has been damaged, take a dump of the RRT load module to determine whether it contains a resource segment or resource segment extension or both.

In either case, correct or reproduce the RRT load module by regenerating the NCP. Restart the VTAM definition processing.

## Routing code

2

## Descriptor code

5

---

IST153I

PENDING DEACTIVATION OF *nodename* OVERRIDDEN

## Explanation

A stronger deactivation request from another domain has overridden a VARY INACT command and placed *nodename* in deactivate-pending status. A VARY INACT,TYPE=FORCE command or VARY INACT,TYPE=IMMED command entered from another domain will override a VARY INACT command entered in the current domain.

## System action

The system processes the stronger command. The overridden command will probably be canceled.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

6

---

IST154I

EXPANSION FAILED FOR *bp* BUFFER POOL – CODE *code* ,USERID=  
\*\*\*NA\*\*\*

## Explanation

The number of available buffers in VTAM buffer pool *bp* dropped to or fell below the expansion point value specified for that pool, and VTAM attempted to expand the pool. VTAM could not expand the pool for the reason indicated by *code*.

**Note:** This message is percolated. See [“Message rerouting and percolation” on page 1707](#) for additional information.

*bp* is the name of the buffer pool.

VTAM issues the following *codes* when a failure occurs during a deferred expansion.

### Code

#### Description

**4**

Not enough CSA storage was available for the expansion.

**5**

Not enough fixed storage available for the expansion.

**7**

Storage is not available because VTAM's CSA limit has been exceeded.

**8**

Expansion would have caused the pool to exceed its *xpanlim* specification. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for additional information about *xpanlim*.

VTAM issues the following *codes* when a failure occurs during an immediate expansion.

### Code

#### Description

**14**

Not enough CSA storage was available for the expansion.

**15**

Not enough fixed storage available for the expansion.

**17**

Storage is not available because the VTAM CSA limit has been exceeded.

**18**

Expansion would have caused the pool to exceed its *xpanlim* specification. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for additional information about *xpanlim*.

## System action

VTAM did not expand the buffer pool this time. When VTAM contracts other buffer pools, it will try again to expand this pool. Performance might be adversely affected by this failure to obtain more buffers.

## Operator response

See the explanation of IST930I when that message is issued.

If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination.

## System programmer response

See the explanation of IST930I when that message is issued.

If APPL-APPL sessions are not paced at the session level, storage expansion failures can occur. If an APPL-APPL session is not paced at the session level, there is no limit to the number of VTAM I/O buffers that the session can use. See the section on common subarea network problems in the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information about this problem.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information.

## Routing code

2

## Descriptor code

5

---

**IST155I** **SUBTASK *subtask* HAS ABENDED, CODE *code***

## Explanation

VTAM issues this message when *subtask* abnormally terminates.

*code* is the system abend code and indicates the reason for the abend. Check your operating system abend code manual for a description of code.

## System action

The system action is determined by the value of *subtask*:

### **ISTCPCRY**

VTAM processing continues. This subtask is invoked to perform cryptographic management services.

### **ISTENQIO**

VTAM terminates the disk I/O processing associated with a specific instance of the subtask. This subtask is invoked during initialization or by the MODIFY CHKPT command.

### **ISTINCXI**

VTAM terminates the dump (static or dynamic). For a static dump, deactivation of the NCP continues. This subtask is invoked by the MODIFY DUMP command.

### **ISTINCMX**

VTAM terminates the remote static dump, dynamic dump, or dump transfer. This subtask is invoked by the MODIFY DUMP command.

### **ISTINC05**

Loading of the communication controller is terminated. The command fails. This subtask is invoked by conditional, unconditional, and nondisruptive loads of a 37XX communications controller.

### **ISTINCR6**

The configuration might not be restored to checkpointed status (START command) or the major node checkpoint record might be lost (VARY command), but processing of the command continues. This subtask is invoked by a checkpoint on a major node.

### **ISTINCOQ**

The module assumes a default reply. This subtask is invoked by an attempt by a VTAM module to write a message that requires an operator reply.



## ISTINCYO

If an application program issued an open destination (OPNDST), the request fails. Verify that the physical path to the control unit is available. Make sure the unit is online and is operational. If the operator issued a VARY ACT or VARY INACT command, processing continues, but the connection or disconnection of the 3791 fails. This subtask is invoked by a dial abandon, a dial contact, a dial out, or a dial enable answer.

### Operator response

Save the system log for problem determination. Check your operating system abend code manual for a description of code.

### System programmer response

Use the output provided and the meaning of *code* to assist in determining the cause of the abend. Make sure that the failing job step includes a SYSABEND DD statement. When the error is corrected, ask the operator to try the command again.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on the abend procedure.

### Routing code

2

### Descriptor code

5

---

**IST159I****THE FOLLOWING NODES ARE IN A PENDING STATE**

### Explanation

VTAM issues this message in response to a DISPLAY PENDING command.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

**IST165I****CDRM *cdrmname* HAS AN INVALID ELEMENT VALUE – 1 IS ASSUMED**

## Explanation

VTAM issues this message when a value other than 1 has been defined as the element address for CDRM *cdrmname*. Every VTAM cross-domain resource manager (CDRM) must have an element address of 1 in its own network.

## System action

VTAM gives the definition of *cdrmname* a network address with an element address of 1. All other hosts that processed this CDRM statement have the CDRM defined with an element value other than 1. Thus, other domains cannot communicate through *cdrmname* with this domain. This applies only to CDRMs in the same network.

## Operator response

Save the system log and print the CDRM definition for problem determination.

## System programmer response

The CDRM is now defined as a CDRM in this domain. If you want to change *cdrmname* to a non-VTAM domain, deactivate the major node in which *cdrmname* is defined and change the *cdrmname* definition in the definition library.

After changing the *cdrmname* definition, use an operating system utility program to delete a member of a partitioned data set. Then reactivate the major node in which *cdrmname* is defined.

### Notes:

1. If *cdrmname* was meant to define this host's CDRM, then change the element address to 1 in the definition of *cdrmname*.
2. If *cdrmname* was meant to define another host's CDRM, then change the subarea address to something other than this VTAM's HOSTSA start option.

## Routing code

2

## Descriptor code

5

---

IST167I

NO DIAL OUT PATH FOR *puname*

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY PATHS command for *puname*. No dial out paths exist for physical unit *puname*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST168I</b>	<i>linegroup {phonenum linename} pid gid cnt {AVA NAV} {MAN  AUT DIR}</i>
----------------	---

---

## Explanation

VTAM issues this message as part of a message subgroup. The first message in the subgroup is either IST149I or IST1351I. See the explanation of either message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST169I</b>	<b>DISCONNECTION CAUSED VARY</b> <i>action</i> <b>FOR PU = puname</b>
----------------	---

---

## Explanation

One of the following conditions occurred:

- All LU-LU sessions have ended. If you specified DISCNT=YES on the PU statement for *puname*, *action* will be **INACT**.
- VTAM received an immediate or normal REQDISCONT request from the PU.
  - If the PU is local, action will be **REACT**.
  - If the PU is switched, action will be **INACT**.
  - If the PU is attached via a leased line, action depends on the CONTACT option in the request.
- VTAM disconnected the PU because the time specified on **DISCNT=(DELAY** has lapsed.
- The last LU-LU session has ended as a result of a **TERM-SELF RU** request or the end-user issued a **LOGOFF HOLD=NO** command.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST170I****LINES:**

## Explanation

This message is a header line that VTAM issues in response to a DISPLAY LINES command or a DISPLAY ID command for a subarea physical unit. Subsequent messages indicate the name and status of the lines associated with the subarea physical unit.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST171I****ACTIVE SESSIONS = *sessions*, SESSION REQUESTS = *requests***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command.

*sessions* is the number of active sessions, including XRF backup sessions.

*requests* is the number of pending or queued logon requests or both. *requests* does not apply to SSCP-SSCP sessions.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

**IST172I**

**NO text**

---

## Explanation

VTAM issues this message in response to various DISPLAY commands. *text* can be any of the following:

ADJCLUST TABLE EXISTS  
ADJCP FOUND  
ADJCP MAJOR NODE EXISTS  
ADJLISTS EXIST  
ADJSSCP TABLE EXISTS  
ADJSSCP TABLES EXIST  
APPLICATIONS {ACTIVE|ACTONLY|ACTSESS|CONCT|EXIST| INACTIVE|INACTONLY|PENDING|RESET}  
APPN COS ENTRIES EXIST  
APPNTOSA TABLE EXISTS  
BLOCKED VIRTUAL ROUTE  
CDRMS {ACTIVE|ACTONLY|ACTSESS|CONCT|EXIST| INACTIVE|INACTONLY|PENDING|RESET}  
CDRSCS {ACTIVE|ACTONLY|ACTSESS|CONCT|EXIST| INACTIVE|INACTONLY|PENDING|RESET}  
CONNECTIONS ACTIVE  
COSMAP TABLE EXISTS  
DLUR NODES SERVED  
HELD VIRTUAL ROUTE  
LINES {ACTIVE|ACTONLY|ACTSESS|CONCT| EXIST|INACTIVE|INACTONLY|PENDING|RESET}  
LOGICAL UNITS {ACTIVE|ACTONLY|ACTSESS|CONCT|EXIST| INACTIVE|INACTONLY|PENDING|RESET}  
LUGROUP NODES EXIST  
MAJOR NODES {ACTIVE|EXIST|INACTIVE}  
MODELS EXIST  
MODEL SEGMENTS EXIST  
NETWORK NODES {ACTIVE|EXIST|INACTIVE}  
RTPS FOUND  
SAMAP TABLE EXISTS  
SATOAPPN TABLE  
SAW SENSE FILTER  
SESSIONS {ACTIVE|EXIST|PENDING|QUEUED}  
STRUCTURE CONNECTIONS EXIST  
TRL EXISTS  
TRLES EXIST  
USERVARS EXIST  
VIRTUAL ROUTES EXIST

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST176I</b>	<b><i>command FAILED — option1 AND option2 ARE CONFLICTING OPTIONS</i></b>
----------------	--

## Explanation

The *command* failed because the options specified (*option1* and *option2*) are mutually exclusive and should not appear on the command simultaneously.

## System action

VTAM rejects the command. Other processing continues.

## Operator response

Reenter the *command* using only one of the options specified above and verifying that no other conflicting options appear. When VTAM completes processing of the *command*, reenter the command with the remaining option, if desired.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST180I</b>	<b><i>OPEN FAILED ON CKPT DS datasetname MAJ NODE nodename RTNCD = major minor</i></b>
----------------	--

## Explanation

The VSAM OPEN function failed for the specified checkpoint data set.

*datasetname* is the DDNAME for the checkpoint data set.

*nodename* is the major node name.

*major* is the register 15 return code from VSAM (hexadecimal).

*minor* is the ACBERFLG return code from VSAM (hexadecimal).

## System action

VTAM terminates checkpointing for this major node.

## Operator response

Save the system log for problem determination.

## System programmer response

See the appropriate VSAM documentation for the correct response to each return code.

## Routing code

2

## Descriptor code

5

---

<b>IST181I</b>	<b>CLOSE FAILED ON CKPT DS <i>datasetname</i> MAJ NODE <i>nodename</i> RTNCD = <i>major minor</i></b>
----------------	---

---

## Explanation

The VSAM CLOSE function failed for the specified checkpoint data set.

*datasetname* is the DDNAME for the checkpoint data set.

*nodename* is the major node name.

*major* is the register 15 return code from VSAM (hexadecimal).

*minor* is the ACBERFLG return code from VSAM (hexadecimal).

## System action

VTAM terminates checkpointing for this major node.

## Operator response

Save the system log for problem determination.

## System programmer response

See the appropriate VSAM documentation for the correct response to each return code.

## Routing code

2

## Descriptor code

5

---

<b>IST182I</b>	<b>UNABLE TO GET STORAGE FOR CKPT <i>datasetname</i> MAJOR NODE <i>nodename</i></b>
----------------	---

---

## Explanation

VTAM was unable to obtain VTAM private storage for checkpointing of the specified major node.

*datasetname* is the checkpoint data set DDNAME.

*nodename* is the major node name.

## System action

VTAM terminates checkpointing for this major node. If *nodename* is a major node named in a VARY ACT command (with the WARM operand), processing of the command terminates.

## Operator response

Issue the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you might need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY STORUSE command.

Save the system log and request a dump for problem determination.

## System programmer response

Increase storage as required.

- See [z/OS Communications Server: SNA Operation](#) for additional information.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

<b>IST183A</b>	<b><i>controller</i> FOUND LOADED WITH <i>ncpname</i> — REPLY ‘YES’ TO REIPL OR ‘NO’ TO CONTINUE</b>
----------------	--

## Explanation

During the restart of a configuration, VTAM found the specified *controller* to be loaded with NCP *ncpname*. You specified AUTOSYN=NO or VFYLM=YES on the PCCU macro in the NCP generation when you defined the NCP. The operator can therefore decide to reload the specified NCP or continue with it as it is.

## System action

Processing continues.

## Operator response

If you want to reload the indicated NCP, reply YES. A reply of NO will continue to activate the NCP without reloading. Exercise caution with multiple-channel or multiple-link attached communication controllers. If you want to reload the NCP, only one of the hosts sharing the communication controller should reply YES. The others should wait until the load is completed before replying NO. This requires operator communication across domains.

**Note:** For additional information on how to respond to this message, see [“Responding to a VTAM message” on page 2](#).

## System programmer response

None.

## Routing code

2

## Descriptor code

2



---

**IST184I****I/O ERROR ON CKPT DS *datasetname* MAJOR NODE *nodename* RTNCD =  
*major minor*****Explanation**

An I/O error occurred for the specified checkpoint data set.

*datasetname* is the DDNAME for the checkpoint data set.

*nodename* is the major node name.

*major* is the RPLRTNCD hexadecimal return code from VSAM.

*minor* is the RPLERRCD hexadecimal return code from VSAM.

**System action**

VTAM terminates checkpointing for this major node. If *nodename* is a major node name on a VARY ACT command (with the WARM operand), VTAM stops processing the command.

**Operator response**

This is probably a hardware error. Save the system log for problem determination.

**System programmer response**

See the applicable VSAM documentation for appropriate responses.

**Routing code**

2

**Descriptor code**

5

---

**IST185I****LOGICAL ERROR ON CHECKPOINT DS *datasetname* MAJOR NODE  
*nodename*****Explanation**

An incompatibility exists between the checkpoint data set and the current VTAM configuration.

*datasetname* is the DDNAME for the checkpoint data set.

*nodename* is the major node name.

**System action**

VTAM terminates checkpointing for this major node.

**Operator response**

Save the system log for problem determination.

**System programmer response**

Compare the contents of the data set against the current VTAM configuration to check for incompatibilities.

## Routing code

2

## Descriptor code

5

---

**IST186I**

***command* FOR ID = *nodename* CONTINUES COLD – CHECKPOINT DATA SET *datasetname* {EMPTY|ERROR}**

## Explanation

The operator entered a VARY ACT *command* with the WARM operand to start VTAM. However, because the configuration restart data set (checkpoint data set) for the node *nodename* contained no records, VTAM activated the node to its initial (cold) status.

*datasetname* is the DDNAME for the checkpoint data set.

- An empty configuration restart data set indicates that the node has not been previously activated with checkpointing. You cannot perform a warm activation for a node that was not previously activated.
- If the message indicates an error, a previous message will give an explanation of the error.

## NOT AVAILABLE

The checkpoint data set does not exist.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST187I**

***command* FOR ID = *nodename* FAILED – CHECKPOINT DATA SET *reason***

## Explanation

The operator entered a VARY ACT *command* with the WARM operand for the node *nodename* and VTAM rejected the command for one of the following *reasons*:

### ***cpdsname* EMPTY**

Configuration-restart data set (checkpoint data set) *cpdsname* contained no records. (An empty configuration-restart data set generally indicates that the node has not been previously activated with checkpointing. You cannot reactivate a node to a warm status if the node was not previously activated.)

### ***cpdsname* ERROR**

VTAM encountered an error while processing the configuration-restart data set (checkpoint data set) *cpdsname*. A previous message provides an explanation of the error.

**NOT AVAILABLE**

The checkpoint data set does not exist.

**System action**

The command fails. Other processing continues.

**Operator response**

To activate the node to initial (cold) status, reenter the VARY ACT command without the WARM operand.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST191I** *command* SYNTAX ERROR**Explanation**

A syntax error occurred in the *command* that was entered by a program operator application.

**System action**

VTAM rejects the command. Other processing continues.

**Operator response**

Save the system log for problem determination.

**System programmer response**

Correct the syntax of the *command* in the program operator application. See [z/OS Communications Server: SNA Operation](#) for the correct command syntax.

**Routing code**

2

**Descriptor code**

5

---

**IST192I** POA MSG TRANSFER FAILED — INSUFFICIENT STORAGE**Explanation**

VTAM issues this message to the system console when the program operator interface could not allocate VTAM private storage for a VTAM message to be transferred to a program operator application.

## System action

Processing continues. If the VTAM message is a write-to-operator with reply (WTOR) or an unsolicited VTAM message, VTAM will reroute the "failing" message to the system console. Other messages will be discarded.

## Operator response

Wait a short time and reenter the command. If PPOLOG=YES is in effect, messages being written to the primary program operator log could be causing VTAM private storage to be depleted. Issue a MODIFY PPOLOG=NO command to stop logging.

If VTAM continues to issue this message, enter the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you might need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See [z/OS Communications Server: SNA Operation](#) for additional information. Save the system log and request a dump to determine current private storage usage.

## System programmer response

- Review the amount of private storage allocated to VTAM. Verify that the size of the user region for VTAM is defined properly.
- You might want to cancel program operator applications that are using excessive private storage.
- If PPOLOG=YES was in effect, verify that all VTAM messages have been received by the primary program operator (PPO) by issuing RCVCMD macros.

**Note:** If PPOLOG=YES and the no-storage condition has cleared, the primary program operator application might also receive this message.

---

**IST193I****REPLY *id* IGNORED – REPLY TOO LONG FOR REQUESTOR**

## Explanation

A program operator application program entered a REPLY *id* command. The reply text was too long for the requirements of the requested reply.

**Note:** Only two digits will appear in the REPLY *id* even if more than two digits were entered.

## System action

VTAM rejects the REPLY *id* command and processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Correct the program operator application.

## Routing code

2

## Descriptor code

5

---

**IST194I****REPLY *id* NOT OUTSTANDING**

## Explanation

A program operator application entered a REPLY *id* command. However, there is no outstanding reply request with the identification *id*. Either the message reply request was already answered or the message reply identification *id* is incorrect.

**Note:** Only two digits will appear in the REPLY *id* even if the program operator application entered more than two digits.

## System action

VTAM rejects the REPLY *id* command.

## Operator response

Save the system log for problem determination.

## System programmer response

Correct the program operator application.

## Routing code

2

## Descriptor code

5

---

IST195I

REPLY *id* IGNORED – NON-DECIMAL ID

## Explanation

A program operator application entered a REPLY *id* command specifying a nondecimal identification. The REPLY *id* command must be entered as decimal digits, with or without a leading zero, in identification 00–99.

**Note:** Only two digits will appear in the REPLY *id* even if the program operator application entered more than two digits.

## System action

VTAM rejects the REPLY *id* command. Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Correct the program operator application.

## Routing code

2

## Descriptor code

5

---

IST198I

VTAM INTERNAL TRACE ACTIVATION FAILED – GTF NOT ACTIVE

## Explanation

The operator entered a MODIFY or START command for the VTAM internal trace with a MODE=EXT operand. This operand specifies that the trace records be written to a general trace facility (GTF) data set. However, GTF is not active.

## System action

VTAM rejects the MODIFY or START command for the internal trace and does no tracing.

## Operator response

Activate the general trace facility. Then reenter the command to activate the VTAM internal trace.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST199I** **OPTIONS = *optionlist***

## Explanation

VTAM issues this message as part of several message groups. Possible message groups follow:

- If IST199I is preceded by IST315I, see the description of IST315I for more information.
- This message group is issued in response to one of the following commands:
  - MODIFY TRACE,TYPE=EXIT,ID=*exitname*,OPT=*optionlist*
  - MODIFY NOTRACE,TYPE=EXIT,ID=*exitname*,OPT=*optionlist*
  - DISPLAY TRACES,TYPE=EXIT,ID=*exitname*
  - DISPLAY TRACES,TYPE=ALL

```
IST075I  NAME = exitname, TYPE = EXIT
IST199I  OPTIONS = optionlist
IST314I  END
```

**Note:** ID is a required parameter for TYPE=EXIT, but only ISTECA, ISTECCS, or ISTECDM is valid.

- This message group is issued in response to a DISPLAY TRACES,TYPE=STATE or a DISPLAY TRACES,TYPE=MODULE command.

```
IST350I  DISPLAY TYPE = type
IST199I  OPTIONS = optionlist
IST314I  END
```

- This message group is issued when MODULE or STATE tracing is initiated.

```
IST1515I tracetype TRACE ACTIVE
IST199I  OPTIONS = optionlist
:
IST314I  END
```

- This message group is issued in response to a DISPLAY EXIT,ID=*exitname* or DISPLAY EXIT,ID=\*

```

IST350I DISPLAY TYPE = EXIT
IST1250I NAME          LEVEL          MODULE          STATUS
IST1251I exitname      exitlevel      module          status
:
:
[IST1315I DISPLAY TRUNCATED AT MAX = number]
[IST199I  OPTIONS = {NONE|optionlist}]
:
:
IST1454I count EXIT(S) DISPLAYED
IST314I  END

```

## IST075I

*exitname* is the resource being displayed. For this message group, *type* is always **EXIT**.

## IST199I

If TYPE = EXIT on the DISPLAY TRACES, MODIFY TRACE, or MODIFY NOTRACE command, or if DISPLAY EXIT,ID=*exitname* or DISPLAY EXIT,ID=\* is entered, *optionlist* can include the following options:

### • For ISTECAAA:

#### **ACCTING**

Initial and final accounting

#### **ADJSSCP**

Adjacent SSCP selection

#### **ALIAS**

Alias translation

#### **ALL**

All functions of the exit are traced

#### **ALS**

Adjacent link station selection

#### **BEGIN**

Begin function

#### **END**

End function

#### **GWPATH**

Gateway path selection

#### **INITAUTH**

Initial authorization

#### **REPL**

Exit replacement and replaced function

#### **SECAUTH**

Secondary authorization

#### **VRSEL**

Virtual route selection

#### **HPRVRSEL**

HPR Virtual Routes Selection

#### **HPRP\_OLU**

HPR OLU RTP node role authorization

#### **HPRP\_DLU**

HPR DLU RTP node role authorization

#### **HPRP\_ANR**

HPR ANR RTP node role authorization

#### **XRF**

XRF session switch

- **For ISTECCS:**

- BEGIN**

- Begin function

- CONNSTAT**

- Connection Status

- DYN\_XID**

- XIDs for DYNAMIC PUs

- PRED\_XID**

- XIDs for PREDEFINED PUs

- END**

- End function

- **For ISTECDM:**

- BEGIN**

- Begin function

- INITAUTH**

- Initial authorization

- BN\_SEL**

- Border Node Selection

- CDS\_SEL**

- Central Directory Server Selection

- ADS\_SEL**

- Alt. Central Directory Server Selection

- CRR\_SEL**

- Central Resource Registration Selection

- ICN\_SEL**

- Interchange Node Selection

- REPL**

- Exit replacement and replaced function

- END**

- End function

If TYPE = MODULE on the DISPLAY TRACES, MODIFY TRACE, or MODIFY NOTRACE command, or the TRACE,TYPE=MODULE start option was specified, *optionlist* can include the following options:

- COMMAND(CMD)**

- Modules associated with command processing are being traced

- CONNECTION(CON)**

- Modules associated with connection processing are being traced

- DEFINITION(DEF)**

- Modules associated with definition processing are being traced

- INTERFACES(INT)**

- Modules associated with interfaces processing are being traced

- MANAGEMENT(MGMT)**

- Modules associated with management processing are being traced

- NOEXIT**

- Module exit tracing has been started or stopped

- NONE**

- No modules are being traced

- PURGE**

- Information in the module tracing buffers has been written to VTAM internal trace (VIT) entries



**SESSION(SES)**

Modules associated with session processing are being traced

If TYPE = STATE on the DISPLAY TRACES, MODIFY TRACE, or MODIFY NOTRACE command, or the TRACE,TYPE=STATE start option was specified, *optionlist* can include the following options:

**ADJCP**

States of all adjacent control points are being traced

**APPL**

States of all applications are being traced

**CDRM**

States of all cross-domain resource managers are being traced

**CDRSC**

States of all cross-domain resources are being traced

**GROUP**

States of all groups are being traced

**LINE**

States of all lines are being traced

**LU**

States of all logical units are being traced

**NCP**

States of all type 4 and type 5 nodes are being traced

**NONE**

No resource types are being traced

**PU**

States of all physical units are being traced

**IST1315I**

VTAM issues this message when the number of exits to be displayed exceeds the value specified on the MAX operand.

*number* is the value specified for the MAX operand.

**IST1454I**

This message gives the number of exits displayed.

**IST1515I**

*tracetype* will be **MODULE** or **STATE**.

**System action**

- If this message is in response to a DISPLAY TRACES command, other processing continues.
- If this message is in response to a MODIFY TRACE,TYPE=MODULE or a MODIFY TRACE,TYPE=STATE command, the trace begins for the options selected.
- If this message is in response to a MODIFY NOTRACE,TYPE=EXIT; MODIFY NOTRACE,TYPE=MODULE; or MODIFY NOTRACE,TYPE=STATE command, the trace stops for the options selected.

**Operator response**

None.

**System programmer response**

None.

See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on traces and to [z/OS Communications Server: SNA Operation](#) for information on the DISPLAY and MODIFY commands.

## Routing code

2

## Descriptor code

5

---

**IST206I****SESSIONS:**

## Explanation

This message is a header for the message IST634I group which is generated as the result of a DISPLAY ID command.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST208I****UNABLE TO TERMINATE SESSIONS FOR ID = *minornode* –  
INSUFFICIENT STORAGE**

## Explanation

VTAM could not terminate sessions for *minornode* because the system lacked the storage necessary to complete termination processing.

## System action

VTAM rejects the command.

## Operator response

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command and the MODIFY VTAMOPTS command.

## Routing code

2

## Descriptor code

5

---

**IST211I** **NCP SLOWDOWN INITIATED FOR *controller***

## Explanation

The communication controller *controller* has entered system slowdown mode because the NCP SLOWDOWN buffer threshold has been reached. NCP reduces the number of PIUs it will accept from VTAM, and will stop accepting PIUs if buffer depletion continues and the CWALL limit is reached.

## System action

VTAM performs no direct VTAM action. The actual function of entering slowdown occurs at a channel interface level.

## Operator response

Save the system log for problem determination and obtain an NCP dump with the NCP dump utilities.

## System programmer response

Make the necessary changes to the NCP generation. See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for more information about NCP dumps.

## Routing code

2

## Descriptor code

4

---

**IST212I** **ACBNAME = *acbname***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application program. The message appears only if the ACBNAME keyword *acbname* does not match the application program's APPL definition statement label.

## System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

8

### Descriptor code

5

---

**IST213I****ACBNAME FOR ID = *applname***

### Explanation

The operator entered a DISPLAY ID command for an application program. The name of the application program's APPL definition statement is *applname*. The name specified in the DISPLAY ID command was the ACBNAME keyword used in the APPL statement.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

8

### Descriptor code

5

---

**IST214I****NCP SLOWDOWN TERMINATED FOR *controller***

### Explanation

Slowdown mode has ended in communication controller *controller* and the communication controller is now accepting outbound PIUs.

### System action

VTAM performs no direct action. Processing continues.

### Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

4

---

<b>IST219I</b>	<b>I/O ERROR ON READ FOR <i>nodename</i> – BYTECNT MISMATCH</b>
----------------	---

---

## Explanation

VTAM issues this message when an input buffer error is detected during a READ operation for one of the following:

- Channel attached NCP *nodename*
- Channel attached local SNA control unit *nodename*.
- Channel attached multipath channel (MPC) line, where *nodename* is the name of the line.

The data count field for the PIU does not match the amount of data transferred (**BYTECNT**).

## System action

VTAM deactivates *nodename*.

If the node is attempting to send more data than VTAM can receive, the operating system might generate message IOS000I.

## Operator response

This is probably a hardware error. Save the system log for problem determination. Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the [EREP User's Guide](#) for more information on using EREP.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

## System programmer response

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

2

## Descriptor code

4

---

<b>IST221I</b>	<b><i>majornode</i> : <i>minornode</i> IS INVALID, <i>n</i>, UNSUPPORTED OPTION – <i>option</i></b>
----------------	---

---

## Explanation

VTAM attempted to activate a logical unit that requires cryptography in a system that does not support cryptography. Only MVS has a data encryption facility.

*majornode* is the name of a major node being activated by a VARY ACT command.

*minornode* is the name of a node in *majornode*.

*n* is either 1 or 2. This number indicates the method that specified cryptography for the logical unit:

- If *n* is 1, a checkpoint-restart data set specified cryptography.
- If *n* is 2, a definition statement specified cryptography.

*option* is the name of the unsupported option that caused the rejection of the VARY command for *minornode*. The option names are:

### ENCR=REQD OR SEL

The data encryption facility is necessary for a node requiring these levels of encryption.

### MAC=REQD AND DES

The data encryption facility is necessary for a node that has a message authentication code (MAC), which is required, and MACTYPE=DES. If the node did not explicitly code an encryption value, ENCR=SEL was used.

## System action

VTAM activates *majornode*, but not *minornode*.

## Operator response

If *minornode* is required for network operation, save the system log for problem determination.

## System programmer response

If *minornode* is required, remove the requirement for cryptography from the definition statements.

## Routing code

2

## Descriptor code

5

---

IST223I

MODIFY [*type*] COMMAND COMPLETED

## Explanation

VTAM issues this message when the MODIFY command has successfully completed.

*type*, if displayed, indicates the type of MODIFY command. *type* is not displayed for the following commands:

- MODIFY CSALIMIT
- MODIFY INOPDUMP
- MODIFY IOPD
- MODIFY MSGMOD
- MODIFY PPOLOG
- MODIFY SUPP

See [z/OS Communications Server: SNA Operation](#) for more information about MODIFY commands.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST225I**

***command FOR ID = nodename FAILED — reason***

---

## Explanation

VTAM issues this message when the *command* failed for *reason*.

*reason* indicates the cause of the failure and can be one of the following:

### **ALSNAME NOT VALID**

A MODIFY TRACE,TYPE=GPT command was entered for *nodename*. The adjacent link station name (ALSNAME) that was either specified or used by default was not in a valid state when the command was entered. If ISTAPNPU was used by default because it was the only entry in the adjacent link station list, then this is the reason the command failed. ISTAPNPU is the name of the generic APPN adjacent link station. A real adjacent link station name must be specified for the command to succeed.

### **ALSNAME PARAMETER OMITTED**

A MODIFY TRACE,TYPE=GPT command was entered for *nodename*. No ALSNAME was specified, and a default ALSNAME could not be determined because of one of the following:

- The adjacent link station list for *nodename* contains no entries.
- The adjacent link station list for *nodename* contains two or more entries (other than ISTAPNPU).

### **ARM REJECTED**

A MODIFY TRACE command or TRACE start option was specified with TYPE=QDIOSYNC. An Arm request was initiated and the reply indicates that the OSA-Express2 or later adapter supports the QDIOSYNC function, but an error occurred while attempting to arm the OSA-Express2 or later adapter.

### **CALL SECURITY ERROR**

VTAM detected a mismatch of the encrypted security data fields during the XID exchange. This mismatch might be caused by:

- An unauthorized subarea dial physical unit attempting to establish a connection over a switched line
- The absence of the PRTCT operand
- Not having the correct password coded for both the caller and receiver
- One of the subarea nodes that is of a level that does not support call security verification

### **CURRENT LEVEL HIGHER**

The operator entered a MODIFY ENCR command or MODIFY SECURITY command for *nodename* to lower (make less secure) the level of cryptographic session for the logical unit or application program indicated by *nodename*. The level of cryptographic session for a logical unit or application program can only be raised (made more secure). For example, if you have defined an LU as *selective*, you cannot modify it to *optional*. You can modify it to *required*.

**DYNAMIC CDRSC NOT VALID**

*nodename* is a dynamic cross-domain resource; this is not valid for the TRACE command you entered.

**EXIT IS NOT FOUND**

The operator entered a DISPLAY EXIT command for a VTAM installation-wide exit which could not be located.

**FUNCTION NOT OPERATIONAL**

The Cryptographic Facility is not available to process a MODIFY ENCR command.

**FUNCTION NOT SUPPORTED**

A MODIFY ENCR command was entered for *nodename* and the cryptographic facility is not supported by this host.

**INSUFFICIENT STORAGE**

The operator entered a MODIFY ENCR command for *nodename* and the VTAM address space has insufficient storage.

**INVALID MODEL LU**

The operator entered a DISPLAY LUGROUPS command for *nodename*. Model LU *nodename* was not found in the LUGROUP specified on the GROUP operand of the DISPLAY LUGROUPS command.

**INVALID STATE FOR CDRSC**

Giveback processing or internal delete for node *nodename* failed. VTAM found a predefined CDRSC to be **not** active, and VTAM was not able to transfer the active sessions from the LU to the CDRSC.

**ISTLSXCF NOT ACTIVE**

Another node in the sysplex attempts to establish a connection with an XCF node, but the connection is not established because the dynamic local SNA major node, ISTLSXCF, is not in an active state.

**ISTLSXCF NOT FOUND**

Another node in the sysplex attempts to establish a connection with an XCF node, but the connection is not established because the dynamic local SNA major node, ISTLSXCF, does not exist.

**ISTTRL NOT FOUND**

Another node in the sysplex attempts to establish a connection with an XCF node, but the connection is not established because the TRL major node, ISTTRL, does not exist.

**MACLNTH NOT VALID**

The operator entered a MODIFY SECURITY command with a MACLNTH value that is not valid. The MACLNTH value is dependent on the most recent specification of MACTYPE. The MACTYPE value might have been specified on a MODIFY SECURITY command or on the APPL definition statement.

**MACTYPE NOT VALID**

The operator entered a MODIFY SECURITY command with a MACTYPE value that is not valid with the most recent specification of MACLNTH. The MACLNTH value might have been specified on a previous MODIFY SECURITY command or on the APPL definition statement.

**MODULE LOAD FAILED**

Attempt to load XCF modules fails.

**NODE HAS NO KEY**

The operator entered a MODIFY ENCR command or a MODIFY SECURITY command for *nodename*, and the node *nodename* does not have a properly defined cryptographic key in the cryptographic key data set.

**NO SUITABLE RESOURCES FOUND**

The operator entered a VARY ACQ or a VARY REL command, but it had no effect on the NCP.

Either all the resources were acquired or released already, or the OWNER specified on the command did not match any of the owner names specified on the NCP resources. Two different networks cannot share the same native resources.

**NOT AN APPLICATION PROGRAM**

The operator entered a MODIFY ENCR command or MODIFY SECURITY command for *nodename* for one of the following purposes:

- To set the encryption level to CONDITIONAL
- To set the values of MACLNTH or MACTYPE



MACLNTH, MACTYPE, and the CONDITIONAL encryption level are valid only if *nodename* is an application program.

#### **NOT SUPPORTED**

A MODIFY TRACE command or TRACE start option was specified with TYPE=QDIOSYNC. When the OSA-Express2 or later adapter was contacted, it was discovered that it does not support the QDIOSYNC function.

#### **REJECTED BY INSTALLATION EXIT**

The operator entered a MODIFY ENCR command for *nodename*, and VTAM rejected the MODIFY ENCR command because of user-written routines related to the GENKEY function.

#### **RESOURCE NOT VALID**

The operator entered a MODIFY SECURITY command with the CKEY operand for *nodename*, but *nodename* is not a device type LU.

#### **RTP PU NOT VALID**

A VARY ACT command for an RTP PU is issued. This is a dynamic PU and activates automatically if RTP is supported. A VARY ACT of a RTP PU is invalid.

#### **SECURITY MANAGER ERROR**

A security error occurred while VTAM was processing the command *command*.

#### **SECURITY MANAGER NOT AVAILABLE**

The security manager is not available or the resource class APPCLU is not active.

#### **SUBORDINATE NODE PENDING INACT**

VTAM rejected a VARY INACT, TYPE=GIVEBACK or VARY REL, TYPE=GIVEBACK command because a logical unit subordinate to *nodename* has LU-LU sessions and is pending deactivation.

#### **SYSPLEX JOIN FAILED**

VTAM is attempting to join the sysplex, but a nonzero return code is sent from MVS.

#### **SYSPLEX UNAVAILABLE**

VTAM is attempting to join the sysplex, but the sysplex is not active.

#### **UNABLE TO ALLOCATE CDRSC**

Giveback processing or internal delete for node *nodename* failed. VTAM has insufficient resources to allocate a cross-domain resource or does not support a dynamic CDRSC and was not able to transfer the active sessions from the LU to a CDRSC.

#### **VTAM ERROR**

One of the following occurred:

- VTAM abended while processing a MODIFY PROFILES command.
- VTAM abended while processing a MODIFY ENCR command for *nodename*. The error might be due to the improper cleanup of the cryptographic facility (that is, the operator cancelled the cryptographic facility via the CANCEL command).

#### **XCF BUILD FAILED**

A VARY ACT command fails for a dynamic local SNA major node.

#### **XCF PU NOT FOUND**

A D TRL,XCFCP=*cp\_name* command was issued for *nodename*. The *nodename* is the CP name specified in the display command. The associated dynamic PU for that CP was not located.

#### **XCF TRLE NOT FOUND**

One of the following occurred:

- A D TRL,XCFCP=*cpname* command was issued for *nodename*. The *nodename* is the CP name specified in the display command. The associated dynamic TRLE for that CP was not located.
- A V ACT,ID=ISTLSXCF command was issued. An XCF connection is in the process of being deactivated and an activation request is received. The dynamic TRLE which is required for activation does not exist.

### **System action**

The command is not completed. Processing continues.

**CALL SECURITY ERROR**

VTAM terminates the switched connection and deactivates the PU.

**DYNAMIC CDRSC NOT VALID or UNABLE TO ALLOCATE CDRSC**

LU *nodename* remains known to VTAM in an inactive state with active sessions.

**FUNCTION NOT OPERATIONAL, NOT SUPPORTED, or ARM REJECTED**

The command is not executed.

**FUNCTION NOT SUPPORTED**

Install Cryptographic Facility.

**SECURITY MANAGER ERROR or SECURITY MANAGER NOT AVAILABLE**

VTAM does not refresh the profiles and continues to use the profiles that are in storage.

**Operator response**

The *reason* determines the response:

**ALSNAME NOT VALID**

Enter a DISPLAY ID command for *nodename* to determine the correct adjacent link station and reenter the command.

The state (active or inactive) of the PU with which the independent LU is associated must be as follows:

- Active if it has been dynamically reconfigured in the NCP
- Active if it is on an NCP switched line
- Active or inactive if it is on an NCP nonswitched line

**ALSNAME PARAMETER OMITTED**

Enter a DISPLAY ID command for *nodename* to determine the correct adjacent link station, and reenter the command.

**CALL SECURITY ERROR**

Monitor the console for further occurrences of this message. If VTAM continues to issue this message, use the VARY ANS command to take the line out of answer mode.

**DYNAMIC CDRSC NOT VALID or UNABLE TO ALLOCATE CDRSC**

Activate a CDRSC major node that defines a CDRSC with *nodename*.

**FUNCTION NOT OPERATIONAL**

Make sure the Cryptographic Facility is installed and operational.

**INSUFFICIENT STORAGE**

If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

**ISTLSXCF NOT ACTIVE**

Enter a VARY,ACT,ID=ISTLSXCF to activate ISTLSXCF.

**MACLNTH NOT VALID**

Try the command again with a valid value for MACLNTH.

**MACTYPE NOT VALID**

Try the command again with a valid value for MACTYPE.

**MODEL LU NOT VALID**

Check that *nodename* is correct and try the command again. If problems persist, save the system log for problem determination.

**NO SUITABLE RESOURCES FOUND**

Verify that all of the NCP resources have been acquired or released or that the OWNER specified on the command matches the owner name specified on the resources to be acted upon.

**NOT SUPPORTED**

Issue the DISPLAY NET,TRL,TRLE=*trlename* command to display the active OSA-Express2 or later TRLE.

Look for message IST1716I or IST2263I in the response. The OSA CODE LEVEL field is at the end of these

messages. Record this value of the OSA CODE LEVEL field for the system programmer. See the description of IST1716I or IST2263I for more information.

#### **RESOURCE NOT VALID**

Check that *nodename* is correct and try the command again. If problems persist, save the system log for problem determination.

#### **SECURITY MANAGER ERROR**

Try the command again. If VTAM continues to issue this message, contact the security administrator.

#### **SUBORDINATE NODE PENDING INACT**

Wait until all subordinate nodes have completed deactivation and try the command again.

#### **VTAM ERROR**

Save the system log and dump for problem determination. If the error was due to the improper cleanup of the cryptographic facility, enter the STOP command to stop the cryptographic facility, and save the system log for problem determination.

#### **XCF PU NOT FOUND**

Check the CP name specified on the parameter XCFCP to ensure it is correct and try the command again. Issue a DISPLAY TRL,CONTROL=XCF to determine whether any XCF TRLEs exist. Issue a DISPLAY ID=ISTLSXCF to determine whether an associated dynamic PU exists for the connection.

#### **XCF TRLE NOT FOUND**

Check the CP name specified on the parameter XCFCP to ensure it is correct and try the command again. Issue a DISPLAY TRL,CONTROL=XCF to determine whether any XCF TRLEs exist.

#### **All other reasons**

Save the system log for problem determination.

### **System programmer response**

The *reason* determines the response:

#### **ARM REJECTED**

Perform the following traces to help you determine the cause of the rejection:

- A CCW trace of the TRLE read and write control channels taken at the time of the first attempt to arm the adapter. This trace will show the Arm request being written and the Arm reply being read. Use a CCW trace data length of 256 bytes.
- A CTRACE using the VTAM and VTAMDATA options.
- A VTAM internal trace using the CIA and CIO options.

#### **CALL SECURITY ERROR**

Verify that all nodes involved in the dial process are at a level that supports call security verification. The passwords used to verify the identity of the caller and the receiver must match. See the PRTCT keyword on the PU statement in the switched major node definition.

#### **CURRENT LEVEL HIGHER**

If you want to lower the cryptographic session level of a node, you must redefine the system definition cryptographic option in SYS1.VTAMLST and reactivate the major node that contains *nodename*.

#### **DYNAMIC CDRSC NOT VALID**

Reenter the TRACE command with a resource that is not a dynamic cross-domain resource. You cannot trace a dynamic cross-domain resource.

#### **EXIT IS NOT FOUND**

Make sure the VTAM installation-wide exit that could not be found has been installed on your system.

#### **INSUFFICIENT STORAGE**

If this error occurs often, review the VTAM storage allocation. Increase storage as required.

- Use the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.

- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

#### **INVALID MODEL LU**

Check the definition of *nodename* to ensure that it is correct.

#### **NODE HAS NO KEY**

Define the cryptographic key for node *nodename* in the cryptographic key data set. For information about defining cryptographic keys, see the [z/OS Cryptographic Services ICSF System Programmer's Guide](#) and the [z/OS Communications Server: SNA Network Implementation Guide](#).

#### **NOT AN APPLICATION PROGRAM**

Make sure *nodename* is the correct node name. If *nodename* is the correct name, see [z/OS Communications Server: SNA Operation](#) for more information on valid encryption levels. Otherwise, reenter the MODIFY ENCR command with the correct value for *nodename*.

#### **NOT SUPPORTED**

The OSA CODE LEVEL determined by the operator indicates the OSA processor code level of the OSA-Express2 or later adapter. That value will show that the OSA-Express2 or later processor code level is insufficient. You must upgrade to a level that supports QDIOSYNC to use the function.

#### **REJECTED BY INSTALLATION EXIT**

GENKEY failed with RETURN CODE 16 from the common cryptographic architecture product (CCA) or the IBM Cryptographic Unit Support product (CUSP).

For further information, see the documentation for the cryptographic facility that you are using.

#### **SYSPLEX JOIN FAILED**

Trace the return code from MVS. Verify that the sysplex environment exists and restart VTAM.

#### **UNABLE TO ALLOCATE CDRSC**

Take VTAM down and restart it so that it supports dynamic CDRSCs.

#### **VTAM ERROR**

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on the abend procedure. If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM software support center.

If the error was due to the improper cleanup of the cryptographic facility, start the cryptographic facility if it is not already started.

#### **XCF BUILD FAILED**

Restart VTAM with full XCF support.

#### **XCF PU NOT FOUND**

Verify that XCF support is active for this VTAM.

#### **XCF TRLE NOT FOUND**

Verify that XCF support is active for this VTAM.

For all other *reasons*, no further action is recommended.

### **Routing code**

2

### **Descriptor code**

5

**IST226I**

**command FOR ID = *nodename* NOT EFFECTIVE DURING CURRENT OR QUEUED SESSIONS**

## Explanation

The operator entered the `MODIFY ENCR command` and changed the cryptographic session level of *nodename*. However, node *nodename* is in session or has queued sessions. The change will not affect the current or queued sessions, but will affect future sessions for *nodename*.

*nodename* is the name of the node specified on the command.

## System action

VTAM retains the new cryptographic session level specified in the `MODIFY ENCR command` and uses it when processing subsequent session-establishment requests.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST228I** **ENCRYPTION = *encryption\_level* , TYPE = *min\_type***

---

## Explanation

This message is the first in a group of messages that VTAM issues in response to a `DISPLAY ID`, `DISPLAY LUGROUPS`, or a `DISPLAY MODELS` command for an application or a logical unit. This message indicates the level of cryptography supported by the node in question. A complete description of the message group follows.

```
IST228I  ENCRYPTION = encryption_level , TYPE = min_type
IST1563I CKEYNAME = ckeyname CKEY = ckey_value CERTIFY = certify_value
IST1552I  MAC = mac_level MACTYPE = mac_type
IST314I  End
```

### IST228I

- *encryption\_level* describes the levels of cryptography and can be one of the following:

#### REQUIRED

Indicates that VTAM must encrypt all messages that this application program sends and decrypt all messages that the application program receives.

#### CONDITIONAL

If the session partner supports cryptography, VTAM must encrypt all messages that this application program sends and must decrypt all messages that the application program receives.

If the session partner does not support cryptography, VTAM will set up a session without encryption.

#### SELECTIVE

Indicates that this application program can choose which messages are encrypted by VTAM.

#### OPTIONAL

Indicates that the application program has no special cryptographic requirements; its cryptographic capability is the same as the host processor's capability.

**NONE**

Indicates that the application program has no special cryptographic requirements; its cryptographic capability is the same as the host processor's capability.

- *min\_type* describes the minimum type of cryptography and can be one of the following:

**DES**

Indicates that VTAM must use a minimum of DES encryption using an 8-byte key, if the session uses encryption.

**TDES24**

Indicates that VTAM must use a minimum of Triple-DES encryption using a 24-byte key, if the session uses encryption.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for information about cryptography.

**IST1552I**

- *mac\_level* describes the message authentication code (MAC) levels and can be one of the following:

**REQUIRED**

Indicates that VTAM must use message authentication codes for all messages this application program sends and verify all messages the application program receives.

**CONDITIONAL**

Indicates that if the session partner supports message authentication codes, VTAM must use message authentication codes for all messages this application program sends and must verify all messages the application program receives. If the session partner does not support message authentication codes, VTAM will set up a session without them.

**NONE**

Indicates that the application program will not use message authentication codes.

- *mac\_type* describes the method used to generate the MAC and can be one of the following:

**CRC**

Indicates that VTAM will use a cyclic redundancy checking (CRC) algorithm to perform message authentication code functions.

**DES**

Indicates that VTAM will use the data encryption standard (DES) to perform message authentication code functions. If a session partner is using CRC, that method is used during the session.

**TDES**

Indicates that for sessions utilizing Triple DES, Triple DES encryption (not DES encryption) will be used even if the operand value is DES.

**NONE**

Indicates that VTAM does not perform message authentication code functions. This value is displayed only when MAC=NONE.

**IST1563I**

- *ckeyname* indicates the cryptographic key name of a key-encryption-key (KEK) in the cryptographic key data set (CKDS) for the defined resource, and is used to encrypt session keys. It is always the resource name for applications and cross-domain resources.
- *ckey\_value* can be one of the following:

**PRIMARY**

Indicates that cryptographic session keys are generated using the primary cryptographic key name (the name on the LU definition statement, or the value of the CKEYNAME operand). CKEY is always set to PRIMARY for applications and cross-domain resources.

**ALTERNATE**

Indicates that cryptographic session keys are generated using the alternate cryptographic key name with the suffix **.ALT**.

- *certify\_value* can be one of the following:

**YES**

Indicates that cryptographic sessions are authenticated at both the SLU and the PLU, if the session uses encryption.

**NO**

Indicates that cryptographic sessions are authenticated only at the SLU, if the session uses encryption.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST231I*****nodetype* MAJOR NODE = *majornode*****Explanation**

VTAM issues this message in response to a DISPLAY command for a major node.

*nodetype* lists the type of the major node. See [Chapter 17, “Node and ID types in VTAM messages,” on page 1699](#) for a description of *nodetype*.

For a DISPLAY command for LINES, STATIONS, or TERMS, *majornode* is the major node that contains the resources listed in subsequent messages.

For a DISPLAY ID command that has a group name specified, *majornode* is the major node that contains the group definition.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2,8

**Descriptor code**

5

## Explanation

VTAM issues this message in response to a DISPLAY command for a communication adapter, a LAN major node, or a multipath channel (MPC) attached resource.

*linename* is the name of a leased line defined for a type 5 physical unit, a switched line defined for a type 2 physical unit, or a VCNS line.

*status* is the condition or state of the channel-to-channel adapter or the token-ring subsystem. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *status*.

*device address* is the hexadecimal device address of *linename*. *device address* is only displayed for a communication adapter.

**CONTROL = MPC** is displayed if the resource is multipath channel (MPC) attached.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

5

## Explanation

VTAM issues this message when an I/O error occurred on a BSC 3270 terminal or control unit.

*terminalname* is the name of a terminal or control unit.

*command* is the basic transmission unit (BTU) command and modifier. It represents the command that the NCP received when the I/O error occurred. For more information, see *NCP and EP Reference Summary and Data Areas* for the 3725 and 3745.

*ncspresponse* is the system or extended response that the NCP sends upon receiving the command. For more information, see *NCP and EP Reference Summary and Data Areas* for the 3725 and 3745.

*bscstatus* is the BSC status information. For more information, see the *3174 Functional Description*.

## System action

- For an I/O error on a BSC 3270 terminal, VTAM sends an error indication to the application program.
- For an I/O error on a BSC 3270 control unit, depending on NCP response and the number of failures, VTAM might resume polling for the data from the control unit.



## Operator response

This is probably a hardware error. If the problem persists, save the system log for problem determination.

## System programmer response

Use the output provided to assist you in determining the cause of the problem.

## Routing code

2,8,1

## Descriptor code

4

---

**IST238I** *runame {REQ|RES} FOR ID = nodename RCVD text*

---

## Explanation

VTAM has received a request (REQ) or response (RES) unit *runame* for *nodename*. For a description of *runame*, see Chapter 16, “Command and RU types in VTAM messages,” on page 1683.

*text* provides additional information about *runame* and VTAM actions. Possible values are:

### RECOVERY IN PROGRESS

VTAM is recovering *nodename*. See the subsequent message for the results of the recovery attempt.

### ACTIVATION IS RESTARTED

VTAM is restarting the activation of *nodename*. Previous activation messages no longer require operator action and might be repeated by this reactivation.

### RU DATA-TYPE= *type*, CAUSE = *cause*

For an AM GUNBIND (DACTPU) request, *type* and *cause* values are included in this message. See *SNA Formats* for a definition of DACTPU.

Following are the RU DATA-TYPE fields and the RU DATA-CAUSE fields (expressed in hexadecimal):

#### *type*

##### Meaning

#### 01

Final use, physical connection might be broken.

#### 02

Not final use, physical connection should not be broken.

#### 03

Session outage notification (SON).

#### *cause*

##### Meaning

#### 07

VR-INOP: The virtual route carrying the SSCP-PU session has become inoperative forcing deactivation of the SSCP-PU session.

#### 08

REX-INOP: The route extension serving the SSCP-PU session has become inoperative forcing deactivation of the SSCP-PU session.

#### 09

HIERARCHICAL RESET: VTAM is deactivating the identified session because of a positive response to ACTPU.

**0B**

DACTVR: VTAM deactivated the identified SSCP-PU session because of a forced deactivation of the virtual route that the session was using.

**0C**

FAIL: VTAM reset the identified session because the SSCP-PU session ended.

**0E**

FAIL: RECOVERABLE. VTAM reset the identified session because the SSCP-PU session ended.

**0F**

CLEANUP: The SSCP is resetting its half-session before receiving the response from the PU that is being deactivated.

**10**

ALS RESET: VTAM should reset the peripheral adjacent link station (ALS) owned by the sending SSCP.

**11**

GIVEBACK: The sending SSCP relinquishes ownership of owned resources.

## System action

The system continues recovery or activation of *nodename*.

## Operator response

Wait for additional messages indicating the success or failure of the recovery or activation.

## System programmer response

None.

## Routing code

8

## Descriptor code

4

---

**IST240A**

**WAIT STATE IN VTAM DUE TO INSUFFICIENT NUMBER OF I/O  
BUFFERS SPECIFIED BY USER**

## Explanation

A VTAM process needs more I/O buffers than were allocated to the I/O buffer pool. This condition can occur if the number of buffers in the I/O buffer pool is less than the MAXBFRU value specified during NCP generation or is less than the number of buffers needed for a local 3270.

## System action

The VTAM process that requested I/O buffers enters a wait state. Other VTAM processing might continue.

## Operator response

**If VTAM has been initialized**, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination. **If VTAM has not been initialized**, save the system log for problem determination.

## System programmer response

Since this is a VTAM definition error on the start option, specify a greater number of I/O buffers when you restart VTAM. Use the [z/OS Communications Server: SNA Network Implementation Guide](#) to determine the I/O buffer requirements for all devices connected by VTAM. Adjust this requirement as needed.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for an overview of the wait procedure.

## Routing code

2

## Descriptor code

2

---

IST241I	<i>command</i> COMMAND COMPLETE FOR <i>nodename</i>
---------	---

---

## Explanation

VTAM issues this message when the *command* for *nodename* has been processed.

See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *command*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

IST242I	<i>command</i> COMMAND FAILED FOR ID = <i>nodename</i> SENSE = <i>code</i>
---------	--

---

## Explanation

VTAM issues this message when the *command* for *nodename* failed for the reason indicated by *code*.

**Note:** If you are attempting a DISPLAY DISK command or a DISPLAY NCPSTOR command, and the command fails (most probably with a sense code of X'1005xxxx'), verify that the command is supported by the release of NCP you are using.

See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *command*.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.



*ncpname* identifies the address *address* of the NCP whose storage is displayed by one or more IST245I messages. *xxxxxxxx* is one word of storage in hexadecimal. Each occurrence of IST245I contains 4 words of storage.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

8

**Descriptor code**

5

---

<b>IST245I</b>	<i>address xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx</i>
----------------	--

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY NCPSTOR command. The first message in the group is IST244I. See the explanation of that message for a full description.

**Routing code**

8

**Descriptor code**

5

---

<b>IST246I</b>	<i>function_code return_code</i>
----------------	----------------------------------

**Explanation**

This message is seen at the console only when the Program Operator Application (POA) is not active.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

## Routing code

8

## Descriptor code

4

---

**IST247I** **LOAD/DUMP PROCEDURE STATUS = *status* [, RU COUNT = *rucount*]**

## Explanation

VTAM issues this message in response to a DISPLAY ID command for an NCP (PU type 4).

*status* is the load or dump procedure state for the PU type 4 being displayed. The finite state machine values describe whether the procedure is load or dump and the current status of that procedure. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *status*.

If *status* is **RESET**, the load or dump procedure is not in progress at the time of the display.

*rucount* indicates the number of IPLTEXT (**PLOAD**) or DUMPTXT (**PFDMP**) request units that have been sent to the controller. This field can be used to monitor the progress of a dump or load of a remote NCP. VTAM displays **RU COUNT =*rucount*** only when *status* is **PLOAD** or **PFDMP**.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

5

---

**IST257I** **VTAM SDUMP FAILED WITH RETURN CODE *code* REASON X'*reason*'**

## Explanation

VTAM started an SVC dump (**SDUMP**) for an abend, or for a first-failure-data-capture (FFDC) detected error, and the system could not complete the dump successfully.

- code* indicates the return code received from MVS SDUMP and might be one of the following:

**4**

The system obtained only a partial dump. The dump data set or file might be too small. When *code* is 4, *reason* will be X'00'.

**8**

The system was unable to schedule a dump. When a return code of 8 is received, a hexadecimal reason code (*reason*) is returned.

*reason* indicates the cause of the SDUMP failure.

## System action

VTAM takes no further action to obtain a dump. Other processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

If *code* is **4**, look for system message IEA911E for further information. Message IEA911E includes reason codes that explain why the system could not execute a complete dump. Message IEA911E is documented in the [z/OS MVS System Messages, Vol 6 \(GOS-IEA\)](#).

If *code* is **8**, see [z/OS MVS Programming: Authorized Assembler Services Reference LLA-SDU](#) for an explanation of the return code and reason code for the SDUMP macro.

## Routing code

2,8

## Descriptor code

4

---

**IST258I** **STMT IN ERROR = *text***

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST1249I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST259I** **INOP RECEIVED FOR *nodename* CODE = *code* [*text*]**

## Explanation

VTAM received an INOPERATIVE RU for *nodename*. The *code* field gives the INOP reason code.

**Note:** If the resource that is going INOP is attached remotely off an NCP, then the NCP, not VTAM, generates the INOP.

If *code* is hex **0F**, *text* supplies additional information about the INOP type.

*code* (expressed in hexadecimal) can be:

### 01

Station INOP: There was a loss of contact, unexpected loss of connection, or a connection establishment failure.

This error type normally occurs after a successful connection has been established. When link-level errors occur, the boundary function will attempt link-level recovery procedures to recover the session. One of the definitions that affects this recovery activity is the RETRIES operand on the GROUP, LINE or PU definition statements. When normal recovery fails, a higher level of recovery is needed. That recovery is identified by this message.

This type of failure is normally followed by message IST619I and later by IST621I or IST129I to report the success or failure of the recovery actions. A RECMS RU should always accompany this error. The RECMS is saved as a miscellaneous data record (MDR) on the system error recording data set or is passed to NPDA. Use Netview/NPDA or EREP to do the analysis.

**02**

Link failure.

**03**

Station INOP: SDLC Disconnect request received. An SNA-PU SDLC connection has terminated its link manager and is informing the primary station that it is not available (for example, it is offline).

**04**

Station INOP: SDLC Request Disconnect response received. During normal SDLC link activity, a RR poll received a DISC. This usually means that the secondary station is requesting a DISC from the primary.

**05**

Station INOP: SDLC Disconnect Mode received. The transmitting secondary SDLC station is disconnected.

**06**

Station INOP: IPL or dump in progress.

**07**

Station INOP: Remote power off (RPO) in progress.

**08**

Link: Unconditional reset by force deactivate DACTLINK.

**0A**

X.21 switched link: Outgoing call establishment failed because the X.21 call-progress signal was received but is not included in bytes 6-7.

**0B**

X.21 switched link: Outgoing call establishment failed because of data circuit-terminating equipment (DCE) signaling DCE clear condition.

**0C**

X.21 switched link: Outgoing call establishment failed because of expiration of time-out on changing DCE conditions.

**0D**

X.21 switched link: There was an unexpected loss of connection during the X.21 call phase.

**0E**

X.21 switched link: A failure occurred during the X.21 call-clearing phase.

**0F**

X.21 switched link: An outgoing call establishment failed. X.21 call progress signals were received and are included in the INOP.

**FD**

BSC line: BSC cluster PU=YES modem failure occurred. The line and the PU will be deactivated.

**FE**

Station INOP: Station INOP on S/370 channel-link occurred.

**FF**

Link: S/370 channel-link failure occurred.

*text* is displayed if *code* is hex **0F**, and describes the call progress signal (CPS).

*text* can be one of the following:

- **CPS = UNRECOGNIZED CALL PROGRESS SIGNAL**

- **CPS = *yy* - [*descr*]**

The values of *yy* (expressed in decimal) and optionally *descr* can be one of the following:

*yy*

*descr*



20	NO CONNECTION
21	NUMBER BUSY
22	PROCEDURE ERROR
23	TRANSMISSION ERROR
41	ACCESS BARRED
42	CHANGED NUMBER
43	NOT OBTAINABLE
44	OUT OF ORDER
45	CONTROLLED NOT READY
46	UNCONTROLLED NOT READY
47	DCE POWER OFF
48	INVALID FACILITY REQUEST
49	NETWORK FAULT IN LOCAL LOOP
51	CALL INFORMATION SERVICE
52	INCOMPATIBLE USER
61	NETWORK CONGESTION
71	L.T. NETWORK CONGESTION
72	RPOA OUT OF ORDER
81	REGISTRATION/CANCELLATION CONFIRMED

## System action

Processing continues.

## Notes:

1. VTAM does not attempt recovery for error code **02**. Link failures are not recoverable.
2. If an INOP occurs before processing of an earlier INOP, VTAM does not attempt recovery. The node is deactivated.
3. For switched PUs:
  - For peripheral PUs, VTAM does not attempt recovery for any error codes.
  - For subarea PUs, VTAM attempts recovery only for error code **01**.

## Operator response

This is probably a hardware error. Save the system log for problem determination. Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on service aid programs.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this INOP code.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information on non-VTAM subarea network problems associated with this message and for examples of IST259I problems and diagnosis.

## System programmer response

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

8

## Descriptor code

4

---

<b>IST260I</b>	<b><i>ncpname</i> — <i>sscpname</i> SESSION LOST, SA subarea CODE code</b>
----------------	--

---

## Explanation

The session between SSCP *sscpname* and NCP *ncpname* failed. *subarea* is the subarea of *ncpname*. The hexadecimal reason code *code* can be one of the following:

### 07

Virtual route inoperative: VR INOP received for the virtual route used by the SSCP-PU session.

### 0A

Forced deactivation of the SSCP-PU session: DACTPU received by the PU.

### 0B

Virtual route deactivated: A forced deactivation occurred for the virtual route used by the SSCP-PU session.

### 0C

SSCP failure.

**Note:** If *sscpname* is **\*\*\*NA\*\*\***, the name for this SSCP was not available or could not be determined.

## System action

None.

## Operator response

If you have been instructed to provide backup procedures for *ncpname*, do so.

## System programmer response

Define the recovery procedures that the network operator should perform when VTAM issues this message.

## Routing code

2

## Descriptor code

5

---

IST262I	{ACBNAME LUNAME} = <i>nodename</i> , STATUS = <i>status</i>
---------	---

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY TSOUSER command. It appears twice in the group, first with **ACBNAME** displaying the application status *status* of the application name *nodename* with which the TSO user ID is associated, and second with **LUNAME** displaying the status *status* of the logical unit *nodename*.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *status*.

**Note:** Other messages in this group display the name of the TSO user ID associated with the application and the logical unit (LU). This message is followed by message IST486I, which indicates the current status of the TSO user ID.

If the TSO user ID has been disconnected from the LU, the LU *status* will still be **ACT/S** (active and in session) if it is in session with another application. To find the LU's session partner, you may enter a DISPLAY ID command for the logical unit *nodename*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

5

---

IST264I	REQUIRED resource [ <i>luname</i> ] reason
---------	--

---

## Explanation

VTAM issues this message as part of a group of messages when a resource requests a session, and the session initiation request fails for one of the reasons listed below. The first message in the group is IST663I.

Message IST664I, which is part of the IST663I message group, shows the names of the partners for which a session could not be established.

The combination of *resource* and *reason* might be any of the following:

**ADJSSCP TABLE**  
**UNDEFINED**

**COS NAME** *cosname*

**UNDEFINED**

**LOGMODE NAME** *logmode*

**UNDEFINED**

**RESOURCE** *luname*

**UNDEFINED**

**RESOURCE** *luname*

**NOT ACTIVE**

**RESOURCE** *luname*

**UNSTABLE** (device-type LUs only)

**RESOURCE** *luname*

**DISABLED**

**RESOURCE** *luname*

**QUIESCING**

**RESOURCE** *luname*

**BLOCKING LOGONS** (for application PLUs only)

**STORAGE**

**NOT AVAILABLE**

*luname* appears when *resource* is **RESOURCE**. *luname* is the real name of the LU or application that was in error. If the SLU is not known, **\*\*\*NA\*\*\*** is displayed for *luname*.

- If *luname* is the SLU, the resource is undefined, not active, disabled, or quiescing.
- If *luname* is the PLU, the resource is undefined, not active, disabled, quiescing, or blocking logons.
- For *cosname*, no CoS (class of service) entry with that name has been defined. *cosname* is blank if the default Class of Service was used.
- For *logmode*, the logon mode is not valid for the SLU because:
  - The logon mode is not in the logon mode table for the SLU in the VTAM definition statements.
  - No logon mode table is associated with the SLU, and the logon mode is not included in the default logon mode table.
  - No valid logon mode table is associated with the SLU, and no default logon mode table exists.
- If *logmode* is not provided or contains blanks, IST264I is still issued. **\*\*\*NA\*\*\*** is displayed for *logmode*.

## System action

VTAM rejects the session initialization request. The session setup fails.

## Operator response

Follow the appropriate action:

- If the required resource is **UNDEFINED**, enter a VARY ACT command to activate the resource major node in which the resource is defined.
- If the required resource is **NOT ACTIVE**, enter a VARY ACT command to activate the resource. If the resource is an application program, start it.
- If the required resource is **UNSTABLE**, it might be going through some type of error recovery process. This can be due to ERP, an INOP, or session termination. Display the resource and try the request again after it has recovered.
- If the required resource is **DISABLED** and it is a device type LU, check to determine whether it is powered on.
- If the required resource is **DISABLED** and it is an application program, start the application program or ensure that the application has issued SETLOGON START.

- If the required resource is an application program and is **QUIESCING**, SETLOGON QUIESCE is in effect. The application program is shutting down and cannot accept new sessions unless VTAM closes and reopens the ACB.
- If the required resource is an application program, and the ACB was opened with MACRF=NLOGON, it is **BLOCKING LOGONS**. The only LU-LU sessions allowed for the application program are those initiated by the application program itself using OPNDST OPTCD=ACQUIRE.
- For a **LOGMODE** problem, verify that the resource specified the correct logon mode on the request. You can use the DISPLAY ID command to determine the table identified for the resource. You can use the MODIFY TABLE command to change the logon mode table name associated with a resource.
- If **STORAGE** is **NOT AVAILABLE**, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

## System programmer response

- For a **COS** problem, verify that you have defined the Class of Service.
- For a **LOGMODE** problem, either correct the logon mode table currently assigned to the SLU or assign a different logon mode table that does contain the correct mode.
- For a **STORAGE** problem, increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
  - See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
  - See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
  - See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
  - See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  - See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

8

## Descriptor code

4

---

**IST265I** *command FOR ID = nodename1 FAILED — DUP nodename2 HL  
highernode*

## Explanation

VTAM rejected *command* for node *nodename1* because this domain already has an active resource *nodename2*. *highernode* is the higher level nodename (either a PU name or a major node name) of *nodename2*.

## System action

VTAM rejects the command.

## Operator response

If the network requires *nodename1*, deactivate the segment that contains *nodename2* with the higher level node *highernode*, or enter a VARY REL command to release it.

If *nodename1* and *nodename2* are required simultaneously, one of the names must be changed. Save the system log for problem determination.

## System programmer response

Change one of the resource names if both are needed simultaneously.

## Routing code

8

## Descriptor code

4

---

**IST266I** *subtask* **STARTED**

## Explanation

VTAM issues this message in response to a MODIFY SUBTASK,FUNCTION=ATTACH command to start a specific *subtask*. The *subtask* could be TPRINT, subsystem support services, batch transfer program, or any routine for which the operator can enter a MODIFY SUBTASK,FUNCTION=ATTACH command. This message indicates that VTAM has successfully attached *subtask* as a subtask of VTAM.

## System action

VTAM successfully completed processing the MODIFY command.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST270I** **LOAD OF *ncpname* COMPLETE — LOAD MODULE = *loadmodname***

## Explanation

In response to a VARY ACT command, or to an NCP reload after an error recovery procedure, VTAM successfully loaded the communication controller NCP *ncpname* with load module *loadmodname*. The communication controller is now ready for use.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

### Descriptor code

5

**IST271I** **JOBNAME = *jobname*, STEPNAME = *stepname*, DSPNAME = *dspname***

### Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application program. The *jobname* and *stepname* listed are those of the job controlling the application program at the time of the request.

*dsname* is the name of the data space associated with the application program. The data space name is generated automatically when the data space is created by VTAM and is in one of the following formats:

**ACYcccc**

CCCCC is **0-FFFFC**

**ISTcccc**

CCCCC is **0-FFFFC**

ccccIST

CCCCC is **1-99999**

If *jobname*, *stepname*, or *dspname* are not available, VTAM issues **\*\*\*NA\*\*\***.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

### Descriptor code

5

**IST272A** **NO INITIAL TEST FOR *controller* – REPLY ‘U’ TO BYPASS – OR CANCEL**

## Explanation

While processing a VARY ACT command or during error recovery processing, VTAM attempted to load the communication controller *controller*. However, VTAM could not use the initial test routine of the load utility program prior to loading because VTAM could not use the file containing the initial test program.

The reason for this is either a permanent I/O error or erroneous or missing job control statements.

## System action

VTAM waits for a reply.

## Operator response

Either:

- Enter 'U' to bypass the initial test routine, that is, to initiate loading of the NCP without testing the hardware.
- Enter 'CANCEL' to cancel the loading operation.

**Note:** For additional information on how to respond to this message, see [“Responding to a VTAM message” on page 2](#).

## System programmer response

Check that the job control statements for the VTAM start procedure contain a DD statement with DDNAME INITEST and that the initial test program resides on SYS1.LINKLIB.

## Routing code

1

## Descriptor code

2

---

**IST278A****INVALID REPLY FOR ID = *controller* LOAD – ENTER 'U' – OR CANCEL**

---

## Explanation

The operator issued an invalid response to message IST272A. The message asked whether to load the communication controller *controller* with an NCP. The only valid responses are:

- 'U'—to bypass the initial test routine. In this case, the NCP is loaded without testing the hardware.
- 'CANCEL'—to cancel the request.

## System action

VTAM waits for a valid reply.

## Operator response

Examine previous messages about the communication controller in question and then make a valid reply. Any unacceptable reply will cause a repetition of this message.

**Note:** For additional information on how to respond to this message, see [“Responding to a VTAM message” on page 2](#).

## System programmer response

None.



## Routing code

1

## Descriptor code

2

---

**IST282A**

**INVALID REPLY FOR ID = *controller action reason***

---

## Explanation

The operator issued an invalid response to message IST095A or IST284A.

*action* can be one of the following:

- **RELOAD**
- **DUMP**

*reason* can be one of the following:

- **SYNTAX ERROR**
- **DUMPSTA = *dumpstaname* IS NOT AVAILABLE**
- **LOADSTA = *loadstaname* IS NOT AVAILABLE**

Valid responses are:

### **NO**

Applies to IST095A and IST284A

### **YES**

Applies to IST095A and IST284A

### **YES,DUMPSTA=*dumpstaname***

Applies to IST095A only

### **YES,LOADSTA=*loadstaname***

Applies to IST284A only

If the message indicates that dump *dumpstaname* or load station *loadstaname* is not available, then the link station is not active or is not connected to the communication controller *controller*, or the dump station *dumpstaname* does not support dump.

## System action

VTAM reissues the original message.

## Operator response

Enter YES if you want to dump or load the communication controller contents, NO if not.

**Note:** For additional information on how to respond to this message, see [“Responding to a VTAM message” on page 2](#).

## System programmer response

None.

## Routing code

1

## Descriptor code

3

---

IST284A

OPTION TO RELOAD *controller* AVAILABLE – REPLY ‘YES’ OR ‘NO’ OR  
‘YES,LOADSTA=LINKSTANAME’

## Explanation

The NCP running in communication controller *controller* has failed.

- If you want to reload the communication controller (over a channel), VTAM will determine whether the communication controller still needs to be loaded, and will proceed with the reload, if necessary.
- If you want to reload the communication controller (over an SDLC link), VTAM loads the communication controller automatically.
- If this host is not to reload the communication controller, as in the case of a shared communication controller where another host performs the reload, those link stations formerly in contact with the failed NCP will be activated. Reply NO after the completion of such a reload by another host.

## System action

VTAM waits for a reply. The nodes associated with this communication controller are inaccessible.

## Operator response

If this communication controller is multiple-channel or multiple-link attached, coordinate your reply with the reply of the operators of the other affected domains.

Each recovery operation **must** be completed before the next one is started.

To start reloading the controller in your domain using the default link station specified at VARY ACT or NCP generation, enter a reply of YES.

To specify a different link station, enter YES,LOADSTA=*linkstaname* where *linkstaname* is the name of the link station. If YES,LOADSTA= is specified without a link station name, VTAM chooses a default link station.

If you do not want this host to reload the communication controller, enter a reply of NO. In this case, if another host does not reload this communication controller, the communication controller’s resources will be unusable. You can enter a VARY INACT command to deactivate the NCP.

If all hosts sharing this communication controller specified NO and you subsequently decide to reload it with a VARY ACT command, you must enter a VARY INACT command **first** to deactivate it.

**Note:** For information on how to respond to this message, see [“Responding to a VTAM message”](#) on page 2.

## System programmer response

None.

## Routing code

1

## Descriptor code

2

---

IST285I

*dumptype* DUMP OF *resourcename status*

## Explanation

VTAM issues this message when the contents of the communication controller have been scheduled to be dumped to a disk, or have successfully or unsuccessfully been dumped to a data set.

*resourcename* is one of the following:

- The name of the NCP.

The data set is named in the DUMPDS operand of the MODIFY DUMP command or the DUMPDS, CDUMPDS, or MDUMPDS operands on the PCCU definition statement for the specified NCP.

- The name of an SDLC link station in an NCP in a communication controller that is adjacent to the communication controller containing the NCP to be dumped.

*dumptype* can be one of the following:

### STATIC

NCP processing stops. The contents of the communication controller are dumped by microcode services, and VTAM deactivates the major node associated with *resourcename*.

### DYNAMIC

NCP processing continues while the NCP contents are dumped. VTAM does not deactivate the NCP.

### MOSS

VTAM transfers a maintenance operator subsystem dump contained on the MOSS disk in the IBM 3720, 3725, or 3745 Communication Controller to a host data set.

### CSP

VTAM transfers a communication scanner processor dump contained on the MOSS disk to a host data set.

### TRANSFER

VTAM transfers an NCP dump contained in the IBM 3720, 3725, or 3745 Communication Controller to a host data set.

*status* can be one of the following:

### CANCELLED — PATH BLOCKED

VTAM attempted the dump but was unable to access the controller because it was being dumped or loaded by another host.

### CANCELLED — PATH NOT OPERATIONAL

VTAM attempted the dump but was unable to access the controller because the channel path was not operational. This is probably because the controller is in the process of being dumped or loaded by another host. However, this can also indicate a hardware or software problem.

### COMPLETE

The dump is complete.

### PARTIALLY COMPLETE

During dump processing, a permanent I/O error occurred on the communication controller, the dump data set, or the SDLC link. A portion of the dump is not usable. The dump data set might be too small to contain the entire dump.

**Note:** If ACTION=TRANSFER and either TYPE=CSP or TYPE=MOSS were specified on the MODIFY DUMP command, the BER log, CDF, TIC dump, and CA dump are transferred from the hard disk even when the CSP or MOSS dump is not present on the disk. This message indicates that data has been transferred to the dump data set even though the specified dump was not present.

### SCHEDULED TO DISK

The dump to disk request has been forwarded to the NCP *resourcename*.

### STARTED

The dump has begun.

### FAILED — PERMANENT I/O ERROR

During dump processing, an unrecoverable I/O error occurred on the communication controller or the dump data set. The dump is unusable.

**FAILED — *ddname* CANNOT BE OPENED**

VTAM attempted the dump, but could not open the dump data set defined by *ddname*. Dump processing terminated.

**FAILED — UNSUPPORTED DEVICE TYPE**

VTAM attempted the dump, but could not open the dump data set because it was located on an unsupported device. Dump processing terminated.

**System action**

If *status* is:

**CANCELLED — PATH BLOCKED**

The dump terminates, and VTAM waits for contact with NCP *resourcename* to be re-established.

**CANCELLED — PATH NOT OPERATIONAL**

The dump terminates, and VTAM waits for contact with NCP *resourcename* to be re-established.

**COMPLETE**

Processing continues.

**PARTIALLY COMPLETE**

The dump terminates.

**SCHEDULED TO DISK**

Processing continues.

**STARTED**

The dump has begun.

**FAILED — PERMANENT I/O ERROR**

The dump terminates.

**FAILED — *ddname* CANNOT BE OPENED**

The dump terminates.

**FAILED — UNSUPPORTED DEVICE TYPE**

The dump terminates.

**Operator response**

If *status* is:

**CANCELLED — PATH BLOCKED**

None.

**CANCELLED — PATH NOT OPERATIONAL**

If contact with NCP *resourcename* is not re-established in a few minutes, save the system log for problem determination.

**COMPLETE**

You can format the entire dump using the NCP dump utility program.

**PARTIALLY COMPLETE**

If the dump is valid and enough data was saved, you can format and print the portion of the dump that was taken using the NCP dump utility program. Dump utility messages will provide information about the validity of the dump and data saved.

Attempt to dump the NCP using the NCP dump utilities. See the *NCP, SSP, and EP Diagnosis Guide* for information on using the NCP dump utilities.

Save the system log for problem determination, and run your operating system service aid program. See the *EREP User's Guide and Reference* for more information on using EREP.

**SCHEDULED TO DISK**

Re-establish communication with the NCP *resourcename* and query the MOSS disk for the dump status. If the dump is present, you can use the MODIFY DUMP command to transfer the dump to a host data set. The dump can be formatted and printed using the utility program.

**STARTED**

None.

**FAILED — PERMANENT I/O ERROR**

This is probably a hardware error.

- Make sure the communication controller is powered on.
- Check the HARD STOP and PROGRAM STOP indicators on the communication controller operator panel. If either indicator is on, press the LOAD switch.
- If the communication controller is switchable between processors, make sure the communication controller is switched to the VTAM host processor.
- Attempt to dump the NCP using the NCP dump utilities. See the *NCP, SSP, and EP Diagnosis Guide* for information on using the NCP dump utilities.
- Save the system log for problem determination, and run your operating system service aid program. See the *EREP User's Guide and Reference* for more information on using EREP.

**FAILED — ddname CANNOT BE OPENED**

If you specified the dump data set name correctly, save the system log for problem determination.

**FAILED — UNSUPPORTED DEVICE TYPE**

Ensure that the dump data set resides on a supported access device. If the problem persists, save the system log for problem determination.

**System programmer response**

If *status* is:

**CANCELLED — PATH BLOCKED**

None.

**CANCELLED — PATH NOT OPERATIONAL**

Take the following actions:

1. Check the channel definition in the NCP definition library to ensure that the channel adapter that failed is defined to NCP *resourcename*.
2. If the channel adapter is correctly defined to NCP *resourcename*, this is probably a hardware error. Ensure that the channel adapter is online from MOSS.
3. If the channel adapter is online, and you continue to have problems, contact the IBM hardware support center.

**COMPLETE**

None.

**PARTIALLY COMPLETE**

You might need to increase the size of the dump data set. If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

**SCHEDULED TO DISK**

None.

**STARTED**

None.

**FAILED — PERMANENT I/O ERROR**

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

**FAILED — ddname CANNOT BE OPENED**

Ensure that

- The dump data set name is spelled correctly on either the DUMPDS operand of the MODIFY DUMP command or the DUMPDS, CDUMPDS, or MDUMPDS operands of the PCCU definition statement.
- The appropriate JCL statements are included with the VTAM start options.

Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system. When you have corrected the error condition, ask the operator to reenter the command.

#### **FAILED – UNSUPPORTED DEVICE TYPE**

Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system. When you have corrected the error condition, ask the operator to reenter the command.

### **Routing code**

2

### **Descriptor code**

5

---

<b>IST302I</b>	<b>INVALID DEFINITION TYPE IN MEMBER <i>member</i> IN VTAM DEFINITION LIBRARY</b>
----------------	---

---

### **Explanation**

VTAM issues this message when:

- The first definition statement or macro in major node definition *member* is not valid. The statement in error can be an operand on the definition statement. One possible cause of this error is that a definition statement is in the wrong column.
- The first definition statement or macro in major node definition *member* is not compatible with a VTAM start option or the start option is not specified correctly.

**Note:** Activating an NCP requires special consideration. VTAM selects the PCCU definition statement associated with this host by comparing the SUBAREA keyword value with the subarea of this host (specified by HOSTSA start option). If VTAM finds no PCCU definition statement with that subarea value, VTAM issues this message. For further information, see the descriptions of the PCCU definition statement and the HOSTSA start option in the [z/OS Communications Server: SNA Resource Definition Reference](#).

### **System action**

VTAM does not include major node *member* in the VTAM network.

### **Operator response**

Save the system log for problem determination, and print the major node definition.

### **System programmer response**

Correct the definition that is not valid and update *member* in the definition library.

### **Routing code**

2

### **Descriptor code**

5

---

<b>IST303I</b>	<b>INSUFFICIENT STORAGE TO BUILD CONFIGURATION <i>configname</i></b>
----------------	--

---

### **Explanation**

VTAM terminated processing of major node *configname* because the storage required for internal VTAM tables associated with that major node is not available.

The size of the storage requested exceeds the limit that can be allocated for a single request. This can occur when you activate a major node with too many resources defined. The storage limit on the size of a major node is 33 554 423 bytes.

## System action

VTAM does not include major node *configname* in the VTAM network.

## Operator response

Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a dump for problem determination.

If necessary, reduce the number of resources in the major node *configname* being activated.

## System programmer response

This message indicates an underestimation of storage requirements for the VTAM address space.

- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps](#) and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command and the MODIFY VTAMOPTS command.

## Routing code

2

## Descriptor code

5

**IST309I**                      **UNABLE TO LOAD MODULE *loadmodname* FROM LIBRARY [*libraryname*]**

### Explanation

VTAM could not load the communication controller (NCP, RRT) specified by *loadmodname* from library *libraryname*.

## System action

VTAM could not activate the communication controller associated with the load module and library combination.

## Operator response

Save the system log for problem determination.

## System programmer response

Inspect *libraryname* for missing or misnamed *loadmodname*. If *loadmodname* is missing, assume that the NCP was not generated successfully. Check the NCP generation output, correct the NCP system generation, and try the activation again.

## Routing code

2,4,8

## Descriptor code

5

---

<b>IST310I</b>	<b>INVALID SPACE REQUEST FOR CONFIGURATION <i>majornode</i></b>
----------------	---

---

## Explanation

VTAM issues this message in response to a VARY ACT command for *majornode*. VTAM cannot proceed because it encountered an entry that does not fit in the preallocated build area.

## System action

The VTAM network will not contain major node *majornode*.

## Operator response

Try the VARY ACT command again for this major node. If the condition persists, save the system log for problem determination.

## System programmer response

Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on diagnosing VTAM problems.

## Routing code

2

## Descriptor code

5

---

<b>IST311I</b>	<b>NCP LOAD MODULE LIBRARY <i>libraryname</i> – FAILED TO OPEN</b>
----------------	--

---

## Explanation

VTAM attempted to open the communication controller NCP load module library *libraryname*, but the OPEN failed.

## System action

VTAM cannot activate a communication controller whose NCP system generation output is on library *libraryname*.

## Operator response

Ensure that you entered *libraryname* correctly. If problems persist, save the system log for problem determination.

## System programmer response

Use the output provided to assist you in determining the reason for the failure. When the problem is corrected, try the activation of the communication controller again.

## Routing code

2,4,8



## Descriptor code

5

IST314I

END

## Explanation

This message marks the end of a message group. See previous messages in the group for more information.

## Routing code

2

## Descriptor code

5

IST315I

VTAM INTERNAL TRACE ACTIVE – MODE = *modename*, SIZE = *size unit*

## Explanation

This message is part of a group of messages. Possible message groups follow.

- This message group is issued in response to a MODIFY TRACE,TYPE=VTAM command or MODIFY NOTRACE,TYPE=VTAM command .

**Note:** The IST2445I message will only be displayed when the VITCTRL value of FULL is in effect and is only associated with the VTAM internal trace. The IST2446I message will be displayed when disabling a VIT option contained in the STDOPTS group with both VITCTRL value of FULL is in effect and an active CSDUMP with either a message or sense code trigger.

```
IST315I  VTAM INTERNAL TRACE ACTIVE - MODE = EXT, SIZE = bfrnum BUFFERS
IST199I  OPTIONS = {NONE|optionlist}
IST315I  VTAM INTERNAL TRACE ACTIVE - MODE = INT, SIZE = size MB
[IST2445I VTAM INTERNAL TRACE CONTROL IS IN FULL MODE]
IST199I  OPTIONS = {NONE|optionlist}
[IST2446I DISABLING A VIT OPTION IN STDOPTS GROUP WHILE CSDUMP ACTIVE]
IST1730I SUBTRACE subtrace ACTIVE UNDER TRACE OPTION traceopt
IST314I  END
```

- This message group is issued in response to a DISPLAY TRACES command when TYPE=VTAM or TYPE=ALL is specified on the command.

**Note:** The IST2445I message will be displayed only when the VITCTRL value of FULL is in effect and is only associated with the VTAM internal trace.

```
IST350I  DISPLAY TYPE = TRACES,TYPE=VTAM
IST315I  VTAM INTERNAL TRACE ACTIVE - MODE = EXT, SIZE = bfrnum BUFFERS
IST199I  OPTIONS = {NONE|optionlist}
IST315I  VTAM INTERNAL TRACE ACTIVE - MODE = INT, SIZE = size MB
[IST2445I VTAM INTERNAL TRACE CONTROL IS IN FULL MODE]
IST199I  OPTIONS = {NONE|optionlist}
IST1730I SUBTRACE subtrace ACTIVE UNDER TRACE OPTION traceopt
IST314I  END
```

## IST350I

This message identifies the type of information shown in the display. For this message group, *type* is always **TRACES,TYPE=VTAM**, and the display contains the status of the VTAM internal trace.

## IST315I

- *modename* is **EXT** (external) or **INT** (internal) and indicates where the VTAM internal trace data is recorded.
  - If **MODE = EXT**:
    - The external trace is writing records to a generalized trace facility (GTF) data set.

- *bfrnum* specifies the number of 8K GTF buffers that VTAM is using for external trace processing. VTAM will accumulate approximately 8K of external trace data prior to sending the data to GTF via GTRACE. If 0 is indicated then VTAM is sending each trace record (or logical group of trace records) individually to GTF via GTRACE. Running in this mode should be avoided due to the large system overhead involved. It is only provided for backward compatibility reasons.
- *unit* is always BUFFERS for **MODE = EXT.**
- If **MODE = INT:**
  - The internal trace is writing records in an internal trace table.
  - *size* specifies the number of megabytes allocated for the internal trace table. When this area has been filled, the table wraps.

The default and minimum internal trace table size is 4 (megabytes).

Storage for the internal trace table is obtained from the 64-bit common area.

- *unit* is always MB for **MODE = INT.**

### IST2445I

VTAM issues this message when a value of FULL is coded for the VITCTRL Start Option in z/OS Communications Server: SNA Resource Definition Reference. VTAM only includes this message when *modename* is INT on message IST315I.

When VTAM Start Option VIT Control (VITCTRL) is set to FULL, all trace options are under the user's full control. VTAM only starts the default set of VIT options, as defined in the VIT option set STD\_OPTS, during VTAM start processing or when another VIT option set is activated for internal mode VIT processing. In addition, *optionlist* in message IST199I contains the current set of VIT options exactly as specified by the user. When a CSDUMP message or code trigger is active the following exceptions apply to a user's full control of the internal VIT:

- For VTAM start processing the VIT option set STD\_OPTS will be enabled.
- You cannot disable the VIT MSG option with a MODIFY NOTRACE command when MODE=INT is specified.

### IST2446I

VTAM issues this message when disabling a VIT option contained in the STD\_OPTS group with both VITCTRL=FULL in effect and an active CSDUMP with either a message or sense code trigger. See z/OS Communications Server: SNA Resource Definition Reference. VTAM only includes this message when *modename* is INT on message IST315I.

When VTAM Start Option VIT Control (VITCTRL) is set to FULL and there is an active CSDUMP with either a message or sense code trigger then all trace options except for MSG are under the user's full control. In addition, *optionlist* in message IST199I contains the current set of VIT options exactly as specified by the user.

### IST199I

This message displays the functions being traced. A list of all user-selected options being traced for TYPE=VTAM appears in this message.

- If *modename* is INT on message IST315I, and message IST2445I is displayed, *optionlist* includes the list of user-selected options exactly as specified by the user. If **OPTIONS=NONE**, no user-selected internal trace options are active.
- If *modename* is INT on message IST315I, and message IST2445I is not displayed, *optionlist* displays the list of user-selected options being traced, but additional VTAM default trace options (API, PIU, MSG,SSCP, CIO, and NRM) are also active even if they do not appear in *optionlist*. If **OPTIONS= NONE**, no user-selected internal trace options are active, and only exception conditions and VTAM default trace options are being traced.
- If *modename* is EXT on message IST1315I, *optionlist* includes the list of user-selected options exactly as specified by the user.

*optionlist* can include the following options:

#### API

Application program interface

**APPC**

LU 6.2 communication

**CFS**

Coupling facility services

**CIA**

Channel I/O Auxiliary

**CIO**

Channel I/O

**CSM**

Communications storage manager

**ESC**

Execution sequence control

**HPR**

High performance routing

**LOCK**

VTAM locking services

**MSG**

Message to operator

**NRM**

Network resource management

**PIU**

Path information unit

**PSS**

Process scheduling services

**SMS**

Storage management services

**SSCP**

System services control point

**TCP**

VTAM to TCP/IP interface events

**VCNS**

VTAM Common Network Services

**XBUF**

Extended buffer list

**XCF**

Cross coupling facility

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information about VTAM internal trace options.

**IST1730I**

*subtrace* is the SUBTRACE type currently active. The values for *subtrace* are **TREE** and **ARBP**.

*traceopt* is the trace option associated with the SUBTRACE type. The values for *traceopt* are **SSCP** and **HPR**.

This message displays an active SUBTRACE type and its associated trace option. The trace option must be specified on the command used to activate or deactivate the subtrace type.

The SUBTRACE type TREE under trace option SSCP traces APPN routing trees used for APPN sessions.

The SUBTRACE type ARBP under trace option HPR traces ARBP entries for all RTP connections utilizing the ARBP algorithm.

## System action

- If this message is in response to a MODIFY TRACE command or a TRACE start option, the VTAM internal trace (VIT) begins.
- If this message is in response to a DISPLAY TRACES command, other processing continues.

## Operator response

If the setting of the VITCTRL start option is not correct, issue MODIFY VTAMOPTS to correct the start option value. If the list of VIT options is not the desired set of VIT options, issue the **MODIFY TRACE,TYPE=VTAM** command to set the correct VIT options. If you want to dump the trace records, use your installation-defined procedure or obtain instructions from the system programmer. See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on the VTAM internal trace.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST316I**

**VTAM INTERNAL TRACE USER OPTIONS ARE NOT ACTIVE**

## Explanation

VTAM issues this message in response to a DISPLAY TRACES command or a MODIFY NOTRACE,TYPE=VTAM,OPT=END command. This message indicates that all user-selected internal trace options are now inactive.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST317I**

**VTAM INTERNAL TRACE ACTIVATION FAILED – INSUFFICIENT  
STORAGE**

## Explanation

VTAM attempted to activate its internal trace as a result of a MODIFY TRACE,TYPE=VTAM command, or as a result of a TRACE,TYPE=VTAM start option. The attempt to obtain storage for a trace table failed.

## System action

VTAM rejects the request.

## Operator response

Contact the system programmer.

## System programmer response

An attempt to allocate the VIT table from HVCOMMON failed or an attempt to acquire ECSA to support the VIT failed.

You might need to increase the HVCOMMON parameter value on the IEASYSxx parmlib member of SYS1.PARMLIB. Refer to MVS Initialization and Tuning for more information.

- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command and the MODIFY VTAMOPTS command.

## Routing code

2

## Descriptor code

5

---

<b>IST319I</b>	<b>CONFIGURATION <i>configname</i> FIRST SPECIFICATION USED <i>reason</i></b>
----------------	---

## Explanation

During the activation of configuration *configname*, VTAM encountered an error in an NCP definition statement or a VTAM definition statement.

*reason* can be one of the following:

**COMBINATION ERROR**  
**DUPLICATE PARAMETER**  
**EXTRA PARAMETER**  
**EXTRA VALUE**

A second message, IST323I, provides details of the error.

## System action

The VTAM network will include *configname* defined with the first specification found.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the information in this message and in message IST323I to determine the cause of the error. Correct the definition statement in error for future use.

The NCP definition statements are described in the *NCP Resource Definition Guide* and the *NCP Resource Definition Reference*

The VTAM definition statements are described in the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

IST320I	DEFINITION <i>configname</i> NOT SUCCESSFUL — <i>reason</i>
---------	---

---

## Explanation

During activation of configuration *configname*, VTAM detected an error in an NCP definition statement or VTAM definition statement.

*reason* can be one of the following:

- DUPLICATE MACRO
- INSUFFICIENT STORAGE
- INVALID MAJOR NODE NAME
- INVALID NAME
- INVALID PARAMETER
- INVALID VALUE
- MISSING PARAMETER
- MISSING MACRO
- MISSING NAME
- PARAMETER CONFLICT
- SEQUENCE ERROR
- SYNTAX ERROR

A second message, IST323I, provides details of the error.

## System action

The VTAM network will not include configuration *configname*. If *reason* is **INVALID MAJOR NODE NAME**, the dynamic PUs and LUs supplied by the VTAM Configuration Services Exit will not be created.

## Operator response

If *reason* is **INSUFFICIENT STORAGE** and **VTAM has been initialized**, wait a short time and attempt to reactivate *configname*. If VTAM continues to issue this message, enter the DISPLAY BFRUSE and DISPLAY STORUSE commands. Save the system log and request a dump for problem determination. If **VTAM initialization failed**, save the system log for problem determination.

For all other *reasons*, save the system log for problem determination.

## System programmer response

Use the information in this message and in message IST323I to determine the cause of the error. Correct the definition statement.

- If the error is in an NCP definition statement, correct the statement and regenerate the NCP.
- If the error is in a VTAM definition statement, update the VTAM definition library to correct the definition of configuration *configname*. For more information on VTAM definition statements, see the [z/OS Communications Server: SNA Resource Definition Reference](#) .
- If *reason* is **INSUFFICIENT STORAGE**, the storage required for internal VTAM tables is not available. Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
  - See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
  - See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
  - See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
  - See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  - See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
- If *reason* is **INVALID MAJOR NODE NAME**, the VTAM Configuration Services Exit, ISTECCS, has supplied a major node name to VTAM that is not valid. The following rules apply to the name supplied:
  - *configname* must be 1-8 characters
  - The first character must be alphabetic or national; remaining characters must be alphabetic, national, or numeric
  - *configname* must not start with IST

Based on the preceding rules, if a valid name is supplied and the major node already exists, the following rules must also apply to the major node name:

- The resource must be a switched major node.
- The switched major node must be dynamic.
- The major node must be in an ACTIVE state.

You can use the MODIFY EXIT command to install a new version of ISTECCS.

## Routing code

2

## Descriptor code

5

---

**IST321I****CONFIGURATION *configname* DEFAULT TAKEN — *reason***

## Explanation

During activation of configuration *configname*, VTAM encountered an error in an NCP definition statement or a VTAM definition statement.

*reason* can be one of the following:

### **COMBINATION ERROR**

**DUPLICATE PARAMETER**  
**EXTRA PARAMETER**  
**EXTRA VALUE**  
**INVALID PARAMETER**  
**INVALID VALUE**  
**MISSING PARAMETER**  
**PARAMETER CONFLICT**

A second message, IST323I, provides details of the error.

## System action

VTAM assumes the appropriate defaults and continues processing.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the information in this message and in message IST323I to determine the cause of the error. Correct the definition statement in error for future use. The NCP definition statements are described in the *NCP Resource Definition Guide* and the *NCP Resource Definition Reference*. The VTAM definition statements are described in the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST322I**

**CONFIGURATION *configname* ERROR IGNORED – reason**

## Explanation

During activation of configuration *configname*, VTAM encountered an error in an NCP definition statement or in a VTAM definition statement.

VTAM is ignoring the definition statement or an operand for one of the following *reasons*:

**COMBINATION ERROR**  
**DUPLICATE NAME**  
**DUPLICATE PARAMETER**  
**DUPLICATE VALUE**  
**EXTRA MACRO**  
**EXTRA PARAMETER**  
**EXTRA VALUE**  
**INVALID LENGTH ERROR**  
**INVALID MACRO**  
**INVALID NAME**  
**INVALID PARAMETER**  
**INVALID VALUE**  
**MISSING MACRO**  
**MISSING NAME**  
**MISSING PARAMETER**



**MISSING VALUE**  
**PARAMETER CONFLICT**  
**SEQUENCE ERROR**  
**SYNTAX ERROR**  
**TABLE LOAD FAILURE**  
**TABLE NOT FOUND**  
**TABLE NOT VALID**

Two additional messages, IST323I and IST330I, provide details of the error.

## System action

VTAM continues processing the definition statement, but ignores the incorrect operand.

## Operator response

If *reason* is **TABLE LOAD FAILURE**, **TABLE NOT FOUND**, or **TABLE NOT VALID**, try loading the table with the MODIFY TABLE command after the configuration is complete.

For all other *reasons*, save the system log and network logs, and print the major node definition for problem determination.

## System programmer response

Use the information in this message and in messages IST323I or IST330I to isolate the cause of the error.

If *reason* is **TABLE LOAD FAILURE** or **TABLE NOT FOUND**, ensure that the table exists in the system library.

If *reason* is **TABLE NOT VALID**, ensure that a valid table name was coded for the type of table being created. If not, correct the table name on the definition statement and reactivate the configuration *configname*. If *reason* is **TABLE NOT VALID** during a dynamic reconfiguration attempt involving a USS table, make sure the USSTAB is coded with FORMAT=DYNAMIC.

For all other *reasons*, correct the statement in error for future use. The NCP definition statements are described in the *NCP Resource Definition Guide* and the *NCP Resource Definition Reference*. The VTAM definition statements are described in the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST323I** LABEL = *labelname* — MACRO TYPE = *macrotype* — KEYWORD = *keyword*

## Explanation

This message supplements messages IST319I, IST320I, IST321I, IST322I, IST363I, IST886I, and IST979I. Although the definition can contain mixed cases, all values displayed in the message are in uppercase.

*labelname* is the name or label of the macro or statement in error.

*macrotype* is the type of macro.

*keyword* shows the actual keyword (or the first 8 characters of the keyword) that was in error.

**Tip:** If PORTNAME is being specified on a TRLE definition and *keyword* is READ, the READ address must be an even number that is one less than the address specified on the corresponding WRITE operand. For example, if you specify 500 on the READ operand, you must specify 501 on the WRITE operand.

## System action

The action carried out is given in the preceding message.

## Operator response

Save the system log for problem determination.

## System programmer response

Locate the keyword in error on the macro labeled *labelname*. Use the previous error message for the specific problem with that keyword.

If *macrotype* is **PU** and *labelname* is a model PU, check the definition to determine whether the TRLE keyword is coded. The TRLE keyword signifies that the model PU is for XCF. An XCF model PU definition requires specific values to be coded for some keywords or to be allowed to default to the correct values.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for the correct use of VTAM operands on NCP definition statements.

**Note:** If *macrotype* is **\*** and *keyword* is **\*\*\*NA\*\*\***, then the error is due to miscoding a comment line in the definition deck. Comment lines must have an asterisk (\*) in column one. Placing the asterisk in a different column will generate this error message.

## Routing code

2

## Descriptor code

5

---

IST324I

***procedure* IN PROGRESS WITH ID = *nodename* DUE TO *runame*  
REQUEST**

## Explanation

VTAM issues this message when *procedure* for *nodename* is in progress.

*procedure* was initiated by request unit *runame* (a cross-domain request), which was sent from *nodename* to this domain's cross-domain resource manager (CDRM). Possible values are: **INACT**, **ACTIVATE**, or **RESET**.

See [Chapter 16, "Command and RU types in VTAM messages,"](#) on page 1683 for a description of *runame*.

## System action

Processing continues.

## Operator response

Check with the operator of *nodename*'s domain. Determine whether further action is required in order to complete this request.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST326I

**REQUEST = *runame* FAILED FOR *procedure* ID = *nodename*, SENSE = *code***

### Explanation

The processing of *procedure* for request unit (RU) *runame* in resource *nodename* failed. The cause of the failure is indicated by the sense *code*.

See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *runame*.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

### System action

Processing continues. VTAM should complete processing of *procedure* successfully in this domain, but the status of *procedure* in *nodename*'s domain is uncertain.

### Operator response

If VTAM completes processing of *procedure* successfully, no response is necessary in this domain. However, notify the operator of *nodename*'s domain because action will be required to complete that domain's processing of *procedure*.

For example,

**REQUEST = DACTCDRM FAILED FOR INACT ID = *nodename*, SENSE = 80020000**

One of the SNA requests sent during a cross-domain resource manager (CDRM) deactivation procedure is DACTCDRM. This request did not reach *nodename* because of a link failure (sense code 8002).

VTAM completes deactivation successfully in this domain, but the deactivation processing in *nodename*'s domain is waiting for the lost DACTCDRM. In this example, the operator in *nodename*'s domain should enter a DISPLAY ID command for *nodename* followed by a VARY INACT,TYPE=FORCE command for this domain's CDRM in order to complete the deactivation procedure. Ask the operator of the other domain to complete the problem determination action.

Save the system log for problem determination.

### System programmer response

Use the output provided by the operator and the description of *code* to assist in determining the reason for the failure. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on diagnosing VTAM problems.

## Routing code

2

## Descriptor code

5

---

IST327I

***procedure* ID = *nodename* INCOMPLETE, REQUEST = *runame*, SENSE = *code***

### Explanation

VTAM is unable to complete the processing of procedure *procedure*. This procedure (either INACT or ACTIVATE) was initiated by request unit (RU) *runame*. The cause is indicated by the sense *code*.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1683 for a description of *runame*.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

## System action

VTAM has not completed the processing of *procedure*.

## Operator response

Notify the operator of *nodename*'s domain that commands might have to be entered from that domain as well as from yours. Find out the commands and operands that were entered from that domain.

For example,

**INACT ID = *nodename* INCOMPLETE, REQUEST = CDTAKEDOWN, SENSE = 08090000:**

One of the requests sent during a cross-domain resource manager (CDRM) deactivation procedure is CDTAKEDOWN. CDRM *nodename* rejected this request because it and this domain's CDRM are not synchronized (08090000 indicates mode inconsistency). This could be caused by operator commands entered in the different domains interfering with each other, or by a system error in one of the CDRMs. Enter a VARY INACT command in both domains to complete the deactivation procedure.

## System programmer response

Consult *Systems Network Architecture Format and Protocol Reference Manual: Architectural Logic* for a description of how cross-domain protocols operate.

## Routing code

2

## Descriptor code

5

---

**IST328I**

**COMMUNICATION WITH CDRM ID = *cdrmname* LOST**

## Explanation

Communication with cross-domain resource manager *cdrmname* is no longer possible. *cdrmname*'s subarea failed or a subarea in a migration mode path to *cdrmname* failed.

## System action

Although *cdrmname* and its existing sessions remain active, VTAM marks *cdrmname* as lost. VTAM can establish no new sessions with cross-domain resources managed by *cdrmname*. Existing sessions remain active as long as the physical path being used still exists.

## Operator response

To determine whether any sessions are active, enter a DISPLAY ID command for *cdrmname* and then enter a DISPLAY ID command for each cross-domain resource listed as active. This will show you which resources have sessions with *cdrmname*.

To establish new sessions, deactivate and then reactivate *cdrmname*. To deactivate *cdrmname*, use the VARY INACT,TYPE=FORCE command.

Follow the same procedure at other hosts involved in the lost subarea issue.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST330I	TABLE TYPE = <i>tabletype</i> NAME = <i>tablename</i>
---------	---

---

## Explanation

This message supplements message IST322I. VTAM could not load the table type *tabletype*, table name *tablename*.

For information about coding tables, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## System action

VTAM continues processing using the previously loaded table.

## Operator response

If the problem persists, save the system log for problem determination.

## System programmer response

Ensure that *tablename* is the name of a *tabletype* table and that it exists in the definition library.

## Routing code

2

## Descriptor code

5

---

IST331I	CONFIG <i>configname</i> BYPASSED – ‘MAXSUBA’ VALUES CONFLICT
---------	---

---

## Explanation

VTAM could not add the major node *configname* to the network for one of the following reasons:

- The MAXSUBA start option value in effect at the time the major node was first activated does not equal the value specified in the MAXSUBA start option.
- If the major node is a communication controller, the MAXSUBA value specified in the NCP BUILD generation definition statement does not equal the value specified in the MAXSUBA start option.

MAXSUBA is used only for migration purposes in order to communicate with a pre-V3R1 level of VTAM.

## System action

VTAM does not include major node *configname* in the VTAM network.

## Operator response

Save the system log for problem determination.

## System programmer response

The MAXSUBA values must match. Change the appropriate VTAM definition in the definition library.

- If the MAXSUBA value in the start option does not match the value that was in effect when the major node was activated, restart VTAM with the correct MAXSUBA value.
- For a communication controller, if the MAXSUBA value specified in the BUILD definition statement is incorrect, correct the BUILD definition statement, and regenerate the NCP.

**Note:** MAXSUBA can be coded on the NETWORK definition statement in the NCP. In a nonnative network, this is the MAXSUBA value that must match.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on the MAXSUBA start option and the BUILD definition statement.

## Routing code

2

## Descriptor code

5

---

IST333I	CONFIG <i>configname</i> USING DUPLICATE RESOURCE NAME <i>minornode</i> — CODE 3
---------	---

---

## Explanation

VTAM issues this message when the node name *minornode* used in major node *configname* duplicates a name already known to VTAM. All node names in a domain must be unique.

## System action

The node name *minornode* defines a subordinate node in an NCP definition. The major node *configname* is not included in the VTAM network.

## Operator response

Save the system log and print the major node definition for problem determination.

## System programmer response

Correct the duplicate names in the major node, and if the major node is the NCP, then also regenerate the NCP. Deactivate the major node containing the node that caused the failure.

## Routing code

2

## Descriptor code

5

---

IST336I	THIS NCP MAJOR NODE WAS <i>action</i>
---------	---------------------------------------

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command for an NCP major node that VTAM has acquired.

*action* is one of the following:

- **ACQUIRED BEFORE ACTIVATION**

This indicates that the NCP major node was acquired before being activated.

- **ACTIVATED BEFORE ACQUISITION**

This indicates that the NCP major node was activated before being acquired.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST339I

CONFIG *configname* BYPASSED — *minornode* UNKNOWN TO THE NCP

## Explanation

VTAM did not include the major node *configname* in the network configuration because *minornode* was unknown to the NCP. The NCP generation was probably not completed. VTAM issues this message when it cannot find a resource resolution table (RRT) extension or when an entry fails to meet DR ADD requirements.

## System action

VTAM did not add major node *configname* to the VTAM network.

## Operator response

Save the system log for problem determination.

## System programmer response

Rerun the NCP generation, ensuring that it runs to completion. You might need to include the LUDRPOOL macro in the NCP generation. See the *NCP Generation and Loading Guide* for more information.

## Routing code

2

## Descriptor code

5

---

**IST348I**

**UNABLE TO PROCESS DISCONNECTION FOR PU = *puname* DUE TO LACK OF STORAGE**

---

## Explanation

VTAM issues this message when the disconnection of physical unit *puname* failed because of lack of storage.

## System action

Processing continues.

## Operator response

Enter a VARY INACT,TYPE=FORCE command for *puname*. If you have frequent command failures because of insufficient storage, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST350I**

**DISPLAY TYPE = *type***

---

## Explanation

This message is part of several different message groups and subgroups that VTAM issues in response to a DISPLAY command.

This message serves as a header message for the display and identifies the type of information shown in the display. The message group contains further identification and status information.

*type* is the type of information or resource being displayed and can be one of the following:



**ADJACENT CLUSTER TABLE**

The display contains the adjacent subnetwork routing list for the specified network ID and the status of each border node in the list.

**ADJACENT CONTROL POINT**

The display contains the attributes of a specific adjacent control point node definition and the connections that are assigned to it.

**ADJACENT SSCP TABLE**

The display contains a list of adjacent SSCPs used for routing session initiation requests.

**APPL MAJ NODES/NAMES**

The display contains the name and status of all active application program major nodes in the domain and the application programs contained in those nodes.

**APPN COS**

The display contains a list of APPN class of service (CoS) entries and the name of the last APPNCOS table that was used to create or update the CoS entry .

**APPNTOSA**

The display shows the corresponding APPN and subarea class of service (CoS) mappings.

**AUTOLOG**

The display contains information relative to pending autologon requests.

**BLOCKED VIRTUAL ROUTES**

The display shows the blocked Virtual Routes.

**BNCOSMAP**

The display shows the corresponding nonnative and native class of service (CoS) names.

**BUFFER POOL DATA**

The display describes VTAM buffer storage usage.

**CDRMS**

The display contains the status of cross-domain resource managers known to this host processor.

**CDRSCS**

The display contains the status of cross-domain resources known to this domain.

**CLUSTERS/PHYS UNITS**

The display contains the name and status of physical units in the domain.

**CSDUMP TRIGGERS**

The display contains the message and sense CSDUMP triggers.

**DIRECTORY**

The display contains directory services information about resources.

**DLURS**

The display contains the dependent LU requesters (DLURs) that are supported by the dependent LU server (DLUS) and their CPSVRMGR session pipe status. The CPSVRMGR pipe consists of two LU 6.2 sessions, a contention winner (conwinner) and a contention loser (conloser). The status of both sessions is displayed.

**EE**

The display contains Enterprise Extender information known to this APPN node.

**EEDIAG**

The display contains Enterprise Extender (EE) diagnostic information known to this APPN node for specific EE connections that meet specified thresholds.

**EXIT**

The display contains the name and status of user-written exit routines.

**GENERIC AFFINITY**

The display contains information about generic resource affinities in the generic resource coupling facility structure.

**GR PREFERENCES TABLE**

The display shows the generic resource preference table.

**GROUPS**

The display contains the name and status of each group in the domain.

**HELD VIRTUAL ROUTES**

The display shows the Held Virtual Routes.

**LINES**

The display contains the name and status of lines in the domain.

**LOGICAL UNITS/TERMS**

The display contains the name and status of logical units in the domain.

**LUGROUP MAJOR NODES**

The display contains the names of all LUGROUP major nodes in the domain.

**MAJOR NODES**

The display contains the status of all active major nodes in the domain.

**MODELS**

The display contains either the names of model major nodes in the domain and the model minor nodes contained in those major nodes, or the name, if any, of a model application definition.

**NETWORK NODE SERVER LIST**

The display contains the names of all the network nodes currently allowed to act as network node server for this end node.

**NETWORK SEARCH**

The display contains the results of an operator-initiated search for a specified resource name.

**PATH TABLE CONTENTS**

The display contains a listing of paths defined to this host processor.

**PENDING**

The display contains the names of all nodes in a pending state.

**RSCLIST**

The display contains information about resources whose names match a particular pattern.

**SAMAP TABLE**

The display shows the mapping of a desired session path through a composite network node (CNN) environment. The table can be used to specify the desired session path through other CNNs in the network if the subarea numbers are unique across all of the CNNs in the APPN subnetwork.

**SATOAPPN**

The display shows the corresponding SA and APPNCOS mappings.

**SESSIONS**

The display contains a count of all queued, pending, and active sessions in the domain. The display might also contain the status and partner names for each session in the domain.

**SNSFILTR**

The display contains user-specified sense codes.

**SRCHINFO**

The display contains outstanding search request information.

**STATIONS**

The display contains the name and status of link stations in the domain.

**STATS,TYPE=CFS**

The display contains the current statistics for the coupling facility structure.

**STATS,TYPE=COMPRESS**

The display contains compression levels and the number of half-sessions (one end of a session) using that level of compression on input or output session traffic.

**STATS,TYPE=VTAM**

The display contains VTAM storage estimates statistics in response to the DISPLAY STATS command.

**STORAGE USAGE**

The display describes VTAM utilization of storage pools and data spaces.

**SUBAREA COS**

The display contains the class of service (CoS) table name for a particular network or all networks associated with a specified PU type 4 or 5.

**TDU DIAGNOSTICS**

The display contains TDUDIAG diagnostic information that can be used for problem determination about topology database updates (TDUs) for topology resources (nodes and TGs). A DISPLAY TOPO command with LIST=TDUDIAG provides this information.

**TDU INFORMATION**

The display contains information that can be used for problem determination about topology database updates (TDUs) that were received and sent for topology resources (nodes and TGs). A DISPLAY TOPO command with LIST=TDUINFO provides this information.

**TGPS**

The display contains the currently defined transmission group profiles by name, along with the transmission group characteristics they represent.

**TNSTAT**

The display contains the settings of both global and TRLE group tuning statistics, as well as whether the tuning statistics reports are being displayed at the system console and the tuning statistics reporting interval. The display will also indicate if SMF is unavailable.

**TOPOLOGY**

The display contains topology information that can be used for problem determination and network verification purposes. It provides information such as link outages, unacceptable routing nodes or links, and node connectivity.

**TRACES,TYPE=CNM**

The display contains the status of the CNM buffer trace. CNM buffer traces are PDPIUBUF (Problem Determination PIU buffer) and SAWBUF (Session Awareness buffer).

**TRACES,TYPE=MODULE**

The display contains information about module tracing.

**TRACES,TYPE=NODES**

The display contains the status of the BUF, GPT, IO, LINE, SIT, and TG trace for a particular resource and its subordinate nodes.

**TRACES,TYPE=ROUTE**

The display contains the status of the APPN route selection trace.

**TRACES,TYPE=STATE**

The display contains information about resource state tracing, for example, which types of resources are being traced.

**TRACES,TYPE=SMS**

The display contains the status of the SMS buffer trace.

**TRACES,TYPE=TSO**

The display contains the status of the TSO trace for one or more TSO user IDs.

**TRACES,TYPE=VTAM**

The display contains the status of the VTAM internal trace.

**TRL**

The display contains the status and data link control of each element in the active transport resource list.

**USERVAR**

The display contains the name and status of all USERVARs in the domain.

**VTAMSTOR**

The display contains the storage contents associated with VTAM modules and resources.

**System action**

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST351I** LOCAL 3270 MAJOR NODE = *majornode*

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY TERMS command. This message identifies the local non-SNA 3270 major node *majornode* to which the logical units listed in subsequent messages in the display belong. This message might be followed by message IST089I.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST352I** LOCAL SNA MAJOR NODE = *majornode*

## Explanation

This message is part of a group of messages that VTAM issues in the following situations:

- In response to a DISPLAY TERMS command. *majornode* is the local SNA major node (local cluster controller) to which the physical units and logical units listed in subsequent messages are attached. Subsequent messages list *majornode*'s subnodes.
- When a connection request has been rejected for resource *nodename* in message IST680I. *majornode* is the local SNA major node (local cluster controller). See the description of message IST680I for more information.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST353I****SWITCHED SNA MAJOR NODE = *majornode***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY TERMS command. *majornode* is the switched SNA major node to which the physical units and logical units listed in subsequent messages are attached.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST354I****PU T4/5 MAJOR NODE = *majornode***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY command for COS, LINES, or TERMS, or for a DISPLAY ID command which has a group name specified.

For a DISPLAY COS command, *majornode* is the PU type 4 or 5 major node that subsequently listed Class of Service information, lines, physical units, and logical units are associated with.

For a DISPLAY TERMS command, *majornode* is the PU type 4 or 5 major node that subsequently listed lines, physical units, and logical units are associated with.

For a DISPLAY LINES command, *majornode* is the channel-attached PU type 4 or 5 major node that subsequently listed lines are associated with.

For a DISPLAY ID command which specifies a group name, *major node* is the PU type 4 or 5 major node that the group is defined in.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

**IST355I** **LOGICAL UNITS:**

### Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY command. This message indicates that the nodes listed in subsequent messages are logical units.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

**IST356I** *bpid[Q] [F] bufsize curtot curavail maxtot maxused times exp/cont incr*

### Explanation

VTAM issues this message as part of a message group in response to a DISPLAY BFRUSE,BUFFER=SHORT command. See IST632I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST359I****ATTACHMENT = *linetype***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY TERMS command. This message indicates the type of line that connects one node to another.

*linetype* can be **LEASED** or **SWITCHED**.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST360I****APPLICATIONS:**

## Explanation

This message is issued in response to a DISPLAY APPLS or DISPLAY ID command for an application major node only. The message indicates that the nodes in subsequent messages are application program nodes.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST361A**

***nodename/subarea* FOUND LOADED WITH *loadmodname/subarea*  
REPLY 'YES' TO RELOAD OR 'NO' TO CANCEL ACTIVATION**

## Explanation

While processing a VARY ACT command, VTAM found the specified *nodename* and *subarea* already loaded with NCP load module *loadmodname* or already defined for *subarea*. If the load module is not known, VTAM displays \*\*\*NA\*\*\* for *loadmodname*.

VFYLM=YES was specified on the NCP's PCCU definition statement. The operator might therefore decide to reload the specified communication controller or terminate the activation.

**Note:** VTAM continues to issue message IST361A until you enter a correct response.

## System action

Processing continues.

## Operator response

Reply 'YES' if you want to reload the communication controller. Other VTAMs sharing the communication controller will be affected when you reload.

Reply 'NO' if you want to stop the activation of the communication controller. This will result in a load module mismatch between the load module that is active for this VTAM and the load module that is active for another VTAM which is sharing the same communication controller.

## System programmer response

None.

**Note:** For additional information on how to respond to this message, see [“Responding to a VTAM message” on page 2](#).

## Routing code

2

## Descriptor code

2

---

**IST362I**

**GROUP *groupname* DEVICES UNAVAILABLE – MISSING SYSCNTRL  
OPTION**

## Explanation

While activating a BSC or start-stop group, *groupname*, VTAM found the RIMM or MODE option to be missing on the SYSCNTRL definition statement.

**Note:** The BHSASSC option might be required on the SYSCNTRL definition statement if you are using block handlers. (You specified BHSET in the GROUP definition statement.)

## System action

VTAM does not include the BSC or start-stop group *groupname* in the network.



## Operator response

Save the system log for problem determination.

## System programmer response

Specify the required SYSCNTRL options. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on the SYSCNTRL options.

## Routing code

2

## Descriptor code

5

---

IST363I	CONFIG <i>configname</i> NODES AND SUBNODES SET UNAVAILABLE – <i>reason</i>
---------	--

---

## Explanation

While activating configuration *configname*, VTAM detected an error in an NCP generation definition statement or a VTAM definition statement.

*reason* can be one of the following:

**DUPLICATE MACRO**  
**DUPLICATE VALUE**  
**INVALID NAME**  
**INVALID PARAMETER**  
**INVALID VALUE**  
**MISSING MACRO**  
**MISSING NAME**  
**MISSING PARAMETER**  
**PARAMETER CONFLICT**  
**REPEATED VALUE**  
**SEQUENCE ERROR**  
**SYNTAX ERROR**

A second message, IST323I, provides details of the definition statement in error.

## System action

VTAM continues processing the macro or definition statement. Message IST323I provides the name of the node that is unavailable. The subnodes of this node are also unavailable.

## Operator response

Save the system log for problem determination.

## System programmer response

Correct the macro or statement in error.

- If the error is in an NCP generation definition statement, regenerate the NCP after correcting the error.
- If the error is in a VTAM definition statement, update the VTAM definition library to correct the definition of configuration *configname*.

## Routing code

2

## Descriptor code

5

---

**IST366I**

**CONFIG *configname* UNABLE TO DEFINE *nodename* – MAXIMUM  
NUMBER OF NETWORK ADDRESSES FOR HOST SUBAREA EXCEEDED**

## Explanation

While activating configuration *configname*, VTAM exceeded the maximum number of network addresses in the host subarea. VTAM cannot define a new element in the host subarea. If an Enterprise Extender (EE) line, an EE PU, or an RTP PU was being activated, the request exceeded the limit of 16 776 960 extended element addresses. Therefore, VTAM failed to define a new network address for the resource.

## System action

If *nodename* is all asterisks, the activation of *configname* fails. VTAM did not assign an element address to nodes in the major node definition.

If *nodename* is not all asterisks, the activation of *configname* continues and the node identified by *nodename* is marked invalid and is unusable in the VTAM network.

## Operator response

Deactivate any unneeded segment in the host subarea to free network addresses, and deactivate and then activate *configname*. If VTAM continues to issue this message, save the system log for problem determination.

## System programmer response

Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system.

Since the maximum number of elements that can be assigned by VTAM in the host subarea has been reached, examine the possibility of allocating devices and applications to other subareas.

To use higher-order element addresses for LUs, you can specify YES for the ENHADDR start option. You must modify the start options file (ATCSTRxx) and restart VTAM to use the start option. For more information, see the [z/OS Communications Server: SNA Network Implementation Guide](#).

## Routing code

2

## Descriptor code

5

---

**IST367I**

**NO STORAGE TO DEFINE NODE *nodename* CONFIG *configname***

## Explanation

VTAM did not have sufficient storage to define node *nodename*.

## System action

- If *nodename* is all asterisks, the activation of *configname* fails. VTAM did not assign an element address to nodes in the major node definition.

- If *nodename* is not all asterisks, the activation of *configname* continues, and *nodename* is unusable as it was defined in *configname*.
  - If *nodename* did not previously exist, it is unavailable to the VTAM network.
  - If *nodename* did previously exist (for example, as an independent LU), then the existing node is not affected by the definition that failed.

## Operator response

**If VTAM has been initialized**, deactivate any active segment in the host subarea that is not needed to free network addresses. After you deactivate any active segment in the host subarea that is not needed to free network addresses, deactivate and activate *configname*. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

## System programmer response

Do one of the following:

- Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system. Determine if any major nodes can be deleted from the configuration so that more storage is available.
- Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
  - See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
  - See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
  - See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
  - See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  - See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST368I** **FUNCTION GROUP *functiongroup* FAILED**

## Explanation

VTAM issues this message as part of a message group. The first message in the group is IST886I or IST1277I. See the explanation of the first message in the group for a complete description.

## Routing code

2

## Descriptor code

5

## Explanation

VTAM issues this message when the request *runame* for the resource *nodename* failed.

*code* is the sense code and indicates the reason for the failure. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

*runame* is the name of the request that failed. See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *runame*.

## System action

VTAM does not perform the request *runame*.

When VTAM receives a failing activation request for RUs such as ACTLINK, CONTACT, ACTLU, or ACTPU, VTAM usually deactivates the resource and all subordinate resources, regardless of whether the resource was being activated or deactivated.

## Operator response

- Attempt to activate or trace the node again.
- If a failure still occurs, save the system log for problem determination.
- If VTAM issues this message repeatedly, disable the line and save the system log for problem determination.
- If *code* indicates a storage problem, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command to display storage used by VTAM buffer pools and information about the common service area (CSA). Message IST981I displays total VTAM private storage information. Issue the DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a dump for problem determination.

### • Sense Code 081Cnnnn

Correct the cause indicated by the user portion of the sense code (*nnnn*), and try the command again.

**Note:** Only some of the possible sense codes issued in this message are described here. For a complete description of the sense codes, see the [z/OS Communications Server: IP and SNA Codes](#).

## System programmer response

- If *code* indicates a storage problem, increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
  - See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
  - See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
  - See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
  - See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  - See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
- **Sense Code 081Cnnnn**

If an ACTLINK request failed on a VARY ACT request with the sense code of **081Cnnnn**, check the CUADDR operand of the PU (local SNA) or PCCU definition statement to make sure that the correct device address was specified for the node *nodename*.

If sense code 081C0010 is received and message IST1386I is issued, see the return code and reason code in message IST1386I to determine the cause of the failure.

- **Sense Code 08A30001**

If VTAM issues sense code 08A30001 repeatedly, determine the subarea node that is attempting to establish a switched connection. If the SSCP is authorized to request that connection, verify that both SSCPs have identical PRTCT operands coded for their PU statements on the switched major nodes. Also verify that both nodes and their SSCPs are of a level that supports call security verification.

VTAM might issue this message with sense code 08A30001 because an unauthorized subarea node is attempting to establish a switched connection to the host that received the message.

- You might need to include the LUDRPOOL macro in the NCP generation.
- Make sure that the device is available to the system and that there are no hardware problems.

## Routing code

2

## Descriptor code

5

---

**IST381I*****command* FOR ID = *nodename* FAILED – CANNOT DEFINE NODE**

---

## Explanation

VTAM stopped processing *command*. VTAM could not define the resource *nodename* for one of the following reasons:

- *nodename* has the same name as another resource in this domain.
- *nodename* has the same network address as another resource in this domain.
- The value for VNNAME for *nodename* matches the value for CPNAME on a PU in this domain.
- The value for VNNAME for *nodename* refers to an ADJCP for which VN=YES is not specified.

*command* is the command that failed. See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *command*.

*nodename* is the name of the resource specified on the command.

## System action

VTAM rejects the command.

## Operator response

Display *nodename*:

- If the resource already exists, *command* failed because the resource was already defined.
- If *nodename* is a communication controller, enter a DISPLAY STATIONS command.
- If the subarea of *nodename* is listed as an adjacent subarea in the display, another communication controller has been defined for that subarea. The communication controller might still exist if the link to that subarea is still active. To correct the problem, enter a VARY INACT command for the link to the adjacent subarea.
- If the resource does not exist, display VNNAME. If VNNAME already exists, *command* failed because the VNNAME was already defined with a different nodetype.

Save the system log for problem determination.

## System programmer response

Ensure that *nodename* has a unique name, unique network address, or unique VNNAME. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on VNNAME definitions.

## Routing code

2

## Descriptor code

5

---

IST382I	<b>command FOR ID = <i>nodename</i> FAILED — STATE: <i>state</i> NOT VALID FOR REQUEST</b>
---------	--

---

## Explanation

VTAM rejected *command* because *nodename* was not in a state that is valid for the request.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *command*. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *state*.

## System action

VTAM rejects the command.

## Operator response

Use the DISPLAY ID command to monitor the progress of *nodename*. When processing is completed, enter the commands required to obtain the network configuration or device state required.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST383I	<b>DEACTIVATION OF ID = <i>nodename</i> FAILED — REQUEST: <i>request</i> SENSE: <i>code</i></b>
---------	---

---

## Explanation

VTAM cannot complete deactivation of *nodename* because *request* has failed with a sense code of *code*.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *request*.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

## System action

VARY deactivate processing for *nodename* is pending. The node is not available to VTAM.

## Operator response

Enter a VARY INACT,TYPE=FORCE command to deactivate the node. If the problem persists, save the system log for problem determination.

## System programmer response

Use the output provided and the description of *code* to assist in determining the cause of the problem.

## Routing code

2

## Descriptor code

5

---

**IST384I** *command FOR ID = nodename FAILED*

## Explanation

VTAM issues this message when processing of the *command* for *nodename* failed. For example, a deactivate command failed because no storage was available to continue.

*nodename* is the name of the resource and is either an NCP or logical unit (LU).

## System action

VTAM rejects the command.

## Operator response

- If message IST383I or IST1268I precedes this message, enter a VARY INACT,TYPE=FORCE command to deactivate the resource.
- If this is a storage problem, messages IST561I, IST562I, IST563I, IST564I, IST565I or IST566I may be issued prior to this message to indicate the type of storage affected.

If message IST467I is displayed with contacted error type 5, see the programmer response of that message for additional information.

Issue the DISPLAY BFRUSE command to display storage used by VTAM buffer pools and information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a dump for problem determination.

## System programmer response

For a storage problem, verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx), and restart VTAM to use the start option.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY BFRUSE, DISPLAY STORUSE, and MODIFY VTAMOPTS commands. The [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) provides additional information.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST388I****DYNAMIC CDRSC DEFINITION SUPPORT = {YES|NO}**

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a host cross-domain resource manager. This message indicates whether the named host will process session initialization requests from cross-domain resources that are not explicitly defined to the host. If you specified CDRDYN=YES on the host CDRM definition statement, the host will support sessions for dynamically defined resources.

A value of **YES** in this message combined with a value of **OPT** in message IST389I means that VTAM will build a dynamic CDRSC entry if necessary.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST389I****PREDEFINITION OF CDRSC = {OPT|REQ}**

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command for an external CDRM. It indicates whether explicit definition of the CDRM's CDRSCs is optional or required.

A value of **OPT** in this message combined with a value of **YES** in message IST388I means that VTAM will build a dynamic CDRSC entry, if necessary, when it initiates a session.

## System action

Processing continues.

## Operator response

None.



## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST391I** **ADJ LINK STATION = *linkstation*, LINE = *linkname*, NODE = *majornode***

## Explanation

This message is part of the output from a DISPLAY ID command entered for a PU type 4 (NCP) major node. This message describes the attachment of the displayed NCP.

*linkstation* is the adjacent link station.

*linkname* is the connecting link.

*majornode* is the major node that the link is defined in. For a leased station, *majornode* is also the major node that the link station is defined in.

*linkname* and *majornode* will be **\*\*\*NA\*\*\*** if the link station is not defined in an active major node.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST393I** **PU T4/5 MAJOR NODE *majornode*, SUBAREA = *subarea***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY STATIONS command. It identifies a PU type 4 (NCP) major node *majornode* or a PU type 5 (host) major node *majornode* for which associated link stations will subsequently be listed. *subarea* is the subarea address of *majornode*.

## System action

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

8

**Descriptor code**

5

---

<b>IST394I</b>	<b>ADJACENT LINK STATIONS NOT OWNED BUT AWAITING ACTIVATION</b>
----------------	---

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY STATIONS command. This message serves as a heading for message IST395I, which will appear as many times as necessary.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

8

**Descriptor code**

5

---

<b>IST395I</b>	<b><i>linkstation1 linkstation2 linkstation3 linkstation4 linkstation5 linkstation6</i></b>
----------------	---

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY STATIONS command. It lists, for a given PU type 4 or PU type 5 major node, the unowned adjacent link stations that are awaiting activation. Each variable *linkstation* represents an adjacent link station.

**System action**

Processing continues.

**Operator response**

None.

# System programmer response

None.

# Routing code

8

# Descriptor code

5

IST396I

LNKSTA STATUS CTG GTG ADJNODE ADJSA NETID ADJLS

# Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

## DISPLAY ID command for a link station and the associated line

Shows the link station and the associated line.

## DISPLAY ID command for a line that has one or more associated link stations

Message IST397I is issued for each link station associated with the line. Message IST610I is not issued.

## DISPLAY STATIONS command

Shows all of the link stations in each PU type 4 and PU type 5 major node. Messages IST397I and IST610I are repeated for each link station line pair. Message IST610I displays the line name *linename* and its status *linestatus*.

A complete description of the message group follows.

IST396I	LNKSTA	STATUS	CTG	GTG	ADJNODE	ADJSA	NETID	ADJLS
IST397I	linkstation	status	ctg	gtg	adjnode	adjsa	netid	adjls
[IST610I	LINE linename - STATUS linestatus]							

The following fields are displayed in the messages:

## linkstation

Link station name.

## status

Link station status. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *status*.

## ctg

Current transmission group.

## gtg

Generated transmission group.

## adjnode

Adjacent PU type 4 or 5, if available. (This is blank if this is a migration NCP or a VTAM to VTAM connection.)

## adjsa

Subarea associated with adjacent PU type 4 or 5. (This is **0** if not known.)

## netid

The name of the network of the associated PU type 4 or 5.

## adjls

The name of the adjacent link station if known.

## linename

Line name (associated with link station).

## linestatus

Status of line *linename*. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *status*.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

8

### Descriptor code

5

---

<b>IST397I</b>	<i>linkstation status ctg gtg adjnode adjsa netid adjls</i>
----------------	---

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY command. See the explanation of message IST396I for a complete description of the group.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *status*.

### Routing code

8

### Descriptor code

5

---

<b>IST398I</b>	<b>LOAD OF <i>controller</i> FAILED — <i>loadmodname</i> HAS ZERO ENTRY POINT</b>
----------------	---

### Explanation

The NCP load module *loadmodname* was generated without a valid entry point. Zero was assumed during the last load of communication controller *controller*.

### System action

VTAM neither loads *controller* nor activates *loadmodname*.

### Operator response

Save the system log for problem determination.

### System programmer response

Regenerate the NCP with the correct entry point.

### Routing code

8

## Descriptor code

5

IST399E

ISTSDCOS IS NOT A CLASS OF SERVICE TABLE – ISTSDCOS DELETED

---

## Explanation

VTAM loaded table ISTSDCOS but determined that the named table was not a class of service (CoS) table.

## System action

VTAM deletes ISTSDCOS and initialization continues. Since the COS table does not exist, any session initiation requests that require a COS name other than ISTVTCOS or blank (for which defaults are provided) will fail.

## Operator response

You can issue the DISPLAY COS,ID=ISTPUS to determine whether VTAM has loaded ISTSDCOS. If VTAM has not loaded ISTSDCOS, you can issue the MODIFY TABLE command to load it.

Save the system log for problem determination.

## System programmer response

ISTSDCOS is the name reserved for the user-written Class of Service table. You must create ISTSDCOS using the COSTAB, COS, and COSEND macros to create a valid COS table. If you want a COS table, assemble a valid version of ISTSDCOS, and reload the result into the system library. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

## Routing code

2

## Descriptor code

3



## Chapter 6. IST messages for VTAM network operators

### IST400I - IST799I

This chapter lists the VTAM messages beginning with IST in the range of IST400I through IST799I. These messages can appear on a network operator's console.

See [Appendix E, “Message text for VTAM operator messages,” on page 1785](#) for a list of the text of all VTAM operator messages.

**Note:** Messages that begin with the prefix **ISTF** are issued by the VTAM dump analysis tool and the VTAM internal trace (VIT) analysis tool. Help information is available as a part of each tool by pressing F1. Therefore, **ISTF** messages are not documented in *z/OS Communications Server: SNA Messages*. See *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for additional information.

**IST400I** **TERMINATION IN PROGRESS FOR APPLID** *applname*

### Explanation

The VTAM termination task is about to close the ACB of VTAM application ACBNAME with the *applname*, which has terminated (either normally or abnormally).

*applname* is the ACBNAME if ACBNAME is coded in the APPL definition. If ACBNAME is not coded, *applname* is the NAME as coded on the APPL definition statement.

### System action

Processing continues.

## Operator response

Any attempts to reopen the ACB for *applname* before VTAM issues message IST805I will fail. If you do not see message IST805I, save the system log for problem determination.

## System programmer response

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on diagnosing VTAM problems.

## Routing code

2

### Descriptor code

5

**IST401I** *command INITIATED FOR ID = nodename*

### Explanation

VTAM has successfully started the *command* for resource *nodename*.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1683 for a description of *command*.

### System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST403I</b>	<b><i>command</i> COMMAND FAILED — MULTIPLE OPTIONS FOR <i>operand_name</i> NOT ALLOWED</b>
----------------	---

---

## Explanation

The *command* failed because VTAM does not accept multiple values for operand *operand\_name*.

## System action

VTAM rejects the command. Other processing continues. If *command* is **START**, VTAM prompts the operator for corrections. Processing continues.

## Operator response

Reenter the command, and specify only one option for *command*. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for the format of the VTAM start options.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST410I</b>	<b><i>bp</i> BUFFER POOL COULD NOT BE BUILT — CODE <i>code</i></b>
----------------	--

---

## Explanation

VTAM could not build the *bp* buffer pool.

*bp* is the name of the buffer pool. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

*code* indicates the reason for the failure and can be one of the following:

**2**

Pages could not be fixed in storage.



3

Building the pool would exceed the CSALIMIT or CSA24 limit.

#### 4-99

GETMAIN failure return code. See the [z/OS MVS Programming: Authorized Assembler Services Reference EDT-IXG](#) for more information.

### System action

VTAM start processing fails. VTAM is terminated.

### Operator response

Save the system log and request a dump for problem determination.

### System programmer response

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options by modifying the VTAM start options file (ATCSTRxx) before restarting VTAM.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

### Routing code

1

### Descriptor code

5

---

**IST411I** *command* **COMMAND REJECTED DUE TO TERMINATION IN PROGRESS**

### Explanation

VTAM rejected the *command* because termination is in progress.

### System action

VTAM termination processing continues.

### Operator response

If you did not halt VTAM, have the system log available for problem determination action.

### System programmer response

If VTAM was not halted by issuing the HALT command, use the system log to help you determine why HALT was in progress.

### Routing code

2

### Descriptor code

5

---

**IST412I** **VTAM COMMAND PROCESSING TERMINATED**

## Explanation

VTAM is in the process of terminating, and rejects any commands that are entered during termination.

## System action

VTAM termination processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST413I**

**VTAM DUMPING FOR JOB *jobname* STEP *stepname***

## Explanation

VTAM has encountered a problem with the indicated job *jobname* and step *stepname*. The system will attempt an SDUMP.

## System action

Processing continues. VTAM takes a dump if the system dump data set is usable at this time. If VTAM successfully initiates the SDUMP, the performance for other jobs might be degraded until VTAM completes the SDUMP.

## Operator response

Save the system log and the contents of the SDUMP for problem determination.

## System programmer response

Review the contents of the SDUMP to determine the correct problem determination action. If the SVC dump failed, message IST257I might have been issued and can be found in the system or network log. If no SVC dump was written to a dump data set, check the system log for write to operator with reply (WTOR) system message IEA793A. The message indicates that no dump data sets are available and that MVS dump services is waiting for operator action to free up a dump data set.

## Routing code

2

## Descriptor code

5

---

**IST414I**

***command* FOR ID = *nodename* FAILED — PROCESS UNAVAILABLE**

## Explanation

VTAM issues this message when the *command* failed because *nodename* is not active. See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *command*.

Either of the following conditions might have occurred.

- A forced deactivate command was entered for *nodename*, and the resource is already inactive.
- A forced reactivate command was entered for *nodename*. The resource is being activated, but the activate processing has not proceeded far enough.

## System action

VTAM stops processing *command*.

## Operator response

Ensure that you entered the command for the correct node. If so, save the system log for problem determination.

## System programmer response

Use the system log to assist you in correcting the problem. When you have corrected the error condition, ask the operator to reenter the command.

## Routing code

2

## Descriptor code

5

---

**IST416I****SDUMP ISSUED DUE TO ADDRESS SPACE TERMINATION**

## Explanation

An abend has occurred in the VTAM address space.

## System action

The minimum cleanup required for a restart of VTAM will be performed. A dump is taken if the system-dump data set is usable.

## Operator response

Save the system log and dump for problem determination.

## System programmer response

Review the contents of the SDUMP for problem determination.

## Routing code

2,8

## Descriptor code

4

**Explanation**

An I/O error occurred on the checkpoint data set *datasetname*. *major* and *minor* are major and minor return codes from VSAM.

**System action**

VTAM terminates checkpointing.

**Operator response**

Save the system log for problem determination.

**System programmer response**

This is probably a hardware error. Consult the applicable VSAM documentation for appropriate responses.

If this message is issued with RTNCD=X'0808' and *datasetname* specifies the NODELST data set or the CONFIGDS data set, then verify that the VSAM CLUSTER definition is correct. The KEYS parameter of the CLUSTER definition must specify the correct key length as stated in the [z/OS Communications Server: SNA Network Implementation Guide](#)

**Routing code**

2

**Descriptor code**

5

**Explanation**

VSAM was unable to obtain VTAM private storage for the checkpoint data set identified by *name*.

**System action**

VTAM terminates checkpointing.

**Operator response**

If VTAM has been initialized, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you might need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See [z/OS Communications Server: SNA Operation](#) for additional information. Save the system log and request a dump for problem determination.

If VTAM initialization failed, save the system log for problem determination.

**System programmer response**

Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system. Re-evaluate your storage needs for the VTAM address space and increase storage as required. To restart checkpointing, halt and restart VTAM.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps](#) and the [VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST424I****CLOSE FAILED ON DS *name* RTN CD = *major*, *minor***

---

## Explanation

The VSAM CLOSE function failed for the major node checkpoint data set or book identified by *name*. The major return code from VSAM (*major*) is register 15. The minor return code from VSAM (*minor*) is ACBERFLG.

## System action

VTAM terminates checkpointing.

## Operator response

Save the system log for problem determination.

## System programmer response

This is probably a hardware error. Consult the applicable VSAM documentation for further appropriate responses.

## Routing code

2

## Descriptor code

5

---

**IST425I****OPEN FAILED ON DS *name* RTN CD = *major*, *minor***

---

## Explanation

The VSAM OPEN function failed for the major node checkpoint data set or book identified by *name*. The major return code from VSAM (*major*) is register 15. The minor return code from VSAM (*minor*) is ACBERFLG.

## System action

VTAM terminates checkpointing.

## Operator response

Save the system log for problem determination.

## System programmer response

Consult the applicable VSAM documentation for further responses. To avoid this problem, use the VERIFY operation as a regular part of the VTAM start routine to ensure that the data set is properly closed. Consult the applicable VSAM documentation for further appropriate responses.

## Routing code

2

## Descriptor code

5

---

**IST430I*****runame* FOR ID = *nodename* DISCARDED**

---

### Explanation

VTAM did not process the *runame* for node *nodename* because there was insufficient storage available to process the recovery of the node.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *runame*.

### System action

Node *nodename* might appear active to VTAM, but it cannot process any requests. Any logical units associated with this node are inaccessible.

### Operator response

Enter a DISPLAY ID command for *nodename*. If *nodename* is still active, enter a VARY INACT,TYPE=FORCE command for *nodename* to deactivate the node. Then enter VARY ACT,ID=*nodename* to reactivate it.

If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

### System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST433I****COMMAND REJECTED – TUNING STATISTICS TASK NOT ATTACHED**

---

## Explanation

VTAM rejected a MODIFY TNSTAT command because tuning statistics support is not part of the system. During VTAM initialization, the attempt to start the tuning statistics subtask failed.

## System action

System processing continues.

## Operator response

Tuning statistics cannot be collected at this time.

## System programmer response

If you want to collect tuning statistics, determine and correct the reason for the failure to start the VTAM tuning statistics subtask.

## Routing code

2

## Descriptor code

5

---

**IST435I** **UNABLE TO RECORD ON TUNSTATS FILE, RETURN CODE = *code***

## Explanation

An error occurred when the tuning statistics subtask, ISTINCTS, tried to open or write to the tuning statistics file. ISTINCTS, is active in VTAM, but failed to write a tuning statistics record to the system management facility (SMF) data set.

*code* is a reason code, in decimal, that indicates why the write attempt failed. For explanations of the reason codes, see the return codes from the SMFWTM macro located in [z/OS MVS System Management Facilities \(SMF\)](#).

## System action

The tuning statistics record is lost. System processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

For the appropriate responses to *code*, see the return codes from the SMFWTM macro located in [z/OS MVS System Management Facilities \(SMF\)](#).

## Routing code

2

## Descriptor code

5

---

**IST436I** **STORAGE NOT AVAILABLE FOR TUNING STATISTICS DATA**

## Explanation

The tuning statistics subtask, ISTINCTS, is active in VTAM, and no storage was available to temporarily store a tuning statistics record.

## System action

VTAM will include the data in the record in the next tuning statistics record. System processing continues.

## Operator response

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST440I** **TIME = time DATE = date ID = id**

## Explanation

This message is the first in a group of messages that displays tuning statistics for a SNA controller. A complete description of the message group follows.

IST440I	TIME = time	DATE = date	ID = id
IST441I	DLRMAX = dlrmax	CHWR = chwr	CHRD = chrd
IST442I	ATTN = attn	RDATN = rdatn	IPDU = ipdu
IST443I	OPDU = opdu	RDBUF = rdbuf	SLODN = slodn
IST1568I	INLP = inlp	ONLP = onlp	BFNLP = bfnlp
IST314I	END		

### IST440I

*time* indicates the time (in hours, minutes, seconds, and hundredths of seconds) at which the record is recorded. For example, 07431380 means that the record was recorded at the 7th hour, 43rd minute, 13th second, and 80 one-hundredths of a second of the day.



*date* is the date on which the tuning statistics report is recorded. The date is in the form *yyddd*, where *yy* is the last two digits of the numeric year and *ddd* is the numeric day of the year. For example, 00190 means the record is recorded on the 190th day of 2000.

*id* is the name of the user-defined channel-attached SNA cluster controller or the name of the channel link that attaches the communication controller for which the statistics are gathered. For a VTAM-generated channel-link name, this field contains the channel unit address followed by "-L."

#### IST441I

- *dlrmax* is a decimal value that indicates the maximum number of dump-load-restart requests that were awaiting processing or were being processed at one time during the interval. This number refers to the entire domain, not to the SNA controller named in the report. The dump-load-restart subtask processes the following types of requests:
  - Dump, load, or restart of an NCP
  - Some VTAM messages to the operator that require a reply
  - Session establishment and termination processing for a local major node
  - Any I/O to a configuration restart or NODELST file.
- This value can be used to determine the proper setting for the DLRTCB start option, which determines how many dump-load-restart requests can be processed concurrently. If DLRMAX consistently exceeds DLRTCB, it indicates that VTAM is serializing requests on the available TCBs and that performance might be affected.
- *chwr* is a decimal value that indicates the total number of write channel programs issued during the interval covered by this record.
- *chrd* is a decimal value that indicates the total number of read channel programs issued to read data. It does not include the read that informs the cluster controller to clear its buffers.

#### IST442I

*attn* is a decimal value that indicates the total number of attention interrupts received from a controller, including the total number of READ ATTENTIONs (RDATN).

*rdatn* is a decimal value that indicates the total number of times that the attention is included in the ending status on a read channel program (that is, the number of times that VTAM, after reading data, is requested with an attention to read more data).

*ipdu* is a decimal value that indicates the total number of inbound (to VTAM) PDUs received from this controller.

#### IST443I

- *opdu* is a decimal value that indicates the total number of outbound (from VTAM) PDUs sent to this controller.
- *rdbuf* is a decimal value that indicates the total number of read buffers used.
- *slodn* is a decimal value that indicates the total number of times the controller has entered a slowdown condition; for NCP, this is the number of times the CWALL buffer threshold has been reached.

**Note:** The SLODN field is not related to message IST211I. This message is issued at a threshold value greater than CWALL.

#### IST1568I

*inlp* is a decimal value that indicates the total number of inbound (to VTAM) NLPs received from this controller.

*onlp* is a decimal value that indicates the total number of outbound (from VTAM) NLPs sent to this controller.

*bfnlp* is a decimal value that indicates the total number of bytes read from inbound NLPs.

### System action

Processing continues.

### Operator response

Follow the instructions of the system programmer to tune the system. To discontinue statistics recording, enter the MODIFY NOTNSTAT command.

### System programmer response

For additional information on tuning and analyzing tuning statistics, see the [z/OS Communications Server: SNA Network Implementation Guide](#)

### Routing code

2

### Descriptor code

4

---

**IST441I** **DLRMAX = *dlrmax* CHWR = *chwr* CHRD = *chrd***

### Explanation

VTAM issues this message as part of a message group. The first message in the group is IST440I. See the explanation of that message for a complete description.

### Routing code

2

### Descriptor code

4

---

**IST442I** **ATTN = *attn* RDATN = *rdatn* IPDU = *ipdu***

### Explanation

VTAM issues this message as part of a message group. The first message in the group is IST440I. See the explanation of that message for a complete description.

### Routing code

2

### Descriptor code

4

---

**IST443I** **OPDU = *opdu* RDBUF = *rdbuf* SLODN = *slodn***

### Explanation

VTAM issues this message as part of a message group. The first message in the group is IST440I. See the explanation of that message for a complete description.

### Routing code

2

## Descriptor code

4

---

IST447I

**BUFFER SIZE WAS IGNORED FOR ONE OR MORE POOLS**

---

## Explanation

VTAM issues this message when the programmer specified the buffer size in a pool that does not allow buffer size specification. You might specify only the IOBUF buffer size.

## System action

The incorrect buffer size was ignored. The default size was used. VTAM start procedure continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Specify the size of the buffer for IOBUF.

## Routing code

2

## Descriptor code

5

---

IST448I

***option* OPTION IGNORED – *reason***

---

## Explanation

VTAM issues this message during processing of VTAM start options or in response to a DISPLAY VTAMOPTS or MODIFY VTAMOPTS command when an error is encountered while processing *option*.

*option* is the name of the start option that was ignored.

*reason* indicates the reason for the problem and is determined by when the error occurred.

- If the error occurred during the processing of VTAM start options, *reason* can be one of the following:

### **COUPLING FACILITY NOT SUPPORTED**

The coupling facility is not supported by the current version of MVS. There is no active CFRM policy or no CFRM data set.

### **CPC IS NOT A MEMBER OF AN ENSEMBLE**

The central processing complex (CPC) is not configured as a member of an ensemble network.

### **HARDWARE SUPPORT NOT AVAILABLE**

The required hardware support associated with this option is not available.

### **HPR FUNCTION NOT SUPPORTED**

This start option requires the NODETYPE to be NN.

### **HPR PATH SWITCH NOT SUPPORTED**

This start option requires the specification of HPR=RTP.

### **INSUFFICIENT STORAGE**

There was insufficient common or private storage to process this start option.

### **NO LONGER SUPPORTED**

This start option is not supported by the current version of VTAM.

**NOT A USS TABLE**

The table identified by the USSTAB start option is not a USS table.

**NOT VALID DUE TO HPR CAPABILITY**

This start option requires the specification of HPR=RTP.

**RESULTING STRUCTURE NAME TOO LONG**

Either the MNPS structure name specified by the STRMNPS start option or the Generic Resource structure name specified by the STRGR start option is too long (longer than 14 characters) to be suffixed by the XCFGRPID value specified.

**VALID ONLY FOR ICN**

This start option is valid only for an interchange network node.

**VALID ONLY FOR ICN OR MDH**

This start option is valid only for an interchange network node or migration data host.

**VALID ONLY FOR NETWORK NODE OR MDH**

This start option is valid only for a network node or migration data host. It is not valid for an end node that supports only APPN functions.

**XCF NOT SUPPORTED**

Either the sysplex is unavailable or you are running with a level of MVS that does not support XCF.

- If the error occurred in response to a DISPLAY VTAMOPTS command, *reason* can be one of the following:

**CANNOT BE DISPLAYED**

This start option is not valid on the DISPLAY VTAMOPTS command.

**HAS NOT BEEN MODIFIED**

This start option cannot be displayed because FORMAT=MODIFIED was specified on the command, and this start option has not been modified since VTAM was initialized.

**UNRECOGNIZED OPTION**

*option* is not a valid VTAM start option.

- If the error occurred in response to a MODIFY VTAMOPTS command, *reason* can be one of the following:

**CANNOT BE MODIFIED**

This start option is not valid on the MODIFY VTAMOPTS command.

**CANNOT VERIFY IF CONFLICT EXISTS**

This start option cannot be modified because VTAM is unable to verify if the start option is in conflict with other start options specified on the MODIFY command. VTAM can process up to eight conflicting start options on a MODIFY VTAMOPTS command. If more than eight are specified, VTAM cannot verify whether a conflict actually exists.

**CPC IS NOT A MEMBER OF AN ENSEMBLE**

The central processing complex (CPC) is not configured as a member of an ensemble network.

**EE XCA MAJOR NODE MUST BE INACTIVE**

This start option cannot be modified while the XCA major node representing Enterprise Extender connections is active.

**HARDWARE SUPPORT NOT AVAILABLE**

The required hardware support associated with this option is not available.

**INSUFFICIENT STORAGE**

There was insufficient private storage to process this start option.

**IPADDR OBTAINED FROM TCP STACK**

This start option cannot be modified because VTAM has acquired the local IP address to use for all Enterprise Extender connections from the TCP/IP stack.

**SAWDATA REQUIRES SAW DATA FILTER**

This value (SAWDATA) for the SAVERSCV start option is not valid on the MODIFY VTAMOPTS command because there is not an active SAW filter table.

**SPECIFIED VALUE NOT VALID**

The specified value for this start option is not a valid value for this option.

### UNRECOGNIZED OPTION

*option* is not a valid VTAM start option.

### VALID ONLY FOR A NETWORK NODE

This start option is not valid on the MODIFY VTAMOPTS command because it applies only to a network node configuration. This VTAM must be configured as a network node in order for this start option to be modifiable.

### VALID ONLY FOR AN APPN NODE

This start option is not valid on the MODIFY VTAMOPTS command because it applies only to an APPN configuration. This VTAM must be configured as a network node, interchange node, end node, or migration data host in order for this start option to be modifiable.

### VALID ONLY FOR AN END NODE OR MDH

This start option is only valid at end nodes and migration data hosts (MDH).

### VALID ONLY FOR ICN

This start option is not valid on the MODIFY VTAMOPTS command because it applies only to an interchange network node configuration.

### VALID ONLY FOR ICN OR MDH

This start option is not valid on the MODIFY VTAMOPTS command because it applies only to an interchange network node or migration data host configuration.

### VALID ONLY FOR NETWORK NODE OR MDH

This start option is not valid on the MODIFY VTAMOPTS command because it applies only to a network node or migration data host configuration. It is not valid for an end node that supports only APPN functions. This VTAM must be configured as a network node or migration data host in order for this start option to be modifiable.

## System action

- Processing of VTAM start options
  - If *reason* is **STRUCTURE NOT DEFINED**, a connection attempt will not be made to the coupling facility structure. VTAM initialization continues.
  - If *reason* is **NOT A USS TABLE**, VTAM uses the IBM-supplied default USS table.
  - For all other *reasons*, VTAM ignores this start option, but the processing of VTAM start options continues.
- DISPLAY VTAMOPTS command
  - VTAM does not display this start option.
- MODIFY VTAMOPTS command
  - VTAM ignores this start option. If there are other valid options specified on the MODIFY VTAMOPTS command, processing of the command continues.

## Operator response

- Processing of VTAM start options
  - For **INSUFFICIENT STORAGE**, if VTAM has been initialized, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command to display information about the common storage area. Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.  
  
If VTAM initialization failed, save the system log for problem determination.
  - For **STRUCTURE NOT DEFINED**, check the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option. The value is the name of a coupling facility structure. If the value is incorrect, restart VTAM with the correct value. If the value is correct, the structure has not been defined in the active CFRM policy. Provide the structure name to the system programmer.
  - For all other *reasons*, save the system log for problem determination.

Provide the start options used to start VTAM.

- DISPLAY VTAMOPTS command
  - For **CANNOT BE DISPLAYED** or **UNRECOGNIZED OPTION**, ensure that you entered *option* correctly. See [z/OS Communications Server: SNA Operation](#) to check options that are valid for the DISPLAY VTAMOPTS command.
- MODIFY VTAMOPTS command
  - For **CANNOT VERIFY IF CONFLICT EXISTS**, issue multiple MODIFY VTAMOPTS commands with a single start option specified instead of issuing a single MODIFY VTAMOPTS with multiple start options specified. In particular, do not specify two or more conflicting start options on the MODIFY command. See the [z/OS Communications Server: SNA Resource Definition Reference](#) and [z/OS Communications Server: SNA Operation](#) for details about start option conflicts when specified on MODIFY VTAMOPTS.
  - For **EE XCA MAJOR NODE MUST BE INACTIVE** and **IPADDR OBTAINED FROM TCP STACK**, the XCA major node that represents the Enterprise Extender connections must be inactive before this start option can be modified. Issue VARY INACT,ID=*XCA\_majornode\_name* to deactivate the XCA major node if the start option modification must be made immediately; otherwise, wait for all Enterprise Extender connections to end and then issue the VARY INACT command.
  - For **INSUFFICIENT STORAGE**, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command to display information about total VTAM private storage. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.
  - For **SPECIFIED VALUE NOT VALID**, ensure that you entered *option* correctly. See [z/OS Communications Server: SNA Operation](#) to check values that are valid for this start option.
  - For **UNRECOGNIZED OPTION**, ensure that you entered *option* correctly. See [z/OS Communications Server: SNA Operation](#) to check options that are valid for the MODIFY VTAMOPTS command.
  - For **VALID ONLY FOR A NETWORK NODE**, save the system log for problem determination. Message IST1348I is issued during VTAM initialization and in response to the DISPLAY VTAMOPTS command and displays the node type of this VTAM.

If node type in message IST1348I is **NETWORK NODE** or **INTERCHANGE NODE**, this VTAM is a network node.
  - For **VALID ONLY FOR AN APPN NODE**, save the system log for problem determination. Message IST1348I is issued during VTAM initialization and in response to the DISPLAY VTAMOPTS command and displays the node type of this VTAM.

If node type in message IST1348I is **END NODE**, **INTERCHANGE NODE**, **MIGRATION DATA HOST**, or **NETWORK NODE**, this VTAM is an APPN node. Otherwise, this node is a **SUBAREA NODE**.
  - For **VALID ONLY FOR ICN**, save the system log for problem determination. Message IST1348I is issued during VTAM initialization and in response to the DISPLAY VTAMOPTS command and displays the node type of this VTAM.

If node type in message IST1348I is **INTERCHANGE NODE**, this start option can be modified in this VTAM.
  - For **VALID ONLY FOR ICN OR MDH**, save the system log for problem determination. Message IST1348I is issued during VTAM initialization and in response to the DISPLAY VTAMOPTS command and displays the node type of this VTAM.

If node type in message IST1348I is **INTERCHANGE NODE**, or **MIGRATION DATA HOST**, this start option can be modified in this VTAM.
  - For **VALID ONLY FOR NETWORK NODE OR MDH**, save the system log for problem determination. Message IST1348I is issued during VTAM initialization and in response to the DISPLAY VTAMOPTS command and displays the node type of this VTAM.

If node type in message IST1348I is **NETWORK NODE**, **INTERCHANGE NODE**, or **MIGRATION DATA HOST**, this start option can be modified in this VTAM.

## System programmer response

- Processing of VTAM start options
  - For **HPR FUNCTION NOT SUPPORTED**, stop VTAM, modify the NODETYPE start option to specify NN, and restart VTAM.
  - For **HPR PATH SWITCH NOT SUPPORTED**, stop VTAM, modify the HPR start option to specify RTP, and restart VTAM.
  - For **INSUFFICIENT STORAGE**, increase storage as required. You can modify the CSALIMIT and CSA24 start options using the MODIFY VTAMOPTS command.
  - For **NOT A USS TABLE**, supply the operator with the name of a valid USS table. The MODIFY TABLE command can be entered with ID=ISTNOP to change the USS table used for operator messages and commands.
  - For **NOT VALID DUE TO HPR CAPABILITY**, stop VTAM, modify the HPR start option to specify RTP, and restart VTAM.
  - For **RESULTING STRUCTURE NAME TOO LONG**, specify a shorter (less than 15 characters) name on the STRGR or STRMNPS start option keyword, and add a structure definition to the active CFRM policy for the structure name suffixed by each of the possible subplex (XCFGRPID) values.
  - For **STRUCTURE NOT DEFINED**, define the structure name in the active CFRM policy. See [z/OS MVS Setting Up a Sysplex](#) for more information on how to define a structure in the CFRM policy.
- DISPLAY VTAMOPTS command
  - None.
- MODIFY VTAMOPTS command
  - For **EE XCA MAJOR NODE MUST BE INACTIVE** and **IPADDR OBTAINED FROM TCP STACK**, specify the start option in the start option list used to activate VTAM.
  - For **INSUFFICIENT STORAGE**, increase storage as required.
  - For **VALID ONLY FOR A NETWORK NODE**, review the system log to correct the command issued and the definition statements (if appropriate). To configure this VTAM as a network node, you must specify NODETYPE=NN during start processing.
  - For **VALID ONLY FOR AN APPN NODE**, review the system log from the operator to correct the command issued and the definition statements (if appropriate). To configure this VTAM as an APPN node, you must specify NODETYPE=NN or NODETYPE=EN during start processing.
  - For **VALID ONLY FOR ICN**, review the system log from the operator to correct the command issued and the definition statements (if appropriate). To configure this VTAM as an interchange network node, you must specify NODETYPE=NN, HOSTSA=*n*, and SACONNS=YES during start processing.
  - For **VALID ONLY FOR ICN OR MDH**, review the system log from the operator to correct the command issued and the definition statements (if appropriate). To configure this VTAM as an interchange network node, you must specify NODETYPE=NN, HOSTSA=*n*, and SACONNS=YES during start processing. To configure this VTAM as a migration data host, you must specify NODETYPE=EN, HOSTSA=*n*, and SACONNS=YES during start processing.
  - For **VALID ONLY FOR NETWORK NODE OR MDH**, review the system log from the operator to correct the command issued and the definition statements (if appropriate). To configure this VTAM as a network node, you must specify NODETYPE=NN during start processing. To configure this VTAM as a migration data host, you must specify NODETYPE=EN, HOSTSA=*n*, and SACONNS=YES during start processing.

## Routing code

2

## Descriptor code

5

## Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY BFRUSE command. This message displays information about VTAM common service area (CSA) usage. A complete description of the message follows.

```
IST449I  limitname = csa, CURRENT = current, MAXIMUM = maxlevel
IST790I  MAXIMUM type USED = maxK
IST1667I SYSTEM CSA LIMIT = sys_csa_limit
IST1831I percent OF SYSTEM CSA STORAGE REMAINING = sys_csa_avail
[IST449I  CSA24 LIMIT = csa, CURRENT = current, MAXIMUM = maxlevel]
[IST790I  MAXIMUM type USED = maxK]
IST595I  IRNLIMIT = irnlimitK, CURRENT=currentirnK MAXIMUM = maximumirnK
IST981I  VTAM PRIVATE: CURRENT = currentK, MAXIMUM USED = maximumK
IST924I  -----
IST1565I type      MODULES = currentK
IST1565I type      MODULES = currentK
IST1565I type      MODULES = currentK
IST314I  END
```

**Note:** Values are expressed in kilobytes.

### IST449I

*limitname* is either **CSALIMIT** (the request is to set the CSA limit) or **CSA24 LIMIT** (the request is to set the CSA limit for 24-bit addressable storage).

*csa* is the maximum amount of the particular type of CSA that VTAM can use for buffers. Limits are enforced on the requested amount of storage, but *csa* can be **NO LIMIT**, which means VTAM can request as much as is available.

*current* is the current VTAM CSA allocation for buffers.

*maxlevel* is the largest CSA allocation level for buffers since the last DISPLAY BFRUSE command.

### IST595I

*irnlimit* is the maximum amount of VTAM storage that can be used for intermediate routing node slowdown traffic.

*currentirn* is the amount of storage currently in use for intermediate routing node slowdown traffic.

*maximumirn* is the largest allocation level since the last DISPLAY BFRUSE command.

### IST790I

- *type* can be one of the following:

#### CSA

31-bit and 24-bit addressable common storage

#### CSA24

24-bit addressable common storage

- *maxK* is the maximum amount of *type* ever in use for buffers since VTAM was started.

### IST981I

This message shows the private storage (both above and below the 16M line) that VTAM explicitly acquires (with GETMAIN).

*currentK* is the amount of VTAM private storage currently in use. This does not include the amount of private storage required to load the VTAM modules.

*maximumK* is the maximum amount of VTAM private storage ever in use since VTAM was started.

### IST1565I

- *type* can be one of the following:

#### CSA

31-bit and 24-bit addressable common storage acquired for VTAM modules



## CSA24

24-bit addressable common storage acquired for VTAM modules

## PRIVATE

Private storage used to load VTAM modules

- *currentK* is the current VTAM CSA/ECSA allocation for modules.

## IST1667I

- *sys\_csa\_limit* is the maximum amount of system CSA and is determined by adding the total amount of CSA and ECSA defined in the system. The maximum amount that VTAM will use is derived by multiplying the *sys\_csa\_limit* by 0.9 (in other words, VTAM will never use more than 90 percent of the total CSA for the system). See [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about how the system CSA limit relates to the CSALIMIT Start Option.

## IST1831I

- *percent* is the percentage of system CSA plus Extended CSA available for use.
- *sys\_csa\_avail* is the current total amount of system CSA plus Extended CSA available for use.

## System action

Processing continues.

## Operator response

Inspect the data to determine whether further action is required.

If the current allocation is close to the limit, it might not be reasonable to begin significant modifications to the system configuration or workload. Save the system log for problem determination.

## System programmer response

Review this data before making significant changes to the system configuration or workload. Use this data to ensure that storage requirements are being met and that CSA and private storage are being used effectively in the management of VTAM's storage resources.

## Routing code

8

## Descriptor code

5

---

## IST450I

**INVALID *command* COMMAND SYNTAX**

## Explanation

VTAM issues this message when the *command* has invalid syntax.

See [Chapter 16, "Command and RU types in VTAM messages,"](#) on page 1683 for a description of *command*. If VTAM cannot determine the command type because of the syntax error, the *command* field in this message will be blank.

## System action

VTAM rejects the command.

## Operator response

Reenter the command with the correct syntax. See [z/OS Communications Server: SNA Operation](#) for the correct syntax.

## System programmer response

None.

**Note:** If you modify this message, you must specify MSG=(IST450I,1) on the USSMSG macro. This will define IST450I and USS message 1 to be identical in the operation-level USS table. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information on the USSMSG macro for VTAM operator messages.

## Routing code

2

## Descriptor code

5

---

<b>IST451I</b>	<b><i>command</i> COMMAND UNRECOGNIZED, PARAMETER=<i>parameter</i></b>
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---

## Explanation

VTAM issues this message when the *command* with the specified parameter is not supported on this operating system.

See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *command*.

## System action

VTAM rejects the *command*.

## Operator response

Reenter the command correctly. See [z/OS Communications Server: SNA Operation](#) for the correct syntax.

## System programmer response

None.

**Note:** If you modify this message, you must specify MSG=(IST451I,2) on the USSMSG macro. This will define IST451I and USS message 2 to be identical in the operation-level USS table. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information on the USSMSG macro for VTAM operator messages.

## Routing code

8

## Descriptor code

5

---

<b>IST452I</b>	<b><i>parameter</i> PARAMETER EXTRANEIOUS</b>
----------------	---

---

## Explanation

VTAM issues this message when an extraneous parameter *parameter* is specified for an operator command. The parameter might not be valid for the command because it might conflict with another parameter entered for the command.

## Notes:

1. This message might be issued as the result of conflicting verbs being specified on the command. For example, **ACT** and **INACT** are conflicting verbs on the following command:  
V ACT,INACT,ID=*name*
2. The parameter might be valid for other combinations of parameters and resource types.
3. Parameters on the operator commands are not processed in the order they are provided in the command.
4. All positional parameters in a command that occur before the first positional keyword parameter will be labeled **Px**, starting with **P1**.

## System action

VTAM rejects the command.

## Operator response

Reenter the command correctly. See [z/OS Communications Server: SNA Operation](#) for the correct syntax.

## System programmer response

None.

**Note:** If you modify this message, you must specify MSG=(IST452I,3) on the USSMSG macro. This will define IST452I and USS message 3 to be identical in the operation-level USS table. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information on the USSMSG macro for VTAM operator messages.

## Routing code

8

## Descriptor code

5

---

IST453I	<i>parameter</i> PARAMETER VALUE <i>value</i> NOT VALID
---------	---

## Explanation

VTAM issues this message when *parameter* was specified on an operator command and is not valid. *value* is the first 17 characters of the value specified for *parameter*. If no value is displayed for *value*, then the value of the parameter specified was of zero length (e.g. NETID=).

Possible reasons for this message include:

- If the value specified for *parameter* is a network name, the name might be undefined or the resource might be inactive.
- If the value specified for *parameter* is a network name, and IDTYPE was also specified on the command, this message can be displayed when:
  - The network name *parameter* does not exist.
  - The network name *parameter* might be correct, but does not exist with the IDTYPE that was specified on the command.

## Notes:

1. The parameter might be valid for other combinations of parameters and resource types or might have been omitted when required.
2. Parameters on operator commands are not processed in the order they are entered on the command.

## System action

The command is not executed.

## Operator response

Ensure that you entered the command correctly. For additional information on commands and command syntax, see [z/OS Communications Server: SNA Operation](#).

## System programmer response

None.

**Note:** If you modify this message, you must specify MSG=(IST453I,4) on the USSMSG macro. This will define IST453I and USS message 4 to be identical in the operation-level USS table. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information on the USSMSG macro for VTAM operator messages.

## Routing code

8

## Descriptor code

5

---

**IST454I**

***command* COMMAND FAILED, INSUFFICIENT STORAGE**

---

## Explanation

Not enough storage is available for successful processing of *command*. If VTAM cannot determine the command because of lack of storage, the *command* portion of the message will be null.

## System action

VTAM rejects the command.

## Operator response

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Note:** If you modify this message, you must specify MSG=(IST454I,8) on the USSMSG macro. This will define IST454I and USS message 8 to be identical in the operation-level USS table. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information on the USSMSG macro for VTAM operator messages.

## Routing code

8

## Descriptor code

5

---

**IST455I** *parameters* **SESSIONS ENDED**

## Explanation

VTAM ended LU-LU sessions as a result of the VARY TERM command. NOTIFY=YES was specified or was taken by default. *parameters* are the parameters from the VARY TERM command, and will always be network qualified. For example:

```
LU1=NETC.APPC2 SESSIONS ENDED
```

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

**Note:** If you modify this message, you must specify MSG=(IST455I,11) on the USSMSG macro. This will define IST455I and USS message 11 to be identical in the operation-level USS table. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information on the USSMSG macro for VTAM operator messages.

## Routing code

2

## Descriptor code

5

---

**IST456I** **[keyword] REQUIRED PARAMETER OMITTED**

## Explanation

VTAM issues this message when a required parameter is missing from an operator command. The *keyword* value might not be displayed.

*keyword*] is the name of the missing parameter, if known; otherwise, *keyword* is the name of the command that was not entered correctly.

## System action

VTAM rejects the command.

## Operator response

Correct and reenter the command. See [z/OS Communications Server: SNA Operation](#) for more information on VTAM commands and their parameters.

## System programmer response

None.

**Note:** If you modify this message, you must specify MSG=(IST456I,12) on the USSMSG macro. This will define IST456I and USS message 12 to be identical in the operation-level USS table. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information on the USSMSG macro for VTAM operator messages.

## Routing code

8

## Descriptor code

5

---

**IST457I**

**POSITIVE *command* COMMAND RESPONSE**

---

## Explanation

VTAM has accepted the VARY TERM command *command*. Either no applicable sessions exist or session termination will be performed for all applicable sessions as requested. In either case, VTAM issues message IST455I when all applicable sessions have ended (or immediately if no sessions exist), if the NOTIFY=YES parameter has been specified.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

**Note:** If you modify this message, you must specify MSG=(IST457I,0) on the USSMSG macro. This will define IST457I and USS message 0 to be identical in the operation-level USS table. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information on the USSMSG macro for VTAM operator messages.

## Routing code

2

## Descriptor code

5

---

**IST458I**

**USS MESSAGE *number* NOT DEFINED**

---

## Explanation

The user-defined unformatted system services (USS) table that supports this program operator application program (POA) does not contain a USSMSG macro to define the text for the USS message *number*.

## System action

If *number* is **0** or **11**, VTAM has completed the command successfully. Otherwise, VTAM does not execute the command.

## Operator response

Save the system log for problem determination.

## System programmer response

Add the necessary message to the user-defined USS table.

**Note:** If you modify this message, you must specify MSG=(IST458I,14) on the USSMSG macro. This will define IST458I and USS message 14 to be identical in the operation-level USS table. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information on the USSMSG macro for VTAM operator messages.

## Routing code

2

## Descriptor code

5

---

**IST459I** *command FAILED – ID = nodename – ADJ NODE adjnode reason*

---

## Explanation

The *command* for *nodename* failed because of an error on the adjacent node *adjnode*.

*reason* is one of the following:

### INVALID

This *reason* occurs in the following situations:

- Link station *nodename* contacted adjacent node *adjnode* which was not a PU type 4 or a PU type 5.
- Communication controller *nodename* specified link station *adjnode* for a load or dump, but *adjnode* is not a link station, is a switched link station, or is not associated with NCP *nodename*.
- The link station was not found.

### CANNOT BE DEFINED

Link station *nodename* attempted to contact an adjacent node (*adjnode*) that was unknown to VTAM. VTAM was unable to define this adjacent node because of insufficient storage.

### STATE *statename* INVALID

Link station *adjnode* was chosen as the load/dump station for communication controller *nodename* to load or dump, but it cannot be used for loading or dumping in its current state *statename*.

### CA / NCP CONFLICT

Link station *nodename*, which is being activated, is a communication-adapter SDLC link station associated with the NCP *adjnode*. (VTAM allows communication adapters to contact an NCP over a communication-adapter SDLC link or to activate an NCP over a channel- or noncommunication-adapter SDLC link, but not both at the same time.)

### UNAVAILABLE

Link station *nodename* is not associated with NCP *adjnode*.

## System action

VTAM deactivates the node, and the command is rejected.

## Operator response

### INVALID

Activate link station *nodename*. Then enter or reenter *command*, and do not specify the load or dump station on the command (let VTAM choose it).

### CANNOT BE DEFINED

Try to activate the link station later. Issue the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

### STATE *statename* INVALID

Activate link station *nodename*. Then enter or reenter *command*, but do not specify the load or dump station (let VTAM choose it) on the command.

### CA / NCP CONFLICT

Issue the DISPLAY ID command for *adjnode* (*adjnode* is the NCP that is adjacent to *nodename*). Save the system log for problem determination.

### UNAVAILABLE

Save the system log for problem determination.

## System programmer response

### INVALID

Look at the adjacent node to determine the cause of the problem.

### CANNOT BE DEFINED

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

### STATE *statename* INVALID

Look at the adjacent node to determine the cause of the problem.

### CA / NCP CONFLICT

If you want the NCP represented by *adjnode* to be contacted through the communication adapter SDLC link station, ask the operator to enter a VARY INACT command for *adjnode* to deactivate the NCP. The operator might then contact the NCP represented by *adjnode* through the communication adapter SDLC link station by issuing a VARY ACT command for *nodename*.

### UNAVAILABLE

Issue the DISPLAY STATIONS command and review the output for *adjnode*. The link station *nodename* might not have been genned into the adjacent NCP *adjnode* so is therefore unavailable.

If you cannot determine the cause of the problem from the output provided, take the following action:



- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## Routing code

2

## Descriptor code

5

---

**IST460I**

***command FOR U/RNAME ENTRY ID = nodename FAILED: reason***

---

## Explanation

The *command* for *nodename* failed for one of the following reasons:

- The U or RNAME operands were specified on a VARY ACT command for a communication controller.
- The U or RNAME operands were defined in the communication controller deck, and processed when the communication controller was activated.

*reason* can be one of the following:

### **ALREADY CONNECTED**

The link station specified in the RNAME list is in contact with or is attempting connection to another communication controller.

### **INSUFFICIENT STORAGE**

Because of insufficient storage, VTAM was unable to build the dummy link station to represent a channel device address or a link station that was unknown to VTAM.

### **STATE *state* INVALID**

The current state of the link station specified in the RNAME list or its higher level node is no longer appropriate. For example, the node might be in the process of being deactivated or might be undergoing error recovery. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *state*.

### **NODE CANNOT BE DEFINED**

VTAM was unable to define a duplicate name, device address, or a link station that was unknown to VTAM.

### **NODE INVALID**

The node specified in the RNAME list was not a channel adapter, SDLC line, or link station.

### **NO SWITCHED LINK AVAILABLE**

A switched link station connection cannot be established because no switched subarea links are usable.

## System action

VTAM ends activation for the U or RNAME entry.

## Operator response

### **INSUFFICIENT STORAGE**

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

### **STATE *state* INVALID**

Deactivate the node (or its higher level node). Then activate the node (or its higher level node).

### **NO SWITCHED LINK AVAILABLE**

Activate the switched major node after the VARY ACT commands for the communication controllers have been processed. If the switched major node was activated before the communication controllers, activate

the communication controllers first and then activate the switched major node. In all cases, display U or RNAME entry *nodename*, and for problem determination.

For errors in start options or definition lists, save the system log for problem determination.

## System programmer response

Ensure that the generated RNAME list or the RNAME list provided to the operator for the communication controller activation contains the correct name of the link station to be connected to the communication controller.

### INSUFFICIENT STORAGE

Provide more storage at VTAM start time. You might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

### NO SWITCHED LINK AVAILABLE

Verify that the path definitions for *nodename* are enabled and CALL=OUT or CALL=INOUT is coded.

For errors in start options or definitions lists, ensure that all requirements for VTAM are correct for your system. When you have corrected the error condition, ask the operator to reenter the command.

## Routing code

2

## Descriptor code

5

---

IST461I

ACTIVATE FOR U/RNAME ENTRY ID = *nodename* STARTED

## Explanation

A VARY ACT command for a communication controller specified *nodename* as an RNAME operand on that command or as a U generated value.

## System action

Activation of *nodename* is started if the link of the U or RNAME entry *nodename* is active. For an inactive link, the link is activated first, followed by activation of the *nodename*.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

4

---

IST462I

ACTIVATION OF LINK STATION *nodename* IS DEFERRED PENDING  
HIGHER LEVEL NODE ACTIVATION

## Explanation

*nodename* was specified in the RNAME list for a communication controller that is being activated. VTAM cannot activate *nodename* because the communication controller containing it is not known to VTAM.

## System action

VTAM has queued the activation for *nodename* and will activate it when the communication controller containing it is activated.

## Operator response

If the connection with the communication controller containing *nodename* is desired, enter a VARY ACT command for that communication controller. If the connection is not desired, enter a VARY INACT command for *nodename* to deactivate the link station.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST464I** **LINK STATION *nodename1* HAS CONTACTED *nodename2* SA *subarea***

## Explanation

The link station *nodename1* successfully contacted the node *nodename2* in subarea *subarea*. If *nodename2* is blank and *subarea* is zero, VTAM has contacted a subarea node in another network. Because this VTAM node is nongateway-capable, it cannot identify the network and subarea address of the contacted node. If the link station is in state **PCTD1** and is not on an NCP link-station queue, VTAM does not obtain a dummy NCP to queue the link station, so *nodename2* is blank and *subarea* is zero. *nodename2* is **\*\*\*NA\*\*\*** in a VTAM to VTAM connection.

## System action

VTAM activates the link station.

## Operator response

If VTAM has contacted a subarea node in another network, and that is not your intention, deactivate the link station.

## System programmer response

None.

## Routing code

2

## Descriptor code

4

## Explanation

VTAM issues this message when the *command* failed for *nodename* because the necessary load, dump or link station was not available for one of the following reasons:

1. VTAM tried to select a default dump or load station, and none was available.
2. The load or dump station was deactivated while a load or dump was being performed.
3. VTAM was unable to establish connectivity between *nodename* and any link station in the RNAME list from the VARY ACT command.

## System action

VTAM deactivates *nodename* and rejects the command. Other processing continues.

## Operator response

Display *nodename* and all link stations to check spelling and status. Save the system log for problem determination.

- For reasons 1 and 2, allow VTAM to choose the default load or dump station.
- For reason 3, activate the link stations before reissuing the command to activate the communication controller.

VTAM will issue other error messages for each link station that failed to establish a connection with the communication controller. See those messages for further help.

## System programmer response

Check that the link stations in the RNAME list are valid and can be used to establish connectivity with the communication controller. Correct the RNAME list if needed.

## Routing code

2

## Descriptor code

5

## Explanation

During the deactivation or recovery of a communication controller *controller*, VTAM was unable to find a link station to load, dump, or remotely power off (RMPO) the communication controller.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *command*.

*text* is one of the following:

**LOAD — NO LINK STATION AVAILABLE**  
**DUMP — NO LINK STATION AVAILABLE**  
**RMPO — NO LINK STATION AVAILABLE**

## System action

VTAM continues to process the *command* for *controller*. The load, dump, or remote power-off (RMPO) is not performed.

## Operator response

Display *controller* and all link stations to check status. If the communication controllers containing the link stations are not usable, save the system log for problem determination.

## System programmer response

If a communication controller containing a link station in the VARY ACT RNAME list is not usable and it should be, instruct the VTAM operator whether or not to dump and then reload the communication controller.

## Routing code

2

## Descriptor code

4

---

**IST467I** CONTACTED ERROR TYPE *type* FOR ID = *nodename*

---

## Explanation

This message is the first in a group of messages. A complete description of the message group follows.

```
IST467I CONTACTED ERROR TYPE type FOR ID = nodename
[IST1580I  XID RECEIVED BY VTAM:]
[IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data]
.
[IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data]
[IST1582I  CONTROL VECTOR X'22' ANALYSIS:]
[IST1583I  BYTE OFFSET OF FIRST BYTE IN ERROR = byteoffset]
[IST1584I  BIT OFFSET OF FIRST BIT IN ERROR = bitoffset]
[IST1585I  SENSE CODE = sense]
[IST1586I  XID SENT BY VTAM:]
[IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data]
.
[IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data]
[IST1582I  CONTROL VECTOR X'22' ANALYSIS:]
[IST1583I  BYTE OFFSET OF FIRST BYTE IN ERROR = byteoffset]
[IST1584I  BIT OFFSET OF FIRST BIT IN ERROR = bitoffset]
[IST1585I  SENSE CODE = sense]
IST314I  END
```

## IST467I

- The activation procedure for *nodename* failed because of an error specified by the CONTACTED RU error *type*.

### Notes:

1. If the XID received from the adjacent node contains no data (XID(NULL)), VTAM does not issue messages IST1574I, IST1580I, or IST1582I through IST1585I.
  2. For a *type* of **05**, **07**, and **08**, VTAM displays the XID data received from and sent to the adjacent node. The information received from the adjacent nodes is displayed in messages IST1580I and IST1574I. The information sent to the adjacent nodes is displayed in messages IST1586I and IST1574I. The IST1582I subgroup follows the XID to which it refers.
  3. For a *type* of **0B**, VTAM displays the XID data received from the adjacent node, or sent to the adjacent node, or both. The information received from the adjacent nodes is displayed in messages IST1580I and IST1574I. The information sent to the adjacent nodes is displayed in messages IST1586I and IST1574I. The IST1582I subgroup follows the XID to which it refers.
- *type* can be one of the following:

### 02

Load Required. No fields follow.

**03**

A CONTACT RU error occurred during processing; no XIDs are available. The routes between the activating host and the target NCP might be defined incorrectly.

**05**

Exchanged XID parameters are not compatible. Possible reasons include:

- The transmission group numbers do not match or the transmission group number is zero in both nodes.
- The adjacent PU is not able to accept the XID parameter.
- If this is not a transmission group problem, ensure that HOSTSA has been coded in your start list. If HOSTSA is not coded in either start list, you might get this error.
- There might be a lack of storage in the channel-attached hosts.

**07**

No routing capability to the adjacent node.

**08**

VTAM cannot add the link station to the currently active TG. Possible reasons include:

- XID parameters are incompatible with other links in an NCP multilink transmission group.
- There is another active TG with the same TG number connecting the same two subareas. One of the subareas is a VTAM host.
- This host has a connection to another node with the same subarea number as the one being activated.
- NCP will set this error type if the MLTG segment size of the new link is smaller than the MLTG size currently in use by the TG.

**09**

The NCP is loaded, but is in another subnetwork.

**0A**

Unable to contact the link station. This error type is set if the PU is in INACT status. Type 0A will be used when both the SSCP and the sending PU support the attachment of T2.1 nodes. Format 3 XID fields are present when the CONTACTED node is a T2.1 node.

**0B**

The 2.1 boundary function detected an XID error during a contact sequence for a PU type 2.0 or 2.1 node.

**IST1574I**

This message displays the XID received from (if preceded by message IST1580I) or sent to (if preceded by message IST1586I) the adjacent node.

*offset* is the hexadecimal offset in the XID.

*hexdata\_1*, *hexdata\_2*, *hexdata\_3* and *hexdata\_4* each display 4 bytes of the XID in hexadecimal format.

*EBCDIC\_data* displays 16 bytes of the XID in EBCDIC format. Unprintable characters are represented by periods.

**IST1580I**

This message is a header for the information displayed in messages IST1574I and IST1582I through IST1585I for the XID received from the adjacent node.

**IST1582I**

This message is a header for the information displayed in messages IST1583I through IST1585I. Messages IST1582I through IST1585I are present only if CV X'22' is present in the XID.

The IST1582I subgroup follows the XID to which it refers.

**IST1583I**

This message is issued only if *byteoffset* in message IST1583I is nonzero or *bitoffset* in message IST1584I is nonzero.

*byteoffset* is the hexadecimal offset of the byte containing the error, as noted by the adjacent node. Offsets are from byte 0 in the XID.

## IST1584I

This message is issued only if *byteoffset* in message IST1583I is nonzero or *bitoffset* in message IST1584I is nonzero.

*bitoffset* is the hexadecimal offset of the bit containing the error, as noted by the adjacent node. Offsets are from bit 0 in the XID.

## IST1585I

This message is issued only if sense data is included in CV X'22'.

*sense* is the SNA sense code set by the adjacent node identifying the reason the XID is rejected.

## IST1586I

This message is a header for the information displayed in message IST1574I for the XID sent by VTAM to the adjacent node.

## System action

Activation of *nodename* fails. VTAM deactivates the node.

## Operator response

Save the system log and print the major node definition for problem determination.

## System programmer response

For *types 03, 05, 07, 08, and 0B*, verify that the network definitions for the nodes involved are correct.

Additional recommended actions include:

- A *type* of **02** indicates that the communications controller is not loaded.
- A *type* of **03** indicates one of the following problems:
  - A link-hardware problem during CONTACT processing. In this case, follow the installation problem determination procedure for the link.
  - There is an emulator program in the communication controller you are attempting to activate.
  - The adjacent link station on the NCP side of the channel connection has not been activated.
- For a *type* of **05**:
  - Make sure that the applicable link and link-station definitions are compatible.
  - Ensure that HOSTSA has been coded in your start list.
  - For a storage problem, check the *bufsize* value specified for the IOBUF buffer pool. If a channel-attached NCP is in this domain, this value must match or be greater than the value used for the UNITSZ operand on the HOST statement in the NCP definition. For an explanation of the *bufsize* value, see the description of buffer pool start options in the [z/OS Communications Server: SNA Resource Definition Reference](#).
- For a *type* of **07**, make sure the proper route definitions have been supplied in each subarea node.
- For a *type* of **08**, make sure that the applicable link and link-station definitions are compatible. Issue a DISPLAY STATIONS command for a summary of connections to this subarea.
- For a *type* of **0B**, either the sent or received XID might contain an appended CV X'22' that provides more detailed information about the cause of the error. The last 4 bytes of the CV X'22' might contain sense data.

For *type 05, 07, 08, or 0B*, see the section on common subarea problems, in the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional examples and problem determination actions. See [SNA Network Product Formats](#) or [z/OS Communications Server: SNA Data Areas Volume 1](#) for additional information on interpreting the CV X'22' and sense data, if provided in messages IST1582I through IST1585I.

For an apparent software problem, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## Routing code

8

## Descriptor code

5

---

**IST473I** **CONNECTIVITY TEST TO *terminalname* TERMINATED AFTER *n* ECHOES  
DUE TO I/O ERROR, SENSE = *code***

## Explanation

A host-connectivity (echo) test to terminal *terminalname*, initiated by an IBMTEST command entered by *terminalname*, was terminated.

*code* is the sense code and indicates the reason for the error. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

*n* is the number of times, in decimal, the requested data was sent to *terminalname* before the I/O error.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

This is probably a hardware error. Determine the cause of the error, and reenter the command if desired. Follow the installation problem-determination procedure for the link error.

## Routing code

2,8

## Descriptor code

4

---

**IST475I** ***command* FAILED FOR *nodename* REQUEST *runame* SENSE *code***

## Explanation

VTAM is unable to complete *command* for *nodename*. The error occurred during the processing of request unit *runame*.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1683 for a description of *command* and *runame*.

*code* is the sense code and indicates the reason for the failure. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.



## System action

VTAM rejects the command.

## Operator response

If you can correct the reason for the failure, do so and reenter the command. If *nodename* is a resource in another domain, the error can be in either domain. Notify the operator of the other domain if action is required in that domain as well.

For example,

- **ACTIVATE FAILED FOR *cdmname* REQUEST ACTCDRM SENSE 08120000:**

- The activation of an SSCP-SSCP session, started by an ACTCDRM request from the other domain, failed because of insufficient storage in this domain.
- The operator can restart the activation in this domain by issuing a VARY ACT command for *cdmname*.
- If the activation continues to fail:
  - Use the MODIFY CSALIMIT command to increase VTAM's common service area storage.
  - Deactivate other network resources to provide the necessary storage.

- **ACTIVATE FAILED FOR *cdmname* REQUEST ACTCDRM SENSE 084E0000:**

- The activation of an SSCP-SSCP session failed because the NETID in the ACTCDRM request or response does not match the NETID coded in the CDRM definition.

- **ACTIVATE FAILED FOR *cdmname* REQUEST ACTCDRM SENSE 08810000:**

- If this host is not a gateway host, and the operator issues the VARY ACT command for *cdmname* for a gateway SSCP, the gateway NCP sends REQACTCDRM to the gateway SSCP. The gateway SSCP then attempts to activate the SSCP-SSCP session.
- If this host is a gateway host and in a back-to-back configuration, the gateway NCP sends REQACTCDRM to the other gateway host to cause the SSCP-SSCP session to be established.

For a storage problem, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

## Descriptor code

5

---

**IST476I****CDRM TYPE = {HOST|EXTERNAL} [, GATEWAY CAPABLE]**

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for a cross-domain resource manager (CDRM). The message indicates whether the CDRM is in this host (**HOST**), or external to it (**EXTERNAL**).

If **HOST** is indicated and this CDRM is gateway capable, **GATEWAY CAPABLE** is displayed. Otherwise, no optional parameter is displayed.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST477I****CDRMS:**

---

## Explanation

This message is the header for a group of messages that VTAM issues in response to a DISPLAY ID command for a cross-domain resource manager (CDRM) major node or a DISPLAY CDRMS command. One or more IST482I messages will follow to list the CDRM minor nodes in the major node.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST478I**

**CDRSCS:**

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY CDRSCS command for a cross-domain resource (CDRSC) major node. Following this heading, message IST483I lists the cross-domain resources that are defined to VTAM and managed by the CDRM or a part of the CDRSC major node being displayed.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST479I**

**CDRM NAME = *cdrmname*, VERIFY OWNER = {YES|NO}**

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for a cross-domain resource (CDRSC). This message identifies the cross-domain resource manager (CDRM) that owns the CDRSC for which the display was requested. *cdrmname* will be **\*\*\*NA\*\*\*** if the CDRSC was not defined with a CDRM.

Owner verification of a CDRSC is optional, and is accomplished with the VFYOWNER keyword in the definition of a CDRSC.

**VERIFY OWNER = YES** indicates that owner verification is required in this host. When owner verification is in effect, VTAM will reject session setup requests that contain a conflicting owner.

**VERIFY OWNER = NO** indicates that owner verification is not required, so VTAM can automatically change CDRM ownership of a CDRSC.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST482I</b>	<i>cdrmname status, SA subarea, EL element, NETID = cdrmnetid</i>
----------------	---

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY command concerning the cross-domain resource manager (CDRM). This message is the result of one of the following:

- A DISPLAY ID command for a cross-domain resource manager major node
- A DISPLAY CDRMS command requesting information about cross-domain resource managers (CDRMs) defined to this domain.

This message lists the CDRM (*cdrmname*), its status (*status*), its subarea address (in decimal) (*subarea*), and its element address (in decimal) (*element*). If the subarea address or element address is not available, *element* will be **\*\*\*NA\*\*\***.

*cdrmnetid* is the network ID of *cdrmname*.

VTAM repeats this message as many times as needed to list the CDRMs in this major node or domain. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *status*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

<b>IST483I</b>	<i>cdrscname status, CDRM = cdrmname, NETID = cdrscnetid</i>
----------------	--

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY command concerning cross-domain resources (CDRSC). It is the result of one of the following:

- A DISPLAY ID command that specifies a CDRSC major node.
- A DISPLAY ID command that specifies a model CDRSC.

- A DISPLAY CDRSCS command requesting information about cross-domain resources defined to this domain. The message lists the resource name, its status, the name of the controlling CDRM, and the CDRSC's network ID. VTAM repeats this message as many times as needed to list all the cross-domain resources in this major node, in this domain, or that were created from this model CDRSC.

*cdrcsname* is name of the resource.

*status* is the status of the resource. See [z/OS Communications Server: IP and SNA Codes](#) for a description of *status*.

*cdrmname* is the name of the controlling CDRM. If the CDRM is not available, *cdrmname* will be **\*\*\*NA\*\*\***.

*cdrcsnetid* is the network ID of *cdrcsname*. If the NETID is not available, *cdrcsnetid* will be **\*\*\*NA\*\*\***.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST484I** **SUBAREA = *subarea* [GATEWAY CONTROL *function\_type*]**

## Explanation

VTAM issues this message as part of several different message groups in response to a DISPLAY ID command for information about a PU type 4, a DISPLAY ID,IDTYPE=RESOURCE or IDTYPE=DIRECTRY command for directory information for a logical unit, or a DISPLAY DIRECTRY command for directory information for a logical unit.

*subarea* is the subarea number of the resource (in decimal).

**GATEWAY CONTROL** *function\_type* is displayed when the PU type 4 is gateway-capable and is in session with this host. *function\_type* can be one of the following:

### SHARED

Gateway functions are distributed between SSCPs.

### EXCLUSIVE

Gateway functions are performed only by this SSCP.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST486I** **STATUS= *currentstatus*, DESIRED STATE= *desiredstate***

---

## Explanation

VTAM issues this message as part of several different message groups in response to a DISPLAY ID , DISPLAY TRL, or DISPLAY TSOUSER command.

*currentstatus* is the current status of the node. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *currentstatus*.

*desiredstate* is the node state that is desired. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *desiredstate*. If VTAM cannot determine the desired state, *desiredstate* will be **\*\*\*NA\*\*\***.

## System action

Processing continues.

## Operator response

When the *currentstatus* and *desiredstate* values are both CONCT, no activation request has been received. CONCT is not an error state but a "ready for activation" state.

Contact the system programmer to activate the device.

## System programmer response

Activate the device, as requested by the operator.

## Routing code

8

## Descriptor code

5

---

**IST487I** ***command2* FOR ID = *nodename* SCHEDULED BY *command1***

---

## Explanation

VTAM issues this message when *command2* has been scheduled for *nodename*. *command1* is responsible for scheduling *command2*. For example, explicit deactivation of a peripheral node will cause implicit deactivation of that node's LUs.

## System action

Processing of *command2* continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

<b>IST488I</b>	<b><i>command FOR ID = puname FAILED – DUPLICATE NODE: luname</i></b>
----------------	---

---

**Explanation**

VTAM rejected this VARY ACQ command because this domain already has an active resource named *luname*. VTAM cannot acquire physical unit *puname* until its logical unit *luname* has a unique name in this domain.

**System action**

VTAM rejects the command.

**Operator response**

Find the duplicate *luname* by entering a DISPLAY ID command for *luname*.

- If you cannot deactivate the major node containing this node because the major node is needed in the network, save the system log for problem determination.
- Otherwise, deactivate the duplicate *luname*'s major node and reenter the VARY ACQ command.

If the problem continues, save the system log for problem determination.

**System programmer response**

If the resources with duplicate names are needed simultaneously, change the name of this domain's resource in both the NCP macros and the VTAM definition statements. This requires a partial NCP regeneration.

**Routing code**

2

**Descriptor code**

5

---

<b>IST489I</b>	<b><i>command FOR ID = nodename CONTINUES – CANNOT DEFINE NODE: name</i></b>
----------------	--

---

**Explanation**

During processing of the *command*, VTAM determined that it cannot define *name* as a part of *nodename* for one of the following reasons:

- Adjacent control point *name* is not a valid node type.

- NCP frame relay switching equipment set (FRSESET) *name* has the same name as another FRSESET in this domain.
- Resource *name* contains one of the following errors:
  - *name* has the same name as another resource in this domain.
  - *name* has the same network address as another resource in this domain.
  - *name* has the same value for CPNAME as another resource in this domain.
  - *name* has the same value for LUALIAS as another resource in this domain.
  - *name* has the same values for IDBLK and IDNUM as another resource in this domain.
  - *name* is in an NCP major node definition, and there is a CDRM definition with the same SUBAREA address as the NCP major node definition.
  - *name* has a value for VNNAME that matches the value for CPNAME on a PU in this domain.
  - *name* has a value for VNNAME that refers to an ADJCP for which VN=YES is not specified.
  - *name* has the same transmission group number (TGN) as another resource in this domain.
- A pre-defined CDRSC is being activated when an MNPS application of the same name is already active on the node.
- Storage is not available to process the request.

See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *command*.

## System action

Processing of *command* continues. However, VTAM cannot use *name*.

## Operator response

- This is usually a definition error. Enter a DISPLAY ID command for *name* to check for duplicate names. Save the system log for problem determination.
- If you cannot find a definition error, check for an insufficient storage problem by entering the DISPLAY BFRUSE command. Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

This message might be issued during session takeover processing. See the section on common APPN problems, the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for a description of session takeover problems.

This message might be issued while processing a VARY ACT command with the UPDATE=ALL option specified. The resource specified by *name* did not complete processing. Issue the command again to allow this resource to process completely.

## System programmer response

- If the definition failed because of a definition error, use the system log to assist you in correcting the problem. If there are duplicate operands on NCP and VTAM definition statements, you must change one or both of the duplicate statements if you want both resources to be defined at the same time. See the section on common subarea network problems, the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information about this problem. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on VNNAME definitions.
- If the definition failed because of insufficient storage, increase storage as required for the VTAM address space.
  - See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.



- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, and the DISPLAY STORUSE command.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST490I** *command2 FOR ID = nodename FAILED – command1 IN PROGRESS*

---

## Explanation

Processing of *command1* causes VTAM to reject *command2* for *nodename* because *command1* takes precedence over *command2*. For example, the VARY REL command causes any subsequent VARY INACT for the same node to fail.

**Note:** If this message is displayed on a VARY ACT of an NCP with *command2* having the value **SSCP TKOVR** and *command1* having the value **INACT GVBK**, then the switched major node has not been activated before the NCP. See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *command1* and *command2*.

## System action

Processing of *command1* continues, but VTAM rejects *command2*.

## Operator response

Monitor the progress of *command1* with DISPLAY commands. When *command1* processing has completed, enter the command required to achieve the desired network configuration or device.

In the above example, if you want *nodename* to be an active part of the network, enter a VARY ACQ command for *nodename* followed by a VARY ACT command for *nodename*. Save the system log for problem determination.

## System programmer response

Check the system log to determine the series of commands that caused the problem.

## Routing code

2

## Descriptor code

5

---

**IST493I** *command1 FOR ID = nodename OVERRIDDEN BY command2*

---

## Explanation

VTAM issues this message when *command2* for *nodename* overrides *command1*. This occurs even if *command1* was entered first.

VTAM might have issued *command2* when it could not complete *command1*. For example:

- A VARY INACT,TYPE=IMMED command for a physical unit causes VTAM to reject a VARY REL command for the same device. The VARY INACT,TYPE=IMMED command is processed, and the VARY REL command is not executed, because the release processing is part of the deactivation processing.

See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for descriptions of *command1* and *command2*.

## System action

Processing of *command2* continues. VTAM rejects *command1*.

## Operator response

VTAM cannot process *command1* and *command2* concurrently. *command1* is always rejected. Check the system log to determine the reason for the sequence in which the two commands were entered.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST494I** *command* FOR ID = *nodename* FAILED — ALREADY IN DESIRED STATE

## Explanation

VTAM issues this message when the resource *nodename* was specified on the *command* but was already acquired in the desired state. For example, a VARY ACQ command was entered for *nodename* which specified a node that was already acquired.

## System action

VTAM rejects the command.

## Operator response

Ensure that *nodename* was entered correctly.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST495I** *type* HAS BEEN SET TO *value*

## Explanation

VTAM issues this message when one of the following occurs:

- The operator entered a MODIFY VTAMOPTS,CSALIMIT or a MODIFY CSALIMIT command and the value specified was above the system CSA limit or was 0. This message is part of a group of messages. The first message is either IST1665I or IST1666I. See the explanation of the first message in the group for a complete description.
- The operator entered the CSALIMIT start option and the value specified was above the system CSA limit. This message is part of a group of messages. The first message is IST1665I. See the explanation of the first message in the group for a complete description.
- The operator entered a MODIFY VTAMOPTS,CSALIMIT, a MODIFY VTAMOPTS,CSA24, a MODIFY CSALIMIT, or a MODIFY BFRUSE command and VTAM processed it successfully.
- The operator entered a MODIFY BFRUSE command and the XPANLIM value specified was outside the acceptable range. See [z/OS Communications Server: SNA Operation](#) for more information about the MODIFY BFRUSE command.

*type* is one of the following:

- **CSALIMIT**, which indicates total CSA.
- **CSA24 LIMIT**, which indicates CSA below 24-bit addressable storage.
- XPANLIM, which indicates total IOBUF CSA usage.

*value* is one of the following:

- If *type* is CSALIMIT and the specified value was 0 or was above the system CSA limit, *value* is set to the system CSA limit. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about CSALIMIT and start options.
- If *type* is CSA24 LIMIT and the specified value was 0, *value* is NO LIMIT.
- If *type* is XPANLIM and the specified value was 0 or was above the system CSA limit, *type* is set to the VTAM CSA limit. If the specified value was less than the storage amount currently in use for the IOBUF pool, *type* is set to the current amount of storage in use. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the XPANLIM parameter of the IOBUF start options.
- Otherwise, *value* is the value specified on the command in kilobytes.

## System action

If this message is in response to a MODIFY VTAMOPTS command for CSALIMIT or CSA24, or a MODIFY CSALIMIT command, the use of CSA by VTAM will be limited to *value*.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

4

---

IST496E

*function\_name* FUNCTION INOPERATIVE DUE TO ABEND

## Explanation

VTAM issues this message when several consecutive abnormal terminations have caused the VTAM function *function\_name* to become inoperative.

*function\_name* can be one of the following:

- **DYNAMIC CDRSC DELETION**
- **I/O RESPONSE MONITOR**
- **I/O RESPONSE TIMEOUT**

## System action

Processing continues. The cause of the repeated abends might also result in the failure of other VTAM operations.

## Operator response

Save the system log for problem determination.

- If *function\_name* is **DYNAMIC CDRSC DELETION**, monitor the usage of dynamic cross-domain resources (CDRSCs) with the DISPLAY ID=ISTCDRDY,SCOPE=ALL command. Issue a VARY INACT command to delete CDRSCs that have no active sessions.
- If *function\_name* is **I/O RESPONSE MONITOR**, monitor I/O response activity with the DISPLAY PENDING command.
- If *function\_name* is **I/O RESPONSE TIMEOUT**, assess the importance of the pending I/O that is not receiving a response to determine whether VTAM should be restarted.

## System programmer response

You can correct any resulting failures of VTAM operations individually, but you might have to halt and restart VTAM if there are too many failures.

## Routing code

8

## Descriptor code

3

---

**IST499I****DISK FUNCTIONS FOR *ncpname* NOT PERFORMED**

---

## Explanation

This message is the first in a group of messages that VTAM issues in response to one or both of the following:

- A VARY ACT command that specified LOADFROM, SAVEMOD, or DUMPLOAD for NCP *ncpname*
- A PCCU definition statement that specified LOADFROM, SAVEMOD, or DUMPLOAD for NCP *ncpname*.

A complete description of the message group follows.

```
IST499I  DISK FUNCTIONS FOR ncpname NOT PERFORMED
IST523I  REASON = reason
```

*reason* in message IST523I is one of the following:

### **LOAD NOT NECESSARY**

The operator entered a VARY ACT command specifying LOAD=U. Because no load occurs, the functions are not set in NCP *ncpname*.

**CCU NOT CORRECT LEVEL**  
**NCP NOT CORRECT LEVEL**  
**SSP NOT CORRECT LEVEL**

The controller (CCU), NCP, or SSP does not support the function requested. An NCP release prior to NCP V5R2 cannot be loaded with the LOADFROM, SAVEMOD, or DUMPLOAD operands. These operands are valid only for NCP V5R2 or a later release.

**System action**

Activation continues. The LOADFROM, SAVEMOD, and DUMPLOAD operands are ignored.

**Operator response**

- If VTAM issued this message in response to a VARY ACT command **and** *reason* is **LOAD NOT NECESSARY**, you must enter a VARY ACT command, specifying LOAD=YES *if* you want the new functions to be set in NCP *ncpname*.  
For all other *reasons*, save the system log for problem determination.
- If you did not enter a VARY ACT command, notify the system programmer.

**System programmer response**

Ensure that the NCP, SSP, and CCU are at the correct level. To use the LOADFROM, SAVEMOD, and DUMPLOAD operands on the VARY ACT command, the NCP must be NCP V5R2 or a later release, and the SSP must be SSP V3R4 or a later release.

**Routing code**

2

**Descriptor code**

5

---

**IST507I** *name* NOT ACTIVE, TSO TRACE REQUEST IGNORED

**Explanation**

VTAM issues this message in the following situations:

- A MODIFY TRACE,TYPE=TSO command was entered to request a TSO/ VTAM TGET/TPUT/TPG trace for a user ID *name* that is not logged on to TSO/VTAM.
- A DISPLAY TRACES,TYPE=TSO command was entered, and TSO was not active. *name* is **TSO**.
- A DISPLAY TRACES,TYPE=TSO,ID=*name* command was entered, and the specified TSO user ID was not active.

**System action**

VTAM rejects the command. Other processing continues.

**Operator response**

- If *name* is a TSO user ID, verify that the user ID is spelled correctly, and reenter the command.
- If *name* is **TSO**, verify that TSO is active, and start if necessary.

**System programmer response**

None.

## Routing code

2,8

## Descriptor code

4

---

**IST510I****ROUTE TEST *displayid* FAILED – ERS NOT DEFINED**

---

## Explanation

This message follows a message displaying route status when TEST=YES is specified on the DISPLAY ROUTE command, and the route display returns a status of UNDEFINED for all ERs in the display, indicating there are no ERs to test.

The display identification number *displayid* corresponds to the route display number in the previous message.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST511I****TRACE REQUEST FAILED – *nodename* INVALID**

---

## Explanation

VTAM issues this message in response to a MODIFY TRACE command or TRACE start option. The trace that VTAM attempted for resource *nodename* failed because *nodename* does not exist or is not valid for the type of trace requested.

If the node name is CNMSTATE, this indicates that the communication manager (for example, NetView) is not active, but must be active for the trace requested to be successful.

## System action

VTAM rejects the command.

## Operator response

Ensure that you entered *nodename* correctly. If problems persist, verify that *nodename* is valid for the type of trace requested.

For information on the MODIFY TRACE command or TRACE start option, see [z/OS Communications Server: SNA Operation](#).



**ALSNAME** = *alsname* is displayed if *nodename* is an independent LU. *alsname* is the name of the adjacent link station (ALS) over which LU *nodename* is traced.

## System action

VTAM starts tracing *nodename*.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST516I** **DESTSUB ADJSUB TGN ER ER STATUS VR(S)**

## Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY PATHTAB command. A complete description of the message group follows.

```
IST516I  DESTSUB ADJSUB TGN ER  ER STATUS  VR(S)
IST517I  destsa adjsa  tgn er   status   vrlist
:
IST1454I count PATH(S) DISPLAYED
IST314I  END
```

### IST516I

Message IST516I is a header line for the display and identifies the type of information shown in the display.

### IST517I

- VTAM issues message IST517I for each ER table entry to be displayed. It contains a user-defined list of the virtual routes that map to the explicit routes. It also contains the following information about explicit routes known to this host:

In the message text:

#### **destsa**

The destination subarea in which the listed explicit route terminates.

#### **adjsa**

The adjacent subarea through which the listed explicit route passes.

#### **tgn**

The transmission group number.

#### **er**

The explicit route number.

#### **status**

The current state of the listed explicit route as known to this host. For virtual routes that specify explicit routes with no table entry, the *status* value is **UNDEF**. (In this case, the value of *adj* is blank.)

Possible values are:



**ACTIV1**

The explicit route is active.

The explicit route has been defined to VTAM in a path definition set; the route is physically available to the network and has been activated by the node at the other end of the route. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route when the route is in this state.

**ACTIV2**

The explicit route is active.

The explicit route has been defined to VTAM in a path definition set; the route is physically available to the network, has been activated by the node at the other end of the route, and is in the process of being activated by this node. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route when the route is in this state.

**ACTIV3**

The explicit route is active.

The explicit route has been defined to VTAM in a path definition set; the route is physically available to the network and has been activated by this node or by both this node and the node at the other end of the route. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route when the route is in this state.

**INACT**

The VR is inactive.

The virtual route has been defined to VTAM in a path definition set, but is not currently active or is pending active. It will be automatically activated when it is needed for a session.

**INOP**

The ER is inoperative.

The explicit route has been defined to VTAM in a path definition set, but is not physically available to the network. That is, connectivity does not exist along the entire route. A route test (TEST=YES option) will fail, because the explicit route does not have physical connectivity.

**PACT**

The VR is pending active.

The virtual route has been defined to VTAM in a path definition set and is in the process of being activated by this node.

**PDEFA**

The ER is "pending definition—active".

The explicit route is physically available to the network, and activation has been attempted by the node at the other end of the route, but the route has not yet been defined to VTAM in a path definition set. The route is automatically activated by this node when an appropriate path definition set is processed. A route test (TEST=YES option) can succeed, even though the explicit route is not defined in this host. The purpose of the test is to provide information on the physical connectivity of the explicit route so that the operator can decide whether or not to define the route. In order for VTAM to carry session message traffic, the explicit route must be defined to VTAM.

**PDEFO**

The ER is "pending definition—operative".

The explicit route is physically available to the network, but it has not yet been defined to VTAM in a path definition set. A route test (TEST=YES option) can succeed, even though the explicit route is not defined in this host. The purpose of the test is to provide information on the physical connectivity of the explicit route so that the operator can decide whether or not to define the route. In order to be used by VTAM to carry session message traffic, the explicit route must be defined to VTAM.

**UNDEF**

The ER is undefined.

The explicit route has not been defined to VTAM in a path definition set and is not physically available to the network. A route test (TEST=YES option) will always fail, because the explicit route is neither defined to VTAM nor operative.

***vrlist***

The user-defined virtual route numbers that map onto the listed explicit route.

**IST1454I**

- In the message text:

***count***

The total number of paths displayed.

**System action**

Processing continues.

**Operator response**

The status might be used for information only or might indicate that operator action is necessary if any status does not meet expectations. In particular, a virtual route or an explicit route with a status of UNDEF might indicate that a path definition set should be activated. An explicit route with a status of INOP might indicate that a subarea node, a cross-subarea link, or a cross-subarea link station should be activated, or that there is some network problem with a node, link, or link station.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST517I**

*destsa adjsa tgn er status vrlist*

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY PATHTAB command. The first message in the group is IST516I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST520I**

**UNABLE TO PROCESS *runame* {REQ|RSP} [FROM *fromnetid*] [TO *tonetid*]**

**Explanation**

This message is the first in a group of messages that VTAM issues in response to a lack of storage, the abnormal termination of a VTAM program, or an RU received out of sequence. A complete description of the message group follows.

- If the reason is insufficient storage or a VTAM program abend, the following message group is displayed.

```
IST520I  UNABLE TO PROCESS runame {REQ|RSP} [FROM fromnetid] [TO tonetid]
[IST531I  FROM SUBAREA = subarea, ELEMENT = element]
[IST531I  TO SUBAREA = subarea, ELEMENT = element]
IST523I  REASON = reason
```

- If the reason is an RU received out of sequence, the following message group is displayed.

```
IST520I  UNABLE TO PROCESS runame {REQ|RSP} [FROM fromnetid] [TO tonetid]
IST1694I REASON = SEQUENCE NUMBER ERROR
IST314I  END
```

### IST520I

- *tonetid* cannot process the request or response unit (RU) *runame*. See Chapter 16, “Command and RU types in VTAM messages,” on page 1683 for a description of *runame*. If *runame* is not in Chapter 16, “Command and RU types in VTAM messages,” on page 1683, it is the 3-byte network services header of an RU preceded by a 1-byte category code.

The origin and destination of *runame* are identified by either their:

- Network names (*fromnetid* and *tonetid*) as displayed in message IST520I; or
- Network addresses (subarea address *subarea* and element address *element*) as displayed in message IST531I.

### IST531I

VTAM will not display message IST531I if both **FROM** network name *fromnetid* and **TO** network name *tonetid* are known to VTAM. VTAM will display it once if one of the network names is unknown and twice if both of the network names are unknown. If the subarea and element addresses are unknown, VTAM issues either **0** or **\*NA\*** in place of the address.

### IST523I

- The *reason* in message IST523I can be any of the following:

**INSUFFICIENT STORAGE**  
**VTAM PROGRAM ABEND**

### IST1694I

VTAM will display message IST1694I if the sequence number field in the TH of the RU is not the sequence number that VTAM expected.

## System action

Processing continues. Because VTAM cannot process *runame*, other VTAM operations might fail.

## Operator response

Save the system log for problem determination.

## System programmer response

For REASON = INSUFFICIENT STORAGE

- Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.
- Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.

- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

For REASON = VTAM PROGRAM ABEND

- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps](#) and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

For REASON = SEQUENCE NUMBER ERROR

- Investigate why *fromnetid* sent an RU out of sequence. If you suspect an ongoing problem, you can deactivate the session between *fromnetid* and *tonetid*. See the section on non-VTAM problems in the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional problem determination actions.

## Routing code

8

## Descriptor code

4

---

**IST521I** **GBIND {FAILED|QUEUED} FOR COS *cosname* [FROM *fromname*] [TO *tonetid*]**

---

## Explanation

This message is the first in a group of messages. A complete description of the message group follows.

```
IST521I  GBIND {FAILED|QUEUED} FOR COS cosname [FROM fromname] [TO tonetid]
[IST531I  FROM SUBAREA = subarea,ELEMENT = element]
[IST531I  TO SUBAREA = subarea,ELEMENT = element]
[IST531I  VIA gatewayncp]
[IST531I  VIA SUBAREA gwsubarea]
IST528I  VIRTUAL ROUTE NUMBER vlist
IST523I  REASON = reason
```

A generic BIND (ACTPU, ACTLU, ACTCDRM, or BIND) was queued or rejected because a virtual route was unavailable. An ACTPU, ACTLU, or ACTCDRM, sent by an SSCP to bind sessions, is queued if some virtual routes are defined, but not yet operative. Generic BINDs require virtual routes that are defined and operative, and that can be made active.

If a GBIND fails because no routes were activated, one or more virtual routes in the class of service (CoS) VR list (possibly modified by the virtual route selection exit routine) were defined and operative but could not be successfully activated (that is, either the virtual route itself or its associated explicit route could not be activated). This includes the case where the prospective session had a migration requirement for explicit route zero from the SLU to the PLU. This requirement could not be satisfied from the routes in the COS.

If a GBIND fails because no routes were operative, one or more virtual routes in the VR list were defined but not operative.

If a GBIND fails because no routes were defined, no routes in the VR list were defined. Likewise, certain GBINDs might be queued for the same reason, except that a GBIND will not be queued if no routes to the destination subarea are defined.

If a GBIND fails because of a VR selection-exit routine error, the virtual-route-selection exit routine modified the VR list from the COS to the extent that none of the exit-selected routes was usable. At least one virtual route identifier *vlist* was outside the proper numeric bounds for a VR number (0–7) or transmission priority (0–2), or none of the virtual routes was defined.

The *vrlist* shown in message IST528I is a list of virtual route numbers (regardless of transmission priority) associated with the GBIND at the time of the queueing or failure. If failure occurs before, during, or as a result of the virtual route selection exit routine, the list is from the COS. Otherwise, the list will appear with any modifications made by the exit routine, if the exit routine is allowed modifications.

The origin and destination of the generic BIND are identified by one of the following:

- Network names (*fromname* and *tonetid*) as displayed in message IST521I
- Network addresses (subarea number *subarea* and element number *element*) as displayed in message IST531I
- Gateway network name (*gatewayncp*) as displayed in message IST531I
- Gateway network address (subarea number *gwsubarea*) as displayed in message IST531I.

*reason* in message IST523I can be any of the following:

**NO ROUTES DEFINED**

**NO ROUTES OPERATIVE**

**NO ROUTES ACTIVATED**

**VR SELECTION EXIT ERROR—UNDEFINED ROUTES**

**VR SELECTION EXIT ERROR—INVALID ROUTES**

#### Notes:

1. VTAM will not issue message IST531I if both **FROM** network name *fromname* and **TO** network name *tonetid* are known to VTAM and provided in message IST521I. VTAM issues it once if one of the network names is unknown and twice if both of the network names are unknown. If the subarea and element addresses are unknown, VTAM issues either **O** or **\*NA\*** in place of the address.
2. VTAM issues message IST531I specifying gateway information only if the failed or queued generic BIND was cross-network.

If the GBIND is an ACTCDRM for an SSCP in another network, VTAM issues message IST531I to specify the names of the gateway node (GWN) through which the ACTCDRM will be sent to the adjacent network when the virtual route to that gateway node (GWN) becomes available.

For a CDRM or CDRSC in another network, the gateway node name *gatewayncp* is given for the gateway node through which the bind request will be sent to the adjacent network. If the name of the gateway node is unknown, the subarea number of the gateway node is given.

COS is a designation of the path-control network characteristics, such as path security, transmission priority, and bandwidth, that apply to a particular session. If the Class of Service name *cosname* does not appear in message IST521I, VTAM used the default Class of Service entry.

## System action

Processing continues, but the session setup either fails or awaits the availability of an applicable virtual route.

## Operator response

If a route-activation failure caused a GBIND failure, VTAM issued previous messages to describe the route-activation failure. Correct the problem described in those messages. Re-attempt the GBIND by the SSCP or application program.

If a GBIND failure occurred because no routes were operative, use the DISPLAY ROUTE command, specifying TEST=YES, to test the applicable routes and determine where the outage is. Establish connectivity along the full length of the route.

If a GBIND failure occurred because no routes were defined, activate the appropriate path decks to define the applicable routes.

If VTAM issued IST531I to specify the name of a gateway node (GWN) through which VTAM will send the ACTCDRM to the adjacent network, and if a different GWN subsequently becomes available, use the VARY INACT command, followed by the VARY ACT command, to activate the CDRM through the newly available GWN.

Queuing of an SSCP session request might be normal if separate activation of network nodes or links or both is proceeding. If such other activations are not in progress, or if the GBIND remains queued for an extended period (indicated by subsequent appearances of message IST530I), a problem might exist. Route testing might be appropriate. Cancel the queued session request by deactivating the resource with which the SSCP was "binding" a session.

If a virtual-route-selection exit routine error caused a GBIND failure, either there is a programming error in that exit routine or the routes expected to be available to the exit routine have not been defined. If the former, halt VTAM and have the system programmer fix and replace the exit routine module. If the latter, activate the appropriate path decks to define the applicable routes.

## System programmer response

If route definitions are the cause of the problem, supply the operator with the appropriate path decks. If the virtual-route-selection exit routine is the cause of the problem, fix it and reinstall the exit routine in VTAM.

For information about network routing, see the [z/OS Communications Server: SNA Network Implementation Guide](#).

For information about VTAM routes, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

8

## Descriptor code

4

---

**IST522I** {ER|VR} *n* ACT {FAILED|REJECTED} SA *subarea1* TO SA *subarea2* [FOR TP*i*]

---

## Explanation

This message is the first in a group of messages that VTAM issues for one of these conditions:

- A virtual or explicit route activation initiated by this VTAM node failed in the network.
- An activation request received from the network by this VTAM node was rejected.

A complete description of the message group follows.

```
IST522I {ER|VR} n ACT {FAILED|REJECTED} SA subarea1 TO SA subarea2 [FOR TPi]
IST523I REASON = reason
[IST524I REVERSE ER MASK = ermask]
[IST525I REJECTING SA subarea3 USING TG tg ADJACENT SA subarea4]
```

**Note:** **FOR TP*i*** appears only when **VR *n*** appears.

**For an explicit route activation:**

### IST522I

This message indicates that the activation was rejected if the reason for the failure is in this node, or indicates that the activation failed if some node along the route could not permit the activation.

*n* indicates the one or two-digit ER number.

*subarea1* and *subarea2* are decimal subarea numbers specifying, respectively, the node that began the route activation and the node at the other end of the route.

### IST523I

- This message indicates the problem in the rejecting node.
- *reason* might be one of the following:

**A REQUIRED TG IS INACTIVE**

A required transmission group (TG) is not active somewhere along the path of the route.

**EXPLICIT ROUTE NOT DEFINED**

The explicit route is not defined (in the forward direction).

**EXPLICIT ROUTE NOT REVERSIBLE**

A useable explicit route in the reverse direction cannot be found (because of an incompatible definition or no definition in the reverse direction).

**EXPLICIT ROUTE LENGTH EXCEEDS MAXIMUM**

The explicit route has a length in excess of the maximum possible length (that is, a routing loop exists).

**MIGRATION NODE DOES NOT SUPPORT THIS ER**

The adjacent subarea NCP or VTAM does not support extended subarea addressing and the explicit route being activated has an origin or destination subarea greater than 255, or an explicit route number greater than seven.

**UNEXPECTED TYPE BYTE X'nn'**

An unrecognizable failure code *nn* was received from the rejecting node.

**IST524I**

*ermask* is the reverse explicit route *mask* as received in an NC\_ER\_ACT or NC\_ER\_ACT\_REPLY RU. This mask indicates the explicit route numbers for flow in the direction opposite the direction of ER *n*.

If the explicit route activation failed in the network, VTAM issues message IST525I, indicating the transmission group identifier (*tg*) at the point of rejection.

**IST525I**

- *subarea3* is the subarea address of the network node rejecting the activation.
- *tg* is the number of the transmission group to or from an adjacent node.
- *subarea4* is the subarea address of the applicable adjacent node.

**Note:** The transmission group number or the subarea number of the adjacent node or both might be zero if these numbers are unknown to the rejecting node.

**For a virtual route activation**, messages IST522I, IST523I, and (sometimes) IST524I will appear.

**Note:** This message group will appear only once in a display, though multiple sessions might attempt to establish routing from *subarea1* to *subarea2*.

**IST522I**

*n* indicates the one-digit virtual route number.

*subarea1* and *subarea2* specify, respectively, the node that began the route activation and the node at the other end of the route.

**TPi** is the transmission priority of the route activation.

**IST523I**

- This message indicates the problem in the rejecting node.
- *reason* might be one of the following:

**ACTVR RESPONSE SENSE IS *sense***

The node that began the route activation sent the **REASON** information. See the [z/OS Communications Server: IP and SNA Codes](#) for additional information on sense codes.

**UNDEFINED EXPLICIT ROUTE REQUESTED**

The explicit route defined for use with the virtual route is undefined in this node.

**INCORRECT EXPLICIT ROUTE REQUESTED**

The node at the other end of the route specified one or more reverse explicit route numbers that are inconsistent with the route definitions in this node.

**VIRTUAL ROUTE NOT DEFINED**

The virtual route is not defined.

## IST524I

*ermask* is the reverse explicit route *mask* as received in an NC\_ER\_ACT or NC\_ER\_ACT\_REPLY RU. This mask indicates the explicit route numbers for flow in the direction opposite the direction of ER *n*.

### System action

- If this VTAM node rejected a route-activation attempt from another network node, processing continues with no effect on this node.
- If a route activation initiated by this node failed, then some other network node rejected the route-activation request. The failing host continues processing the generic BIND that caused the activation attempt, and places it on some other available route in its requested COS.
- If no routes are available, the generic BIND fails or is queued to wait for a usable route.

### Operator response

For a route-activation indicated as FAILED:

- The problem is probably at the node that rejected the route-activation RU.
- If message IST525I is present, it identifies the rejecting node.
- If message IST525I is not present (as for a virtual route activation failure), the node at the far end of the route *subarea2* is the rejecting node.
- If an explicit route activation failed because it requires a currently inactive transmission group (TG) in order to complete the route's physical connectivity, the TG might be activated if the node containing the inactive TG is active or can be made active to this VTAM. Otherwise, call the operator of whatever host owns the node containing the inactive TG and request activation of the TG.
- If route activation failed because it is a migration ER0 that is not supported by VTAM, this is probably a route-definition error. Bring this to the attention of your system programmer.

For a route-activation indicated as REJECTED:

- If message IST522I indicates that his VTAM node rejected a route-activation RU, the problem is in this node. With the following exceptions, your system programmer will need to be informed. The exceptions are:
  - When an ER activation was rejected because the ER is not reversible.
  - When a VR activation was rejected because the VR is not defined. (An ER that is "not reversible" either is not defined or is incompatibly defined in the reverse direction, that is, in the direction from the rejecting VTAM node issuing this message to the node originating the ER activation.)

In these cases, an appropriate path definition set might be activated to cause the applicable route to become properly defined.

### System programmer response

The information in this group of messages is basically that which appears in the NC\_ER\_ACT, NC\_ER\_ACT\_REPLY, or NC\_ACTVR request units, or the sense information that might appear in the NC\_ACTVR response unit.

If this host rejected a virtual route's activation because an incorrect explicit route was requested, you might not be able to resolve the problem. The situation is one of the following:

- The explicit route for the subject virtual route is defined on a physical path different from that defined at the other end of the route (that is, inconsistent route definitions).
- The applicable path deck has only recently been activated, and the other end of the route has tried to activate a virtual route before being notified of one or more new explicit route definitions. Because this is a timing problem, there is no action that you can take. The next attempt to activate the virtual route should succeed.



## Routing code

8

## Descriptor code

4

**IST523I**

**REASON** = *reason*

### Explanation

This message is part of several message groups. See the explanation of the first message in the group for a complete description.

## Routing code

8

### Descriptor code

4

**IST524I**

**REVERSE ER MASK = *ermask***

### Explanation

This message is part of a group of messages. The first message is IST522I. See the explanation of that message for a full description.

## Routing code

8

### Descriptor code

4

**IST525I**REJECTING SA *subarea3* USING TG *tg* ADJACENT SA *subarea4*

### Explanation

This message is part of a group of messages. The first message is IST522I. See the explanation of that message for a full description.

### Routing code

8

### Descriptor code

4

**IST526I**

**ROUTE FAILED FROM *subarea1* TO *subarea2* – DSA *destsubarea* – NETID *netid***

### Explanation

A transmission group between subarea number *subarea1* and subarea number *subarea2* has become inoperative. *destsubarea* is the subarea number of the destination of the route in network *netid*.

## System action

Processing continues. VTAM terminates all sessions using this explicit route. An affected session might be reinitiated by the session partners if alternate routes are available to them.

## Operator response

If the outage is the result of physical failure, save the system log for problem determination. If the outage is a result of some operator action in the network and was not expected, contact the operators controlling the reporting node or its adjacent node or both, to coordinate your actions.

**Note:** If the system programmer requests more information about a certain explicit route, you can supply it by issuing the DISPLAY ROUTE,TEST=YES command, specifying either *subarea1* or *subarea2* (whichever is appropriate) as the destination subarea number. If the virtual route numbers affected by this outage and the number of the transmission group number are desired, you can obtain that information by issuing the DISPLAY ROUTE,TEST=YES command, specifying *destsubarea* as the destination subarea number. If only the virtual route numbers are desired, the TEST=YES operand can be omitted.

## System programmer response

If a network failure is involved, repair the network and restore the route.

## Routing code

2

## Descriptor code

5

---

**IST528I** **VIRTUAL ROUTE NUMBER** *vrlist*

## Explanation

This message is part of a group of messages. The first message is IST521I, IST744I, or IST746I. See the explanation of those messages for a full description.

## Routing code

8

## Descriptor code

4

---

**IST529I** **VR SELECTION EXIT** *reason* **[AND IS NOW INACTIVE]**

## Explanation

The virtual-route-selection exit routine has terminated.

*reason* can be one of the following:

### **ABENDED WITH CODE** *code*

The VR exit selection subtask, ISTPUCX0, abnormally terminated with hexadecimal abend code *code*. See the [z/OS MVS System Codes](#) for more information.

### **EXCEEDED ABEND THRESHOLD**

The VR exit selection subtask, ISTPUCX0, abnormally terminated more than four times in less than four minutes.

## REQUESTED TERMINATION

The exit routine requested its own termination by specifying a nonzero return code when it returned control to VTAM.

## IS NOT OPERATIVE DUE TO A LACK OF STORAGE

The exit routine became inoperative because of a lack of storage.

## System action

Processing continues. If the exit routine has abended but has not exceeded its abend threshold, VTAM reinstates the exit routine. If the abend threshold was exceeded or the exit routine requested termination, VTAM stops using the exit routine and performs virtual route selection for session requests strictly on the basis of the requested Class of Service.

## Operator response

Save the system log for problem determination.

## System programmer response

If the virtual route selection exit routine abended, there is probably a programming error in the exit routine. You can replace the exit routine with the corrected version by using the MODIFY EXIT command. See [z/OS Communications Server: SNA Operation](#) for information on the MODIFY EXIT command.

If the exit routine requested its own termination, there might be a programming error.

## Routing code

8

## Descriptor code

4

---

**IST530I** *runame* PENDING FROM *fromnetid* TO *tonetid* FOR *fornodename*

---

## Explanation

This message is the first in a group of messages that VTAM issues when the request unit (RU) *runame* has been pending on the resource *fornodename* for a period of time without receipt of a corresponding response unit. A complete description of the message group follows.

```
IST530I  runame PENDING FROM fromnetid TO tonetid FOR fornodename
[IST531I  FROM SUBAREA = subarea, ELEMENT = element]
[IST531I  TO SUBAREA = subarea, ELEMENT = element]
IST1051I EVENT CODE = code
IST1062I EVENT ID = eventid
```

**Note:** If *runame* remains outstanding for subsequent intervals, these messages will be repeated at such intervals until *runame* is received or until the request unit is purged.

### IST530I

- *runame* is the request unit (RU) that is pending. See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *runame*.
- The origin and destination of *runame* are identified by one of the following:
  - Network names (*fromnetid* and *tonetid*) as displayed in this message.
  - Network addresses (subarea number *subarea* and element number *element*) as displayed in message IST531I.

### IST531I

VTAM will not issue this message if both **FROM** network name *fromnetid* and **TO** network name *tonetid* are displayed in this message.

VTAM will display this message once if one of the network names is unknown and twice if both of the network names are unknown.

If the subarea and element addresses are unknown, VTAM issues either **0** or **\*NA\*** in place of the address.

### IST1051I

*code* is an event code that identifies which format of event ID is being displayed. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

### IST1062I

*eventid* is an internal VTAM identifier of the pending request. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *eventid*.

## System action

Processing continues, awaiting the corresponding response unit.

## Operator response

This message group indicates that a problem might exist. The longer an RU remains outstanding (that is, the more often these messages reappear for the same RU), the more probable it is that a problem exists.

If a particular RU remains outstanding for an extended period of time, display the node for which the I/O is pending, and save the system log for problem determination.

If *runame* is **CHAR CODED**, this message group indicates that VTAM sent a USSMSG to the LU and is waiting for a response. To correct the situation, enter a VARY INACT command for the resource *fornodename* and then enter a VARY ACT for the same resource.

You can use the MODIFY IOPD command to change the time-out interval controlling the display of this message. See [z/OS Communications Server: SNA Operation](#) for additional information.

## System programmer response

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for corrective actions for the common problems.

- If *runame* is **CD DSEARCH**, this message group might indicate one of the following problems:
  - A low IOINT value and no ADJSSCP table values were coded.
  - The DYNASSCP start option and the ADJSSCP table are not properly tuned.
- If *runame* is **CHAR CODED**, this message group indicates that VTAM sent a USSMSG to the LU and is waiting for a response. This is usually a device problem. A frequent cause of this error is when a user powers off the terminal without logging off first. To correct the situation, enter a VARY INACT command for the resource *fornodename* and then enter a VARY ACT for the same resource.
- If *runame* is **GUNBIND** and the message is received at log off time in a cross domain environment, this message group indicates that one of the following probably occurred:
  - The application did not issue a CLSDST macro.
  - The device sent an incorrect response or no response to the UNBIND RU.
- If *runame* is **NMVT**, this message group might indicate that the device is not real-time-monitor-capable. This means that the device did not process the response and return the requested information properly to the NetView program for most devices, or to the RS/6000 network management program for RS/6000 devices. A microcode change is needed to permanently resolve this problem.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on the wait procedure.

## 8

## 4

8

## 4

Chapter 6. IST messages for VTAM network operators IST400I - IST799I **273**

- *destsa* is the destination subarea number specified by the DESTSUB operand of the DISPLAY ROUTE command. If the node name has not been defined for it, *destpu* will be displayed as **\*\*\*NA\*\*\*** (not available).

*erlength* is the length of the explicit route in terms of the number of transmission groups traversed during the test.

An explicit route completes a route test successfully if the route test request is successfully forwarded to and returned from the other end of the route. In order for this to occur, a physical connection must exist along the entire length of the route, with proper route definitions in each intermediate node and in the end node.

If the explicit route failed in the test:

- It was rejected by the node with subarea number *rejsa*, adjacent to subarea number *rejadsa* through transmission group number *tg2*. *rejadsa* or *tg2* or both might be zero if they are not known to the rejecting node.
- *ermask* is a hexadecimal 4-digit mask representing operative routes in the direction opposite the direction of the explicit route *er*. The first 8 bits represent ERs 0–7. If mask is 0, the ER is not reversible.
- It was rejected for one of the following values of *reason*:

#### **A REQUIRED TG IS INACTIVE**

The explicit route requires a transmission group that is not currently active somewhere along the path of the route.

#### **ER EXCEEDS MAXIMUM LENGTH**

The explicit route had a length in excess of the maximum possible length (that is, a routing loop might exist).

#### **ER NOT DEFINED**

The explicit route was not defined in the forward direction.

#### **ER NOT REVERSIBLE**

The explicit route was not reversible because of an incompatible definition or no definition in the reverse direction.

#### **MIGRATION ER NOT SUPPORTED**

A migration node was encountered. Migration nodes do not support ER or VR protocols. ER0 cannot be used.

#### **MIGRATION NODE DOES NOT SUPPORT THIS ER**

The adjacent subarea NCP or VTAM does not support extended subarea addressing and the explicit route being activated has an origin or destination subarea greater than 255, or an explicit route number greater than seven.

#### **MIGRATION NODE ENCOUNTERED**

A migration node was encountered. Migration nodes do not support ER or VR protocols. ER0 can be used.

#### **UNEXPECTED TYPE BYTE X'nn'**

a reason code, *nn* (expressed in hexadecimal), was received from the rejecting node, and VTAM does not recognize that reason code.

The following is an illustration of a typical route failure:

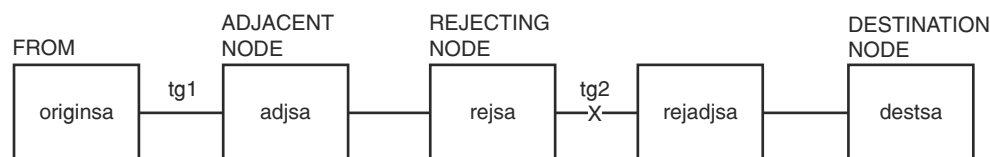


Figure 3. Typical route failure

**Note:** Messages IST572I and IST816I do not appear for a route test that completed successfully.

## **System action**

Processing continues, regardless of the route-test results, with no effect on this host.

## Operator response

If the explicit route completed the route test successfully, VTAM can use the route for routing session message traffic (provided the explicit route and an associated virtual route are defined to VTAM). No operator response is necessary unless route definitions are required, in which case the appropriate path definition sets can be activated.

If the explicit route failed the route test, an operator response might not always be necessary, but in order for VTAM to carry session message traffic on this explicit route, it must be properly defined to VTAM and all nodes on the route must support the explicit and virtual route protocols. The route-status display (message group IST535I corresponding to *routetest*) lists the defined or undefined status of the explicit route in this host.

If the explicit route failed the route test because of an inactive transmission group:

- You can activate the links connecting the rejecting subarea *rejsa* to its adjacent node of subarea *rejadsa*.
- If the problem node is not in your host, you might need to call the operator of the other domain or host to activate the nodes.
- If the test had been unsolicited and the originating node is from another host, this might indicate a request that you activate the nodes so that this other host can attempt some session traffic activities on that route.

## System programmer response

The information in this group of messages is basically that which appears in the NS\_ER\_TESTED request unit. See the description of the explicit route test process and its associated RUs in the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#). For more information on the DISPLAY ROUTE command, see [z/OS Communications Server: SNA Operation](#). Most problems will be the result of inconsistent route definitions among the affected network nodes.

## Routing code

8

## Descriptor code

5

---

**IST534I** *originsa [tg1] [adsa] destsa erlength*

## Explanation

This message is part of a group of messages. The first message is IST533I. See the explanation of that message for a full description.

## Routing code

8

## Descriptor code

5

---

**IST535I** **ROUTE DISPLAY requestid FROM SA subarea1 TO SA subarea2**

## Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY ROUTE command. A complete description of the message group follows.

IST535I	ROUTE DISPLAY requestid FROM SA subarea1 TO SA subarea2										
IST808I	ORIGIN PU = originpu DEST PU = destpu NETID = netid										
IST536I	VR	TP	STATUS	ER	ADJSUB	TGN	STATUS	CUR	MIN	MAX	

```
IST537I [vr][tp] [vrstatus] [er] [adjsa] [tgn] [erstatus] [cur] [min] [max]
:
IST314I END
```

These messages contain virtual route and explicit route status for routes to the destination subarea *subarea2*. If the explicit route test option (TEST=YES) was requested, the results of actual tests of the applicable explicit routes will appear in subsequent messages.

### IST535I

The route display number *requestid* in message IST535I is a request identification number, which also appears in any subsequent messages (resulting from the TEST=YES option) that are derived from the same DISPLAY ROUTE command. *subarea1* is the subarea address of the node from which the route status is being reported; *subarea2* is the subarea address of the destination node.

### IST808I

- Message IST808I indicates the node names of the origin PU (*originpu*) and destination PU (*destpu*), and the network ID (*netid*).

If the destination subarea (DESTSA) has not been defined in the PATH definition statement, *destpu* will appear as **\*\*\*NA\*\*\*** (not available).

### IST536I

Message IST536I is a header line identifying columns of data in subsequent occurrences of message IST537I.

### IST537I

- For the virtual route identified by:

**vr**

virtual route number and

**tp**

transmission priority,

- message IST537I identifies:

**vrstatus**

The current status of that virtual route transmission priority pair

**er**

The number of the explicit route onto which that virtual route is mapped

**adjsa**

The subarea number of the adjacent node through which the explicit route leaves the origin node

**tgn**

The transmission group number

**erstatus**

The status of the explicit route.

The following fields will also be included if the VR STATUS *vrstatus* is ACTIV.

**cur**

The current window size of the virtual route

**min**

The current minimum window size of the virtual route

**max**

The current maximum window size of the virtual route.

**Note:** The default minimum and maximum window sizes that are coded in the PATH definition deck are not included in this display.



If the ORIGIN operand was specified on the DISPLAY ROUTE command with a name other than ISTOPUS or the name specified on the HOSTPU start option in this host, the *cur*, *min*, and *max* window sizes reflecting the origin subarea VR information are not available and will not be displayed.

If the COSNAME operand was specified in the DISPLAY ROUTE command, message IST537I will appear in the same order as in the COS table entry. If a virtual route display or an explicit route display was requested, these messages will appear in numeric order by virtual route number (*vr*).

If an explicit route display was requested in the DISPLAY ROUTE command and there are no virtual routes defined to use a given explicit route, all the virtual route information (*vr*, *tp*, and *vrstatus*) for that explicit route will be blank. If a virtual route display or a COS display was requested in the DISPLAY ROUTE command and a given virtual route has not been defined to VTAM, all the explicit route information (*er*, *adjsa*, and *erstatus*) for that virtual route will be blank. *adjsa* will be blank for any explicit route with a status of **UNDEF**.

The *vrstatus* field in message IST537I might contain any of the following values:

**ACTIV**

The VR is active.

The virtual route has been defined to VTAM in a path definition set. It has been successfully activated. It is in use by one or more sessions.

**BLCKD**

The VR is blocked.

The virtual route has been defined to VTAM in a path definition set and it has been successfully activated. It is in use by one or more sessions, but congestion has been detected along the route.

**PACT**

The VR is pending active.

The virtual route has been defined to VTAM in a path definition set and is in the process of being activated by this node.

**PINAC**

The VR is pending inactive.

The virtual route has been defined to VTAM in a path definition set and has recently been active, but is now in the process of being deactivated by this node. Unless VTAM is halting, the VR will be automatically reactivated when it is again needed for a session.

**INACT**

The VR is inactive.

The virtual route has been defined to VTAM in a path definition set, but is not currently active or is pending active. It will be automatically activated when it is needed for a session.

**UNDEF**

The VR is undefined.

The virtual route has not been defined to VTAM in a path definition set.

The *erstatus* field in message IST537I might contain any of the following values:

**ACTIV1**

The ER is active.

The explicit route has been defined to VTAM in a path definition set, is physically available to the network, and has been activated by the node at the other end of the route. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route in this state.

**ACTIV2**

The ER is active.

The explicit route has been defined to VTAM in a path definition deck, is physically available to the network, has been activated by the node at the other end of the route, and is in the process of being activated by this node. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route in this state.

**ACTIV3**

The ER is active.

The explicit route has been defined to VTAM in a path definition set, is physically available to the network, and has been activated by this node or by both this node and the node at the other end of the route. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route in this state.

**MIGR**

The ER is active (but only for limited function, migration use).

The explicit route has been defined to VTAM in a path definition set and is believed to be physically available to the network. During activation processing, it was determined that one or more nodes along the route do not support the explicit route protocols. A route test (TEST=YES option) will probably fail, because one or more of its nodes does not support explicit route protocols. This does not mean that the physical connectivity of the route has failed. It only means that the route could not be completely tested because of the migration nodes.

**PACT**

The ER is pending active.

The explicit route has been defined to VTAM in a path definition set, is physically available to the network, has not been activated by the node at the other end of the route, and is in the process of being activated by this node. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route in this state.

**INACT**

The ER is inactive.

The explicit route has been defined to VTAM in a path definition set and is physically available to the network, but has never been successfully activated. Activation will be attempted automatically when the ER is needed for a session. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route in this state.

**INOP**

The ER is inoperative.

The explicit route has been defined to VTAM in a path definition set, but is not physically available to the network. That is, connectivity does not exist along the entire route. A route test (TEST=YES option) will fail, because the explicit route does not have physical connectivity.

**PDEFA**

The ER is pending definition—active.

The explicit route is physically available to the network, and activation has been attempted by the node at the other end of the route, but the route has not yet been defined to VTAM in a path definition set. The route is automatically activated by this node when an appropriate path definition set is processed. A route test (TEST=YES option) can succeed, even though the explicit route is not defined in this host. The purpose of the test is to provide information on the physical connectivity of the explicit route so that the operator can decide whether or not to define the route. In order for VTAM to carry session message traffic, the explicit route must be defined to VTAM.

**PDEFO**

The ER is pending definition—operative.

The explicit route is physically available to the network, but it has not yet been defined to VTAM in a path definition set. A route test (TEST=YES option) can succeed, even though the explicit route is not defined in this host. The purpose of the test is to provide information on the physical connectivity of the explicit route so that the operator can decide whether or not to define the route. In order to be used by VTAM to carry session message traffic, the explicit route must be defined to VTAM.

**UNDEF**

The ER is undefined.

The explicit route has not been defined to VTAM in a path definition set and is not physically available to the network. A route test (TEST=YES option) will always fail, because the explicit route is neither defined to VTAM nor operative.

## System action

Processing continues. If the DISPLAY ROUTE command specified TEST=YES, subsequent messages (with route display number *rtn* being the same as the one appearing in message IST535I) will indicate whether VTAM started any route tests and, if so, their results (as the results are received from the network).

## Operator response

The status might be used for information only, or might indicate that operator action is necessary if any status does not meet expectations. In particular, a virtual route or an explicit route with a status of UNDEF might indicate that a path definition set should be activated. An explicit route with a status of INOP might indicate that a subarea node, a cross-subarea link, or a cross-subarea link station should be activated, or that there is some network problem with a node, link, or link station.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

IST536I	VR TP STATUS ER ADJSUB TGN STATUS CUR MIN MAX
---------	---

---

## Explanation

This message is part of a group of messages. The first message of the message group is IST535I. See the explanation of that message for a full description.

## Routing code

8

## Descriptor code

5

---

IST537I	[vr][tp] [vrstatus] [er] [adjsa] [erstatus] [cur] [min] [max]
---------	---

---

## Explanation

This message appears as part of a group of messages. The first message of the message group is IST535I. See the explanation of that message for a full description.

## Routing code

8

## Descriptor code

5

**Explanation**

This message follows the group of messages starting with message IST535I if the DISPLAY ROUTE command indicated TEST=YES and no error occurred preventing the ER test. The display identification number *rutetest* is passed in the ROUTE TEST RU and will be used to associate asynchronously received ER test results with the original DISPLAY ROUTE command.

**System action**

Processing continues. The ROUTE TEST RU indicated that ER testing is to be performed. Processing of the ER test is occurring asynchronously. VTAM will display the results of this testing in the messages that follow this one as the tests are completed.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

8

**Descriptor code**

5

**Explanation**

VTAM issues this message if COSNAME was specified on a DISPLAY ROUTE command and VTAM could not find the virtual route list associated with the specified COSNAME.

**System action**

VTAM completes execution of the DISPLAY command.

**Operator response**

Ensure that you entered the COSNAME correctly. If problems persist, save the system log for problem determination.

**System programmer response**

If necessary, update the COS table to reflect the desired COSNAME.

**Routing code**

8

**Descriptor code**

5

## Explanation

VTAM issues this message if it encountered an error during the processing of the DISPLAY ROUTE command.

*code* is the sense code and indicates the reason for the error. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the system log and meaning of *code* to assist you in determining the cause of the failure.

## Routing code

8

## Descriptor code

5

## Explanation

This message is the first in a group of messages. A complete description of the message group follows.

```
IST541I FOLLOWING PATH DEFINITION IS IGNORED
IST544I PATH list
IST523I REASON = reason
```

VTAM ignores the path definition indicated in message IST544I.

*list* can be either of the following:

**VRn = *ern*, DESTSA = *destsubarea***

**ERn = *adj*, *tgn* DESTSA = *destsubarea***

*adj* is the adjacent subarea number.

*destsubarea* is the destination subarea number.

*ern* is the explicit route number.

*tgn* is the transmission group number.

*reason* can be one of the following:

### • INSUFFICIENT STORAGE

There is insufficient storage to build a table entry recording the existence of the route.

### ER ALREADY DEFINED

The explicit route indicated is already defined in the same way as it is now defined in the current path definition statement.

### VR ALREADY DEFINED

The virtual route indicated is already defined in the same way as it is now defined in the current path definition statement.

**ER MAY NOT BE REDEFINED**

The path definition attempts to redefine an explicit route that is not in a redefinable state (the route is active).

**VR MAY NOT BE REDEFINED**

The path definition attempts to redefine a virtual route that is not in a redefinable state (the route is active).

**System action**

If the route described is not already defined, it will not be usable.

**Operator response**

Save the system log for problem determination.

**System programmer response**

If insufficient storage is a recurring problem, you might need to increase the size of the appropriate buffer pool as determined by the output from the DISPLAY BFRUSE command.

Have the operator cancel nonessential jobs or deactivate an unused part of the network to prevent further losses. VTAM might have to be halted and restarted with increased storage.

If the route is already defined and you meant to change that definition, check the path specification for errors.

**Routing code**

8

**Descriptor code**

5

---

**IST542I****INVALID DESTSA *destsubarea* FOR PATH DEFINITION – IGNORED**

---

**Explanation**

VTAM issues this message when destination subarea value *destsubarea* is not valid because it is greater than the maximum subarea number supported by a network to which this VTAM host is interconnected. The maximum subarea number is the value specified on the MXSUBNUM start option.

**System action**

The destination subarea value *destsubarea* is ignored. The entire path definition will be ignored if *destsubarea* is the only destination subarea value coded.

**Operator response**

Save the system log for problem determination.

**System programmer response**

If a path to destination subarea *destsubarea* is desired, change the maximum subarea number by modifying the MXSUBNUM start option. You must restart VTAM to use the new value of MXSUBNUM. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of this start option.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information about VTAM start options and their equivalent ISTRACON fields.

**Routing code**

8

**Descriptor code**

5

---

**IST543I** **PATH *list* IS REDEFINED AS FOLLOWS**

**Explanation**

This message is the first in a group of messages. A complete description of the message group follows.

```
IST543I  PATH list IS REDEFINED AS FOLLOWS
IST544I  PATH list
```

A route is being redefined as a result of a VARY ACT command for a path definition. Explicit routes are redefined to go through either a different adjacent subarea or transmission group, or both. Virtual routes are redefined to map onto a different explicit route.

*list* can be either of the following:

- VRn = *ern*, DESTSA = *destsubarea***
  - ERn = *adj*, *tgn* DESTSA = *destsubarea***
- adj* is the adjacent subarea number.  
*destsubarea* is the destination subarea number.  
*ern* is the explicit route number.  
*tgn* is the transmission group number.

**System action**

The route indicated has been redefined.

**Operator response**

None. If you want to restore the old path, you can activate a path table in which the old path is defined.

**System programmer response**

None.

**Routing code**

8

**Descriptor code**

5

---

**IST544I** **PATH *list***

**Explanation**

This message is part of a group of messages. The first message is either IST541I or IST543I. See the explanation of the first message in the group for a complete description.

**Routing code**

8

## Descriptor code

5

**IST546I**

**UNABLE TO PROCESS ER OP REPORT TO DESTINATION SA *destsubarea***

## Explanation

This message is the first in a group of messages. A complete description of the message group follows.

```
IST546I  UNABLE TO PROCESS ER OP REPORT TO DESTINATION SA = destsubarea
IST547I  EXPLICIT ROUTE MASK ermask
IST523I  REASON = reason
```

A request unit attempted to report explicit routes as operative to destination subarea *destsubarea*. Processing failed because of the reason designated by message IST523I.

*reason* can be any of the following:

### **INSUFFICIENT STORAGE**

There was insufficient storage for VTAM to process the request.

### **INVALID ADJACENT SUBAREA *destsubarea***

Subarea *destsubarea* is greater than the maximum number allowed or is equal to the host subarea.

### **INVALID DESTINATION SUBAREA *destsubarea***

Subarea *destsubarea* is greater than the maximum number allowed or is equal to the host subarea.

Message IST547I designates the explicit routes with a *ermask* of 4 hexadecimal digits (16 bits). The first bit of the mask indicates ER0, the second bit indicates ER1, and so on.

## System action

Processing continues. Because VTAM cannot process the request to make the reported routes operative, subsequent failures of certain VTAM operations might occur.

## Operator response

Save the system log for problem determination. If the reason is insufficient storage, enter the DISPLAY BFRUSE and DISPLAY STORUSE commands.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.



**Routing code**

8

**Descriptor code**

4

---

<b>IST547I</b>	<b>EXPLICIT ROUTE MASK <i>ermask</i></b>
----------------	--

---

**Explanation**

This message is part of a group of messages. The first message is IST546I. See the explanation of that message for a full description.

**Routing code**

8

**Descriptor code**

4

---

<b>IST548I</b>	<b><i>command FAILED linkstation subarea1,nodename1 subarea2,nodename2</i></b>
----------------	--

---

**Explanation**

The *command* for *linkstation* failed because of a mismatch between information received in the CONTACTED (LOADED) RU and the information the SSCP already had about the contacted adjacent node. The adjacent node in the SSCP table (the subarea or name from the CONTACTED RU) is not a PU type 4, or the subarea or name in the RU does not match the subarea defined to VTAM.

*subarea1* and *nodename1* are taken from the RU. *subarea2* and *nodename2* are taken from the definitions defined to VTAM. In either case, if the name of the adjacent node is not available then **\*\*\*NA\*\*\*** will be displayed. This can occur if the RU does not have a name field or if VTAM knows the adjacent node only by subarea and not by name.

**System action**

The link station is deactivated.

**Operator response**

If the name value is supplied and valid, use the DISPLAY ID command to display the nodes. Also enter a DISPLAY STATIONS command. Save the system log for problem determination.

**System programmer response**

There are two distinct nodes in the network with the same name or subarea. Identify the one in error and correct it.

**Routing code**

2

**Descriptor code**

4

## Explanation

This message is the first in a group of messages that VTAM issues in response to a MODIFY command. A complete description of the message group follows.

```
IST549I  LL2 TEST FOR ID = name ENDED result
IST243I  FRAMES SENT = sent, RCVD = received, RCVD WITHOUT ERRORS = noerrors
```

The MODIFY LL2 command requests a link level 2 test to *name* be initiated.

*result* can be one of the following:

### DUE TO A LINK INOP

The test was terminated prematurely because of a failure in the link to which *name* is attached.

### DUE TO A TEST INIT ERROR

The test initialization procedure failed because the ERP limit expired while the link station was waiting for a response to the initial test command. In this case, *sent*, *received*, and *noerrors* will be all zeroes. This might occur over a link connecting two NCPs if both NCPs attempt to initiate link level 2 tests simultaneously for that link.

### SUCCESSFULLY

Valid responses were received for the requested number of TEST commands.

### WITH ERRORS

The test results contain errors. See the following explanation for *noerrors*.

Message IST243I contains counts of the number of SDLC TEST commands and responses that are sent and received.

*sent* is the number of test commands sent.

*received* is the number of command responses received.

*noerrors* is the number of command responses received that contained the user-supplied data intact (unchanged). If no data errors occurred, this number will equal *received*. If this number is less than *received*, a data error occurred.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

## Explanation

A VTAM request for storage from the buffer pool *bp* could not be satisfied because there was not enough available storage in the buffer pool.

*bp* is the name of the buffer pool. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

## System action

The action depends on why the requested storage was needed. Other messages might follow identifying the effect this storage condition has on VTAM.

## Operator response

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY BFRUSE and MODIFY VTAMOPTS commands.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information.

## Routing code

2

## Descriptor code

5

---

**IST562I****STORAGE UNAVAILABLE: *type* REACHED**

---

## Explanation

A VTAM request for storage from the common service area (CSA) could not be satisfied. Doing so would exceed the CSALIMIT or CSA24 limit start option values.

*type* is one of the following:

### • CSALIMIT

- If the CSALIMIT start option was set with the MODIFY CSALIMIT command, the storage allocation request would exceed the value specified for CSALIMIT.
- If the CSALIMIT start option was set in the VTAM start list, the storage allocation request would exceed the value specified for CSALIMIT, and CSA plus ECSA usage would exceed 75% of the total system CSA plus system ECSA specified in the system parameters in the sys1.parmlib IEASYSxx, where the system CSA and system ECSA are specified.

- If the CSALIMIT start option was not specified, the storage allocation request would cause VTAM to use more than 90% of the total system CSA plus system ECSA storage.

#### • CSA24 LIMIT

- If the storage allocation request explicitly specified 24-bit addressable storage, the CSA24 start option limit would be exceeded.
- If the CSA24 start option was not specified, the VTAM allocation of 24-bit addressable CSA would exceed the maximum available 24-bit addressable storage.

### System action

The action depends on why the requested storage was needed. Other messages might follow identifying the effect this storage condition has on VTAM.

### Operator response

Issue the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination.

**Note:** If you receive a large number of **CSALIMIT is reached** messages, use the MODIFY VTAMOPTS or MODIFY CSALIMIT command to increase **CSALIMIT** as soon as possible. The command might not work if the processing continues until the VTAM LPBUF is exhausted.

### System programmer response

Verify that the operator entered the CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your CSA limits by using the MODIFY VTAMOPTS command. If the CSA24 or CSALIMIT start options were not specified, or if the CSALIMIT start option was set in the VTAM start list, you might need to increase your system CSA parmlib member value to increase total system CSA and ECSA.

- See the [z/OS Communications Server: SNA Operation](#) for more information about the DISPLAY BFRUSE and MODIFY VTAMOPTS commands.
- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information.

### Routing code

2

### Descriptor code

5

---

**IST563I**

**STORAGE UNAVAILABLE: MAXPVT REACHED FOR *jobname* *stepname***

### Explanation

A VTAM request for storage from the private area associated with the task identified by *jobname* and *stepname* could not be satisfied. Doing so would cause that task's VTAM MAXPVT value to be exceeded.

### System action

Action depends on why the requested storage was needed. Other messages might follow identifying the effect this storage condition has on VTAM.

## Operator response

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you might need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See [z/OS Communications Server: SNA Operation](#) for additional information.

Save the system log and request a dump for problem determination.

## System programmer response

Check the specification of the MAXPVT operand on the APPL definition statements for the VTAM application programs running under the indicated task and make adjustments if necessary.

- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on the MAXPVT operand.
- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information.

## Routing code

2

## Descriptor code

5

---

**IST564I****STORAGE UNAVAILABLE: COMMON AREA SUBPOOL *subpool***

---

## Explanation

VTAM issues this message when a VTAM request for storage from the common service area (CSA) could not be satisfied.

*subpool* identifies the storage subpool from which VTAM attempted to obtain storage (in decimal with leading zeros).

## System action

The action depends on why the requested storage was needed. Other messages might follow identifying the effect this storage condition has on VTAM.

## Operator response

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

## System programmer response

Verify that the operator entered the CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your CSA start options by using the MODIFY VTAMOPTS command.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.

- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST565I**

**STORAGE UNAVAILABLE: VTAM PRIVATE AREA SUBPOOL *subpool***

---

## Explanation

A VTAM request for private storage could not be satisfied.

*subpool* identifies the storage subpool from which VTAM attempted to allocate storage (in decimal with leading zeros)

**Note:** This might not represent a permanent lack of storage but a temporary problem whereby VTAM had difficulty obtaining storage quickly enough to satisfy the request at this time.

## System action

Action depends on why the requested storage was needed. Other messages might follow identifying the effect this storage condition has on VTAM.

## Operator response

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you might need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand.

Save the system log and request a dump for problem determination.

Issue a DISPLAY SRCHINFO, FROMCP=\*, FROMSSCP=\* command and determine whether there is a particular control point (CP) in the network that is not responding to search requests. VTAM continues to maintain certain information about those search requests, which could cause VTAM private storage to grow. Provide the output of the DISPLAY command to the system programmer.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.

- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Using the output of the DISPLAY SRCHINFO command, determine whether CP-CP sessions should be terminated between this host and the unresponsive host identified in the DISPLAY output. Terminating the CP-CP sessions will free up storage allocated to search requests toward the unresponsive control point.

## Routing code

2

## Descriptor code

5

---

**IST566I** **STORAGE UNAVAILABLE: *jobname stepname* SUBPOOL *subpool***

## Explanation

A VTAM request for storage from the private area associated with the task identified by *jobname* and *stepname* could not be satisfied.

*subpool* identifies the storage subpool from which VTAM attempted to allocate storage (in decimal with leading zeros)

## System action

The action depends on why the requested storage was needed. Other messages might follow identifying the effect this storage condition has on VTAM.

## Operator response

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you might need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See [z/OS Communications Server: SNA Operation](#) for additional information.

Save the system log and request a dump for problem determination.

## System programmer response

Increase storage as required.

- See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY STORUSE command.
- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information.

## Routing code

2

## Descriptor code

5

---

**IST567I** ***command* OF *loadmodname* FOR *ncpname* status**

## Explanation

This message is the first in a group of messages that VTAM issues in one of the following situations:

- In response to a VARY ACT,LOAD=YES or LOAD=U command for an NCP when the disk operations associated with the VARY ACT were not performed.
- In response to a VARY ACT command for an NCP that specified LOADFROM, SAVEMOD, or DUMPLOAD for NCP *ncpname*.
- In response to a MODIFY LOAD command for an NCP when the MODIFY LOAD request was not executable.

A complete description of the message group follows.

```
IST567I  command OF loadmodname FOR ncpname status
IST523I  REASON = reason
```

See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *command*.

*loadmodname* is the name of the load module being affected. If unknown, *loadmodname* is **\*\*\*NA\*\*\***.

*ncpname* is the name of the NCP.

*status* is one of the following:

- **CANCELED**
- **COMPLETE**
- **FAILED**
- **NOT PERFORMED**

*reason* is one of the following:

### **ALREADY LOADED**

The VARY ACT command continues; the communication controller was already loaded.

### **CANCEL IN PROGRESS**

A MODIFY LOAD (any ACTION type) command was entered and VTAM was currently processing a CANCEL request for the same NCP. The CANCEL must complete before a subsequent MODIFY LOAD can be entered.

### **CANCELED BY OPERATOR**

A request to cancel a load that was in progress with a MODIFY LOAD,ACTION=CANCEL command has completed.

### **CONTROLLER DISK OPTION UNAVAILABLE**

The VARY ACT command failed because the controller does not support disk functions.

### **DISK/HARDWARE ERROR**

The VARY ACT command failed because of a disk or hardware error.

### **DISK FUNCTIONS NOT PERFORMED**

INITEST=YES was specified on the PCCU definition statement for a non-3705 communication control unit. Although the load was performed, the VARY ACT command failed.

### **DISK RESOURCE TEMPORARILY UNAVAILABLE**

The hardware resource is temporarily unavailable.

### **DUPLICATE LOAD MODULE ON DISK**

A MODIFY LOAD,ACTION=ADD command was entered and there was already a load module on the disk with the same name.

### **ESTIMATED IPL in 5 MINS OF ANOTHER LOADMOD**

The MODIFY LOAD command failed because another load module on the MOSS disk has an IPL scheduled for the same time as the IPL you requested.

### **FUNCTION NOT SUPPORTED**

A MODIFY LOAD command was entered and it is not supported by the NCP.

### **INITIAL TEST INVALID FOR CCU**

INITEST=YES was specified on the PCCU definition statement for a non-3705 communication control unit.



### **IPLTIME MORE THAN 90 DAYS FROM CURRENT DATE**

A MODIFY LOAD command failed because the specified IPLTIME is more than 90 days from the current date.

### **keyword time EARLIER THAN SYSTEM TIME**

A MODIFY LOAD command failed.

*keyword* is either **IPLTIME** or **NOTIFY** and indicates why the command failed.

#### **IPLTIME**

VTAM cannot schedule an IPL because the requested IPL time is earlier than the current system time.

#### **NOTIFY**

VTAM cannot schedule an IPL because the time at which notification was requested is earlier than the current system time. For example, if you attempt to schedule an IPL 30 minutes from now and ask to be notified 60 minutes before the IPL occurs, the MODIFY LOAD command fails, and VTAM issues this message.

If the values for both IPLTIME and NOTIFY are not valid, VTAM issues this message only once. The value of *keyword* is **IPLTIME**.

The *time* value specifies when an IPL or a notification was requested. See [“DATE and TIME formats” on page 6](#) for information about the *time* value.

### **LOAD IN PROGRESS**

A MODIFY LOAD,ACTION=ADD|REPLACE|PURGE command was entered and VTAM was in the process of another load for the same NCP. Only one load can be processed at a time.

### **LOAD NOT IN PROGRESS**

A MODIFY LOAD,ACTION=CANCEL command was entered to cancel a load in progress and there was no load in progress.

### **NO IPL SCHEDULED FOR LOAD MODULE *load\_module***

A MODIFY LOAD command failed. A scheduled IPL is not currently set for this module.

### **NO ROOM ON DISK**

One of the following happened:

- A MODIFY LOAD,ACTION=ADD command was entered, and the disk was already full.
- A MODIFY LOAD,ACTION=REPLACE command was entered, and load module *loadmodname* was not on the disk. There is not enough room on the disk to add the additional load module.

### **REQUESTED FILE NOT FOUND**

The command failed because one of the following occurred:

- The operator entered a VARY ACT command specifying the LOADFROM=HOST operand. VTAM could not find NCP load module *loadmodname* on the host.
- The operator entered a VARY ACT command specifying the LOADFROM=EXTERNAL operand. VTAM could not find NCP load module *loadmodname* on the hard disk of the communication controller.
- The operator entered a MODIFY LOAD command specifying the ACT=PURGE operand. VTAM could not find load module *loadmodname* on the hard disk of the communication controller.

### **RU LENGTH ERROR**

The MODIFY LOAD operation was halted because the NCP rejected the IPLINIT RU. This indicates that the NCP is not the correct level to process MODIFY LOAD commands.

### **SSP NOT CORRECT LEVEL**

The controller (CCU), NCP, or SSP does not support the function requested. An NCP release prior to NCP V5R2 cannot be loaded with the LOADFROM, SAVEMOD, or DUMpload operands. These operands are valid only for NCP V5R2 or a later release. The command failed.

## **System action**

See the preceding explanation of *reason* for the system action. Other processing continues.

## Operator response

If *reason* is:

### **CANCELED BY OPERATOR**

No action is required. This is an informational message only.

### **DISK RESOURCE TEMPORARILY UNAVAILABLE**

Try the request again.

### **DUPLICATE LOAD MODULE ON DISK**

Try the command again, using the ACTION=REPLACE option of the MODIFY LOAD command instead of the ACTION=ADD option.

### **ESTIMATED IPL in 5 MINS OF ANOTHER LOADMOD**

Enter a DISPLAY DISK command to determine the IPL times scheduled for all the load modules on the MOSS disk. Change the value of *ipltime* accordingly and reenter the command.

### **IPLTIME MORE THAN 90 DAYS FROM CURRENT DATE**

Reenter the command with a date fewer than 90 days from the current date.

### **keyword time EARLIER THAN SYSTEM TIME**

Correct the *time* parameter and reenter the command. See [z/OS Communications Server: SNA Operation](#) for more information.

### **LOAD IN PROGRESS**

Wait until the current load operation completes, then try the command again.

### **LOAD NOT IN PROGRESS**

No action. There was no operation in progress to cancel.

### **NO IPL SCHEDULED FOR LOAD MODULE *load\_module***

No action is required. This is an informational message only.

### **NO ROOM ON DISK**

Enter a MODIFY LOAD, ACTION=PURGE command to delete an unneeded load module from the disk. Enter a DISPLAY DISK command to examine the contents of the disk.

### **REQUESTED FILE NOT FOUND**

Follow the procedures set up by the system programmer.

### **RU LENGTH ERROR**

Save the system log for problem determination.

### **SSP NOT CORRECT LEVEL**

Save the system log for problem determination.

Otherwise, follow defined procedures for hardware problems.

## System programmer response

- If *reason* is **RU LENGTH ERROR**, ensure that the NCP is at the correct level.
- If *reason* is **SSP NOT CORRECT LEVEL**, ensure that the NCP, SSP, and CCU are at the correct level. To use the LOADFROM, SAVEMOD, and DUMPLOAD operands on the VARY ACT command, the NCP must be NCP V5R2 or a later release, and the SSP must be SSP V3R4 or a later release.
- For all other *reasons*, there is no additional suggested action.

## Routing code

2

## Descriptor code

5

---

IST571I

LOAD FAILED FOR ID = *puname* REQ: *ru*, SENSE: *code*

### Explanation

After loading a PU type 2, VTAM receives an NS\_LOADSTAT request unit that indicates whether or not the load was completed successfully. VTAM issues this message when it receives an NS\_LOADSTAT that indicates that the load was not completed successfully.

*puname* is the name of the physical unit that requested the load.

- When *ru* is **IPL INIT**, **IPL TEXT**, or **IPL FINAL**, the requested load failed during the load procedure.
- When the failing network services request unit *ru* is **INITLOAD**, the load failed because the application program could not process the load request.

*code* is the sense code and provides additional information about the reason for the failure. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

**Note:** When *ru* is **\*\*\*NA\*\*\***, *code* is 08000000 (request rejected) and the failing request is not available. (The request and sense information were not included in the NS\_LOADSTAT RU.)

## System action

The system action depends upon the time at which the load was requested. If the load was requested during activation of the physical unit, VTAM deactivates the PU. Another message will signal completion of the deactivation processing. If the load was requested after the PU was activated, VTAM will take no action.

## Operator response

Try activating the physical unit again if load failure caused the physical unit to be deactivated. Otherwise, no response is required. If the problem persists, check the PU hardware for possible problems.

## System programmer response

None.

## Routing code

2

### Descriptor code

5

**IST572I REJECTING TG ADJACENT ER MASK**

### Explanation

This message is part of a group of messages. The first message is IST533I. See the explanation of that message for a full description.

## Routing code

8

### Descriptor code

5

IST574E	START I/O TIMEOUT OCCURRED FOR <i>linkname</i> - CUA = <i>cua</i>
---------	---

## Explanation

This host has initiated an I/O operation. An interrupt has not been received in the time specified for that I/O operation. *linkname* is the name of a communication link, and *cua* is the channel unit address that did not receive the interrupt.

## System action

Processing continues.

**Note:** If the other host does not respond in roughly 3 minutes from the time that this message appears, request units (RUs) will be lost. If MIH=YES was specified on the LINE or GROUP definition statement, RUs will be lost **and** the PU will become inoperative at the end of 3 minutes. The interrupt interval can be modified using the MIHTMOUT start option. Evaluate the setting of the REPLYTO operand. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

## Operator response

- If the other host has failed, the operator might want to deactivate the link *linkname* since it cannot be used.
- If the other host has temporarily stopped, normal operation will resume when the operator starts the system again.

Otherwise, no action is required.

## System programmer response

None.

## Routing code

2

## Descriptor code

3

---

IST576I	TSO TRACE = {ON OFF}
---------	----------------------

## Explanation

VTAM issues this message in response to a DISPLAY TSouser command. It states whether the TSO trace is on or off for a particular TSO user.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

5

**IST577I**

**TIME = time DATE = date ID = id**

## Explanation

This message is the first in a group of messages that displays tuning statistics pertaining to the VTAM operation of a channel-to-channel adapter. A complete description of the message group follows.

```
IST577I    TIME = time    DATE = date    ID = id
IST578I    CHNRM = chnrm  CHMAX = chmax  RDBUF = rdbuf
IST579I    ATTN = attn    TIMERS = timers QDPTH = qdpth
IST580I    BUFCAP = bufcap PRI = pri      SLODN = slodn
IST581I    IPIU = ipiu    OPIU = opiu     DLRMAX = dlrmax
IST1022I   WRBUF = wrbuf
IST314I    END
```

### IST577I

*time* indicates the time (in hours, minutes, seconds, and hundredths of seconds) at which the record is recorded. For example, 07431380 means that the record was recorded at the 7th hour, 43rd minute, 13th second, and 80 one-hundredths of a second of the day.

The *date* value specifies when the tuning statistics report is recorded. The date is in the form *yyddd*, where *yy* is the last two digits of the numeric year and *ddd* is the numeric day of the year. For example, 87190 means the record is recorded on the 190th day of 1987.

*id* provides the name of the link through which the tuning statistics are taken. It corresponds to the name of the LINE definition statement in the associated channel-attachment major node.

### IST578I

- *chnrm* is the number of channel programs issued that VTAM used to send data to the node on the other side of the adapter.
  - *chnrm* will be greater than or equal to the number of write triggers (TIMERS + QDPTH + PRI + BUFCAP).
  - The difference between *chnrm* and the sum of the write triggers represents the following:

The number of channel programs with write data that are initiated by an attention from the other host when data was queued, but a channel program with write data could not be triggered.
  - As you increase the value of the DELAY operand for the channel-to-channel adapter, the difference between *chnrm* and the sum of the write triggers might be greater.
- *chmax* is 0 because all channel programs are the same size.
- *rdbuf* is the total number of input bytes transferred during the measurement period.

### IST579I

- *attn* is the number of times a channel program is initiated because the other host has data to send. This statistic cannot be correlated with any of the other statistics that are provided; it is simply a value that indicates the number of attention interrupts.

When compared over an interval of time, ATTN usually does not equal the sum of TIMERS, QDPTH, BUFCAP, and PRI at the other host. VTAM counts only the first event that initiates an I/O operation, and when both hosts try to write at once, one of the hosts receives an attention that is not counted in its tuning statistics.
- *timers* is the number of times a channel program with write data is started because the period specified for queuing channel-to-channel PIUs has expired.
  - If session traffic is heavy, the desirable value is 0.
  - If session traffic is light, a low value rather than 0 is desirable.

Increasing the DELAY operand on the LINE definition statement or using transmission priority 2 might decrease the value of *timers*.

- *qdpth* is the number of times a channel program is initiated because the queue limit has been reached. This number should be higher than *timers*.

**Note:** If DELAY=0 is specified for the channel-to-channel adapter, the TIMERS and QDPATH tuning statistics might be misleading.

If DELAY=0, *qdpth* indicates the number of channel programs that wrote data to the channel-to-channel adapter. VTAM determines the QDPATH limit based on usage **except** in the case of DELAY=0.

If DELAY=0, *timers* does not increment.

#### IST580I

- *bufcap* is the number of times a channel program with write data is initiated because there is enough data to fill the read buffers of the host on the other end of the channel.
  - *bufcap* will also be incremented if a channel program with write data is initiated due to residual PIUs left on the data queue after a channel program with write data containing a full write buffer of data has completed.
  - If *bufcap* is always 0, the other VTAM host has too many read buffers.
- *pri* is the number of times a channel program with write data is started because a high priority PIU is on the outbound channel queue; that is, the PIU is running under transmission priority 2 or is a virtual route pacing response.

If this number is high and there is very little transmission priority 2 traffic over this channel, the minimum virtual route window sizes are probably too small. The higher this number is in relation to the sum of TIMERS + QDPATH + BUFCAP, the less outbound coattailing occurs, and the more CPU time is used for each PIU.

- *slodn* indicates the number of times that this VTAM had channel programs with write data blocked by a slowdown condition in the other VTAM.

#### IST581I

- *ipiu* is the number of inbound PIUs. The average number of PIUs for each channel program can be calculated from the **sending side** as  $OPIU / (CHNRM + CHMAX)$ .
- *opiu* is the number of outbound PIUs. The average number of output PIUs for each channel program with write data can be calculated as  $OPIU / (CHNRM + CHMAX)$ .
- *dlrmax* is a decimal value that indicates the maximum number of dump-load-restart requests that were awaiting processing or were being processed at one time during the interval. This number refers to the entire domain, not to the SNA controller named in the report. The dump-load-restart subtask processes the following types of requests:
  - Dump, load, or restart of an NCP
  - Some VTAM messages to the operator that require a reply
  - Session establishment and termination processing for a local major node
  - Any I/O to a configuration restart or NODELST file.

This value can be used to determine the proper setting for the DLRTCB start option, which determines how many dump-load-restart requests can be processed concurrently. If DLRMAX consistently exceeds DLRTCB, it indicates that VTAM is serializing requests on the available TCBs and that performance might be affected.

#### IST1022I

*wrbuf* is the total number of output bytes transferred during the measurement period.

### System action

Processing continues.

### Operator response

Follow the instructions of your system programmer to tune the system. To discontinue statistics recording, enter the MODIFY NOTNSTAT command.

### System programmer response

For additional information on tuning and analyzing tuning statistics, see the [z/OS Communications Server: SNA Network Implementation Guide](#).

### Routing code

2

### Descriptor code

4

---

**IST578I** CHNRM = *chnrm* CHMAX = *chmax* RDBUF = *rdbuf*

### Explanation

VTAM issues this message as part of a message group. The first message in the group is IST577I. See the explanation of that message for a complete description.

### Routing code

2

### Descriptor code

4

---

**IST579I** ATTN = *attn* TIMERS = *timers* QDPTH = *qdpth*

### Explanation

VTAM issues this message as part of a message group. The first message in the group is IST577I. See the explanation of that message for a complete description.

### Routing code

2

### Descriptor code

4

---

**IST580I** BUFCAP = *bufcap* PRI = *pri* SLODN = *slodn*

### Explanation

VTAM issues this message as part of a message group. The first message in the group is IST577I. See the explanation of that message for a complete description.

### Routing code

2

## Descriptor code

4

---

**IST581I****IPIU = *ipiu* OPIU = *opiu* DLRMAX = *dlrmax***

---

## Explanation

VTAM issues this message as part of a message group. The first message in the group is IST577I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

4

---

**IST582I****'EVERY' INVALID FOR TRACE OF ID = *hostpuname* – OPERAND  
IGNORED**

---

## Explanation

VTAM issues this message if the operator attempts to start or terminate a buffer or I/O trace with the SCOPE=ALL or EVERY option for the host PU name *hostpuname* or ISTIRN. The SCOPE=ALL or EVERY option is not supported for host PU trace.

## System action

VTAM ignores the SCOPE=ALL or EVERY option. The trace is initiated or terminated only for the specified node.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST583I****CONFIG *configname* NOT PROCESSED – SYSDEF TASK NOT ATTACHED**

---

## Explanation

The system definition subtask, ISTSDCLM, has not been reattached either because it has exceeded its maximum abend count or because VTAM is halting. The command for the resource identified by the *configname* field cannot be successfully completed.



## System action

If the command is an activate command for a major node, path definition set, or DRDS data set, the command fails. For a VARY INACT command for a major node or path definition set, virtual storage is lost. Further activate or deactivate commands will fail in the same way, and produce this same message again until VTAM is restarted.

## Operator response

Save the system log for problem determination.

## System programmer response

Correct the problem that caused an unexpected number of subtask ABENDs. Then restart VTAM to regain use of the subtask.

## Routing code

2

## Descriptor code

5

---

IST585E	VTAM UNABLE TO CLOSE <i>applname</i> — RESOURCES MAY BE LOST TO VTAM
---------	--

## Explanation

VTAM issues this message when the VTAM application program *applname* has issued a CLOSE ACB macro or when VTAM has attempted to close the application program's access method control block (ACB).

This message is often displayed when the application issues a CLOSE ACB macro and then the application's underlying task is abnormally terminated. This abnormal termination results in VTAM attempting to close the ACB on behalf of the application. VTAM might not succeed in closing the ACB, but the CLOSE ACB issued by the application still succeeds.

It is also possible that a system error occurred.

## System action

The ACB might not be closed and system resources might be lost.

## Operator response

This is probably a software error. If this message appears for several different application programs or if critical resources are tied up, halt VTAM and restart it. In addition, save the system log and problem determination.

If this message appears during a halt of VTAM, enter a HALT CANCEL command.

## System programmer response

Analyze the output from the operator to determine the cause of the problem.

Verify that the failing job step includes a SYSABEND DD statement.

See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on application program problems.

## Routing code

2

## Descriptor code

3

---

**IST587I****IRN STORAGE {EXCEEDED|DEPLETED} CAUSED BY SLOWDOWN OF  
NODE *nodename***

## Explanation

This message describes the status of the VTAM storage used for intermediate routing node (IRN) traffic that cannot be routed to an adjacent subarea node.

- If the status is **EXCEEDED**, the user-specified storage limit for intermediate routing node slowdown processing was exceeded.
- If the status is **DEPLETED**, the intermediate routing node buffer manager was unable to obtain pageable storage.

The adjacent subarea node that is in slowdown is identified by *nodename*.

## System action

Intermediate routing node traffic will be kept in fixed buffers.

## Operator response

Consider deactivating the node that is in slowdown. This will free all the fixed and pageable storage associated with the node. However, user sessions might be disrupted.

## System programmer response

If the limit was exceeded, consider modifying the IRNSTRGE start option. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

## Routing code

8

## Descriptor code

4

---

**IST588I****SIT TRACE STATUS = *status***

## Explanation

This is one of a series of messages that appears as the result of a DISPLAY command requesting the status of a line.

The scanner interface trace (SIT) helps diagnose NCP and line problems. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for a description of *status*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

5

---

**IST589I****ERROR FOR ID = *ncpname*, CODE = *code*, NET = *netid***

---

## Explanation

An error has occurred during activation of gateway NCP *ncpname*. VTAM was unable to record the network address of *ncpname* as assigned in the nonlocal network *netid*. For VTAM to accept a request for an LU-LU session through the gateway NCP of another network, VTAM in the local network must be able to record that NCP's network address in the other network.

Network addresses are assigned by VTAM based on the NETID, MAXSUBA, and SUBAREA operands of the BUILD or NETWORK definition statements in the definition of that gateway NCP.

*code* indicates the reason for the error and can be one of the following:

- 1** There already exists in the local network a record of a gateway NCP in the nonlocal network *netid* with the same subarea number.
- 2** The subarea range in the network *netid* is not known. The MAXSUBA operand was not specified in the BUILD or NETWORK definition statement in the definition of *ncpname*. VTAM must be supplied the subarea range of *netid* in order to assign a network address.
- 3** There is insufficient storage to record the network addresses.

## System action

Activation of the gateway NCP *ncpname* continues; however, VTAM will either not be able to accept a request for a LU-LU session through *ncpname* from the network *netid* or, if *code* is **1**, will route a session request through a different gateway NCP. Results are unpredictable.

## Operator response

Save the system log and print the major node definition for problem determination.

## System programmer response

The value of *code* determines the response:

- 1** Examine the definition decks of the gateway NCPs that have been activated, or are being activated, for the network *netid*. Check the NETID and SUBAREA operands of the BUILD or NETWORK definition statements. There should be no duplicate subarea numbers for the same network.
- 2** Code MAXSUBA in the BUILD or NETWORK definition statement in which **NETID = *netid*** has been specified.

3

There is insufficient storage to record the gateway NCP's network address in network *netid*. Have the operator cancel nonessential jobs or deactivate an unused part of the network to prevent further losses. You might have to halt and restart VTAM if there are too many failures.

## Routing code

8

## Descriptor code

4

---

**IST590I**

***type action FOR PU puname ON LINE linename***

---

## Explanation

VTAM issues this message when:

- A connection for a switched physical unit has been established as a result of a dial in from the switched PU.
- A connection for a switched physical unit has been established as a result of a dial out to the switched PU.
- An attempt to establish a connection to a switched physical unit was not successful.
- A connection of a switched physical unit has been terminated.

*type* can one of the following:

### **CONNECTIN**

Indicates a dial in connection from a switched PU.

### **CONNECTOUT**

Indicates a dial out connection to a switched PU.

### **CONNECTION**

Indicates an established connection with a switched PU.

*action* can one of the following:

### **ESTABLISHED**

Indicates the dial in or dial out connection from a switched PU was successful.

### **FAILED**

Indicates a dial out connection to a switched PU was not successful.

### **TERMINATED**

Indicates an established connection with a switched PU has been terminated.

*puname* is the name of the switched physical unit.

*linename* is the name of the logical line over which a connection is established, failed, or terminated. If multiple paths to the switched PU have been defined, and *type* and *action* are **CONNECTOUT FAILED**, then *linename* is the name of the last logical line over which the connection was attempted.

VTAM issues this message in the following situations:

- If *type* and *action* are **CONNECTIN ESTABLISHED**, a connection for the switched physical unit *puname* has been established over the logical line *linename* as a result of a dial in from a switched PU.

**Note:** This action can also be displayed if the dial occurs from the NCP.

- If *type* and *action* are **CONNECTOUT ESTABLISHED**, a connection for the switched physical unit *puname* has been established over the logical line *linename* as a result of a dial out from a switched PU.

The dial out was caused by one of the following:

- An application program attempting to establish a session with a switched LU associated with the PU.
- In response to a VARY DIAL command to establish a switched connection to a type 2 or 2.1 device.

- If *type* and *action* are **CONNECTOUT FAILED**, an attempt to establish a connection to switched PU *puname* over the logical line *linename* was not successful.

If multiple paths to the switched PU have been defined, *linename* is the name of the last logical line over which the connection was attempted.

This message might be followed by a message group beginning with message IST1139I. This message group provides more information about the **CONNECTOUT** failure.

- If *type* and *action* are **CONNECTION TERMINATED**, the connection of the switched PU *puname* over the logical line *linename* has been terminated.

## System action

Processing continues.

## Operator response

If *type* and *action* are **CONNECTOUT FAILED**, determine why the line is not available and take corrective action. Otherwise, no response is needed.

## System programmer response

None.

## Routing code

8

## Descriptor code

4

---

IST591E

VTAM COMMAND CANCELED DUE TO VTAM TASK ABEND – *code* –  
RETRY COMMAND

## Explanation

The VTAM task has abended while processing an operator command. The command cannot be identified, but it is being canceled. Recovery of the VTAM task is being attempted. See the appropriate operating system codes manual for the meaning of the hexadecimal abend code *code*.

## System action

VTAM processing continues.

## Operator response

This is probably a software error. Check the system log to determine which command was not processed. Then reenter the command that caused the failure. If the failure recurs and completion of this command is required to proceed with VTAM, halt VTAM and then start it again. Save the system log and dump for problem determination.

## System programmer response

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on the abend procedure.

## Routing code

2

## Descriptor code

3

---

IST592I

VTAM MAIN TASK ABEND — CODE *code* — VTAM IS BEING TERMINATED

---

## Explanation

The VTAM main task abended with the *code* specified. See the appropriate operating system codes manual for the meaning of the hexadecimal abend code *code*.

## System action

The operating system terminates the VTAM main task and all of the subtasks. All VTAM processing terminates.

## Operator response

Save the system log and dump for problem determination.

## System programmer response

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on the abend procedure. Have the operator restart VTAM.

## Routing code

2

## Descriptor code

5

---

IST593I

ISTPDCLU {PD TRACE|SESSION AWARENESS} SESSION ENDED

---

## Explanation

An UNBIND request has been received for one of the LU-LU sessions between the VTAM LU subtask, ISTPDCLU, and the NetView program or NCCF LU, DSIAMLUT. There are two parallel LU-LU sessions. The PD TRACE session is used to transfer the contents of PIU trace buffers filled by VTAM. The session awareness session is used to transfer buffers containing session awareness data. This data is used by the NetView program or NLDM.

## System action

If **PD TRACE** is specified and the VTAM PIU trace buffers become full after the PD TRACE session has ended, PIU trace buffers will be re-used beginning with the buffer containing the oldest trace data. This overwriting will continue until the PD TRACE session is re-initiated. Thus, VTAM always maintains the PIUs most recently traced in its PIU trace buffers. The VTAM subtask ISTPDCLU waits for a new BIND request.

If **SESSION AWARENESS** is specified, VTAM frees the existing session awareness buffers. The NetView program or NLDM receives a refresh of all existing active sessions in the system when it requests the restart of session awareness tracing.

## Operator response

Consult the NetView or NLDM terminal operator to determine the cause of the UNBIND request. If further VTAM PIU tracing is desired, reactivate the PD TRACE session.

## System programmer response

None.

**Routing code**

2

**Descriptor code**

5

---

**IST594I** **ISTPDCLU *macroname* FAILED *reason1* [ *reason2* ]**

---

**Explanation**

The macro *macroname*, issued by VTAM on behalf of the VTAM LU subtask ISTPDCLU, failed.

If *macroname* is **OPEN ACB**, *reason1* is the ACBERFLG value, and *reason2* is not displayed. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of the hex value for *reason1*.

If *macroname* is an RPL-based macro, *reason1* is the return code RPLRTNCD and *reason2* is the feedback code RPLFDB2. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *reason1* and *reason2*.

**System action**

If the OPEN ACB macro failed, the VTAM subtask ISTPDCLU is detached and reattached by VTAM. Up to 25 attempts will be made to re-open ISTPDCLU's ACB.

If the SEND macro failed, the contents of the buffer being sent are lost. Processing on behalf of the ISTPDCLU subtask continues.

**Operator response**

Save the system log for problem determination.

**System programmer response**

Use the ACBERFLG value (for an OPEN ACB failure) or the return-feedback code combination (for an RPL-based macro) to help you determine the cause of failure.

**Routing code**

2

**Descriptor code**

5

---

**IST595I** **IRNLIMIT = *irnlimitK*, CURRENT = *currentirnK*, MAXIMUM = *maximumirnK***

---

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the group is IST449I. See the explanation of that message for a complete description.

**Routing code**

8

**Descriptor code**

5

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application program, a cross-domain resource, or a logical unit. This message shows the capability of a node to be either a primary logical unit (PLU) or a secondary logical unit (SLU).

*limit* is the maximum number of sessions that can exist for that node and is expressed in decimal with leading zeros.

*capability* is one of the following:

### ENABLED

The node can act as a PLU or an SLU or both. Local non-SNA devices will always display an enabled capability.

### DISABLED

The node is temporarily unable to act as a PLU or an SLU (until it is in an enabled state). However, a session could be queued. The device might be powered off. This could possibly be cleared by powering the device on. If an application whose ACB was opened will be the SLU, and a SETLOGON START has not been issued, the application will indicate DISABLED.

### INHIBITED

The node is not ready to establish a session, nor does it want any sessions to be queued. It cannot act as a PLU or an SLU. A logical unit without an SSCP-LU session indicates INHIBITED for its PLU and SLU capabilities, as would a CDRSC that had been deactivated. An application without an open ACB would indicate **INHIBITED**, as well as an application that issued SETLOGON QUIESCE.

### UNSTABLE

The node is attempting some type of error recovery. This could be due to ERP, an INOP, or session termination.

*limit* is **NONE** if the resource is an independent LU.

## System action

Processing continues.

## Operator response

If *capability* is **DISABLED** for a device, ensure that the device is powered on.

If *capability* is **DISABLED** for an application, ensure that the application has issued SETLOGON OPTCD=START.

If *capability* is **INHIBITED** for an application, ensure that the ACB has been opened and that SETLOGON START has been entered.

## System programmer response

**Note:** When *capability* for a device LU is **INHIBITED**, it normally indicates that VTAM has been informed of that capability by the device. This information is passed to VTAM on the X'OC' control vector on a NOTIFY or ACTLU RU. To capture the RU, use a VTAM internal trace with OPT=PIU or a BUFFER trace of the LU before activating the device or before repeating the procedure that led to the inhibited state. See *VTAM Data Areas* for the format of the RUs and the X'OC' (LU capabilities) control vector.

See [z/OS Communications Server: SNA Programming](#) for details on the SETLOGON macro.

## Routing code

8



## Descriptor code

5

---

**IST599I** **REAL NAME = *realname***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command. *realname* is the real network-qualified name of the resource being displayed.

### Notes:

1. VTAM does not issue IST599I if the name specified in the DISPLAY ID command is the real name.
2. If the name is not known, *realname* will be **\*\*\*NA\*\*\***.

## Routing code

8

## Descriptor code

5

---

**IST602I** **VARY FAILED ID = *nodename* — HIGHER NODE HAS BECOME INACTIVE**

## Explanation

A VARY command failed because a preceding VARY command deactivated a higher-level node. The previous VARY command deactivated the higher-level node and, in turn, it will deactivate *nodename*.

## System action

VTAM rejects the VARY command. The higher-level node and all subordinate nodes are inactive.

## Operator response

Save the system log for problem determination.

## System programmer response

You can reactivate both the higher-level node and *nodename*. The higher-level node might have been deactivated during error recovery processing. Check the system log to determine whether the deactivation was caused by error recovery or by a sequence of commands.

## Routing code

2

## Descriptor code

5

---

**IST605I** **ERROR FOR ID = *nodename* — *text1* : *text2***

## Explanation

A request from *nodename* failed, or a response sent by *nodename* contained data that was not valid. This message might be followed by another message. The following example shows the messages that can be issued with IST605I.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
[IST1590I  PU NETID DIFFERENT THAN HOST AND CONTACTED REQUEST]
[IST1591I  NCP NOT LOADED]
[IST1592I  NETID IN XID DID NOT MATCH NETID OF PU]
[IST1593I  RESOURCE TYPE NOT VALID]
[IST1594I  CPNAME IN CONTACTED REQUEST SAME AS SSCPNAME]
[IST1595I  LINK STATION NOT ASSOCIATED WITH AN NCP]
[IST1596I  SWITCHED LINK STATION STATE PCTD2 NOT VALID FOR LOAD]
[IST1597I  SWITCHED CALL=IN NCP NOT VALID]
[IST1598I  LEASED LINK STATION STATE PCTD2 NOT VALID FOR LOAD]
[IST1599I  NCP INDICATES LOAD REQUIRED BUT LOAD=NO]
[IST1600I  LOAD MODULE MISMATCH - LOAD=NO]
[IST1602I  RU ERROR: EXTRA CV X'xx']
[IST1603I  RU ERROR: INVALID POSITIVE RESPONSE]
[IST1604I  RU ERROR: LENGTH, FORMAT, OR TYPE NOT VALID]
[IST1605I  RU ERROR: MISSING CV X'0B']
[IST1606I  DIAL RETRY FAILED]
[IST1607I  RU ERROR: RESPONSE TOO LONG]
[IST1608I  RU ERROR: RESPONSE TOO SHORT]
[IST1609I  CV X'0B' INDICATES ADJACENT LINK STATION NOT SUPPORTED]
[IST1610I  CORRELATOR MISMATCH - LOAD=NO]
[IST1611I  CORRELATOR MISMATCH - NCP ACQUIRED BEFORE ACTIVATION]
[IST1612I  LOAD MODULE MISMATCH - EXPECTED loadmod1 FOUND loadmod2]
IST314I  END
```

*text1* : *text2* specifies the RU in error and is one of the following:

### REQUEST : CONTACTED

See the explanation of the second message in the group for more information.

### RESPONSE : ACTPU

See the explanation of the second message in the group for more information.

### RESPONSE : RNAA

An error occurred on an **RNAA** response received from an NCP, causing an invalid response to be returned to VTAM. This is probably an NCP error.

## System action

For **RESPONSE : RNAA**, *nodename* is deactivated.

## Operator response

For **RESPONSE : RNAA**, save the system log for problem determination.

## System programmer response

For **RESPONSE : RNAA**, if the node should be activated, reactivate it. If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected *nodename*. If *nodename* is link-attached, run a line trace for the affected line.

Enter a MODIFY TRACE,ID=*nodename* command.

## Routing code

2

## Descriptor code

5

---

**IST607I** *command FOR nodename FAILED – INVALID NODE TYPE OR STATE*

## Explanation

The operand specified in *command* is not applicable for *nodename* because the type or state of *nodename* is invalid for the operation requested.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *command*.

## System action

VTAM rejects the command. Other processing continues.

## Operator response

Reenter the command for a resource that is either the valid node type or in the valid state for the command. Use the DISPLAY ID command to determine the current resource state. See [z/OS Communications Server: SNA Operation](#) for additional information on *command*.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST608I	<b><i>command</i> FOR ID = <i>minornode</i> FAILED — HIGHER NODE: <i>highernode</i> NOT ACTIVE</b>
---------	--

---

## Explanation

VTAM issues this message when a *command* was entered to activate the resource *minornode* (a logical unit, physical unit, physical unit type 4, or link). The command failed because its higher-level node *highernode* is not active.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *command*.

- If *minornode* is a logical unit, *highernode* is a physical unit.
- If *minornode* is a physical unit or a physical unit type 4, *highernode* is its link.
- If *minornode* is a link, *highernode* is the physical unit specified on the PHYSRSC operand on the GROUP definition statement for the line group.

If the physical unit, defined in the NCP definition, whose name is specified by the PHYSRSC keyword is a switched PU that is not currently connected, then *highernode* is the physical line.

*highernode* must be active before *minornode* can be activated.

## System action

VTAM rejects the command.

## Operator response

Enter a VARY ACT command for resource *highernode* before activating resource *minornode*.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST610I** **LINE *linename* – STATUS *linestatus***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY command. See the explanation of message IST396I for a complete description of the group.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *linestatus*.

## Routing code

8

## Descriptor code

5

---

**IST611I** **ADJACENT SSCP TABLE FOR *resource* [IN *netid*]**

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ADJSSCPs command. The DISPLAY ADJSSCPs command requests information about adjacent SSCP's used to reach the destination SSCP or CDRSC *resource*.

```
IST350I  DISPLAY TYPE = ADJACENT SSCP TABLE
IST611I  ADJACENT SSCP TABLE FOR resource [IN netid]
[IST1705I sc_option = sc_value FROM START OPTION]
[IST1704I sc_option = sc_value FROM ADJACENT SSCP TABLE]
IST1220I  SSCPNAME NETID      CURRENT STATE  ROUTING STATUS
IST624I   sscpname[netid]    current_state  routing_stat us
:
IST314I  END
```

### IST350I

This message identifies the type of information shown in the display. DISPLAY TYPE is always **ADJACENT SSCP TABLE** in this message group.

### IST611I

*resource* is the name of the resource that was specified on the CDRSC operand of the command. If a network-qualified name was entered on the command line, VTAM issues the network ID *netid*.

### IST624I

- VTAM issues this message for each SSCP *sscpname* in the adjacent SSCP table being displayed and identifies the names of the adjacent SSCP's associated with *resource*.
- *sscpname* is the name of the adjacent SSCP for which information is displayed.
- *netid* is displayed only if the network ID of *sscpname* is known to VTAM and CDRSC is specified on the DISPLAY command.
- *current\_state* and *routing\_status* are displayed when CDRSC is specified on the command.
  - For *current\_state* information, see the [z/OS Communications Server: IP and SNA Codes](#). **\*\*NA\*\*** is displayed if the SSCP is not defined to VTAM.

– *routing\_status* can be one of the following:

**FAILURE**

The most recent routing attempt to the SSCP failed.

**SUCCESS**

The most recent routing attempt to the SSCP was successful. This does not indicate that session establishment was successful.

**\*\*NA\*\***

Routing status is not available.

**IST1220I**

This message is displayed only when the CDRSC operand is specified on the command and is a header message for the list of adjacent SSCPs that follows in message IST624I.

**IST1704I or IST1705I**

*sc\_option* indicates a search control option associated with the adjacent SSCP table being displayed. Possible values are: SORDER and SSCPORD. When VTAM is enabled for APPN, both search control options will be displayed with SORDER being first. When VTAM is not enabled for APPN, SSCPORD will be the only search control option displayed. Either IST1704I or IST1705I will be issued for each search control option displayed.

*sc\_value* indicates the value of the search control option associated with the adjacent SSCP table being displayed. If *sc\_value* is ADJLIST, the adjacent SSCP table being displayed is for a resource that specified an adjacent CDRM list (ADJLIST); therefore, the SORDER and SSCPORD search control options do not apply .

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

8

**Descriptor code**

5

---

**IST617I** **DEACTIVATION IN PROGRESS FOR *nodename***

**Explanation**

Processing of a VARY INACT command for a CDRM major or minor node resulted in the deactivation of *nodename*.

**System action**

The node *nodename* becomes inactive.

**Operator response**

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST619I	ID = <i>nodename</i> FAILED – RECOVERY IN PROGRESS
---------	--

## Explanation

VTAM recognized a failure condition for node *nodename* and is attempting to recover the node. See subsequent messages for the results of that recovery attempt.

## System action

Users of *nodename* or devices attached to *nodename* might be notified of the failure. VTAM attempts to recover *nodename*.

## Operator response

Wait for additional messages indicating the success or failure of the recovery attempt.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

4

---

IST621I	{RECOVERY SUCCESSFUL SSCP TAKEOVER COMPLETE} FOR NETWORK RESOURCE <i>nodename</i>
---------	---

## Explanation

Either *nodename* was recovered successfully or a takeover for a link with active sessions completed successfully. The application programs previously connected to *nodename* or nodes subordinate to it have been notified and might use those nodes.

## System action

Node *nodename* is returned to an active state. Active states of resources include the connectable (CONCT) state.

## Operator response

None.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

4

---

**IST623I** *tabletype* **ADJACENT SSCP TABLE [FOR *netid*]**

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ADJSSCP command when one of the following occurs:

- No specific ADJSSCP list is defined for the CDRM or NETID specified on the command
- Neither CDRM nor NETID is specified on the command
- SCOPE=ALL is specified on the command.

The DISPLAY ADJSSCP command requests information about adjacent SSCPs used to route to a destination SSCP or cross-domain resource. A complete description of the message group follows.

```
IST350I  DISPLAY TYPE = ADJACENT SSCP TABLE
IST623I  tabletype ADJACENT SSCP TABLE [FOR netid]
[IST1705I sc_option = sc_value FROM START OPTION]
[IST1704I sc_option = sc_value FROM ADJACENT SSCP TABLE]
IST624I  sscpname
:
IST314I  END
```

If SCOPE=ALL is specified on the command, the IST623I subgroup is repeated for all defined and dynamic ADJSSCPs which match the specifications on the command operands.

### IST350I

This message identifies the type of information shown in the display. DISPLAY TYPE is always **ADJACENT SSCP TABLE** in this message group.

### IST623I

- *tabletype* identifies which adjacent SSCP table is being displayed.
  - If *tabletype* is **DEFAULT**, no specific list was defined for the specified CDRM or NETID. The list being displayed was defined as a default list for the specified NETID or the default table for all networks.  
See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about defining adjacent SSCP tables.
  - If *tabletype* is **DYNAMIC**, no specific list was defined for the specified CDRM or NETID, and no default list was defined. The list being displayed was created dynamically for the specified NETID or the default table for all networks.  
See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information about dynamic adjacent SSCP tables.
- *netid* is the network ID of the resource. It is displayed when the DISPLAY ADJSSCP command specifies a NETID and a default adjacent SSCP list is defined for the specified network.

### IST624I

VTAM issues this message for each SSCP *sscpname* in the adjacent SSCP table being displayed.

### IST1704I or IST1705I

*sc\_option* indicates a search control option associated with the adjacent SSCP table being displayed. Possible values are: SORDER and SSCPORD. When VTAM is enabled for APPN, both search control options will be displayed with SORDER being first. When VTAM is not enabled for APPN, SSCPORD will be the only search control option displayed. Either IST1704I or IST1705I will be issued for each search control option displayed.

*sc\_value* indicates value of the search control option associated with the adjacent SSCP table being displayed.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

8

**Descriptor code**

5

---

**IST624I** *sscpname* **[[netid] current\_state routing\_status]**

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY ADJSSCPS command or a DISPLAY ID command for a CDRSC when SCOPE=ALL. It is preceded by IST611I, IST623I, or IST1333I. See the explanation of those messages for a complete description.

**Routing code**

8

**Descriptor code**

5

---

**IST627I** *nodename* — **INSUFFICIENT STORAGE**

**Explanation**

VTAM issues this message when a MODIFY TRACE command, MODIFY NOTRACE command, TRACE start option, or NOTRACE start option was entered to activate or deactivate a VTAM trace for node *nodename*, but sufficient storage was not available to build a parameter list.

**System action**

VTAM rejects the command or start option.



## Operator response

- If VTAM issues this message in response to a command, wait a few minutes, and reenter the command. If the error persists, enter a DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.
- If VTAM issues this message during startup, wait until VTAM is initialized, and enter a DISPLAY BFRUSE command. Save the system log and dump for problem determination.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

IST632I

BUFF BUFF CURR CURR MAX MAX TIMES EXP/CONT EXP

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY BFRUSE,BUFFER=SHORT command. A complete description of the message group follows.

```
IST350I DISPLAY TYPE = BUFFER POOL DATA
IST632I BUFF      BUFF      CURR      CURR      MAX      MAX      TIMES  EXP/CONT  EXP
IST633I ID        SIZE      TOTAL     AVAIL     TOTAL     USED      EXP      THRESHOLD INCR
IST356I bpid[Q][F] bufsize curtot curavail maxtot maxused times  exp/cont  incr
IST449I limitname = csa, CURRENT = current, MAXIMUM = maxlevel
IST790I MAXIMUM type USED = maxK
[IST449I CSA24 = csa, CURRENT = current, MAXIMUM = maxlevel]
[IST790I MAXIMUM type USED = maxK]
IST595I IRNLIMIT = irnlimitK, CURRENT=currentirnK MAXIMUM = maximumirnK
IST981I VTAM PRIVATE: CURRENT = currentK, MAXIMUM USED = maximumK
IST314I END
```

Message IST356I is repeated for each of the VTAM buffer pools.

### IST350I

This message identifies the type of information shown in the display. For this message group, type is always **BUFFER POOL DATA**.

### IST632I and IST633I

These messages are header messages for the information displayed in message IST356I.

### IST356I

- *bpid* is the name of the buffer pool. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

**Q**, if present, indicates that a request is queued for this pool. This field is usually blank.

**F**, if present, indicates that dynamic buffering has failed. This field is usually blank.

- *bufsize* is a decimal value that indicates the number of bytes in each buffer.

For IOBUF an overhead value of 87 bytes should be added to the *bufsize* value in this message. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information on buffer pool default sizes.

- *curtot* is a decimal value that indicates the total number of buffers in the pool.
- *curavail* is a decimal value that indicates the number of available buffers that are currently not in use.
- *maxtot* is a decimal value that indicates the highest number of buffers contained in this pool at any one time since the last buffer pool trace record was written.
- *maxused* is a decimal value that indicates the highest number of buffers in use at any one time since the last buffer pool trace record was written.
- *times* is a decimal value that indicates how many times this pool has been expanded since the last buffer pool trace record was written. If the value of *times* is greater than 99999, **\*\*\*\*\*** is displayed in this field.
- *exp* is a decimal value used for triggering expansion.

If the number of buffers not in use falls below this value, VTAM adds additional buffers. This field contains **N/A** if dynamic buffering has been suppressed.

- *cont* is a decimal value used for triggering contractions.

If the number of available buffers becomes larger than this value, VTAM checks the availability of dynamically obtained buffers. If available, VTAM releases those buffers. However, for any available buffer to be released, every buffer on the same page must also be available since buffers are released in pages.

This value is defined only when the buffer pool is in expansion mode. If blanks appear in the display, the buffer pool is not currently in expansion mode.

If dynamic buffering has been suppressed, this column contains **N/A**.

- *incr* is a decimal value that indicates how many buffers are to be added to the buffer pool during dynamic expansion.

Buffers are added in full pages. Thus, this number might be larger than the number used when defining the buffer pool. If dynamic buffering is not available, this field contains **N/A**.

### IST449I, IST790I, IST595I, and IST981I subgroup

See [“IST449I” on page 228](#) for a description of this message subgroup.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST633I	ID	SIZE	TOTAL	AVAIL	TOTAL	USED	EXP	THRESHOLD	INCR
---------	----	------	-------	-------	-------	------	-----	-----------	------

---

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY BFRUSE,BUFFER=SHORT command. See IST632I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

IST634I	NAME	STATUS	SID	SEND	RECV	VR	TP	NETID
---------	------	--------	-----	------	------	----	----	-------

---

## Explanation

This message is part of group of messages that VTAM issues in response to a DISPLAY ID command for an application program, a cross-domain resource (CDRSC), the host cross-domain resource manager (CDRM), or a logical unit. Message IST634I is a column header for IST635I, which is repeated for each session partner *name*. A complete description of this part of the message group follows.

IST634I	NAME	STATUS	SID	SEND	RECV	VR	TP	NETID
IST635I	name	status	[sessid]	[send]	[recv]	[vr]	[tp]	[netid]
:								
IST314I	END							

*name* is the session partner name.

*status* is the session status and is described in the [z/OS Communications Server: IP and SNA Codes](#).

*sessid* is the session identification (SID).

*send* is the send count in hexadecimal of the number of PIUs sent by the resource specified in the DISPLAY ID command. This count is applicable to normal data flow only.

*recv* is a count in hexadecimal of the number of PIUs received by the resource specified in the DISPLAY ID command. This count is applicable to normal data flow only.

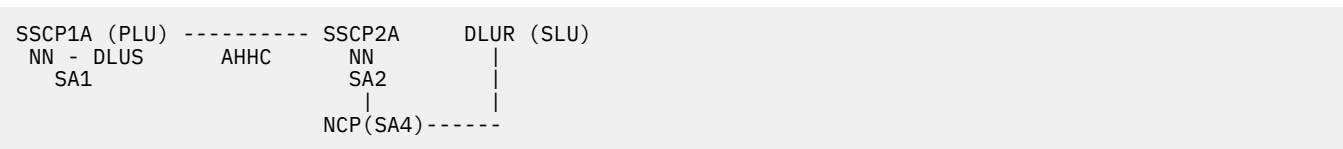
**Note:** Blank values for *send* and *recv* mean that the send and receive counts are not available (in this host), nor is the indication whether BIND (/B) or UNBIND (/U) is in progress. A PU, for example, would not have SEND and RECV counts available.

*vr* is the virtual route number used by the session. This field is left blank if the session partners are in the same subarea.

*tp* is the transmission priority assigned to the session. This field is left blank if the session partners are in the same subarea.

Knowledge of subarea information in the host in which the DISPLAY ID=plu\_or\_slue command is entered determines whether *vr* and *tp* are blank. In an APPN network, *vr* and *tp* will be displayed if a part of the session route between the PLU and the SLU goes across a virtual route, as seen from this host's perspective.

With the following configuration, different *vr* and *tp* values will be displayed in SSCP1A and SSCP2A:



In this case, on SSCP1A, since there is not a VR across the AHHC connection, the PLU side of the session is in SA1 and the SLU side of the session enters SA1 over the AHHC connection, so *vr* and *tp* do not apply and should not be displayed. *vr* and *tp* will be blank for the session displayed in message IST635I.

On SSCP2A, however, the PLU side of the session enters SA2 over the AHHC connection and the SLU side of the session is on SA4, so *vr* and *tp* do apply. The *vr* and *tp* that are displayed in message IST635I for this session are the *vr* and *tp* of the virtual route used between SSCP2A and the NCP.

*netid* identifies the network containing the session partner.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

8

### Descriptor code

5

---

**IST635I** *name status [sessid] [send] [recv] [vr] [tp] [netid]*

### Explanation

This message is part of a message group. The first message of the group is IST634I. See explanation of that message for a complete description.

### Routing code

8

### Descriptor code

5

---

**IST636I** **CDRSCS OWNED BY** *cdmname* —

### Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY ID command for an external cross-domain resource manager *cdmname*. This message is a header for message IST080I, which lists the cross-domain resources owned by *cdmname*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

### Descriptor code

5

**IST637I** SUBAREA=*subarea* ELEMENT=*element* SSCPID = *sscpid*

### Explanation

VTAM issues this message in response to a DISPLAY ID command for an external cross-domain resource manager.

*subarea* and *element* specify the subarea and element addresses of the external CDRM as defined in your network. If the subarea or element address is unknown, **N/A** will appear in this display.

*sscpid* is the SSCP identifier of the CDRM. *sscpid* will be displayed for a host CDRM and for an external CDRM with an SSCP-SSCP session with this host. *sscpid* is not available for a CDRM without an SSCP-SSCP session with this host and will be displayed as **N/A**.

### System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

### Descriptor code

5

**IST638I** **ADJNETSA = *adjnetsa*, ADJNETEL = *adjnetel***

## Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY ID command for an external cross-domain resource manager. A complete description of the message group follows. This group of messages might also appear as a part of another group of messages.

```
IST638I  ADJNETSA = adjnetsa, ADJNETEL = adjnetel
IST675I  VR = vr, TP = tp
IST639I  GWN = gwn, ADJNET = adjnet
IST640I  hostname ADDR IN ADJNET - SA = hostsa, EL = hostel
IST641I  GATEWAY PATH SELECTION LIST - status
IST642I  ADJNET      GWN      SUBAREA  ELEM   ADJNETSA  ADJNETEL
IST643I  [adjnet]    [gwn]     [adjsa]   [el]    [adjnetsa] [adjnetel]
```

### IST638I

Message IST638I indicates the subarea address, *adjnetsa*, and the element address, *adjnetel*, of the external CDRM as defined in the adjacent network. If these addresses are unknown, this message will not appear in the display.

### IST675I

Message IST675I indicates the virtual route number (*vr*) and the transmission priority (*tp*) of the CDRM session in the adjacent network. VTAM issues this message only if the route information in the adjacent network is known.

### IST639I

Message IST639I indicates the gateway NCP name, *gwn*, used on the path to the CDRM in the adjacent network, *adjnet*. VTAM issues this message only if the gateway NCP name and adjacent network name are both known.

### IST640I

Message IST640I indicates the name of your host, *hostname*, its subarea address, *hostsas*, and its element address, *hostel*, as defined in the external CDRM's network. If the name and address are unknown, this message will not appear in the display.

### IST641I

Message IST641I is a header line identifying the gateway path selection list that follows. The gateway path selection list is a list of alternate gateway NCPs used in establishing the cross-network SSCP-SSCP session (that is, the session between your host CDRM and an external CDRM in an adjacent network). If *status* does not appear, then messages IST642I and IST643I will follow with a list of gateway NCPs. If *status* is **DOES NOT EXIST**, then no gateway NCP is defined for the CDRM and messages IST642I and IST643I will not appear.

Each entry in the list contains parameters used to select a particular gateway NCP for establishing the session. Once a session is active, other messages identify the path used to establish the SSCP-SSCP session.

### IST642I and IST643I

Message IST642I is a header line for the data displayed in message IST643I. The information displayed by message IST643I is obtained from the operands defined on the GWPATH definition statement in the CDRM major node. VTAM issues message IST643I for each GWPATH definition statement. If any of the information in the display is missing, the corresponding value was omitted from the GWPATH definition statement.

The information includes:

#### **adjnet**

The network identifier of the adjacent network

#### **gwn**

The name of the gateway NCP used on the path to the CDRM

#### **adjsa**

The subarea address of the CDRM as defined in your network

**el**

The element address of the CDRM as defined in your network

**adjnetsa**

The subarea address of the CDRM as defined in the adjacent network

**adjnetel**

The element address of the CDRM as defined in the adjacent network

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

8

**Descriptor code**

5

---

**IST639I** **GWN = *gwn*, ADJNET = *adjnet***

**Explanation**

This message is part of a group of messages. The first message in the group is IST638I. See the explanation of that message for a complete description.

**Routing code**

8

**Descriptor code**

5

---

**IST640I** ***hostname* ADDR IN ADJNET — SA = *hostsa*, EL = *hostel***

**Explanation**

This message is part of a group of messages. The first message in the group is IST638I. See the explanation of that message for a complete description.

**Routing code**

8

**Descriptor code**

5

---

**IST641I** **GATEWAY PATH SELECTION LIST — *status***

## Explanation

This message is part of a group of messages. The first message in the group is IST638I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

5

---

IST642I	ADJNET GWN SUBAREA ELEM ADJNETSA ADJNETEL
---------	---

## Explanation

This message is part of a group of messages. The first message in the group is IST638I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

5

---

IST643I	[ <i>adjnet</i> ] [ <i>gwn</i> ] [ <i>adjsuba</i> ] [ <i>e!</i> ] [ <i>adjnetsa</i> ][ <i>adjnetel</i> ]
---------	--

## Explanation

This message is issued as part of a message group. The first message in the group is IST638I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

5

---

IST644I	<i>originpu</i> TG [ <i>adjnode</i> ] <i>destpu</i>
---------	---

## Explanation

This message is part of a group of messages. The first message of the group is IST533I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

5

---

IST645I	<i>configname</i> DEFINITION FAILED — NO VALID <i>macrotype</i> MACRO
---------	---



### Explanation

During activation or resource takeover, the NCP definition, *configname*, failed for one of the following reasons:

- There is no valid *macrotype* definition statement in the NCP definition.
- The NETID operand was specified in each *macrotype* definition statement of the NCP definition, but none of the NETID values match the network ID of this host.
- There is no *macrotype* definition statement in which the value of the specified or defaulted SUBAREA operand matches the subareas of this host. For HOST definition statements, if SUBAREA is not specified, the subarea value defaults to 1, but this can cause a mismatch if the HOSTSA start option value was different. For PCCU definition statements, the SUBAREA operand value defaults to the subarea of this host.
- The HOST definition statement must be specified for locally attached pre-V4R3 NCPs.
- The BUILD definition statement was encountered before a valid PCCU definition statement (either the PCCU definition statement was not specified or none were found that specified a matching NETID and SUBAREA).

### System action

Activation of the NCP definition deck fails during network definition.

### Operator response

Save the system log for problem determination.

### System programmer response

Correct or include a *macrotype* definition statement with the proper NETID and SUBAREA values (or defaults).

### Routing code

2

### Descriptor code

5

---

**IST650I** **POLL = *delay*, NEGPOLL = *negresponse*, SESSION(S) = *maxsessions***

### Explanation

VTAM issues this message as part of a line-status display in response to a response to a DISPLAY ID command for a nonswitched polled line (non-SDLC line).

*delay* is the polling delay (the time delay between polling sequences) of the line expressed in a decimal number of seconds.

*negresponse* is the maximum number of consecutive negative polling responses accepted before polling of another terminal on the line.

*maxsessions* is the maximum number of consecutive line scheduling sessions allowed on the line.

### System action

Processing continues.

### Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST652I** *keyword IS A DUPLICATE KEYWORD IN THE TRACE/NOTRACE OPTION*

## Explanation

*keyword* is specified more than once in the TRACE or NOTRACE start option string.

## System action

VTAM initialization does not process the TRACE or NOTRACE option, nor any following start options. Preceding start options have been processed.

## Operator response

When prompted by message IST1311A, do one of the following:

- Enter the TRACE or NOTRACE option correctly. You must also enter all succeeding options.
- Enter a blank to accept the default value.

## System programmer response

Correct your start options. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on VTAM start options.

## Routing code

2

## Descriptor code

5

---

**IST654I** *I/O TRACE = {ON|OFF}, BUFFER TRACE = {ON|OFF} [– AMOUNT = *value*]*

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a traceable node other than a line. It indicates whether the I/O trace facility is active or inactive for that node, and whether the buffer trace facility is active or inactive for that node.

**AMOUNT = *value*** is displayed if **BUFFER TRACE = ON**. *value* represents the **AMOUNT** operand value specified on the TRACE start option or the MODIFY TRACE command, and indicates how much of the buffer's contents are traceable. *value* can be one of the following:

### **PARTIAL**

The trace record has a maximum size of 256 bytes including header information.

### **FULL**

All of the buffer's contents are traceable.

**Note:** If **AMOUNT** is not specified when the buffer contents trace is activated, the default *value* **PARTIAL** is displayed.

For additional information on the buffer contents trace, see [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#).

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST655I** *tracetype TRACE STATUS = status*

## Explanation

VTAM issues this message in response to a DISPLAY ID command or a DISPLAY TRACES,TYPE=SMS or a DISPLAY TRACES,TYPE=CNM command.

*tracetype* can be one of the following:

### **CNM**

Communication Network Management (CNM) trace

### **LINE**

Line trace

### **SMS**

Storage Management Service (SMS) trace

### **TG**

Transmission group trace

*status* indicates the status of the trace being displayed.

- If a DISPLAY ID command is entered, this message indicates the status of the **LINE** or **TG** trace for the displayed line. This message is displayed only if a **LINE** or **TG** trace is active or in a pending state when the command is entered.

For *status* information, see the [z/OS Communications Server: IP and SNA Codes](#)

- If a DISPLAY TRACES,TYPE=CNM command is entered, *status* indicates whether the **PDPIUBUF** and **SAWBUF** buffer traces are **ON** or **OFF**.
- If a DISPLAY TRACES,TYPE=SMS command is entered, *status* indicates whether the **SMS** buffer trace is **ON** or **OFF**.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST656I</b>	<b>ACTIVATE REJECTED FROM UNDEFINED CDRM, SA <i>subarea</i> EL <i>element</i></b>
----------------	---

## Explanation

A cross-domain resource manager (CDRM) in an external domain sent a request to establish a session with your domain, via an ACTCDRM request. The request failed because that CDRM is not known to VTAM. It is not defined in your domain.

*subarea* is the subarea address of the external CDRM.

*element* is the element address of the external CDRM.

## System action

VTAM rejects the request. No session with that CDRM can be established.

## Operator response

Contact the operator of the domain with the subarea *subarea* to find out which CDRM was requested. Then enter a VARY ACT command for the CDRM major node that contains the definition for the inactive CDRM. This will enable the CDRMs external to your domain to establish sessions with your domain. Save the system log and network logs for problem determination.

## System programmer response

Examine the definition library to make sure that all CDRMs in external domains that might want to communicate with your domain are defined to VTAM.

## Routing code

2

## Descriptor code

5

---

<b>IST658I</b>	<b><i>command</i> COMMAND FAILED — <i>uservar</i> NOT FOUND</b>
----------------	---

## Explanation

VTAM issues this message when a MODIFY USERVAR command or DISPLAY USERVAR command for USERVAR *uservar* fails because the USERVAR is not known to VTAM.

## System action

VTAM rejects the command. Processing continues.

## Operator response

Enter a DISPLAY USERVAR command to list all USERVARs known to VTAM. Enter the MODIFY USERVAR command with the correct USERVAR name.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST660I** *command FOR ID = nodename FAILED — PARM: parameter NOT VALID*

## Explanation

VTAM issues this message when the *command* failed for *nodename* because an unacceptable parameter was entered.

- If *parameter* is **U='** (blank), a line in a channel attached major node or a local SNA PU was defined without a device address, and the device address was not specified with the U operand on the VARY ACT command.
- If *parameter* is **U=device\_address**, a VARY ACT command specifying **U=device\_address** was entered for a line in a channel attached major node or a local SNA PU that was not active. This error occurs when *device\_address* does not match the device address currently in use.
- If *parameter* is **LOGON=controllu**, a controlling LU name was specified on the **LOGON** operand of a VARY ACT command for an application. Controlling LUs are only valid for logical units.
- If *parameter* is **RNAME**, this message can be issued for the following reasons:
  - If **RNAME=nodename** was specified during activation of a communication controller, *nodename* is the name of a logical unit and is therefore not valid.
  - If the value specified in the **RNAME** *parameter* is not a valid link station name, the *command* fails.
  - If **RNAME=backup** was specified, VTAM was not able to process backup link station *backup*.
  - If the value specified in the **RNAME** *parameter* does not match the NCP definition, the *command* fails.

## System action

VTAM rejects the command. Other processing continues.

## Operator response

- If *parameter* is **U='** (blank), reenter the VARY ACT command specifying the device address on the U operand.
- If *parameter* is **U=device\_address**, and the device address is correct, deactivate the line or PU and reenter the command.
- If *parameter* is **LOGON=controllu**, see [z/OS Communications Server: SNA Operation](#) for information on the correct syntax of the VARY ACT command.
- If *parameter* is **RNAME**, reenter the command specifying a valid node name or value for *parameter*.

## System programmer response

- If *parameter* is **U**= (blank), you might want to specify a default device address for the line or PU.
- Otherwise, no action is required.

## Routing code

2

## Descriptor code

5

---

**IST663I** *request* **REQUEST** [{**TO**|**FROM**} *adjnode*] *action*, **SENSE=** *code*

---

## Explanation

This message is the first in a group of messages that VTAM issues when a request/response unit (RU) fails to complete successfully. A complete description of the message group follows.

```
IST663I request REQUEST [{TO|FROM} adjnode] action, SENSE=code
IST664I {REAL|ALIAS} {OLU|PLU}=luname1 {REAL|ALIAS} {DLU|SLU}=luname2
IST889I SID = sessid
```

**Note:** One or more messages might follow IST889I. See "Additional messages" in this message explanation for more information.

### IST663I

- *request* is the name of the RU that failed. See [Chapter 16, "Command and RU types in VTAM messages,"](#) on page 1683 for a description of *request*.
- *action* can be one of the following:
  - **FAILED** indicates that the *request* did not complete successfully for the reason described by *code*.
  - **PURGED** indicates that the *request* was purged because of the timeout value that was specified on the MODIFY IOPURGE command or on the IOPURGE start option. See [z/OS Communications Server: SNA Operation](#) and the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.
  - **RECEIVED** indicates that the *request* was received, but did not complete successfully for the reason described by *code*.
- **TO/FROM** is not issued if the failing RU flows in a same domain session. For example, if the **INIT OTHER** RU failed, **TO/FROM** is not issued. **FROM** is issued only if a request failed, not as a reply to a request.
- *adjnode* is the SSCP which sent or is to receive the request, or the related resource to which the request was sent. If a CDINIT failed to initiate an adjacent SSCP for any reason, this message is issued in the following format:

```
IST663I CDINIT REQUEST FROM SSCP1A FAILED, SENSE=0801000F
```

- *code* provides additional information about the cause of the failure. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

### IST664I

- This message occurs during session initiation request and response processing. The origin LU (*luname1*) might be either the primary logical unit or the secondary logical unit. The same applies for the destination LU (*luname2*). The real names of the session partners will be displayed if they are known (indicated by **REAL**);, otherwise the alias names will be displayed (indicated by **ALIAS**). The DLU's name will indicate **REAL** if it has been assumed. When the session setup direction cannot be determined, **PLU** and **SLU** will be displayed rather than **OLU** and **DLU**.

**Note:** **\*\*\*NA\*\*\*** is displayed in place of the network identifier portion of the LU name, or the whole LU name, if either is not known.

## IST889I

The session ID *sessid* provides a unique identifier for the session. If the session ID is unknown, VTAM displays **\*\*\*NA\*\*\***.

### Additional messages

- One or more messages might follow IST889I, depending on the type of error.

#### – Processing error

```
IST264I  REQUIRED resource [luname] reason
or
IST1138I REQUIRED resource [luname] reason
```

The combination of *resource* and *reason* can be any of the following:

**ADJSSCP TABLE**  
**UNDEFINED**

**COS NAME *cosname***  
**UNDEFINED**

**LOGMODE NAME *logmode***  
**UNDEFINED**

**RESOURCE *luname***  
**UNDEFINED**

**RESOURCE *luname***  
**NOT ACTIVE**

**RESOURCE *luname***  
**UNSTABLE** (device-type LUs only)

**RESOURCE *luname***  
**DISABLED**

**RESOURCE *luname***  
**QUIESCING**

**RESOURCE *luname***  
**BLOCKING LOGONS** (for application PLUs only)

**STORAGE**  
**NOT AVAILABLE**

*luname* appears when *resource* is **RESOURCE**. *luname* is the real name of the LU or application that was in error. If the SLU is not known, VTAM displays **\*\*\*NA\*\*\*** for *luname*.

- If a network-qualified name was entered on the command line and the MSGLVL option specifies V4R1 or above, VTAM displays message IST1138I and issues *luname* as a network-qualified name in the form *netid.name*
- If the default is used or the MSGLVL option specifies BASE, VTAM issues message IST264I, and *luname* is not network-qualified.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of the MSGLEVEL start option and the MSGLVL operand on the USSMSG macro.

See the explanation of IST264I or IST1138I for additional information.

#### – Autologon session setup failure

```
IST890I  AUTOLOGON SESSION SETUP FAILED
```

This message indicates that an autologon attempt to a controlling PLU failed. The autologon could have originated from one of the following:

- VARY LOGON or VARY ACT with LOGON command
- VARY ACT command that applied to LUs with LOGAPPL specified

- Reallocation of the controlling PLU session

#### – Dynamic dial failure

```
IST1015I APPLICATION SUPPLIED parameter name = parameter value
[IST1028I parameter value]
```

See the explanation of IST1015I for additional information.

#### – Extended sense data

```
IST891I netid.nodename1[.nodename2] GENERATED FAILURE NOTIFICATION
[IST892I resourcename ORIGINATED FAILURE NOTIFICATION]
IST893I ORIGINAL FAILING REQUEST IS request
```

See the explanation of IST891I for additional information.

#### – Notification of available resource

```
IST896I AUTOLOGON WILL BE RETRIED WHEN CONTROLLING PLU IS AVAILABLE
```

See the explanation of IST896I for additional information.

#### – Adjacent SSCP table information

```
[IST1705I sc_option = sc_value FROM START OPTION]
[IST1704I sc_option = sc_value FROM ADJACENT SSCP TABLE]
IST894I ADJSSCPS TRIED FAILURE SENSE ADJSSCPS TRIED FAILURE SENSE
IST895I sscpname sense sscpname sense
```

For IST1705I or IST1704I:

*sc\_option* indicates a search control option that was used for the session. Possible values are: SORDER and SSCPORD. When VTAM is enabled for APPN, both search control options will be displayed with SORDER being first. When VTAM is not enabled for APPN, SSCPORD will be the only search control option displayed. Either IST1704I or IST1705I will be issued for each search control option displayed.

*sc\_value* indicates the value of the search control option that was used for the session. If *sc\_value* is ADJLIST, the adjacent SSCP table used for this session was for a resource that specified an adjacent CDRM list (ADJLIST); therefore, the SORDER and SSCPORD search control options do not apply.

For IST895I, see the explanation of [IST894I](#) for additional information.

#### – Translation error

```
IST523I REASON = IMPROPER TRANSLATION OF {OLU|DLU} NAME
```

During an LU-LU session setup request, VTAM requested that the alias-name translation facility translate either the OLU name (*luname1*) or the DLU name (*luname2*), and the facility returned a different name with the same network identifier. If the alias and real names are in the same network, VTAM requires that the names be the same.

#### – TN3270 Resource information

```
[IST1727I DNS NAME: dns_name]
[IST1728I dns_name_continued]
IST1669I IPADDR..PORT ipaddr..portno
```

Messages IST1669I, IST1727I, and IST1728I will be allowed whenever the SLU of the session is known to be a TN3270-connected application, CDRSC, or LU resource.

#### – Border node search information

```
[IST2208I sc_option = sc_value FROM START OPTION]
[IST2209I sc_option = sc_value FROM ADJCLUST TABLE]
```

For IST2208I or IST2209I:

- The *sc\_option* value indicates a border node search control option that was used for the locate. Possible values are: BNORD and BNDYN. When VTAM is enabled as a border node and performs border node



searching, both border node search control options are displayed. Either IST2208I or IST2209I is issued for each search control option.

- The *sc\_value* value indicates the value of the search control option that was used for the search. When the *sc\_option* value is BNORD, possible *sc\_value* values are PRIORITY and DEFINED. When the *sc\_option* value is BNDYN, possible *sc\_value* values are NONE, LIMITED, and FULL. See [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of the values.

#### – APPN Locate Search Failure information

```
IST1942I APPN LOCATE SEARCH STEPS ATTEMPTED
[IST1943I DIRECTED SEARCH TO A SERVED END NODE]
[IST1953I search nodename - SENSE code FROM reply nodename]
[IST1944I DIRECTED SEARCH TO A NETWORK NODE]
[IST1953I search nodename - SENSE code FROM reply nodename]
[IST1945I DIRECTED SEARCH TO A BORDER NODE]
[IST1953I search nodename - SENSE code FROM reply nodename]
[IST1946I LOCAL SUBAREA SEARCH]
[IST1953I search nodename - SENSE code FROM reply nodename]
[IST1947I BROADCAST SEARCH TO SERVED END NODES]
[IST1953I search nodename - SENSE code FROM reply nodename]
[IST1948I DIRECTED SEARCHES TO BORDER NODES]
[IST1953I search nodename - SENSE code FROM reply nodename]
[IST1949I DIRECTED SEARCH TO A CENTRAL DIRECTORY SERVER]
[IST1953I search nodename - SENSE code FROM reply nodename]
[IST1950I DIRECTED SEARCHES TO ALTERNATE CENTRAL DIRECTORY SERVERS]
[IST1953I search nodename - SENSE code FROM reply nodename]
[IST1951I BROADCAST SEARCH TO NETWORK NODES]
[IST1953I search nodename - SENSE code FROM reply nodename]
[IST1952I DIRECTED SEARCHES TO INTERCHANGE NODES]
[IST1953I search nodename - SENSE code FROM reply nodename]
```

See [IST1942I](#) for a complete description of the message group.

#### – Session path information

```
[IST2102I RSCV FROM PLU]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgtype hpr]
[IST2103I RSCV TOWARDS SLU]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgtype hpr]
[IST2104I RSCV TOWARDS DLUR]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgtype hpr]
```

See the explanation of [IST2102I](#), [IST2103I](#), or [IST2104I](#) for additional information.

## System action

- If *action* is **FAILED** or **RECEIVED**, the LU-LU session setup request fails.
- If *action* is **PURGED**, the LU-LU session setup request continues its routing to other SSCPs. If there are no additional adjacent SSCPs, the LU-LU session setup fails.

## Operator response

Save the system log for problem determination.

## System programmer response

- If *action* is **FAILED** or **RECEIVED**, review the definition for the facility where the LU translation is defined. Either change the name translation for the LU or change the network ID of the translated name to a different network identifier.
- If *action* is **PURGED**, verify that the timeout value specified for IOPURGE on either the MODIFY IOPURGE command or the IOPURGE start option is adequate. If this value is too small, it might result in premature routing failures.

If the IOPURGE value is adequate, verify that the adjacent SSCP *adjnode* in message IST663I is active and operational.

See [z/OS Communications Server: SNA Operation](#) for a description of the MODIFY IOPURGE command. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of the IOPURGE start option.

## User response

Not applicable.

## Problem determination

See the System programmer response.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

8

## Descriptor code

4

## Example

Not applicable.

---

<b>IST664I</b>	<b>{REAL ALIAS} {OLU PLU}=luname1 {REAL ALIAS} {DLU SLU}=luname2</b>
----------------	--

## Explanation

This message is part of a message group. The first message in the group is either IST663I or IST1774I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

<b>IST670I</b>	<b>VARY command PROCESSING FOR ID = nodename COMPLETE</b>
----------------	---

## Explanation

The specified VARY command processing completed for the resource *nodename*.

## System action

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

8

**Descriptor code**

4

---

<b>IST674I</b>	<b><i>command</i> FOR ID = <i>nodename</i> CONTINUES – PARM: <i>parameter</i></b> <b>IGNORED</b>
----------------	---

**Explanation**

VTAM issues this message when a *parameter* was entered that is not valid for the resource *nodename* specified on the *command*.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *command*.

**System action**

Processing of *command* continues, but VTAM ignores *parameter*.

**Operator response**

You do not need to reenter the command. Processing of *command* continues. For the next use of the command, check the valid operands for the command in [z/OS Communications Server: SNA Operation](#).

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

<b>IST675I</b>	<b>VR = <i>vr</i>, TP = <i>tp</i></b>
----------------	---------------------------------------

**Explanation**

VTAM issues this message in response to a DISPLAY ID command for a CDRM or a PU type 4 or 5.

*vr* is the virtual route number.

*tp* is the transmission priority for the session of the node being displayed.

**System action**

Processing continues.



## System action

VTAM has caused the NCP to begin monitoring for a connection to complete on the line. The application program's request to connect to the device is kept waiting until the connection is completed.

## Operator response

You must either successfully establish the requested connection or enter the VARY INOP command to terminate the dial out request.

## System programmer response

None.

## Routing code

1

## Descriptor code

2

---

**IST680I** **CONNECTION REQUEST DENIED – ID = *nodename text***

---

## Explanation

VTAM issues this message when a connection request for resource *nodename* has been rejected. This message is issued as both a single line message and as part of message groups.

- If *nodename* is a local SNA physical unit, the following message group is displayed.

```
IST680I      CONNECTION REQUEST DENIED - ID = nodename text
[IST1394I    CPNAME = cpname  STATION ID = stationid]
[IST352I     LOCAL SNA MAJOR NODE = majornode ]
IST314I      END
```

- If *nodename* is a DLUR served physical unit, the following message group is displayed.

```
IST680I      CONNECTION REQUEST DENIED - ID = nodename text
IST1354I     DLUR NAME = dlurname MAJNODE = majnode
IST1394I     CPNAME = cpname  STATION ID = stationid
IST314I      END
```

- For all other types of nodes, the following message group is displayed.

```
IST680I      CONNECTION REQUEST DENIED - ID = nodename text
[IST1394I     CPNAME = cpname  STATION ID = stationid]
[IST081I     LINE NAME = linename, LINE GROUP = groupname, MAJNOD = nodename ]
[IST1544I     DIAL OUT PURGE IN PROGRESS - ID = nodename]
IST314I      END
```

### IST081I

*linename* is the line to which *nodename* is connected.

*groupname* is the line group to which the line *linename* belongs.

*nodename* is the major node with which the line is associated.

### IST352I

*majornode* is the local SNA major node (local cluster controller).

### IST680I

- *text* can be one of the following:

**CALL SECURITY ERROR**

A dial in or dial out request was rejected because the required information for call security verification was missing or not valid.

**DIAL OUT IN PROGRESS**

The dial out for the switched physical unit *nodename* is already in progress over another line. For a manual dial, see IST679A. For an auto dial, the dial in will fail.

**INVALID NETWORK NAME**

This error can occur for one of the following reasons:

- *nodename* is not a valid name. Either the CPNAME passed in the REQCONT/REQACTPU RU could not be found (matched to a switched PU definition), or the network ID or CPNAME passed in the REQCONT/REQACTPU RU is not valid. This is the most frequent reason for the error.
- *nodename* is attempting to establish a connection with itself. This can occur in response to an operator takeover request.

**LINK NOT IN EAM**

A dial in request was not honored for the switched physical unit *nodename* because the link was not in enable answer mode (EAM).

**MAXLU INADEQUATE**

The dial in request was not honored because the link cannot support the number of logical units required by the switched physical unit *nodename* that dialed in.

**NETID MISMATCH**

NETID found in REQCONT/REQACTPU RU does not match the NETID of the host.

**NO USABLE PATH FOUND**

Call ID verification was indicated on a PATH definition statement for *nodename* and a usable PATH definition could not be found.

**PU ALREADY ACTIVE**

A REQACTPU is received for a DLUR PU that is already active.

**PU GEN NOT SUPPORTED**

This error can occur for one of the following reasons:

- The host could not identify the switched PU for one of the following reasons:
  - The PU is not defined in a switched major node.
  - The switched major node in which the PU is defined is not active.
  - The PU is not able to be dynamically defined for the following reasons:
    - Non-genned terminal support is not available because ASDP=YES is not specified on the PU definition statement in the switched major node.
    - DYNPU=YES is not specified on the GROUP definition statement in a major node such as NCP or XCA.
  - The network-qualified name of the node that the PU represents, as specified in the XID3 received from the adjacent node, does not match the name defined in the switched major node on the NETID and CPNAME operands on the PU definition statement.
  - The *idblk* and *idnum*, as specified in the XID3 received from the adjacent node, do not match the *idblk* and *idnum* defined in the switched major node on the IDBLK and IDNUM operands on the PU definition statement.

**PU STATE CHANGED**

The PU state of a predefined PU changed while the c services (CS) exit was in control. When a REQCONT for a predefined PU is sent to the CS exit, the state of the PU is set to Pending REQCONT. If an INOP is received on that PU or its LINE before returning from the CS exit, the state of the PU changes. This indicates that the connection setup cannot continue.

**PUTYPE MISMATCH**

PUTYPE found in REQCONT/REQACTPU RU does not match the PUTYPE in the switched PU definition.

### **REQCONT RU NOT VALID**

The station ID (*nodename*) passed in the REQCONT RU could not be found (that is, matched to a switched PU definition). This indicates a hardware or software problem in the switched physical unit *nodename* attempting the connection.

### **T2.1 NOT SUPPORTED**

A connection request for a PU type 2.1 node, *nodename*, with independent LUs was received from an NCP that does not provide the required level of support.

### **TG NUMBER NOT USABLE**

An EE model PU with predefined TG numbers was used, but the specified TGNs could not be used. The REQCONT RU fails with sense 08070000 or 10160016.

### **IST1354I**

*dlurname* is the network-qualified CP name (in the form *netid.name*) of the dependent LU requester (DLUR) associated with the DLUR served physical unit *nodename* in message IST680I.

*majnode* is the name of the switched major node for the DLUR served physical unit *nodename* in message IST680I.

### **IST1394I**

*cpname* is the network-qualified name of the control point (CP) that was passed in the XID from the node attempting the connection. VTAM displays *cpname* in the form *netid.name*. **\*\*\*NA\*\*\*** is displayed if no CP name is provided.

*stationid* is the 4-byte station identifier in the following format: Byte 1 = PUtype, Byte 2 = reserved, Byte 3 and 4 = IDBLK/IDNUM. For more information on station identifier formats, see the descriptions of the IDBLK and IDNUM operands in the [z/OS Communications Server: SNA Resource Definition Reference](#).

### **IST1544I**

- *nodename* is the physical unit (PU) that dialed out on the associated line.

A dial in and a dial out over the same line were attempted at the same time and both requests were rejected.

There are two possible causes for the problem:

- A physical unit (PU) performed a dial out, but the request contact information (*cpname* or *stationid*) received in contact RU (REQCONT) matches a different PU that is defined in VTAM.
- Two different PUs, one performing dial out and the other performing dial in over the same line, cause a race condition.

In both cases, the PU that attempted to dial out is displayed.

## **System action**

Processing continues. If the physical unit is offline, the session establishment remains pending. Otherwise, the connection request and any associated session establishment attempts fail.

For message IST1544I, the dial in is rejected and the dial out is purged.

## **Operator response**

**For IST1544I:** Save the system log for problem determination.

**For IST680I**

### **CALL SECURITY ERROR**

Save the system log for problem determination.

### **DIAL OUT IN PROGRESS**

Attempt to dial in on another line.

### **INVALID NETWORK NAME**

Save the system log for problem determination.

**LINK NOT IN EAM**

If dial in requests are to be honored on link *link*, enable answer mode by using the VARY ANS=ON,ID=*link* command.

**MAXLU INADEQUATE**

Save the system log for problem determination.

**NETID MISMATCH**

Save the system log for problem determination.

**NO USABLE PATH FOUND**

If dial in or dial out requests are to be honored for the node, enable the PATH definitions for *nodename* by using the VARY PATH=USE,ID=*nodename*, PID=*pathid* command.

**PU GEN NOT SUPPORTED**

Try activating the switched major node containing the PU *nodename*. If problems persist, save the system log for problem determination.

**PUTYPE MISMATCH**

Save the system log for problem determination.

**REQCONT RU NOT VALID**

Save the system log for problem determination.

**T2.1 NOT SUPPORTED**

Save the system log for problem determination.

**System programmer response**

For IST1544I, ensure that the correct CP name or station ID (IDBLK/IDNUM) is specified on the switched PU definition statement for the PU performing the dial out.

**For IST680I****CALL SECURITY ERROR**

Verify that all nodes involved in the dial process are of a level that supports call security verification. See the PRTCT operand on the PU definition statement in the switched major node definition.

**DIAL OUT IN PROGRESS**

None.

**INVALID NETWORK NAME**

- If *nodename* is not a valid name, check for a CPNAME mismatch between the switched major node or model major node and the NCP major node definitions. Verify that the network ID passed in the REQCONT/REQACTPU RU matches the network ID specified in the PU definition statement. Line information or I/O trace information or both might be necessary to determine the cause of the problem.
- If this error is due to an operator takeover request, APPN or LEN connectivity is not available until the failing host regains control or another host takes control. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information.
- If this error is due to a name conflict, correct the duplicate names.

**LINK NOT IN EAM**

Put the link in enable answer mode (EAM).

**MAXLU INADEQUATE**

Check for a MAXLU mismatch in the switched major node and NCP major node definitions. Either update the switched major node to match the NCP major node or instruct the remote user of the PU not to dial in over that link.

**NETID MISMATCH**

NETID should be the same as the host. If it is not, then the NETID in the REQCONT/REQACTPU RU is incorrect. If *cpname* is not network-qualified, then NETID will default to the host NETID. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information about XNETALS.

See the product documentation for the device for information on coding *cpname* and NETID if they are not correct in the REQCONT/REQACTPU RU.



### NO USABLE PATH FOUND

Check the PATH definition statements in the switched major node containing *nodename*.

### PU GEN NOT SUPPORTED

Check the definition statements for the switched PU and revise as needed. Deactivate and reactivate the switched major node to use the revised definitions.

### PUTYPE MISMATCH

PUTYPE as indicated in the XID received on the REQCONT/REQACTPU RU should match PUTYPE as defined on the switched PU. See [z/OS Communications Server: SNA Resource Definition Reference](#) for information about PUTYPE.

See the product documentation for the device for information on PUTYPE if it is not indicated correctly in the XID received on REQCONT/REQACTPU RU.

### REQCONT RU NOT VALID

Check for an IDBLK or IDNUM mismatch between the device and the switched major node.

### T2.1 NOT SUPPORTED

Check the PATH and LU definition statements in the switched major node containing *nodename*.

## Routing code

8

## Descriptor code

4

---

**IST683I****CONNECTION REQUEST DENIED, ID = *nodename***

---

## Explanation

This message is the first in a subgroup of messages that VTAM issues when the connection for channel-attached physical unit *nodename* failed. A complete description of the message subgroup follows.

```
IST683I  CONNECTION REQUEST DENIED, ID = nodename
IST684I  I/O ERR, CSW = channel_status_word, SENSE = code
```

*channel\_status\_word* (also called *subchannel\_status\_word*) provides information about the device and channel (or subchannel) status.

*code* is the sense code and provides information about the cause of the error. See the appropriate hardware manual for the value of *code*.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the information in the two messages to determine appropriate error recovery action. See the appropriate hardware manual for the value of *code*.

If you cannot identify an I/O error or if **SENSE = 0200** or **8200** in message IST684I, check the following:

- Ensure that the buffer size (IOBUF) is compatible between the device and VTAM. This can be determined by referencing the device installation guidelines.

**Note:** Some devices require an even numbered buffer size.

- Ensure that the PU type defined to VTAM (XID=YES|NO) matches the real PU type.
- Ensure that you have specified an appropriate value for MAXBFRU on the PU definition of *nodename*.
- Ensure that the product of MAXBFRU and the buffer size (IOBUF) is equal to or greater than the hardware's maximum send size. Reference your hardware documentation for additional information about maximum send size.

## Routing code

8

## Descriptor code

4

---

**IST684I** **I/O ERR, CSW = *channel\_status\_word*, SENSE = *code***

---

## Explanation

This message is part of a message subgroup. The first message in the subgroup is IST683I. See the explanation of that message for a complete description of the subgroup.

## Routing code

8

## Descriptor code

4

---

**IST688I** **VARY FAILED FOR ID = *cdrmname* — INSUFFICIENT STORAGE**

---

## Explanation

While VTAM was processing a VARY ACT command for an external CDRM, insufficient storage was available to process a request for node *cdrmname*.

## System action

The VARY ACT command for *cdrmname* fails.

## Operator response

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.

- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps](#) and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST690I** **CONNECTION REQUEST DENIED – INVALID STATION ID = *stationid***

---

## Explanation

VTAM issues this message when a switched connection between VTAM and a physical unit was unsuccessful because the station identifier *stationid* did not resolve to a node name in an active switched major node. A complete description of the message group follows.

```
IST690I  CONNECTION REQUEST DENIED - INVALID STATION ID = stationid
[IST1544I  DIAL OUT PURGE IN PROGRESS - ID = nodename]
IST081I  LINE NAME = linename, LINE GROUP = groupname, MAJNOD = nodename
IST956I  PU SAP=sapaddress MAC=macaddress
IST314I  END
```

### IST081I

*linename* is the line to which *nodename* is connected.

*groupname* is the line group to which the line *linename* belongs.

*nodename* is the major node with which the line is associated.

### IST690I

*stationid* is the station identifier expressed in hexadecimal. For more information on station identifier formats, see the descriptions of the IDBLK and IDNUM operands in the [z/OS Communications Server: SNA Resource Definition Reference](#).

### IST956I

Provides the remote LAN address of the PU if the failure is detected during REQCONT processing and the DLC information is available.

*sapaddress* is the service access point (SAP) address for the LAN connection that the major node defines.

*macaddress* is the 12-digit hexadecimal medium access control (MAC) address for the LAN connection that the major node defines. If no *macaddress* was defined, zeroes are displayed.

### IST1544I

- *nodename* is the physical unit (PU) that dialed out on the associated line.

A dial in and a dial out to use the same line were attempted at the same time and both requests were rejected.

There are two possible causes for the problem:

- A physical unit (PU) did a dial out, but the request contact information (*cpname* or *stationid*) received in contact RU (REQCONT) matches a different PU defined in VTAM.
- Two different PUs, one performing dial out and the other performing dial in over the same line, cause a race condition.

In both cases, the PU that attempted to dial out is displayed.

## System action

The connection to the physical unit is broken.

For message IST1544I, the dial in is rejected and the dial out is purged.

## Operator response

Save the system log for problem determination.

**For IST1544I** Save the system log for problem determination.

## System programmer response

Possible reasons for this problem are:

- The switched major node that contains the PU definitions for this physical unit is not active. The physical unit could be attached to a Token Ring.

Activate the switched major node that contains the definitions for this physical unit.

- A remote terminal operator initialized a physical unit with the wrong ID.

Have the remote operator re-initialize the physical unit with the correct station identifier.

- The VTAM definition statements are incorrect.

Correct the VTAM definition statements before your operator tries to redial by taking the following actions:

1. Enter a VARY INACT command for the switched major node.
2. Modify and file new VTAM definition statements.
3. Reactivate the switched major node.
4. Redial.

- Dynamic definition of the physical unit fails for one of the following reasons:

- The XID exit has not been activated or the XID exit has not been defined.

Verify that the XID exit is in the VTAMLIB and that the exit has been activated. See [z/OS Communications Server: SNA Customization](#) for more information on the XID exit.

- The XID exit is active, but the MODEL major node is not active, not valid, or contains an error.

In this case, message IST1016I precedes this message and provides more specific information about the cause of the failure.

- The switched PU is not in a valid state. This can occur during recovery processing when a PU that is being deactivated by the host through one boundary function, such as NCP, dials in through another boundary function. The PU deactivation can occur in response to an operator command or internal INOP processing. If the current resource state of the PU in VTAM is not CONCT (connectable), the dial request will fail.

Since this situation occurs as a result of internal recovery processing, no operator or programmer actions are needed. When the reactivation of a PU is complete and the state becomes CONCT, the dial request will be successfully completed.

**For IST1544I** Ensure that the correct CP name or station ID (IDBLK/IDNUM) is specified on the switched PU definition statement for the PU that is performing the dial out.

## Routing code

8

## Descriptor code

4

---

**IST693I**

**UNABLE TO DISCONNECT ID = *nodename***

## Explanation

VTAM issues this message when a session termination request for channel-attached physical unit *nodename* failed because of insufficient storage or an I/O error.

## System action

Processing continues.

## Operator response

Message IOS000I might be issued by MVS prior to this message and can provide additional information about the reason for the error.

Enter a VARY INACT,TYPE=IMMED command for *nodename* so the system can release the resources allocated to *nodename*.

- To check for a storage problem, take the following actions:

Issue the DISPLAY BFRUSE command to display information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I. If this is a storage problem, it is usually related to private storage. Issue the DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a dump for problem determination.

- To check for an I/O error, take the following actions:

Save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on using EREP.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

## System programmer response

- For a storage problem, increase storage as required. See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
- For an I/O error, if you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

8

## Descriptor code

4

---

**IST700I****INVALID type – SKIPPING TO NEXT NETWORK STMT OR EOF**

## Explanation

This message is the first of a group of messages. A complete description of the message group follows the example.

```
IST700I  INVALID type - SKIPPING TO NEXT NETWORK STMT OR EOF
IST701I  CONFIG configname LABEL = labelname STMT TYPE = statementname
```

VTAM encountered an error in the adjacent SSCP, ADJCLUST or COSMAP table definition *configname*. One of the following is not valid:

- A definition statement
- A label (such as a numeric first character)
- A value on the NETID operand on a NETWORK definition statement

#### IST700I

*type* is **STMT**, **LABEL**, or **NETID**, indicating the location of the error.

If the NETID is not valid, the value coded on the NETID operand on a NETWORK definition statement in an adjacent SSCP, ADJCLUST, or COSMAP table does not follow the standards for a name. The value must be 8 characters or fewer, the first character must be alphabetic, and the rest of the characters must be alphanumeric.

#### IST701I

*configname* identifies the SSCP, ADJCLUST or COSMAP table definition.

*labelname* is the label on the statement.

*statementname* is the type of definition statement and is filled in only if the label is valid.

### System action

All statements in the adjacent SSCP, ADJCLUST, or COSMAP table definition following the statement in error are ignored until a NETWORK statement or end of file (EOF) is encountered. If a NETWORK statement is encountered, normal processing resumes for that NETWORK statement and subsequent definition statements.

If the table is an adjacent SSCP table, and the error occurred after one or more valid ADJCDRM definition statements for the NETWORK statement (or the set of NETWORK statements) preceding the statement with label *labelname*, those ADJCDRM statements are processed. If no valid ADJCDRM definition is encountered for the NETWORK statement (or the set of NETWORK statements) preceding the statement with label *labelname*, all definition statements related to the NETWORK statements are ignored.

If the table is an ADJCLUST table, and the error occurred after one or more valid NEXTCP definition statements for the NETWORK statement (or the set of NETWORK statements) preceding the statement with label *labelname*, those NEXTCP statements are processed. If no valid NEXTCP definition is encountered for the NETWORK statement (or the set of NETWORK statements) preceding the statement with label *labelname*, all definition statements related to the NETWORK statements are ignored.

If the table is a COSMAP table, and the error occurred after one or more valid MAPTOCOS definition statements for the NETWORK statement (or the set of NETWORK statements) preceding the statement with label *labelname*, those MAPTOCOS statements are processed. If no valid MAPTOCOS definition is encountered for the NETWORK statement (or the set of NETWORK statements) preceding the statement with label *labelname*, all definition statements related to the NETWORK statements are ignored.

### Operator response

Save the system log for problem determination.

### System programmer response

Enter a DISPLAY TABLE command to determine the error. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM table definition statements.

After you correct the error, reactivate the major node in order to use the revised table definition.

**Routing code**

2

**Descriptor code**

5

---

**IST701I** **CONFIG *configname* LABEL = *labelname* STMT TYPE = *statementname***

---

**Explanation**

VTAM issues this message as part of several different message groups. See the explanation of the first message in the group for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST702I** **CONFIG *configname* – UNEXPECTED *stmt\_type***

---

**Explanation**

VTAM encountered an unexpected statement or EOF while processing the adjacent SSCP table definition or dynamic path update set.

*configname* identifies the adjacent SSCP table definition or dynamic path update set.

*stmt\_type* identifies the unexpected statement. The values can be one of the following:

- **CDRM STMT**
- **NETWORK STMT**[*labelname*], where *labelname* is the name of the label for a NETWORK statement.
- **EOF**

One of the following conditions occurred:

- After a valid CDRM definition statement was processed, a NETWORK statement with label *labelname* or end of file (EOF) was encountered before a valid ADJCDRM statement.
- After a valid NETWORK statement was processed, end of file (EOF) occurred before a valid ADJCDRM statement.
- After a valid ADJLIST statement was processed, a CDRM or NETWORK statement or EOF occurred before a valid ADJCDRM statement.

In the first two conditions, an ADJCDRM definition statement was expected—not necessarily as the next statement, but before EOF or a NETWORK statement. Instead, either EOF or a NETWORK statement defining a destination network for a new set of adjacent SSCP tables was encountered. After a valid VPATH or NCPPATH statement was processed, EOF occurred before a valid PATH statement.

In the third condition, an ADJCDRM definition statement was expected immediately following an ADJLIST statement. Instead, a CDRM or NETWORK statement or EOF was encountered.

**System action**

For adjacent SSCP table definition, further processing of the NETWORK definition statements and CDRM definition statements not accompanied by an ADJCDRM statement is halted, since the definition statements do not define a valid adjacent SSCP table.

For dynamic path update, the last VPATH or NCPPATH statement is not processed, since the definition statements do not define a valid dynamic path update set.

**Operator response**

Save the system log and network logs for problem determination.

**System programmer response**

Review the definition library to make sure all requirements for VTAM are correct for your system.

For adjacent SSCP table definition, either insert one or more valid ADJCDRM definition statements before (not necessarily immediately preceding) the unexpected NETWORK statement or EOF, or delete the extra NETWORK and CDRM statements that do not define the destination networks or destination SSCPs in the adjacent SSCP table definitions.

For dynamic path update, insert one or more valid PATH definition statements before EOF or delete the extra VPATH or NCPPATH statement that does not define a complete dynamic path update set.

For ADJLIST definition, do one of the following:

- Insert one or more valid ADJCDRM definition statements immediately preceding the unexpected CDRM or NETWORK statement, or EOF.
- Delete the extra CDRM and NETWORK statements.
- If they are out of order, move the unexpected statements to the proper position.

**Routing code**

2

**Descriptor code**

5

---

IST703I	CONFIG <i>configname</i> ADJSSCP DEFINITIONS IGNORED – NO ADJCDRM STMT
---------	--

**Explanation**

No valid CDRM, ADJCDRM, or ADJLIST definition statements were found in the adjacent SSCP table definitions *configname*.

**System action**

Processing of the adjacent SSCP table definitions is halted.

**Operator response**

Save the system log for problem determination.

**System programmer response**

Include one or more valid ADJCDRM definition statements in the adjacent SSCP table definitions.

**Routing code**

2



## Descriptor code

5

### IST706I

### ADJSSCP TABLE FOR *configname* IGNORED – INSUFFICIENT STORAGE

## Explanation

This message is the first in two message subgroups. A full description of the two message groups follows.

- If an adjacent SSCP table is activated with entries identified with CDRM or NETID definition statements, the following message group is displayed.

```
IST706I  ADJSSCP TABLE FOR configname IGNORED – INSUFFICIENT STORAGE
IST708I  {[NETID = netid] [NETWORK = macroname] [CDRM = sscpname|DEFAULT TABLE]}|
          DEFAULT TABLE FOR ALL NETWORKS
```

- If an adjacent SSCP table is activated with entries identified with an ADJLIST definition statement, the following message group is displayed.

```
IST706I  ADJSSCP TABLE FOR configname IGNORED – INSUFFICIENT STORAGE
IST1333I ADJLIST = listname
```

The adjacent SSCP table for the indicated network and the indicated CDRM could not be built during the processing of the ADJSSCP definition, *configname*, because of a lack of storage.

### IST706I

*configname* is the ADJSSCP definition.

### IST708I

*netid* is the name of the network of the ADJSSCP table that is being defined. This is specified in the NETID operand on the relevant NETWORK definition statement. If the NETID operand or the NETWORK statement was not coded, the NETID defaults to this host's network.

*macroname* is the label coded on the NETWORK definition statement. If it does not appear, either a label was not provided on the NETWORK definition statement, or a NETWORK definition statement was not coded at all. In this case, the adjacent SSCP table defaults to the network of this host.

*sscpname* is the label coded on the CDRM definition statement. The intended adjacent SSCP table was for the adjacent SSCPs that are used to get to CDRM *sscpname* in network *netid*. If *sscpname* does not appear, the ADJSSCP table being defined is the default table for the entire network identified by NETID, and **DEFAULT TABLE** appears instead of the **CDRM=sscpname**.

If **CDRM=\*\*\*\*\*** appears, there was not enough storage to build adjacent SSCP tables for any of the CDRMs listed following the indicated NETWORK statement.

VTAM issues **DEFAULT TABLE FOR ALL NETWORKS** when the table being activated has a default adjacent SSCP list for all networks.

### IST1333I

*listname* is the name of an adjacent SSCP table as defined by an ADJLIST definition statement.

If an adjacent SSCP table was not specified for the CDRSC, then **\*\*\*NA\*\*\*** is displayed.

See the descriptions of the ADJLIST definition statement in the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on adjacent SSCP tables.

## System action

No further attempt is made to build adjacent SSCP tables for the indicated network.

## Operator response

When VTAM activity has decreased, try the operation again. If problems persist, enter the DISPLAY STORUSE command. Save the system log and request a dump for problem determination.

## System programmer response

Increase storage as required.

- See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY STORUSE command.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps](#) and the [VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST707I** **ADJSSCP TABLE BEING MODIFIED BY ACTIVATION OF *configname***

## Explanation

This message is the first in two message subgroups. A full description of the two message groups follows.

- If an adjacent SSCP table is activated with entries identified with CDRM or NETID definition statements, the following message group is displayed.

```
IST707I  ADJSSCP TABLE BEING MODIFIED BY ACTIVATION OF configname
IST708I  {[NETID = netid] [NETWORK = macrolabel] [CDRM = sscpname]
         DEFAULT TABLE]}|DEFAULT TABLE FOR ALL NETWORKS
```

- If an adjacent SSCP table is activated with entries identified with an ADJLIST definition statement, the following message group is displayed.

```
IST707I  ADJSSCP TABLE BEING MODIFIED BY ACTIVATION OF configname
IST1333I ADJLIST = listname
```

### IST707I

An adjacent SSCP table has been modified.

*configname* is the ADJSSCP definition that contains an adjacent SSCP table entry defining the same CDRM or NETID or both that were modified. This entry is added to the table, modifying the old table.

### IST708I

*netid* is the name of the network of the ADJSSCP table that is being defined. This is specified in the NETID operand on the relevant NETWORK definition statement. If NETID or the NETWORK statement was not coded, NETID defaults to this host's network.

*macrolabel* is the label coded on the NETWORK definition statement. If it does not appear, either a label was not provided on the NETWORK definition statement, or a NETWORK definition statement was not coded at all. In this case, the adjacent SSCP table defaults to the network of this host.

*sscpname* is the label coded on the CDRM statement. If it does not appear, the ADJSSCP table being defined is the default table for the entire network identified by NETID, and **DEFAULT TABLE** appears instead of the **CDRM=sscpname**.

**DEFAULT TABLE FOR ALL NETWORKS** is issued when the table being activated has a default adjacent SSCP list for all networks.

### IST1333I

*listname* is the name of an adjacent SSCP table as defined by an ADJLIST definition statement.

If an adjacent SSCP table was not specified for the CDRSC, then **\*\*\*NA\*\*\*** is displayed.

See the descriptions of the ADJLIST definition statement in the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on adjacent SSCP tables.

**System action**

The new adjacent SSCP table replaces the old adjacent SSCP table.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

IST708I	{[NETID = <i>netid</i> ] [NETWORK = <i>macrolabel</i> ] [CDRM = <i>sscpname</i>  DEFAULT TABLE]}  DEFAULT TABLE FOR ALL NETWORKS
---------	--

---

**Explanation**

This message is part of a message group. The first message is IST706I, IST707I, or IST831I. See the explanations of those messages for a full description.

**Routing code**

2

**Descriptor code**

5

---

IST709I	CONFIG <i>configname</i> FAILED – <i>reason</i>
---------	---

---

**Explanation**

The activation of NCP major node *configname* failed during network definition. *reason* will be one of the following:

**NO VALID BUILD OR NETWORK MACRO**

The NCP major node definition *configname* does not contain either a BUILD or a NETWORK definition statement with the appropriate SUBAREA or NETID values or both specified for this host.

**CONFLICTING NEWNAME SPECIFIED ON BUILD**

The LOADMOD=*load module name* specified on the VARY ACT command does not match the value coded for the NEWNAME keyword on the BUILD definition statement.

**CONFLICTING PUNAME SPECIFIED ON BUILD**

The ID=*puname* specified on the VARY ACT command must match the value coded for the PUNAME keyword on the BUILD definition statement.

**System action**

Activation of the NCP major node fails.

## Operator response

When *reason* is **NO VALID BUILD OR NETWORK MACRO**, save the system log for problem determination.

When *reason* is **CONFLICTING NEWNAME SPECIFIED ON BUILD**, reenter the VARY ACT command with the LOADMOD operand specifying the value coded for NEWNAME on the BUILD definition statement.

When *reason* is **CONFLICTING PUNAME SPECIFIED ON BUILD**, reenter the VARY ACT command with the ID operand specifying the value coded for PUNAME on the BUILD definition statement.

## System programmer response

When *reason* is **NO VALID BUILD OR NETWORK MACRO**, include a valid BUILD or NETWORK definition statement with the appropriate SUBAREA and NETID values specified for this host.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of the VTAM definition statements.

## Routing code

2

## Descriptor code

5

---

IST710I

CONFIG = *configname* NETWORK = *netid text*

---

## Explanation

Either the COS table name (defined by the COSTAB operand) or the maximum subarea value (defined by the MAXSUBA operand) on the BUILD or NETWORK definition statement could not be defined to VTAM.

*configname* specifies the name of the NCP definition; *netid* specifies the network identifier coded on the NETID operand on the BUILD or NETWORK definition statement that has encountered an error.

*text* indicates the specific reason for the failure of either operand, as described as follows:

### **COSTAB CONFLICT**

The COS table for the *netid* and for this NCP has already been defined by another BUILD or NETWORK definition statement in this or another NCP definition.

### **COSTAB NOT LOADED**

A table-load error occurred or the COS table could not be found.

### **COSTAB OVERFLOW**

VTAM has exceeded the ability to record NCP sharing of the COS table identified by the COSTAB operand.

### **MAXSUBA CONFLICT**

The maximum subarea value (MAXSUBA) for the *netid* has already been defined by another BUILD or NETWORK definition statement in this or another NCP definition.

### **NO STORAGE FOR COSTAB**

The COS table name cannot be saved because of the lack of available storage.

### **NO STORAGE FOR MAXSUBA**

The maximum subarea value (MAXSUBA) cannot be saved because of the lack of available storage.

## System action

### **COSTAB CONFLICT**

The COS table name is ignored and processing of the NCP definition continues. The original COS table name for the NETID defined in this NCP definition is used.

### **COSTAB NOT LOADED**

The COS table name is ignored and processing of the NCP definition continues. Following this activation, all cross-network sessions destined to the network identified by the NETID will fail except for SSCP-SSCP sessions and for LU-LU sessions that use the default blank COS entry.

### **COSTAB OVERFLOW**

The COS table name is ignored and processing of the NCP definition continues. Following this activation, all cross-network sessions destined to the network identified by the NETID will fail except for SSCP-SSCP sessions and for LU-LU sessions which use the default blank COS entry. Even though the Class of Service table is defined for other active NCPs, it still cannot be used for this NCP definition, since its usage cannot be recorded to VTAM.

### **MAXSUBA CONFLICT**

The maximum subarea value is ignored and processing of the NCP definition continues. A different value has already been defined successfully to this host, and cannot be changed or redefined for the network identified by the coded NETID unless all sessions which depend on this maximum subarea are terminated.

### **NO STORAGE FOR COSTAB**

The COS table name is ignored and processing of the NCP definition continues. Following this activation, all cross-network sessions destined to the network identified by the NETID will fail except for SSCP-SSCP sessions and for LU-LU sessions which use the default blank COS entry.

### **NO STORAGE FOR MAXSUBA**

The maximum subarea value is ignored and processing of the NCP definition continues. If this host resides in the gateway NCP's native network, and will own links or link stations in the network identified by the NETID operand, it will be impossible to activate those links or link stations without knowledge of that network's maximum subarea value. However, if the definition of another NCP has successfully defined the maximum subarea for the network, such link and link station activations will be possible, as long as that other NCP remains defined (that is, not deactivated).

## **Operator response**

Save the system log for problem determination.

If *text* is **NO STORAGE FOR COSTAB** or **NO STORAGE FOR MAXSUBA**, try this activation at a later time when storage becomes available. If problems persist, enter a DISPLAY BFRUSE command or a DISPLAY STORUSE command. Save the system log and request a dump for problem determination.

If *text* is **COSTAB NOT LOADED**, **COSTAB CONFLICT**, or **COSTAB OVERFLOW**, enter a DISPLAY COS,ORIGIN=*configname*,NETID=\* command, and save the system log for problem determination.

## **System programmer response**

### **COSTAB CONFLICT**

Review the output from the DISPLAY COS command. Inspect all the BUILD and NETWORK definition statements preceding the definition statement specified for the indicated network to identify the COSTAB name coded for the same NETID. Code only a single COSTAB name for any one network in this NCP definition. Use the MODIFY TABLE command to correct problems.

### **COSTAB NOT LOADED**

Review the output from the DISPLAY COS command. Check to determine whether the Class of Service table identified by the COSTAB operand on the BUILD or NETWORK definition statement for the indicated network exists in the NCP definition. Use the MODIFY TABLE command to correct problems.

### **COSTAB OVERFLOW**

Review the output from the DISPLAY COS command. Restrict the usage of the COSTAB name for each network and NCP to less than 256. If many NCPs need to be active simultaneously, use different COSTAB names, each defining COSTABs for many other networks. Use the MODIFY TABLE command to correct problems.

### **MAXSUBA CONFLICT**

Check to determine whether the maximum subarea value specified on the MAXSUBA keyword for the BUILD or NETWORK definition statement for the indicated NETID start option is valid. This value must also be

identical to the maximum subarea values on all other BUILD or NETWORK definition statements in this or another NCP definition that have ever been activated.

**NO STORAGE FOR COSTAB**

Increase storage as required. Also, have the operator cancel nonessential jobs or deactivate an unused part of the network.

**NO STORAGE FOR MAXSUBA**

Increase storage as required. Also, have the operator cancel nonessential jobs or deactivate an unused part of the network.

**Routing code**

2

**Descriptor code**

4

---

<b>IST712I</b>	<b>CONFIG <i>configname</i> GWPATH <i>statement</i> IGNORED – MISSING OPERANDS</b>
----------------	--

---

**Explanation**

VTAM ignores the GWPATH definition statement *statement* in the CDRM major node definition *configname* because one or more required operands are missing.

**System action**

VTAM ignores the GWPATH definition statement *statement* in the CDRM major node *configname*.

**Operator response**

Save the system log for problem determination.

**System programmer response**

Examine the GWPATH definition statement. Verify that the correct combination of operands is coded.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of the GWPATH definition statement.

**Routing code**

2

**Descriptor code**

5

---

<b>IST713I</b>	<b>CONFIG <i>configname</i> GWPATH <i>statement</i> – <i>opname</i> OPERAND IGNORED</b>
----------------	---

---

**Explanation**

VTAM ignores the operand *opname* on the GWPATH definition statement *statement* in the CDRM major node *configname* because its associated operand is missing.

If the ELEMENT operand was coded, but the SUBAREA operand was not, then VTAM ignores ELEMENT.

If the ADJNETEL operand was coded, but the ADJNETSA operand was not, then VTAM ignores ADJNETEL.

## System action

VTAM ignores the operand *opname* on the GWPATH definition statement.

## Operator response

Save the system log for problem determination.

## System programmer response

Either remove the operand that is being ignored (that is, the ELEMENT or ADJNETEL operand), or add the operand that is missing (that is, the SUBAREA or ADJNETSA operand).

## Routing code

2

## Descriptor code

5

---

**IST714I**

**CONFIG *configname* GWPATH *statement* IGNORED – INVALID STMT**

## Explanation

VTAM ignores the GWPATH definition statement *statement* in the CDRM major node definition *configname*.

VTAM issues this message when a GWPATH definition statement follows a CDRM statement, and the CDRM statement defines a resource in this network. This condition can occur in one of the following ways:

- No NETWORK definition statement preceded the CDRM statement; this implies that the CDRM statement is defined for a resource in the host's network.
- The NETID operand on the preceding NETWORK definition statement indicated that the NETWORK statement was for this host's network.
- The GWPATH statement cannot be coded in a CDRM major node if the host is not gateway capable, that is, is not started with GWSSCP=YES.
- The class of service (CoS) name as known in the adjacent network is invalid. The keyword value might be too large, the value might contain invalid characters, or the value might not start with an alphabetic character (A–Z). This implies that an invalid COS name might be used for the SSCP-SSCP session.

## System action

VTAM ignores the GWPATH definition statement *statement*.

## Operator response

Save the system log for problem determination.

## System programmer response

Examine the CDRM major node to determine whether one of the following conditions apply:

- A GWPATH statement could be coded (that is, the preceding CDRM statement is intended to define a CDRM in another network).
- A GWPATH statement should not have been coded (that is, the preceding CDRM statement is intended to define a CDRM in this network).
- If the host needs to be gateway capable, specify GWSSCP=YES when VTAM is started.
- If the host does not need to be gateway capable, remove the GWPATH statement from the CDRM definition.

# Routing code

2

# Descriptor code

5

---

**IST715I** **CONFIG *configname* CDRM *statementname* IGNORED – GWPATH STMT MISSING**

## Explanation

A GWPATH definition statement is required for all cross-network CDRMs, unless you allow the gateway path to default by specifying the SUBAREA operand on the CDRM statement, *statementname*. This message is issued if the following conditions exist:

1. A NETWORK or CDRM definition statement in CDRM major node *configname* precedes at least one valid GWPATH statement for CDRM *statementname*.
2. The SUBAREA operand is not specified on statement *statementname* or on a GWPATH statement.

## System action

The CDRM statement *statementname* is ignored; therefore, the CDRM cannot be activated from this host's network.

## Operator response

Save the system log for problem determination.

## System programmer response

Ensure that a GWPATH definition statement is defined for every CDRM except for those in this host's network. Or, if you want to use the default gateway paths, ensure that the CDRM statement has a valid SUBAREA operand specified.

# Routing code

2

# Descriptor code

5

---

**IST716I** ***command* FOR *linkstation* FAILED**

## Explanation

This message is the first of a group of messages. A complete description of the message group follows.

```
IST716I  command FOR linkstation FAILED
IST717I  NETID netid ID nodename SA subarea {CANNOT BE DEFINED|NNODE TYPE INVALID}
```

The *command* for link station *linkstation* failed when the adjacent node *nodename* was contacted during the activation of the link station.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *command*.

The indicated adjacent node is in network *netid* and has a subarea address of *subarea*.

One of the following conditions caused the failure:



**CANNOT BE DEFINED**

VTAM could not define the indicated adjacent node because of either insufficient storage or an inability to interpret the adjacent network's addresses.

**NODE TYPE INVALID**

The indicated adjacent node, as identified by its network address, is not a PU type 4 or PU type 5.

**System action**

The link station is deactivated and command processing is halted.

**Operator response**

**CANNOT BE DEFINED**

Try to activate the link station again. If the activation is unsuccessful, enter the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination.

**NODE TYPE INVALID**

Save the system log for problem determination.

**System programmer response**

**CANNOT BE DEFINED**

Check storage availability and code a BUILD or NETWORK definition statement with the MAXSUBA operand for the adjacent network *netid* in the NCP major node definition that is activated by this host.

**NODE TYPE INVALID**

The indicated adjacent node is known to VTAM as a node other than a PU type 4 or PU type 5. It might be known as a cross-network resource. Check address assignments in the network *netid*.

**Routing code**

8

**Descriptor code**

4

---

IST717I	NETID <i>netid</i> ID <i>nodename</i> SA <i>subarea</i> {CANNOT BE DEFINED NODE TYPE INVALID}
---------	---

---

**Explanation**

VTAM issues this message as part of a group of messages. The first message in the group is IST716I. See the explanation of that message for a full description.

**Routing code**

8

**Descriptor code**

4

---

IST718I	ADDRESS INVALID FOR NETID= <i>cdmnetid</i> CDRM= <i>cdmname</i> CODE=X' <i>code</i> '
---------	--

---

**Explanation**

This message is the first in a group of messages. A complete description of the message group follows.

```
IST718I ADDRESS INVALID FOR NETID=cdmnetid CDRM=cdmname CODE=X'code'
IST719I {SUBAREA subarea ELEMENT el|ADJNET netid ADJNETSA adjnetsa ADJNETEL el} [GWN gwn]
[IST1421I nodetype resourcename HAS DUPLICATE ADDRESS]
IST314I END
```

### IST718I

- This message is issued during activation of the CDRM major node when the specified address (adjacent network *netid*, subarea *subarea*, element *el*) of *cdmname* could not be defined.
- *cdmnetid* is the network identifier for *cdmname*.
- *cdmname* is the name of the cross-network CDRM minor node.
- *code* is the return code resulting from the attempt to define the network address. Possible return codes (expressed in hexadecimal) are:

**04**

Invalid address

**10**

Duplicate address

**20**

Insufficient storage

**28**

Address management error

### IST719I

- The operands and their values displayed are the same as those specified in a GWPATH definition statement for CDRM *cdmname*. The name of the gateway NCP, *gwn*, will be displayed if it is specified in the definition statement.

If other GWPATH definition statements have been defined for *cdmname*, they can be used to establish the SSCP-SSCP session.

### IST1421I

This message is issued when VTAM detects a duplicate address for the CDRM minor node.

*nodetype* is the node type of *resourcename*. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for a description of *nodetype*.

*resourcename* is the name of the cross-network CDRM minor node that is currently defined to the address in question. The form of *resourcename* is *netid.name*.

## System action

Processing continues.

## Operator response

Action depends on value for *code*:

**04**

Save the system log for problem determination.

**10**

Save the system log for problem determination.

**20**

Issue the DISPLAY BFRUSE command to display information about the common service area (CSA). Issue the DISPLAY STORUSE command to display storage usage for storage pools. Total VTAM private storage information is displayed in message IST981I. If message IST981I does not appear in the display, you might need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. Save the system log for problem determination.

28

Save the system log for problem determination.

**System programmer response**

The indicated address could not be added to VTAM’s address structure because of the reasons specified.

04

Check your network address assignments.

10

Check your network address assignments.

20

Examine your storage allocation and increase storage as required.

28

This code indicates that a VTAM error has occurred in managing the address directory.

Take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

See the section on non-VTAM problems, in the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional problem determination actions.

**Routing code**

8

**Descriptor code**

5

---

IST719I	{SUBAREA <i>subarea</i> ELEMENT <i>el</i>  ADJNET <i>netid</i> ADJNETSA <i>adjnetsa</i> ADJNETEL <i>el</i> } [GWN <i>gwn</i> ]
---------	---

---

**Explanation**

This message is part of a message group. The first message in the group is IST718I. See the explanation of that message for a full description.

**Routing code**

8

**Descriptor code**

5

---

IST720I	<i>linkstation</i> HAS CONTACTED <i>nodename</i> IN <i>netid</i> , SA <i>subarea</i>
---------	--

---

**Explanation**

The link station *linkstation* has successfully contacted the PU type 4 or PU type 5 identified by network *netid*, node *nodename*, and subarea *subarea*. If node *nodename* is not available, **\*\*\*NA\*\*\*** will be displayed in its place.

## System action

The link station is activated.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

<b>IST721I</b>	<b>SESSION SETUP FOR CDRM <i>cdmname</i> USING GWN <i>gatewayncp</i> FAILED</b>
----------------	---

## Explanation

VTAM issues this message as part of several message groups in response to a VARY ACT,ID=*cdmname* command. If this message is preceded by message IST732I, see the explanation of that message for a complete description; otherwise, it is the first in a group of messages. A complete description of the message group follows.

```
IST721I  SESSION SETUP FOR CDRM cdmname USING GWN gatewayncp FAILED
IST723I  SSCPID sscpid ALREADY IN USE BY CDRM oldcdm
```

The cross-network SSCP-SSCP session with CDRM *cdmname* could not be established using gateway NCP *gatewayncp*.

*sscpid* is the network identifier of the SSCP that was specified on the SSCPID start option, and is displayed in hexadecimal.

The session failed because more than one SSCP in another network (one of them being CDRM *oldcdm*) was started with the same value for the SSCPID start option as *sscpid*.

## System action

The session activation request failed. Other processing continues.

## Operator response

Save the system log and network logs for problem determination.

## System programmer response

- Restart one or more of the other network hosts with a different SSCPID start option value. SSCPID values must be unique across networks if two SSCPs are to communicate.
- Ensure that only one of the host CDRMs with duplicate SSCPIDs is active at a time.

## Routing code

8

**Descriptor code**

4

---

**IST723I** **SSCPID** *sscpid* **ALREADY IN USE BY CDRM** *oldcdrm*

---

**Explanation**

This message is part of a message group. The first message in the group is IST721I. See the explanation of that message for a complete description.

**Routing code**

8

**Descriptor code**

4

---

**IST725I** **GWN** *gatewayncp*, **SUBAREA** *subarea*, **CDRM ALIAS ELEMENT** *element*

---

**Explanation**

This message is part of a message group. The first message in the group is IST732I. See the explanation of that message for a complete description.

**Routing code**

8

**Descriptor code**

4

---

**IST726I** **ADJNET** *adjnetid*, **ADJNETSA** *adjnetsubarea*, **ADJNETEL** *adjnetel*

---

**Explanation**

This message is part of a message group. The first message in the group is IST732I. See the explanation of that message for a complete description.

**Routing code**

8

**Descriptor code**

4

---

**IST727I** **COMMUNICATION WITH CDRM** *cdrmname* **LOST — REASON = X'***code***'**

---

**Explanation**

The session with CDRM *cdrmname* has been disrupted by the session outage notification (SON). The reason for the disruption is shown by the reason code *code* (expressed in hexadecimal). *code* is part of the DACTCDRM request and can be any of the following:

<i>code</i>	Meaning
-------------	---------

**07**

Virtual route inoperative: The virtual route carrying the SSCP-PU session has become inoperative, forcing deactivation of the SSCP-PU session.

**0B**

Virtual route deactivation: The identified SSCP-PU session had to be deactivated because of a forced deactivation of the virtual route being used by the SSCP-PU session.

**0C**

SSCP failure—unrecoverable: The identified SSCP-SSCP session had to be deactivated because one of the session's SSCPs abnormally terminated; recovery from the failure was not possible.

**0D**

Session override: The SSCP-PU session had to be deactivated because of a more recent session activation request for the same session over a different virtual route.

**0E**

SSCP failure—recoverable: The identified SSCP-SSCP session had to be deactivated because of an abnormal termination of one of the SSCPs of the session; recovery from the failure might be possible.

**0F**

Cleanup: The SSCP is resetting its half-session before receiving the response from the partner SSCP receiving the DACTCDRM.

**10**

SSCP contention: Two SSCPs have sent each other an ACTCDRM request over different virtual routes; the SSCP receiving the ACTCDRM from the SSCP with the greater SSCP ID (SSCPID start option) sends DACTCDRM, with code X'10', to the other SSCP over the same virtual route on which the contention-losing ACTCDRM was sent.

**11**

Gateway node cleanup: A gateway node is cleaning up the session because the gateway SSCP session partner has forced deactivation of the session (via NOTIFY).

## System action

The session with CDRM *cdmname* is deactivated without disrupting active LU-LU sessions.

## Operator response

Save the system log and network logs and print the CDRM definition for problem determination. Issue a VARY ACT command for CDRM *cdmname* so that the session can be re-established.

## System programmer response

Consult *SNA Formats* for the RU formats, especially DACTCDRM and its reason codes. The meaning of the reason code, *cause* is found under the explanation of DACTCDRM.

## Routing code

8

## Descriptor code

4

---

**IST728I**

**GWPATHS FOR GWN *gatewayncp* ARE NOW *status* FOR THESE CDRMS**

## Explanation

This message is the first of a group of messages. A complete description of the message group follows.

```
IST728I  GWPATHS FOR GWN gatewayncp ARE NOW status FOR THESE CDRMS
IST778I  cdmname1 [cdmname2] [cdmname3] [cdmname4] [cdmname5] [cdmname6]
```

```
⋮  
IST314I  END
```

An SSCP-PU session with gateway node *gatewayncp* has just been established (**status = ENABLED**) or broken (**status = DISABLED**). Paths to the displayed CDRMs, as defined by the GWPATH statement, have been enabled or disabled. This change in session state affects the capabilities of any cross-network SSCP-SSCP session supported by that gateway node. Message IST778I lists the names of all CDRMs affected by the change. Message IST314I ends the list of IST778I messages.

## System action

Processing continues. Any pending session activation requests to any of the displayed CDRMs will be tried again.

## Operator response

None.

## System programmer response

If the SSCP-PU session is DISABLED and the gateway functions are necessary for cross-network sessions supported by any of the listed CDRMs, and the gateway node *gatewayncp* cannot be reactivated, it might be necessary to deactivate that CDRM and reactivate it with a different gateway NCP specified so that the new gateway NCP can support this SSCP-SSCP session.

**Note:** Deactivating the SSCP-SSCP session might disrupt active LU-LU sessions.

## Routing code

8

## Descriptor code

4

---

**IST732I** *request REJECTED DUE TO reason*

## Explanation

VTAM issues this message as a single message or as part of several message groups. If this message is preceded by message IST734I (cross-network session), see the explanation of that message for additional information.

Possible message groups follow.

### • ACTCDRM

This host received an **ACTCDRM** *request* from an external CDRM.

- If IST732I is issued as a single message, the request cannot be processed for the following *reason*:

#### HOST CDRM INACTIVE

No CDRM major node containing a definition for the host CDRM was active or the host CDRM is inactive.

- Otherwise, IST732I is issued as the first message in the following group:

```
IST732I  request REJECTED DUE TO reason  
IST725I  GWN gatewayncp, SUBAREA subarea, CDRM ALIAS ELEMENT element  
IST726I  ADJNET adjnetid, ADJNETSA adjnetsubarea, ADJNETEL adjnetel
```

The request cannot be processed for the following *reason*:

#### SENDING CDRM UNKNOWN

The sender of the ACTCDRM request is not defined in this host.

*gatewayncp* is the name of a gateway NCP.

*subarea* and *element* are the subarea and element portions of the alias address of the external CDRM in this network.

The address of the CDRM, as defined in the adjacent network *adjnetid*, is subarea *adjnetsubarea* and element *adjnetel*.

#### • REQACTCDRM

This host received a **REQACTCDRM** request from external CDRM *cdrmname* over a gateway NCP path.

```
IST732I request REJECTED DUE TO reason
[IST1421I nodetype resourcename HAS DUPLICATE ADDRESS]
IST721I SESSION SETUP FOR CDRM cdrmname USING GWN gatewayncp FAILED
IST726I ADJNET adjnetid, ADJNETSA adjnetsubarea, ADJNETEL adjnetel
[IST830I ORIGINATING SSCP NAME = sscpname, NETID = netid]
```

The request cannot be processed for one of the following *reasons*:

#### **ACTIVATE IN PROGRESS**

Either the origin CDRM or the destination CDRM is pending active.

#### **ADDRESS NOT A CDRM**

The adjacent network address in message IST726I is in use by a resource that is not a CDRM. For the REQACTCDRM to succeed, the adjacent network address **MUST** be a CDRM resource. *resourcename* in message IST1421I contains the name of the resource using the address (if the name is available).

#### **HOST CDRM INACTIVE**

No CDRM major node containing a definition for the host CDRM was active or the host CDRM is inactive.

#### **INACT IN PROGRESS**

The origin CDRM, the destination CDRM, or the CDRM major node is pending inactive.

#### **INSUFFICIENT STORAGE**

No storage could be allocated to proceed with session setup.

#### **SENDING CDRM UNKNOWN**

The sender of the ACTCDRM is not defined in this host.

#### **SENDING GWN INACTIVE**

There is no active definition for the gateway NCP *gatewayncp* that sent the REQACTCDRM.

#### **SENDING GWN INVALID**

No GWPATH definition exists for the gateway NCP *gatewayncp* that sent the REQACTCDRM.

*gatewayncp* is the name of the gateway NCP.

The address of CDRM *cdrmname*, as defined in the adjacent network *adjnetid*, is subarea *adjnetsubarea* and element *adjnetel*.

The **REQACTCDRM** originated with SSCP *sscpname* in network *netid*. If *sscpname* or *netid* are not known to VTAM, they will be displayed as **\*\*\*NA\*\*\***.

### **System action**

The session could not be established.

### **Operator response**

Do one of the following, depending upon *reason*:

#### **ACTIVATE IN PROGRESS**

No action is required.

#### **ADDRESS NOT A CDRM**

Enter a DISPLAY ID=resourcename using *cdrmname* from message IST1421I. Enter a DISPLAY VTAMSTOR,NETID=adjnetid,NETADDR=(adjnetsubarea,adjnetel) command using the values from message IST726I. Save the console log for problem determination.



**HOST CDRM INACTIVE**

Activate a CDRM major node containing the host CDRM definition, if the major node is active, or activate the host CDRM.

**INACT IN PROGRESS**

Allow the deactivation to complete and then try the activation again.

**INSUFFICIENT STORAGE**

Enter a DISPLAY BFRUSE or DISPLAY STORUSE command to evaluate your storage requirements. Save the system log and dump for problem determination.

**SENDING CDRM UNKNOWN**

If the CDRM major node contains the definition of the external CDRM then activate it. Otherwise, save the system log and network logs and print the CDRM definition statement for problem determination.

**SENDING GWN INACTIVE**

Activate the gateway NCP.

**SENDING GWN INVALID**

Save the system log and network logs and print the CDRM definition statement for problem determination.

**System programmer response****ADDRESS NOT A CDRM**

Check your network address assignments to determine which resource should be using the adjacent network address.

**INSUFFICIENT STORAGE**

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures. Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool.

**SENDING GWN INVALID**

You need to add a gateway path definition for the gateway NCP that sent the REQACTCDRM. To use the new definition, you must deactivate and reactivate the CDRM major node that contains the new GWPATH definition.

**SENDING CDRM UNKNOWN**

You need to add a CDRM definition statement for *cdrmname*. To use the new definition, you must deactivate and reactivate the CDRM major node.

**Routing code**

8

**Descriptor code**

4

---

IST734I

ACTIVATION OF CDRM *cdrmname* USING GWN *gatewayncp* FAILED

## Explanation

VTAM issues this message when an ACTCDRM is sent by host CDRM *cdrmname* via gateway NCP *gatewayncp* in an attempt to establish an SSCP-SSCP session.

*gatewayncp* is the name of a gateway NCP. If unknown to VTAM, *gatewayncp* will be displayed as **\*\*\*NA\*\*\***.

## System action

- If this message is displayed as a single message or is followed by IST735I, session establishment is still in progress through other gateway nodes.
- If followed by message IST732I, the session could not be established.

## Operator response

- If this message is displayed as a single message or is followed by message IST735I, additional messages will describe the status of the session as processing continues.
- If followed by message IST732I, see the operator response of that message for recommended action.

## System programmer response

- If this message is displayed as a single message or is followed by message IST735I, session establishment is still in progress, and no response is needed.
- If followed by message IST732I, see the programmer response of that message for recommended action.

## Routing code

8

## Descriptor code

4

---

IST735I	NO ADDRESS TRANSFORMS – REQACTCDRM SENT
---------	---

## Explanation

An ACTCDRM was sent during an attempt to establish an SSCP-SSCP session. There were no active alias address transforms in a gateway NCP along the path to the external CDRM. This can happen in one of the following situations:

- In a back-to-back gateway configuration, the second gateway NCP might not yet have received an RNAA request from the external CDRM.
- The external CDRM is responsible for sending an RNAA request to a gateway NCP in a network adjacent to this host, but it has not yet sent the request.
- This host SSCP does not have a session with one or more gateway NCPs supporting the desired SSCP-SSCP session.

If preceded by message IST734I, this message is for a cross-network session.

## System action

The activation of the desired SSCP-SSCP session will be attempted from the CDRM indicated by *cdrmname* in message IST734I.

## Operator response

Wait for message IST324I to be displayed indicating that the external CDRM has sent a session activation request (ACTCDRM). If VTAM issues message IST324I promptly, no response is required. If this message does not appear in a reasonable amount of time, save the system log and network logs for problem determination.

Check with the operator of the external host CDRM to see that all session activation procedures at that host have been completed.

## System programmer response

Verify that the CDRM and gateway NCP definitions are correct and that those definitions contain sufficient data for routing an ACTCDRM request from the external CDRM to this host SSCP.

## Routing code

8

## Descriptor code

4

---

IST737I	DEFAULT VR LIST USED FOR CDRM <i>cdrmname</i> USING GWN <i>gatewayncp</i>
---------	---

---

## Explanation

This message indicates one of the following:

- Gateway NCP *gatewayncp* does not have a COS table defined for the network in which *cdrmname* resides.
- Gateway NCP *gatewayncp* has a COS table defined for the network in which *cdrmname* resides, but VTAM could not find an entry in the table that matches the name specified in the logon mode table.

If an alias application is active in this host, VTAM attempts to translate the SSCP Class of Service entry ISTVTCOS into a name recognized in the adjacent network. This message indicates that no COS table entry with the translated name or with the default name (ISTVTCOS) exists in the adjacent network. As a result, the default (blank) COS table entry is used to activate a virtual route to external CDRM *cdrmname*, originating at gateway NCP *gatewayncp*.

## System action

Session activation proceeds using the virtual route (VR) list from the default COS entry.

## Operator response

Save the system log and network logs for problem determination.

## System programmer response

If the session could not be established and is necessary, take one of the following two sequences of steps:

- If the appropriate COS table is not defined:
  - then
    - Use the MODIFY TABLE,OPTION=LOAD,ORIGIN=*gatewayncp* command to load the appropriate COS table for the network in which *cdrmname* resides.
  - or
    - Deactivate gateway NCP *gatewayncp*.
    - Add the appropriate COSTAB keyword to the NETWORK definition statement for the network in which *cdrmname* resides for the gateway NCP *gatewayncp*'s generation deck.

- Reactivate gateway NCP *gatewayncp*.
- or, if the problem involves an alias application:
  - Activate the alias application.
  - Update the alias-name translation tables (see the *NetView Installation and Administration Guide* for more information).
- If no matching entry can be found in the COS table:
  - then
    - Deactivate gateway NCP *gatewayncp*.
    - Add the required entry to the COS table identified by the COSTAB keyword of the NETWORK definition statement in the gateway NCP *gatewayncp*'s definition deck.
    - Reactivate gateway NCP *gatewayncp*.
  - or use the MODIFY TABLE,OPTION=ASSOCIATE, TYPE=COSTAB, ORIGIN=*gatewayncp* command to associate a COS table that has the required entry to gateway NCP *gatewayncp*.

## Routing code

8

## Descriptor code

4

---

<b>IST740I</b>	<b>UNABLE TO FREE ALIAS ADDRESSES FOR CDRM <i>cdrmname</i> GWN <i>gatewayncp</i></b>
----------------	--

---

## Explanation

This message is the first of a group of messages. A complete description of the message group follows.

```
IST740I  UNABLE TO FREE ALIAS ADDRESSES FOR CDRM cdrmname GWN gatewayncp
IST523I  REASON = reason
```

Because of an error indicated by *reason*, VTAM was unable to free a pair of alias-network addresses, causing the failures of subsequent activation of the external CDRM *cdrmname* using gateway NCP *gatewayncp*. This condition might be temporary if caused by heavy activity in the network. It might be an indication that VTAM does not have sufficient storage to manage a network of this size.

The *reason* for the failure is one of the following:

### INSUFFICIENT STORAGE

VTAM was unable to allocate sufficient storage. A NOTIFY RU was sent to the gateway NCP *gatewayncp* to free alias-network addresses for an SSCP-SSCP session.

### NOTIFY REQUEST FAILED

A NOTIFY RU was sent to gateway NCP *gatewayncp* to free alias-network addresses for an SSCP-SSCP session. Gateway NCP *gatewayncp* was unable to free the alias-network addresses.

## System action

The deactivation process continues.

## Operator response

If the major node containing CDRM *cdrmname* is still active, reissue the VARY INACT command for that CDRM. You might have to deactivate the NCP major node for *gatewayncp* to free alias-network addresses if:

- Additional messages are displayed indicating that session-establishment attempts are failing because the gateway NCP has no alias-network addresses available.
- The major node containing the external CDRM definition is inactive.

If *reason* is **INSUFFICIENT STORAGE**, enter the DISPLAY BFRUSE command. Save the system log and dump for problem determination.

## System programmer response

If *reason* is **INSUFFICIENT STORAGE**, ensure that the amount of available storage is adequate for your network and increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

8

## Descriptor code

4

---

<b>IST742I</b>	<b>ACTIVATION OF CDRM <i>cdmname</i> {FAILED QUEUED} – GWN PATH NOT AVAILABLE</b>
----------------	---

---

## Explanation

During the activation of a cross-network CDRM, no gateway NCP could be selected to support the SSCP-SSCP session with external CDRM *cdmname*.

If VTAM could find no active gateway NCPs, only this message will be issued. If VTAM was able to select an active gateway NCP, messages issued prior to this one indicate the failures that occurred.

## System action

If activation is:

### QUEUED

The activation of external CDRM *cdmname* is queued pending the availability of a suitable gateway NCP as defined by the GWPATH statements for CDRM *cdmname*.

### FAILED

The activation of external CDRM *cdmname* failed because of insufficient storage, or all paths as defined by the GWPATH statements for CDRM *cdmname* have been tried and have failed.

## Operator response

If you do not want the activation to remain pending, issue a VARY INACT command for the CDRM *cdmname*.

Otherwise, save the system log and network logs for problem determination.

## System programmer response

This message is normal if:

- During activation, paths failed but were expected to fail.
- An existing SSCP-SSCP session was disrupted because of the failure of the session from the host SSCP to the gateway NCP.

No action is necessary if, upon recovery of the gateway NCP or an alternate gateway path, the SSCP-SSCP session re-established itself.

You will probably need to add to or change the GWPATH definitions associated with the external CDRM or change the GWNAU definition in the gateway NCP if:

- This message occurs upon initial activation of the external CDRM.
- The activation of the external CDRM or appropriate gateway NCP does not result in recovery of the session.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information on how the GWPATH and GWNAU definition statements relate to CDRM activation.

## Routing code

8

## Descriptor code

4

---

<b>IST744I</b>	<b>CROSS-NETWORK SESSION SETUP FAILED, NETWORK = <i>netid</i></b>
----------------	---

---

## Explanation

This message is the first in two message groups. A full description of the two message groups follows.

The message group displayed depends on the type of session, as follows:

- If the session-establishment attempt was for an SSCP-SSCP session, the failed request is ACTCDRM and the following group of messages is issued:

```
IST744I  CROSS-NETWORK SESSION SETUP FAILED, NETWORK = netid
IST745I  ACTCDRM TO CDRM = cdmname FAILED, SENSE = code
IST531I  FROM SUBAREA = subarea, ELEMENT = element
IST531I  TO SUBAREA = subarea, ELEMENT = element
[IST528I  VIRTUAL ROUTE NUMBER vrlist]
IST523I  REASON = {SESSION SETUP REJECTED|VR ACTIVATION FAILED}
```

An ACTCDRM request was sent to CDRM *cdmname*.

*code* is the sense data from the negative response to an ACTCDRM request. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

- If the session-establishment attempt was for an LU-LU session, the failed request is a BIND RU and the following group of messages is issued:

```
IST744I  CROSS-NETWORK SESSION SETUP FAILED, NETWORK = netid
IST746I  BIND FAILED FROM pluname TO sluname, SENSE = code
IST531I  FROM SUBAREA = subarea, ELEMENT = element
IST531I  TO SUBAREA = subarea, ELEMENT = element
[IST528I  VIRTUAL ROUTE NUMBER vrlist]
IST523I  REASON = {SESSION SETUP REJECTED|VR ACTIVATION FAILED}
```

The real name of the primary logical unit (PLU) is *pluname*, and the real name of the secondary logical unit (SLU) is *sluname*. *code* is the sense data from the negative response to the BIND request. See the [z/OS Communications Server: IP and SNA Codes](#) for complete sense code information.

The first display of message IST531I indicates the PLU's address, as known in network *netid* (subarea *subarea* and element *element*). If the subarea and element addresses are unknown, VTAM issues either **0** or **\*NA\*** in place of the address.

The second display of message IST531I indicates the SLU's address as known in network *netid* (subarea *subarea* and element *element*). If the subarea and element addresses are unknown, VTAM issues either **0** or **\*NA\*** in place of the address.

The reason for the session activation failure is indicated by message IST523I:

## SESSION SETUP REJECTED

The gateway NCP has received a negative response to the session activation request.

## VR ACTIVATION FAILED

A virtual route in network *netid* could not be activated. Message IST528I might also be displayed with *vrlist* providing a list of virtual routes that the gateway NCP tried to activate in network *netid*.

## System action

Session activation fails.

## Operator response

Issue the `DISPLAY ROUTE` command for all networks involved in this session setup to display the status of explicit routes and virtual routes. Save the system log for problem determination.

## System programmer response

## SESSION SETUP REJECTED

Review the logon mode table entry used with the session.

## VR ACTIVATION FAILED

Ensure that all COS table definitions and PATH definition statements are correct and that all required links and nodes are active.

If all definitions are correct, and all required links and nodes are active, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## Routing code

8

### Descriptor code

4

**IST745I**

**ACTCDRM TO CDRM = *cdrmname* FAILED, SENSE = *code***

### Explanation

VTAM issues this message as part of a message group. The first message in the group is IST744I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

**IST746I****BIND FAILED FROM *pluname* TO *sluname*, SENSE = *code***

---

## Explanation

VTAM can issue this message as the first message in a group or as part of a group of messages that begins with message IST744I. See the explanation of that message for a complete description.

When IST746I appears as the first message in a group, VTAM displays the following:

```
IST746I  BIND FAILED FROM pluname TO sluname, SENSE = code
IST531I  FROM SUBAREA = subarea, ELEMENT = element
IST531I  TO SUBAREA = subarea, ELEMENT = element
[IST528I  VIRTUAL ROUTE NUMBER vrlist]
IST523I  REASON = VR ACTIVATION FAILED
```

The NCP could not activate a virtual route from an independent PLU *pluname* to a SLU *sluname* in VTAM's network.

The first display of message IST531I indicates the PLU's address, as known in network *netid* (subarea *subarea* and element *element*). If the subarea and element addresses are unknown, VTAM issues either **0** or **\*NA\*** in place of the address.

The second display of message IST531I indicates the SLU's address as known in network *netid* (subarea *subarea* and element *element*). If the subarea and element addresses are unknown, VTAM issues either **0** or **\*NA\*** in place of the address.

## System action

Session activation fails.

## Operator response

Save the system log for problem determination.

## System programmer response

Ensure that all COS table definitions and PATH definition statements are correct. Ensure that all required links and nodes are active.

## Routing code

8

## Descriptor code

4

---

**IST751I****SIO = *sio*, ERROR CT = *count*, CUA = *device\_address***

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command requesting the status of a channel-attachment major node for a communication-adapter line.

*sio* is the number of start-I/O operations counted for the node. This number is cumulative (from the time that the node was last activated). The value of *sio* is never larger than 65535. If *sio* is 65535, its value is reset to 0 when the next start I/O operation takes place. If the value of *sio* is unavailable, VTAM issues **\*\*\*NA\*\*\***.



*count* is the number of I/O errors counted for the node. This number is cumulative (from the time that the node was last activated). VTAM issues **\*\*\*NA\*\*\*** if *count* is not available.

*device\_address* is the hexadecimal channel address of the line to which this node is attached. VTAM issues **\*NA** if *device\_address* is not available.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2,8

### Descriptor code

5

---

**IST752I** **GPT TRACE STATUS = *status*[ ALSNAME = *alsname*]**

### Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY command requesting the status of a node.

The message indicates the current state of the generalized PIU trace (GPT) for that node.

See the [z/OS Communications Server: IP and SNA Codes](#) for more information on trace status code *status*.

For a DISPLAY command for an independent LU, VTAM indicates the name of all adjacent link stations (ALS) that the independent LU is using. VTAM issues message IST752I once for each adjacent link station. VTAM issues this message only for adjacent link stations that exist in an NCP major node (or, for a switched connection, link stations that are connected through a link in an NCP major node).

### System action

None.

### Operator response

None.

### System programmer response

None.

### Routing code

8

## Descriptor code

5

---

**IST755I****ALERT FROM PU *puname* FOLLOWS**

---

## Explanation

VTAM has received an unsolicited Record Formatted Maintenance Statistics (RECFMS) request of type 0 from a communication controller *puname*. VTAM always issues a second message, which describes the specific information depending on the user action code received from *puname*. See the description of the second message for additional information.

This message and the message following it will not be received if there is a communication network management (CNM) application program defined and active to receive the RECFMS RU.

## Routing code

8

## Descriptor code

4

---

**IST756E****ALERT FROM PU *puname* FOLLOWS**

---

## Explanation

VTAM has received an unsolicited Record Formatted Maintenance Statistics (RECFMS) request of type 0 from a communication controller *puname*. VTAM always issues a second message, which describes the specific information depending on the user action code received from *puname*. See the description of the second message for additional information.

This message and the message following it will not be received if there is a communication network management (CNM) application program defined and active to receive the RECFMS RU.

**Note:** This message indicates that you must eventually take some action to correct this problem, but the system continues processing without waiting for your response.

## Routing code

8

## Descriptor code

3

---

**IST757E****MOSS UNAVAILABLE – HARDWARE ERROR**

---

## Explanation

The maintenance and operator subsystem (MOSS) of the IBM 3725 or 3745 Communication Controller is unavailable either because the program control switch is in the wrong position or because a hardware error has occurred. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 1 in it. Additional information is provided in the *Operating Guide* for your communication controller.

## System action

Processing continues.

### Operator response

Do not attempt to IPL the communication controller. Save the system log for problem determination.

### System programmer response

Verify that the program control switch is in the correct position. If it is, contact the IBM hardware support center.

### Routing code

8

### Descriptor code

3

---

**IST758E****MOSS RELOADED – HARDWARE ERROR**

---

### Explanation

The maintenance and operator subsystem (MOSS) of the IBM 3725 or 3745 Communication Controller has been automatically reloaded after a hardware error. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 2 in it. Additional information is provided in the *Operating Guide* for your communication controller.

### System action

The error has been successfully recovered. Processing continues.

### Operator response

Issue a MODIFY DUMP,TYPE=MOSS command to transfer the MOSS dump to a host data set to allow another dump on the MOSS diskette. Save the system log for problem determination.

### System programmer response

No action is required unless the problem occurs repeatedly. If it does, contact the IBM hardware support center.

### Routing code

8

### Descriptor code

3

---

**IST759E****MOSS DISKETTE UNUSABLE**

---

### Explanation

The maintenance and operator subsystem (MOSS) diskette drive or diskette adapter in the IBM 3725 or 3745 Communication Controller is rendered unusable because of a hardware error. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 3 in it. Additional information is provided in the *Operating Guide* for your communication controller.

### System action

Processing continues.

### Operator response

Do not attempt to IPL the communication controller. Save the system log for problem determination.

### System programmer response

Contact the IBM hardware support center.

### Routing code

8

### Descriptor code

3

---

**IST760E****MOSS DISKETTE HARDWARE ERROR**

---

### Explanation

A portion of the maintenance and operator subsystem (MOSS) diskette in the IBM 3725 or 3745 Communication Controller is unusable because of a hardware error. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 4 in it. Additional information is provided in the *Operating Guide* for your communication controller.

### System action

Processing continues.

### Operator response

Save the system log for problem determination.

### System programmer response

Contact the IBM hardware support center.

### Routing code

8

### Descriptor code

3

---

**IST761E****MOSS CONSOLE UNAVAILABLE**

---

### Explanation

A portion of the maintenance and operator subsystem (MOSS) diskette in the IBM 3725 or 3745 Communication Controller is unavailable. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 5 in it. Additional information is provided in the *Operating Guide* for your communication controller.

### System action

All sessions using routes over the failing adapter have been terminated, and appropriate recovery actions have been initiated. Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Check the physical installation and run operator console tests, if desired (as described in the *Operator Console Reference and Problem Analysis Guide* for your communication controller).

If you cannot determine the cause of the problem or need assistance, contact the IBM hardware support center.

## Routing code

8

## Descriptor code

3

---

**IST762I****MOSS IN MAINTENANCE MODE**

## Explanation

The maintenance and operator subsystem (MOSS) of the IBM 3725 or 3745 Communication Controller has been placed in the offline mode by explicit action. This message is always preceded by IST755I, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 6 in it. Additional information is provided in the *Operating Guide* for your communication controller.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Check for maintenance mode. If incorrect, place MOSS in ONLINE MODE.

## Routing code

8

## Descriptor code

4

---

**IST763I****PHYSICAL UNIT RELOADED – HARDWARE ERROR**

## Explanation

The IBM 3725 or 3745 Communication Controller has been reloaded to recover from a hardware error. This message is always preceded by IST755I, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 7 in it. Additional information is provided in the *Operating Guide* for your communication controller.

## System action

The error has been successfully recovered. Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

No action is required unless the problem occurs repeatedly. If it does, contact the IBM hardware support center.

## Routing code

8

## Descriptor code

4

---

**IST764I** **PHYSICAL UNIT RELOADED – PRIOR ABEND CODE WAS *code***

---

## Explanation

The IBM 3725 or 3745 Communication Controller has been reloaded to recover from a software error that caused an abend.

*code* is the abend code.

This message is always preceded by IST755I, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 8 in it. Additional information is provided in the *Operating Guide* for your communication controller.

## System action

The error has been successfully recovered. Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

No action is required unless the problem occurs repeatedly. If it does, check to ensure that the NCP generation matches the hardware configuration, and dump the NCP.

If you cannot determine the cause of the problem or need additional assistance, contact the IBM hardware support center.

## Routing code

8

## Descriptor code

4

---

**IST765E** **CHANNEL ADAPTER *channelname* UNAVAILABLE – HARDWARE ERROR**

---

## Explanation

The channel adapter *channelname* in the IBM 3725 or 3745 Communication Controller is unavailable because of a hardware error. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 9 in it. Additional information is provided in the *Operating Guide* for your communication controller.

## System action

VTAM terminated all sessions using routes over the failing adapter and initiated appropriate recovery actions.

## Operator response

Save the system log for problem determination.

## System programmer response

Contact the IBM hardware support center.

## Routing code

8

## Descriptor code

3

---

<b>IST766I</b>	<b>DUMP FAILED – NO {MOSS CSP NCP} DUMP ON <i>ncpname</i> DISK(ETTE)</b>
----------------	--

---

## Explanation

VTAM attempted to transfer a dump from the MOSS, CSP, or NCP diskette to the host 3745, 3725 (for MOSS or CSP) or 3720 (for MOSS, CSP, or NCP) Communication Controller for NCP *ncpname*. The attempt terminated because the diskette was empty or VTAM could not find the requested file.

## System action

Dump processing ends.

## Operator response

Issue a dump to the diskette, then reissue the MOSS, CSP, or NCP dump. Despite the empty diskette in the 3725, 3720, or 3745 Communication Controller, some data files might have been transmitted to the host from the NCP. They can be formatted and printed using the NCP utility program.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST767E</b>	<b>SCANNER <i>scannernum</i> (<i>line1-line2</i>) UNAVAILABLE – HARDWARE ERROR</b>
----------------	--

---

## Explanation

The scanner *scannernum* in the IBM 3725 or 3745 Communication Controller is unavailable because of a hardware error on a possible range of line numbers between *line1* and *line2*. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by

VTAM had the user action code of 11 in it. Additional information is provided in the *Operating Guide* for your communication controller.

### System action

All affected lines are inoperative.

### Operator response

Follow the predefined recovery or backup actions, or both, for your network. Save the system log for problem determination.

### System programmer response

Reload the affected scanner. No other action is required unless the problem occurs repeatedly. If it does, contact the IBM hardware support center.

### Routing code

8

### Descriptor code

3

---

IST768E	SCANNER <i>scannernum</i> ( <i>line1-line2</i> ) UNAVAILABLE – HARDWARE ERROR
---------	---

### Explanation

The scanner *scannernum* in the IBM 3725 or 3745 Communication Controller is unavailable because of a hardware error on a possible range of line numbers between *line1* and *line2*. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 12 in it. Additional information is provided in the *Operating Guide* for your communication controller.

### System action

All affected lines are inoperative.

### Operator response

Follow the predefined recovery or backup actions, or both, for your network. Transfer the dump of the communication-scanner processor to a data set in the host using the MODIFY DUMP command. This will allow another dump on the MOSS diskette. Save the system log for problem determination.

### System programmer response

Reload the affected scanner. No other action is required unless the problem occurs repeatedly. If it does, contact the IBM hardware support center.

### Routing code

8

### Descriptor code

3



**Explanation**

The scanner *scannernum* in the IBM 3725 or 3745 Communication Controller is unavailable because of a software error on a possible range of line numbers between *line1* and *line2*. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 13 in it. Additional information is provided in the *Operating Guide* for your communication controller.

**System action**

All affected lines are inoperative.

**Operator response**

Follow the predefined recovery or backup actions, or both, for your network, and save the system log for problem determination.

**System programmer response**

Reload the scanner *scannernum*. No other action is required unless the problem occurs repeatedly. If it does, dump the NCP and contact the IBM hardware support center.

**Routing code**

8

**Descriptor code**

3

**Explanation**

The scanner *scannernum* in the IBM 3725 or 3745 Communication Controller is unavailable because of a software error on a possible range of line numbers between *line1* and *line2*. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 14 in it. Additional information is provided in the *Operating Guide* for your communication controller.

**System action**

All affected lines are inoperative.

**Operator response**

Follow the predefined recovery or backup actions or both. Save the system log for problem determination.

**System programmer response**

No action is required unless the problem occurs repeatedly. If it does, dump the NCP and contact the IBM hardware support center.

## Routing code

8

## Descriptor code

3

---

IST771E	SCANNER <i>scannernum</i> LINE <i>linename</i> UNAVAILABLE – HARDWARE ERROR
---------	---

---

## Explanation

The scanner *scannernum* on line *linename* in the IBM 3725 or 3745 Communication Controller is unavailable because of a hardware error. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 15 in it. Additional information is provided in the *Operating Guide* for your communication controller.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Reactivate the affected line. No other action is required unless the problem occurs repeatedly. If it does, contact the IBM hardware support center.

## Routing code

8

## Descriptor code

3

---

IST772I	UAC = <i>uac</i> [Q1 = <i>qualifier1</i> Q2 = <i>qualifier2</i> [Q3 = <i>qualifier3</i> ] ]
---------	---

---

## Explanation

VTAM issues this message as part of a message group. The first message in the group is IST755I. An alert has been received with a user action code (**UAC**) of *uac*. Any qualifiers that were contained in the alert will also be displayed (from 0–3 qualifiers).

### Notes:

1. The qualifier text is printed if qualifiers are received with the alert. For example:
  - If two qualifiers are attached to the alert, VTAM will not display the **Q3 = qualifier3** text.
  - If no qualifiers are attached to the alert, VTAM will display only *uac*.
2. If VTAM displays a UAC that is not listed below, VTAM does not recognize the UAC. See *IBM 3720/3721 Communication Controller Daily Task and Problem Determination* for information regarding UACs not listed in this manual.

A full description of the message based on the UAC follows:

## UAC=01

**Explanation:** The maintenance and operator subsystem (MOSS) has a hardware error or there is a control program to MOSS communication error.

**System Action:** Processing continues.

**Operator Response:**

- Do not attempt to IPL the 3720.
- Perform a MOSS IML, set the Function Select switch of the 3720 operator panel to "NORMAL," and set the MOSS online.

See the *IBM 3720/3721 Communication Controller Operator's Guide*.

- Use a MODIFY DUMP,TYPE=MOSS command to transfer the MOSS dump to the host for later printing.
- If the problem persists, do not transfer the last MOSS dump. Save the system log for problem determination.

**Programmer Response:** Note the control program to MOSS interface status (**Q1**) and contact the IBM hardware support center.

## UAC=02

**Explanation:** The maintenance and operator subsystem (MOSS) has a recoverable error. The MOSS has been automatically reloaded.

**System Action:** Processing continues.

**Operator Response:**

- Use a MODIFY DUMP,TYPE=MOSS command to transfer the MOSS dump to the host for later printing.
- If the problem persists, do not transfer the last MOSS dump. Save the system log for problem determination.

**Programmer Response:** Note the reference code (**Q1**). Contact the IBM hardware support center.

## UAC=03

**Explanation:** The maintenance and operator subsystem (MOSS) has a diskette drive or diskette adapter error.

**System Action:** Processing continues.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Contact the IBM hardware support center.

## UAC=04

**Explanation:** The maintenance and operator subsystem (MOSS) has a diskette media error.

**System Action:** Processing continues.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Contact the IBM hardware support center.

## UAC=05

**Explanation:** The maintenance and operator subsystem (MOSS) has a local console error.

**System Action:** Processing continues.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:**

- Verify that the local console operates in IBM 3101 mode. See the *IBM 3720/3721 Communication Controller Problem Determination Guide*.
- Run a console test. See the console documentation.

- Check the cable.
- Run a console link test from the 3720 operator panel. See *IBM 3720/3721 Communication Controller Daily Task and Problem Determination*.
- If no problem appears, note the reference code (**Q2**), and contact the IBM hardware support center.

#### **UAC=06**

**Explanation:** The maintenance and operator subsystem (MOSS) is offline because of maintenance mode.

**System Action:** Processing continues.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Check for maintenance mode. If it is correct, set MOSS online. See the *IBM 3720/3721 Communication Controller Operator's Guide*.

#### **UAC=07**

**Explanation:** The communication controller has a hardware error. A communication controller IPL was re-executed.

**System Action:** Processing continues.

**Operator Response:**

- Reactivate lines from host.
- If the problem persists, save the system log for problem determination.

**Programmer Response:** Note the abend code (**Q1**) and the reference code (**Q2**). If you cannot determine the cause of the problem or need additional assistance, contact the IBM hardware support center.

#### **UAC=08**

**Explanation:** The communication controller has a software error. A communication controller IPL was re-executed.

**System Action:** Processing continues.

**Operator Response:**

- Reactivate lines from host.
- If the problem persists, save the system log for problem determination.

**Programmer Response:**

- Ensure no mismatch exists between the hardware configuration and the control program generation (NCPA, CA, HICHAN, LOCHAN). Valid for abend codes 912 and 915. Correct the generation problem, if any.
- Dump the NCP and analyze the dump according to abend code (**Q1**).
- If the problem does not appear to be a software problem, note the reference code (**Q2**) and contact the IBM hardware support center.

#### **UAC=09**

**Explanation:** A channel adapter error has occurred for channel adapter (**Q1**).

**System Action:** All sessions using routes over the failing adapter have been terminated, and appropriate recovery actions have been initiated.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:**

- Ensure the compatibility of communication controller channel-adapter parameters with the system (NSC address, ESC addresses, select out priority, burst length).
- Note the reference code (**Q2**) and contact the IBM hardware support center.

#### **UAC=11**

**Explanation:** A scanner hardware error has occurred for scanner number **Q1**. Lines whose addresses are in the range **Q2** are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:**

- Reissue the IML command for the affected scanner from the MOSS console and reactivate the lines from the host.

See the *IBM 3720/3721 Communication Controller Operator's Guide*.

- If the problem persists, save the system log for problem determination.

**Programmer Response:** Note the reference code (**Q3**) and contact the IBM hardware support center.

#### **UAC=12**

**Explanation:** A scanner hardware error has occurred for scanner number **Q1**. Lines whose addresses are in the range **Q2** are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:**

- Reissue the IML command for the affected scanner from the MOSS console and reactivate the lines from the host.

See the *IBM 3720/3721 Communication Controller Operator's Guide*.

- Use the MODIFY DUMP,TYPE=CSP command to transfer the scanner dump to the host for later printing.
- If the problem persists, do not transfer the last scanner dump. Save the system log for problem determination.

**Programmer Response:** Note the reference code (**Q3**) and contact the IBM hardware support center.

#### **UAC=13**

**Explanation:** A control program error or scanner error has occurred for scanner number **Q1**. Lines whose addresses are in the range **Q2** are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:**

- Reissue the IML command for the affected scanner from the MOSS console and reactivate the lines from the host.

See the *IBM 3720/3721 Communication Controller Operator's Guide*.

- If the problem persists, save the system log for problem determination.

**Programmer Response:**

- Check the addresses in control program generation. Correct generation in case of error.
- Dump the NCP and analyze the dump.
- If there does not appear to be a software problem, note the reference code (**Q3**) and contact the IBM hardware support center.

#### **UAC=14**

**Explanation:** A control program error or scanner error has occurred for scanner number **Q1**. Lines whose addresses are in the range **Q2** are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:**

- Reissue the IML command for the affected scanner from the MOSS console and reactivate the lines from the host.

See the *IBM 3720/3721 Communication Controller Operator's Guide*.

- Use the MODIFY DUMP,TYPE=CSP command to transfer the scanner dump to the host for later printing.
- If the problem persists, do not transfer the last scanner dump. Save the system log for problem determination.

**Programmer Response:**

- Dump the NCP and analyze the dump.
- If the problem does not appear to be a software problem, note the reference code (**Q3**) and contact the IBM hardware support center.

**UAC=15**

**Explanation:** A line error has occurred for line address **Q2** on scanner number **Q1**.

**System Action:** The line is inoperative.

**Operator Response:**

- Reactivate the line from the host.
- If the problem persists, save the system log for problem determination.

**Programmer Response:**

- According to the reference code (**Q3**), perform line problem determination with 3720 maintenance and operator subsystem (MOSS) facilities.

See the *IBM 3720/3721 Communication Controller Problem Determination Guide*.

- If the problem does not appear to be a software problem, note the reference code (**Q3**) and contact the IBM hardware support center.

**UAC=16**

**Explanation:** Re-execution of an automatic-scanner IML is in progress following a hardware error on scanner **Q1**. Lines whose addresses are in the range **Q2** are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:** Wait for the re-execution of the automatic-scanner IML to complete. Another alert will indicate the IML completion. No action is required.

**UAC=17**

**Explanation:** Reexecution of an automatic-scanner IML is in progress following a control program error on scanner **Q1**. Lines in the range **Q2** are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:** Wait for the re-execution of the automatic-scanner IML to complete. Another alert will indicate the IML completion. No action is required.

**UAC=18**

**Explanation:** Re-execution of an automatic-scanner IML is complete following a scanner hardware error on scanner **Q1**. Lines whose addresses are in the range **Q2** are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:**

- Reactivate the lines from the host.
- If the problem persists, save the system log for problem determination.

**Programmer Response:** Note the reference code (**Q3**) and contact the IBM hardware support center.

**UAC=19**

**Explanation:** Reexecution of an automatic-scanner IML is complete following a control program error or scanner error on scanner **Q1**. Lines whose addresses are in the range **Q2** are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:**

- Use the MODIFY DUMP,TYPE=CSP command to transfer the scanner dump to the host for later printing.
- Reactivate the lines from the host.
- If the problem persists, do not transfer the last scanner dump. Save the system log for problem determination.

**Programmer Response:**

- Take an NCP dump (MODIFY DUMP,TYPE=NCP command) at the time of the re-execution of the scanner IML and analyze the dump.
- If the problem does not appear to be a software problem, note the reference code (Q3) and contact the IBM hardware support center.

**UAC=20**

**Explanation:** A permanent hardware error has occurred for scanner Q1. Scanner re-execution of the IML has stopped. Lines whose addresses are in the range Q2 are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Note the reference code (Q3) and contact the IBM hardware support center.

**UAC=21**

**Explanation:** A permanent control program error or scanner error has occurred for scanner Q1. Reexecution of the scanner IML stopped. Lines whose addresses are in the range Q2 are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:**

- Dump the NCP and analyze the dump.
- If the problem does not appear to be a software problem, note the reference code (Q3) and contact the IBM hardware support center.

**UAC=22**

**Explanation:** Reexecution of the automatic-scanner IML failed because of a hardware error on scanner Q1. Lines whose addresses are in the range Q2 are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Note the reference code (Q3) and contact the IBM hardware support center.

**UAC=23**

**Explanation:** Re-execution of the automatic-scanner IML failed because of a control program or scanner hardware error on scanner Q1. Lines whose addresses are in the range Q2 are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:**

- Dump the NCP and analyze the dump.
- If the problem does not appear to be a software problem, note the reference code (Q3) and contact the IBM hardware support center.

#### UAC=24

**Explanation:** Re-execution of the automatic-scanner IML failed because of a hardware error or maintenance and operator subsystem (MOSS) error for scanner **Q1**. Lines whose addresses are in the range **Q2** are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Note the reference code (**Q3**) and contact the IBM hardware support center.

#### UAC=25

**Explanation:** A maintenance and operator subsystem (MOSS) remote-console error occurred because of the line, modems, console or MOSS.

**System Action:** Processing continues.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:**

- Verify that the remote console, remote modem or local modem is powered on.
- Verify the physical installation for the remote console, remote modem, local modem and cables.  
See the *IBM 3720/3721 Communication Controller Problem Determination Guide*.
- Run modem tests. See the modem documentation.
- Run a console test. See the console documentation.
- Run a console link test from the 3720 operator panel.  
See *IBM 3720/3721 Communication Controller Daily Task and Problem Determination*.
- If no problem appears, note the reference code (**Q1**) and contact the IBM hardware support center.

#### UAC=26

**Explanation:** A maintenance and operator subsystem (MOSS) remote-console error has occurred.

**System Action:** Processing continues.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:**

- Verify that the remote console operates in IBM 3101 mode.  
See *IBM 3720/3721 Communication Controller System Integration*.
- Run a console test. See the console documentation.
- If no problem appears, note the reference code (**Q1**) and contact the IBM hardware support center.

#### UAC=27

**Explanation:** An error occurred on the maintenance and operator subsystem (MOSS) disk or MOSS disk adapter.

**System Action:** Processing continues.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:**

- An IPL can be executed for the communication controller with the primary diskette on which the disk has been saved.  
See the *IBM 3720/3721 Communication Controller Problem Determination Guide*.
- Note the reference code (**Q1**) and contact the IBM hardware support center.



## UAC=30

**Explanation:** An error occurred on the maintenance and operator subsystem (MOSS) disk or MOSS disk adapter.

**System Action:** Processing continues.

### Operator Response:

- Do not IPL from the 3720 disk, or dump to the disk, until the disk is repaired.
- The IPL can only be done by switching to diskette mode on the control panel and using the primary backup diskette on which the customized disk contents have been saved.

See the *3720/3721 Communication Controller Operator's Guide*.

- Save the system log for problem determination.

**Programmer Response:** Note the reference code (**Q1**) and contact the IBM hardware support center.

## UAC=31

**Explanation:** A communication controller hardware error occurred. A communication controller IPL was re-executed.

**System Action:** Processing continues.

### Operator Response:

- Reactivate the lines from the host.
- Use the MODIFY DUMP,TYPE=NCP,OPTION=TRANS command to transfer the communication controller dump to the host, then purge it from the 3720 disk.
- If the problem persists, save the system log for problem determination.

**Programmer Response:** Note the abend code (**Q1**) and the reference code (**Q2**) and contact the IBM hardware support center.

## UAC=32

**Explanation:** A communication controller software error occurred. An IPL has been re-executed for the communication controller.

**System Action:** Processing continues.

### Operator Response:

- Reactivate the lines from the host.
- Transfer the communication controller dump to the host, then purge it from the 3720 disk.

The dump does not have to be transferred to the host, but it should be purged from the 3720 disk. If the dump is not purged, the AUTODUMP/IPL sequence for a subsequent error will not occur.

- If the problem persists, save the system log for problem determination.

### Programmer Response:

- Ensure there is no mismatch between the hardware configuration and the control program generation (NCP, CA, HICHAN, LOCHAN). Valid for abend codes 912 and 915. Correct the generation problem, if any.
- Analyze the dump according to the abend code (**Q1**).
- If there does not appear to be a software problem, note the reference code (**Q2**) and contact the IBM hardware support center.

## Routing code

## Descriptor code

5

---

**IST773I**

**SESSION WITH *luname* IN PROCESS OF BEING TERMINATED**

---

## Explanation

VTAM was deactivating a PU in response to a VARY INACT,GIVEBACK command. Sessions could not be transferred from a real resource to a CDRSC during the nondisruptive giveback of *luname*.

## System action

VTAM terminates the session for *luname*.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST778I**

***cdrmname1* [*cdrmname2*] [*cdrmname3*] [*cdrmname4*] [*cdrmname5*]  
[*cdrmname6*]**

---

## Explanation

VTAM issues this message as part of a message group. The first message in the group is IST728I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

**IST784I**

**SESSION(S) EXIST(S) WITH UNKNOWN PARTNER(S)**

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a logical unit. It indicates that one or more sessions exist for which the SSCP has no session partner information (for example, partner name or session ID). This information was lost when the SSCP-LU session ended. When the SSCP-LU session is re-established, the SSCP becomes aware of any LU-LU sessions that remained active.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

<b>IST786I</b>	<b><i>command</i> COMMAND REJECTED – <i>reason</i></b>
----------------	--

---

## Explanation

VTAM rejects the *command* for one of the following *reasons*:

### **EXCEEDS *limit* CHARACTER LIMIT**

The *command* exceeded the maximum allowable length *limit*. The command length should be less than or equal to the limit *limit*. The permissible command length will be smaller if PPOLOG=YES is in effect.

### **NO COMMAND OPERANDS**

The *command's* input command length (after removing the command prefix) was 0.

## System action

VTAM rejects the command.

## Operator response

- If *reason* is **EXCEEDS *limit* CHARACTER LIMIT**, shorten the command to be less than or equal to *limit* and reenter it.
- If *reason* is **NO COMMAND OPERANDS**, reenter *command* with the required operands.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

<b>IST787I</b>	<b>SSCP TAKEOVER FOR NODE <i>linkname</i> IN PROGRESS</b>
----------------	---

---

## Explanation

Switched link *linkname* has been activated in the taking-over SSCP during nondisruptive takeover.

## System action

None.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

<b>IST789I</b>	<b><i>command FAILED FOR ID = ncpname, CA / NCP CONFLICT</i></b>
----------------	--

---

## Explanation

The *command* (VARY ACT or VARY ACQ) failed because an NCP was contacted over a communication adapter SDLC link station. (VTAM can contact an NCP over a communication adapter SDLC link or activate of NCP over a channel or noncommunication adapter SDLC link, but not both at the same time.)

## System action

VTAM stops processing *command*.

## Operator response

Issue the DISPLAY ID=*ncpname* command to determine which communication adapter link stations are in contact with the NCP *ncpname*.

## System programmer response

If you want NCP *ncpname* activated or acquired by this host, ask the operator to deactivate the communication adapter SDLC link stations in contact with this NCP. Then the operator can reenter the VARY ACT or VARY ACQ command for NCP *ncpname*.

## Routing code

8

## Descriptor code

5

---

<b>IST790I</b>	<b>MAXIMUM <i>type</i> USED = <i>maxK</i></b>
----------------	---

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the group is IST449I. See the explanation of that message for a full description.

## Routing code

8

## Descriptor code

5

---

**IST792I****NO SUCH SESSION EXISTS**

---

## Explanation

The operator issued a VARY TERM command for a session or search that does not exist. For example, if the command is entered for a logical unit that has only a pending active session, no session is found (or terminated) since the default scope of this command is active sessions. Note that no sessions exist for the specified LU or session partners from the VARY TERM command.

## System action

None.

## Operator response

Issue the DISPLAY NET,SESSIONS,SCOPE=ALL command if SCOPE=APPN is not specified to verify that sessions exist and check session states. If SCOPE=APPN is specified, issue DISPLAY NET,SRCHINFO,LIST=ALL to verify that a search exists and check the session ID.

Reissue the VARY TERM command with the correct SID.

## System programmer response

None.

**Note:** If you modify this message, you must specify MSG=(IST792I,6) on the USSMSG macro. This will define IST792I and USS message 6 to be identical in the operation-level USS table. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information on the USSMSG macro for VTAM operator messages.

## Routing code

2

## Descriptor code

5

---

**IST793E****SESSION MANAGEMENT ERROR, CODE *code* [–response]**

---

## Explanation

The session management exit routine, ISTEEXAA, returned data that was not valid or a return code in register 15 that was not valid. The following *codes* describe the error conditions which might occur.

### **code (in Hex)**

#### **Error**

#### **01**

For the gateway path selection function (primary function code X'04'), a gateway path entry in the original list did not match any entry in the list.

For the SSCP selection function (primary function code X'06'), an SSCP entry in the returned list did not match any in the default list.

*code* is undefined for the adjacent link station (ALS) selection function (primary function code X'08').

#### **03**

For the gateway path selection function (primary function code X'04'), there were no valid gateway path entries in the returned list.

For the SSCP selection function (primary function code X'06'), there were no valid SSCP selection entries in the returned list.

For the adjacent link station (ALS) selection function (primary function code X'08'), the name returned in the ALS name vector is not the name of a valid PU.

**04**

For the gateway path selection function (primary function code X'04'), the network of the adjacent SSCP was incorrect in the returned list.

*code* is undefined for the SSCP selection function (primary function code X'06').

*code* is undefined for the adjacent link station (ALS) selection function (primary function code X'08').

**05**

For the gateway path selection function (primary function code X'04'), there were more gateway path entries in the returned list than in the original list.

For the SSCP selection function (primary function code X'06'), there were more SSCP selection entries in the returned list than in the passed list.

*code* is undefined for the adjacent link station (ALS) selection function (primary function code X'08').

**06**

For the gateway path selection function (primary function code X'04'), the exit routine generated a return code that is not valid.

*code* is undefined for the SSCP selection function (primary function code X'06').

For the adjacent link station (ALS) selection function (primary function code X'08'), the exit routine generated a return code that is not 0, 4, 8, 12, 16, or 20.

**07**

For the gateway path selection function (primary function code X'04'), the exit routine changed the pointer to the gateway path list.

For the SSCP selection function (primary function code X'06'), the exit routine changed the pointer to the SSCP selection list.

For the adjacent link station (ALS) selection function (primary function code X'08'), the exit routine changed the pointer to the ALS name information vector.

**08**

For the initial authorization function (primary function code X'00'), the exit routine returned an return code that is not valid. Note that a return code of 4 is not valid if the exit does not support the secondary authorization function.

**09**

For the secondary authorization function (primary function code X'01'), the exit routine returned a return code that is not valid.

**10**

For the initial or final accounting function (primary function codes X'02' or X'03'), the exit routine returned a return code that is not valid.

**11**

For the end function (primary function code X'FF'), the exit routine returned a return code that is not valid.

**12**

For the begin function (primary function code X'FE'), the exit routine returned a return code that is not valid.

**14**

For any function, the session management exit routine abended.

**15**

The following installation exit routines could not be invoked because insufficient storage existed for the parameter lists passed to the exit routines when VTAM was initialized:

- Session management exit routine

- Session accounting exit routine
- Session authorization exit routine.

## 16

The session management exit routine will never be requested because insufficient below-the-line storage existed during VTAM initialization.

VTAM was unable to obtain 24-bit addressable storage for the gateway path list.

## 17

For the alias selection function (primary function code X'07'), the exit routine returned a return code that is not valid.

## 18

The alias selection function (primary function code X'07') will not be enabled because there is not enough storage available to pass the alias parameter list, which is needed to pass information to the session management exit routine.

## 19

For the alias selection function (primary function code X'07'), the network ID had to be determined. The required network ID has been omitted in the return parameter list.

## 20

For the alias selection function (primary function code X'07'), a network ID was returned that was not the same as the network ID sent.

## 21

For the alias selection function (primary function code X'07'), the original data sent for translation has been altered in the input parameter list. This is not allowed.

## 22

The information for the alias selection function (primary function code X'07') contains a syntax error.

## 23

The information for the virtual route selection function (primary function code X'0B') contains a syntax error.

*response* is one of the following:

### DEFAULT ALS LIST USED

This is issued for the adjacent link station selection function.

### STANDARD GW PATHLIST USED

This is issued for a gateway node.

### STANDARD SSCP ROUTING USED

This is issued for the SSCP selection function.

### STANDARD VR/TP LIST USED

This is issued for the virtual route selection function.

## System action

The system action depends on *code*. See the following list.

### *code* (in Hex)

#### Action

### 01–07

*response* is **STANDARD GW PATHLIST USED** for a gateway node (primary function code X'04'); processing continues. VTAM uses the default gateway node path list as determined by the gateway path operand on the CDRM macro.

*response* is **STANDARD SSCP ROUTING USED** for the SSCP selection function (primary function code X'06'); VTAM uses standard SSCP routing.

*response* is **DEFAULT ALS ROUTING USED** for the adjacent link station (ALS) selection function (primary function code X'08'). The first available PU in the ALS list is used. If no PUs in the ALS list are available, cross-domain routing is used.

**08-09**

The session is not authorized by VTAM.

**10-11**

VTAM ignores the return code.

**12**

Processing continues as though no exit routine existed. The exit routine will not be invoked again. All sessions are authorized, accounting data is discarded, the default gateway path list is used for gateway path selection, the default SSCP selection list is used for SSCP routing, and the alias application is invoked for translation.

**14-16**

The session management exit routine is functionally disabled and the function for which it was called is rejected.

**17**

The session continues as if the alias selection function did not exist. Reevaluate the alias selection function to determine the error and provide the correct return code.

**18**

VTAM initialization continues and the alias selection function is disabled. (The alias selection function will not be performed.)

**19**

The information from the alias selection function is not used because the translation that was given is not valid. The session setup fails. Ensure that a network ID is returned if it was not known before the alias selection function is invoked.

**20**

The data returned from the alias selection function is not used. A network ID was returned that is not valid. The session setup fails. Correct the bad translation.

**21**

The data returned from the alias selection function will not be used. The session setup fails. Storage that was reserved for input only is being accessed. See the [z/OS Communications Server: SNA Customization](#) for more information.

**22**

The data returned from the alias selection function will not be used because it was syntactically incorrect. The session will fail to set up. Check the returned data to ensure that all names have the correct syntax, determine if blank names are valid for each value, and make sure all values are padded with blanks.

**23**

The data returned from the virtual route selection function will not be used because it was syntactically incorrect. The session will be set up with the VR/TP list defined in the COS table. Valid VR and TP numbers must be used, and the maximum number of VR/TP pairs cannot be exceeded. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about coding the COS table.

**Operator response**

Save the system log for problem determination.

**System programmer response**

The session management exit routine contains an error. Use the error code in the message to determine the cause of the error and correct it. You can replace the exit routine with the corrected version by using the MODIFY EXIT command. See [z/OS Communications Server: SNA Operation](#) for additional information.

**Routing code**

8



## Descriptor code

3

---

**IST796I**

**HOSTSA VALUE EXCEEDS *option***

---

### Explanation

VTAM issues this message when the value specified for the HOSTSA start option exceeds the value of *option*.

*option* is the start option name and is either **MAXSUBA** or **MXSUBNUM**.

- **MAXSUBA** is the highest subarea value that can be assigned to any node in this network that communicates with pre-ENA nodes.

This message requires no action if your network supports extended network architecture (ENA). ENA was implemented in VTAM Version 3 and NCP Version 4.

- **MXSUBNUM** is the maximum subarea number supported by another network to which this host is connected. Therefore, if your host subarea number is greater than MXSUBNUM, you cannot communicate with the other network.

### System action

- If *option* is **MAXSUBA**, processing continues.
- If *option* is **MXSUBNUM**, VTAM issues message IST1311A to prompt for valid values of HOSTSA and MXSUBNUM, and waits for a response.

### Operator response

- If *option* is **MAXSUBA**, this message requires no action if your network supports extended network architecture (ENA). If your network contains pre-ENA nodes, save the system log for problem determination.
- If *option* is **MXSUBNUM**, enter valid values for HOSTSA and MXSUBNUM when prompted by IST1311A.

You do not have to enter both values. VTAM does not ignore the value of HOSTSA. However, you can enter a new value of HOSTSA that is smaller than the initial value of MXSUBNUM.

Message IST1311A is repeated until HOSTSA's value does not exceed MXSUBNUM.

### System programmer response

If *option* is **MAXSUBA**, review the VTAM start options and their relationships. To communicate with pre-ENA nodes, the maximum HOSTSA value cannot exceed the MAXSUBA value.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on the MAXSUBA and MXSUBNUM start options.

## Routing code

2

## Descriptor code

5

---

**IST797I**

**FROM VIA ADJACENT DEST ER LENGTH**

---

### Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST533I. See the explanation of that message for a full description.

## Routing code

2

## Descriptor code

5

---

**IST798I**

*netid*

## Explanation

VTAM issues this message as part of a group of messages. The first message is IST533I. See explanation of that message for a full description.

## Routing code

2

## Descriptor code

5

---

**IST799I**

*type procedure IN PROGRESS*

## Explanation

VTAM issues this message in response to a DISPLAY ID command requesting the status of an NCP.

*procedure* is either **LOAD** or **DUMP**.

If *procedure* is **LOAD**, the value of *type* will be **NONDISRUPTIVE**. A nondisruptive load is in progress because a MODIFY LOAD,ACTION=ADD or MODIFY LOAD,ACTION=REPLACE command was entered for an NCP and the operation is not yet complete.

If *procedure* is **DUMP**, *type* can be one of the following:

### *type*

#### Description

#### **DYNA**

A dynamic dump of NCP storage is in progress. The NCP remains active.

#### **MOSS**

The maintenance operator subsystem dump contained on the MOSS disk in the 3725 or 3745 Communication Controller is being transferred to the host and stored in a host data set.

#### **CSP**

The communication-scanner processor (CSP) dump contained on the MOSS disk is being transferred to the host and stored in a host data set.

#### **TRANSFER OF NCP**

The NCP is being dumped to its external disk storage and then transferred to a host data set.

#### **PURGE OF MOSS**

The maintenance operator subsystem dump is being purged from the MOSS disk in the 3725 or 3745 Communication Controller.

#### **PURGE OF CSP**

The communication-scanner processor dump is being purged from the MOSS disk in the 3725 or 3745 Communication Controller.

#### **PURGE OF NCP**

The NCP is being purged from the NCP's external disk storage.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

8

**Descriptor code**

5



---

## Chapter 7. IST messages for VTAM network operators

### IST800I - IST1199I

This chapter lists the VTAM messages beginning with IST in the range of IST800I through IST1199I. These messages can appear on a network operator's console.

See [Appendix E, "Message text for VTAM operator messages,"](#) on page 1785 for a list of the text of all VTAM operator messages.

**Note:** Messages that begin with the prefix **ISTF** are issued by the VTAM dump analysis tool and the VTAM internal trace (VIT) analysis tool. Help information is available as a part of each tool by pressing F1. Therefore, **ISTF** messages ist973 are not documented in [z/OS Communications Server: SNA Messages](#). See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information.

---

#### IST803I

#### VTAM TERMINATION TASK TERMINATED-OPEN FAILED

##### Explanation

Because the ACB for the VTAM termination subtask ISTATM00 could not be opened successfully, the VTAM termination subtask could not be initialized.

##### System action

If the user's application program abnormally terminates or terminates without issuing a CLOSE ACB, VTAM cannot close that application's ACB. Since VTAM cannot terminate until all application programs have closed their ACB, VTAM could probably never terminate when a HALT command is entered. Other VTAM processing continues.

##### Operator response

Halt VTAM immediately. If a dump was taken as indicated by message IST413I, print the dump. Save the system log and network logs for problem determination.

##### System programmer response

See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on termination problems.

##### Routing code

2

##### Descriptor code

5

---

#### IST804I

#### CLOSE IN PROGRESS FOR *applname* OPENED BY *jobname*

##### Explanation

VTAM is closing the ACB of VTAM application program *applname* that has terminated normally or abnormally and that was opened by *jobname*.

*jobname* is the name of a related program commonly executed by a series of steps in a job. If *jobname* is not known, **\*\*\*NA\*\*\*** is displayed.

## System action

VTAM closes the ACB of the VTAM application program. The application program might terminate before its resources are freed in VTAM.

## Operator response

Since the ACB for the application program cannot be successfully opened again before it is successfully closed, the job must not be restarted before message IST805I is issued to indicate that the close has been completed. If you do not see IST805I, save the system log for problem determination.

## System programmer response

Determine why the close did not complete and correct the problem. See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on diagnosing application program problems.

## Routing code

2

## Descriptor code

5

---

IST805I	VTAM CLOSE COMPLETE FOR <i>applname</i>
---------	---

## Explanation

VTAM has successfully completed processing to close the ACB of VTAM application program *applname*.

## System action

Processing continues. VTAM resources can no longer start a session with application program *applname*.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST807I	<i>command</i> FOR ID = <i>puname</i> FAILED — NODE IS IN TEST MODE
---------	---

## Explanation

The *command* failed because a MODIFY LL2 command is being processed for PU *puname*, which is being added or moved by dynamic reconfiguration.

## System action

VTAM stops processing the command.

## Operator response

- If MODIFY LL2,OPTION=CONT was specified, enter MODIFY LL2,OPTION=CANCEL and reenter *command*.
- Otherwise, wait for the MODIFY LL2 command to complete, and reenter *command*.

## System programmer response

If a MODIFY LL2,OPTION=CONT command caused VTAM to issue this message terminate the command by issuing MODIFY LL2,OPTION=CANCEL.

## Routing code

2

### Descriptor code

5

**IST808I**                      **ORIGIN PU = *originpu* DEST PU = *destpu* NETID = *netid***

### Explanation

VTAM issues this message as part of a group of messages. The first message of the group is IST535I. See the explanation of that message for a complete description.

## Routing code

8

### Descriptor code

5

**IST809I** XRF SESSIONS — PRIMARY = *primarycount* BACKUP = *backupcount*

### Explanation

VTAM issues this message in response to a DISPLAY ID command. *primarycount* is the current count of primary extended recovery facility (XRF) sessions, and *backupcount* is the current count of backup XRF sessions established with this node. This message appears only if the logical unit displayed has at least one primary or backup XRF session. The *primarycount* and *backupcount* values both include sessions with unknown partners.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST812I** *command* **COMMAND NOT ACCEPTED**

## Explanation

VTAM did not accept the *command* because of one of the following:

- VTAM is abending
- VTAM is not active
- VTAM is not accepting commands, for example, during processing of HALT
- *command* exceeds the maximum command length.

## System action

VTAM ignores the command and processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST813I** **USERVAR *uservar* CHANGED FROM *value1* TO *value2***

## Explanation

This message is part of a group of messages that VTAM issues when a MODIFY USERVAR command is used to change the value of a USERVAR. The first message in the group is IST1283I. See that message for a complete description of the group.

**Note:** This message is percolated. See [“Message rerouting and percolation”](#) on page 1707 for additional information.

## Routing code

8

## Descriptor code

5

---

**IST814I** **USERVAR *uservar* DELETED**



## Explanation

The USERVAR *uservar* was deleted by a MODIFY USERVAR command. Any attempt to start a session by specifying *uservar* will fail.

**Note:** This message is percolated. See [“Message rerouting and percolation” on page 1707](#) for additional information.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST815I****AUTOMATIC RECOVERY IS SUPPORTED**

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a cross-domain resource manager (CDRM) when automatic recovery (RECOVERY=YES) is specified on the CDRM definition statement. The CDRM will automatically attempt a recovery of the SSCP-SSCP session if an outage occurs.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

4,5,9

## Descriptor code

5

---

**IST816I*****rejsubarea tg2 rejadjsubarea ermask***

## Explanation

VTAM issues this message as part of a message group. The first message in the group is IST533I. See the explanation of that message for a full description.

## Routing code

2

## Descriptor code

5

---

IST819I	CDRM <i>cdrmname</i> COMMUNICATION LOST – RECOVERY IN PROGRESS
---------	--

---

## Explanation

The SSCP-SSCP session with CDRM *cdrmname* has been disrupted.

## System action

Because the CDRM definition statement for this host, *cdrmname*, or both CDRMs specified RECOVERY=YES, VTAM will try to re-establish the SSCP-SSCP session.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

4

---

IST820I	{ACTLU ACTPU} RSP DATA DISCARDED FOR ID = <i>nodename</i> – INSUFF STORAGE
---------	--

---

## Explanation

VTAM did not have sufficient storage to receive the response data included on ACTLU or ACTPU sent by node *nodename*. The data was discarded.

## System action

Node *nodename* is deactivated.

## Operator response

Enter a DISPLAY BFRUSE or DISPLAY STORUSE command to check the availability of storage. Wait and try the activation of *nodename* again when storage is available.

If the problem persists, save the system log and dump for problem determination.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

8

## Descriptor code

4

---

IST822I

CDRM *cdrmname* RECOVERY FAILED – INSUFFICIENT STORAGE

## Explanation

VTAM issues this message when an attempt to re-establish the SSCP-SSCP session with *cdrmname* failed because of a lack of available storage.

## System action

VTAM tries to re-establish the SSCP-SSCP session because the CDRM definition statement for this host, *cdrmname*, or both CDRMs specified RECOVERY=YES. However, VTAM could not re-establish the SSCP-SSCP session because there was not enough storage to process the request.

## Operator response

Enter a DISPLAY BFRUSE command to check the availability of storage. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

## System programmer response

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

8

## Descriptor code

4

---

**IST825I** **USERVAR DEFINED — NAME = *uservar*, VALUE = *value***

---

## Explanation

This message is the first in a group of messages that VTAM issues when a MODIFY USERVAR command is used to define a USERVAR. A complete description of the message group follows.

```
IST825I  USERVAR DEFINED - NAME = uservar, VALUE = value
[IST1030I USERVAR EXIT IS exitname]
IST314I  END
```

**Note:** This message group is percolated. See [“Message rerouting and percolation” on page 1707](#) for additional information.

### IST825I

*uservar* is the name of the USERVAR, and the value of *uservar* has been initialized to *value*. Any subsequent session requests to *uservar* are routed to the application named in *value*.

### IST1030I

*exitname* is the name of the USERVAR exit. If no USERVAR exit is defined, VTAM does not issue this message.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST826I** **VTAM START REJECTED– START COMMAND NOT USED FOR VTAM  
INITIALIZATION**

---

## Explanation

Something other than a START command was entered to initialize VTAM. For example, a batch JCL or TSO submit might have been used.



*netid* comes from the NETID value specified on the NETWORK statement preceding the series of ADJCDRM statements. If a NETID value is not specified on the NETWORK statement or if there is no NETWORK statement preceding the series of ADJCDRM statements, NETID=*netid* will not appear in message IST708I. *macrolabel* is the label of the NETWORK definition statement preceding the series of ADJCDRM statements. If the NETWORK statement does not have a label or if no NETWORK statement precedes the series of ADJCDRM statements, **NETWORK = *macrolabel*** will not appear in message IST708I. *sscpname* is the label of the CDRM statement immediately preceding the series of ADJCDRM statements. (Note that a CDRM statement must have a label.) If no CDRM statement immediately precedes the series of ADJCDRM statements, **CDRM = *sscpname*** will not appear in the message. Instead, **DEFAULT TABLE** will appear, indicating that the series of ADJCDRM statements is the default ADJSSCP table for the *netid* specified (or the default ADJSSCP table for all networks if **NETID = *netid*** does not appear). VTAM issues **DEFAULT TABLE FOR ALL NETWORKS** when the table being activated has a default adjacent SSCP list for all networks.

**IST831I**

*adjcdrmname* is the duplicate label which was found on two ADJCDRM statements.  
*configname* identifies the adjacent SSCP table definition.

**IST1333I**

*listname* is the name of an adjacent SSCP table as defined by an ADJLIST definition statement.  
 See the descriptions of the ADJLIST definition statement in the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on adjacent SSCP tables.

**System action**

VTAM ignores the duplicate ADJCDRM statement. Processing of the ADJSSCP definition continues.

**Operator response**

Save the system log for problem determination.

**System programmer response**

Remove the duplicate ADJCDRM statement.

**Routing code**

2

**Descriptor code**

4

---

**IST832I** **UNLABELED *statement\_type* STMT IN *configname***

**Explanation**

This message is the first of a group of messages. A complete description of the message group follows.

```
IST832I UNLABELED statement_type STMT IN configname
IST833I SKIPPING TO NEXT text
```

*statement\_type* identifies the unlabeled statement that was found in *configname*. Values for *statement\_type* can be **ADJCDRM**, **CDRM**, or **ADJLIST**.

*text* can be:

- STMT**
- CDRM, NETWORK, OR ADJLIST STMT OR EOF**

## System action

If an unlabeled CDRM statement was found, that statement and all statements in the ADJSSCP definition following the unlabeled CDRM statement are ignored until a NETWORK statement or CDRM statement or end of file (EOF) is encountered. If a NETWORK statement or CDRM statement is encountered, normal ADJSSCP definition processing resumes with that statement.

If an unlabeled ADJLIST statement was found, that statement is ignored. If this statement was not preceded by a valid ADJLIST statement, then all ADJCDRMs immediately following the unlabeled ADJLIST are also ignored.

If an unlabeled ADJCDRM statement was found, only that statement is ignored. Processing resumes with the following statement, if one exists.

## Operator response

Save the system log for problem determination.

## System programmer response

Put labels on all CDRM, ADJCDRM, and ADJLIST statements in adjacent SSCP table definitions.

## Routing code

2

## Descriptor code

4

---

**IST833I** {NCPPATH STMT, VPATH STMT, OR EOF| **SKIPPING TO NEXT text**}

## Explanation

VTAM issues this message when it detects a syntax error during the processing of a dynamic path update deck. Dynamic path update processing will resume with the next NCPPATH or VPATH statement.

VTAM displays **NCPPATH STMT, VPATH STMT, OR EOF** for one of the following reasons:

- A NCPPATH or VPATH is unlabeled
- NETID is missing in an NCPPATH or VPATH statement.

VTAM displays **SKIPPING TO NEXT text** when IST833I is preceded by message [IST832I](#). See the explanation of that message for a complete description.

## System action

Processing continues.

## Operator response

None.

## System programmer response

Correct the dynamic path update deck.

## Routing code

2

## Descriptor code

4

---

**IST834I*****num* BACKUP SESSION(S) EXIST(S) WITH UNKNOWN PARTNERS**

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command. *num* is the number of backup extended recovery facility (XRF) sessions whose session partner is unknown.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST838I****TRACE STATUS DISPLAY FOR ID = *nodename***

---

## Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY TRACES command for *nodename*. A complete description of the message group follows.

```
IST838I  TRACE STATUS DISPLAY FOR ID = nodename
IST839I  PU NAME      LINE NAME
IST840I  puname      linename
:
IST314I  END
```

This message group displays a list of resources that are being traced by the 3710 physical unit *node*. IST840I displays the name of the resource, *puname*, and its line, *linename*, and is repeated for each resource being traced.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.



## Routing code

2

## Descriptor code

7

---

<b>IST839I</b>	<b>PU NAME LINE NAME</b>
----------------	--------------------------

---

## Explanation

VTAM issues this message as part of a group of messages and it is a header for message IST840I. See the explanation of message IST838I for a full description.

## Routing code

2

## Descriptor code

7

---

<b>IST840I</b>	<i>puname linename</i>
----------------	------------------------

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST838I. See the explanation of that message for a full description.

## Routing code

2

## Descriptor code

7

---

<b>IST841I</b>	<b>NO RESOURCES ARE BEING TRACED FOR <i>nodename</i></b>
----------------	--

---

## Explanation

A DISPLAY TRACES command has been entered for a 3710 physical unit *nodename* and there are no resources being traced for that physical unit.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

---

<b>IST842I</b>	<b>UNABLE TO FIND BUFFERS IN <i>poolid</i> POOL — DUMP IN PROGRESS</b>
----------------	--

---

## Explanation

While attempting to allocate storage from buffer pool *poolid*, VTAM found that storage perceived to be free is actually in use.

## System action

A dump is being taken to help identify the source of this problem.

If VTAM can continue, it will discard some existing free buffers in pool *poolid* and schedule the pool for eventual expansion. Otherwise, VTAM must be restarted.

## Operator response

Save the system log and dump for problem determination.

## System programmer response

Use the dump to determine the cause of the problem.

## Routing code

2

## Descriptor code

5

---

**IST844I** VTAM START REJECTED — *name* IS DUPLICATE NAME

## Explanation

VTAM attempted to define a resource during initialization but encountered a duplicate entry, *name*.

## System action

VTAM is terminated.

## Operator response

Verify that the start options were entered correctly, particularly the HOSTPU, NETID, and SSCPNAME options. If not, restart VTAM with the correct options; otherwise, save the system log for problem determination.

## System programmer response

Check for invalid start option values (such as HOSTPU=VTAM) that could lead to duplicate entries, especially with VTAM-reserved resource names. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of the VTAM start options.

## Routing code

2

## Descriptor code

5

---

**IST849I** *operation1* INCONSISTENT WITH USE OF *operation2* IN *statementname*

## Explanation

This message is the first of a group of messages. The message group follows.

```
IST849I  operation1 INCONSISTENT WITH USE OF operation2 IN statementname
IST701I  CONFIG configname LABEL = labelname STMT TYPE = statementname
```

An inconsistent connection has been made between *operation1* and *operation2*. VTAM issues message IST849I for the following combinations of *operation1* and *operation2*:

### **AUTODL and SHOLD**

AUTODL=NO is coded in the GROUP or LINE definition statement.

### **DIALNO and SHOLD**

DIALNO is not coded in the GROUP definition statement.

### **CPNAME and PUTYPE**

CPNAME is coded for a PU type other than PU type 2.

### **LOADFROM and SAVEMOD**

LOADFROM=EXT was specified on the VARY ACT command, and SAVEMOD=YES was specified on the PCCU definition statement. This combination is not valid.

### **RESSCB and LOCADDR**

RESSCB is specified for a dependent LU.

### **SAVEMOD and DUMPLD**

SAVEMOD=NO was specified on the VARY ACT command, and DUMPLD=YES was specified on the PCCU definition statement. This combination is not valid.

### **SAVEMOD and LOADFROM**

SAVEMOD=YES was specified on the VARY ACT command, and LOADFROM=EXT was specified on the PCCU definition statement. This combination is not valid.

The definition statement *statementname* is in the node *configname* and has the label *labelname*.

## System action

The system action depends on the value of *operation1* and *operation2*:

### **AUTODL and SHOLD**

VTAM does one of the following:

- If AUTODL=NO is coded on the GROUP definition statement, VTAM ignores the entire GROUP definition statement and all definition statements under it.
- If AUTODL=NO is coded on the LINE definition statement, VTAM treats all lines in that group as ordinary X.21 switched lines, and the group is no longer a short hold mode/multiple port sharing (SHM/MPS) group.

### **DIALNO and SHOLD**

VTAM ignores the entire GROUP definition statement and all definition statements under it.

### **CPNAME and PUTYPE**

PU and subnodes are unavailable.

### **LOCADDR and EAS**

VTAM ignores EAS.

### **LOADFROM and SAVEMOD**

VTAM does not use SAVEMOD=YES, coded on the PCCU definition statement, during the initial load, but it is saved for future reloads. The automatic dump and load switches are not changed in the NCP.

### **RESSCB and LOCADDR**

VTAM ignores RESSCB.

### **SAVEMOD and DUMPLD**

VTAM does not use DUMPLD=YES, coded on the PCCU definition statement, during the initial load, but it is saved for future reloads. The automatic dump and load switches are not changed in the NCP.

## **SAVEMOD and LOADFROM**

VTAM does not use the LOADFROM=EXT, coded on the PCCU definition statement, during the initial load, but it is saved for future reloads.

## **Operator response**

Save the system log for problem determination.

## **System programmer response**

Check and correct the definition statement *statementname*.

## **Routing code**

2

## **Descriptor code**

5

---

**IST860I****DEACTIVATION OF *nodename* INCOMPLETE – INSUFFICIENT STORAGE**

---

## **Explanation**

VTAM issues this message in response to either a VARY INACT command to deactivate a major or minor node or a termination request that was received. The command cannot be completed because VTAM could not obtain sufficient storage to process the command.

*nodename* is the name of the resource and is always a CDRM.

## **System action**

VARY deactivate processing for *nodename* is not completed, and the node is not available to VTAM. LU-LU sessions are not disrupted.

## **Operator response**

Reenter the VARY INACT command when more storage is available. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usages for storage pools. Save the system log and request a dump for problem determination.

## **System programmer response**

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code**

2

**Descriptor code**

5

---

**IST861I** **MODETAB=modetab USSTAB=usstab LOGTAB=logtab**

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application minor node or an LU. The tables that will be displayed are:

- modetab**  
Logon mode table
- usstab**  
Unformatted system services (USS)
- logtab**  
Interpret table

If no table of the particular type was defined for the resource, or the table type does not apply, for example, interpret tables for applications, **\*\*\*NA\*\*\*** is displayed.

If no alternative value was specified when the resource was defined, the following IBM-supplied tables will be used if they are loaded:

- Logon mode table**  
ISTINCLM
- USS table, operators**  
ISTINCNO
- USS table, terminals**  
ISTINCDT
- Interpret table**  
No default

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

## Explanation

VTAM issues this message in response to a DISPLAY COS command. It displays the name of the class of service (CoS) table associated with a specific network and PU type 4. To determine which COS table will be used in subsequent session initiation requests involving this PU type 4, see the [z/OS Communications Server: SNA Network Implementation Guide](#).

*netid*, obtained from the NETID operand, is the name of the network whose Class of Service information is being displayed.

- If NETID is omitted, *netid* is the host network identifier.
- If NETID is not \* (NETID=*netid* or NETID=\*NETWORK), message IST862I is displayed only if the COSTAB keyword is coded on the BUILD or NETWORK definition statement. If COSTAB is not coded, VTAM issues message IST887I.
- If DISPLAY COS,NETID=\* is entered, message IST862I is displayed for each network identified in a BUILD or NETWORK definition statement, and for any dynamic networks that have been created.
- If DISPLAY COS,NETID=\*NETWORK is entered, message IST862I displays information for a model network.

*costable1* identifies which COS tables might be used during Class of Service resolution. *costable1* will be one of the following:

### **name**

The name of the COS table identified using the COSTAB keyword in the BUILD or NETWORK definition statement for network *netid*.

### **ISTSDCOS**

The name of the default COS table. ISTSDCOS is displayed only when it has been loaded and when no COS name was specified on a BUILD or NETWORK definition statement.

### **ALGORITHM**

The default routing algorithm used during COS resolution. ALGORITHM is displayed when a COS name was not specified in a BUILD or NETWORK definition statement, and the default COS table, ISTSDCOS, has not been loaded.

*costable2* is present only when *netid* is the same as the host network and the value of *costable* came from the BUILD or NETWORK definition statements. Either *costable1* or *costable2* will be used during session initiation involving the PU type 4, based on the COS resolution algorithm explained in the [z/OS Communications Server: SNA Network Implementation Guide](#).

*costable2* will be one of the following:

### **ISTSDCOS**

The name of the default COS table.

### **ALGORITHM**

The default routing algorithm. Note that ISTSDCOS cannot be used since it has not been loaded.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None. If there is a need to change the COS table associated with a particular resource, the MODIFY TABLE command should be used. MODIFY TABLE can also be used to load ISTSDCOS.

## Routing code

2

## Descriptor code

5

---

**IST863I****MODIFY TABLE COMMAND FAILED—*reason***

---

### Explanation

This message is the first in a group of messages that VTAM issues in response to a MODIFY TABLE command. A complete description of the message group follows.

```
IST863I  MODIFY TABLE COMMAND FAILED-reason
IST864I  NEWTAB=newtable, OLDTAB=oldtable, OPT=option,
        TYPE=tabletype
[IST935I  ORIGIN=ncpname, NETID=netid, ID=resourcename]
```

The value of *newtable*, *oldtable*, *ncpname*, *netid*, and *resourcename* will be **\*\*\*NA\*\*\*** when the following operands are not specified on the command:

#### ***newtable***

NEWTAB operand

#### ***oldtable***

OLDTAB operand

#### ***ncpname***

ORIGIN operand

#### ***netid***

NETID operand

#### ***resourcename***

ID operand

**IST863I**

*reason* indicates the cause of the failure and can be one of the following:

#### **ABEND DURING TABLE PROCESSING**

An abend occurred and the MODIFY TABLE command was not processed.

#### **BOTH FILTER TABLES IN USE**

A MODIFY TABLE,TYPE=FILTER,OPTION=LOAD command has been entered, but a previous MODIFY TABLE,TYPE=FILTER has not completed its processing. VTAM cannot execute the MODIFY TABLE,TYPE=FILTER command until the previous command is completed.

#### **CURRENT TABLE WILL BE USED**

An error was detected when attempting to load the directory definition file using the MODIFY TABLE command. A prior message will indicate the specific failure detected.

#### **ERROR BUILDING TABLE**

The table specified by *tabletype* was not successfully built.

#### **INSUFFICIENT STORAGE**

Not enough storage was available to process the MODIFY TABLE command.

#### **I/O ERROR LOADING *newtable***

An error was detected with table *newtable* during a load operation.

This message might be received if the table being loaded from VTAMLIB starts in an extent that was known when VTAMLIB was opened, but ends in a new extent that was not known when VTAMLIB was opened. Since VTAMLIB is opened only once during VTAM initialization, the new extents cannot be accessed until VTAM is halted, restarted, and VTAMLIB is opened again. For information on allocating space in the data set or information on extents, see your operating system documentation.

**I/O TIMEOUT LOADING *newtable***

An attempt was made to load table *newtable*, but a system or hardware problem has caused the table load facility to time out while waiting for I/O to complete.

**LOADER INOPERATIVE**

This can occur for one of the following reasons:

- A previous table load never completed
- The VTAM-directed load subtask, ISTINMLS, abnormally ended during a load request
- The VTAM-directed load subtask, ISTINMLS, has not completed its initialization.

***name* NOT FOUND**

The resource identified by *name* does not exist. *name* might be the new table name *newtable*, or a node name identified by either the ID (*resourcename*) or ORIGIN (*ncpname*) operands of the MODIFY TABLE command.

If *name* is *newtable*, this message indicates that the table could not be loaded from storage.

This message might be received if the table being loaded from VTAMLIB is entirely contained in extents that were not known when VTAMLIB was first opened. Since VTAMLIB is opened only once during VTAM initialization, the new extents cannot be accessed until VTAM is halted, restarted, and VTAMLIB is opened again. For information on allocating space in the data set or information on extents, see your operating system documentation.

***ncpname* HAS NO COS FOR *netid***

The *ncpname* NETWORK definition statement for network *netid* did not have a COSTAB keyword. As such, there was no Class of Service table association to delete for this network.

***netid* NOT DEFINED FOR *ncpname***

There was no NETWORK definition statement defining *netid* in the major node definition for PU type 4 *ncpname* or the host is a non-gateway SSCP and the network definition statements are ignored. Therefore, the COS association could not be deleted or changed.

**NEW TABLE ALREADY IN USE**

For OPTION=LOAD, the table indicated by *newtable* is already in use by another resource. A new version of *newtable* cannot be loaded (to replace the existing version) until all existing references to the old *newtable* table have been deleted.

**NO APPL/LU/CDRSC BELOW RESOURCE**

The major node identified by *resourcename* had no minor nodes. Therefore, there were no associations to change or delete.

**OLD TABLE WAS NOT IN USE**

An attempt was made to delete or change the association between *oldtable* and the resources identified by *resourcename* in the MODIFY TABLE command or to replace *oldtable* with *newtable*. However, no matches were found with *oldtable* for the specified table type.

**OLD & NEW TABLE NAMES IDENTICAL**

For the resource specified by *resourcename* and all of its subordinate nodes, the old table name, *oldtable*, and the new table name, *newtable*, were identical. Use MODIFY TABLE,OPTION=LOAD if you want to load a new copy of *oldtable*.

**OPERATION INVALID FOR *resourcename***

This can occur for the following reasons:

**For TYPE=[USSTAB|LOGTAB|MODETAB|MDLTAB| ASLTAB|FLDTAB]**

An attempt was made to modify or delete a table associated with a resource. *resourcename* was specified on the ID parameter. The specified resource was either an invalid resource against which to perform a MODIFY TABLE command or was not eligible for the type of operation requested, for example, TYPE=LOGTAB for an application.

**For OPTION=LOAD**

An attempt was made to reload old table ISTCFMM. This table might not be reloaded.



**For OPTION=DELETE,TYPE=COSTAB**

An attempt was made to delete a COS table association for a resource that was not a PU type 4 or PU type 5, or an attempt was made to delete the association between ISTSDCOS and the host PU.

**For OPTION=ASSOCIATE,TYPE=COSTAB**

An attempt was made to change a COS table association for a resource that was not a PU type 4 or PU type 5.

**TABLE *name* IS FORMAT=OLD**

Table *name* is a USS table that was assembled using FORMAT=OLD or the table is back-level. A back-level table can be either a USS table or an interpret table that was assembled using pre-VTAM V3R2 macros.

**TABLE TYPE CONFLICT**

New table *newtable* has a table type that differs from that specified using the TYPE keyword (*tabletype*). For example, *newtable* is a USS table but TYPE=LOGTAB was specified on the MODIFY TABLE command.

**IST864I**

*option* is one of the following values:

**ASSOCIATE**

Change table association with resources

**DELETE**

Delete table association with resources

**LOAD**

Load or refresh a table, change associations

*tabletype* is one of the following values. When *tabletype* is not applicable, for example, specifying OPT=LOAD, **\*\*\*NA\*\*\*** will be displayed.

**ASLTAB**

Associated LU table

**COSTAB**

Class-of-service table

**FILTER**

Session awareness data filter

**FLDTAB**

Message flooding table

**LOGTAB**

Interpret table

**MDLTAB**

Model name table

**MODETAB**

Logon mode table

**USSTAB**

USS table

**IST935I**

This message contains additional identification information for certain types of tables.

*ncpname* is the name of the PU type 4 or PU type 5 specified on the ORIGIN operand.

*netid* identifies the network specified on the NETID operand.

*resourcename* is the name of the resource specified on the ID operand.

**System action**

No table associations were changed except for the following *reasons*:

- If *reason* is **BOTH FILTER TABLES IN USE**, the previous command will complete eventually.

- If *reason* is **LOADER INOPERATIVE**, all subsequent MODIFY TABLE commands that require the loader will fail. If the I/O load operation eventually succeeds, load operations will again be enabled.

## Operator response

- When *reason* is **ABEND DURING TABLE PROCESSING**, save the system log and dump for problem determination.
- When *reason* is **BOTH FILTER TABLES IN USE**, try the command again when the previous command has completed.
- When *reason* is **INSUFFICIENT STORAGE**, reenter the MODIFY TABLE command when more storage is available. If problems persist, enter a DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.
- For the following values of *reason*, save the system log for problem determination:
  - **CURRENT TABLE WILL BE USED**
  - **ERROR BUILDING TABLE**
  - **I/O ERROR LOADING *newtable***
  - **I/O TIMEOUT LOADING *newtable***
  - **LOADER INOPERATIVE**
  - **TABLE *name* IS FORMAT=OLD**
- For the following values of *reason*, verify that the MODIFY TABLE operands were entered correctly:
  - ***name* NOT FOUND**
  - ***ncpname* HAS NO COS FOR *netid***
  - ***netid* NOT DEFINED FOR *ncpname***
  - **NEW TABLE ALREADY IN USE**
  - **NO APPL/LU/CDRSC BELOW RESOURCE**
  - **OLD TABLE WAS NOT IN USE**
  - **OLD & NEW TABLE NAMES IDENTICAL**
  - **OPERATION INVALID FOR *resourcename***
  - **TABLE TYPE CONFLICT**

See z/OS Communications Server: SNA Operation for a description of command operands. The DISPLAY COS, DISPLAY ID, and DISPLAY TABLE commands can be used to obtain the current table associations for the specified resources.

## System programmer response

- When *reason* is **ABEND DURING TABLE PROCESSING** review the contents of the system dump to determine the correct problem determination action. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on the abend procedure.
- When *reason* is **ERROR LOADING TABLE**, this message is preceded by message IST979I. See the explanation of that message for additional information.
- When *reason* is **INSUFFICIENT STORAGE**, review the output from the operator to determine the cause of the problem.

If the MODIFY TABLE operation is critical, have the operator cancel other jobs or deactivate some major nodes in order to free up storage for the command, and then reenter the MODIFY TABLE command.

- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, and the DISPLAY STORUSE command.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps](#) and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

- When *reason* is **I/O ERROR LOADING *newtable*** or **I/O TIMEOUT LOADING *newtable***, examine the definition library to make sure the requirements for the VTAM system are correct for your system. Enter a DISPLAY BFRUSE command to determine storage utilization.
- When *reason* is **LOADER INOPERATIVE**, review the contents of the system dump to determine the correct problem determination action. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on the abend procedure.
- When *reason* is **TABLE *name* IS FORMAT=OLD**, you need to code FORMAT=DYNAMIC on the USSTAB macro and reassemble the table using the current VTAM macro libraries.
- For all other values of *reason*, no response is required.

## Routing code

2

## Descriptor code

5

---

**IST864I** **NEWTAB=*newtable*, OLDTAB=*oldtable*, OPT=*option*, TYPE=*tabletype***

## Explanation

VTAM issues this message as part of a message group. The first message in the group is either IST863I or IST865I. See the explanation of those messages for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST865I** **MODIFY TABLE COMMAND COMPLETE--*text***

## Explanation

This message is the first in a message group. A complete description of the message group follows.

```
IST865I  MODIFY TABLE COMMAND COMPLETE--text
[IST864I  NEWTAB=newtable, OLDTAB=oldtable, OPT=option, TYPE=tabletype]
[IST935I  ORIGIN=ncpname, NETID=netid, ID=resourcenname]
```

A MODIFY TABLE command was processed successfully.

### IST864I

- *option* is one of the following values:

#### ASSOCIATE

Change table association with resources

#### DELETE

Delete table association with resources

#### LOAD

Load or refresh a table, change associations.

- *tabletype* is one of the following values. When *tabletype* is not applicable, for example, specifying OPT=LOAD, **\*\*NA\*\*** will be displayed.

#### ASLTAB

Associated LU table

**COSTAB**

Class-of-service table

**FILTER**

Session awareness data filter

**FLDTAB**

Message flooding table

**LOGTAB**

Interpret table

**MDLTAB**

Model name table

**MODETAB**

Logon mode table

**USSTAB**

USS table.

**IST865I**

- *text* is one of the following:

***num* ASSOCIATION(S) CHANGED**

This is displayed when the value of *option* is ASSOCIATE. *num* is determined as follows:

- If the value of *tabletype* is USSTAB, LOGTAB, MODETAB, MDLTAB, FLDTAB, or ASLTAB, *num* table associations were changed from *oldtable* to *newtable* for the resource and all of its subordinate nodes specified by the ID parameter (*resourcename*).
- If the value of *tabletype* is COSTAB, *num* table associations were changed for the PU type 4 or PU type 5 identified by the ORIGIN parameter (*ncpname*), to use *newtable* for the network specified by the NETID parameter (*netid*). Because ORIGIN and NETID are required in MODIFY TABLE, *num* will always be 1.

***num* FILTER TABLE(S) DELETED**

The current session awareness data filter has been deleted. Trace data for all sessions will be passed over the CNM interface.

**NEW TABLE ALREADY ASSOCIATED**

New table *newtable* was already associated with the specified resources. For TYPE=COSTAB, the resource is a PU type 4 or PU type 5 and was identified by *ncpname* and *netid* ORIGIN parameters. Otherwise, the resource was identified by *resourcename*, and includes all of its subordinate nodes. To cause a new version of *newtable* to be loaded, MODIFY TABLE,OPTION=LOAD must be entered.

**TABLE *newtable* LOADED**

This is displayed when the value of *option* is LOAD. The text indicates that the new table *newtable* was successfully loaded. All associations with *oldtable* were changed to *newtable*. No count is provided for the number of associations changed.

If the OLDTAB parameter is omitted, *oldtable* will be the same as *newtable*. *tabletype* will always be **\*\*\*NA\*\***.

***num* ASSOCIATION(S) DELETED**

This is displayed when the value of *option* is DELETE. *num* is determined as follows:

- If the value of *tabletype* is USSTAB, LOGTAB, MODETAB, MDLTAB, or ASLTAB, *num* references to *oldtable* have been deleted for the resource and all of its subordinate nodes specified by the ID parameter. The IBM-supplied default table might be used for future session-initiation requests.
- If the value of *tabletype* is COSTAB, the association between the PU type 4 or PU type 5 COS table, identified by the ORIGIN parameter, and the network specified by the NETID parameter has been terminated. The value of *num* will always be 1 and *oldtable* will always be **\*\*\*NA\*\***.

*newtable* will always be **\*\*\*NA\*\*\*** because NEWTAB is not allowed in the MODIFY TABLE command for OPTION=DELETE.

**IST935I**

- This message contains additional identification information for certain types of tables.  
*ncpname* is the name of the PU type 4 or PU type 5 specified on the ORIGIN operand.  
*netid* identifies the network specified on the NETID operand.  
*resourcenname* is the name of the resource specified on the ID operand.

## System action

Processing continues.

## Operator response

No action is required. DISPLAY ID or DISPLAY COS might be entered to determine which table associations have changed.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST866I** *command HAD NO EFFECT — reason*

## Explanation

VTAM issues this message in response to the following commands:

- MODIFY ALSLIST
- MODIFY CDRM
- MODIFY DIRECTRY
- MODIFY TRACE
- VARY LOGON.

Possible values are:

- **MODIFY ALSLIST command**

### ***alsname NOT VALID FOR cdrscname***

*alsname* is not valid. If *alsname* was specified in the NEWALS field in a MODIFY ALSLIST,ACTION=ADD or ACTION=REPLACE command, ensure that the ALS name specified in the NEWALS field is valid. If *alsname* was specified in the OLDALS field in a MODIFY ALSLIST,ACTION=DELETE or ACTION=REPLACE command, ensure that the ALS name specified in the OLDALS field is valid.

### **ISTAPNPU VALID ONLY FOR APPN NODE**

ISTAPNPU was specified on the NEWALS operand of the command, but ISTAPNPU is valid only for an APPN node.

### **NO CDRSCS EXIST**

The explanation is determined by the value of ID in the MODIFY ALSLIST command:

#### **ID=\***

No CDRSC major nodes have been activated.

#### **ID=cdrsc major node**

No cross-domain resources are defined in the major node.

### **STORAGE NOT AVAILABLE**

There was not enough storage to add an entry to the adjacent link station table.

#### **• MODIFY CDRM command**

##### ***cdrmname* NOT FOUND**

The CDRM is not currently assigned to any cross-domain resource.

##### ***cdrmname* NOT FOUND FOR *cdrsname***

One of the following is true:

- *cdrsname* is a CDRSC major node. The CDRM is not currently assigned to any cross-domain resource in *cdrmname*.
- *cdrsname* is a single cross-domain resource. The CDRM currently associated with the *cdrsname* does not match *cdrmname*.

##### **NO CDRSCS EXIST**

The explanation is determined by the value of ID in the MODIFY CDRM command:

###### **ID=\***

No CDRSC major nodes have been activated.

###### **ID=*cdrsc major node***

No cross-domain resources are defined in the major node.

#### **• MODIFY DIRECTORY command**

##### ***oldcpname* NOT FOUND**

The MODIFY DIRECTORY,UPDATE, ID=*resourcename*, CPNAME=(*newcpname,oldcpname*) command was entered and one of the following is true:

- The resource named on the ID operand, *resourcename*, is a CDRSC major node. *oldcpname* is not currently the owning control point (CP) of any APPN resource subordinate to *resourcename*.
- The resource named on the ID operand, *resourcename* is a single APPN resource. The owning CP currently associated with *resourcename* does not match *oldcpname*.

##### **NO APPN CDRSC EXISTS**

The MODIFY DIRECTORY command was issued for a CDRSC major node, but no subordinate APPN resources were found. Note that an APPN CDRSC is identified by the presence of the CPNAME operand on the CDRSC macro definition.

#### **• MODIFY TRACE command**

*reason* is **VIT TABLE CHANGE IS IN PROGRESS**. The VTAM internal trace (VIT) table change is in progress. Wait a short time, and try the command again.

#### **• VARY LOGON command**

*reason* is **NO LOGICAL UNITS EXIST**. The logon mode could not be updated because no LUs exist.

### **System action**

Processing continues. If this message is issued in response to a MODIFY DIRECTORY command, the APPN directory is not modified.

### **Operator response**

None.

### **System programmer response**

None.

### **Routing code**

2

## Descriptor code

5

---

**IST867I****SIT TRACE FOR *linename* FAILED TO ACTIVATE**

---

## Explanation

A MODIFY TRACE,TYPE=SIT command failed for *linename* because of a problem in the scanner. The problem could possibly be caused by unavailable scanner resources or a scanner hardware error.

## System action

Processing continues.

## Operator response

Reenter the command when scanner resources become available. If the command fails, save the system log for problem determination.

## System programmer response

If you cannot determine the cause of the hardware problem, contact the IBM hardware support center.

## Routing code

2

## Descriptor code

5

---

**IST869I****USERID = *userid***

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application program. The *userid* listed represents the job controlling the application program at the time of the request. If the *userid* is **\*\*\*NA\*\*\***, the name was not available to VTAM or the application ACB was not opened.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

**Explanation**

During SSCP takeover processing, an address mismatch was detected. This mismatch occurs when the operator in the takeover host does not issue the DR deletes for these system generated resources.

**System action**

VTAM will do one of the following:

- Request another address for *nodename*.
- Delete system generated resource *resourcename*. See IST871I for more information.

**Operator response**

Verify that all required DR deletes are completed.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

**Explanation**

VTAM detected an address mismatch error, and attempted to delete resource *resourcename*. Message IST871I indicates whether the attempted deletion was successful. For Dynamic created PUs such as HPR and Connection Network, VTAM deletes the resource (PU) as normal disconnect processing, so the delete portion of this message is for information only.

**System action**

The system-generated resource *resourcename* is deleted. If the system-generated resource *resourcename* is a PU, the attached LUs are deleted.

**Operator response**

If the deletion failed, delete *resourcename* using MODIFY DR.

**System programmer response**

None.

**Routing code**

2



## Descriptor code

5

---

**IST872I****DR MOVE MISMATCH DETECTED FOR *puname***

### Explanation

This message is the first in a group of messages that VTAM issues in response to one of the following:

- VARY DRDS command
- MODIFY DR,TYPE=MOVE command
- When a CONTACT has failed with a sense code indicating a DR mismatch. In this case, an internal MODIFY DR,TYPE=MOVE was sent to move the PU from the generated line to the line that last attached the NCP to the PU.

Possible message groups follow:

```
IST872I  DR MOVE MISMATCH DETECTED FOR puname
IST523I  REASON = RESOURCE WAS MOVED FROM line1, NOT line2
IST314I  END
```

```
IST872I  DR MOVE MISMATCH DETECTED FOR puname
IST523I  REASON = puname IS ON line1 IN NCP
IST401I  F DR,TYPE=MOVE INITIATED FOR puname
IST314I  END
```

### IST401I

*puname* is the name of the physical unit that has been moved.

### IST523I

*puname* is the name of the physical unit that has been moved.

*line1* is the name of the line from which the NCP actually moved *puname*.

*line2* is the name of the line from which VTAM thought *puname* was to be moved.

### IST872I

*puname* is the name of the physical unit that has been moved.

### System action

Processing continues with activation if a MODIFY DR,TYPE=MOVE or VARY DRDS command was issued by the operator.

If the group with the IST401I is issued, an internal MODIFY DR,TYPE=MOVE has been initiated to move the PU to the line that last attached the NCP to the PU. The PU and LUs will be reactivated.

### Operator response

If the message group with message IST401I is issued, save the system log for problem determination. Otherwise, activate the resource immediately, if possible.

### System programmer response

Determine whether the PU is on the correct line in VTAMLST or whether a MODIFY DR,TYPE=MOVE or ADD needs to be issued to put the PU on the correct line.

### Routing code

2

## Descriptor code

5

**IST873I**

**PLU SLU SID STATUS**

## Explanation

This message is part of a group of messages that VTAM issues in the following situations:

- When duplicate session information is received during SSCP takeover processing

The first message in this message group is IST1419I. See the explanation of that message for a complete description.

- In response to a DISPLAY SESSIONS command when LIST=ALL,SCOPE=ALL is specified.

A complete description of the message group follows.

```
IST350I  DISPLAY TYPE = SESSIONS
IST873I      PLU          SLU          SID          STATUS
IST874I      netid.pluname  netid.sluname  sessionid  status
[IST875I      {ADJSSCP|ALSNAME} TOWARDS adjacent_resource_type = resource_name [text]]
:
IST878I  NUMBER OF PENDING  SESSIONS = count
[IST1237I    state = number [state = number]]
IST878I  NUMBER OF ACTIVE   SESSIONS = count
[IST1162I    LU-LU          = count
IST1162I    CP-CP CONWINNER = count
IST1162I    CP-CP CONLOSER = count]
IST878I  NUMBER OF QUEUED   SESSIONS = count
[IST1237I    state = number [state = number]]
IST878I  NUMBER OF TOTAL    SESSIONS = count
[IST1161I  SSCP SESSIONS
IST1162I    SSCP-LU          = count
IST1162I    SSCP-PU          = count
IST1162I    SSCP-SSCP        = count]
IST314I  END
```

## Notes:

- Information about sessions with unknown partners is not provided by the DISPLAY SESSIONS command. If this information is needed, enter a DISPLAY ID command for the known session partners.
- Messages IST1161I and IST1162I are only displayed when information about all active sessions is requested. If specific sessions are requested using the PLU, SLU, LU1, LU2, or SID operand on the command, messages IST1161I and IST1162I are not displayed.
- See [z/OS Communications Server: SNA Operation](#) for a description of the DISPLAY SESSIONS command.

## IST350I

This message identifies the type of information shown in the display. For this message group, the display type is always **SESSIONS**.

## IST873I

This message is a header message for the information displayed in message IST874I.

## IST874I

*pluname* is the network-qualified primary session partner name.

*sluname* is the network-qualified secondary session partner name.

*sessionid* is the session identifier. For additional information on the session, enter a DISPLAY SESSIONS,SID=*sessionid* command.

*status* is the session status. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of possible session initiation and termination states.

**Note:** If the display shows the same session twice with two different values of *status*, both LOCATE and BIND processing for the session might be occurring simultaneously. This situation should last for only a short time. Try the DISPLAY SESSIONS command again. If the session still appears twice, there might be a hung session.

## IST875I

This message displays information about an adjacent SSCP (**ADJSSCP**) or adjacent link station (**ALSNAME**). VTAM might issue this message twice if the issuing SSCP is an intermediate host.

*adjacent\_resource\_type* is one of the following:

### DLU

The adjacent SSCP is in the direction of the destination logical unit (DLU), and a CDINIT or DSRLST is pending for the session. **DLU** applies only to adjacent SSCPs.

### PLU

The adjacent SSCP or adjacent link station is in the direction of the primary logical unit (PLU).

### RTP

The ALSNAME or APPNCOS is used in the direction of other endpoint of the RTP pipe.

### SLU

The adjacent SSCP or adjacent link station is in the direction of the secondary logical unit (SLU).

*resource\_name* is the name of the adjacent SSCP toward the indicated *adjacent\_resource\_type*.

*text* is not displayed when:

- The resource described in this message is an adjacent link station.
- The SSCP is not gateway capable.
- The SSCP-SSCP session is a cross-domain session.

Possible values are:

### GWNCNP NAME NOT AVAILABLE

The gateway NCP name is not known to VTAM(r).

### GWNCNP TOWARDS *gateway\_type* = *gwncnp*

The gateway NCP name is known to VTAM(r).

Possible values are:

#### DLU

The gateway NCP is toward the DLU. VTAM(r) issues **DLU** only if *adjacent\_resource\_type* is **DLU**.

#### PLU

The gateway NCP is toward the PLU.

#### SLU

The gateway NCP is toward the SLU.

*gwncnp* is the gateway NCP toward the *pluname* or *sluname* in message IST874I.

## IST878I

This message displays the number of **PENDING**, **ACTIVE**, **QUEUED**, and **TOTAL** sessions.

*count* is the number of sessions of a specified type.

### Notes:

1. If the value of the MAX operand is exceeded, *count* displays **\*\*\*\*\***.
2. If LOCATE and BIND processing for a session is occurring simultaneously, *count* includes both sessions.

## IST1154I

This message is displayed when *name* in message IST1364I is a generic resource name.

*resourcename* is a logical unit or an application in the form *netid.name*.

## IST1161I

This message is a header message for IST1162I. The IST1161I and IST1162I subgroup is displayed when active SSCP-LU and SSCP-PU sessions and active and pending active SSCP-SSCP sessions exist.

## IST1162I

- This message is issued when active or pending active sessions exist.
  - If all active sessions are requested, this message follows message IST878I and displays the number of active LU-LU and CP-CP sessions (CONWINNER and CONLOSER).
 

**Note:** If the value of the MAX operand is exceeded, *count* for the LU-LU sessions displays **\*\*\*\*\***. *count* for **CP-CP CONWINNER** and **CP-CP CONLOSER** is usually the same. If these numbers are different, VTAM(r) is in the process of bringing up the session or taking it down. No user action is needed.
  - If all active sessions are requested, this message follows header message IST1161I and displays active SSCP-LU and SSCP-PU sessions and active and pending active SSCP-SSCP sessions. *count* for SSCP-SSCP sessions also includes pending sessions. *count* in message IST878I for **ACTIVE** and **TOTAL** sessions does not include these sessions.
    - The value of *count* for active SSCP-LU sessions includes two VTAM-initiated sessions with the ISTNOP and ISTDCLU applications.
    - The value of *count* for SSCP-SSCP sessions includes both pending and active sessions.
- If specific sessions are requested using the PLU, SLU, LU1, LU2, or SID operand on the command, this message is not displayed.

### IST1237I

This message is issued for **PENDING** and **QUEUED** sessions only, and displays status information. If *count* is **0**, message IST1237I is not displayed.  
*state* is the state of the session. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of possible session initiation and termination states.  
*number* is the number of sessions in the specified *state*.

### IST1364I

This message is displayed when *name* is a generic resource name. It serves as the header message for message IST1154I.  
*name* is the generic resource name for the group of resources displayed.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

### IST874I

*netid.pluname netid.sluname sessionid status*

## Explanation

VTAM issues this message as part of a group of messages.

- If the message group is headed by IST1419I, see the explanation of that message for a complete description of the message group.
- Otherwise, see the explanation of IST873I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST875I** {**ADJSSCP**|**ALSNAME**|**APPNCOS**} TOWARDS *adjacent\_resource\_type = resource\_name* [text]

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY SESSIONS, DISPLAY APING, or DISPLAY ID=*rtp\_pu* command. See the explanations of IST873I, IST878I, IST879I, IST1476I, and IST1489I for a complete description of possible message groups.

This message displays information about an adjacent SSCP (**ADJSSCP**), adjacent link station (**ALSNAME**), or APPN Class of Service (**APPNCOS**).

VTAM(r) might issue this message twice if the issuing SSCP is an intermediate host.

*adjacent\_resource\_type* is one of the following:

### DLU

The adjacent SSCP is in the direction of the destination logical unit (DLU), and a CDINIT or DSRLST is pending for the session. **DLU** applies only to adjacent SSCPs.

### PLU

The adjacent SSCP or adjacent link station is in the direction of the primary logical unit (PLU).

### RTP

The ALSNAME or APPNCOS is used in the direction of other endpoint of the RTP pipe.

### SLU

The adjacent SSCP or adjacent link station is in the direction of the secondary logical unit (SLU).

*resource\_name* is one of the following:

- If **ADJSSCP** or **ALSNAME** display in this message, *resource\_name* is the name of the adjacent SSCP toward the indicated *adjacent\_resource\_type*.
- If **APPNCOS** displays in this message, *resource\_name* is the APPN class of service (CoS) name.

*text* is not displayed when:

- The resource described in this message is an adjacent link station.
- The SSCP is not gateway capable.
- The SSCP-SSCP session is a cross-domain session.
- An APPN Class of Service name is displayed.

Possible values are:

### GWNCP NAME NOT AVAILABLE

The gateway NCP name is not known to VTAM(r).

### GWNCP TOWARDS *gateway\_type = gwncp*

The gateway NCP name is known to VTAM(r).

Possible values are:

**DLU**

The gateway NCP is toward the DLU. VTAM(r) issues **DLU** only if *adjacent\_resource\_type* is **DLU**.

**PLU**

The gateway NCP is toward the PLU.

**SLU**

The gateway NCP is toward the SLU.

*gwncp* is the gateway NCP toward the *pluname* or *sluname* in message IST874I.

**System action**

Processing continues.

**Operator response**

- If this message is preceded by message IST873I and IST874I, see the explanation of [IST873I](#) for a description of the group.
- If this message is preceded by message [IST879I](#), see the explanation of that message for a description of the group.
- If this message is preceded by message [IST1476I](#), see the explanation of that message for a description of the group.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

<b>IST876I</b>	<b>SIGNALS NEEDED TO COMPLETE SESSION {SETUP TAKEDOWN}</b>
----------------	--

**Explanation**

VTAM issues this message as part of a group of messages. The first message of the group is IST879I. See the explanation of that message for a complete description. IST876I is the header for message IST877I, and is issued only if the session state is pending session start or pending session end.

**Routing code**

2

**Descriptor code**

5

---

<b>IST877I</b>	<b><i>signal1</i> [<i>signal2</i>] [<i>signal3</i>] [<i>signal4</i>]</b>
----------------	--

**Explanation**

VTAM issues this message as part of a group of messages. The first message of the group is IST879I. See the explanation of that message for a complete description. IST877I is issued only if the session state is pending session start or pending session end.

## Routing code

2

## Descriptor code

5

---

**IST878I** **NUMBER OF *type* SESSIONS = *count***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS command.

Possible message groups follow.

- LIST=COUNT (default)

```
IST350I  DISPLAY TYPE = SESSIONS
[IST875I  {ADJSSCP|ALSNAME} TOWARDS adjacent_resource_type = resource_name [text]]
:
IST878I  NUMBER OF PENDING   SESSIONS = count
IST878I  NUMBER OF ACTIVE   SESSIONS = count
IST878I  NUMBER OF QUEUED   SESSIONS = count
IST878I  NUMBER OF TOTAL    SESSIONS = count
[IST1161I SSCP SESSIONS
IST1162I   SSCP-LU           = count
IST1162I   SSCP-PU           = count
IST1162I   SSCP-SSCP         = count]
IST314I  END
```

- LIST=SUMMARY

```
IST350I  DISPLAY TYPE = SESSIONS
[IST875I  {ADJSSCP|ALSNAME} TOWARDS adjacent_resource_type = resource_name [text]]
:
IST878I  NUMBER OF PENDING   SESSIONS = count
[IST1237I   state = number [state = number]]
IST878I  NUMBER OF ACTIVE   SESSIONS = count
[IST1162I   LU-LU           = count
IST1162I   CP-CP CONWINNER = count
IST1162I   CP-CP CONLOSER = count]
IST878I  NUMBER OF QUEUED   SESSIONS = count
[IST1237I   state = number [state = number]]
IST878I  NUMBER OF TOTAL    SESSIONS = count
[IST1161I SSCP SESSIONS
IST1162I   SSCP-LU           = count
IST1162I   SSCP-PU           = count
IST1162I   SSCP-SSCP         = count]
IST314I  END
```

- LIST=ALL

See the explanation of message IST873I for a complete description of this group.

### Notes:

1. Information about sessions with unknown partners is not provided by the DISPLAY SESSIONS command. If this information is needed, enter a DISPLAY ID command for the known session partners.
2. Messages IST1161I and IST1162I are only displayed when information about all active sessions is requested. If specific sessions are requested using the PLU, SLU, LU1, LU2, or SID operand on the command, messages IST1161I and IST1162I are not displayed.
3. See [z/OS Communications Server: SNA Operation](#) for a description of the DISPLAY SESSIONS command.

### IST350I

This message identifies the type of information shown in the display. For this message group, the display type is always **SESSIONS**.

### IST875I

This message displays information about an adjacent SSCP (**ADJSSCP**) or adjacent link station (**ALSNAME**). VTAM(r) might issue this message twice if the issuing SSCP is an intermediate host.

*adjacent\_resource\_type* is one of the following:

**DLU**

The adjacent SSCP is in the direction of the destination logical unit (DLU), and a CDINIT or DSRLST is pending for the session. **DLU** applies only to adjacent SSCPs.

**PLU**

The adjacent SSCP or adjacent link station is in the direction of the primary logical unit (PLU).

**RTP**

The ALSNAME or APPNCOS is used in the direction of other endpoint of the RTP pipe.

**SLU**

The adjacent SSCP or adjacent link station is in the direction of the secondary logical unit (SLU).

*resource\_name* is the name of the adjacent SSCP toward the indicated *adjacent\_resource\_type*.

*text* is not displayed when:

- The resource described in this message is an adjacent link station.
- The SSCP is not gateway capable.
- The SSCP-SSCP session is a cross-domain session.

Possible values are:

**GWNCNP NAME NOT AVAILABLE**

The gateway NCP name is not known to VTAM(r).

**GWNCNP TOWARDS *gateway\_type* = *gwncnp***

The gateway NCP name is known to VTAM(r).

Possible values are:

**DLU**

The gateway NCP is toward the DLU. VTAM(r) issues **DLU** only if *adjacent\_resource\_type* is **DLU**.

**PLU**

The gateway NCP is toward the PLU.

**SLU**

The gateway NCP is toward the SLU.

*gwncnp* is the gateway NCP toward the *pluname* or *sluname* in message IST874I.

**IST878I**

This message displays the number of **PENDING**, **ACTIVE**, **QUEUED**, and **TOTAL** sessions.

*count* is the number of sessions of a specified type.

**Notes:**

1. If the value of the MAX operand is exceeded, *count* displays **\*\*\*\*\***.
2. If LOCATE and BIND processing for a session is occurring simultaneously, *count* includes both sessions.

**IST1161I**

This message is a header message for IST1162I. The IST1161I and IST1162I subgroup is displayed when active SSCP-LU and SSCP-PU sessions and active and pending active SSCP-SSCP sessions exist.

**IST1162I**

- This message is issued when active or pending active sessions exist.
  - If all active sessions are requested, this message follows message IST878I and displays the number of active LU-LU and CP-CP sessions (CONWINNER and CONLOSER).

**Note:** If the value of the MAX operand is exceeded, *count* for the LU-LU sessions displays **\*\*\*\*\***.



*count* for **CP-CP CONWINNER** and **CP-CP CONLOSER** is usually the same. If these numbers are different, VTAM(r) is in the process of bringing up the session or taking it down. No user action is needed.

- If all active sessions are requested, this message follows header message IST1161I and displays active SSCP-LU and SSCP-PU sessions and active and pending active SSCP-SSCP sessions. *count* for SSCP-SSCP sessions also includes pending sessions. *count* in message IST878I for **ACTIVE** and **TOTAL** sessions does not include these sessions.
- The value of *count* for active SSCP-LU sessions includes two VTAM-initiated sessions with the ISTNOP and ISTPDCLU applications.
- The value of *count* for SSCP-SSCP sessions includes both pending and active sessions.
- If specific sessions are requested using the PLU, SLU, LU1, LU2, or SID operand on the command, this message is not displayed.

## IST1237I

This message is issued for **PENDING** and **QUEUED** sessions only, and displays status information. If *count* is **0**, message IST1237I is not displayed.

*state* is the state of the session. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of possible session initiation and termination states.

*number* is the number of sessions in the specified *state*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST879I** {PLU{*lutype*}|SLU{*lutype*}} REAL = *realname* ALIAS = *aliasname*

## Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. A complete description of the message group follows the example.

```
IST350I DISPLAY TYPE = SESSIONS
IST879I PLU{lutype} REAL = realname ALIAS = aliasname
IST879I SLU{lutype} REAL = realname ALIAS = aliasname
IST880I SETUP STATUS = status [TAKEDOWN STATUS = takedownstatus ]
[IST875I {ADJSSCP|ALSNAME} TOWARDS adjacent_resource_type = resource_name [text]] ...
[IST876I SIGNALS NEEDED TO COMPLETE SESSION {SETUP|TAKEDOWN}]
[IST877I signal1 [signal2] [signal3] [signal4]]
IST933I LOGMODE=logmode, COS=cosentry [(FROM OLU)]
[IST1438I LOGMODE logmode UNKNOWN IN THIS DOMAIN, DEFAULT IS ISTCOSDF]
[IST875I APPNCOS TOWARDS adjacent_resource_type = resource_name [text]] ...
[IST1048I COMPRESSION LEVEL INPUT = input_level, OUTPUT = output_level]
[IST1049I PERCENT REDUCTION INPUT = input_percent, OUTPUT = output_percent]
IST1635I {PLU|SLU} HSCB TYPE: hscbtype LOCATED AT ADDRESS X'hscbaddr'
[IST1635I {PLU|SLU} HSCB TYPE: hscbtype LOCATED AT ADDRESS X'hscbaddr']
[IST2064I PLU TO SLU RU SIZE = plu_to_slu_rusize SLU TO PLU RU SIZE = slu_to_plu_rusize ]
```

```

[IST2436I DSMONITR = NO]
[IST2437I DSMONITR = {NO|YES}, ERRORS DETECTED = errors]
[IST1636I PACING STAGE(S) AND VALUES:
[IST1637I PLU--STAGE 1--SLU]
[IST1644I PLU--STAGE 1-----|-----STAGE 2--SLU]
[IST1645I PLU--STAGE 1-----|-----STAGE 2-----|-----STAGE 3--SLU]
[IST1638I stage: PRIMARY TO SECONDARY DIRECTION - pacingtype
[IST1639I PRIMARY SEND: CURRENT = pscur NEXT = psnext]
[IST1640I SECONDARY RECEIVE = srcvnt]
[IST1641I stage: SECONDARY TO PRIMARY DIRECTION - pacingtype
[IST1642I SECONDARY SEND: CURRENT = sscur NEXT = ssnext]
[IST1643I PRIMARY RECEIVE = prcvnt] ...
[IST1710I RSCV FROM PLU SAVED AT SESSION ACTIVATION]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgtype hpr]
[IST1713I RTP RSCV IN THE DIRECTION OF THE session_partner]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgtype hpr]
[IST1711I RSCV FROM SLU SAVED AT SESSION ACTIVATION]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgtype hpr]
[IST1713I RTP RSCV IN THE DIRECTION OF THE session_partner]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgtype hpr]
[IST1758I RSCV TOWARDS DLUR SAVED AT SESSION ACTIVATION]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgtype hpr]
[IST1759I RTP RSCV FROM THE DIRECTION OF THE DLUR]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgtype hpr]
[IST1714I NO PATH INFORMATION EXISTS]
IST314I END

```

## IST350I

This message identifies the type of information shown in the display. For this message group, the display type is always **SESSIONS**.

## IST875I

This message displays information about an adjacent SSCP (**ADJSSCP**), adjacent link station (**ALSNAME**), or APPN Class of Service (**APPNCOS**).

VTAM(r) might issue this message twice if the issuing SSCP is an intermediate host.

*adjacent\_resource\_type* is one of the following:

### DLU

The adjacent SSCP is in the direction of the destination logical unit (DLU), and a CDINIT or DSRLST is pending for the session. **DLU** applies only to adjacent SSCPs.

### PLU

The adjacent SSCP or adjacent link station is in the direction of the primary logical unit (PLU).

### RTP

The ALSNAME or APPNCOS is used in the direction of other endpoint of the RTP pipe.

### SLU

The adjacent SSCP or adjacent link station is in the direction of the secondary logical unit (SLU).

*resource\_name* is one of the following:

- If **ADJSSCP** or **ALSNAME** display in this message, *resource\_name* is the name of the adjacent SSCP toward the indicated *adjacent\_resource\_type*.
- If **APPNCOS** displays in this message, *resource\_name* is the APPN class of service (CoS) name.

*text* is not displayed when:

- The resource described in this message is an adjacent link station.
- The SSCP is not gateway capable.
- The SSCP-SSCP session is a cross-domain session.
- An APPN Class of Service name is displayed.

Possible values are:

**GWNCP NAME NOT AVAILABLE**

The gateway NCP name is not known to VTAM(r).

**GWNCP TOWARDS *gateway\_type* = *gwncp***

The gateway NCP name is known to VTAM(r).

Possible values are:

**DLU**

The gateway NCP is toward the DLU. VTAM(r) issues **DLU** only if *adjacent\_resource\_type* is **DLU**.

**PLU**

The gateway NCP is toward the PLU.

**SLU**

The gateway NCP is toward the SLU.

*gwncp* is the gateway NCP toward the *pluname* or *sluname* in message IST874I.

**IST876I**

This message is a header message for IST877I.

**IST877I**

- *signal1–signal4* are signals. They are displayed only if the session is pending session start or session end.

The meaning of the signals is described below:

**BFSESSST-SLU**

A BFSESSST is expected from the NCP of the SLU.

**CDSESSST-PLU**

A cross-domain session start request is expected from the direction of the PLU.

**CDSESSST-SLU**

A cross-domain session start request is expected from the direction of the SLU.

**SESSST-PLU**

A session start request is expected from the boundary function of the PLU.

**SESSST-SLU**

A session start request is expected from the boundary function of the SLU.

**NTFYST-GWN-PLU**

Notification of a session start is expected from the gateway node in the PLU direction.

**NTFYST-GWN-SLU**

Notification of a session start is expected from the gateway node in the SLU direction.

The following signals are displayed only if the session is pending session end (PSESEND):

**BFSESEND-SLU**

A BFSESEND is expected from the NCP of the SLU.

**CDSESEND-PLU**

A cross-domain session end request is expected from the direction of the PLU.

**CDSESEND-SLU**

A cross-domain session end request is expected from the direction of the SLU.

**SESEND-PLU**

A session end request is expected from the boundary function of the PLU.

**SESEND-SLU**

A session end request is expected from the boundary function of the SLU.

**NTFYSE-GWN-PLU**

Notification of a session end is expected from the gateway node in the PLU direction.

**NTFYSE-GWN-SLU**

Notification of a session end is expected from the gateway node in the SLU direction.

## IST879I

- *lutype* is **OLU**, **DLU**, or blank.
  - **OLU** is displayed if the LU is the origin session partner.
  - **DLU** is displayed if the LU is the destination session partner.
  - A blank is displayed in this field if OLU and DLU are not known because SSCP takeover has occurred. For information on takeover of resources, see the [z/OS Communications Server: SNA Network Implementation Guide](#)
- *realname* is the network-qualified real name of the primary or secondary session partner.
- *aliasname* is the network-qualified alias name of the primary or secondary session partner. If *aliasname* is not used to locate the primary or secondary session partner, VTAM displays **\*\*\*NA\*\*\***.

## IST880I

*status* is the session status. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of possible session initiation and termination statuses.

*takedownstatus* is the session status during session termination. If session termination is not in progress, *takedownstatus* is blank. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *takedownstatus*.

## IST933I

- *logmode* is the name of the entry in the logon mode table used to set up certain session parameters. These entries are rules governing how a session is to be conducted. The name specified is that known in this domain.

### **LOGMODE=\*\*\*NA\*\*\***

LOGMODE is unknown in this domain and cannot be determined.

### **LOGMODE=logmode**

LOGMODE can be determined in this domain.

### **LOGMODE=\*BLANK\***

LOGMODE can be determined in this domain and is blank. This is a valid LOGMODE entry.

- *cosentry* is the name of an entry in the subarea Class of Service table containing a list of routes allowed for a session. The COS name can be displayed in the following formats:

### **COS=\*\*\*NA\*\*\***

- The subarea COS name is unknown in this domain and cannot be determined.
- There is no subarea COS name to display because **APPNCOS** is displayed in message IST875I. If APPN session setup is not completed, the APPN COS name might not display in message IST875I. This is a temporary situation.

### **COS=cosname**

The subarea COS name can be determined in this domain.

### **COS=\*BLANK\***

The subarea COS name can be determined in this domain and is blank. This is a valid COS name entry.

### **COS=cosname (FROM OLU)**

The subarea COS name can be determined but is known as in the OLU domain.

## IST1048I

This message is issued only if data compression is being used for this session.

*input\_level* is the compression level used for input session traffic.

*output\_level* is the compression level used for output session traffic.

## IST1049I

This message is issued only if data compression is being used for this session.

*input\_percent* is the percent by which input session traffic is compressed.

*output\_percent* is the percent by which output session traffic is compressed.

If no new data has flowed since the last time you did a display, VTAM issues **\*NA\*** for *input\_percent* and *output\_percent*.

#### **IST1438I**

- This message is issued only if *logmode* is unknown in this domain and ISTCOSDF can be used as a default. See the [z/OS Communications Server: SNA Resource Definition Reference](#) and [z/OS Communications Server: SNA Network Implementation Guide](#) for more information on ISTCOSDF.
  - *logmode* is the LOGMODE displayed in message IST933I.

#### **IST1460I**

This message is a header message for information displayed in message IST1461I.

#### **IST1461I**

- The route selection control vector (RSCV) is displayed for the route to the destination node of the partner transaction program. Multiple IST1461I messages might be needed to display the full route.
- *tgn* is the transmission group number.
- *cpname* is the destination CP name for the transmission group.

**Note:** The *cpname* for a composite network node might not be correct. When an SSCP takeover occurs for an NCP in a composite network node and the *cpname* was changed, the new *cpname* is not reflected in the display of the RTP end-to-end route.

- *tgtype* is the transmission group type. The values for *tgtype* can be:

##### **APPN**

Indicates that this TG is an APPN-based TG.

##### **INTERCHANGE**

Indicates that this TG represents a TG from an interchange node to a subarea node.

##### **VRTG**

Indicates that this TG is a virtual-route-based TG.

##### **ISL**

Indicates that this TG is an intersubnet TG.

- *hpr* is the level of HPR support provided by this node for this TG. The value displayed here depends on the HPR start option and the HPR operand on the corresponding PU definition (which can be used to override the HPR start option). The values for *hpr* can be:
  - **RTP** indicates that this node provides RTP-level HPR support.
  - **ANR** indicates that this node provides ANR-level HPR support.
  - **\*NA\*** indicates that this node provides no HPR support.

#### **IST1635I**

- *hscbtype* is the half-session control block type and can be one of the following:

##### **FMCB**

Function management control block. The PLU or SLU is an application on this host.

##### **BSB**

Boundary session block. The PLU or SLU is connected through an SNA channel-attached device.

##### **LUST**

Logical unit status table. The PLU is in session with a local non-SNA device on this host.

IST1635I might be displayed multiple times, depending on the configuration. IST1635I is not displayed if the PLU or SLU is a cross-domain resource (CDRSC).

- *hscbaddr* is the hexadecimal address of the half session control block (HSCB).

#### **IST1636I**

IST1636I is a header message for the pacing messages that follow. Messages IST1638I through IST1643I might be repeated for multiple stages.

### IST1637I

This message is the header message for pacing messages between the session partners when there is only one stage.

### IST1638I

- This message describes the pacing stages and types that exist when transmitting data from the PLU to the SLU. The host can display up to three pacing stages. More stages might exist if the session traverses many hosts.
- *stage* indicates the pacing stage being described. For more information on pacing stages, see the [z/OS Communications Server: SNA Network Implementation Guide](#).
- *pacingtype* can be one of the following:

#### ADAPTIVE

Adaptive pacing allows the pacing windows to expand and contract, depending on storage availability at the pacing stage boundaries.

#### FIXED

Fixed pacing allows a pre-negotiated number of PIUs to flow on this pacing stage before an isolated pacing response (IPR) is required to reset the window. The fixed window does not expand or contract. This pacing always uses the fixed value.

#### NO PACING

VTAM does no pacing for this stage between the SLU and the PLU. This value is only displayed for local non-SNA devices.

### IST1639I

*pscur* represents the current pacing window between the PLU and the SLU.

*psnext* represents the next pacing window VTAM will use when transmitting data between the PLU and the SLU.

### IST1640I

*srcvcnt* represents the number of PIUs the SLU can receive from the PLU.

### IST1641I

- This message describes the pacing stages and types that exist when transmitting data from the SLU to the PLU. The host can display up to three pacing stages. More stages might exist if the session traverses many hosts.
- *stage* indicates the pacing stage being described. For more information on pacing stages, see the [z/OS Communications Server: SNA Network Implementation Guide](#).
- *pacingtype* can be one of the following:

#### ADAPTIVE

Adaptive pacing allows the pacing windows to expand and contract, depending on storage availability at the pacing stage boundaries.

#### FIXED

Fixed pacing allows a pre-negotiated number of PIUs to flow on this pacing stage before an isolated pacing response (IPR) is required to reset the window. The fixed window does not expand or contract. This pacing always uses the fixed value.

#### NO PACING

VTAM does no pacing for this stage between the PLU and the SLU. This value is only displayed for local non-SNA devices.

### IST1642I

*sscur* represents the current pacing window between the SLU and the PLU.

*ssnext* represents the next pacing window VTAM will use when transmitting data between the SLU and the PLU.

### IST1643I

*prvcnt* represents the number of PIUs the PLU can receive from the SLU.

#### **IST1644I**

This message is the header message for pacing messages between the session partners when there are two stages.

#### **IST1645I**

This message is the header message for pacing messages between the session partners when there are three stages.

#### **IST1710I**

This message informs users that the messages that follow describe part or all of the session path for this session as it was calculated during session activation. The session path information describes the portion of the route originating at the CP(PLU) and extending toward this node. This message group will be displayed only if session data was saved during session activation.

#### **IST1711I**

This message informs users that the messages that follow describe part or all of the session path for this session as it was calculated during session activation. The session path information describes the portion of the route originating at this node and extending toward the CP(SLU). This message group will be displayed only if session data was saved during session activation.

#### **IST1713I**

- This message informs users that the messages that follow describe the current end-to-end path of an RTP route. The route represents the portion of the total session route that uses an RTP pipe with this node as one endpoint and extending in the direction of *session\_partner*. The RTP route may be different from any session route displayed in the IST1710I or IST1711I message group if RTP pathswitching has occurred since session activation; in that case, the information in message IST1713I is the more accurate information. This message group is displayed only if the session uses an RTP pipe in the direction of *session\_partner*.
- *session\_partner* can be one of the following:

##### **PLU**

Displays when the RTP path extends in the direction of the primary logical unit for the session.

##### **SLU**

Displays when the RTP path extends in the direction of the secondary logical unit for the session.

#### **IST1714I**

This message informs users that no session or RTP path information is available to display for this session.

#### **IST1758I**

- This message informs users that the messages that follow describe part or all of the session path for this session as it was calculated during session activation. The session path information represents a view of the session from the dependent LU requester (DLUR) node which is acting as CP(SLU). This message group will be displayed only if the following conditions are true:
  - The session involves a DLUR-owned dependent SLU.
  - The DLUR node reports the session path information for the section.
  - Session data is being saved during session activation or dependent LU activation.

#### **IST1759I**

- This message informs users that the messages that follow describe the current end-to-end path of an RTP route. The route represents the portion of the total session route that uses an RTP pipe with the Dependent LU Requester (DLUR) serving as one endpoint and extending in the direction of the CP(PLU). The RTP route may be different from the session route displayed in the IST1758I message group if RTP pathswitching has occurred since session activation; in that case, the information in message IST1759I is the more accurate information. This message group is displayed only if the following conditions are true:
  - The session involves a DLUR-owned dependent LU.
  - The session uses an RTP pipe ending at the DLUR node.

- The DLUR node reports RTP route information for the session.
- RTP data is being saved during session activation or dependent LU activation.

#### **IST2064I**

This message is issued only on the application owning host. Message IST1635I will display a HSCB TYPE of FMCB for the PLU, the SLU, or both, when this display is issued at the application owning host.

*plu\_to\_slu\_rusize* is the RU size being used for this session from the primary logical unit (PLU) to the secondary logical unit (SLU).

*slu\_to\_plu\_rusize* is the RU size being used for this session from the secondary logical unit (SLU) to the primary logical unit (PLU).

If either RU size is defaulted to or coded as 0, this indicates that there is no limit to the RU size. For this case, the message will actually display a value of 65535 because this is the largest supported RU size.

#### **IST2436I**

This message is issued only on an application owning host. Message IST2436I indicates that the 3270 Intrusion Detection Services is not monitoring this session.

#### **IST2437I**

This message is issued only on an application owning host. Message IST2437I indicates the status of the 3270 Intrusion Detection Services for this session.

In the message text:

##### **NO**

Indicates that the 3270 Intrusion Detection Services is no longer monitoring this session.

##### **YES**

Indicates that the 3270 Intrusion Detection Services is currently monitoring this session.

##### **errors**

The number of errors in the 3270 data stream that has been detected for this session.

### **System action**

Processing continues.

### **Operator response**

If message IST1438I is displayed and the default logmode is not desired, collect the system log for problem determination.

### **System programmer response**

If message IST1438I is not displayed, no action is necessary.

If message IST1438I is displayed, and *logmode* (instead of ISTCOSDF) should have been known in this domain, verify that *logmode* is in the LOGMODE table associated with the SLU or in the default LOGMODE table ISTINCLM.

---

#### **IST880I**

**SETUP STATUS = *status* [TAKEDOWN STATUS = *takedownstatus*]**

### **Explanation**

This message is part of a message group. The first message of the group is IST879I. See the explanation of that message for a complete description.

### **System action**

Processing continues.



## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST881I</b>	<b><i>text LINK STATION linkstation</i></b>
----------------	---

## Explanation

This message is part of a group of messages that VTAM issues when CONTACT is unexpectedly lost with a channel-attached controller. VTAM may issue this message group in response to a VARY ACT,LOAD=YES or LOAD=U command from another host. The complete message group follows:

```
IST881I  text LINK STATION linkstation
IST882I  WAITING FOR DEVICE END FROM DEVICE
```

If the controller is online and was activated with DUMpload=YES, SAVEMOD=YES, and LOADFROM=EXT, there is a high probability that it is dumping or loading.

VTAM might issue IST881I twice; message IST259I might appear between the two.

*text* can be one of the following:

- **LOST CONTACT TO**
- **UNABLE TO CONTACT**

*linkstation* is the ID of the affected link station.

## System action

If *text* is **LOST CONTACT TO**, VTAM suspends CONTACT processing until Device End is received, indicating that the controller is now available.

If *text* is **UNABLE TO CONTACT**, a channel program ended indicating an error condition that should not occur. VTAM will attempt error recovery and will issue messages to report the results.

## Operator response

Normally, no operator action is necessary. When the controller becomes available (signaled by Device End), VTAM resumes CONTACT processing. VTAM issues messages to indicate that the controller has been able.

To terminate CONTACT processing before the device becomes available, enter a VARY INACT,FORCE command to deactivate the controller.

**Note:** If the controller does not respond with Device End, some other action has terminated the load, dump, or recovery action. Ensure that the device is online.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST882I****WAITING FOR DEVICE END FROM DEVICE**

---

## Explanation

VTAM issues this message as part of a group of messages. The first message of the group is IST881I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST883I*****percentage* OF SAW BUFFERS USED [— SAW AND PIU TRACE HALTED]**

---

## Explanation

*percentage* indicates the percentage of session awareness (SAW) buffers used relative to the specified limit.

## System action

The following amounts indicate the action:

### **ABOVE *percent***

*percent* of the user-specified limit for SAW buffers has been used. (*percent* will be issued for 80 or 90 percent.) Processing continues.

### **BELOW 80%**

Indicates the percentage of use has dropped from 80% or more to below 80%. Processing continues.

### **OVER 100%**

Over 100% of the user-specified limit has been reached. SAW and PIU trace processing is terminated.

## Operator response

If the user-specified limit is reached and SAW processing and PIU trace processing are terminated, the network management application (for example, the NetView program) must be canceled and should be recycled.

## System programmer response

If VTAM issues this message frequently, re-evaluate the buffer-use limit specified when SAW or PIU trace processing was initiated.

## Routing code

2

## Descriptor code

5

## Explanation

This message is the first in a group of messages that VTAM issues to indicate that a dynamic reconfiguration or dynamic change failed. The failure resulted from a MODIFY DR, a VARY DRDS, or a VARY ACT command.

Possible message groups follow:

- **MODIFY DR command**

```
IST886I MODIFY DR action resource [TO toname] FROM fromname FAILED
IST523I REASON = reason
```

- **IST886I**

- *commandinfo* is always **MODIFY DR** for this message group.
- *action* is the command type:
  - **DELETE** to delete a physical or logical unit
  - **MOVE** to move a physical unit and its associated LUs.
- *resource* is the name of the physical unit or logical unit affected by the command.
- *toname* is the name of the line to which the PU is being moved, and is only displayed when *action* is **MOVE**.
- *fromname* is the name of the line from which the PU is being moved or deleted, or the name of the PU from which the LU is being deleted.

- **IST523I**

This message explains the reason for the failure. Possible values of *reason* are explained later in this message explanation.

- **VARY DRDS command**

```
IST886I DR drname [statementname] action resource [TO toname] [FROM fromname] FAILED
IST523I REASON = reason
IST368I FUNCTION GROUP functiongroup FAILED
```

- **IST886I**

- *commandinfo* is always **DR drname** for this message group.
- *drname* is the name of the dynamic reconfiguration data set containing the reconfiguration definition statements.
- *statementname*, if specified, is the name of the specific definition statement that failed.
- *action* is the definition statement:
  - **ADD** to add a physical or logical unit
  - **DELETE** to delete a physical or logical unit
  - **MOVE** to move a physical unit and its associated LUs.
- *resource* is the name of the physical unit or logical unit affected by the definition statement.
- *toname* is the name of the line to which the PU is being moved or added, or the name of the PU to which the LU is to be added. *toname* is only displayed when *action* is **MOVE** or **ADD**.
- *fromname* is the name of the line from which the PU is being moved or deleted, or the name of the PU from which the LU is being deleted. *fromname* is only displayed when *action* is **MOVE** or **DELETE**.

- **IST523I**

This message explains the reason for the failure. Possible values of *reason* are explained later in this message explanation.

#### – IST368I

This message names the specific definition statement in the dynamic reconfiguration data set that failed. *functiongroup* is the name on the ADD, DELETE, or MOVE definition statement in the VARY DRDS deck of the specific definition statement that failed.

#### • VARY ACT command

```
IST886I  VARY ACT [statementname] action resource [TO toname] [FROM fromname] FAILED
IST523I  REASON = reason
```

#### – IST886I

- *commandinfo* is always **VARY ACT** for this message group.
- *statementname* is the major node name which was specified on the ID operand of the VARY ACT command.
- *action* is the action being performed when the failure occurred:
  - **ADD** to add a resource
  - **CHANGE** to change an operand value
  - **DELETE** to delete a resource
  - **MOVE** to move a physical unit and its associated LUs or to move a logical unit
- *resource* is the name of the resource affected by the command.
- *toname* is the name of the higher level resource to which the resource is being moved or added. *toname* is only displayed when *action* is **MOVE** or **ADD**.
- *fromname* is the name of the higher level resource from which the resource is being moved or deleted. *fromname* is only displayed when *action* is **MOVE** or **DELETE**.

#### – IST523I

This message explains the reason for the failure. Possible values are:

The second message in each message group is IST523I, and this message explains the reason for the failure. *reason* can be one of the following:

##### **DUPLICATE STATION ID**

An attempt was made to perform a DR CHANGE of IDBLK or IDNUM for a switched PU, but the resulting station ID was not unique in the network.

##### **DR DELETE INVALID FOR INDEPENDENT LU**

An attempt was made to perform a DR DELETE on an independent LU which is not associated to the adjacent link station specified on the FROM operand. This is not a valid request.

##### **DR NOT SUPPORTED**

An attempt was made to perform a DR function for a resource that does not support DR or this function of DR.

##### **INSUFFICIENT STORAGE**

VTAM was unable to allocate storage during a DR operation.

##### **INVALID MACRO**

A definition statement was read that is not a valid member in this type of definition deck. For example, a GROUP definition statement is not a valid member in a DR deck.

##### **INVALID NAME**

*functiongroup* is invalid for the PU or LU definition statement.

##### **INVALID PARAMETER**

An operand was found in a definition statement that is not valid or allowed.

##### **INVALID RESOURCE CURRENT STATE**

An attempt was made to move, delete, or change a resource whose current state will not allow it. This error occurs because the resource is not in an inactive, reset, release, or defined state. Also, a model CDRSC must not have clone CDRSCs associated with it.

**Note:** This reason can be issued for an active minor node when a VARY ACT,UPDATE=ALL command is entered for that resource's major node. This is probably not a definition error and usually requires no action. The most frequent cause is that an operand on a definition statement for the minor node *resource* in message IST886I was changed using a VTAM command such as VARY LOGON, VARY NOLOGON, or MODIFY DEFAULTS before the VARY ACT,UPDATE=ALL command was entered for the major node. This occurs only when *action* in message IST886I is CHANGE. See [z/OS Communications Server: SNA Operation](#) for additional information about these commands.

#### **INVALID RESOURCE TYPE**

An attempt was made to move or delete a resource for which dynamic reconfiguration is not allowed. DR ADD, DELETE and MOVE may be performed for SNA type 1, 2, or 2.1 PUs and their subordinate LUs, as well as for dependent LUs and some independent LUs.

#### **INVALID TO/FROM RESOURCE TYPE**

An attempt was made to add, delete, or move a resource to or from a target resource that does not allow dynamic reconfiguration. DR ADD is allowed to lines and PUs. DR DELETE is allowed from lines and PUs. DR MOVE is allowed both to and from lines and PUs.

#### **INVALID VALUE**

An operand on a definition statement was found to have a coded value that is invalid for this operand.

#### **INVALID VALUE FOR ADDR**

The value coded in a PU definition statement for the ADDR operand was found to be a duplicate of a PU ADDR already under the target line.

#### **LUGROUP CANNOT BE ADDED DYNAMICALLY**

An attempt was made to dynamically add the LUGROUP operand to a PU definition statement. However, VTAM cannot add this operand using dynamic change. If you need to add this operand, use dynamic reconfiguration to delete the PU and then add it back with LUGROUP in the definition.

#### **MACRO SEQUENCE ERROR**

A DR definition deck contained definition statements that were out of sequence. Line targets must be followed by PUs; PU definition statements must be followed by LUs. PU definition statements must follow additions to lines, moves to lines, moves from lines, and deletions from lines. LU definition statements must follow additions to PUs, moves to PUs, and deletions from PUs.

#### **MISSING MACRO**

A DR definition deck was missing a definition statement. VBUILD definition statements are required. Null definition decks are invalid (a VBUILD definition statement with nothing following). Null function groups are invalid (a function group with no PU or LU definition statements).

#### **MISSING NAME ON PU OR LU MACRO**

A PU or LU definition statement in a DR definition deck did not have a name coded. The name is required on all PU and LU resources being added, deleted, or moved.

#### **MISSING PARAMETER**

A definition statement in a DR definition deck did not contain a required operand.

#### **NO RESOURCES FOUND UNDER FROM LINE/PU**

The line or PU resource for which a DR DELETE or DR MOVE function was requested had no resources under it.

#### **OPERANDS COULD NOT BE ADDED DYNAMICALLY**

An attempt was made to dynamically add APPN operands to a PU, but these APPN operands cannot be added dynamically to this PU. Instead, use dynamic reconfiguration to delete the PU and then add it back with the desired APPN operands in the definition.

#### **PUDR=NO OR LUDR=NO CODED ON RESOURCE DEFINITION**

An attempt was made to dynamically delete or move a resource that had either PUDR=NO or LUDR=NO coded on its definition statement. PUDR=NO or LUDR=NO indicates that no dynamic reconfiguration can be performed on the resource.

#### **PUTYPE CANNOT BE CHANGED DYNAMICALLY**

An attempt was made to change the value of PUTYPE on the specified resource.

#### **RESOURCE NOT FOUND WHERE SPECIFIED**

An attempt was made to delete or move a resource that does not exist under the specified target *fromname*.

## SYNTAX ERROR

There is a syntax error in the DR definition deck.

## TO/FROM RESOURCE NOT IN SAME NCP

An attempt was made to DR move a PU or LU from a line in an NCP to a line in a different NCP.

## TO/FROM RESOURCE UNKNOWN

An attempt was made to add or move a resource to a target that does not exist or to delete or move a resource from a target that does not exist.

## UPDATE=ALL REQUIRED - UPDATE=ADD VIOLATES HIERARCHY

An attempt was made to update an Enterprise Extender XCA major node with a VARY ACT,UPDATE=ADD command after one of the following changes was made to the definitions:

- A second PU was added under a LINE
- A PU name was changed
- The PU prefix was added or changed on the AUTOGEN keyword on a GROUP definition statement.

## System action

- For MODIFY DR, processing of that command is terminated.
- For VARY DRDS, the *functiongroup* specified in message IST368I is not processed. Any other function groups in the DR data set *drname* are processed.
- For VARY ACT, this resource and its subordinate resources are skipped, but the remaining definition statements are processed.

## Operator response

Enter a DISPLAY command for *resource* in message IST886I. Save the system log for problem determination.

If *reason* is **INSUFFICIENT STORAGE**, enter the DISPLAY BFRUSE or DISPLAY STORUSE command. Save the system log and request a dump for problem determination.

If *reason* is UPDATE=ALL REQUIRED - UPDATE=ADD VIOLATES HIERARCHY, do the following:

- If a second PU was added under a LINE, remove the second PU from the definitions. There can only be one PU defined per LINE.
- If a PU name was changed, re-enter the VARY ACT command with UPDATE=ALL instead of UPDATE=ADD.
- If the PU prefix was added or changed on the AUTOGEN keyword on a GROUP definition statement, re-enter the VARY ACT command with UPDATE=ALL instead of UPDATE=ADD.

## System programmer response

Use the output from the operator to correct the command issued and the definition statements (if appropriate).

If *reason* is **INSUFFICIENT STORAGE**, increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST887I**

**NO COS TABLE FOR *netid* — *text* MAY BE USED**

---

## Explanation

In response to a DISPLAY COS command for a PU type 4 or PU type 5 (identified in a previous message), VTAM attempted to display the class of service (CoS) table for network *netid*. For a PU type 4, the COS table for *netid* was never defined on either a BUILD or NETWORK definition statement for the PU.

IF DISPLAY COS,NETID=\*NETWORK is entered, this message is issued for the model network if no COSTAB keyword was coded on the model network statement. If COSTAB was coded on the model network statement, VTAM issues message IST862I.

*text* can be one of the following:

### ISTSDCOS

ISTSDCOS, the default Class of Service table, may be used to identify the virtual routes to be used in network *netid*.

### DEFAULT ALGORITHM

The default Class of Service table, ISTSDCOS, was not loaded either during VTAM initialization or by a subsequent MODIFY TABLE command. The default algorithm may be used to identify the virtual routes for use in network *netid*.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for information about the default routing algorithm, defining Class of Service tables, and Class of Service resolution. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for an explanation of the COSTAB operand on the BUILD and NETWORK definition statements.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST888I**

**ADDR + LENGTH VALUES EXCEED STORAGE — LENGTH SET TO *n***

---

**Explanation**

VTAM issues this message in response to a DISPLAY NCPSTOR,TYPE=DUMPVEC command. The requested area of NCP storage is greater than can be displayed. The length of the display has been modified to *n*.

**System action**

The command will be executed with the modified length.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST889I** **SID = *sessionid***

**Explanation**

This message is part of a message group. The first message in the group is either IST663I or IST1774I. See the explanation of that message for a complete description.

**Routing code**

8

**Descriptor code**

4

---

**IST890I** **AUTOLOGON SESSION SETUP FAILED**

**Explanation**

VTAM issues this message as part of a group of messages. The first message in the group is IST663I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST891I** ***netid.nodename1[.nodename2]* GENERATED FAILURE NOTIFICATION**



## Explanation

VTAM issues this message as part of a subgroup of messages to provide extended sense data when a session initiation or session termination failure occurs. This message subgroup is displayed in a message group headed by IST663I.

A complete description of the message subgroup follows.

```
IST891I  netid.nodename1[.nodename2] GENERATED FAILURE NOTIFICATION
[IST892I  resourcename ORIGINATED FAILURE NOTIFICATION]
[IST893I  ORIGINAL FAILING REQUEST IS request]
```

### IST891I

- *netid.nodename1* is the network-qualified name of the NCP, CP, or SSCP that detected the error.
- *nodename2*, if displayed, is the name of the NCP or physical unit that generated extended-sense data in one of the following situations:
  - When a failure request/response was received from an adjacent migration SSCP.
  - After collecting failure notification from one or more adjacent SSCPs during trial and error routing.

### IST892I

If displayed, this message identifies a related resource (*resourcename*) used to identify the source of the error.

For example, if a gateway NCP rejected an RNAA or SETCV request, the gateway NCP name originated the failure notification. The SSCP that received the negative response is the one that generated the failure notification; therefore, it originated the termination procedure.

### IST893I

If displayed, this message identifies the request that was failed by the source of the error.

*request* identifies the original request that failed. For example, if a gateway NCP rejected an RNAA or SETCV request as part of CDINIT processing, *request* would be **RNAA**.

## System action

Session setup processing fails.

## Operator response

Save the system log for problem determination.

## System programmer response

Coordinate the debugging of the problem with the system programmer responsible for the originating termination procedure.

See IST663I for additional information. See *SNA Network Product Formats* for a description of the extended sense data (X'35') control vector.

## Routing code

8

## Descriptor code

4

---

**IST892I*****resourcename* ORIGINATED FAILURE NOTIFICATION**

### Explanation

This message is part of a message subgroup. The first message of the subgroup is IST891I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

IST893I	ORIGINAL FAILING REQUEST IS <i>request</i>
---------	--

### Explanation

This message is part of the message subgroup. The first message of the subgroup is IST891I. See the explanation of that message for a complete description.

### Routing code

8

### Descriptor code

4

**IST894I** **ADJSSCPS TRIED FAILURE SENSE ADJSSCPS TRIED FAILURE SENSE**

### Explanation

VTAM issues this message as part of a subgroup of messages to provide adjacent SSCP table information in response to a DISPLAY SRCHINFO,SID command or when a session initiation fails for either of the following reasons:

- Trial and error routing using an adjacent SSCP table has failed. The destination LU was found by an SSCP, but that *sscpname* rejected the session initiation with *sense*.
- Trial and error routing using an adjacent SSCP table has exhausted the table. All adjacent SSCPs were tried, but the destination LU was not known to any of the SSCPs.

This message subgroup is displayed in a message group headed by IST663I or IST1531I. A complete description of the message subgroup follows.

IST894I	ADJSSCPS TRIED	FAILURE SENSE	ADJSSCPS TRIED	FAILURE SENSE
IST895I	sscpname	sense	[sscpname	sense]
...				

**IST894I**

This message is a header message for information displayed in message IST895I.

**IST895I**

- This message lists the names of the adjacent SSCPs through which trial and error routing was attempted. The SSCP names appear in the order in which they were tried.

*sscpname* is the name of the adjacent SSCP.

If *sscpname* is **ISTAPNCP**, this is an entry specified in the ADJSSCP table and represents a search of the APPN network. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information.

*sense* is the sense code and indicates the cause of the failure. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *sense*.

### System action

The session setup failed.

### Operator response

Save the system log for problem determination and provide the files used for system definition.

### System programmer response

Use the output and system definition files provided to assist in determining the cause of the problem. (You may need to work with system programmers in other networks to determine the adjacent SSCP tables used in another network to define the system.)

### Routing code

8

### Descriptor code

4

---

IST895I	<i>sscpname sense [sscpname sense]</i>
---------	--

### Explanation

This message is part of a message subgroup. The first message of the subgroup is IST894I. See the explanation of that message for a complete description.

### Routing code

8

### Descriptor code

4

---

IST896I	<b>AUTOLOGON WILL BE RETRIED WHEN CONTROLLING PLU IS AVAILABLE</b>
---------	--

### Explanation

VTAM issues this message when an automatic logon (autologon) session initiation fails because the controlling PLU is not available. The initiate request generated by an autologon has requested notification when the specified resource becomes available. When the resource becomes available, notification will occur (see message IST899I), and the autologons will be re-attempted.

### System action

The session setup fails.

### Operator response

If the problem is with the SSCP-controlling PLU session, start the controlling PLU (SETLOGON START). You may need to work with a network operator in another domain or network when the controlling PLU does not reside in your domain.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST897I** [NONDISRUPTIVE] LOAD OF *ncpname* [WITH *loadmodname*] STARTED

## Explanation

VTAM is initiating a load or nondisruptive load of communications controller *ncpname* with NCP load module *loadmodname*. *loadmodname* is included in the message when the load module name differs from *ncpname*.

## System action

The communication controller is being loaded.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST898I** GWSELECT = {YES|NO}

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a cross network CDRM. This message indicates whether the host CDRM will perform gateway NCP selection when processing an LU-LU session request to or from the displayed CDRM.

A value of **YES** indicates that gateway NCP selection will be performed by the host CDRM.

A value of **NO** indicates that gateway NCP selection will not be performed by the host CDRM.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

### Descriptor code

5

<b>IST899I</b>	<b>RETRY OF AUTOLOGON(S) TO <i>pluname</i> {<i>action</i>}</b>
----------------	--

### Explanation

VTAM issues this message when a previous automatic logon (autologon) attempt failed because a resource required for an autologon session setup was not available. IST896I is issued prior to this message and indicates that the autologon will be tried again when the resource becomes available.

*pluname* is the network-qualified name of the resource.

*action* indicates how the system will handle the autologon attempt.

## IN PROGRESS

Indicates that the retry of autologons to *pluname* is in progress. Either a controlling PLU was started or an SSCP-SSCP or CP-CP session has become available. Autologons that previously failed because a resource was not available are being tried again.

**WILL NOT OCCUR**

Indicates that the retry of autologons will not occur if notification was received for the deactivation of the CDRM.

**FOR AUTOTI**

A retry will be attempted for a controlling PLU whose timer, set by START option AUTOTI, has expired.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

### Descriptor code

5

**IST919I** **NODE *nodename* NO LONGER HAS CONTROLLING LU [*luname*]**

## Explanation

Processing of the VARY NOLOGON command has been completed. Node *nodename* will no longer be automatically logged on to *luname* when *nodename* is not in session with or queued for a session with another PLU. *luname* may or may not be included depending on how the LU is specified in the NOLOGON command.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST920I** *bpid* [Q] [F] **BUFF SIZE** *bufsize* **EXP INCREMENT** *increment*

---

## Explanation

This message is the first in a subgroup of messages that VTAM issues in response to a DISPLAY BFRUSE command. A complete description of the message subgroup follows.

```
IST350I  DISPLAY TYPE = BUFFER POOL DATA
IST920I  bpid [Q] [F]  BUFF SIZE  bufsize      EXP INCREMENT  increment
IST921I                                TIMES EXP  times      EXP/CONT THRESH exp/contthresh
IST922I                                CURR TOTAL  curtot     CURR AVAILABLE  curavail
IST923I                                MAX TOTAL   maxtot     MAX USED        maxused
[IST989I                                EXP LIMIT   explimit   BUFFS REQUESTED buffers]
[IST924I  -----]
```

This message subgroup is repeated for each of the VTAM buffer pools specified with the BUFFER option.

### IST920I

- bpid* is the name of the buffer pool. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  - Q**, if present, indicates a request is queued for the pool. This field is usually blank.
  - F**, if present, indicates dynamic buffering has failed. This field is usually blank.
- bufsize* is a decimal value that indicates the number of bytes in each buffer.
  - For IOBUF an overhead value has been added to the *bufsize* value in this message. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about buffer pool sizes.
- increment* indicates the number of buffers to be added to the pool during dynamic expansion.
  - Buffers are added in full pages; therefore, the number may be larger than the number (*xpanno*) used to define the buffer pool in the buffer pool's start option. This field will contain **\*NA\*** if dynamic buffering is suppressed.

### IST921I

- *times* indicates the number of times the pool has been expanded since the last buffer pool trace record was written.
- *exp* indicates when to trigger expansion, and is derived from the buffer pool start option's *xpanlim* parameter.

If the number of buffers available falls below *xpnpt*, VTAM adds buffers. This field will contain **\*NA\*** if dynamic buffering is suppressed. Note that this may have happened because the pool expansion limit (*xpanlim*) is less than or equal to the base number of buffers (the *baseno* specified in the buffer pool's start option).

- *contthresh* is a value that indicates when to trigger contractions.

If the number of available buffers in the pool (*curavl*) becomes larger than *contthresh* and some of the buffers have been dynamically obtained via pool expansion, VTAM will return available dynamically obtained buffers to the operating system. For an available buffer to be released, all buffers on the page must be available, since buffers are released by page. If there are no dynamically obtained buffers, this field will contain **\*NA\***.

### IST922I

*curtot* indicates the total number of buffers in the pool.

*curavail* indicates the available buffers in the pool that are not in use.

### IST923I

*maxtot* indicates the maximum number of buffers contained in the pool at any one time since the last buffer pool trace record was written.

*maxused* indicates the maximum number of buffers that have been in use at one time since the last buffer pool trace record was written.

### IST989I

- This message is issued if the expansion failed or requests are queued. Message IST989I is always issued for the IO00 pool. It is only issued for the other pools if **Q** is present.
- *explimit* indicates the maximum number of buffers allowed for this buffer pool.

It is derived from the *xpanlim* value specified on the buffer pool's start option when VTAM was started.

If the *xpanlim* value is not specified, VTAM will use the maximum number of buffers in available storage.

The value displayed is the maximum addressable storage of 2147483647. This field will contain **\*NA\*** if dynamic buffering is suppressed.

- *buffers* indicates the total number of buffers requested for all outstanding queued requests. This field will be zero if no queued requests exist.

**Note:** VTAM may issue an additional message subgroup with this group of messages. See the explanation of message IST449I for a complete description of this subgroup.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

**Descriptor code**

5

---

<b>IST921I</b>	<b>TIMES EXP</b> <i>times</i> <b>EXP/CONT THRESH</b> <i>exp/contthresh</i>
----------------	--

---

**Explanation**

VTAM issues this message as part of a message group. The first message in the group is IST920I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IST922I</b>	<b>CURR TOTAL</b> <i>curtot</i> <b>CURR AVAILABLE</b> <i>curavail</i>
----------------	---

---

**Explanation**

This message is part of a message group. The first message in the group is IST920I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IST923I</b>	<b>MAX TOTAL</b> <i>maxtot</i> <b>MAX USED</b> <i>maxused</i>
----------------	---

---

**Explanation**

This message is part of a message group. The first message in the group is IST920I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IST924I</b>	-----
----------------	-------

---

**Explanation**

This message is a line separator and is part of several different message groups. It is used to improve readability or to separate types of information. See the explanation of the first message in the group for an example of how this message is used in each group.

**Routing code**

2



## Descriptor code

5

---

**IST925I****DYNAMIC PATH DEFINITION *pathname* STATUS = *status***

---

### Explanation

VTAM issues this message in response to a DISPLAY ID command for an NCP, for which a dynamic path definition exists, or for a host PU, for which a normal PATH deck or a dynamic path definition exists. Message IST925I is issued once for each path name in the dynamic path definition showing the path name *pathname* and its status.

*status* can be any of the following:

#### **RESET**

The initial state

#### **DEFND**

The path information has been processed by the system

#### **PLOAD**

The dynamic path update member (NCPPATH) is being loaded

#### **ACTIV**

The path table or dynamic path update member is active, that is, loaded.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

## Descriptor code

5

---

**IST926I****PATH FOR *pathname* IGNORED — NODE *nodename* NOT FOUND/  
INVALID**

---

### Explanation

VTAM issues this message in response to an error during the processing of one of the following commands:

- VARY ACT,ID=*ncpname* where a NEWPATH operand is found during processing of the PCCU definition statement
- VARY ACT,ID=*ncpname*,NEWPATH=*pathname*
- VARY ACT,ID=*pathname*

During activation of the dynamic path update set that includes *pathname*, the resource *nodename* either could not be found or was not valid.

## System action

The dynamic path update of *pathname* is ignored. Processing of the dynamic path update set that includes *pathname* continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST927I</b>	<b>ERROR FOR <i>ncpname.pathname</i> DSA <i>destsubarea</i> text CODE <i>code</i></b>
----------------	---

---

## Explanation

VTAM issues this message in response to an error during the processing of one of the following commands:

- VARY ACT,ID=*ncpname* where a NEWPATH operand is found during processing of the PCCU definition statement
- VARY ACT,ID=*ncpname*,NEWPATH=*pathname*
- VARY ACT,ID=*pathname*

During activation of the dynamic path update set that includes *pathname*, a negative response was received from the SETCV RU request to NCP *ncpname*.

The destination subarea (DSA) is indicated by *destsubarea*.

The combination of *text* and *code* indicates the cause of the error.

- If *text* is **ERN** *ern*, possible codes include:

### CODE 2

Control block allocation failed for explicit route number *ern*.

You probably need to increase one of the following:

- TGBXTRA, PATHEXT, or VRPOOL rows value in the NCP BUILD.
- TGBXTRA or PATHEXT or both on the NETWORK definition statement.

See *NCP, SSP, and EP Resource Definition Reference* SC31-6224 for guidelines on coding TGBXTRA, PATHEXT, and VRPOOL in the BUILD definition statement, or TGBXTRA and PATHEXT in the NETWORK definition statement.

### CODE 3

Explicit route number *ern* is currently operative.

### CODE 10

Adjacent subarea specified for explicit route number *ern* is larger than SALIMIT.

### CODE 11

Explicit route number *ern* conflicts with ERLIMIT.

- If *text* is **NETID** *netid*, possible codes include:

**CODE 1**

Network ID *netid* is invalid.

**CODE 2**

Control block allocation failed for network ID *netid*.

You probably need to increase one of the following:

- TGBXTRA, PATHEXT, or VRPOOL rows value in the NCP BUILD.
- TGBXTRA or PATHEXT, or both, on the NETWORK definition statement.

See *NCP, SSP, and EP Resource Definition Reference* SC31-6224 for guidelines on coding TGBXTRA, PATHEXT, and VRPOOL in the BUILD definition statement, or TGBXTRA and PATHEXT in the NETWORK definition statement.

**CODE 8**

Messages for the rejected ER, VR or VRPWS subfields in network ID *netid* follow.

**CODE 9**

Destination subarea is larger than SALIMIT specified for the network ID *netid*.

- If *text* is **VRN/ERN** *vrn/ern*, possible codes include:

**CODE 4**

Virtual route number *vrn* is mapped to an undefined explicit route number *ern*.

**CODE 5**

Virtual route number *vrn* is mapped to a different explicit route (not *ern*).

**CODE 11**

Virtual route number *vrn* is mapped to an explicit route number *ern* that conflicts with ERLIMIT.

- If *text* is **VRN/TPF** *vrn/tpf*, possible codes include:

**CODE 2**

Control block allocation failed for virtual route number/transmission priority field *vrn/tpf*.

You probably need to increase one of the following:

- TGBXTRA, PATHEXT, or VRPOOL rows value in the NCP BUILD.
- TGBXTRA or PATHEXT or both on the NETWORK definition statement.

See *NCP, SSP, and EP Resource Definition Reference* SC31-6224 for guidelines on coding TGBXTRA, PATHEXT, and VRPOOL in the BUILD definition statement, or TGBXTRA and PATHEXT in the NETWORK definition statement.

**CODE 6**

No corresponding virtual route (VR) exists in that path definition for virtual route number/transmission priority field *vrn/tpf*.

**CODE 7**

Virtual route number/transmission priority field *vrn/tpf* is already active.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for the correct use of VTAM operands on NCP definition statements. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation of dynamic path update.

**System action**

The dynamic path update of *pathname* is ignored. Processing of the dynamic path update set that includes *pathname* continues.

**Operator response**

Save the system log for problem determination.

## System programmer response

Correct the dynamic path update set and try the failed command again.

## Routing code

2

## Descriptor code

5

---

**IST928I****DELETER KEYWORD FOR *pathname* IGNORED**

---

## Explanation

This message is the first in a group of messages that VTAM issues in response to the following commands:

- VARY ACT,ID=*ncpname* where a NEWPATH operand is found during processing of the PCCU definition statement
- VARY ACT,ID=*ncpname*,NEWPATH=*pathname*
- VARY ACT,ID=*pathname*

A complete description of the group follows.

```
IST928I  DELETER KEYWORD FOR pathname IGNORED
IST523I  REASON = reason
```

During processing of the VARY command, a DELETER=*ern* operand was encountered in the dynamic path update set that includes *pathname*.

*pathname* refers to the label that is in error in the PATH definition statement (**\*\*\*NA\*\*\*** if no label exists).

*reason* is one of the following:

### **DEST SUBAREA *destsa* INVALID**

The dynamic path update set that includes *pathname* is ignored because the *destsa* name is not valid.

### **ER *ern* IS OPERATIVE**

Explicit route *ern* is currently operative and cannot be deleted.

### **ER *ern* NOT FOUND**

The explicit route *ern* is not found and cannot be deleted.

## System action

The dynamic path update of *pathname* is ignored. Processing of the dynamic path update set that includes *pathname* continues.

## Operator response

### **ER IS OPERATIVE**

The ER route definition in VTAM/NCP can be replaced or deleted only if the explicit route is inoperative (a status of INOP).

Deactivate the physical elements and links in the route.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST929I

LOAD OF DYNAMIC PATH DEFINITION *ncpname.pathname* COMPLETE

---

## Explanation

VTAM issues this message in response to one of the following commands:

- VARY ACT,ID=*ncpname* where a NEWPATH operand is found during processing of the PCCU definition statement
- VARY ACT,ID=*ncpname*,NEWPATH=*pathname*
- VARY ACT,ID=*pathname*,

The load of NCP *ncpname* with the dynamic path update set that includes *pathname* is complete.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST930I

*nodename1* – *nodename2* SESSION USING *percentage* OF *bpBUF*

---

## Explanation

VTAM detected that the session indicated is using 10 percent or greater of the *bpBUF* buffer pool.

**Note:** This message is percolated. See [“Message rerouting and percolation” on page 1707](#) for additional information.

*nodename1* and *nodename2* are the session partners for the session using the indicated percentage of the pool. If VTAM does not know a node name, the node ID is presented in the form *subarea/element*, where *subarea* is the subarea portion of the network address and *element* is the element portion of the network address. Both *subarea* and *element* addresses are given in decimal form.

*bpBUF* is the name of the buffer pool.

*percentage* is the percentage of this buffer pool used by this session.

If the session between *nodename1* and *nodename2* is using a large percentage of the buffer pool, one of the following conditions probably exists:

- Either *nodename1* or *nodename2* is malfunctioning. This could be a hardware, microcode, or application program error that causes VTAM to be flooded with data.
- Neither *nodename1* nor *nodename2* is malfunctioning, but a large amount of data is being transmitted on this session with no pacing in effect.
- A resource with many sub-resources is being activated or deactivated. This requires a large concurrent number of I/O buffers.
- The maximum size of the I/O buffer pool has been defined too small or the maximum amount of CSA that VTAM is allowed to obtain is too small. These are the expansion limit parameters on the IOBUF start option and the CSALIMIT start option.

## System action

Message IST154I, IST1098I, or IST1099I is displayed with this message.

- If message IST154I is displayed, the buffer pool is not expanded at this time. When more storage becomes available, VTAM may try again to expand the buffer pool. VTAM may be adversely affected by this failure to obtain more buffers.
- If message IST1098I or IST1099I is displayed, processing continues.
  - If the session is an SSCP-LU session, then the LU is deactivated, and message IST1098I is displayed.
  - If the session is an SSCP-PU session and the PU is a PU other than an NCP, then the PU is deactivated and message IST1098I is displayed. Since activation or deactivation of large NCPs can cause situations where large number of I/O buffers are properly in use and NCPs are not known to cause HOT I/O situations, NCP PUs will not be automatically activated.
  - If the session is an LU-LU session (including CP-CP) then the session is terminated, and message IST1099I is displayed.

Once VTAM has determined that a session is using greater than 10 percent of the buffer pool, a determination is made whether to automatically terminate the session or deactivate the LU. If the percentage is greater than or equal to the HOTIOTRM start option value, and the session type is LU-LU, VTAM initiates termination of all the sessions between *nodename1* and *nodename2*. VTAM issues message IST1099I when sessions are automatically terminated. If the percentage is greater than or equal to the HOTIOTRM start option value, and the session type is SSCP-LU or SSCP-PU (and the PU is not an NCP), VTAM initiates inactivation of the LU or PU. VTAM issues message IST1098I when automatic inactivation has been initiated.

## Operator response

- If it appears that the problem is caused by a malfunctioning device LU, try to deactivate the device using the VARY INACT command. In extreme cases, you might have to physically disconnect or power off the device.
- If it appears that the problem is caused by a malfunctioning PU and that PU was not automatically deactivated (HOTIOTRM was not specified), try to deactivate the device using the VARY INACT command. In extreme cases, you might have to physically disconnect or power off the device.
- If it appears that the problem is caused by an activation or deactivation of an NCP or other PU, an attempt can be made to reactivate the PU SCOPE=ONLY. Once the PU is active, each line can then be VARYed ACTIVE. Activating resources in this order, will lessen the peak demand for I/O buffers.
- If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination.

## System programmer response

- Ensure that session pacing is in effect for the session using the largest percentage of the buffer pool. The BIND request unit contains the values used for each session. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information about session pacing.
- If message IST154I is displayed before this message, and the session between *nodename1* and *nodename2* is not using a large percentage of the buffer pool, the size of the buffer pool was probably underestimated.

- If message IST154I was issued, use the explanation of *code* in that message to determine which buffer pool you need to modify.
- You might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
- If you want VTAM to automatically terminate these sessions, specify the HOTIOTRM start option with a value that is less than or equal to *percentage*. This start option can be modified using the MODIFY VTAMOPTS command.
- For additional information, see:
  - The [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  - The [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on the HOTIOTRM start option and other VTAM start options.
  - The [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
  - The [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST931I** **SYMPTOM STRING = *symptomstring***

## Explanation

VTAM issues this message to display a symptom string when VTAM recovers from an ABEND. VTAM repeats this message until the entire *symptomstring* is displayed and then issues message IST314I to end the message group.

*symptomstring* is the result of a VTAM ABEND and describes the ABEND in question. *symptomstring* contains **AB/xxxxx** and **RIDS/xxxxxxxx#R** or **#L**.

- If the RIDS element contains a #R, this is the name of the recovery module.
- #L identifies the failing load module.

## System action

Processing continues.

## Operator response

Message IST413I may also be displayed and can provide additional information. Save the system log for problem determination. For more information on interpreting symptom strings, see the ABEND Procedure in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#).

## System programmer response

Use the information in the system string and message IST413I, if displayed, to assist you in determining the cause of the problem.

## Routing code

8

## Descriptor code

4

---

**IST932E** **FAILURE OCCURRED DURING TAKEOVER OF *luname*, SENSE= *sense***

## Explanation

While processing a BFSESSINFO RU during SSCP takeover of LU *luname*, VTAM was unable to record the addresses associated with a session.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *sense*.

## System action

Sessions associated with LU *luname* are terminated.

## Operator response

- Deactivate and reactivate the PU.
- If insufficient storage is a frequent problem, enter a DISPLAY BFRUSE or DISPLAY STORUSE command. Save the system log and request a dump for problem determination.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

3

---

**IST933I** **LOGMODE=*logmode*, COS=*cosentry* [(FROM OLU)]**



## Explanation

This message is part of a message group. See the explanation of message IST879I or IST1489I for a complete description of the message group.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST934I** **DLOGMOD=*dlogmode* USS LANGTAB=*langtab***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application minor node or LU.

*dlogmode* is the default logon mode to be used by the resource if a logon mode name is not provided for a session initiation request. If no default logon mode was specified, VTAM issues **\*\*\*NA\*\*\*** for *dlogmode*.

*langtab* is the name of the language table defined for this LU. If no value was specified for *langtab* or if the DISPLAY ID command was not entered for an LU, VTAM issues **\*\*\*NA\*\*\*** for *langtab*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST935I** **ORIGIN=*ncpname*, NETID=*netid*, ID=*resourcenname***

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST863I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST936I**

**ANSWER MODE = *answermode***

---

## Explanation

This message displays the direction (or state) of a line.

*answermode* can be one of the following:

### **RESET**

Initial state (for example, the line is not active).

### **ENABLED**

The specified line is accepting incoming calls.

### **DISABLED**

The specified line is not accepting incoming calls.

### **PENDING DACTCONNIN RESPONSE**

A response for a DACTCONNIN RU to disable the specified line from accepting incoming calls is pending.

### **NEGATIVE DACTCONNIN RESPONSE**

A negative response for a DACTCONNIN RU to disable the specified line from accepting incoming calls was received.

### **PENDING ACTCONNIN RESPONSE**

A response for an ACTCONNIN RU to enable the specified line to accept incoming calls is pending.

### **NEGATIVE ACTCONNIN RESPONSE**

A negative response for an ACTCONNIN RU to enable the specified line to accept incoming calls was received.

## System action

Processing continues.

## Operator response

If *answermode* is **NEGATIVE ACTCONNIN RESPONSE**, save the system log for problem determination.

For all other values of *answermode*, no response is necessary.

## System programmer response

If *answermode* is **NEGATIVE ACTCONNIN RESPONSE**, verify that the configuration is valid and that the NCP responded correctly. This can be determined by referring to the NCP generation and matching the line name with what was generated.

## Routing code

2

## Descriptor code

5

---

**IST937A**

***loadmodname* CORRELATOR MISMATCH *correlator1* – *correlator2*  
REPLY 'RELOAD', 'INACT', OR 'IGNORE'**

## Explanation

During the activation of NCP load module *loadmodname*, the generated correlator *correlator1* did not match the correlator *correlator2* loaded in the communication controller.

VFYC=YES was specified in the NCP's PCCU definition statement. The operator may, therefore, reload the communication controller, terminate the activation, or ignore the mismatch.

## System action

Processing continues. Message IST937A is reissued until a correct response is entered.

## Operator response

Reply 'RELOAD' to reload the communication controller. Other VTAMs sharing the communication controller will be affected when it is reloaded.

Reply 'INACT' to terminate the activation of the communication controller. This will result in a load module mismatch between the load module that is active for this VTAM and the load module that is active for another VTAM that is sharing the same communication controller.

Reply 'IGNORE' to ignore the mismatch and continue activation. However, the mismatch may be a user error and ignoring it could lead to potential problems.

## System programmer response

None.

**Note:** For additional information on how to respond to this message, see [“Responding to a VTAM message” on page 2](#).

## Routing code

2

## Descriptor code

2

---

**IST938I**

**OPEN ACB REJECTED, CANNOT LOAD *phasename***

## Explanation

During an OPEN ACB procedure, the ALOAD routine could not dynamically load phase *phasename*.

## System action

The OPEN ACB procedure fails. This message will follow IST025I.

## Operator response

See IST025I for additional information and recommended actions.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST939I	VARY NOLOGON HAD NO EFFECT — <i>applname</i> NOT FOUND FOR <i>nodename</i>
---------	--

---

## Explanation

VTAM issues this message in response to a VARY NOLOGON command. The command failed because a controlling relationship existed for *nodename* with a different application than the specified *applname*.

## System action

Processing continues.

## Operator response

Enter a DISPLAY ID command for *nodename* to verify that a controlling relationship exists. Reenter the VARY NOLOGON command with the indicated *applname*.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST940I	<i>verid</i>
---------	--------------

---

## Explanation

This message is part of a message group. The first message in the group is IST680I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

IST946I	BASENO <i>n</i> GREATER OR EQUAL TO XPANLIM <i>limit</i> BUFFERS
---------	--

---

# Explanation

This message is the first in a group of messages. A complete description of the message group follows.

```
IST946I  BASENO n GREATER OR EQUAL TO XPANLIM limit BUFFERS
IST947I  STATIC BUFFERING ASSUMED FOR bpBUF
```

While processing the start option for buffer pool *bp* and converting the input expansion limit to buffers, VTAM determined that the expansion limit was less than the base number of buffers in the pool. Although the initial number of buffers will be allocated to the pool, the pool will not be able to expand because any expansion would force the pool above its expansion limit. As a result, the values for *xpanpt* and *xpanno* entered for buffer pool *bp* will be ignored and the buffer pool will operate without dynamic expansion.

*n* is the base number of buffers allocated to the buffer pool. This is the value of the *baseno* operand in the start option for the buffer pool.

*limit* is the maximum number of buffers that will fit in the storage specified by the *xpanlim* operand in the start option for the buffer pool. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of the buffer pool start options.

*bp* is the name of the buffer pool. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

# System action

Processing continues. The buffer pool will operate with no dynamic buffering. **\*\*\*NA\*\*\*** will be displayed for the expansion threshold if DISPLAY BFRUSE commands are entered for the buffer pool.

# Operator response

Save the system log for problem determination. You might have to restart VTAM.

# System programmer response

Determine whether dynamic buffering is desired for buffer pool *bp*. If so, restart VTAM with appropriate values for *baseno* and *xpanlim* for the *bp* buffer pool. Otherwise, no action is necessary.

# Routing code

2

# Descriptor code

5

---

```
IST947I  STATIC BUFFERING ASSUMED FOR bpBUF
```

# Explanation

This message is part of a group of messages. The first message in the group is IST946I. See the explanation of that message for a complete description.

# Routing code

2

# Descriptor code

5

**Explanation**

VTAM could not load the default filter table because of *reason*.

*reason* can be one of the following:

**NOT FOUND**

The table could not be located in the VTAMLIB.

**NOT LOADED**

There was not enough storage available to load the table.

**NOT VALID**

ISTMGC10 did not have a valid type ID.

**System action**

VTAM ignores the load request and continues the initialization.

**Operator response**

Save the system log for problem determination.

**System programmer response**

Verify if the table was intentionally left empty or was intentionally not loaded into the system library. If it was not, follow the procedure outlined below for *reason*.

If *reason* is **NOT FOUND**, halt VTAM, load the table into the system library, and restart VTAM.

If *reason* is **NOT LOADED**, increase storage as required and reload the table.

If *reason* is **NOT VALID**, verify that ISTMGC10 was created with the correct macros and that the table type is correct. If not, halt VTAM and then restart it with a valid version of the table in the system library.

**Routing code**

2

**Descriptor code**

5

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application program. This message identifies that this application is a VTAM Common Network Services (VCNS) user.

**System action**

Processing continues.

**Operator response**

None.

# System programmer response

None.

# Routing code

2,8

# Descriptor code

5

IST951I

DISPLAY DISK INFORMATION FOR *ncpname*

# Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY DISK command. A complete description of the message group follows.

```
IST951I  DISPLAY DISK INFORMATION FOR ncpname
[IST957I  NO NCP LOAD MODULE OR DUMP ON DISK]
[IST952I  DUMP NAME      DATE      TIME
IST953I  dumpname       date       time]
:
[IST954I  LOAD MODULE    DATE      TIME  STORE STATUS  [ACTIVE]
IST955I  loadmodname    date       time   status      [YES|NO]]
:
[IST924I  -----]
[IST1065I LOAD MODULE    REQUESTED IPL  ESTIMATED IPL
IST1066I  load_module   requested_time  estimated_time]
:
IST965I  AUTO DUMP/LOAD: {YES|NO}
IST314I  END
```

## IST951I

This message serves as a header line for the display and identifies the NCP *ncpname* for which the information is displayed.

## IST957I

If there is no information on the disk to display, this message follows IST951I.

## IST952I and IST953I subgroup

If there is information on the disk to display, VTAM issues this subgroup if dump information is available. IST953I is repeated for each dump on the disk. See the explanation of message [IST952I](#) for additional information on this subgroup.

## IST954I and IST955I subgroup

If there is information on the disk to display, VTAM issues this subgroup if load module information is available. IST955I is repeated for each load module on the disk. See the explanation of message [IST954I](#) for additional information on this subgroup.

## IST924I

VTAM issues this message to improve the readability of the display.

## IST1065I and IST1066I

If there is information on the disk to display, VTAM issues this subgroup if an IPL has been scheduled for at least one load module on the disk. IST1066I is repeated for each load module on the disk. See the explanation of [IST1065I](#) for additional information on this subgroup.

## IST965I

This message is issued to indicate whether the 3720 or 3745 Communication Controller will accept an automatic re-IPL if the NCP abends. If IST965I indicates that an automatic dump and load will occur, the load module that is active in the communication controller will be reloaded.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

IST952I	DUMP NAME DATE TIME		
---------	---------------------	--	--

### Explanation

VTAM issues this message as part of a subgroup of messages in response to a DISPLAY DISK command.

This message subgroup is displayed in a message group headed by IST951I. See the explanation of that message for additional information.

If there is information on the disk to display, VTAM issues this subgroup if dump information is available. A complete description of the message subgroup follows.

IST952I	DUMP NAME	DATE	TIME
IST953I	dumpname	date	time

VTAM issues message IST953I for each NCP dump on disk. This message contains the following information:

#### ***dumpname***

The name of the NCP dump on the disk.

#### ***date***

The date the dump was loaded onto the disk.

#### ***time***

The time the dump was dumped onto the disk.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.



Routing code

2

Descriptor code

5

IST953I

*dumpname date time*

Explanation

VTAM issues this message as part of a message subgroup. The first message in the subgroup is IST952I. See the explanation of that message for a complete description.

Routing code

2

Descriptor code

5

IST954I

LOAD MODULE DATE TIME STORE STATUS [ACTIVE]

Explanation

VTAM issues this message as part of a subgroup of messages in response to a DISPLAY DISK command. This message subgroup is displayed in a message group headed by IST951I. See the explanation of that message for additional information.

If there is information on the disk to display, VTAM issues this subgroup if load module information is available. A complete description of the message subgroup follows.

IST954I	LOAD MODULE	DATE	TIME	STORE STATUS	[ACTIVE]
IST955I	loadmodname	date	time	status	[YES NO]

VTAM issues message IST955I for each load module that is displayed. It contains the following information:

**loadmodname**

The name of the load module on the disk.

**date**

The date the load module was stored on the disk.

**time**

The time the load module was stored on the disk.

**status**

The store status of the load module. *status* will be one of the following:

**STORED**

The load module is completely stored.

**STORING**

The load module is currently in the process of being stored.

**SUSPENDED**

The load module is currently in the process of being stored; however, no information has been received by MOSS in the last five minutes.

**[YES|NO]**

**ACTIVE** is **YES** when *loadmodname* is the load module currently active on the disk. This means the load module is next to load on the disk.

**ACTIVE** is **NO** when *loadmodname* is not the load module currently active in the disk.

**[YES|NO]** is displayed only when at least one load module on the disk is active.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST955I</b>	<i>loadmodname date time status [YES NO]</i>
----------------	--

## Explanation

VTAM issues this message as part of a message subgroup. The first message in the subgroup is IST954I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST956I</b>	<b>{PORT SAP=<i>sapaddress</i> MAC=<i>macaddress</i> MAXDATA=<i>n</i> MAXSTN=<i>maxstations</i>  PU SAP=<i>sapaddress</i> MAC=<i>macaddress</i> [MAXDATA=<i>n</i>]}</b>
----------------	---

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a LAN major node, a switched PU (station) connected to the LAN, or a dynamic switched PU defined in an XCA major node.

VTAM will also issue this message when IST690I is issued for a connection failure during Request Contact (REQCONT) RU processing. The message will provide the PU LAN address information of the PU with which the connection is refused.

**PORT** is indicated when a LAN major node is being displayed. The information provided is derived from similarly named keywords on the PORT definition statement in the major node.

*sapaddress* is the service access point (SAP) address for the LAN connection that the major node defines.

*macaddress* is the 12-digit hexadecimal medium access control (MAC) address for the LAN connection that the major node defines. If no *macaddress* was defined, zeroes are displayed.

*n* is the maximum number of bytes in the information field of an LPDU that can be transmitted on the LAN.

*maxstations* is the maximum number of stations that can be connected on the LAN. *maxstations* is listed only when this message results from a DISPLAY ID command specifying the name of a LAN major node.

**PU** is issued when a switched PU (station) attached to the LAN is being displayed. The information provided is derived from similarly named operands on the PU definition statement in either a LAN, a switched major node, the service access point (SAP) that is in use, or the medium access control (MAC) that is in use.

*sapaddress* is the service access point (SAP) address of the physical unit that is on the LAN.

*macaddress* is the 12-digit hexadecimal medium access control (MAC) address for the station on the LAN represented by the PU.

*n* is the maximum amount of data in bytes, including the transmission header (TH) and request/response header (RH), that the physical unit can receive in one segment of a path information unit (PIU).

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST957I****NO NCP LOAD MODULE OR DUMP ON DISK**

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY DISK command. The first message in the group is IST951I. Message IST957I is issued when there is no information on the disk to display.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST958I**

**INBND=***inbound* **OUTBND=***outbound* **PENDING=***pending* **ATTN=***attntot*  
**CUA=***device\_address*

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a LAN major node.

*inbound* is the total number of inbound messages.

*outbound* is the total number of outbound messages.

*pending* is the current number of pending output messages.

*attntot* is the total number of attention interrupts counted.

*device\_address* is the hexadecimal channel address of the interrupt port.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST959I**

**INVALID PIU RECEIVED FROM** *nodename*—**VARY INACT SCHEDULED**

## Explanation

VTAM issues this message when the resource *nodename* issued a path information unit (**PIU**) with a request/response header that violates SNA architecture rules.

**Note:** This message is percolated. See [“Message rerouting and percolation” on page 1707](#) for additional information.

## System action

VTAM generates a VARY INACT,TYPE=FORCE command and issues it internally to resource *nodename*.

## Operator response

This is probably a hardware error. Save the system log and request a buffer trace on the device for problem determination.

## System programmer response

Use the buffer trace to identify the PIUs that are not valid.

## Routing code

2

## Descriptor code

5

---

**IST960I** **DISPLAY TABLE FAILED—*tablename* NOT FOUND**

---

## Explanation

VTAM issues this command in response to a DISPLAY TABLE command when VTAM did not find *tablename*. The table is not currently in use by any resource as a COS, logon mode, interpret, USS, model name, or associated LU table, or the table does not exist.

## System action

VTAM rejects the command.

## Operator response

Ensure that you entered *tablename* correctly.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST961I** **[NONDISRUPTIVE] LOAD OF *ncpname* [WITH *loadmodname*] FAILED**

---

## Explanation

This message is the first in a group of messages that VTAM issues when a load fails for NCP *ncpname*.

```
IST961I [NONDISRUPTIVE] LOAD OF ncpname [WITH loadmodname] FAILED
IST523I REASON = reason
```

*loadmodname* is included in the message when the load module name differs from *ncpname*.

*reason* in message IST523I indicates why the load failed and is one of the following:

### PERMANENT I/O ERROR [–REQ: *runame* SENSE: *sense*]

**Explanation:** During an attempt to load the communication controller, VTAM detected a permanent I/O error. This may have been caused by one of the following:

- Hardware error
- VTAM detected channel contention in a multiple-channel attached communication controller that was being loaded from another domain.

- If a MODIFY LOAD command was issued for a local or remote NCP, the size of MAXDATA on the PCCU macro must be at least 2,048 plus the size of the TH and RH.

*runame* is the name of the request unit that failed. See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *runame*.

*sense* is the SNA sense code for the failed request unit. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *sense*. If *sense* is set by NCP, see *NCP, SSP, and EP Messages and Codes* for a complete description.

The values of *runame* and *sense* are issued only for remote NCP loads.

**System Action:** VTAM rejects the command. The communication controller remains inactive and unavailable to VTAM.

**Operator Response:** Save the system log and obtain an NCP dump with the NCP dump utilities for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on using EREP.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

**Programmer Response:** Verify that the CUA operand (on the PCCU definition statement of the NCP source statements) matches the actual channel address that is connected to the controller. If the controller is multiple-channel attached and the failure was caused by a load from another domain, wait for the completion of that load operation.

Make the necessary changes to the NCP generation. If problems persist, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## INITIAL TEST HARDSTOP

**Explanation:** VTAM detected an error condition that caused the initial test program of the load utility for the NCP to hardstop the communication controller.

**System Action:** VTAM rejects the command. The communication controller remains inactive.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM software support center.

## LOADER FAILURE

**Explanation:** An error occurred during an attempt to load an NCP into a communication controller.

**System Action:** VTAM deactivates the communication controller.

**Operator Response:** Save the system log for problem determination. Message IST155I or other system messages may provide additional information about the cause of the loader failure.

**Programmer Response:** If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM software support center.

## ddname BLDL ERROR

**Explanation:** VTAM tried to load a communication controller.

The operation failed because a BLDL (the load of a core resident table with track addresses of frequently used modules on a link library) issued for that library defined by DD statement *ddname* failed.

**System Action:** The communication controller is not activated. Other VTAM processing continues.

**Operator Response:** VTAM operations can be continued with other nodes in the network. Save the system log for problem determination.

**Programmer Response:** Inspect the directory of the partitioned data set defined by the DD statement *ddname*.

- If it is the NCP module library, ensure that the NCP being loaded into the communication controller is a member of that library (the NCP name is defined by the NEWNAME operand on the NCP BUILD definition statement).
- If *ddname* defines the initial test library, make sure modules IFL3705D and IFL3705B are members of the library.

## INVALID DEVICE TYPE DEFINITION

**Explanation:** VTAM tried to load a communication controller, but failed after checking the communication controller unit control block (UCB) and determining that the operating system generation did not specify a valid channel adapter type for this NCP.

**System Action:** The communication controller is deactivated.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Check the channel unit address of the specified communication controller to make sure that it is the correct address. If it is, the communication controller might have been incorrectly specified during the operating system generation.

## UNEXPECTED END OF FILE ON DATA SET

**Explanation:** While trying to load an NCP into a communication controller, the load program encountered an unexpected end-of-file condition either on the NCP load module data set or on the initial test data set.

**System Action:** The communication controller is deactivated. Other processing continues.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Ensure that the DD statements for the NCP load module and initial test data sets specify the correct data sets. Make sure these data sets contain the correct NCP load module and test routines for the communication controller hardware.

## UNEXPECTED CODE *code* FROM *loadmod*

**Explanation:** VTAM tried to load an NCP into a communication controller. The load failed when VTAM received an unrecognizable return code *code*, in decimal, from the NCP load utility program *loadmod*.

*loadmod* is **IFLOADRN**.

**System Action:** The communication controller is deactivated.

**Operator Response:** Attempt to load the communication controller offline to VTAM using the NCP utility program. See the *NCP, SSP, and EP Generation and Loading Guide* for information on using the utility program.

Save the system log and obtain an NCP dump with the NCP dump utilities for problem determination.

**Programmer Response:** Make the necessary changes to the NCP generation. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on NCP problems.

## LOAD MODULE TOO LARGE

**Explanation:** An attempt to load an NCP into a communication controller failed because the NCP load module was too large for the particular communication controller.

**System Action:** VTAM deactivates the communication controller. Other VTAM processing continues.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Check the NCP generation for errors or unnecessary use of storage. The NCP needs to be regenerated.

## PERMANENT I/O ERROR ON *libname*

**Explanation:** VTAM tried to load a communication controller with an NCP. It failed because a permanent I/O error occurred on the data set defined by the DD statement *libname* (the NCP library).

**System Action:** VTAM deactivates the communication controller.

**Operator Response:** If the error persists, save the system log for problem determination.

Message IOS000I or other related messages may be issued and can provide additional information.

This is probably a hardware error. Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on using EREP.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

**Programmer Response:** Create the NCP library on a different disk pack if possible.

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## *ddname* COULD NOT BE OPENED

**Explanation:** VTAM tried to load a communication controller. It failed because the data set defined by the DD statement *ddname* (the NCP load library) could not be opened.

**System Action:** VTAM deactivates the communication controller.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Make sure the specified DD statement in the VTAM procedure is included and correctly specified.

Check the definition library to ensure that all requirements for VTAM are correct for your system.

## Routing code

2

## Descriptor code

3

---

IST962I

INOP X'*code*' RECEIVED FOR PU UNDER SWITCHED LINE *linename*

## Explanation

An inoperative RU has been received that contains the SNA network address of a PUX, a skeleton PU defined under a line that represents a switched connection. This situation occurs when the switched line is active, but the switched connection has not yet been established. The switched line has been conditioned to accept incoming calls (ACTCONNIN sent). A call has been accepted on the line and an attempt was made to contact the calling station. An error is detected during the contact process at the line protocol level. The switched connection fails. The INOP RU is the method of notifying the SSCP of the error.

A RECMS or NMVT RU should always accompany this error. VTAM passes this data to NETVIEW/NPDA or records it on the system error recording data set.

*linename* is the name of the switched line.

*code* (expressed in hexadecimal) provides the INOP reason code, and can be one of the following:



**01**

Station INOP: There was a loss of contact, unexpected loss of connection, or a connection establishment failure.

**03**

Station INOP: SDLC Disconnect request received.

**04**

Station INOP: SDLC Request Disconnect response received.

**05**

Station INOP: SDLC Disconnect Mode received.

**06**

Station INOP: IPL or dump is in progress.

**07**

Station INOP: Remote Power Off (RPO) in progress.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

### **Routing code**

8

### **Descriptor code**

4

---

**IST963I**

**LOAD MODULE = *loadmodname***

### **Explanation**

This message is issued as a result of the DISPLAY ID command for an NCP. It is displayed only when the name of the load module currently loaded is different than that of the NCP PU.

*loadmodname* is the name of the load module currently loaded.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

## Routing code

2

## Descriptor code

3

---

<b>IST965I</b>	<b>AUTO DUMP/LOAD: {YES NO}</b>
----------------	---------------------------------

## Explanation

This message is part of a message group. IST951I is the first message in the group. See the explanation of that message for a complete description.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

3

---

<b>IST966I</b>	<b>USER=VCNS</b>
----------------	------------------

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for a line. This message identifies this line as the anchor for all virtual calls used by VTAM Common Network Services (VCNS) application programs for an XCA major node.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

5

---

**IST967I*****operation FAILED FOR dataspace; RC return\_code RS reason\_code***

---

## Explanation

A macro (*operation*) was issued by VTAM for the data space *dataspace*, and an error return code was returned without successful completion of the request.

*dspname* is the name of a data space created by VTAM. The data space name is generated automatically when the data space is created by VTAM and is in one of the following formats:

### **ISTNMSDS**

Session awareness

### **ISTNMPDS**

Problem determination trace

### **ISTxxxxx**

TSO or VTAM applications

### **ccccIST**

TSO, or VTAM applications

where ccccc is in the range of 1–99999 and xxxxx is in the range of 0–FFFFC.

## System action

If the *dataspace* is ISTNMSDS or ISTNMPDS, and *operation* is DSPSERV CREATE or ALESERV ADD, only the LU0 interface is available for communication between VTAM and the NetView program's session monitor.

If *dataspace* is ISTxxxxx or cccccIST, *operation* is DSPSERV CREATE, *return\_code* is 08 and *reason\_code* is 6B000911, there was a conflict with the *dataspace* name supplied by VTAM. Since VTAM tries four times to create a unique data space name, the occurrence of IST967I may only be informational. VTAM may have succeeded in creating the *dataspace* with another name. The DISPLAY STORUSE,DSPNAME=\* can be used to confirm whether the ACB was opened with another name.

If *operation* is DSPSERV RELEASE, the data space interface will continue to function without releasing unused storage to virtual storage management.

## Operator response

Save the system log for problem determination.

## System programmer response

See the [z/OS MVS Programming: Authorized Assembler Services Reference ALE-DYN](#) for a description of *return\_code* and *reason\_code*.

## Routing code

2

## Descriptor code

4

---

**IST968I*****INTERFACE INITIALIZATION FAILED – REASON reasoncode***

---

## Explanation

Data space interface initialization failed, and the LU0 interface will be used.

## ***reason\_code***

### **Meaning**

**04**

The data space could not be created.

**08**

Request for CSA storage has failed during VTAM initialization.

### **System action**

- For reason code **04**, VTAM will only use the LU0 interface for the session awareness (SAW) and path information unit (PIU) data interfaces.
- For reason code **08**, VTAM initialization fails.

### **Operator response**

Save the system log for problem determination.

### **System programmer response**

See the [z/OS MVS Programming: Authorized Assembler Services Reference ALE-DYN](#) for definitions of *reasoncode* for data space services.

## **Routing code**

2

## **Descriptor code**

4

---

**IST970I**

**LU-LU VERIFICATION ERROR *code* FOR *profilename***

---

### **Explanation**

This message is issued when an LU 6.2 application program requests that a session be established, but a session level LU-LU verification violation or error occurred.

*profilename* is the name of the security manager profile defined for the LU pair. The format of *profilename* is *local\_netid.local\_name.partner\_name* where:

*local\_netid* is the local network ID

*local\_name* is the ACB name of the local application program

*partner\_name* is the LU name of the session partner.

*code* is the type of security violation that occurred.

**03**

The security manager locked the profile.

**04**

The profile contains an invalid session key.

**05**

*partner\_name* rejected the session due to a security related error.

**06**

*local\_name* was defined with REQUIRED session level LU-LU verification, but one of the following occurred:

- *local\_name* is the PLU, but no password was defined for *profilename*.
- *partner\_name* is the PLU requesting a session without using session level LU-LU verification.

**07**

Session level LU-LU verification data for the session between *local\_name* and *partner\_name* matched the data for an outstanding session activation request.

**08**

*local\_name* was defined with optional verification, and a password was defined for *profilename*, indicating that session level LU-LU verification is necessary. *partner\_name* requested a session without verification.

**09**

*local\_name* was defined with optional verification, and no password was defined for *profilename*, indicating that session level LU-LU verification should not be used. *partner\_name* requested a session with verification.

**0B**

The profile was changed during session activation.

**0C**

The password for the profile has expired.

**0D**

*local\_name* was defined to use only the enhanced protocol (SECLVL=LEVEL2 is specified on the APPL definition statement). *partner\_name* does not support the enhanced protocol.

**20**

The security manager component is either not available or overloaded (received a large number of requests in a short period of time).

**3C**

The security manager component failed.

## System action

Session activation failed.

## Operator response

For codes **03**, **04**, **0B**, and **0C**, enter the MODIFY PROFILES command for the local LU. If VTAM issues this message repeatedly, notify the security administrator of *code* and *profilename*.

For code **05**, consult message IST970I issued to the partner LU for specific actions.

For codes **06**, **08**, and **09**, enter the MODIFY PROFILES command for the local LU. If VTAM issues this message repeatedly, save the system log for problem determination.

For codes **07** and **0D**, notify the security administrator of *code* and *profilename*.

For codes **20** and **3C**, save the system log for problem determination.

## System programmer response

For code **05**, consult message IST970I issued to the partner LU for specific actions.

For codes **06**, **08**, and **09**, check the VERIFY operand specified on the APPL statements to identify the correct level for the two LUs.

For code **20**, verify that the security manager is installed and resource class APPCLU is active.

If the security manager is installed and resource class APPCLU is active, the problem may be that the security manager is overloaded. Lowering the value of AUTOSSES on the LU definition statements may solve the problem.

For code **3C**, verify that the security manager is installed and resource class APPCLU is active.

## Routing code

2

## Descriptor code

4

---

**IST971I**

**ADJ LINK STATION *linkstation* USING *linkname* IN *netid***

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command entered for an NCP major node. This message indicates that the adjacent link station has contacted a cross-network NCP major node.

*linkstation* is the adjacent link station.

*linkname* is the connecting link station.

*netid* is the network ID of the cross-network NCP major node.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST972I**

**SIT TRACE FOR *linename* TERMINATED – *reason***

---

## Explanation

A scanner interface trace (SIT) for *linename* has terminated.

*reason* may be one of the following:

### **HARDWARE ERROR**

Either an adapter I/O error occurred, or the SIT backup timer expired.

### **RESOURCES UNAVAILABLE**

Either VTAM needed NCP buffers but could not obtain them, or a problem other than an adapter I/O error occurred.

## System action

Processing continues.

## Operator response

- If *reason* is **HARDWARE ERROR**, save the system log for problem determination.
- If *reason* is **RESOURCES UNAVAILABLE**, try the command again when scanner resources become available. If the command continues to fail, save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the EREP User's Guide and the EREP Reference for more information on using EREP.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

## System programmer response

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

2

## Descriptor code

5

---

IST973I	USERVAR <i>uservar</i> {CLASS HAS BEEN CHANGED FROM AUTO TO USER  TYPE HAS BEEN CHANGED FROM <i>type</i> TO <i>type</i> }
---------	--

---

## Explanation

VTAM issues this message as part of a message group in response to a MODIFY USERVAR command. The first message in the group is IST1283I. See that message for a complete description of the group.

*uservar* is the name of the USERVAR.

This message is issued when one or both of the following has occurred:

- **CLASS HAS BEEN CHANGED FROM AUTO TO USER**

The MODIFY command was entered for a USERVAR that was being managed automatically by VTAM, thereby changing the class to user-managed.

**Note:** VTAM no longer manages the updating or deletion of this USERVAR.

- **TYPE HAS BEEN CHANGED FROM *type* TO *type***

The type of a user-managed USERVAR has been changed.

*type* can be **STATIC**, **DYNAMIC**, or **VOLATILE**.

**Note:** This message is percolated. See [“Message rerouting and percolation” on page 1707](#) for additional information.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST976I	ENTRY <i>entryname</i> DEFINED BUT NO <i>tabletype</i> DEFINED FOR <i>resourcename</i>
---------	---

---

## Explanation

VTAM issues this message during major node activation or during session initiation. A *tabletype* table entry *entryname* was specified on the *resourcename* definition statement, but no *tabletype* table is defined.

*entryname* is the entry that was specified on the LU, LOCAL, TERMINAL, or APPL definition statement.

*tabletype* is **MDLTAB** (model name table) or **ASLTAB** (associated LU table).

*resourcename* is the 1–8 character name of the LU, LOCAL, TERMINAL, or APPL for which the *entryname* is defined.

## System action

Processing continues during major node activation.

If *tabletype* is **MDLTAB**, session establishment continues during session initiation with no model name provided to the PLU.

If *tabletype* is **ASLTAB**, session establishment continues during session initiation with no associated LU names provided to the PLU.

## Operator response

Save the system log for problem determination.

## System programmer response

You need to associate a table with the LU. You can do this by either specifying a table in the LU definition, or issuing a MODIFY TABLE command to associate a table with the LU.

If you have specified a table in the LU definition, verify that the table is specified correctly. If it is not, correct the *tablename* and reactivate the LU. If the table specified in the LU definition is correct, the operator may have deleted the association with a MODIFY TABLE command. Enter another MODIFY TABLE command to reestablish the association.

## Routing code

2

## Descriptor code

5

---

IST977I	MDLTAB= <i>mdlname</i> ASLTAB= <i>aslname</i>
---------	---

---



## Explanation

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY ID command for an application minor node or LU. A description of the message subgroup follows the example.

```
IST977I   MDLTAB=mdlname ASLTAB=aslname  
[IST1395I FLDTAB = fldname   FILTER = filtername]  
[IST1333I ADJLIST = listname]
```

### IST977I

*mdlname* is the name of the model name table.

*aslname* is the name of the associated LU table.

If a model name table or associated LU table was not defined for the resource, **\*\*\*NA\*\*\*** is displayed.

### IST1333I

This message is displayed only when the DISPLAY ID=CDRSC command is issued.

*listname* is the name of an adjacent SSCP table as defined by an ADJLIST definition statement.

If an adjacent SSCP table was not specified for the CDRSC, then **\*\*\*NA\*\*\*** is displayed.

See the descriptions of the ADJLIST definition statement in the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on adjacent SSCP tables.

### IST1395I

This message is displayed only when the DISPLAY ID=ISTNOP command is issued.

*fldname* is the name of the user-defined message flooding prevention table. If there is currently no message flooding table active for ISTNOP, then *fldname* is **\*\*\*NA\*\*\***.

*filtername* is the name of the SAW Filter table. If there is currently no session awareness (SAW) filter table, *filtername* is **\*\*\*NA\*\*\***.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on these tables.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST979I****BUILD FAILED FOR TABLE *tablename***

## Explanation

This message is the first in a group of messages that VTAM issues in response to a major node activation or a MODIFY TABLE command when the activation of table *tablename* failed.

```
IST979I BUILD FAILED FOR TABLE tablename
IST523I REASON = reason
[IST323I LABEL = labelname - MACRO = macrotype - KEYWORD = keyword]
```

### IST979I

*tablename* is the name of the table that failed and is a model name table, an associated LU table, or a message flooding table.

### IST523I

- *reason* indicates the cause of the failure.
  - Most of the reasons involve macro coding errors, which may show up at this time because the tables are not pre-assembled.
  - Other errors such as insufficient storage and open failures cause activation to fail even though there are no errors in the table definition.

*reason* can be one of the following:

#### **DUPLICATE ENTRY LABEL**

The same label appears on more than one table entry macro (MDLENT or ASLENT) in the table.

#### **DUPLICATE PARAMETER**

A valid keyword has been coded multiple times on a single macro.

#### **DUPLICATE PLU VALUE**

The same PLU name appears on more than one PLU subentry macro (MDLPLU or ASLPLU) following a single entry macro (MDLENT or ASLENT).

#### **EXTRA VALUE**

Multiple values were coded on a keyword that does not allow multiple values.

#### **INSUFFICIENT STORAGE**

VTAM was unable to allocate storage for the table.

#### **INVALID LABEL**

The label on the macro is invalid or a MDLENT or ASLENT macro was coded without a label.

#### **INVALID MACRO**

The resource definition contains an invalid macro or multiple MDLTAB or ASLTAB macros.

#### **INVALID PARAMETER**

The macro has an invalid keyword.

#### **INVALID VALUE**

The keyword has an invalid value coded.

#### **LIST VALUE \*\*\*\* IS IN CIRCULAR LIST OR MULTIPLE LISTS**

The LIST keyword on a FLDENT macro in the message flooding table referred to a message that was in more than one list.

#### **LIST VALUE \*\*\*\* WAS NOT FOUND**

The LIST keyword on a FLDENT macro in the message flooding table referenced a message that was not also in the table.

#### **MACRO SEQUENCE ERROR**

The second macro in the resource definition is either MDLPLU or ASLPLU. These macros must be preceded by a table entry macro (MDLENT or ASLENT).

#### **MISSING PLU PARAMETER**

A MDLPLU or ASLPLU macro has been coded without the PLU keyword.

#### **OPEN FOR VTAM DATA SET SYS1.VTAMLST FAILED**

VTAM could not open the member of the data set containing the table.

### SYNTAX ERROR

A keyword on a macro has a syntax error.

### TABLE CONTAINS NO USEFUL INFORMATION

The table is logically empty.

- For a model name table, VTAM could not find a MDLENT or MDLPLU macro with a valid MODEL keyword value.
- For an associated LU table, VTAM could not find an ASLENT or ASLPLU macro with a valid PRINTER1 or PRINTER2 keyword value.
- For a message flooding table, VTAM could not find a FLDENT macro with a valid MESSAGE keyword value.

### TABLE SIZE OF X'xxxxxxxx' IS INVALID

The table has exceeded the limitation of 16 megabytes (hexadecimal **00FFFFFF**).

### IST323I

If this message is displayed, it identifies the location of the error in *tablename*.

### System action

Processing continues, but *tablename* cannot be used to supply model terminal support information.

### Operator response

Issue the DISPLAY BFRUSE command to display information about the common service area (CSA). Save the system log for problem determination.

### System programmer response

- If *reason* is **INSUFFICIENT STORAGE**, increase storage as required. You might want to redefine your CSA start options using the MODIFY VTAMOPTS command.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY BFRUSE and DISPLAY VTAMOPTS commands. The [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) provides additional information.

- If *reason* is **OPEN FOR VTAM DATA SET SYS1.VTAMLST FAILED**, review system definition and VTAM data set and allocation. When the error condition has been corrected, reactivate the table.
- For all other *reasons*, correct the resource definition error indicated by message IST523I.

### Routing code

2

### Descriptor code

5

---

### IST981I

**VTAM PRIVATE: CURRENT = *currentk*, MAXIMUM USED = *maximumk***

### Explanation

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY BFRUSE or a DISPLAY STORUSE command. For a DISPLAY BFRUSE command, the first message in the subgroup is IST449I. For a DISPLAY STORUSE command, the first message in the group is IST1242I. See the explanation of those messages for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST982I** *n {runame|OTHER} REQUEST(S) PENDING TO SUBAREA subarea*

---

### Explanation

If *runame* is indicated, the number *n* of request units (RU) have been pending to subarea *subarea* for a period of time without receipt of a corresponding response unit. If the request units remain outstanding for subsequent intervals, this message will be repeated at such intervals until the request units are received or purged.

VTAM displays **OTHER** when the request unit type is not known.

Message IST982I indicates that a problem **may** exist; the longer a request unit remains outstanding (that is, the more often this message reappears for the same request unit), the more probable it is that a problem exists.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1683 for a list of request units and their descriptions.

### System action

Processing continues, awaiting the corresponding response unit.

### Operator response

If a particular request unit remains outstanding for an extended period of time, save the system log for problem determination.

### System programmer response

For a discussion of pending I/O problems, see the wait procedures in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#).

## Routing code

8

## Descriptor code

4

---

**IST983E** *poaname MESSAGE QUEUE EXCEEDED—FURTHER MESSAGES WILL BE DISCARDED*

---

### Explanation

The POA *poaname* message queue would reach the limit (POAQLIM) specified on the APPL definition statement with the message or message group destined for the POA. This can occur when the POA is not issuing RCVCMDS macros quickly enough to clear the VTAM message queue for this application. It can also occur when POAQLIM is too small to allow for very large message groups, such as output from a VTAM DISPLAY command.

*poaname* is the name of the POA that has reached the specified message queue limit.

### System action

All further messages destined for *poaname* are discarded until the message queue is cleared.

## Operator response

1. Issue DISPLAY ID=*poaname* and save the system log. Message IST271I will provide the *jobname* related to the *poaname*.
2. Save the system log and request a dump of the application program (*jobname*) and VTAM for problem determination.

## System programmer response

- If the POA is not issuing RCVCMDS macros quickly enough, you can clear the message queue for *poaname* by issuing RCVCMDS macros with OPTCD=NQ until the queue is empty.
- If RCVCMDS macros are being issued quickly enough, examine the dump and the VTAM internal trace (if available) to determine why the messages are not being received quickly enough. Check to ensure that the RCVCMDS macros are being received by VTAM.
- You might need to change the POA RCVCMDS processing so that RCVCMDSs are issued more frequently.
- You can also change the dispatching priority of the POA. See your operating system documentation for information on dispatching priority.
- You can cancel the job related to *poaname*. This will clear the VTAM message queue for *poaname*.
- If you determine that the POAQLIM value is too low, you can increase POAQLIM on the APPL statement for *poaname*, enter a VARY NET,ACT,UPDATE=ALL command for the application major node, and recycle the application.

See the z/OS Communications Server: SNA Programming for information on program operator coding requirements in program operator applications and the RCVCMDS macro.

## Routing code

2

## Descriptor code

11

---

IST984I

USER EXIT *exitname* IS *status*

## Explanation

VTAM issues this message when an installation-wide exit is successfully activated, deactivated, or replaced.

- *exitname* is displayed in the form *routine\_name.instance\_name* where:

*routine\_name* is the name of the installation-wide exit routine.

*instance\_name* is the instance name of the exit routine. When issued for the base exit, *instance\_name* is blank.

- *status* is one of the following:

### ACTIVE

The exit *exitname* was successfully loaded, either during initialization or by a MODIFY EXIT,OPTION=ACT command. The exit will now be invoked when requested by VTAM code.

### INACTIVE

The exit *exitname* was deactivated by a MODIFY EXIT,OPTION=INACT command or when a MODIFY EXIT,OPTION=REPL command failed. The exit will not be invoked when requested by VTAM code.

### REPLACED

The exit *exitname* was replaced by a MODIFY EXIT,OPTION=REPL command. The new version of the exit will now be invoked when requested by VTAM code.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

4

---

<b>IST985I</b>	<b>USER EXIT <i>exitname</i> action FAILED—CODE <i>code</i></b>
----------------	---

---

## Explanation

VTAM issues this message when an unsuccessful operation was performed on an installation-wide exit.

If message IST1183I is issued with message IST985I and a failure code is received that is not documented in this message, see the appropriate exit's documentation.

*exitname* is displayed in the form *routine\_name.instance\_name* where:

*routine\_name* is the name of the installation-wide exit routine.

*instance\_name* is the instance name of the exit routine. When issued for the base exit, *instance\_name* is blank.

*action* indicates the operation that failed for exit *exitname* and is one of the following:

### ACTIVATION

The activation of user exit *exitname* failed during initialization or during processing of a MODIFY EXIT,OPTION=ACT command.

### FORCE

The forced inactivation of the exit *exitname* failed during processing of a MODIFY EXIT,OPTION=FORCE command.

### INACTIVATION

The deactivation of user exit *exitname* failed during processing of a MODIFY EXIT,OPTION=INACT command.

### INITIALIZATION

The initialization of the VTAM exit facility failed. The exit function of VTAM is not available. The *exitname* will not be present in this case.

### INVOCATION

The invocation of user exit *exitname* failed. The invocation was performed internally in VTAM code and cannot be affected by the operator.

### REPLACEMENT

The replacement of user exit *exitname* failed during processing of a MODIFY EXIT,OPTION=REPL command. The exit *exitname* is now inactive. Message IST984I follows this message and provides additional information.

### RETRY

The retry of exit activation for user exit *exitname* failed during initialization. The exit *exitname* is now inactive.

*code*, in hexadecimal format, indicates the type of failure:

- 04**  
The exit function of VTAM could not be initialized.
- 06**  
An error occurred during the retry of exit activation for user exit *exitname* during initialization because the exit status was not valid for retry.
- 08**  
The exit *exitname* is not known to VTAM.
- 0A**  
An error occurred during the loading of ISTIECDF. The exit function of VTAM is not available.
- 0C**  
An error occurred during the loading of ISTIECRT. The exit function of VTAM is not available.
- 0E**  
An error occurred during the loading of ISTIECVR. The exit function of VTAM is not available.
- 10**  
The exit *exitname* is already in the desired state.
- 14**  
There is not enough storage to perform this action on the user defined exit *exitname*.
- 18**  
You are not authorized to modify the exit *exitname*. OPTION=FORCE is not valid for a program operator application (POA) program.
- 1C**  
An abend occurred during the activation, deactivation, invocation, or replacement of the exit *exitname*.
- 1E**  
The exit *exitname* is being deactivated.
- 20**  
An error occurred while loading the exit *exitname* module.
- 24**  
An error occurred while loading the initialization module for exit *exitname*.
- 26**  
The exit *exitname* module or the initialization module for exit *exitname* cannot be loaded because the asynchronous load subtask is not available.
- 28**  
Activation of the exit *exitname* is already in progress.
- 2A**  
The exit *exitname* is not supported for a subarea node.
- 2C**  
The exit *exitname* is being deactivated in response to a request to replace this exit with one that has less function.
- 2E**  
The exit activation has failed because the subtask is detached after abending five times.
- 30**  
The exit function of VTAM is not available.
- 40**  
The exit function of VTAM has terminated.
- F0**  
The exit *exitname* is not active.
- F1**  
Deactivation of the exit *exitname* is already in progress.
- F2**  
An abend occurred during processing in the exit *exitname*.

### F3

Replacement of the exit *exitname* is already in progress.

### System action

For codes **04** and **06** processing continues; user exit *exitname* will not be available.

For codes **08**, **10**, and **40** processing continues.

For codes **0A**, **0C**, **0E**, and **30** VTAM initialization fails.

For codes **14**, **18**, **1C**, **1E**, **2A**, **2E**, and **F0** the command is not executed.

For codes **20** and **24** the exit *exitname* cannot be found and will not be invoked.

For code **26** the exit *exitname* cannot be loaded and will not be invoked.

For code **28** activation of exit *exitname* will continue.

For code **2C** and **F1** deactivation of exit *exitname* will continue.

For code **F2** the exit *exitname* will be disabled and will not be invoked during further requests.

For code **F3** replacement of the exit *exitname* will continue.

### Operator response

For codes **04**, **08**, **0A**, **0C**, **0E**, **1C**, **30**, **40**, and **F2** save the system log for problem determination.

For code **06** after VTAM has been initialized, save the system log and request a dump for problem determination. After the dump is complete, wait a short time and attempt to activate exit *exitname* with the MODIFY EXIT command.

For codes **10** and **2A** no further action is required.

For code **14** if VTAM has been initialized, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

If VTAM initialization failed, save the system log for problem determination.

For code **18** verify that exit *exitname* is correct and reenter the command. Save the system log for problem determination if the failure reoccurs. If *action* is FORCE, you must issue the MODIFY,EXIT,OPTION=FORCE from a system console.

For codes **20**, **24**, and **F0** verify that exit *exitname* is correct and reenter the command. Save the system log for problem determination if the failure reoccurs.

For code **26**, if the code is received at VTAM initialization, enter the MODIFY EXIT command to activate the exit. Save the system log and request a dump for problem determination if the failure occurs when the command is entered.

For code **1E** and **F1** wait for deactivation of exit *exitname* to complete and reenter the command.

For code **28** wait for the activation of exit *exitname* to complete and reenter the command.

For code **2C** verify that you want to activate a new exit with less function than the old exit. Reenter the MODIFY EXIT command specifying OPT=ACT to activate the correct exit.

In the future to replace an exit with one that has less function, enter a MODIFY EXIT command specifying OPT=INACT to deactivate the old exit. Then enter a MODIFY EXIT command specifying OPT=ACT to activate the new exit.

For code **F3** wait for the replacement of exit *exitname* to complete and reenter the command.

For code **2E** save the console log for problem determination. Notify the system programmer to restart VTAM to reattach the subtask.



## System programmer response

For codes **04, 08, 0A, 0C**, and **0E** determine whether modules are loaded correctly by VTAM.

If you cannot determine the cause of the problem from the output provided, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM Support Center.

For codes **06, 1C, 26, 30**, and **40**, if you cannot determine the cause of the problem from the output provided, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM Support Center.

For codes **10, 1E, 28, 2A, 2C, F1**, and **F3** no further action is required.

For code **14** you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY BFRUSE and MODIFY VTAMOPTS commands. The [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) provides additional information.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

For code **18**, verify that the correct exit name was used and that the exit resides in the correct load library.

For codes **20, 24**, and **F0**, verify that the correct exit name was used and that the exit resides in the correct load library. See [z/OS Communications Server: SNA Customization](#) for more information about these exit routines.

For code **F2**, the abend was caused by a failure in the exit code. Verify that the exit *exitname* is functioning properly.

For code **2E**, restart VTAM to reattach the subtask.

## Routing code

8

## Descriptor code

4

---

**IST986I** **TABLE=tablename TYPE=tabletype USE COUNT=usecount**

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY TABLE command. Possible message groups follow.

- If MSGLVL=V4R1 or above is specified, the following message group is displayed:

```
IST986I  TABLE=tablename TYPE=tabletype USE COUNT=usecount
[IST987I  THE RESOURCES THAT USE THE TABLE ARE:]
[IST1154I resourcename_1 ... resourcename_n]
:
IST1454I  count RESOURCE(S) DISPLAYED
IST314I  END
```

- If MSGLVL=BASE is specified or taken as the default, the following message group is displayed:

```

IST986I  TABLE=tablename TYPE=tabletype USE COUNT=usecount
[IST987I  THE RESOURCES THAT USE THE TABLE ARE:]
[IST988I  resourcename_1 ... resourcename_n]
:
IST1454I  count RESOURCE(S) DISPLAYED
IST314I  END

```

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of the MSGLEVEL start option and the MSGLVL operand on the USSMSG macro.

### IST986I

- *tablename* is the name of the table entered on the DISPLAY command.
- *tabletype* is the type of table that *tablename* represents and can be one of the following:

#### ASLTAB

Associated LU table

#### COSTAB

Class-of-service table

#### FLDTAB

Message flooding table

#### LOGTAB

Interpret table

#### MDLTAB

Model name table

#### MODETAB

Logon mode table

#### USSTAB

Unformatted system services table

#### \*\*NA\*\*

Name not available. The USS or interpret table was either assembled with pre-V3R2 macros or did not have FORMAT=DYNAMIC coded on the USSTAB macro.

*usecount* is the number of resources that use the table.

**Note:** If *tabletype* is COSTAB, *usecount* can be higher than the number of user resource names displayed. This will occur if PU type 4 or PU type 5 uses the *tablename* for multiple network IDs. Enter a DISPLAY COS,ID=*resourcename*,NETID=*netid* command to determine which network IDs use the specified table for the PU type 4 or PU type 5 resource.

### IST987I

This message is a header message for the information displayed in message IST988I and IST1154I.

If *tabletype* is not COSTAB, you might not be able to display all of the resources listed in message IST988I or message IST1154I. Examples of resources that cannot be displayed are model logical units and reset logical units defined under a shared NCP.

### IST988I

If network-qualified names are not displayed, VTAM issues this message.

*resourcename* is a PU type 4 or PU type 5 if *tabletype* is COSTAB. For other table types, *resourcename* is a logical unit or an application.

### IST1154I

If network-qualified names are displayed, VTAM issues this message.

*resourcename* is a PU type 4 or PU type 5 if *tabletype* is COSTAB. For other table types, *resourcename* is a logical unit or an application in the form *netid.name*.

### IST1454I

*count* is the total number of resources using this table.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST987I** **THE RESOURCES THAT USE THE TABLE ARE:**

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY TABLE command. See IST986I for a complete description of the message group.

**Routing code**

2

**Descriptor code**

5

---

**IST988I** *resourcename\_1 ... resourcename\_n*

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY TABLE command. See IST986I for a complete description of the message group.

This message is also part of a group of messages that VTAM issues in response to a DISPLAY LMTBL,TYPE=LUNAME or DISPLAY LMTBL,TYPE=LOGMODE command. See IST1006I for a complete description of the message group.

**Routing code**

2

**Descriptor code**

5

---

**IST989I** **EXP LIMIT *explimit* BUFFS REQUESTED *buffers***

**Explanation**

This message is part of a message group. The first message in the group is IST920I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST990E****CORRELATOR MISMATCH FOR *loadmodname* IGNORED – ACTIVATION CONTINUES**

## Explanation

During the activation of NCP load module *loadmodname*, VTAM detected a correlator mismatch between the generated correlator and the correlator loaded in the communication controller. VTAM ignores the mismatch because VFYC=IGNORE was specified on the NCP's PCCU definition statement, or 'IGNORE' was the reply to message IST937A. However, the mismatch might be a user error and ignoring it could lead to potential problems.

## System action

Activation continues.

## Operator response

If the correlator mismatch was unintentional, deactivate and reload the NCP.

If the correlator mismatch was intentional, none.

## System programmer response

If the correlator mismatch was unintentional, either generate the NCP again or change the value of VFYC on the PCCU definition statement.

If the correlator mismatch was intentional, none.

## Routing code

2

## Descriptor code

3

---

**IST991I****CORRELATOR MISMATCH FOR *loadmodname* FOUND–RELOAD SCHEDULED**

## Explanation

During the activation of NCP load module *loadmodname*, VTAM detected a correlator mismatch between the generated correlator and the correlator loaded in the communication controller.

This message indicates that a reload of the NCP has been scheduled and will occur for one of the following reasons:

- VFYC=NO is specified or defaulted on the NCP's PCCU definition statement.

When there is a mismatch between the NCP load module and the resource resolution table (RRT), a repeated reload of the NCP occurs until an operator deactivates the NCP.

- 'RELOAD' was the reply to message IST937A.

## System action

The NCP is reloaded.

## Operator response

- If the correlator mismatch was not intentional, save the system log for problem determination.  
If the NCP is in a continuous loop, enter a VARY INACT command to deactivate the NCP.
- If the correlator mismatch was intentional, no action is required.

## System programmer response

- If the correlator mismatch was not intentional, either generate the NCP again or change the value of VFYC on the PCCU definition statement.
- If the correlator mismatch was intentional, no action is required.

## Routing code

2

## Descriptor code

5

---

IST998E

VTAM MESSAGE *messageid* ISSUED BUT DOES NOT EXIST

---

## Explanation

VTAM could not locate *messageid* in any of the VTAM message tables associated with the destination of the message (a VTAM operator or a program operator application).

## System action

Processing for message *messageid* is complete.

## Operator response

Save the system log for problem determination.

## System programmer response

Determine whether a valid VTAM message ID is missing from one of the following message modules:

- ISTINCNO, the IBM-supplied default operation-level USS table
- ISTCFMCM, the IBM-supplied default message table
- The USS table specified by the USSTAB start option
- The USS table specified by the USSTAB operand on the APPL definition statement for a program operator application
- The USS table specified for an application program using the MODIFY TABLE command.

If *messageid* is a valid VTAM message ID, it should always be found in ISTINCNO, the IBM-supplied default operation-level USS table. This message is evidence that the USS tables have been improperly modified or installed.

If *messageid* is not a valid VTAM message ID, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.

- If you do not have access to IBMLink, report the problem to the IBM Software Support Center.

## Routing code

2

## Descriptor code

3

---

**IST999E**

**VTAM MESSAGE LOST – INSUFFICIENT STORAGE**

---

## Explanation

VTAM tried to issue a message, but sufficient storage was not available. Any text issued by VTAM after **INSUFFICIENT STORAGE** should be ignored.

## System action

Processing continues.

## Operator response

If the message can be related to a command, and it is necessary that you see the full message, release storage by deactivating unused major nodes or canceling the job, and reenter the command that caused the message.

If the storage problem persists, enter a DISPLAY BFRUSE command. Save the system log and dump for problem determination.

## System programmer response

You might have underestimated storage requirements for the common service area (CSA). Increase storage as required. See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY BFRUSE command. The [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) provides additional information.

## Routing code

2

## Descriptor code

3

---

**IST1001I**

**ID= applname [LUNAME= luname] [LOGMODE= logmode]**

---

## Explanation

This message is the first in a group of messages that VTAM issues in response to a MODIFY CNOS, MODIFY DEFINE, or DISPLAY CNOS command. A complete description of the message group follows the example.

```
IST1001I ID= applname [LUNAME= luname ] [LOGMODE= logmode]
IST1002I RCPRI=rcpri RCSEC=rcsec
[IST1005I fieldname=value [fieldname=value] [fieldname=value]]
:
[IST1003I varname CNOS=cnosvalue DEFINE=definedvalue]
:
IST314I END
```

If *rcpri* and *rcsec* in message IST1002I indicate that the command did not execute successfully, VTAM issues only messages IST1001I and IST1002I. If the command executed successfully, VTAM issues the complete message group.

#### **IST1001I**

*applname* is the name of the LU 6.2 application program specified in the operator command.

*luname* is the name of the partner LU for this application program.

*logmode* is the name of the logon mode for this application program.

#### **IST1002I**

*rcpri* is the value of the primary return code issued by VTAM.

*rcsec* is the value of the secondary return code issued by VTAM. See the [z/OS Communications Server: IP and SNA Codes](#) for a detailed explanation of *rcpri* and *rcsec*.

#### **IST1003I**

- This message is issued only if the command executed successfully.
- *varname* can be one of the following:

##### **MINWINL**

The minimum number of parallel sessions for which the application program is guaranteed to be the contention winner for the mode name specified in the LOGMODE operand.

##### **MINWINR**

The minimum number of parallel sessions for which the partner LU is guaranteed to be the contention winner for the mode name specified in the LOGMODE operand.

##### **SESSLIM**

The maximum number of LU-LU sessions allowed between the application program and the partner LU for the mode name specified in the LOGMODE operand.

- *cnosvalue* is the value of *varname* for CNOS. This is the value accepted by both partner LUs.
- *definedvalue* is the value of *varname* for DEFINE. VTAM uses this value internally when negotiating CNOS origination from the partner LU.

#### **IST1005I**

- This message is issued only if the command executed successfully.
- The following describes the field names and their values:

##### **AUTOSES**

The number of contention winner sessions that will be automatically started following a successful CNOS command.

##### **CONVCAP**

CONVCAP indicates whether sessions with the partner logical unit (LU) can support half-duplex conversations or both full-duplex and half-duplex conversations.

##### **Value**

##### **Meaning**

##### **FDX**

The partner LU can support both full-duplex and half-duplex conversations.

##### **HDX**

The partner LU can support only half-duplex conversations.

VTAM cannot display the value of CONVCAP until the first session with the partner LU has been established. If the first session has not been established, VTAM displays **\*\*\*NA\*\*\***.

##### **CONVSECL**

CONVSECL indicates the security level supported by the application program.

##### **Value**

##### **Meaning**

**NONE**

The application program does not accept FMH-5s that include security subfields.

**CONV**

The application program accepts FMH-5s that include security subfields.

**ALREADYV**

The application program accepts FMH-5s that include security subfields and accepts the already verified indicator in place of the password subfield.

**PERSISTV**

The application program supports conversation-level security and accepts the persistent verification indicator in the conversation requests it receives.

**AVPV**

The application program supports conversation-level security and accepts both the persistent verification indicator and the already verified indicator in the conversation requests it receives.

VTAM cannot display the value of CONVSECL until the first session has been established with the partner LU. If the first session with the partner LU has not been established, VTAM displays **\*\*\*NA\*\*\***.

**CONVSECP**

CONVSECP indicates the security level supported by the partner LU.

**Value****Meaning****NONE**

The partner LU does not accept FMH-5s that include security subfields.

**CONV**

The partner LU accepts FMH-5s that include security subfields.

**ALREADYV**

The partner LU accepts FMH-5s that include security subfields and accepts the already verified indicator in place of the password subfield.

**PERSISTV**

The partner LU supports conversation-level security and accepts the persistent verification indicator in the conversation requests it receives.

**AVPV**

The partner LU supports conversation-level security and accepts both the persistent verification indicator and the already verified indicator in the conversation requests it receives.

VTAM cannot display the value of CONVSECP until the first session has been established with the partner LU. If the first session with the partner LU has not been established, VTAM displays **\*\*\*NA\*\*\***.

**DDRAINL**

DDRAINL indicates whether VTAM accepts a CNOS request that allows an application program to drain its allocation requests.

**Value****Meaning****ALLOW**

VTAM accepts a CNOS request that allows an application program to drain its allocation requests.

**NALLOW**

VTAM does not accept a CNOS request that allows an application program to drain its allocation requests.

**DELETE**

DELETE specifies whether the mode name can be deleted from the LU-mode table.

**Value****Meaning****ALLOW**

The mode name can be deleted from the LU-mode table.



**NALLOW**

The mode name cannot be deleted from the LU-mode table.

**DRAINL**

DRAINL indicates whether the application program can drain its allocation requests.

**Value****Meaning****YES**

The application program can drain its allocation requests.

**NO**

The application program cannot drain its allocation requests.

**DRAINR**

DRAINR indicates whether the partner LU can drain its allocation requests.

**Value****Meaning****YES**

The partner LU can drain its allocation requests.

**NO**

The partner LU cannot drain its allocation requests.

**DRESPL**

DRESPL specifies whether VTAM accepts a CNOS request specifying that the application program is responsible for deactivating sessions.

**Value****Meaning****ALLOW**

VTAM accepts a CNOS request specifying that the application program is responsible for deactivating sessions.

**NALLOW**

VTAM does not accept a CNOS request specifying that the application program is responsible for deactivating sessions.

**ETYPE**

ETYPE indicates the type of LU entry that contains the specified LUNAME.

**Value****Meaning****DISASSOC**

LUNAME was found in a DISASSOC\_NAME entry. The LU entry was previously a VARIANT\_NAME entry, but is no longer associated with any other entry.

**RCVD**

LUNAME was found in a RCVD\_NAME entry. This LU entry is created due to a session initiation request from the partner LU.

**SUPPLIED**

LUNAME was found in a SUPPLIED\_NAME entry. This LU entry is created using the LU name specified on the APPCCMD macro or an OPERATOR command.

**UNUSABLE**

LUNAME was found in an UNUSABLE\_NAME entry. The LU entry was marked unusable due to inappropriate name translations.

**VARIANT**

LUNAME was found in a VARIANT\_NAME entry. This LU entry is created when the LUNAME, found in the Network-Qualified SLU Network Name Structured User Data subfield in the BIND response, is different than the LUNAME specified in the BIND request.

**FREECNT**

The number of active sessions with the partner LU that are free for use by a conversation.

**QALLOC**

The number of allocation requests waiting for a session to become free.

**RESP**

RESP specifies whether the application program is responsible for deactivating sessions.

**Value****Meaning****LOCAL**

The application program is responsible for deactivating sessions.

**REMOTE**

The partner LU is responsible for deactivating sessions.

VTAM displays a value for RESP only in response to a MODIFY CNOS command. VTAM displays **\*\*\*NA\*\*\*** instead of a value when the MODIFY DEFINE or DISPLAY CNOS commands are entered.

**SESSCAP**

SESSCAP indicates the session capability of the partner LU.

**Value****Meaning****PSINGLE**

The session capability of the partner LU has not been determined; the preliminary indication is that the partner LU cannot support parallel sessions.

**SINGLE**

The partner LU cannot support parallel sessions.

**PPARALLE**

The session capability of the partner LU has not been determined; the preliminary indication is that the partner LU can support parallel sessions.

**PARALLEL**

The partner LU can support parallel sessions.

**SESSCNT**

The number of active sessions with the partner LU that have the specified mode name.

**SYNCLVL**

SYNCLVL specifies the synchronization level supported by the conversation.

**Value****Meaning****NONE**

No synchronization level is supported.

**CONFIRM**

The CONFIRM synchronization level is supported.

**SYNCPT**

The SYNCPT and CONFIRM synchronization levels are supported.

**WINLCNT**

The number of active sessions for which the application program is the contention winner.

**WINRCNT**

The number of active sessions for which the partner LU is the contention winner.

See the [z/OS Communications Server: SNA Programmer's LU 6.2 Guide](#) for a more detailed explanation of these field names and their values.

**System action**

Processing continues.

## Operator response

If messages IST1005I and IST1003I are not in this group, save the system log for problem determination. Otherwise, no action is required.

## System programmer response

Use the system log and return code values in message IST1002I to assist you in solving the problem.

## Routing code

8

## Descriptor code

5

---

**IST1002I** **RCPRI= *rcpri* RCSEC= *rcsec***

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is either IST1001I, IST1110I or IST1472I. See the explanation of the first message in the group for a complete description.

*rcpri* is the value of the primary return code issued by VTAM.

*rcsec* is the value of the secondary return code issued by VTAM.

See the [z/OS Communications Server: IP and SNA Codes](#) for a detailed explanation of *rcpri* and *rcsec*.

## Routing code

8

## Descriptor code

5

---

**IST1003I** ***varname* CNOS=*cnosvalue* DEFINE=*definedvalue***

## Explanation

VTAM issues this message as part of a group of messages. The first message in this group is IST1001I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

5

---

**IST1004I** ***command* FOR *nodename* FAILED – *reason***

## Explanation

VTAM issues this message when one of the following commands fails:

- DISPLAY CNOS
- DISPLAY CONVID

- DISPLAY LMTBL,TYPE=LUNAME
- DISPLAY LMTBL,TYPE=LOGMODE
- DISPLAY STORUSE
- MODIFY CNOS
- MODIFY DEFINE

*nodename* is the name of the local application program that was specified on the *command*. The network ID of *nodename* is the same as the host network ID.

*reason* can be one of the following:

**APPLICATION JOB NOT FOUND**

The requested job name is not found.

**APPLICATION NOT ACTIVE**

The application has not opened its ACB.

**APPLICATION NOT FOUND**

The requested application is not found.

**DATA SPACE NOT FOUND**

The requested data space is not found.

**DEACTIVATION IN PROGRESS**

The application program issued a CLOSE that has not yet completed, a VARY INACT command has been issued for the application program, or VTAM has become inactive.

**INSUFFICIENT STORAGE**

There is not enough storage available to complete the request.

**NO APPLICATION ACTIVE**

No VTAM application has opened its ACB.

**NO APPLICATION DATA SPACE**

The application does not have a VTAM data space.

**NODE ACB IS CLOSED**

The application program closed its application control block (ACB).

**NODE NOT ACTIVE**

The application program has not opened its ACB.

**NODE NOT APPC CAPABLE**

Either *nodename* is not the name of an application program, or *nodename* is the name of an application program but APPC=YES was not specified on the APPL definition statement.

**OPERATOR COMMAND NOT ALLOWED**

The application program is APPC capable, but OPERCNOS=ALLOW was not specified on the APPL definition statement.

**POOL NOT FOUND**

The requested pool is not found.

**VTAM ERROR**

VTAM abended while processing the command.

**System action**

VTAM rejects the command. Processing continues.

**Operator response**

The value of *reason* determines the response:

**APPLICATION JOB NOT FOUND**

Try the command again with the correct job name.

**APPLICATION NOT ACTIVE**

Activate the application program with a VARY ACT command. If this does not solve the problem, save the system log for problem determination.

**APPLICATION NOT FOUND**

Try the command again with the correct application name.

**DATA SPACE NOT FOUND**

Try the command again with the correct data space name.

**DEACTIVATION IN PROGRESS**

Take the appropriate action:

- If a CLOSE ACB or VARY INACT command has been issued, enter a VARY ACT command to restart the application program.
- If VTAM has become inactive, save the system log for problem determination.

**INSUFFICIENT STORAGE**

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE or DISPLAY STORUSE command. Save the system log and dump for problem determination.

**NO APPLICATION ACTIVE**

Try the command again when an application has opened its ACB.

**NO APPLICATION DATA SPACE**

If *nodename* is ISTDCLU, no action is necessary. If any other application is specified, save the system log for problem determination.

**NODE ACB IS CLOSED**

Activate the application program with a VARY ACT command. If this does not solve the problem, save the system log for problem determination.

**NODE NOT ACTIVE**

Activate the application program with a VARY ACT command. If this does not solve the problem, save the system log for problem determination.

**NODE NOT APPC CAPABLE**

Determine if the specified *nodename* is correct.

- If *nodename* is not correct, try the command again by specifying the correct *nodename*.
- If *nodename* is correct, save the system log for problem determination.

**OPERATOR COMMAND NOT ALLOWED**

Save the system log for problem determination.

**POOL NOT FOUND**

Try the command again with the correct pool name.

**VTAM ERROR**

Save the system log and dump for problem determination.

**System programmer response**

The value of *reason* determines the response:

**APPLICATION JOB NOT FOUND**

None.

**APPLICATION NOT FOUND**

None.

**APPLICATION NOT ACTIVE**

If the operator entered a VARY ACT command to activate the application program and the problem persists, the application program must open its ACB.

**DATA SPACE NOT FOUND**

None.

## DEACTIVATION IN PROGRESS

If VTAM has become inactive, reactivate VTAM.

## INSUFFICIENT STORAGE

You might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## NO APPLICATION ACTIVE

None.

## NO APPLICATION DATA SPACE

If an application other than ISTDCLU is specified, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## NODE ACB IS CLOSED

If the operator entered a VARY ACT command to activate the application program and the problem persists, the application program must open its ACB.

## NODE NOT ACTIVE

If the operator entered a VARY ACT command to activate the application program and the problem persists, the application program must open its ACB.

## NODE NOT APPC CAPABLE

Enter a VARY INACT command to deactivate the major node. Enter a DISPLAY ID command for the associated minor node to ensure that the major node is an application program. Examine the APPL definition statement to ensure that APPC=YES was specified. You may need to modify the APPL definition statement, specifying APPC=YES, restart the application program, and try the command again.

## OPERATOR COMMAND NOT ALLOWED

Enter a VARY INACT command to deactivate the application program. Modify the APPL definition statement, specifying OPERCNOS=ALLOW, restart the application program, and try the command again.

## POOL NOT FOUND

None.

## VTAM ERROR

VTAM has abended while processing a DISPLAY CNOS; DISPLAY LMTBL,TYPE=LUNAME; DISPLAY LMTBL,TYPE=LOGMODE; DISPLAY CONVID; MODIFY CNOS; or MODIFY DEFINE command. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on the abend procedure.

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM Software Support Center.

## Routing code

## Descriptor code

5

---

**IST1005I** *fieldname=value [fieldname=value] [fieldname=value]*

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in this group is IST1001I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

5

---

**IST1006I** *nametype NAMES DEFINED [IN LU luname] FOR applname*

---

## Explanation

This message is the first of a group of messages that VTAM issues in response to a DISPLAY LMTBL command. Possible message groups follow.

If MSGLVL=BASE is specified:

- For a DISPLAY LMTBL,TYPE=LUNAME command, the message group is as follows:

```
IST1006I nametype NAMES DEFINED FOR applname
IST988I  resourcename_1...resourcename_n
:
IST314I  END
```

For a DISPLAY LMTBL,TYPE=LOGMODE command, the message group is as follows:

```
IST1006I nametype NAMES DEFINED IN LU luname FOR applname
IST988I  resourcename_1...resourcename_n
:
IST314I  END
```

If MSGLVL=V4R1 or above is specified:

- For a DISPLAY LMTBL,TYPE=LUNAME command, the message group is as follows:

```
IST1006I nametype NAMES DEFINED FOR applname
IST1154I resourcename_1...resourcename_n
:
IST314I  END
```

For a DISPLAY LMTBL,TYPE=LOGMODE command, the message group is as follows:

```
IST1006I nametype NAMES DEFINED IN LU luname FOR applname
IST988I  resourcename_1...resourcename_n
:
IST314I  END
```

For a DISPLAY LMTBL,TYPE=LUNAME,SCOPE=ALL command, the message group is as follows:

```
IST1006I nametype NAMES DEFINED FOR applname
IST1409I luname ASSOC = associatedlu ETYPE = entrytype
:
IST314I  END
```

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of the MSGLEVEL start option and the MSGLVL operand on the USSMSG macro.

## IST1006I

Message IST1006I is a header for messages IST988I, IST1154I, and IST1409I, which lists all LU or logon mode names defined for the partner LU in the LU-mode table.

*nametype* is either **LU** or **LOGMODE**, depending on the value of the TYPE operand in the DISPLAY LMTBL command.

*luname* is the name of the partner LU for this application program.

*applname* is the name of the LU 6.2 application program for which DISPLAY information was requested.

## IST988I

If network-qualified names are not displayed, VTAM issues this message.

*resourcename* is the LU or logon mode name.

## IST1154I

If network-qualified names are displayed, VTAM issues this message.

*resourcename* is the LU name.

## IST1409I

- *luname* is the LU name.

*associatedlu* is the associated LU name. If the *associatedlu* differs from *luname* then *associatedlu* is used to associate this LU entry to another LU entry created for the same partner LU.

*entrytype* is the type of LU entry that contains the LUNAME specified by *luname*, and can be one of the following.

### Value

#### Meaning

### SUPPLIED

LUNAME was found in a SUPPLIED\_NAME entry. This LU entry is created using the LU name specified on the APPCCMD macro or an OPERATOR command.

### VARIANT

LUNAME was found in a VARIANT\_NAME entry. This LU entry is created when the LUNAME, found in the Network-Qualified SLU Network Name Structured User Data subfield in the BIND response, is different than the LUNAME specified in the BIND request.

### RCVD

LUNAME was found in a RCVD\_NAME entry. This LU entry is created due to a session initiation request from the partner LU.

### UNUSABLE

LUNAME was found in an UNUSABLE\_NAME entry. The LU entry was marked unusable due to inappropriate name translations.

### DISASSOC

LUNAME was found in a DISASSOC\_NAME entry. The LU entry contains a name that is not being used as a generic or uservar name for the partner LU.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.



## Routing code

8

## Descriptor code

5

---

**IST1007I****PARTNER = *luname*, LOGMODE = *logmode***

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in this group is IST1040I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

5

---

**IST1008I****CONVID = *convid*, STATUS = *status*, ETIME = *etime***

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in this group is IST1040I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

5

---

**IST1009I****SID = *sid*, HPDT = *hpdvalue***

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in this group is IST1040I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

5

---

**IST1010I****NO CONVERSATION(S) FOUND FOR *applname***

---

## Explanation

VTAM issues this message in response to a DISPLAY CONVID command when no conversations for application program *applname* are found based on the specified operands.

*applname* is the name of the LU 6.2 application program for which DISPLAY information was requested.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

<b>IST1011I</b>	<b>ENTRY <i>entryname</i> NOT FOUND IN <i>tabletype</i> <i>tablename</i> FOR <i>resourcename</i></b>
-----------------	--

---

## Explanation

VTAM issues this message during session initiation if it cannot find a table entry for a resource. No *entryname* entry exists in the *tabletype* table *tablename* that is defined for the resource *resourcename*.

*entryname* is the entry that was specified on the LU, LOCAL, TERMINAL, or APPL definition statement.

*tabletype* is **MDLTAB** (model name table) or **ASLTAB** (associated LU table).

*tablename* is the name of the table.

*resourcename* is the 1–8 character resource name specified on the LU, LOCAL, TERMINAL, or APPL definition statement. *entryname* is defined for this resource.

## System action

If *tabletype* is **MDLTAB**, session establishment continues with no model name provided to the PLU.

If *tabletype* is **ASLTAB**, session establishment continues with no associated LU names provided to the PLU.

## Operator response

Save the system log for problem determination. Provide the *entryname* and *tablename*.

## System programmer response

Verify that *tablename* is the correct table for *resourcename*. If it is not, do one of the following:

- Change the *tablename* in the logical unit definition and reactivate the logical unit.
- Enter a MODIFY TABLE command to associate the correct table with the logical unit.

If *tablename* is correct, verify that the *entryname* specified in the logical unit definition matches the *entryname* in the table. If the *entrynames* do not match, do one of the following:

- Change the *entryname* in the logical unit definition and reactivate the logical unit.
- Add, replace, or correct the *entryname* in the table and enter MODIFY TABLE to use the updated table.

## Routing code

2

## Descriptor code

5

---

**IST1012I****NO PARTNER LU(S) DEFINED FOR *applname***

## Explanation

VTAM issues this message in response to a DISPLAY LMTBL, TYPE=LUNAME command when there are no LU entries defined in the LU-mode table of application program *applname*.

*applname* is the name of the LU 6.2 application program for which DISPLAY information was requested.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST1013I****NO LOGMODE(S) DEFINED IN LU *luname* FOR *applname***

## Explanation

VTAM issues this message in response to a DISPLAY LMTBL, TYPE=LOGMODE command when there are no logon mode entries defined for *luname* in the LU-mode table of application program *applname*.

*luname* is the name of the specified LU.

*applname* is the name of the LU 6.2 application program for which DISPLAY information was requested.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST1015I** **APPLICATION SUPPLIED** *parameter\_name = parameter\_value*

---

### Explanation

This message is part of a message group. The first message in the group is IST663I. See the explanation of that message for a description of the entire message group.

This message is the first of a subgroup of messages in the IST663I group of messages. A complete description of the message subgroup follows.

```
IST1015I APPLICATION SUPPLIED parameter_name = parameter_value
[IST1028I parameter_value]
```

This message subgroup is issued only to the operator of the host of the secondary logical unit.

*parameter\_name* is the name of the parameter displayed in the message subgroup, and is one of the following:

#### CPNAME

*parameter\_value* displays the control point (CP) name of the type 2.1 peripheral node supplied by the application program for the switched connection.

#### GROUP NAME

*parameter\_value* displays the name of a GROUP definition statement in the NCP or channel attachment major node that defines a group of SDLC switched links.

#### DIAL NUMBER

*parameter\_value* displays the line number supplied by the application program for the switched connection. If *parameter\_value* contains unprintable characters, the message will appear as follows:

```
IST1015I APPLICATION SUPPLIED DIAL NUMBER=X'parameter_value'
```

If the message contains any unprintable characters, the dial number is preceded by an "X". If the message contains only printable characters, the dial number is not preceded by an "X".

#### DLCADDR SUBFIELD

*parameter\_value* displays the DLCADDR subfield supplied by the application program for the switched connection. If *parameter\_value* contains unprintable characters, the message will appear as follows:

```
IST1015I APPLICATION SUPPLIED DLCADDR SUBFIELD=yy,X'parameter_value'
```

If the message contains any unprintable characters, the DLCADDR subfield is preceded by an "X". If the message contains only printable characters, the DLCADDR subfield is not preceded by an "X".

yy is the subfield ID.

#### DIRECT CALL LINE

*parameter\_value* displays the name of the line supplied by the application program for the switched connection.

#### IDBLK/IDNUM

*parameter\_value* displays the identification block (IDBLK) and identification number (IDNUM) supplied by the application program for the switched connection. IDBLK identifies the device type and IDNUM identifies the specific device or connection for the switched connection.

For IDBLK/IDNUM, *parameter\_value* is 64 characters long; there are no spaces between the values of IDBLK and IDNUM. This field is always displayed in hex. VTAM displays the first portion of *parameter\_value* in message IST1015I and the remainder in message IST1028I. The message subgroup will appear as follows:

```
IST1015I APPLICATION SUPPLIED IDBLK/IDNUM=X'parameter_value
IST1028I parameter_value'
```

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on the IDBLK, IDNUM, and CPNAME operands for switched major nodes.

## System action

The session initiation attempt fails.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the information in messages IST663I, IST664I, and IST889I to determine the cause of the error. Possibilities include dial numbers not in the correct form or an XID failure. This is not necessarily a system programmer error. If it is not, notify the application programmer.

## Routing code

8

## Descriptor code

4

---

### IST1016I DYNAMIC DEFINITION OF *nodename* FAILED

## Explanation

This message is the first in a group of messages that VTAM issues when an error is detected while building a dynamic switched physical unit, logical unit, or transport resource list entry (TRLE). A complete description of the message group follows.

```
IST1016I DYNAMIC DEFINITION OF nodename FAILED
[IST1061I FAILURE OCCURRED ON puname AT locaddr]
IST523I REASON = reason
IST314I END
```

### IST1016I

*nodename* is the name of the PU, LU, or TRLE that cannot be built. *nodename* can be \*NA\* if the name contains non-printable characters.

### IST1061I

VTAM issues message IST1061I when the SDDL dynamic definition of an LU fails.

*puname* is the name of the PU for which a dynamic LU could not be built.

*locaddr* is the address of the LU that could not be built.

### IST523I

- *reason* indicates the reason for the failure and is one of the following:

#### ERROR IN SDDL EXIT OR EXIT NOT AVAILABLE

Either the selection of definitions for dependent LUs (SDDL) exit routine has not been activated, or there was an error in SDDL exit processing. Errors that the SDDL exit routine can detect include:

- The SDDL exit routine could not generate an LU name.
- The SDDL exit routine could not determine which model LU name to use.

#### **INSUFFICIENT DEVICE ADDRESSES**

There were not enough device addresses to create the TRLE identified by *nodename*.

#### **INSUFFICIENT STORAGE**

Storage could not be obtained for the dynamic resource.

#### **INVALID NAME**

Either the node name or the model name returned by the configuration services XID exit routine or the SDDL exit routine is not valid. Resource definition fails for the node with the name that is not valid.

#### **INVALID RESOURCE TYPE**

The definition for the independent LU was attempted. This is not a valid resource type.

#### **MODEL LU GROUP *lugroup* NOT FOUND**

The model LU group specified on the PU definition statement of *puname* is not active, or the LU group name entered on the VARY ACT command is not a valid VTAM name.

#### **MODEL *modelname* NOT FOUND**

The model PU or LU could not be found.

#### **MODEL *modelname* TYPE DOES NOT MATCH NODE TYPE**

The type of the model is incorrect. A PU model was specified when describing an LU node, or an LU model was specified when describing a PU node. *modelname* is the name of a model PU or LU.

#### **NO MODEL MATCHES *modelname***

The model name of the powering on device does not match any of the model LUs in the LUGROUP specified on the PU. *modelname* is the machine type and model number.

#### ***puname* DOES NOT SUPPORT DEPENDENT LOGICAL UNITS**

Switched PU *puname* does not support dependent LUs because the link from the remote PU is not configured to support dependent LUs (ACTPU is suppressed).

#### **VALUE FOR LOCADDR NOT VALID**

An address override of LOCADDR was requested but the new value was not valid.

### **System action**

#### **INSUFFICIENT DEVICE ADDRESSES**

The definition of the TRLE cannot be completed. The TRLE cannot be used by any TCP/IP stack.

- If *nodename* is IUTIQXxx or IUTIQ6xx, the OSX interface for CHPID xx and its associated TRLE remain active, but no associated IQDX interface or IQDX TRLE exists. Other active dynamic IQDX interfaces and TRLEs are not affected.
- If *nodename* is IUTICQxx or IUTIC6xx, the OSD interface for CHPID xx and its associated TRLE remain active, but no associated IQDC interface or IQDC TRLE exists. Other active dynamic IQDC interfaces and their associated TRLEs are not affected.

Without taking an action to make more device addresses available, all subsequent dynamic definitions of IQDX or IQDC TRLEs will fail.

#### **All other reasons**

The definition of this resource cannot be completed. If resource definition fails for an LU, VTAM attempts to define any remaining LUs. If resource definition fails for a PU, VTAM does not attempt to define any LUs associated with the failed PU.

### **Operator response**

#### **INSUFFICIENT STORAGE**

Enter a DISPLAY BFRUSE or DISPLAY STORUSE command. Save the system log and request a dump for problem determination.

**MODEL LU GROUP *lugroup* NOT FOUND**

Enter a VARY ACT command to activate the LUGROUP definition that contains the *lugroup* model LU group. Save the system log for problem determination.

**MODEL *modelname* NOT FOUND**

Enter a DISPLAY MODELS command to list all defined models. Either the model major node has not been activated or the name requested by the exit is incorrect.

- Activate the model major node if it has not been activated. After the model major node has been activated, dial in can be attempted again.

**Note:** The dial in must be done by the remote device; the operator generally cannot perform the dial in.

- If the model major node name is incorrect, save the system log for problem determination.

***puname* DOES NOT SUPPORT DEPENDENT LOGICAL UNITS**

No action is necessary unless this host should be identified as the owner of dependent LUs off of the remote PU. If this is the case, the remote PU must be reconfigured so it will indicate to this host that ACTPU should not be suppressed.

**All other reasons**

Save the system log for problem determination.

**System programmer response****ERROR IN SDDLX EXIT OR EXIT NOT AVAILABLE**

Verify that the exit is in the VTAMLIB and that the exit has been activated. If the exit is active, there is an error in the exit that must be corrected. See [z/OS Communications Server: SNA Customization](#) for more information on the SDDLX exit routine.

**INSUFFICIENT DEVICE ADDRESSES**

Increase the number of subchannel addresses for the channel path ID (CHPID) associated with the TRLE identified by *nodename*. If *nodename* is IUTIQxx or IUTIQ6xx, see [Steps for enabling HiperSockets access to the intraensemble data network in z/OS Communications Server: IP Configuration Guide](#) to determine the number of subchannel addresses required and how to define them.

**INSUFFICIENT STORAGE**

Increase storage as required.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**INVALID NAME**

Correct the name returned by the exit routine. After the exit routine has been corrected, dial in can be attempted again.

**INVALID RESOURCE TYPE**

Ensure that the exit routine does not specify an LU model with a LOCADDR of 0 or an address override of 0.

**MODEL LU GROUP *lugroup* NOT FOUND**

Activate the LUGROUP definition that contains the model LU group *lugroup*. Specify an active LU group on the LUGROUP keyword in the PU definition statement for *puname*.

**MODEL *modelname* NOT FOUND**

The switched connection installation exit routine, ISTEXCCS, incorrectly specified the model name. Ensure that the exit routine specifies a valid model name. After the exit routine has been corrected, dial in can be attempted again.

**MODEL *modelname* RESOURCE TYPE DOES NOT MATCH NODE TYPE**

Ensure that the exit routine specifies a PU model when defining a PU, and an LU model when defining an LU. After the exit routine has been corrected, dial in can be attempted again.

**NO MODEL MATCHES *modelname***

Add a model LU definition statement under the appropriate LUGROUP that will match the model acronym in question.

**VALUE FOR LOCADDR NOT VALID**

Correct the exit routine. After the exit routine has been corrected, dial in can be attempted again.

**Routing code**

2

**Descriptor code**

5

---

**IST1017I****MODELS:****Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for a model major node. Following this message, VTAM issues message IST089I once for each resource defined in the model major node. See the explanations of the other messages in this group for more information.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1018I****MODEL MAJOR NODE = *major\_node\_name*****Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY MODELS command. See the explanations of the other messages in this group for more information.

*major node name* is the name of the model major node.



## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

### Descriptor code

5

IST1019I	USRVAR VALUE CLASS TYPE EXIT APPC
----------	-----------------------------------

### Explanation

This message is the first of a group of messages that VTAM issues in response to a DISPLAY USERVAR command. A complete description of the message group follows.

```

IST1019I  USERVAR      VALUE                CLASS TYPE      EXIT  APPC
IST1029I  uservar      value                class type      exit  {YES|NO}
:
[IST1315I  DISPLAY TRUNCATED AT MAX = number]
IST1454I  count USERVAR(S) DISPLAYED
IST314I  END

```

**IST1019I**

This message is a header message for information displayed in message IST1029I.

**IST1029I**

- VTAM issues message IST1029I once for each USERVAR being displayed.
- *uservar* is the name of the USERVAR.
- *value* is the value of the USERVAR. *value* is a network qualified name in the form of *netid.name*.
- *exit* can be **YES** or **NO**, indicating whether the USERVAR exit is used for this USERVAR.
- *class* can be either **USER** or **AUTO**. If *class* is **AUTO**, VTAM maintains this USERVAR. If *class* is **USER**, the user maintains this USERVAR.
- The values of *type* are as follows:

## STATIC

The USERVAR needs to be queried by other SSCPs only once.

## DYNAMIC

The USERVAR needs to be queried by other SSCPs after an abnormal termination of a session using the USERVAR.

**VOLATILE**

The USERVAR needs to be queried by other SSCPs when a session is initiated using the USERVAR.

- APPC is either **YES** or **NO**, and indicates whether this USERVAR supports advanced program-to-program communications (APPC).

**IST1315I**

*number* is the value specified for the MAX operand.

## IST1454I

*count* is the total number of USERVARs displayed.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

8

### Descriptor code

5

---

## IST1020I

**INSUFFICIENT STORAGE–DATA SPACE *dspname* FULL**

### Explanation

VTAM issues this message when data space *dspname* is full.

*dspname* is the name of the data space created by VTAM. The data space name is generated automatically when the data space is created by VTAM and is in one of the following formats:

#### ISTcccc

*cccc* is **0-FFFFC**

#### ccccIST

*cccc* is **1-99999**

### System action

Processing continues. The action depends on why the requested storage was needed. Other messages may follow identifying the effect this storage condition has on VTAM.

### Operator response

Enter a DISPLAY STORUSE command for *dspname*. Save the system log for problem determination.

### System programmer response

Usually this problem occurs when data is either coming in faster than the application can receive it or the application is not issuing RECEIVES.

- Ensure that sessions with this application have proper pacing counts.
- Verify that the application is not having a problem that is preventing it from issuing RECEIVES.
- If you cannot determine the cause of the problem from the output provided, take the following actions:
  - If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
  - If you do not have access to IBMLink, report the problem to the IBM software support center. Provide the information in the output from the DISPLAY STORUSE command.

## Routing code

2

## Descriptor code

5

**IST1021I**                    **MEDIUM = *medium*, ADAPNO = *adapno*, CUA = *device\_address*, SNA SAP = *snasap***

### Explanation

VTAM issues this message when a DISPLAY ID command is entered for an external communication adapter (XCA) major node.

*medium* is the type of LAN represented by this XCA major node. The type is specified on the MEDIUM operand of the PORT definition statement. *medium* can be one of the following:

**BOXMGR**

## 3172 Problem Management

## CSMA/CD

## 802.3 LAN

## FDDI

## Fiber distributed data interface

## RING

## Token-ring LAN

*adapno* is the decimal adapter slot number specified on the ADAPNO operand on the PORT definition statement. If *medium* is **BOXMGR**, VTAM displays **\*NA\***.

*device\_address* is the hexadecimal channel device address specified on the CUADDR operand on the PORT definition statement.

*snasap* is the decimal SNA service access point address specified on the SAPADDR operand on the PORT definition statement. The SNA service access point address is displayed if an SNA line is defined in the XCA major node. If an SNA line is not defined, VTAM displays **\*NA\***. The default value (4) is shown if a value was not specified on the PORT definition statement and an SNA line is defined in the XCA major node. If *medium* is **BOXMGR**, VTAM displays **\*NA\***.

### System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

5

### Descriptor code

8

## Automation

This message was deleted in z/OS 3.1.

---

**IST1022I****WRBUF = *wrbuf***

---

## Explanation

VTAM issues this message as part of a message group. The first message in the group is IST577I. See the explanation of the first message in the group for a complete description.

## Routing code

2

## Descriptor code

4

---

**IST1023E****START I/O TIMEOUT OCCURRED FOR CUA=*device\_address***

---

## Explanation

VTAM initiated an I/O operation with a LAN channel station, and start I/O timeout occurred for one of the following reasons:

- An interrupt was not received in the time specified for that I/O operation.
- Certain asynchronous events did not occur in the time specified for that I/O operation.
- The LAN channel station did not respond to a channel request from VTAM.

*device\_address* is the hexadecimal address of the subchannel used to communicate with the LAN channel station.

## System action

Processing continues.

If the LAN channel station does not respond in the defined interrupt interval, data will be lost and all lines using this subchannel will become inoperative. The default interrupt interval is 3 minutes. For more information, see the description of the MIHTMOUT start option in the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Operator response

- If the LAN channel station was stopped, normal operation will resume when you restart the LAN channel station.
- If the LAN channel station has failed, take the following actions:
  1. Deactivate all lines using this subchannel because the lines cannot be used.
  2. Check for a hardware problem:
    - Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on using EREP. If you use a network management application such as the NetView program, check to see whether an alert was recorded for this problem.
    - If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

Otherwise, no action is required.

## System programmer response

None.

## Routing code

2

## Descriptor code

3

---

<b>IST1024I</b>	<b>I/O ERROR ON READ FOR CUA = <i>device_address</i>—BYTE COUNT MISMATCH</b>
-----------------	--

---

## Explanation

VTAM detected an input buffer error during a READ operation for a LAN channel station at *device\_address*. The length of the buffer containing data units does not match the total length of all data units.

*device\_address* is the hexadecimal address of the channel used to communicate with the hardware adapter.

## System action

The device is deactivated. Data will be lost and all lines using this device will become inoperative.

## Operator response

This is probably a hardware error. Save the system log for problem determination. Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on using EREP.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

If the failure continues, run a CCW trace to trace data from this device.

## System programmer response

If the output does not indicate a hardware problem, and you cannot determine the cause of the problem, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

4

## Descriptor code

2

---

<b>IST1028I</b>	<b><i>parameter_value</i></b>
-----------------	-------------------------------

---

### Explanation

VTAM issues this message as part of a group of messages. See the explanation of message IST1015I for a full description.

### Routing code

8

### Descriptor code

4

---

**IST1029I** *uservar value class type exit {YES|NO}*

### Explanation

VTAM issues this message as part of a group of messages. The first message in this group is IST1019I. See the explanation of that message for a full description.

### Routing code

8

### Descriptor code

5

---

**IST1030I** **USERVAR EXIT IS** *exitname*

### Explanation

VTAM issues this message as part of a group of messages in response to a MODIFY USERVAR command. The first message in the group is either IST825I or IST1283I. See the explanation of the first message for a complete description of the group.

**Note:** This message is percolated. See [“Message rerouting and percolation” on page 1707](#) for additional information.

### Routing code

8

### Descriptor code

5

---

**IST1031I** **MODIFY COMMAND FAILED —** *uservar: EXIT FAILURE, CODE code*

### Explanation

VTAM issues this message when a MODIFY USERVAR command invokes a USERVAR exit and a failure occurs. Possible values are:

**X'0008'**

The exit is not defined.

**X'0010'**

VTAM is already in the desired state.

**X'0014'**

There is not enough storage to activate the USERVAR exit.

**X'0018'**

Activation is not permitted by the requester.

**X'001C'**

An error occurred during activation or deactivation.

**X'001E'**

The exit is being deactivated.

**X'0020'**

A storage failure occurred. This is the code issued by the default USERVAR exit for this situation. If another code is issued, save the system log for problem determination.

**X'0028'**

Activation of the exit is already in progress.

**X'003A'**

The invocation flag is not valid. This is the code issued by the default USERVAR exit for this situation. If another code is issued, save the system log for problem determination.

**X'003C'**

The entry code is not valid. This is the code issued by the default USERVAR exit for this situation. If another code is issued, save the system log for problem determination.

**X'00F0'**

The exit is not active.

**X'00F1'**

The exit is pending deactivation.

**X'00F2'**

The exit abended.

## System action

VTAM rejects the command. If *uservar* was previously defined, it retains its previous value. Otherwise, it will remain undefined until the reason for the failure is corrected. Other processing continues.

## Operator response

**X'0008'**

Ensure that you entered the name of the exit correctly. If problems persist, save the system log for problem determination.

**X'0010'**

None.

**X'0014'**

Ensure that you entered the name of the exit correctly. If problems persist, enter a DISPLAY BFRUSE or DISPLAY STORUSE command to verify that there is sufficient storage to activate the USERVAR exit. Save the system log and request a dump for problem determination.

**X'0018'**

Ensure that you entered the name of the exit correctly.

**X'001C'**

Ensure that you entered the name of the exit correctly. If problems persist, save the system log for problem determination.

**X'001E'**

Reactivate the exit if desired.

**X'0020'**

Ensure that you entered the name of the exit correctly. If problems persist, save the system log for problem determination.

**X'0028'**

None.

**X'003A'**

Ensure that you entered the name of the exit correctly. If problems persist, save the system log for problem determination.

**X'003C'**

Ensure that you entered the name of the exit correctly. If problems persist, save the system log for problem determination.

**X'00F0'**

Activate the exit if desired.

**X'00F1'**

None.

**X'00F2'**

Save the system log for problem determination.

## System programmer response

**X'0008'**

Ensure that the exit is correctly defined. Messages issued at VTAM initialization may provide additional information about the cause of the problem.

**X'0010'**

None.

**X'0014'**

Ensure that the operator entered the buffer pool or CSA start options as specified in the start procedures. You might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**X'0018'**

None.

**X'001C'**

Check the exit for possible errors. See [z/OS Communications Server: SNA Customization](#) for more information.

**X'001E'**

None.

**X'0020'**

Check the exit for possible errors. See [z/OS Communications Server: SNA Customization](#) for more information.

**X'0028'**

None.



**X'003A'**

Check the exit for possible errors. See [z/OS Communications Server: SNA Customization](#) for more information.

**X'003C'**

Check the exit for possible errors. See [z/OS Communications Server: SNA Customization](#) for more information.

**X'00F0'**

None.

**X'00F1'**

None.

**X'00F2'**

Check the exit for possible errors. See [z/OS Communications Server: SNA Customization](#) for more information.

**Routing code**

8

**Descriptor code**

5

---

**IST1032I** *poolname* **BUFFER SIZE TOO SMALL-SIZE MUST BE AT LEAST** *minsize*

**Explanation**

VTAM issues this message in response to a VARY ACT command when the buffers are too small. The buffer size of buffer pool *poolname* must be at least *minsize* for VTAM to activate a line.

*poolname* is the name of the buffer pool. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

*minsize* is the minimum buffer size for the type of line you tried to activate.

**System action**

Line activation fails. Processing continues.

**Operator response**

Save the system log for problem determination.

**System programmer response**

Change the buffer size for *poolname* in the VTAM start list ATCSTRxx. After the VTAM start list is corrected, restart VTAM and enter a VARY ACT command for the line.

**Routing code**

8

**Descriptor code**

5

---

**IST1033I** *uservar* **ALREADY DEFINED FOR APPC SESSIONS OF** *applname*

## Explanation

VTAM issues this message in response to a MODIFY USERVAR command when APPC=YES is specified and *uservar* has already been defined for *applname*. Another USERVAR with APPC=YES cannot be defined for this application program.

*uservar* is the name of the USERVAR which is currently defined for this application program.

*applname* is the name of the application program specified in the MODIFY USERVAR command.

## System action

VTAM rejects the command and no changes are made to the USERVAR table. Processing continues.

## Operator response

Determine which USERVAR should be defined for the application program.

- If the currently defined USERVAR is incorrect, you must delete the currently defined USERVAR with a MODIFY USERVAR,OPTION=DELETE command. After deleting the incorrect USERVAR, issue a MODIFY USERVAR command to define the correct USERVAR for the application program.

If *applname*'s ACB was open while the incorrect USERVAR was defined, then the incorrect information was copied to the application program's control blocks. In this situation, VTAM issues message IST1034I when the MODIFY USERVAR command is entered for the correct USERVAR.

- If the currently defined USERVAR is correct, no action is required.

## System programmer response

If the MODIFY USERVAR command was issued through the program operator interface, determine which USERVAR should be defined for the application program and correct the mechanism that established the incorrect USERVAR definition.

## Routing code

2

## Descriptor code

5

---

**IST1034I** *applname* ALREADY USING *uservar* FOR APPC SESSIONS

---

## Explanation

VTAM issues this message in response to a MODIFY USERVAR command when APPC=YES is specified and *applname* is already using *uservar*. Another USERVAR cannot be defined with APPC=YES for this application program.

*applname* is the name of the application program specified in the MODIFY USERVAR command.

*uservar* is the name of the USERVAR the application program is already using.

## System action

VTAM rejects the command and no changes are made to the USERVAR table. Processing continues.

## Operator response

Determine which USERVAR the application program should be using.

- If the application program is currently using an incorrect USERVAR, then the application program will need to terminate (CLOSE ACB) its connection to VTAM, which will remove all knowledge of the incorrect USERVAR. Once the application program's connection to VTAM has terminated, then the MODIFY USERVAR command can be issued to define the correct USERVAR and the application program can re-establish (OPEN ACB) its connection to VTAM.
- If the application program is currently using the correct USERVAR and is :
  - The active supplier of the services represented by the USERVAR, redefine the USERVAR with the MODIFY USERVAR,APPC=YES command.
  - Not the active supplier of the services represented by the USERVAR, no action is required.

## System programmer response

If the MODIFY USERVAR command was issued through the program operator interface, determine which USERVAR should be defined for the application program and correct the mechanism that established the incorrect USERVAR definition.

## Routing code

2

## Descriptor code

5

---

<b>IST1035I</b>	<b>ERROR WHILE {ADDING DELETING} NETWORK <i>netid</i> {TO FROM} GWN <i>gatewaynode</i></b>
-----------------	--

---

## Explanation

This message is the first in a group of messages that VTAM issues when the COS table name (defined by the COSTAB operand) or the maximum subarea value (defined by the MAXSUBA operand) on the BUILD or NETWORK definition statement could not be defined to VTAM. A complete description of the message group follows.

```
IST1035I ERROR WHILE {ADDING|DELETING} NETWORK netid {TO|FROM} GWN gatewaynode
IST523I REASON = reason
```

### IST1035I

- *netid* is the dynamic network to which a connection was attempted. When *gatewaynode* is activated, this statement is processed. For gateway nodes, this is a model network statement.
- *gatewaynode* is the gateway node for which network *netid* could not be added or deleted.

### IST523I

- *reason* indicates the reason for the failure, and is one of the following:

#### **COSTAB NOT FOUND**

The COS table name associated with a model network could not be found when VTAM attempted to add network *netid*.

#### **COSTAB USE COUNT OVERFLOW**

VTAM has exceeded its ability to record *gatewaynode*'s sharing of the COS table coded on the COSTAB operand.

#### **DUPLICATE COSTAB**

The COS table for *netid* and for *gatewaynode* has already been defined on a BUILD or NETWORK definition statement for *gatewaynode*.

**DUPLICATE MAXSUBA**

The maximum subarea value (MAXSUBA) has already been defined on a BUILD or NETWORK definition statement for *gatewaynode* or another gateway node.

**DUPLICATE SUBAREA**

The subarea value has already been defined on a BUILD or NETWORK definition statement for another gateway node.

**INSUFFICIENT STORAGE**

Network *netid* cannot be added or deleted because of insufficient storage.

**INSUFFICIENT STORAGE TO DEFINE COSTAB**

The COS table name (COSTAB) cannot be defined because of insufficient storage.

**INSUFFICIENT STORAGE TO DEFINE MAXSUBA**

The maximum subarea value (MAXSUBA) cannot be defined because of insufficient storage.

**INSUFFICIENT STORAGE TO DEFINE SUBAREA**

The subarea cannot be defined because of insufficient storage.

**MAXSUBA USE COUNT OVERFLOW**

VTAM has exceeded its ability to record *gatewaynode*'s sharing of the maximum subarea value coded on the MAXSUBA operand.

**MODEL NETWORK NOT FOUND**

The model network coded on the NETWORK definition statement with COPIES= was not defined for *gatewaynode*.

**UNEXPECTED RETURN CODE**

An unexpected return code was found while adding or deleting network *netid*.

**UNEXPECTED RETURN CODE DEFINING COSTAB**

An unexpected return code was found while defining the COS table.

**UNEXPECTED RETURN CODE DEFINING MAXSUBA**

An unexpected return code was found while defining the maximum subarea value.

**UNEXPECTED RETURN CODE DEFINING SUBAREA**

An unexpected return code was found while defining the subarea value.

**UNEXPECTED RETURN CODE DELETING COSTAB**

An unexpected return code was found while deleting the COS table.

**UNEXPECTED RETURN CODE DELETING MAXSUBA**

An unexpected return code was found while deleting the maximum subarea value.

**UNEXPECTED RETURN CODE DELETING SUBAREA**

An unexpected return code was found while deleting the subarea value.

**System action**

If this message was issued because network *netid* could not be added, all cross-network sessions destined to network *netid* will fail except for SSCP-SSCP sessions and for LU-LU sessions that use the default blank COS entry.

The system action depends on the value of *reason*:

**COSTAB NOT FOUND**

Network *netid* is ignored for *gatewaynode*.

**COSTAB USE COUNT OVERFLOW**

The COS table name is ignored. Even though the Class of Service table is defined for other active NCPs, it still cannot be used for this NCP definition, since its usage cannot be recorded to VTAM.

**DUPLICATE COSTAB**

The COS table name is ignored. The original COS table name for the NETID defined in this NCP definition is used.

**DUPLICATE MAXSUBA**

The maximum subarea value is ignored. A different value has already been defined successfully to this host, and cannot be changed or redefined for the network identified by the coded NETID until all networks that depend on this maximum subarea value are deactivated.

**DUPLICATE SUBAREA**

The subarea name is ignored. The original subarea name for the NETID defined in this NCP definition is used.

**INSUFFICIENT STORAGE**

Network *netid* cannot be added or deleted because of insufficient storage. Processing continues.

**INSUFFICIENT STORAGE TO DEFINE COSTAB**

The COS table name is ignored.

**INSUFFICIENT STORAGE TO DEFINE MAXSUBA**

The maximum subarea value is ignored. If this host resides in the gateway NCP's native network, and will own links or link stations in the network identified by the NETID operand, it will be impossible to activate those links or link stations without knowledge of that network's maximum subarea value. However, if the definition of another NCP has successfully defined the maximum subarea for the network, such link and link station activations will be possible, as long as that other NCP is not deactivated.

**INSUFFICIENT STORAGE TO DEFINE SUBAREA**

The subarea name is ignored.

**MAXSUBA USE COUNT OVERFLOW**

The maximum subarea value is ignored.

**MODEL NETWORK NOT FOUND**

The definition of network *netid* fails.

**UNEXPECTED RETURN CODE**

The definition of network *netid* fails.

**UNEXPECTED RETURN CODE DEFINING COSTAB**

The COS table name is not defined.

**UNEXPECTED RETURN CODE DEFINING MAXSUBA**

The maximum subarea value is not defined.

**UNEXPECTED RETURN CODE DEFINING SUBAREA**

The subarea value is not defined.

**UNEXPECTED RETURN CODE DELETING COSTAB**

The COS table name is not deleted.

**UNEXPECTED RETURN CODE DELETING MAXSUBA**

The maximum subarea value is not deleted.

**UNEXPECTED RETURN CODE DELETING SUBAREA**

The subarea value is not deleted.

**Operator response**

- If *text* is **COSTAB NOT FOUND**, **DUPLICATE COSTAB**, or **COSTAB USE COUNT OVERFLOW**, enter a DISPLAY COS,ORIGIN=*gatewaynode*,NETID=\* command, and save the system log for problem determination.
- If *text* is **INSUFFICIENT STORAGE...**, deactivate all links to network *netid*, then reactivate those links later when more storage is available. Enter a DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.
- For all other *reasons*, save the system log for problem determination.

**System programmer response****COSTAB NOT FOUND**

Review the output from the DISPLAY COS command and contact the IBM software support center.

### **COSTAB USE COUNT OVERFLOW**

Review the output from the DISPLAY COS command. Restrict the usage of the COSTAB name for each network and NCP to less than 256. If many NCPs need to be active simultaneously, use different COSTAB names, each defining COSTABs for many other networks. Use the MODIFY TABLE command to correct problems.

### **DUPLICATE COSTAB**

Identify the COSTAB name coded for the same NETID by reviewing all the BUILD and NETWORK definition statements preceding the definition statement specified for the indicated network, *netid*. Code only a single COSTAB name for any one network in this NCP definition. Use the MODIFY TABLE command to correct problems.

### **DUPLICATE MAXSUBA**

Check to determine whether the maximum subarea value specified on the MAXSUBA keyword for the BUILD or NETWORK definition statement for the indicated NETID start option, *netid* is valid. This value must also be identical to the maximum subarea values on all other BUILD or NETWORK definition statements in this or another NCP definition that have ever been activated.

### **DUPLICATE SUBAREA**

Check all the BUILD and NETWORK definition statements preceding the definition statement specified for the indicated network to identify the subarea value coded for the same NETID. Code only a single subarea value for any one network in this NCP definition. Be sure to check all definition statements that are active.

### **INSUFFICIENT STORAGE...**

It may be necessary to cancel nonessential jobs or deactivate an unused part of the network to prevent further losses. You might have to halt and restart VTAM if there are too many failures.

You might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

### **MAXSUBA USE COUNT OVERFLOW**

Contact the IBM software support center.

### **MODEL NETWORK NOT FOUND**

This error can be caused in one of two ways:

- The NCP was generated with a definition statement that included a model network, but the model network was removed before the definition was activated by VTAM. If this is the case, restore the model network and activate the corrected definition statement.
- There is an error in the NCP that is causing it to generate requests for no reason. Contact the IBM software support center.

### **UNEXPECTED RETURN CODE**

Contact the IBM software support center.

### **UNEXPECTED RETURN CODE DEFINING COSTAB**

Contact the IBM software support center.

### **UNEXPECTED RETURN CODE DEFINING MAXSUBA**

Contact the IBM software support center.

### **UNEXPECTED RETURN CODE DEFINING SUBAREA**

Contact the IBM software support center.

### **UNEXPECTED RETURN CODE DELETING COSTAB**

Contact the IBM software support center.

### **UNEXPECTED RETURN CODE DELETING MAXSUBA**

Contact the IBM software support center.

## UNEXPECTED RETURN CODE DELETING SUBAREA

Contact the IBM software support center.

### Routing code

8

### Descriptor code

4

---

**IST1036I****NODE ABEND-UNUSABLE RESOURCE IS *resource***

---

### Explanation

VTAM issues this message when a resource defined in an external communication adapter (XCA) major node cannot recover from an abend.

*resource* contains the type and name of the abended resource. Possible values are:

#### **LINE *linename***

Line *linename* in an XCA major node is unusable. All other lines in this major node are unaffected.

#### **SAP *sapnum* IN NODE *nodename***

Service access point (SAP) *sapnum* in XCA major node *nodename* is unusable.

If *sapnum* is an SNA SAP, all lines associated with this SAP are unusable. Any VCNS line in this major node is unaffected.

If *sapnum* is a VCNS SAP, the specified SAP is unusable. All other SAPs associated with the VCNS line are unaffected. All SNA lines are unaffected.

#### **NODE *nodename***

XCA major node *nodename* is unusable. All SNA and VCNS lines in this major node are unusable. Other VTAM major nodes are unaffected.

### System action

The resource identified in the message and all resources using it are marked unusable. Processing continues unchanged for all other resources.

### Operator response

Save the system log and dump for problem determination.

### System programmer response

Use the system log and dump to assist you in determining the reason for the abend. To use the failed resource, you must halt and restart VTAM. If you need additional assistance, contact the IBM software support center.

### Routing code

2

### Descriptor code

2

---

**IST1037I****NODE ABEND-INOP REPORTED FOR *resource***

---

## Explanation

VTAM issues this message when a resource defined in an XCA major node abends and recovers by processing an inoperative condition. The line or lines in the scope of the failing resource will eventually become inoperative.

*resource* contains the type and name of the abended resource. Possible values are:

### **LINE *linename***

Line *linename* in an XCA major node is processed as inoperative. All other lines in this major node are unaffected.

### **SAP *sapnum* IN NODE *nodename***

Service access point (SAP) *sapnum* in XCA major node *nodename* is processed as inoperative.

If *sapnum* is an SNA SAP, all lines associated with this SAP are processed as inoperative. Any VCNS line in this major node is unaffected.

If *sapnum* is a VCNS SAP, the specified SAP is processed as inoperative. All other SAPs associated with the VCNS line are processed as inoperative. All SNA lines are unaffected.

### **NODE *nodename***

XCA major node *nodename* is processed as inoperative. All SNA and VCNS lines in this major node are processed as inoperative. Other VTAM major nodes are unaffected.

## System action

The resource identified in the message and all resources using the identified resource are processed as inoperative.

## Operator response

When inoperative processing is complete, VTAM issues message IST259I. Restart the inoperative resources. If only a few resources are inoperative, you can restart them individually; otherwise, restart the XCA major node. Save the system log and dump for problem determination.

## System programmer response

Use the system log and dump to assist you in determining the reason for the abend. If you need additional assistance, contact the IBM software support center. See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information on the abend procedure and dumps.

## Routing code

2

## Descriptor code

2

---

**IST1038I****MODIFY NOTRACE REJECTED-VIT IS NOT WAITING TO TERMINATE**

---

## Explanation

VTAM issues this message in response to a MODIFY NOTRACE,TYPE=VTAM,OPTION=FORCE command when the VTAM internal trace (VIT) is not waiting to terminate. OPTION=FORCE is only valid when you previously tried (unsuccessfully) to stop the VIT using OPTION=END.

## System action

The MODIFY NOTRACE command is rejected. Processing continues.



## Operator response

Enter a MODIFY NOTRACE,TYPE=VTAM,OPTION=END command to stop the VTAM internal trace. This should terminate the VIT. If it does not, reenter the MODIFY NOTRACE,TYPE=VTAM,OPTION=FORCE command.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool](#), if external trace is active.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1039I** **SSCP TKOVR FOR ID = *nodename* FAILED-INACT GVBK SCHEDULED**

## Explanation

VTAM issues this message when a takeover for *nodename* failed and was overridden by a VARY INACT,TYPE=GIVEBACK command. If an error occurred during takeover processing, this message informs the operator that an internal VARY INACT,TYPE=GIVEBACK command was entered.

## System action

Nondisruptive deactivation of *nodename* and attached nodes continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Check the system log to determine the cause of the problem.

## Routing code

2

## Descriptor code

5

---

**IST1040I** **CONVERSATION(S) FOUND FOR *applname***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY CONVID command. A complete description of the message group follows.

```
IST1040I CONVERSATION(S) FOUND FOR applname
IST1007I PARTNER = partner, LOGMODE = logmode
IST1008I CONVID = convid, STATUS = status, ETIME = etime
IST2161I BLOCKED TIME = btime
IST1009I SID = sid, HPDT = hpdtvalue
IST924I -----
IST1007I PARTNER = partner, LOGMODE = logmode
```

```

IST1008I CONVID = convid, STATUS = status, ETIME = etime
IST2161I BLOCKED TIME = btime
IST1009I SID = sid, HPDT = hpdvalue
IST924I -----
:
IST314I END

```

Message IST1040I provides the name of the LU 6.2 application program, *applname*, specified on the operator command. Messages IST1007I, IST1008I, IST2161I, and IST1009I provide information concerning an individual conversation with the LU 6.2 application program. Message IST924I is used as a line separator to separate the different individual conversations found for the LU 6.2 application program.

*applname* is the name of the LU 6.2 application program specified in the operator command.

*partner* is the name of the partner LU for which DISPLAY information was requested.

*logmode* is the logon mode name for which DISPLAY information was requested.

*convid* is the conversation identifier for the specified application program and its partner LU.

*status* is the status of the conversation. Possible values are: If the *status* value ends with **/D**, deallocation is pending for the conversation. The **/D** modifier applies to persistent sessions only. If the *status* value ends with **/B**, the conversation is blocked due to session level pacing. If the *status* value ends with **/V**, the conversation is blocked due to virtual route pacing. If the status ends with **/H**, the conversation is blocked due to HPR backpressure.

### Status

Meaning

### E\_CONV

Half-duplex end conversation; the conversation is being deallocated.

### F\_SR

Full-duplex send/receive; the application program is capable of sending data to and receiving data from the partner LU.

### F\_SO

Full-duplex send only; the application program has received a deallocation request from the partner LU. The application program can send data to the partner LU and is expected to send a deallocation request to end the conversation.

### F\_RO

Full-duplex receive only; the application program has sent a deallocation request to the partner LU. The application program can receive data from the partner LU and is expecting to receive a deallocation request to end the conversation.

### FP\_SR\_L

Full-duplex pending send/receive log; the application program has received an error notification accompanied by error log data. After the application receives the data, the conversation will return to a SEND/RECEIVE state.

### FP\_RO\_L

Full-duplex pending receive only log; the application program has received an error notification accompanied by error log data. After the application receives the data, the conversation will return to a RECEIVE\_ONLY state.

### FP\_RS\_L

Full-duplex pending reset log; the end of the conversation is pending receipt of error log data. After the application program receives the error log data, the conversation will enter a RESET state.

### F\_R\_FM5

Full-duplex receive FMH-5; the conversation is in a SEND/RECEIVE state, but there is an FMH-5 waiting to be received. After the application program receives the FMH-5, the conversation becomes usable.

### P\_ALOC

Pending allocation state; the application has reserved a session and conversation, but an FMH-5 has not been processed on the conversation.

**P\_DEAL**

Half-duplex pending deallocation; the application program is waiting for the partner LU to confirm the receipt of data.

**P\_E\_LOG**

Half-duplex pending end conversation log; the end of the conversation is pending the receipt of error log data.

**P\_R\_LOG**

Half-duplex pending receive log; the application program can receive error log data that does not precede the end of the conversation.

**P\_SEND**

Half-duplex pending send; the application program has received data and the change direction command. The conversation will be placed in SEND state following the acceptance of data and a subsequent SEND operation.

**R\_CFM**

Half-duplex receive confirmation; the application program is expected to reply to a confirmation request.

**R\_CFM\_D**

Half-duplex receive confirmation deallocate; the application program is expected to reply to a confirmation request that will also change the state to deallocate.

**R\_CFM\_S**

Half-duplex receive confirmation send; the application program is expected to reply to a confirmation request and has also received a change direction command, implying that the application program will be placed in a SEND state after the confirmation.

**R\_FMH5**

Half-duplex receive FMH-5; the conversation is in a RECEIVE state, but there is an FMH-5 waiting to be received. After the application program receives the FMH-5, the conversation will become usable.

**RECEIVE**

Half-duplex receive; the application program is expecting information from the partner LU.

**RESET**

Full-duplex or half-duplex reset; the conversation has been deallocated.

**SEND**

Half-duplex send; the application program is capable of sending data to or requesting confirmation from the partner LU.

*etime* is the elapsed time, in minutes, since the last API operation was performed on the conversation. If the elapsed time is greater than 99999, the value of *etime* is **99999**.

*btime* is the elapsed time, in minutes, since the conversation went into a blocked state due to session level pacing, virtual route pacing, or HPR backpressure. If the elapsed time is greater than 99999, the value of *btime* is **99999**.

*sid* is the session identifier for the conversation.

*hpdvalue* will be either YES or NO indicating whether high performance data transfer (HPDT) services were available on the session, used by the conversation, at the time the session was established.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

## Routing code

8

## Descriptor code

5

---

### IST1041I

*nodename nodetype*

### Explanation

This message is part of a group of messages that VTAM issues in response to the following commands:

- DISPLAY TRACES,TYPE=NODES,ID=(*nodename1, nodename2,...,nodenamen*)
- DISPLAY TRACES,TYPE=NODES,ID=\*
- DISPLAY TRACES,TYPE=ALL

A complete description of the message group follows.

```
IST350I   DISPLAY TYPE = type
IST075I   NAME = nodename, TYPE = nodetype
IST1041I  nodename nodetype
[IST752I  GPT TRACE STATUS = status [ALSNAME = alsname]]
:
[IST1042I tracetype = status [- AMOUNT = value] [- SAVED = {YES|NO}]]
IST2183I QDIOSYNC = armstate - SYNCID = syncid - SAVED = saved_state
[IST924I  -----]
IST1422I  SAVED TRACE REQUESTS FOR value
IST1041I  nodename nodetype
[IST1042I tracetype = status [- AMOUNT = value] [- SAVED = {YES|NO}]]
IST2183I QDIOSYNC = armstate - SYNCID = syncid - SAVED = saved_state
:
IST314I  END
```

If ID identifies multiple resources to be displayed or ID=\*, the IST1041I subgroup is repeated for each resource that has active traces. Line separator message IST924I is issued to separate information for each major node.

### IST075I

- *nodename* is the name of the major or minor node that is associated with the trace data displayed in this message subgroup. If ID=\* was entered on the DISPLAY TRACES command, *nodename* is a major node containing subordinate nodes with active traces.
- *nodetype* is the resource type of the major or minor node. See [Chapter 17, “Node and ID types in VTAM messages,” on page 1699](#) for a description of *nodetype*.
  - If *nodetype* is **CP**, **RESOURCE**, or **SSCP**, *nodename* is a resource that may not yet be defined to VTAM. In this case, *nodetype* is the IDTYPE specified on the MODIFY TRACE command, and *status* in message IST1042I is always **SAVED**.

### IST350I

- This message identifies the type of information shown in the display. Possible values are:

#### TRACES,TYPE=NODES

The display contains the status of the BUF, GPT, IO, LINE, SIT, and TG trace for a particular resource and its subordinate nodes.

#### TRACES,TYPE=SMS

The display contains the status of the SMS buffer trace.

#### TRACES,TYPE=VTAM

The display contains the status of the VTAM internal trace.

### IST752I

This message is displayed when the generalized PIU trace (GPT) is displayed for an independent LU. VTAM issues this message once for each adjacent link station (ALS) that the independent LU is using. VTAM issues

this message only for adjacent link stations that exist in an NCP major node (or, for a switched connection, link stations that are connected through a link in an NCP major node).

*status* is the trace status code. See the [z/OS Communications Server: IP and SNA Codes](#) for more information on resource status codes.

*alsname* is the name of the adjacent link station that the independent LU is using.

#### IST1041I

- *nodename* can be one of the following:
  - The major or minor node displayed in message IST075I.
  - The name of a resource subordinate to the major or minor node displayed in message IST075I, if there is an active trace for that resource.
- *nodetype* is the resource type of *nodename*. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for a description of *nodetype*.

#### IST1042I

- This message is always issued in this group except in the case when the GPT trace status is displayed for an independent LU. Then message IST752I is displayed.
- *tracetype* is the name of an active trace and can be one of the following:

##### BUF

Buffer contents trace

##### GPT

Generalized PIU trace (GPT)

##### IO

Input/output trace

##### LINE

Line trace

##### SIT

Scanner interface trace (SIT)

##### STATE

Resource state trace

##### TG

Transmission group (TG) trace

- *status* is the status of the displayed trace and can be one of the following:

##### ON

*tracetype* is **BUF**, **IO**, or **STATE**, and the trace is active for this resource.

##### SAVED

*tracetype* is **BUF** or **IO**, and the trace command is saved for this resource. This status is displayed when SAVE=YES was specified on the MODIFY TRACE command, and the resource has not yet been defined to VTAM.

##### TRACT

*tracetype* is **GPT**, **LINE**, **SIT**, or **TG**, and the trace is active for this resource.

##### TRPAR

*tracetype* is **GPT**, **LINE**, **SIT**, or **TG**, and the trace is in the process of being activated.

For additional *status* information, see the [z/OS Communications Server: IP and SNA Codes](#).

##### TRPDR

*tracetype* is **GPT**, **LINE**, **SIT**, or **TG**, and the trace is in the process of being deactivated.

For additional *status* information, see the [z/OS Communications Server: IP and SNA Codes](#).

**AMOUNT** = *value* is displayed only if the buffer contents trace is active (*tracetype* is **BUF**) and indicates how much of the buffer's contents are traceable.

- *value* represents the **AMOUNT** operand value specified on the TRACE start option or the MODIFY TRACE command, and can be one of the following:

**PARTIAL**

The trace record has a maximum size of 256 bytes including header information.

**FULL**

All of the buffer's contents are traceable.

**Note:** If **AMOUNT** is not specified when the buffer contents trace is activated, the default *value* **PARTIAL** is displayed.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#).

**SAVE** = {YES|NO} indicates the value that was specified on the SAVE operand of the MODIFY TRACE command and is displayed only if the buffer contents, I/O, or resource state trace is active.

**IST1422I**

This message is displayed if there are traces saved for resources that are not active. Messages IST1041I and IST1042I are displayed following this message for each resource.

*value* is the value specified on the ID operand of the DISPLAY TRACES command. If **TYPE=ALL** was specified on the command, *value* is **\*.\***.

**IST2183I**

- This message will only appear for a TRLE representing an OSA-Express2 or later Adapter and only when the OSA-Express2 or later adapter is armed for QDIOSYNC. See [QDIOSYNC facility in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for a description of the QDIOSYNC trace function.
- *armstate* is the OPTION operand value from the MODIFY TRACE command or TRACE start option.

**Tip:** The OSA might be collecting more than what is specified here while OSA merges the options for all Armed data devices.

Valid values are:

**ALLIN**

OSA is collecting inbound diagnostic data for all devices.

**ALLINOUT**

OSA is collecting inbound and outbound diagnostic data for all devices.

**ALLOUT**

OSA is collecting outbound diagnostic data for all devices.

**IN**

OSA is collecting inbound diagnostic data for devices defined to this VTAM.

**INOUT**

OSA is collecting inbound and outbound diagnostic data for devices defined to this VTAM.

**OUT**

OSA is collecting outbound diagnostic data for devices defined to this VTAM.

- *syncid* is the SYNCID operand value from the MODIFY TRACE command or TRACE start option. This value is to be used as part of a correlator when the OSA-Express2 or later diagnostic data is captured.
- *saved\_state* is the SAVE operand value from the MODIFY TRACE command or TRACE start option. Valid values are YES or NO.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1042I** *tracetype = status [- AMOUNT = value] [- SAVED = {YES|NO}]*

---

**Explanation**

VTAM issues this message as part of a message group. See the explanation of message IST1041I for a complete description of the group.

**Routing code**

2

**Descriptor code**

5

---

**IST1043I** *CP NAME = cpname, CP NETID = netid, DYNAMIC LU = {YES|NO}*

---

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1.

*cpname* is the name of the CP associated with the PU.

The meaning of *netid* is determined by the XNETALS start option and the NETID value specified on the PU definition statement. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information about the XNETALS start option.

If *cpname* or *netid* is not known, VTAM issues **\*\*\*NA\*\*\***.

**DYNAMIC LU** indicates whether the PU supports dynamic independent LUs. This corresponds to the value of the DYNLU operand on the PU definition statement.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

## Descriptor code

5

---

**IST1044I**

**ALSLIST = *alsname alsname alsname alsname***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an independent LU.

The *alsnames* are the names of all adjacent link stations defined for the independent LU specified in the DISPLAY ID command. VTAM issues this message until all adjacent link station names are displayed.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1045I**

**NODE TYPE = *nodetype***

---

## Explanation

VTAM issues this message as part of several different message groups. See the explanation of the first message in the group for a complete description.

See [Chapter 17, “Node and ID types in VTAM messages,” on page 1699](#) for a description of *nodetype*.

## Routing code

2

## Descriptor code

5

---

**IST1046I**

***nodetype nodename* ALSO EXISTS**

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID=*name* command or a DISPLAY VTAMSTOR,RESOURCE command and indicates that more than one resource has the same name.

*nodetype* is one of the following:

### CP

Control point *nodename* exists, in addition to the SSCP (or CDRM) displayed in message IST075I.



## SHADOW

A shadow for *nodename* exists, in addition to the resource displayed in message IST075I.

## SSCP

SSCP (or CDRM) *nodename* exists, in addition to the CP displayed in message IST075I.

*nodename* is the network-qualified name of the resource in the form *netid.name*.

### System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

IST1048I	COMPRESSION LEVEL – INPUT = <i>input_level</i> , OUTPUT = <i>output_level</i>
----------	---

### Explanation

VTAM issues this message as part of a group of messages. The first message in this group is IST879I. See the explanation of that message for a complete description.

## Routing code

2

### Descriptor code

5

IST1049I	PERCENT REDUCTION - INPUT = <i>input_percent</i> , OUTPUT = <i>output_percent</i>
----------	---

### Explanation

VTAM issues this message as part of a group of messages. The first message in this group is IST879I. See the explanation of that message for a complete description.

## Routing code

2

### Descriptor code

5

IST1050I	MAXIMUM COMPRESSION LEVEL – INPUT = <i>input_level</i> , OUTPUT = <i>output_level</i>
----------	---

## Explanation

VTAM issues this message in response to a DISPLAY ID command entered for an application. The message displays the maximum compression level for the application when the application is the primary logical unit (PLU).

*input\_level* is the maximum compression level for input session traffic that is specified on the CMPAPPLI operand on the APPL definition statement.

*output\_level* is the maximum compression level for output session traffic that is specified on the CMPAPPLO operand on the APPL definition statement.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on the APPL definition statement. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information on compression limits and compression levels.

## System action

Processing continues.

## Operator response

To change the maximum compression levels, use the MODIFY COMPRESS command. Otherwise, no action is necessary. See [z/OS Communications Server: SNA Operation](#) for more information.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1051I** **EVENT CODE = *code***

## Explanation

VTAM issues this message as part of a message group. The first message in the group is either IST530I or IST1436I. See the first message in the group for a complete description.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

## Routing code

8

## Descriptor code

4

---

**IST1052I** **SYNTAX ERROR AFTER *option*—ALL FURTHER OPTIONS IGNORED**

## Explanation

VTAM issues this message when the start option after *option* contains a syntax error.

## System action

VTAM ignores any start options after *option*. VTAM will issue message IST1311A to prompt you for the correct start options.

## Operator response

Enter all start options after the last valid start option in response to IST1311A. You can also enter a blank if you want to accept the default values for all further start options.

## System programmer response

If *option* is coded in an ATCSTRxx file, correct the syntax of the options following *option* in that file. For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST1053I**

**VALUE FOR *option* MUST BE 'YES' OR 'NO'**

---

## Explanation

VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when *option* contains a value other than **YES** or **NO**.

## System action

VTAM ignores *option*.

- If the error occurred during START processing, VTAM will issue message IST1311A to prompt you for the correct value of *option*.
- If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

## Operator response

- If the error occurred during START processing, enter a value of **YES** or **NO** for *option* in response to IST1311A. You can also enter a blank if you want to accept the default value for *option*.
- If the error occurred in response to a MODIFY VTAMOPTS command, ensure that you entered *option* correctly.

## System programmer response

- If the error occurred during START processing, correct the value for *option* if *option* is coded in an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST1054I****VALUE FOR *option* MUST BE BETWEEN *min* AND *max***

---

## Explanation

VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the value of *option* is out of range. The value of *option* must be between *min* and *max*.

## System action

VTAM ignores the option specified by the *option* value.

- If the error occurred during START processing, VTAM might issue message IST1311A to prompt you for the correct value of *option*.
- If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

## Operator response

- If the error occurred during START processing and you were prompted to enter a value for the option, specify a value between the *min* value and the *max* value, in response to message IST1311A. You can also enter a blank if you want to accept the default value for *option*.
- If the error occurred in response to a MODIFY VTAMOPTS command, ensure that you entered the *option* value correctly.

## System programmer response

- If the error occurred during START processing, correct the option value if the value that is coded represents an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST1055I****VALUE FOR *option* MUST BE *type***

---

## Explanation

VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the value of *option* is not the correct *type*. Possible values are:

### NUMERIC

The value for *option* must be an integer.

### TIMER

The value for *option* must be in the form **xxI**, where **xx** is a numeric value and **I** is a character designation of a time interval (**S** = seconds, **M** = minutes, **H** = hours, **D** = days). Individual start options that use **TIMER** notation have different valid ranges. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

## System action

VTAM ignores *option*.

- If the error occurred during START processing, VTAM will issue message IST1311A to prompt you for the correct value of *option*.
- If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

## Operator response

- If the error occurred during START processing, enter a valid value for *option* in response to IST1311A. You can also enter a blank if you want to accept the default value for *option*.
- If the error occurred in response to a MODIFY VTAMOPTS command, ensure that you entered *option* correctly.

## System programmer response

- If the error occurred during START processing, correct the value for *option* if *option* is coded in an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST1056I**

***option* PARAMETER *n* MUST BE BETWEEN *min* AND *max***

---

## Explanation

VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the *n*th parameter specified for *option* is out of range. The value of this parameter must be between *min* and *max*.

## System action

VTAM ignores *option*.

- If the error occurred during START processing, VTAM will issue message IST1311A to prompt you for the correct value of *option*.
- If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

## Operator response

- If the error occurred during START processing, enter a value between *min* and *max* for parameter *n* in response to IST1311A. You can also enter a blank if you want to accept the default value for *option*.
- If the error occurred in response to a MODIFY VTAMOPTS command, ensure that you entered *option* correctly.

## System programmer response

- If the error occurred during START processing, correct the value for *option* if *option* is coded in an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST1057I** *resourcename* IS ALSO A REAL RESOURCE

---

## Explanation

VTAM issues this message in response to the following commands:

- DISPLAY SESSIONS

VTAM displays information about sessions for the active network resource *resourcename*. This message follows IST113I or IST1156I and indicates that a USERVAR and an active network resource have the same name.

*resourcename* is the network-qualified name of the resource in the form *netid.name*.

- DISPLAY ID=*displayname*,IDTYPE=LUALIAS or IDTYPE=USERVAR

This message is part of a group of messages headed by IST075I. The name specified on the command identifies both an LUALIAS or USERVAR name **and** a network resource.

- If IDTYPE=USERVAR was specified, *resourcename* is the name of the resource. If a network-qualified name was entered on the command for *displayname*, *resourcename* is issued as a network-qualified name in the form *netid.name*.
  - If IDTYPE=LUALIAS was specified, *resourcename* is not network-qualified.
- DISPLAY VTAMSTOR,RESOURCE command

## System action

Processing continues.

## Operator response

- DISPLAY SESSIONS

For session information about the value of the USERVAR, enter a DISPLAY SESSIONS command for the USERVAR value in message IST113I or IST1156I. You can enter a DISPLAY USERVAR command to list the current active USERVARs defined in this network.

For information about additional sessions with the active network resource *resourcename*, rename your USERVAR.

- DISPLAY ID=*displayname*,IDTYPE=LUALIAS or IDTYPE=USERVAR

You can display information about the network resource by entering the DISPLAY ID=*displayname*,IDTYPE=RESOURCE command, where *displayname* is the name of the resource.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1058I****MODEL LU GROUP = *lugroup*, LUSEED = *pattern***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command entered for a PU that supports dynamic LU definitions.

*lugroup* is the model LU group used to define dynamic LUs for this PU. The value of *lugroup* corresponds to the LUGROUP keyword on the PU definition statement.

*pattern* is the character pattern passed to the selection of definitions for dependent LUs (SDDL) exit. This pattern can be used to generate names for dynamically defined LUs. The value of *pattern* corresponds to the LUSEED keyword on the PU definition statement. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1059I****MODEL NAME = *modelname***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a dynamically defined resource. *modelname* is the name of the model that was used to build the resource.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1060I****LUGROUP MAJOR NODE = *lugroupnode***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY LUGROUPS command. *lugroupnode* is the name of the LUGROUP major node being displayed.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1061I****FAILURE OCCURRED ON *puname* AT *locaddr***

## Explanation

VTAM issues this message as part of a group of messages. The first message in this group is IST1016I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1062I****EVENT ID = *eventid***

## Explanation

VTAM issues this message as part of a message group. The first message in the group is either IST530I or IST1436I. See the first message in the group for a complete description.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *eventid*.



## Routing code

8

## Descriptor code

4

---

**IST1063I****MODELS AFTER THE 255TH MODEL IN LUGROUP *lugroup* IGNORED**

---

## Explanation

VTAM issues this message during the activation of LUGROUP *lugroup* when *lugroup* contains more than 255 model LU definitions. An LUGROUP cannot have more than 255 models.

## System action

Only the first 255 models in *lugroup* are defined; all models after the 255th model are ignored. Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Correct the definition of *lugroup*. An LUGROUP major node cannot contain more than 255 model LUs. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

## Routing code

2

## Descriptor code

5

---

**IST1064I****TRACE IGNORED, *nodename* – STORAGE SHORTAGE**

---

## Explanation

This message is the first in a group of messages that VTAM issues when sufficient storage is not available to start the requested trace. A complete description of the message group follows.

```
IST1064I  TRACE IGNORED, nodename – STORAGE SHORTAGE
IST1045I  NODE TYPE = nodetype
IST314I   END
```

If a network-qualified name was entered on the start option or the MODIFY TRACE command, VTAM issues *nodename* in the form *netid.name*.

*nodetype* is the resource type of *nodename*. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for possible values.

## System action

- If *nodename* is **VTAM** and you are trying to start an internal trace (for example, type=VTAM), initialization continues without a VTAM internal trace table.
- If *nodename* is anything other than **VTAM**, VTAM issues message IST1311A which prompts you to reenter any start option overrides.

## Operator response

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

For a VTAM internal trace, enter a MODIFY TRACE command, specifying a smaller buffer size.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

IST1065I	LOAD MODULE	REQUESTED IPL	ESTIMATED IPL
----------	-------------	---------------	---------------

---

## Explanation

VTAM issues this message as part of a subgroup of messages in response to a DISPLAY DISK command.

This message subgroup is displayed in a message group headed by IST951I. See the explanation of that message for additional information.

A complete description of this message subgroup follows.

```
IST1065I LOAD MODULE REQUESTED IPL ESTIMATED IPL
IST1066I load_module requested_time estimated_time
:
```

This subgroup is issued when an IPL has been scheduled for at least one load module on the disk. IST1066I is repeated for each load module.

- If there is only one load module with a scheduled IPL, VTAM issues message IST1066I for this load module. In addition, IST1066I is repeated for all load modules even if they do not have a scheduled IPL. An example follows:

```
IST1065I LOAD MODULE REQUESTED IPL ESTIMATED IPL
IST1066I load_module requested_time estimated_time
IST1066I load_module ***NA***      ***NA***
IST1066I load_module ***NA***      ***NA***
```

- If there are no load modules with a scheduled IPL, VTAM does not issue the subgroup.

## IST1066I

*load\_module* is the name of the load module on the disk.

*requested\_time* is the time for which an IPL was scheduled as entered in a MODIFY LOAD command. This time reflects the time zone where MODIFY LOAD was entered, not the time zone where DISPLAY DISK was entered.

*estimated\_time* is the time the IPL will take place as calculated by VTAM. This time reflects the time zone where DISPLAY DISK was entered. Differences between *requested\_time* and *estimated\_time* can be caused by the following:

- The MODIFY LOAD and DISPLAY DISK commands were entered in different time zones.
- There was a network delay between VTAM and NCP when the MODIFY LOAD was entered. In this case, *estimated\_time* is the actual IPL time.
- There is a network delay between VTAM and NCP when the DISPLAY DISK is entered. In this case, the actual IPL time will be earlier than *estimated\_time*.
- The host system clock was adjusted between the time MODIFY LOAD was entered and the time DISPLAY DISK was entered.

The *requested\_time* and *estimated\_time* values specify when an IPL was scheduled. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1066I</b>	<i>load_module requested_time estimated_time</i>
-----------------	--

**Explanation**

VTAM issues this message as part of a message subgroup. The first message in this subgroup is IST1065I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1067I</b>	<b>LOGICAL LINES:</b>
-----------------	-----------------------

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU that is the physical resource for one or more groups of logical lines. VTAM issues message IST080I to indicate the name and status of the logical lines associated with the preceding PU.

VTAM also issues this message as part of a group of messages in response to a DISPLAY ID command for a switched frame relay physical line whose switched PU is the physical resource for one or more groups of logical lines. VTAM issues message IST080I to indicate the name and status of the logical lines associated with the preceding physical line.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1068I** **PHYSICAL RESOURCE (PHYSRSC) = *puname***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a line or a line group.

*puname* is the name of the physical resource associated with the resource (a logical line or line group containing logical lines or a transport resource list element) that is being displayed.

If the physical unit, defined in the NCP definition, whose name is specified by the PHYSRSC keyword is a switched PU that is not currently connected, then *highernode* is the physical line.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1069I****PARAMETER *n* FOR *option* MUST BE *type***

---

## Explanation

VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the *n*th parameter specified for start option *option* is not the correct *type*. Possible values are:

### NUMERIC

The value for *option* must be a numeric value.

### TIMER

The value for *option* must be in the form **xxI**, where **xx** is a numeric value and **I** is a character designation of a time interval (**S** = seconds, **M** = minutes, **H** = hours, **D** = days). Individual start options that use **TIMER** notation have different valid ranges. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

## System action

VTAM ignores *option*.

- If the error occurred during START processing, VTAM will issue message IST1311A to prompt you for the correct value of *option*.
- If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

## Operator response

- If the error occurred during START processing, enter a valid value for parameter *n* of *option* in response to IST1311A. You can also enter a blank if you want to accept the default value for *option*.
- If the error occurred in response to a MODIFY VTAMOPTS command, ensure that you entered *option* correctly.

## System programmer response

- If the error occurred during START processing, correct the value for *option* if *option* is coded in an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST1070I****value FOR *option* NOT VALID – START CONTINUES**

---

## Explanation

VTAM issues this message when the value specified for start option *option* is not valid.

## System action

VTAM ignores *option*. VTAM will issue message IST1311A to prompt you for the correct value of *option*.

## Operator response

Enter a valid value for *option* in response to message IST1311A. You can also enter a blank if you want to accept the default value for *option*.

For the NNSPREF start option, a prompt might be issued, depending on the type of error. If no prompt is issued, enter a MODIFY VTAMOPTS,NNSPREF command with the correct value following the completion of VTAM initialization.

For the DISABLED value of the HPRSESLM start option, a prompt is not issued and the HPRSESLM start option is set to NOLIMIT. To change this value, enter a MODIFY VTAMOPTS,HPRSESLM command with the correct value following the completion of VTAM initialization.

## System programmer response

If *option* is coded in an ATCSTRxx file, correct the value for *option* in that file. For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST1071I**

**SONLIM OPTION PARAMETER 1 MUST BE GREATER THAN  
PARAMETER 2**

## Explanation

VTAM issues this message when the second parameter for the SONLIM start option is greater than the first parameter.

## System action

VTAM ignores the values coded for SONLIM. VTAM will issue message IST1311A to prompt you for the correct value of SONLIM.

## Operator response

Enter the correct parameters for SONLIM in response to message IST1311A. You can also enter a blank if you want to accept the default value for SONLIM.

## System programmer response

If SONLIM is coded in an ATCSTRxx file, correct the value for SONLIM in that file. For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST1072I**

***option* HAS TOO MANY PARAMETERS--START OPTION IGNORED**

## Explanation

VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when too many parameters are specified for start option *option*.

## System action

VTAM ignores *option*.

- If the error occurred during START processing, VTAM will issue message IST1311A to prompt you for the correct value of *option*.
- If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

## Operator response

- If the error occurred during START processing, enter the correct parameters for *option* in response to IST1311A. You can also enter a blank if you want to accept the default value for *option*.
- If the error occurred in response to a MODIFY VTAMOPTS command, ensure that you entered *option* correctly.

## System programmer response

- If the error occurred during START processing, correct the value for *option* if *option* is coded in an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST1073I** *option2 CAN ONLY BE SPECIFIED AFTER OPTION option1*

## Explanation

VTAM issues this message when start option *option2* for TRACE, NOTRACE, TNSTAT, or NOTNSTAT is out of sequence. Start option *option1* is TRACE, NOTRACE, TNSTAT, or NOTNSTAT. *option2* must be specified after *option1*.

## System action

VTAM ignores *option2*. VTAM will issue message IST1311A to prompt you for the correct value of *option1*.

## Operator response

Enter *option2* after a TRACE, NOTRACE, TNSTAT, or NOTNSTAT start option. You can also enter a blank if you want to accept the default value for *option1*.

## System programmer response

If *option2* is coded in an ATCSTRxx file, move the value for *option2* after the value for *option1* in that file. For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST1074I****PARAMETERS FOR *option* ARE NOT in THRESHOLD LIMITS**

---

### Explanation

This message is issued when one of the following occurs while processing buffer pool start options:

- The base number (baseno) is less than or equal to the slow point (slowpt) or expansion point (xpanpt).
- The expansion point is not 0 and is less than or equal to the slow point. For SPBUF and LPBUF, the difference between the base number and the expansion point or between the base number and the slow point is less than or equal to five.

### System action

VTAM ignores *option*. VTAM will issue message IST1311A to prompt you for the correct value of *option*.

### Operator response

Enter the correct values for *option* in response to message IST1311A. You can also enter a blank if you want to accept the default values for *option*.

### System programmer response

If *option* is coded in an ATCSTRxx file, correct the value for *option* in that file. For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST1075I****PARAMETER *n* FOR *option* IS NOT VALID**

---

### Explanation

VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the *n*th parameter specified for start option *option* contains a value that is not valid.

### System action

VTAM ignores *option*.

- If the error occurred during START processing, VTAM will issue message IST1311A to prompt you for the correct value of *option*.
- If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.



## Operator response

- If the error occurred during START processing, reenter all values for *option* in response to IST1311A. You can also enter a blank if you want to accept the default value for *option*.
- If the error occurred in response to a MODIFY VTAMOPTS command, ensure that you entered *option* correctly.

## System programmer response

- If the error occurred during START processing, correct the value for *option* if *option* is coded in an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

IST1076I	VALUE DEFINED FOR HOSTPU, <i>value</i> , IS A RESERVED KEYWORD
----------	--

---

## Explanation

VTAM issues this message when the host subarea PU name defined on the HOSTPU start option is one of the following reserved words: VTAMSEG, VTAMSG2, VTAM, ISTNOP, ISTPDCLU, ISTGROUP, or ISTATA00.

*value* is the value defined for HOSTPU.

## System action

VTAM ignores the value of HOSTPU. VTAM will issue message IST1311A to prompt you for the correct value of HOSTPU.

## Operator response

Enter a valid value for HOSTPU in response to message IST1311A. You can also enter a blank if you want to accept the default value for HOSTPU.

## System programmer response

If HOSTPU is coded in an ATCSTRxx file, correct the value for HOSTPU in that file. For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

IST1077I	OPTION <i>option</i> AFTER type keyword IS NOT VALID
----------	--

---

## Explanation

VTAM issues this message when an option specified after a certain type of TRACE/NOTRACE is not valid. *option* is a VTAM start option. *type* is the type of trace that is not valid. *Keyword* will be **TRACE** or **NOTRACE**.

## System action

VTAM ignores the TRACE or NOTRACE start option. VTAM will issue message IST1311A to prompt you for the correct value of the TRACE or NOTRACE option.

## Operator response

Enter the TRACE or NOTRACE again with all options in response to message IST1311A. You can also enter a blank if you want to accept the default values for the TRACE or NOTRACE.

## System programmer response

If these start options are coded in an ATCSTRxx file, correct the option value for the TRACE or NOTRACE in that file. For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST1078I LIST START OPTION CANNOT BE IN START FILE—OPTION IGNORED**

## Explanation

VTAM issues this message when the LIST start option is found in an ATCSTRxx file. This start option can be entered only when prompted or on the VTAM START command. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on the LIST start option.

## System action

VTAM ignores the specified start option. Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Remove LIST=xx statements from any ATCSTRxx files.

## Routing code

2

## Descriptor code

5

---

**IST1079I ncpname ACTIVATION CONTINUES—CANNOT ASSOCIATE groupname**

## Explanation

This message is the first in a subgroup of messages that VTAM issues during the activation of NCP *ncpname*. A complete description of the message subgroup follows.

```
IST1079I ncpname ACTIVATION CONTINUES--CANNOT ASSOCIATE groupname
IST1117I PHYSICAL RESOURCE (PHYSRSC) puname {IS NOT KNOWN|IS NOT A PU}
```

### IST1079I

*ncpname* is the name of the NCP that is being activated.

*groupname* is the name of the line group that is defined to have an association with physical resource *puname* in message IST1117I.

### IST1117I

*puname* is the resource defined on the PHYSRSC operand of the GROUP definition statement.

This message describes the reason VTAM cannot associate *groupname* in message IST1079I and *puname*.

## System action

VTAM does not associate line group *groupname* or its subordinate resources with *puname*. *groupname* is activated as an independent line group.

## Operator response

Save the system log for problem determination.

## System programmer response

Ensure that the PHYSRSC operand on the GROUP statement for *groupname* specifies a PU statement in the same NCP definition and that the PU is owned by the host activating the NCP.

## Routing code

2

## Descriptor code

5

---

**IST1080I** {DUMP|LOAD} STATION NAME = *station\_name*

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 4.

*station\_name* is the DUMP or LOAD station name for an NCP. If the DUMP or LOAD station name is not available when the DISPLAY command is issued, VTAM displays **\*\*\*NA\*\*\*** in this field.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1081I** ADJACENT LINK STATION = *alsname*

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an LU. *alsname* is the name of the adjacent link station associated with the LU specified in the DISPLAY ID command.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1082I** GENERATED ADDRESS FOR *cdrcsname* DELETED FROM *alsname*

## Explanation

VTAM issues this message in response to an address mismatch error. VTAM attempts to delete cross domain resource *cdrcsname* that was generated under adjacent link station *alsname*. This message indicates that *cdrcsname* was deleted.

If the PU for *alsname* is not found, VTAM issues **\*\*\*NA\*\*\***.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1083I** **ERROR ACTIVATING ADJCP *adjcpname* SENSE = *code***

---

## Explanation

VTAM issues this message when it encounters an error during the dynamic allocation of an adjacent control point.

*adjcpname* is the name of the adjacent control point. If the network where the resource resides is known to VTAM, *adjcpname* is issued as a network-qualified name in the form *netid.name*.

*code* indicates the reason for the error. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the information in the system log and the explanation of *code* to resolve the problem.

## Routing code

2

## Descriptor code

5

---

**IST1084I** **START LIST IGNORED – *name* WILL BE USED**

---

## Explanation

VTAM issues this message when an error occurs while processing the start list in message IST1215I and LISTBKUP=*backup\_list* or LISTBKUP=DEFAULTS has been specified.

*name* can be one of the following:

- If *backup\_list* is specified on the LISTBKUP start option, *name* is the name of the backup start list that will be processed in the place of the start list in error.
- If DEFAULTS is specified on the LISTBKUP start option, *name* is either **VTAM DEFAULTS** or **ATCSTR00**.
  - If *name* is **VTAM DEFAULTS**, the error occurred while processing ATCSTR00, and start option values are reset to the IBM defaults.

- If *name* is **ATCSTR00**, the error occurred while processing ATCSTRxx, and start option values are reset to their values prior to processing ATCSTRxx.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information about the LISTBKUP start option. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information.

## System action

VTAM ignores the start list in error and uses *name*. Other processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1085I** *type* **ACTIVATION ERROR** *resource* **SENSE = code**

## Explanation

VTAM issues this message when an error is encountered during the activation of a boundary function-based connection or a virtual route-based connection.

*type* indicates the type of transmission group connection that failed and is one of the following:

### BF-TG

Boundary function-based connection

### VR-TG

Virtual route-based connection

*resource* is the name of the adjacent control point. If the network where the resource resides is known to VTAM, *resource* is issued as a network-qualified name in the form **CP** *netid.name*.

*code* indicates the reason for the error. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

**Tip:** If the PU name in the preceding IST590I message is an Enterprise Extender (EE) PU, this transmission group connection traverses EE. If *code* is 1016000B and the transmission group traverses EE, a duplicate CP name might be in the network. Issue a D NET,EE,CPNAME=*resource* command to obtain more information about the CP with the active EE connection.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the information in the system log and the explanation of *code* to resolve the problem.

## Routing code

2

## Descriptor code

5

---

**IST1086I** APPN CONNECTION FOR *adjcpname* IS ACTIVE-TGN= *tgn*

---

## Explanation

VTAM issues this message when an APPN connection for an adjacent control point becomes active.

*adjcpname* is the name of the adjacent control point. If the network where the resource resides is known to VTAM, *adjcpname* is issued as a network-qualified name in the form *netid.name*.

*tgn* is the transmission group number.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1088I** ADJCP *adjcpname* HAS BEEN DEACTIVATED

---

## Explanation

VTAM issues this message when the deactivation of an adjacent control point major node is completed.

*adjcpname* is the name of the adjacent control point. If the network where the resource resides is known to VTAM, *adjcpname* is issued as a network-qualified name in the form *netid.name*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

### Descriptor code

5

IST1089I	MODIFY FAILED-TGP <i>tgpname</i> DOES NOT EXIST
----------	---

### Explanation

VTAM issues this message in response to a MODIFY TGP command.

*tgpname* is the name of the transmission group profile that was entered on the command.

### System action

Processing continues.

## Operator response

Ensure that you entered *tgpname* correctly. If the command fails again, save the system log for problem determination.

## System programmer response

Verify that *tgpname* is correct, and that the resource is defined to VTAM. If not, update the TGP definition.

## Routing code

2

### Descriptor code

5

**IST1090I** TGP FOR *type resource* IS SET TO *tgpname*

### Explanation

VTAM issues this message in response to a MODIFY TGP command.

Possible values are:

## Type

## Resource

**CDRM**

*cdmname*

*cdrmname* is the name of a CDRM capable of requesting a VR-based (virtual route-based) TG connection. *cdrmname* can be a network-qualified name in the form *netid.name*.

*type* is CDRM when TGN=255 is specified on the MODIFY TGP command.

## CP

$$cpname(tgn)$$



*cpname* is the name of the adjacent control point. If *cpname* is session-capable, VTAM issues *cpname* as a network-qualified name in the form *netid.name*.

*tgn* is the transmission group number.

*type* is CP when TGN is specified as anything other than 255 on the MODIFY TGP command.

#### **LINE**

*linename*

*linename* is the name of an active line that has the connection network function defined.

#### **PORT**

*portname*

*portname* is the name of an active port (external communication adapter [XCA]) that has the connection network function defined.

#### **PU**

*puname*

*puname* is the name of an active type 2.1 physical unit.

*tgpname* is the name of the transmission group profile.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

### **Routing code**

2

### **Descriptor code**

5

---

**IST1091I****MODIFY TGP FAILED – *type resource* IS UNKNOWN**

### **Explanation**

VTAM issues this message in response to a MODIFY TGP command when *type resource* is not known to VTAM.

Possible values are:

#### **Type**

**Resource**

#### **CDRM**

*cdrmname*

*cdrmname* is the name of a CDRM capable of requesting a VR-based (virtual route-based) TG connection. *cdrmname* can be a network-qualified name in the form *netid.name*.

*type* is CDRM when TGN=255 is specified on the MODIFY TGP command.

#### **CP**

*cpname(tgn)*

*cpname* is the name of the adjacent control point. If *cpname* is session-capable, VTAM issues *cpname* as a network-qualified name in the form *netid.name*.

*tgn* is the transmission group number.

*type* is CP when TGN is specified as anything other than 255 on the MODIFY TGP command.

#### **ID**

*resourcename*

*resourcename* is the name of the resource. The type of resource is not known to VTAM.

*type* is ID when TGN is not specified on the MODIFY TGP command.

#### **LINE**

*linename*

*linename* is the name of an active line that has the connection network function defined.

#### **PORT**

*portname*

*portname* is the name of an active port (external communication adapter [XCA]) that has the connection network function defined.

#### **PU**

*puname*

*puname* is the name of an active type 2.1 physical unit.

### **System action**

Processing continues.

### **Operator response**

Ensure that you entered *resource* correctly. If VTAM continues to issue this message, save the system log for problem determination.

### **System programmer response**

Verify that *type resource* is correct and, if not, update the TGP definition. See the [z/OS Communications Server: SNA Resource Definition Reference](#).

### **Routing code**

2

### **Descriptor code**

5

---

**IST1092I****MODIFY TGP FAILED, INSUFFICIENT STORAGE**

### **Explanation**

VTAM issues this message in response to a MODIFY TGP command when there is insufficient storage.

### **System action**

Processing continues.

### Operator response

Try the MODIFY TGP command again. If VTAM continues to issue this message, enter the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you may need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See [z/OS Communications Server: SNA Operation](#) for additional information.

Save the system log and request a dump for problem determination.

### System programmer response

Increase storage as required.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY STORUSE command. The [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) provides additional information.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

### Routing code

2

### Descriptor code

5

---

IST1093I	<i>start_option1</i> IS IGNORED—ONLY VALID WHEN <i>start_option2</i> IS SPECIFIED
----------	---

---

### Explanation

VTAM issues this message when *start\_option2*, which is required with *start\_option1*, is not specified. *start\_option2* is the name of the start option or the name of the start option with its required value.

### System action

*start\_option1* is ignored. Other processing continues.

### Operator response

Save the system log for problem determination.

### System programmer response

Examine the VTAM start options contained in ATCSTRxx and verify that the correct options are specified. *start\_option2* needs to be specified in order to specify *start\_option1*. See the [z/OS Communications Server: SNA Resource Definition Reference](#).

### Routing code

2

### Descriptor code

5

---

IST1094I	GWSSCP VALUE FORCED TO NO—NODETYPE IS EN
----------	--

---

## Explanation

VTAM issues this message when both GWSSCP=YES and NODETYPE=EN are specified as start options. An end node (EN) cannot be used for intermediate routing. This message is also issued when the default value for GWSSCP is used and NODETYPE=EN is specified.

## System action

The GWSSCP start option is changed to NO. Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Examine the VTAM start options contained in ATCSTRxx and verify that the correct options are specified.

Determine whether this node is to be used for intermediate routing.

- If it is, specify NODETYPE=NN.
- If not, use GWSSCP=NO.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on the GWSSCP and NODETYPE start options.

## Routing code

2

## Descriptor code

5

---

**IST1095I****INITIATION FAILED FOR *cpname* – NO LINK TO ADJCP**

## Explanation

VTAM issues this message in response to a VARY ACT,ID=*cpname* command.

Session initiation failed because no usable link exists for a control point service manager (CPSVCMG) session to the adjacent CP. The cross-domain resource (CDRSC) representing the adjacent CP remains active because the adjacent CP can send a BIND to the host.

*cpname* is the name of the adjacent control point. VTAM issues *cpname* as a network-qualified name in the form *netid.name*.

**Note:** If this message is displayed as the result of a VARY ACT command for a CDRM on a VRTG connection, ignore this message. CP-CP sessions will become active once the SSCP-SSCP session becomes active.

## System action

Processing continues.

## Operator response

Verify that the link supports CP-CP sessions by entering the DISPLAY ID=*cpname* command.

If your node does not support CP-CP sessions, reactivate the link and initiate the desired session by entering the VARY ACT,ID=*cpname*,CPCP=YES command. This command will override your PU definition. If this is not successful, the other node does not support CP-CP sessions.

## System programmer response

If the other node does not support CP-CP sessions, the following steps are required:

1. Deactivate the other node
2. Change the PU definitions for the other node
3. Reactivate the other node.

## Routing code

2

## Descriptor code

5

---

### IST1096I CP-CP SESSIONS WITH *adjcpname* ACTIVATED

#### Explanation

This message is part of a group of messages that VTAM issues when CP-CP sessions with an adjacent control point (CP) have been activated and are usable. A complete description of the message group follows.

```
IST1096I  CP-CP SESSIONS WITH adjcpname ACTIVATED
[IST1673I SWITCH TO PREFERRED NETWORK NODE SERVER IS COMPLETE]
IST314I   END
```

#### IST1096I

This message identifies the adjacent control point (CP) with which this node has successfully activated CP-CP sessions. This message may be issued in response to a command.

**Note:** CP-CP sessions see the contention winner and contention loser sessions of the CP-CP session pair.

*adjcpname* is the name of the adjacent control point. If the network where the resource resides is known to VTAM, *adjcpname* is issued as a network-qualified name in the form *netid.name*

#### IST1673I

VTAM issues this message when this end node has deactivated CP-CP sessions with its current network node server and then successfully activated CP-CP sessions with its preferred network node server, which is identified in message IST1096I. This message may be issued in response to a MODIFY VTAMOPTS,NNSPREF command.

## System action

Processing continues.

## Operator response

None

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1097I****CP-CP SESSION WITH *cpname* TERMINATED**

---

## Explanation

This message is the first in a group of messages that VTAM issues when a CP-CP session with an adjacent control point has been terminated. This message may be issued in response to a command. A complete description of the message group follows.

```
IST1097I  CP-CP SESSION WITH cpname TERMINATED
IST1280I  SESSION TYPE = sessiontype - SENSE = code
IST314I   END
```

**IST1097I**

*cpname* is the name of the adjacent control point. If *cpname* is session-capable, VTAM issues *cpname* as a network-qualified name in the form *netid.name*.

**IST1280I**

*sessiontype* indicates the session type of the CP-CP session that is terminating and is either **CONWINNER** (contention winner) or **CONLOSER** (contention loser).

*code* is the sense code associated with the termination. See the [z/OS Communications Server: IP and SNA Codes](#) for an explanation of *code*.

## System action

Processing continues.

## Operator response

You can take the following actions:

- If this is a nonswitched connection, display the status of the resources.
- Attempt to reactivate the CP-CP sessions by issuing a VARY ACT,ID=*cpname* command.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1098I*****resource* DEACTIVATED, DEPLETING IO BUFFER POOL**

---

## Explanation

VTAM deactivates the logical unit in an SSCP-LU session or physical unit in an SSCP-PU session because the session is depleting the I/O buffer pool. This happens when VTAM detects a session using more of the buffer pool than allowed.

*resource* is the name of the LU or PU that is deactivated.

Message IST930I or IST1153I is displayed before this message and identifies the two session partners.

## System action

Processing continues.

## Operator response

Reactivate the session after you find and correct the reason for the depletion. For additional information, see IST930I or IST1153I.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1099I</b>	<b>SESSION TERMINATED, DEPLETING <i>bp</i> BUFFER POOL</b>
-----------------	--

## Explanation

VTAM terminates the LU-LU session because the session is depleting the *bp* buffer pool.

*bp* is the name of the buffer pool and is LF. This can be an LU-LU or a CP-CP session.

This occurs when VTAM detects a session using a percentage of the I/O buffer pool that is greater than or equal to the value specified on the HOTIOTRM start option.

Message IST930I or IST1153I is displayed before this message and identifies the two LU-LU session partners.

## System action

Processing continues.

## Operator response

Reactivate the session after you find and correct the reason for the depletion. For additional information, see IST930I or IST1153I.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1100I</b>	<b>ADJACENT CONTROL POINTS FROM MAJOR NODE <i>majornode</i></b>
-----------------	---

## Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY command for an adjacent control point major node. A complete description of the message group follows the example.

```
IST1100I ADJACENT CONTROL POINTS FROM MAJOR NODE majornode
IST1102I NODENAME      NODETYPE CONNECTIONS CP CONNECTIONS NATIVE
IST1103I nodename      nodetype connections cp_connections native
IST2157I ALIASRCH = searchoption
[IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:]
[IST2252I netid [netid] [netid] [netid] [netid] [netid]
:
IST314I END
```

### IST1100I

*majornode* is the name of the adjacent control point major node.

### IST1102I

This message is a header message for the information displayed in message IST1103I.

### IST1103I

- *nodename* is the network-qualified name of the minor node in the form *netid.name*.
- *nodetype* is the type of node and can be **EN** (end node), **NN** (network node), or **VN** (virtual node). **\*NA\*** is displayed in either of the following situations:
  - The device is connected and is a LEN node.
  - The node type has not been predefined for the adjacent CP. The correct node type will be displayed when a connection to the node is made.
- *connections* is the number of active connections to the node.
- *cp\_connections* is the number of active connections that show support for CP-CP sessions.
- *native* indicates whether *nodename* is in the same APPN topology subnetwork as the node issuing the DISPLAY command. Possible values are :

#### YES

If *nodetype* is **NN** and *nodename* shares APPN topology information with the node issuing the DISPLAY command.

#### NO

If *nodetype* is **NN** and *nodename* does not share APPN topology information with the node issuing the DISPLAY command.

#### \*NA\*

If *nodetype* is **EN** or **VN**.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information on nodetypes and APPN connections.

### IST2157I

- The *searchoption* value indicates which ALIASRCH operand has been coded on the adjacent CP major node specified in message IST1100I. Possible values are:

#### YES

ALIAS searches entering this non-native entry border node are permitted. This is also the default value.

#### NO

ALIAS searches entering this non-native entry border node are not permitted.

#### \*NA

This value is displayed if this node is not an entry border node (BN).

### IST2251I

This message is a header message for the information displayed in message IST2252I.



## IST2252I

The *netid* value is a NETID specified on the AUTHNETS operand of the adjacent CP minor node that is specified in message IST1103I. If the *netid* value is \*NONE\*, then the AUTHNETS operand was specified without any NETID values.

IST2252I is repeated until all NETIDs are displayed.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

## Example

```
D NET,ID=ADJCP1,SCOPE=ALL
IST097I DISPLAY ACCEPTED
IST075I NAME = ADJCP1, TYPE = ADJCP MAJOR NODE
IST486I STATUS= ACTIV, DESIRED STATE= ACTIV
IST1100I ADJACENT CONTROL POINTS FROM MAJOR NODE ADJCP1
IST1102I NODENAME          NODETYPE CONNECTIONS CP CONNECTIONS NATIVE
IST1103I NETA.CP2A          NN              1              1          NO
IST2157I ALIASRCH = YES
IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:
IST2252I  NETA      NETB      NETC
IST1103I NETB.CPAA          NN              1              1          NO
IST2157I ALIASRCH = YES
IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:
IST2252I  NETA      NETB      NETC
IST1103I NETB.CPBA          NN              0              0          *NA*
IST2157I ALIASRCH = YES
IST1103I NETC.CPCA          EN              1              1          *NA*
IST2157I ALIASRCH = *NA
IST1493I RTP SUMMARY FOR NETA.CP2A COUNT = 2 RTPONLY = NO
IST1493I RTP SUMMARY FOR NETB.CPAA COUNT = 2 RTPONLY = NO
IST1493I RTP SUMMARY FOR NETC.CPCA COUNT = 1 RTPONLY = NA
IST314I END
```

## IST1101I

## ADJCP DISPLAY SUMMARY FOR *adjcpname*

## Explanation

This message is the first of a subgroup of messages that VTAM issues in response to a DISPLAY ADJCP command for an adjacent control point.

Possible message groups follow.

- If there are active TG connections, VTAM issues the following messages:

```
IST350I  DISPLAY TYPE = ADJACENT CONTROL POINT
IST486I  STATUS= ACTIV, DESIRED STATE= ACTIV
IST1197I ADJCP MAJOR NODE = majornode
IST1101I ADJCP DISPLAY SUMMARY FOR adjcpname
```

```

IST1102I  NODENAME      NODETYPE CONNECTIONS CP_CONNECTIONS NATIVE
IST1103I  nodename      nodetype connections cp_connections native
:
IST1104I  CONNECTION SUMMARY FOR adjcpname
IST1105I  RESOURCE STATUS   TGN CP-CP  TG CHARACTERISTICS
IST1106I  resource status   tgn cp-cp  tg_characteristics
IST2157I  ALIASRCH = searchoption
[IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:]
[IST2252I netid [netid] [netid] [netid] [netid] [netid]
:
IST314I  END

```

- If there are no active TG connections, VTAM issues the following messages:

```

IST350I  DISPLAY TYPE = ADJACENT CONTROL POINT
IST486I  STATUS= ACTIV, DESIRED STATE= ACTIV
IST1197I  ADJCP MAJOR NODE = majornode
IST1101I  ADJCP DISPLAY SUMMARY FOR adjcpname
IST1102I  NODENAME      NODETYPE CONNECTIONS CP_CONNECTIONS NATIVE
IST1103I  nodename      nodetype connections cp_connections native
IST2157I  ALIASRCH = searchoption
[IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:]
[IST2252I netid [netid] [netid] [netid] [netid] [netid]
:
IST1104I  CONNECTION SUMMARY FOR adjcpname
IST172I  NO CONNECTIONS ACTIVE
IST314I  END

```

### IST1101I

*adjcpname* is the name of the adjacent control point. If the network where the resource resides is known to VTAM, *adjcpname* is issued as a network-qualified name in the form *netid.name*.

### IST1102I

This message is a header message for the information displayed in message IST1103I.

### IST1103I

- *nodename* is the name of the adjacent control point. If the network where the resource resides is known to VTAM, *nodename* is issued as a network-qualified name in the form *netid.name*.
- *nodetype* is the type of node and can be **EN** (end node), **NN** (network node), or **VN** (virtual node). **\*NA\*** is displayed in either of the following situations:
  - The device is connected and is a LEN node.
  - The node type has not been predefined for the adjacent CP. The correct node type will be displayed when a connection to the node is made.
- *connections* is the number of active connections to the node.
- *cp\_connections* is the number of active connections that show support for CP-to-CP sessions.
- *native* indicates whether *nodename* is in the same APPN topology subnetwork as the node issuing the DISPLAY command. Possible values are :

#### YES

If *nodetype* is **NN** and *nodename* shares APPN topology information with the node issuing the DISPLAY command.

#### NO

If *nodetype* is **NN** and *nodename* does not share APPN topology information with the node issuing the DISPLAY command.

#### \*NA\*

If *nodetype* is **EN** or **VN**.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information on APPN connections and nodetypes.

### IST1104I

*adjcpname* is the name of the adjacent control point. If the network where the resource resides is known to VTAM, *adjcpname* is issued as a network-qualified name in the form *netid.name*.

## IST1105I

This message is a header message for the information displayed in message IST1106I.

## IST1106I

- *resource* is the name of the PU, CDRM, PORT, or LINE associated with the transmission group number.
- *status* is the connection status and can be one of the following:

### AC/N

Active, but not reported to APPN topology and routing services

### AC/R

Active and reported to APPN topology and routing services

### AO/N

Active with override but not reported to APPN topology and routing services

### AO/R

Active with override and reported to APPN topology and routing services

### AP/N

APPN connection pending, but not reported to APPN topology and routing services

### AQ/N

Quiesced, but not reported to APPN topology and routing services

### AQ/R

Quiesced and reported to APPN topology and routing services

### IN/N

Inactive, but not reported to APPN topology and routing services

### IN/R

Inactive and reported to APPN topology and routing services

### NEV

Never reported to APPN topology and routing services

- *tg* is the transmission group number.
- *cp-cp* is a user-defined value that can be specified on the GROUP, LINE, or PU definition statements or on the VARY ACT command. This value indicates whether the connection is capable of supporting CP-CP sessions.
  - Possible values are: **YES** or **NO**.
  - For additional information on the CPCP operand, see the [z/OS Communications Server: SNA Resource Definition Reference](#).
- *tg\_characteristics* is a 16-byte hexadecimal string representing the transmission group characteristics for *puname*. \*\*\*\*\* NA \*\*\*\*\* is displayed if *puname* is a low entry networking (LEN) node. LEN PUs do not have transmission groups associated with them.

## Byte

### Description

1

TG status and CP-CP session support.

### Bit

#### Description

1

TG status

0

TG is not operational

1

TG is operational

2

Reserved (zero)

**3**

TG status

**0**

TG is not quiescing

**1**

TG is quiescing

**4–8**

Reserved (not always zero)

**2**

Capacity. This value corresponds to the CAPACITY value coded in the TGP definition statement. The displayed value is an internal representation of the coded value. For more information on how the CAPACITY value coded in the TG profile is mapped to the internal representation used by VTAM, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

**3–7**

Reserved (zero).

**8**

Cost per unit time. This value corresponds to the COSTTIME value coded in the TGP definition statement.

**9**

Cost per byte. This value corresponds to the COSTBYTE value coded in the TGP definition statement.

**10**

Reserved (zero).

**11**

Security. This value corresponds to the SECURITY value coded in the TGP definition statement as follows:

**X'01'**

UNSECURE

**X'20'**

PUBLIC

**X'40'**

UNDERGRO

**X'60'**

SECURE

**X'80'**

GUARDED

**X'A0'**

ENCRYPT

**X'C0'**

SHIELDED

**12**

Propagation delay. This value corresponds to the PDELAY value coded in the TGP definition statement as follows:

**X'4C'**

NEGLIGIB

**X'71'**

TERRESTR

**X'91'**

PACKET

**X'99'**

LONG

**13**

Reserved (zero).

## 14–16

User-defined. These values correspond to the values coded for UPARM1, UPARM2, and UPARM3 respectively in the TGP definition statement.

### IST2157I

- The *searchoption* value indicates which ALIASRCH operand has been coded on the adjacent CP major node specified in message IST1100I. Possible values are:

#### YES

ALIAS searches entering this non-native entry border node are permitted. This is also the default value.

#### NO

ALIAS searches entering this non-native entry border node are not permitted.

#### \*NA

This value is displayed if this node is not an entry border node (BN).

### IST2251I

This message is a header message for the information displayed in message IST2252I.

### IST2252I

The *netid* value is a NETID specified on the AUTHNETS operand of the adjacent CP minor node that is specified in message IST1103I. If the *netid* value is \*NONE\*, then the AUTHNETS operand was specified without any NETID values.

IST2252I is repeated until all NETIDs are displayed.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

If there are transmission group characteristics (contained in *tg\_characteristics*) that you do not want, recode the resource definition statements.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

## Routing code

2

## Descriptor code

5

## Example

```
D NET,ADJCP,ID=NETA.CP2A,SCOPE=ALL
IST097I DISPLAY ACCEPTED
IST350I DISPLAY TYPE = ADJACENT CONTROL POINT
IST486I STATUS= ACTIV, DESIRED STATE= ACTIV
IST1197I ADJCP MAJOR NODE = ADJCP1
IST1101I ADJCP DISPLAY SUMMARY FOR NETA.CP2A
IST1102I NODENAME          NODETYPE CONNECTIONS CP CONNECTIONS NATIVE
IST1103I NETA.CP2A         NN          1          1          NO
IST2157I ALIASRCH = YES
IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:
IST2252I  NETA          NETB          NETC
IST1104I CONNECTION SUMMARY FOR NETA.CP2A
IST1105I RESOURCE STATUS TGN CP-CP TG CHARACTERISTICS
```

```

IST1106I AHHCPU5 AC/R 21 YES 9871000000000000000100014C00808080
IST1500I STATE TRACE = OFF
IST1493I RTP SUMMARY FOR NETA.CP2A COUNT = 2 RTPONLY = NO
IST1486I RTP NAME STATE DESTINATION CP MNPS TYPE
IST1487I CNR00002 CONNECTED NETA.CP2A NO CPCP
IST1487I CNR00001 CONNECTED NETA.CP2A NO CPCP
IST314I END

```

---

## IST1102I NODENAME NODETYPE CONNECTIONS CP CONNECTIONS NATIVE

### Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID=*adjcpname* command or a DISPLAY ADJCP command.

- DISPLAY ID=*adjcpname* command  
See the explanation of message IST1100I for a complete description of this message group.
- DISPLAY ADJCP command  
See the explanation of message IST1101I and message IST1197I for a complete description of possible message groups.

### Routing code

2

### Descriptor code

5

---

## IST1103I *nodename nodetype connections cp\_connections native*

### Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID=*adjcpname* command or a DISPLAY ADJCP command.

- DISPLAY ID=*adjcpname* command  
See the explanation of message IST1100I for a complete description of this message group.
- DISPLAY ADJCP command  
See the explanation of message IST1101I and message IST1197I for a complete description of possible message groups.

### Routing code

2

### Descriptor code

5

---

## IST1104I CONNECTION SUMMARY FOR *adjcpname*

### Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ADJCP command. See the explanations of message IST1101I and message IST1197I for a complete description of possible message groups.

## 2

## 5

## RESOURCE STATUS TGN CP-CP TG CHARACTERISTICS

- **DISPLAY ID** command for a type 2.1 PU, a CDRM with a virtual route-based transmission group, an external communication adapter (XCA) port that is part of a connection network. A complete description of this message group follows.

- Possible values are: **YES** or **NO**.

- For additional information on the CPCP operand, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

*tg\_characteristics* is a 16-byte hexadecimal string representing the transmission group characteristics for *puname*. **\*\*\*\* NA \*\*\*\*** is displayed if *puname* is a low entry networking (LEN) node. LEN PUs do not have transmission groups associated with them.

## Byte

### Description

**1**

TG status and CP-CP session support.

## Bit

### Description

**1**

TG status

**0**

TG is not operational

**1**

TG is operational

**2**

Reserved (zero)

**3**

TG status

**0**

TG is not quiescing

**1**

TG is quiescing

**4–8**

Reserved (not always zero)

**2**

Capacity. This value corresponds to the CAPACITY value coded in the TGP definition statement. The displayed value is an internal representation of the coded value. For more information on how the CAPACITY value coded in the TG profile is mapped to the internal representation used by VTAM, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

**3–7**

Reserved (zero).

**8**

Cost per unit time. This value corresponds to the COSTTIME value coded in the TGP definition statement.

**9**

Cost per byte. This value corresponds to the COSTBYTE value coded in the TGP definition statement.

**10**

Reserved (zero).

**11**

Security. This value corresponds to the SECURITY value coded in the TGP definition statement as follows:

**X'01'**

UNSECURE

**X'20'**

PUBLIC

**X'40'**

UNDERGRO



**X'60'**  
SECURE

**X'80'**  
GUARDED

**X'A0'**  
ENCRYPT

**X'C0'**  
SHIELDED

**12**

Propagation delay. This value corresponds to the PDELAY value coded in the TGP definition statement as follows:

**X'4C'**  
NEGLIGIB

**X'71'**  
TERRESTR

**X'91'**  
PACKET

**X'99'**  
LONG

**13**

Reserved (zero).

**14–16**

User-defined. These values correspond to the values coded for UPARM1, UPARM2, and UPARM3 respectively in the TGP definition statement.

## System action

Processing continues.

## Operator response

None.

## System programmer response

If there are transmission group characteristics (contained in *tg\_characteristics*) that you do not want, change the TGP definitions.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on defining TGP definitions.

## Routing code

2

## Descriptor code

5

---

**IST1106I**

*resource status tgn cp-cp tg\_characteristics*

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for a type 2.1 PU, a VRTG-capable CDRM, a GROUP (XCA) that is part of a connection network, or a LINE (NTRI) that is

part of a connection network, or DISPLAY ADJCP command. The first message in the group is IST1105I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1107I** **TGP NAME TG CHARACTERISTICS**

**Explanation**

This message is the first in a group of messages that VTAM issues in response to a DISPLAY TGPS command. A complete description of the message group follows.

```
IST1107I  TGP NAME TG CHARACTERISTICS
IST1108I  tgpname  tg_characteristics
:
[IST1315I DISPLAY TRUNCATED AT MAX = number]
IST1454I count TGP(S) DISPLAYEDIST314I  END
```

**IST1107I**

This message is a header message for information displayed in message IST1108I.

**IST1108I**

- *tgpname* is the transmission group profile name.
- *tg\_characteristics* is a 16-byte hexadecimal string representing the transmission group characteristics for the PU associated with *tgpname*. **\*\*\*\* NA \*\*\*\*** is displayed if the PU is a low entry networking (LEN) node. LEN PUs do not have transmission groups associated with them.

**Byte**  
**Description**

- 1** This byte is zero when you display a TG profile, but other values may appear when you display the TG characteristics for an active resource. (for example, the output of the DISPLAY ADJCP command).
- 2** Capacity. This value corresponds to the CAPACITY value coded in the TGP definition statement. The displayed value is an internal representation of the coded value. For more information on how the CAPACITY value coded in the TG profile is mapped to the internal representation used by VTAM, see the [z/OS Communications Server: SNA Resource Definition Reference](#).
- 3–7** Reserved (zero).
- 8** Cost per unit time. This value corresponds to the COSTTIME value coded in the TGP definition statement.
- 9** Cost per byte. This value corresponds to the COSTBYTE value coded in the TGP definition statement.
- 10** Reserved (zero).
- 11** Security. This value corresponds to the SECURITY value coded in the TGP definition statement as follows:  
**X'01'**  
UNSECURE

**X'20'**  
PUBLIC

**X'40'**  
UNDERGRO

**X'60'**  
SECURE

**X'80'**  
GUARDED

**X'A0'**  
ENCRYPT

**X'C0'**  
SHIELDED

## 12

Propagation delay. This value corresponds to the PDELAY value coded in the TGP definition statement as follows:

**X'4C'**  
NEGLIGIB

**X'71'**  
TERRESTR

**X'91'**  
PACKET

**X'99'**  
LONG

## 13

Reserved (zero).

## 14–16

User-defined. These values correspond to the values coded for UPARM1, UPARM2, and UPARM3 respectively in the TGP definition statement.

### IST1315I

*number* is the value specified for the MAX operand.

### IST1454I

*count* is the total number of transmission group profiles displayed.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

## Explanation

This message is part of a message group that VTAM issues in response to a DISPLAY TGPS command. The first message in the group is IST1107I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

## IST1110I

## ACTIVATION OF CP-CP SESSION WITH *cpname* FAILED

## Explanation

This message is the first in a group of messages that VTAM issues when a CP-CP session with *cpname* cannot be activated. A complete description of the message group follows.

```
IST1110I ACTIVATION OF CP-CP SESSION WITH cpname FAILED
[IST1002I RCPRI=rcpri RCSEC=rcsec]
[IST1111I ADJACENT NODE DOES NOT SUPPORT UNSOLICITED BINDS]
[IST1112I CP ALREADY HAS A CP-CP SESSION WITH current_NN]
[IST1113I EN-EN SESSION IS NOT VALID]
[IST1119I FAILURE REASON - INSUFFICIENT STORAGE]
[IST1246I ADJACENT CP NOT DEFINED IN CURRENT NETWORK NODE SERVER LIST]
[IST1247I ALL ATTEMPTS TO ESTABLISH A SESSION WERE UNSUCCESSFUL]
[IST1280I SESSION TYPE = sessiontype - SENSE = code]
[IST1356I NETWORK NODE DOES NOT PROVIDE REQUIRED SERVER FUNCTION]
[IST1507I VR-BASED TG NOT SUPPORTED]
[IST1508I CP-CP SESSIONS ON VR-BASED TG NOT SUPPORTED]
[IST1676I SWITCH TO PREFERRED NETWORK NODE SERVER FAILED - CODE = code]
[IST1765I ADJACENT CP WINNER LOSER STATE NODE ANDCB]
[IST1766I adjacent_cp cw_state cl_state state node address]
```

## IST1110I

*cpname* is the name of the adjacent control point. If *cpname* is session-capable, VTAM issues *cpname* as a network-qualified name in the form *netid.name*.

Subsequent messages in the group indicate the reason that VTAM cannot activate the CP-CP session.

## IST1002I

- This message is issued when there is a nonzero value in either or both of the RCPRI or RCSEC return code fields.

*rcpri* is the value of the primary return code issued by VTAM.

*rcsec* is the value of the secondary return code issued by VTAM.

- See the [z/OS Communications Server: IP and SNA Codes](#) for a detailed explanation of *rcpri* and *rcsec*.

## IST1111I

This message is issued in response to a VARY ACT,ID=*cpname* command. The adjacent node does not support receipt of unsolicited binds. It will not accept another node sending a bind to it for CP-CP sessions, unless the bind flows as the result of link activation. The adjacent node will only allow itself to start CP-CP sessions, not another node.

## IST1112I

This message is issued in response to a VARY ACT,ID=*cpname* command when an attempt is made to establish a CP-CP sessions for an end node (EN) that already has a CP-CP session with a network node (NN). An EN can have a CP-CP session with only one NN at a time.

*current\_NN* is the name of the NN with which VTAM currently has a CP-CP session.

### IST1113I

This message is issued in response to a VARY ACT,ID=*cpname* command when an EN-EN session was attempted. CP-CP sessions between ENs are not permitted.

### IST1119I

This message is issued in response to a VARY ACT,ID=*cpname*,IDTYPE=CP command. VTAM could not allocate storage for internal signals needed to establish CP-CP sessions.

### IST1246I

This message is issued at an end node when a network node attempts to establish CP-CP sessions and the network node cannot be used as a network node server according to the contents of the network node server list.

### IST1247I

This message is issued in response to a VARY ACT,ID=*cpname*,IDTYPE=CP command. VTAM at an end node attempted to establish a CP-CP session with the network node specified on the command, but all attempts were unsuccessful.

### IST1280I

- This message is issued when the CP-CP session activation failed for one of the following reasons:
  - An unrecoverable error occurred during session activation.
  - An error occurred during contention winner session activation, and the error remained after the maximum number of retries was attempted.
- This message might be preceded by IST1356I. See the explanation of IST1356I that follows for more information.
- *sessiontype* is either **CONWINNER** (contention winner) or **CONLOSER** (contention loser).
- *code* is the sense code associated with the error. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

### IST1356I

- This message is issued at an end node when that end node has attempted to activate a CP-CP session with network node *cpname* and the following is true:

The end node's network node server list specifies that *cpname* must provide SLU-initiated session capability as one of the requirements of becoming its network node server. However, *cpname* has informed the end node that it does not support SLU-initiated sessions.

### IST1507I

This message is issued when an attempt has been made to establish a CP-CP session over a virtual route-based transmission group (VR-based TG) and the adjacent SSCP does not support the VR-based TG function. This may be because the adjacent SSCP has coded VRTG=NO in the CDRM major node for the SSCP that is attempting the VR-based TG connection or the adjacent SSCP may be pre-VTAM V4R2, which does not support the VR-based TG function.

### IST1508I

This message is issued when an attempt has been made to establish a CP-CP session over a virtual route-based transmission group (VR-based TG) and the adjacent SSCP supports the VR-based TG function but does not allow CP-CP sessions to use the VR-based TG. The adjacent node has specified VRTGCP=NO as a start option or the start option has been modified with the MODIFY VTAMOPTS command.

### IST1676I

- This message is issued when this end node has attempted but failed to switch CP-CP sessions from its current network node server to its preferred network node server.
- *code* is the code associated with the failure:
  - 4—There is no active CP-capable link to the preferred server.

8—See the sense code in message IST1280I to determine the reason for the failure.

12—The switch to the preferred network node server specified by the MODIFY VTAMOPTS,NNSPREF command currently being processed has been terminated because a later MODIFY VTAMOPTS,NNSPREF command has superseded it.

16—The switch of CP-CP sessions to the adjacent CP specified on the NNSPREF start option failed because the adjacent CP is actually an end node. CP-CP sessions between adjacent end nodes (EN) are not allowed.

## **IST1765I**

This message is a header message for the information displayed in message IST1766I.

## **IST1766I**

- One IST1766I will be issued for the network node displayed in the IST1112I message.
- *adjacent\_cp* is the network-qualified CP name of the adjacent control point.
- *cw\_state* is the status of the contention winner CP-CP session. Valid values are:

### **ACT**

active

### **INACT**

inactive

### **PACT**

pending active

### **PINACT**

pending inactive

- *cl\_state* is the status of the contention loser CP-CP session. Valid values are:

### **ACT**

active

### **INACT**

inactive

### **PACT**

pending active

### **PINACT**

pending inactive

- *state* is the state of the CP-CP sessions to the adjacent node being displayed. Valid values are:

### **UP**

One or more of the contention winner and contention loser sessions are active or pending-active.

### **DOWN**

Both contention winner and contention loser sessions are coming down but are not completely inactive.

### **BOTH DOWN**

Both contention winner and contention loser sessions are inactive.

- *node* is the APPN node type of the adjacent control point. The only valid value for this message group is NN (network node).
- *address* is the hexadecimal storage address for the adjacent node control block where the CP-CP session information is saved.

## **System action**

Processing continues.

## **Operator response**

### **IST1002I**

Save the system log for problem determination.

**IST1111I**

Deactivate the link with the adjacent node which supports CP-CP sessions and then reactivate it. This will allow the other node to start the bind processing. This may cause CP-CP sessions to be activated.

**IST1112I, IST1765I, and IST1766I**

This CP is an EN. Verify that the EN has a CP-CP session established with the correct NN.

**IST1113I**

None.

**IST1119I**

Issue the DISPLAY BFRUSE command to display information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

**IST1246I**

Enter the VARY ACT,ID=*cpname* command and specify the desired server. VTAM will attempt to establish a CP-CP session with *cpname* even if *cpname* is not allowed by the current network node server list.

The network node server list should be modified. If the network node server list is left unchanged, then VTAM may not be able to acquire a new server if the current server fails. After the list has been modified, issue a VARY ACT,ID=*member\_name* command where *member\_name* is the member in the definition library that contains the edited network node server list.

**IST1247I**

You should determine that the adjacent nodes are working properly and check for any connection problems between the nodes.

Then enter the VARY ACT,ID=*cpname* command and specify the desired server.

The network node server list should be modified to allow more network nodes to act as servers. After the list has been modified, issue a VARY ACT,ID=*member\_name* command where *member\_name* is the member in the definition library that contains the edited network node server list.

**IST1280I**

Save the system log for problem determination.

**IST1356I**

Save the system log for problem determination.

**IST1507I**

The command that initiated CDRM-CDRM session activation implicitly or explicitly attempted activation of a CP-CP session over the virtual route used by the CDRM-CDRM session.

If the VR-based TG is not desired, no response is necessary. However, explicitly specifying VRTG=NO on the V ACT,ID=*cdrm name* command prevents VTAM from attempting VR-based TG activation.

If the CP-CP session is desired, this message indicates that the adjacent SSCP is not capable of performing the VR-based TG function. Save the system log for problem determination.

**IST1508I**

The command that initiated CDRM-CDRM session activation implicitly or explicitly attempted activation of a CP-CP session over the virtual route used by the CDRM-CDRM session.

If the CP-CP session is not desired, no response is necessary. However, explicitly specifying VRTGCPCP=NO on the V ACT,ID=*cdrm name* command prevents VTAM from attempting CP-CP session activation.

If the CP-CP session is desired, this message indicates that the adjacent SSCP does not allow CP-CP sessions over VR-based TGs. Save the system log for problem determination.

**IST1676I**

Operator response is determined by the error code:

**4**

Activate a CP-capable link from the EN to the preferred network node server.

8

Save the console output and contact system programmer to determine causes for failure of CP-CP session activation attempt.

12

No action is necessary.

16

Contact the system programmer to help determine the correct value for the NNSPREF start option.

## System programmer response

### IST1002I

Use the explanations of *rcpri* and *rcsec* to assist you in solving the problem.

### IST1111I, IST1112I, IST1113I, IST1765I, and IST1766I

None.

### IST1119I

Increase storage as required. You might want to redefine your CSA start options using the MODIFY VTAMOPTS command. After the storage shortage problem is corrected, enter a VARY ACT,ID=*cpname* command and specify the desired server.

See [z/OS Communications Server: SNA Operation](#) for more information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool.

### IST1246I and IST1247I

Additional network nodes can be defined as acceptable servers by modifying the network node server list. Add new NETSRVR definition statements for individual network nodes or add a NETSRVR definition statement that allows any known network node to act as the network node server.

For information on the NETSRVR definition statement, see the [z/OS Communications Server: SNA Resource Definition Reference](#)

### IST1280I

Use the explanation of the sense code to assist you in solving the problem.

### IST1356I

The network node server list must be modified. Specify SLUINIT=OPT on the NETSRVR definition statement for either the network node server entry for *cpname* or the nameless entry.

Ask the operator to reactivate the modified network node server list before trying to activate the session again.

### IST1507I

If CP-CP sessions are desired or required using virtual route-based transmission groups (VR-based TGs), both SSCPs must allow the function by having VRTG=YES coded on the CDRM statement in the CDRM major node for the adjacent SSCP.

### IST1508I

If CP-CP sessions are desired using virtual route-based transmission groups (VR-based TGs), both SSCPs must allow the function by specifying VRTG=YES on the CDRM definition statement in the CDRM major node for the adjacent SSCP. In addition, VRTGCPCP=YES must be specified in both hosts as the start option value or modified with the MODIFY VTAMOPTS command to allow CP-CP sessions to use a VR-based TG.

### IST1676I

If the switchover fails with reason code 8, determine reason for failure from sense code displayed in message IST1280I.

## Routing code

2



## Descriptor code

5

---

<b>IST1111I</b>	<b>ADJACENT NODE DOES NOT SUPPORT UNSOLICITED BINDS</b>
-----------------	---

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST1110I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1112I</b>	<b>CP ALREADY HAS A CP-CP SESSION WITH <i>current_NN</i></b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST1110I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1113I</b>	<b>EN-EN SESSION IS NOT VALID</b>
-----------------	-----------------------------------

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST1110I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1114I</b>	<b><i>option</i> START OPTION IGNORED – NOT VALID FOR <i>value</i></b>
-----------------	--

---

## Explanation

VTAM issues this message when *option* is not valid for the specified *value*.

*option* is the start option that is ignored.

*value* is one of the following:

- A specified node type that is not valid for *option*
- A specified start option and its value that conflict with *option*.

**System action**

*option* is ignored. Other processing continues.

**Operator response**

Save the system log for problem determination.

**System programmer response**

Examine the VTAM start options contained in ATCSTRxx and verify that the correct options are specified. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on VTAM start options.

**Routing code**

2

**Descriptor code**

5

---

**IST1115I** CDRM NAME *cdrmname* IS DIFFERENT THAN SSCPNAME START OPTION

**Explanation**

This message is the first in a subgroup of messages that VTAM issues in response to an attempt to activate the host cross-domain resource manager (CDRM) major node with a name different than the host system services control point (SSCP) name specified in the start options.

A complete description of the message subgroup follows.

```
IST1115I  CDRM NAME cdrmname IS DIFFERENT THAN SSCPNAME START OPTION
IST1116I  SSCP NAME sscpname IS USED
```

**IST1115I**

*cdrmname* is the name specified in the CDRM major node definition.

**IST1116I**

*sscpname* is the name specified on the SSCPNAME start option.

**System action**

The name specified for the host CDRM major node is ignored, and the SSCP name is used for the host CDRM name.

**Operator response**

Save the system log for problem determination.

**System programmer response**

Change either the name in the host CDRM definition or the SSCP name specified in the START options so that the names match. If the START option is changed, VTAM must be restarted. If the name in the host CDRM definition is changed, you must deactivate and reactivate the major node to use the new definition.

**Routing code**

2

## Descriptor code

6

---

**IST1116I** **SSCP NAME *sscpname* IS USED**

## Explanation

VTAM issues this message as part of a subgroup of messages. The first message in the subgroup is IST1115I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

6

---

**IST1117I** **PHYSICAL RESOURCE (PHYSRSC) *puname* {IS NOT KNOWN|IS NOT A PU}**

## Explanation

VTAM issues this message as part of a group of messages. The first message in this group is IST1079I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1118I** **LINK DEFINITION FAILURE, CP = *cpname* TGN = *tgn***

## Explanation

This message is the first in a group of messages that VTAM issues when an attempt to define the link to topology and routing services failed. The second message in the group gives the reason for the failure. Possible message groups follow.

```
IST1118I  LINK DEFINITION FAILURE, CP = cpname TGN = tgn
IST1119I  FAILURE REASON - INSUFFICIENT STORAGE
IST314I   END

IST1118I  LINK DEFINITION FAILURE, CP = cpname TGN = tgn
IST1261I  ABEND OCCURRED DURING LINK DEFINITION
IST314I   END
```

### IST1118I

- *cpname* is the name of the control point to which this link is attached. If *cpname* is session-capable, VTAM issues *cpname* as a network-qualified name in the form *netid.name*.

*tgn* is the transmission group number associated with this link.

### IST1119I

There was not enough storage to define the link to topology and routing services.

### IST1261I

An abend occurred before the link was defined to topology and routing services.

## System action

No sessions will be assigned to the link. Other processing continues.

## Operator response

1. Issue the DISPLAY ADJCP,ID=*cpname*,E command and use the information displayed in messages IST1105I and IST1106I to identify the PU associated with the link specified by *cpname* and *tn*.
2. Enter the VARY INACT command to deactivate the link. The link must be deactivated before another attempt at link definition is made. When the VARY INACT command has completed, enter a VARY ACT command to activate the link.
3. If VTAM continues to issue this message group, see the operator response for the second message.

### IST1119I

- Issue the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you may need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See [z/OS Communications Server: SNA Operation](#) for additional information.

Save the system log and dump for problem determination.

### IST1261I

Save the system log for problem determination.

## System programmer response

### IST1119I

Increase storage as required.

### IST1261I

Review the contents of the system dump to determine the correct problem determination action.

## Routing code

2

## Descriptor code

3

---

### IST1119I

**FAILURE REASON - INSUFFICIENT STORAGE**

## Explanation

VTAM issues this message as part of several different message groups. See the explanation of the first message in the group for a complete description.

## Routing code

2

## Descriptor code

3

---

### IST1120I

***macroname* APPNCOS DEFINITION FAILED-INSUFFICIENT STORAGE**

## Explanation

VTAM issues this message in response to an APPN class of service (CoS) definition failure. The definition statement failed because there was not enough private storage to process the request.

*macroname* is the name of the Class of Service being defined in the definition statement.

## System action

Processing continues.

## Operator response

Issue the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you may need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See [z/OS Communications Server: SNA Operation](#) for additional information.

Save the system log and request a dump for problem determination.

## System programmer response

Increase storage as required.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY BFRUSE and DISPLAY STORUSE commands. The [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) provides additional information.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps](#) and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST1121I**

**COSAPPN IN *library* *errortype* – PROCESSING CONTINUES**

## Explanation

VTAM issues this message when the library member **COSAPPN** was empty, not found, or contained a syntax error.

*library* is the data definition name (DDNAME) specified for the definition library.

*errortype* indicates the type of error and can be **IS EMPTY**, **NOT FOUND**, or **IN ERROR** (contains a syntax error).

## System action

VTAM initialization continues. However, the IBM-supplied classes of service may not be available for APPN route selection.

## Operator response

If the APPN classes of service have been defined under a different member name and are activated by configuration list processing or by a VARY ACT command, then no action is necessary.

Otherwise, save the system log for problem determination.

## System programmer response

- If **IS EMPTY** or **NOT FOUND** is displayed, verify that COSAPPN was either intentionally left empty or not found.
- If **IN ERROR** is displayed, see the [z/OS Communications Server: SNA Resource Definition Reference](#) for additional information.

**Note:** If an alternate set of appropriate classes of service is not defined through another configuration file specified in the start options, attempting to activate APPN sessions will yield unpredictable results.

## Routing code

2

## Descriptor code

5

---

**IST1122I** **CHKPT TO DATASET *datasetname* WAS NOT SUCCESSFUL, CODE = *code***

## Explanation

VTAM issues this message in response to one of the following commands:

- MODIFY CHKPT
- MODIFY CHKPT,ALL
- MODIFY CHKPT,DIR
- MODIFY CHKPT,TOPO
- Z NET
- Z NET,QUICK

This message confirms that VTAM was unable to write either the APPN directory database or the APPN topology database to the specified *datasetname*.

*code* indicates the reason for the error and is one of following:

### Code

#### Error

**1**

Insufficient storage.

**2**

The disk file is undefined.

**3**

A MODIFY CHKPT command was attempted before the initial database load was complete.

**4**

Disk I/O errors occurred. These errors may be reported in a separate messages issued prior to this message.

**5**

A Z NET or Z NET,QUICK command may have been entered before the initial database load was complete. Or, the disk I/O subtask is unavailable due to a previous abend or initialization error and termination processing has begun.

**6**

The MODIFY CHKPT command was not entered at a network node.

**7**

The APPN directory contains no resources to checkpoint.

**10**

The topology and routing services task abended while attempting to process the MODIFY CHKPT command.

## System action

Processing continues.

## Operator response

### Code

#### Response

**1**

Issue the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you may need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See [z/OS Communications Server: SNA Operation](#) for additional information.

Save the system log and dump for problem determination.

**2**

Save the system log for problem determination.

**3**

If you entered a MODIFY CHKPT command, wait a short time and reenter the command.

**4**

Save the system log and dump for problem determination.

**5**

Regardless of how termination processing began, do not attempt another checkpoint. If you did not enter a termination command, save the system log and dump for problem determination.

**6**

VTAM ignores the MODIFY CHKPT command because it was not entered at a network node. Ensure that you are working with a network node and reenter the command.

**7**

None.

**10**

Save the system log and dump for problem determination.

## System programmer response

### Code

#### Response

**1**

Increase storage as required.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY BFRUSE and DISPLAY STORUSE commands. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**2**

You must define the missing disk file. See the applicable sequential access method documentation and the [z/OS Communications Server: SNA Network Implementation Guide](#) for additional information.

**3**

None.

**4**

See the applicable sequential access method documentation for more information.

**5**

Use the messages issued prior to this message to determine the cause of the failure. This message is only informing you that the directory services or topology routing services database was not written to

*datasetname*. VTAM can continue without the disk I/O subtask, but the checkpoint function will not be available.

6

None.

7

None.

10

Review the contents of the system dump to determine the correct problem determination action. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on the abend procedure.

## Routing code

2

### Descriptor code

5

IST1123I	MODIFY CHKPT TO DATASET <i>datasetname</i> WAS SUCCESSFUL
----------	---

### Explanation

VTAM issues this message in response to any one of the following commands:

MODIFY CHKPT  
MODIFY CHKPT, DIR  
MODIFY CHKPT, ALL  
MODIFY CHKPT, TOPO  
Z NET  
Z NET, QUICK

This message indicates that either directory services or topology and routing services has completed writing out its database to the specified *datasetname*.

### System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

### Descriptor code

5

IST1124I	UNABLE TO REGISTER RESOURCES WITH <i>nodename</i>
----------	---



## Explanation

This message is the first in a group of messages that VTAM issues when VTAM at this end node is unable to register resources with its network node server.

*nodename* is the network-qualified name of the network node server control point in the form *netid.name*.

The second message in the group indicates the reason that the end node is unable to register resources and can be one of the following:

### **IST1125I END NODE IS NOT AUTHORIZED**

The end node is unable to register resources because the end node is not authorized at the network node server.

### **IST1126I END NODE NETID REJECTED**

The network node server rejected the network ID of the end node because the network node exceeded the maximum number of network IDs allowed.

### **IST1127I UNRECOGNIZED REGISTRATION REQUEST**

The network node *nodename* has repeatedly reported that it is unable to interpret registration requests from this end node. This is due to one of the following software errors:

- The end node software is failing and sending incorrect requests.
- The network node software is failing and unable to recognize the requests from the end node.

## System action

### **IST1125I or IST1126I**

VTAM stops registering resources until CP-CP sessions with network node server *nodename* are deactivated. CP-CP sessions with this server or any other network node are then activated.

### **IST1127I**

CP-CP sessions with *nodename* are deactivated. Either VTAM or the operator may activate CP-CP sessions with another network node and VTAM will resume resource registration.

## Operator response

### **IST1125I or IST1126I**

Save the system log for problem determination.

### **IST1127I**

Enter the MODIFY TRACE,TYPE=BUF,ID=*nodename* command. Save the system log for problem determination.

## System programmer response

### **IST1125I**

If CP-CP sessions are desired between the end node and network node *nodename*, modify the network node server list to define the end node as authorized at that network node. If necessary, include a NETSRVR definition statement for the selected network node in the network node server list, or include a NETSRVR definition statement that allows any known network node to act as the network node server for the end node.

After the list has been edited, issue VARY ACT,ID=*member\_name*, where *member\_name* is the name of the definition list member that contains the edited network node server list. Then, enter the VARY TERM,ID=*nodename* command to deactivate CP-CP sessions between this end node and network node *nodename*. VTAM will automatically reactivate CP-CP sessions, using the new network node server list.

### **IST1126I**

Select a network node server that can accommodate the network ID. If necessary, include a NETSRVR definition statement for the selected network node in the network node server list, or include a NETSRVR definition statement that allows any known network node to act as the network node server for the end node.

**IST1127I**

Examine the system log and trace output. Verify the REGISTR and DELETE GDS variables against the published formats.

- See *SNA Formats* or *SNA Network Product Formats* for a description of the REGISTR and DELETE GDS variables and an explanation of GDS variable formats.
- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information about analyzing traces.

Alternatively, select a new network node to act as the server for this end node. If necessary, include a NETSRVR definition statement for the selected network node in the network node server list, or include a NETSRVR definition statement that allows any known network node to act as the network node server for the end node.

After the list has been modified, issue VARY ACT,ID=*member\_name*, where *member\_name* is the name of the definition list member that contains the edited network node server list.

**Routing code**

2

**Descriptor code**

3

---

**IST1125I** **END NODE IS NOT AUTHORIZED****Explanation**

VTAM issues this message as part of a group of messages when VTAM at this end node is unable to register resources with its network node server. The first message in the group is IST1124I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

3

---

**IST1126I** **END NODE NETID REJECTED****Explanation**

VTAM issues this message as part of a group of messages when VTAM at this end node is unable to register resources with its network node server. The first message in the group is IST1124I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

3

---

**IST1127I** **UNRECOGNIZED REGISTRATION REQUEST**

## Explanation

VTAM issues this message as part of a group of messages when VTAM at this end node is unable to register resources with its network node server. The first message in the group is IST1124I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

3

---

**IST1128I** **PATH *pathname* IGNORED, *nodename* – STORAGE SHORTAGE**

---

## Explanation

This message is the first in a group of messages that VTAM issues when sufficient storage is not available to update the dynamic path update set *pathname* for node *nodename*. A complete description of the message group follows.

```
IST1128I  PATH pathname IGNORED, nodename – STORAGE SHORTAGE
IST1045I  NODE TYPE = nodetype
IST314I   END
```

VTAM issues *nodename* as a network-qualified name in the form *netid.name*.

*nodetype* is the resource type of *nodename*. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for possible values.

## System action

VTAM does not update the dynamic path update set *pathname*.

## Operator response

Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST1129I** *command FAILED, nodename – DEACTIVATE PENDING*

## Explanation

This message is the first in a group of messages that VTAM issues when the resource *nodename* that the operator specified on *command* has a deactivation request pending. A complete description of the message group follows.

```
IST1129I  command FAILED, nodename – DEACTIVATE PENDING
IST1045I  NODE TYPE = nodetype
IST314I   END
```

If the *command* that failed was a VARY INACT command, the pending deactivation is of a stronger type (Immediate or Force).

If a network-qualified name was entered on the command line, VTAM issues *nodename* in the form *netid.name*. *nodetype* is the resource type of *nodename*. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for possible values.

## System action

VTAM rejects the command. Other processing continues.

## Operator response

Monitor the progress of the deactivation by using the DISPLAY command. When *nodename* is deactivated, reenter the VARY command.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1130I** *command FOR nodename FAILED – STORAGE SHORTAGE*

## Explanation

This message is the first in a group of messages that VTAM issues when *command* for resource *nodename* failed because VTAM could not obtain enough storage to process the request. A complete description of the message group follows.

```
IST1130I  command FOR nodename FAILED – STORAGE SHORTAGE
IST1045I  NODE TYPE = nodetype
IST314I   END
```

If a network-qualified name was entered on the command line, VTAM issues *nodename* in the form *netid.name*.

*nodetype* is the resource type of *nodename*. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for possible values.

## System action

VTAM rejects the command. Processing continues.

## Operator response

Messages IST561I, IST562I, IST563I, IST564I, IST565I or IST566I may be issued prior to this message to indicate the type of storage affected.

Issue the DISPLAY BFRUSE command to display storage used by VTAM buffer pools and information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a dump for problem determination.

If *nodename* is an independent logical unit that is being converted to a definition for a resource in another domain, then the NCP major node for *nodename* must be deactivated. Activate the NCP major node when the storage shortage no longer exists.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST1131I****DEVICE = *devicetype* [– CONTROLLING LU = *luname*]**

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command.

*devicetype* is the device type. If *devicetype* is **ILU/CDRSC**, the node is an independent LU that is represented by a CDRSC.

*luname* is the name of the controlling LU that was previously specified on the LOGAPPL operand of the definition statement or on the LOGON operand of the VARY LOGON command.

- If a network-qualified name was entered on the command line, VTAM issues *luname* in the form *netid.name*.
- If there is no controlling application program, VTAM does not display **CONTROLLING LU = *luname***.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1132I** *nodename IS ACTIVE, TYPE = nodetype*

## Explanation

VTAM issues this message when *nodename* has been successfully activated in response to a VARY command.

*nodename* is the name of the node that has been activated. If the node *nodename* is a resource such as an APPL or an LU, with a network-qualified name, then *nodename* will be in the form *netid.name*. If the node *nodename* is a resource that is known only by this network, such as a PU or a line, then *nodename* will be in the form *name*.

*nodetype* is the type of node that is displayed. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for a description of *nodetype*.

**Note:** If you are expecting this message to confirm activation of a resource and it is not issued, this can occur if the VARY command was overridden by other VTAM processing.

For example, if an NCP INOPs prior to completion of a VARY ACT command and recovery is attempted, then VTAM activates the resource rather than the operator command. In this situation, message IST493I or IST1141I would be displayed indicating that the VARY ACT command was overridden.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1133I** *nodename IS NOW INACTIVE, TYPE = nodetype*

## Explanation

VTAM issues this message when *nodename* has been successfully deactivated. In most cases, this is the result of a VARY INACT command. If *nodename* is a cross-domain resource manager (CDRM) in another domain, then deactivation could be the result of a deactivation request from the domain of *nodename*.

*nodename* is the name of the node that has been deactivated. If the node *nodename* is a resource such as an APPL or an LU, with a network-qualified name, then *nodename* will be in the form *netid.name*. If the node *nodename* is a resource that is only known by this network, such as a PU or a line, then *nodename* will be in the form *name*.

*nodetype* is the type of node that is displayed. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for a description of *nodetype*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1134I** *nodename* NOW HAS CONTROLLING LU *luname*

## Explanation

VTAM issues this message when processing of the LOGON operand of either a VARY ACT or VARY LOGON command has been completed.

When logical unit *nodename*, or the logical units associated with *nodename*, are not in session with another application program, VTAM will automatically log them on to application program *luname*. Resources must be active in order for the logon to complete. This does not mean that a session with the application program has been initiated.

If a network-qualified name was entered on the ID operand of the command, VTAM issues *nodename* in the form *netid.name*.

If a network-qualified name was entered on the LOGON operand of the command, VTAM issues *luname* in the form *netid.name*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1135I** **FORCED VARY INACT SCHEDULED FOR *nodename***

---

## Explanation

VTAM issues this message in response to a VARY INACT,TYPE=FORCE command to deactivate node *nodename*. If a network-qualified name was entered on the command line, VTAM issues *nodename* in the form *netid.name*.

## System action

VTAM issues a VARY INACT command for node *nodename*.

## Operator response

None.

## System programmer response

None.

## Routing code

2,8,1

## Descriptor code

5

---

**IST1136I** **VARY INACT *nodename* SCHEDULED – UNRECOVERABLE ERROR**

---

## Explanation

VTAM issues this message when a VARY INACT command for resource *nodename* has been scheduled because one of the following occurred:

- An unrecoverable error occurred in a communication controller, physical unit, logical unit, link, or link station.
- VTAM scheduled an internal VARY INACT,TYPE=FORCE command because the maximum RU size was exceeded on the SSCP-LU session or the SSCP-PU session.

VTAM issues *nodename* as a network-qualified name in the form *netid.name*.

## System action

VTAM automatically issues a VARY INACT command for resource *nodename*.

## Operator response

Save the system log for problem determination.



## System programmer response

Run your operating system service aid program, and contact IBM for service. See the *EREP User's Guide and Reference* for more information on using EREP.

## Routing code

2,8,1

## Descriptor code

5

---

<b>IST1137I</b>	<b><i>command FAILED, nodename – reason</i></b>
-----------------	---

---

## Explanation

VTAM issues this message when the *command* failed for the specified *reason*.

If a network-qualified name was entered on the command line, VTAM issues *nodename* in the form *netid.name*. *reason* indicates the cause of the failure and can be one of the following:

### ALSNAME NOT GIVEN

A MODIFY TRACE,TYPE=GPT command was entered for *nodename*. No ALSNAME was specified, and a default ALSNAME could not be determined because of one of the following:

- The adjacent link station list for *nodename* contains no entries.
- The adjacent link station list for *nodename* contains two or more entries (other than ISTAPNPU).

### ALSNAME NOT VALID

A MODIFY TRACE,TYPE=GPT command was entered for *nodename*. The adjacent link station name (ALSNAME) that was either specified or used by default was not in a valid state when the command was entered. If ISTAPNPU was used by default because it was the only entry in the adjacent link station list, then this is the reason the command failed. ISTAPNPU is the name of the generic APPN adjacent link station. A real adjacent link station name must be specified for the command to succeed.

### ARM REJECTED

A MODIFY TRACE command or TRACE start option was specified with the value TYPE=QDIOSYNC. An Arm request was initiated and the reply indicates that the OSA-Express2 or later adapter supports the QDIOSYNC function, but an error occurred while attempting to arm the OSA-Express2 or later adapter.

### CDRSC IS DYNAMIC

*nodename* is a dynamic cross-domain resource; this is not valid for the TRACE command you entered.

### CDRSC NOT ACTIVE

Giveback processing or internal delete for node *nodename* failed. VTAM found a predefined CDRSC to be **not** active, and VTAM was not able to transfer the active sessions from the LU to the CDRSC.

### CDRSC NOT ALLOCATED

Giveback processing or internal delete for node *nodename* failed. VTAM has insufficient resources to allocate a cross-domain resource or does not support a dynamic CDRSC and was not able to transfer the active sessions from the LU to a CDRSC.

### DEACTIVATE PENDING

VTAM rejected a VARY INACT, TYPE=GIVEBACK or VARY REL, TYPE=GIVEBACK command because a logical unit subordinate to *nodename* has LU-LU sessions and is pending deactivation.

### EXIT IS NOT FOUND

The operator entered a DISPLAY EXIT command for a VTAM installation-wide exit which could not be located.

### INSTALL EXIT REJECT

The operator entered a MODIFY ENCR command for *nodename*, and VTAM rejected the MODIFY ENCR command because of user-written routines related to the GENKEY function.

**INSTALL PROGRAM**

A MODIFY ENCR command was entered for *nodename* and the cryptographic facility is not supported by this host.

**ISTLSXCF NOT ACTIVE**

Another node in the sysplex attempts to establish a connection with an XCF node, but the connection is not established because the dynamic local SNA major node, ISTLSXCF, is not in an active state.

**ISTLSXCF NOT FOUND**

Another node in the sysplex attempts to establish a connection with an XCF node, but the connection is not established because the dynamic local SNA major node, ISTLSXCF, does not exist.

**ISTTRL NOT FOUND**

Another node in the sysplex attempts to establish a connection with an XCF node, but the connection is not established because the TRL major node, ISTTRL, does not exist.

**MACLNTH NOT VALID**

The operator entered a MODIFY SECURITY command with a MACLNTH value that is not valid. The MACLNTH value is dependent on the most recent specification of MACTYPE. The MACTYPE value might have been specified on a MODIFY SECURITY command or on the APPL definition statement.

**MACTYPE NOT VALID**

The operator entered a MODIFY SECURITY command with a MACTYPE value that is not valid with the most recent specification of MACLNTH. The MACLNTH value might have been specified on a previous MODIFY SECURITY command or on the APPL definition statement.

**MODEL LU NOT VALID**

The operator entered a DISPLAY LUGROUPS command for *nodename*. Model LU *nodename* was not found in the LUGROUP specified on the GROUP operand of the DISPLAY LUGROUPS command.

**MODULE LOAD FAILED**

Attempt to load XCF modules fails.

**MUST BE APPLICATION**

The operator entered a MODIFY ENCR command or MODIFY SECURITY command for *nodename* for one of the following purposes:

- To set the encryption level to CONDITIONAL
- To set the values of MACLNTH or MACTYPE.

MACLNTH, MACTYPE, and the CONDITIONAL encryption level are valid only if *nodename* is an application program.

**MUST BE MORE SECURE**

The operator entered a MODIFY ENCR command or MODIFY SECURITY command for *nodename* to lower (make less secure) the level of cryptographic session for the logical unit or application program indicated by *nodename*. The level of cryptographic session for a logical unit or application program can only be raised (made more secure). For example, if you have defined an LU as *selective*, you cannot modify it to *optional*. You can modify it to *required*.

**NODE KEY UNDEFINED**

The operator entered a MODIFY ENCR command or a MODIFY SECURITY command for *nodename*, and the node *nodename* does not have a properly defined cryptographic key in the cryptographic key data set.

**NOT SUPPORTED**

A MODIFY TRACE command or TRACE start option was specified with the value TYPE=QDIOSYNC. When the OSA-Express2 or later adapter was contacted, it was discovered that it does not support the QDIOSYNC function.

**PROGRAM NOT ACTIVE**

The Cryptographic Facility is not available to process a MODIFY ENCR command.

**RESOURCE NOT VALID**

The operator entered a MODIFY SECURITY command with the CKEY operand for *nodename*, but *nodename* is not a device type LU.

## RESOURCES NOT FOUND

The operator entered a VARY ACQ or a VARY REL command, but it had no effect on the NCP.

Either all the resources were acquired or released already, or the OWNER specified on the command did not match any of the owner names specified on the NCP's resources. Two different networks cannot share the same native resources.

## RTP PU NOT VALID

A VARY ACT command for an RTP PU is issued. This is a dynamic PU and activates automatically if RTP is supported. A VARY ACT of a RTP PU is invalid.

## SECURITY DATA ERROR

VTAM detected a mismatch of the encrypted security data fields during the XID exchange. This mismatch may be caused by one of the following:

- An unauthorized subarea dial physical unit attempted to establish a connection over a switched line.
- The PRTCT operand was absent.
- The correct password was not coded for both the caller and receiver.
- One of the subarea nodes is of a level that does not support call security verification.

## SECURITY ERROR

A security error occurred while VTAM was processing the command *command*.

## STORAGE SHORTAGE

The operator entered a MODIFY ENCR command for *nodename* and the VTAM address space has insufficient storage.

## SUPPORT UNAVAILABLE

The security manager is not available or the resource class APPCLU is not active.

## SYSPLEX JOIN FAILED

VTAM is attempting to join the sysplex, but a nonzero return code is sent from MVS.

## SYSPLEX UNAVAILABLE

VTAM is attempting to join the sysplex, but the sysplex is not active.

## VTAM ABEND

One of the following occurred:

- VTAM abended while processing a MODIFY PROFILES command.
- VTAM abended while processing a MODIFY ENCR command for *nodename*. The error may be due to the improper cleanup of the cryptographic facility (that is, the operator cancelled the cryptographic facility via the CANCEL command).

## XCF BUILD FAILED

A VARY ACT command fails for a dynamic local SNA major node.

## XCF PU NOT FOUND

A D TRL,XCFCP=*cp\_name* command was issued for *nodename*. The nodename is the CP name specified in the display command. The associated dynamic PU for that CP was not located.

## XCF TRLE NOT FOUND

One of the following occurred:

- A D,TRL,XCFCP=*cpname* command was issued for *nodename*. The nodename is the CP name specified in the display command. The associated dynamic TRLE for that CP was not located.
- A V,NET,ACT,ID=ISTLSXCF command was issued. An XCF connection is in the process of being deactivated and an activation request is received. The dynamic TRLE which is required for activation does not exist.

## System action

The command is not completed. Processing continues.

## CDRSC IS DYNAMIC or CDRSC NOT ALLOCATED

LU *nodename* remains known to VTAM in an inactive state with active sessions.

**FUNCTION NOT OPERATIONAL, NOT SUPPORTED, or ARM REJECTED**

The command is not executed.

**INSTALL PROGRAM**

Install Cryptographic Facility.

**SECURITY DATA ERROR**

VTAM terminates the switched connection and deactivates the PU.

**SECURITY ERROR or SUPPORT UNAVAILABLE**

VTAM does not refresh the profiles and continues to use the profiles that are in storage.

**Operator response**

The *reason* determines the response:

**ALSNAME NOT GIVEN**

Enter a DISPLAY ID command for *nodename* to determine the correct adjacent link station, and reenter the command.

**ALSNAME NOT VALID**

Enter a DISPLAY ID command for *nodename* to determine the correct adjacent link station, and reenter the command.

The state (active or inactive) of the PU with which the independent LU is associated must be as follows:

- Active if it has been dynamically reconfigured in the NCP
- Active if it is on an NCP switched line
- Active or inactive if it is on an NCP nonswitched line.

**CDRSC IS DYNAMIC or CDRSC NOT ALLOCATED**

Activate a CDRSC major node that defines a CDRSC with *nodename*.

**DEACTIVATE PENDING**

Wait until all subordinate nodes have completed deactivation and try the command again.

**ISTLSXCF NOT ACTIVE**

Enter a VARY,ACT,ID=ISTLSXCF to activate ISTLSXCF.

**MACLNTH NOT VALID**

Try the command again with a valid value for MACLNTH.

**MACTYPE NOT VALID**

Try the command again with a valid value for MACTYPE.

**MODEL LU NOT VALID**

Check that *nodename* is correct and try the command again. If problems persist, save the system log for problem determination.

**NOT SUPPORTED**

Issue the DISPLAY NET,TRL,TRLE=*trlename* command to display the active OSA-Express2 or later TRLE. Look for message IST1716I or message IST2263I in the response. The OSA CODE LEVEL field is at the end of these messages. Record this value for the system programmer.

**PROGRAM NOT ACTIVE**

Make sure the Cryptographic Facility is installed and operational.

**RESOURCE NOT VALID**

Check that *nodename* is correct and try the command again. If problems persist, save the system log for problem determination.

**RESOURCES NOT FOUND**

Verify that all of the NCP resources have been acquired or released or that the OWNER specified on the command matches the owner name specified on the resources to be acted upon.

**SECURITY DATA ERROR**

Monitor the console for further occurrences of this message. If VTAM continues to issue this message, use the VARY ANS command to take the line out of answer mode.

## SECURITY ERROR

Try the command again. If VTAM continues to issue this message, contact the security administrator.

## STORAGE SHORTAGE

If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

## VTAM ABEND

Save the system log and dump for problem determination.

If the error was due to the improper cleanup of the cryptographic facility, enter the STOP command to stop the cryptographic facility, and save the system log for problem determination.

## XCF PU NOT FOUND

Check the CP name specified on the parameter XCFCP to ensure it is correct and try the command again. Issue a DISPLAY TRL,CONTROL=XCF to determine whether any XCF TRLEs exist. Issue a DISPLAY ID=ISTLSXCF to determine whether an associated dynamic PU exists for the connection.

## XCF TRLE NOT FOUND

Check the CP name specified on the parameter XCFCP to ensure it is correct and try the command again. Issue a DISPLAY TRL,CONTROL=XCF to determine whether any XCF TRLEs exist.

## All other reasons

Save the system log for problem determination.

## System programmer response

The *reason* determines the response:

### ARM REJECTED

Perform the following traces to help you determine the cause of the rejection:

- A CCW trace of the TRLE read and write control channels taken at the time of the first attempt to arm the adapter. This trace will show the Arm request being written and the Arm reply being read. Use a CCW trace data length of 256 bytes.
- A CTRACE using the VTAM and VTAMDATA options.
- A VTAM internal trace using the CIA and CIO options.

### CDRSC IS DYNAMIC

Reenter the TRACE command with a resource that is not a dynamic cross-domain resource. You cannot trace a dynamic cross-domain resource.

### CDRSC NOT ALLOCATED

Take VTAM down, and restart it so that it supports dynamic CDRSCs.

### EXIT IS NOT FOUND

Make sure the VTAM installation-wide exit that could not be found has been installed on your system.

### INSTALL EXIT REJECT

GENKEY failed with RETURN CODE 16 from the common cryptographic architecture product (CCA) or the IBM Cryptographic Unit Support product (CUSP).

For further information, see the documentation for the cryptographic facility that you are using.

### MODEL LU NOT VALID

Check the definition of *nodename* to ensure that it is correct.

### MUST BE APPLICATION

Make sure *nodename* is the correct node name. If *nodename* is the correct name, see [z/OS Communications Server: SNA Operation](#) for more information on valid encryption levels. Otherwise, reenter the MODIFY ENCR command with the correct value for *nodename*.

### MUST BE MORE SECURE

If you want to lower the cryptographic session level of a node, you must redefine the system definition cryptographic option in SYS1.VTAMLST and reactivate the major node that contains *nodename*.

## NODE KEY UNDEFINED

Define the cryptographic key for node *nodename* in the cryptographic key data set. For information about defining cryptographic keys, see the [z/OS Cryptographic Services ICSF System Programmer's Guide](#) and the [z/OS Communications Server: SNA Network Implementation Guide](#).

## NOT SUPPORTED

The OSA code level determined by the operator indicates the OSA processor code level of the OSA-Express2 or later adapter. That value will show that the OSA-Express2 or later processor code level is insufficient. You must upgrade to a level that supports QDIOSYNC to use the function.

## SECURITY DATA ERROR

Verify that all nodes involved in the dial process are at a level that supports call security verification. The passwords used to verify the identity of the caller and the receiver must match. See the PRTCT keyword on the PU statement in the switched major node definition.

## STORAGE SHORTAGE

If this error occurs often, review the VTAM storage allocation. Increase storage as required.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## SYSPLEX JOIN FAILED

Trace the return code from MVS. Verify that the sysplex environment exists and restart VTAM.

## VTAM ABEND

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on the abend procedure. If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM software support center.

If the error was due to the improper cleanup of the cryptographic facility, start the cryptographic facility if it is not already started.

## XCF BUILD FAILED

Restart VTAM with full XCF support.

## XCF PU NOT FOUND

Verify that XCF support is active for this VTAM.

## XCF TRLE NOT FOUND

Verify that XCF support is active for this VTAM.

For all other *reasons*, no further action is recommended.

## Routing code

2

## Descriptor code

5

---

IST1138I

REQUIRED resource [luname] reason

## Explanation

VTAM issues this message as part of a group of messages when a resource requests a session, and the session initiation request fails for one of the reasons listed below. The first message in the group is IST663I.

Message IST664I, which is part of the IST663I message group, shows the names of the partners for which a session could not be established.

The combination of *resource* and *reason* may be any of the following:

**ADJSSCP TABLE**

**UNDEFINED**

**COS NAME** *cosname*

**UNDEFINED**

**LOGMODE NAME** *logmode*

**UNDEFINED**

**RESOURCE** *luname*

**UNDEFINED**

**RESOURCE** *luname*

**NOT ACTIVE**

**RESOURCE** *luname*

**UNSTABLE** (device-type LUs only)

**RESOURCE** *luname*

**DISABLED**

**RESOURCE** *luname*

**QUIESCING**

**RESOURCE** *luname*

**BLOCKING LOGONS** (for application PLUs only)

**STORAGE**

**NOT AVAILABLE**

*luname* is displayed when *resource* is **RESOURCE**. *luname* is the real name of the LU or application that was in error. If the SLU is not known, **\*\*\*NA\*\*\*** is displayed for *luname*.

- If a network-qualified name was entered on the command line, VTAM issues *luname* as a network-qualified name in the form *netid.name*.
- If *luname* is the SLU, the resource is undefined, not active, disabled, or quiescing.
- If *luname* is the PLU, the resource is undefined, not active, disabled, quiescing, or blocking logons.
- For *cosname*, no COS (Class of Service) entry with that name has been defined. *cosname* is blank if the default Class of Service was used.
- For *logmode*, the logon mode is not valid for the SLU because:
  - The logon mode is not in the logon mode table for the SLU in the VTAM definition statements.
  - No logon mode table is associated with the SLU, and the logon mode is not included in the default logon mode table.
  - No valid logon mode table is associated with the SLU, and no default logon mode table exists.
- If *logmode* is not provided or contains blanks, IST264I is still issued. **\*\*\*NA\*\*\*** is displayed for *logmode*.

## System action

VTAM rejects the session initialization request. The session setup fails.

## Operator response

Follow the appropriate action:

- If the required resource is **UNDEFINED**, enter a VARY ACT command to activate the resource major node in which the resource is defined.
- If the required resource is **NOT ACTIVE**, enter a VARY ACT command to activate the resource. If the resource is an application program, start it.
- If the required resource is **UNSTABLE**, it may be going through some type of error recovery process. This can be due to ERP, an INOP, or session termination. Display the resource and try the request again after it has recovered.
- If the required resource is **DISABLED** and it is a device type LU, check to determine whether it is powered on.
- If the required resource is **DISABLED** and it is an application program, start the application program or ensure that the application has issued SETLOGON START.
- If the required resource is an application program and is **QUIESCING**, SETLOGON QUIESCE is in effect. The application program is shutting down and cannot accept new sessions unless VTAM closes and reopens the ACB.
- If the required resource is an application program, and the ACB was opened with MACRF=NLOGON, it is **BLOCKING LOGONS**. The only LU-LU sessions allowed for the application program are those initiated by the application program itself using OPNDST OPTCD=ACQUIRE.
- For a **LOGMODE** problem, verify that the resource specified the correct logon mode on the request. You can use the DISPLAY ID command to determine the table identified for the resource. You can use the MODIFY TABLE command to change the logon mode table name associated with a resource.
- If **STORAGE** is **NOT AVAILABLE**, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

## System programmer response

- For a **COS** problem, verify that you have defined the Class of Service.
- For a **LOGMODE** problem, either correct the logon mode table currently assigned to the SLU or assign a different logon mode table that does contain the correct mode.
- For a **STORAGE** problem, allocate more storage to the pageable system queue area (SQA). For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
  - See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
  - See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.

## Routing code

8

## Descriptor code

4

---

**IST1139I** *runame FOR nodename FAILED – SENSE: code*

## Explanation

This message is the first in a group of messages that VTAM issues when the request *runame* for node *nodename* failed with sense code *code*. A complete description of the message group follows.

```
IST1139I  runame FOR nodename FAILED – SENSE: code
IST1045I  NODE TYPE = nodetype
```



```
[IST1840I DLUR = dlurname]
IST314I     END
```

### IST1139I

*runame* is the request that was entered for *nodename*. See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *runame*.

If the network where the resource resides is known to VTAM, *nodename* is issued as a network-qualified name in the form *netid.name*.

*code* is the sense code and indicates the reason for the error. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

### IST1045I

*nodetype* is the resource type of *nodename*. See [Chapter 17, “Node and ID types in VTAM messages,” on page 1699](#) for possible values.

### IST1840I

*dlurname* is the network-qualified CP name of the dependent LU requester (DLUR) in the form *netid.name*. It is the DLUR associated with *nodename* in message IST1139I.

## System action

VTAM does not perform the request *runame*.

When VTAM receives a failing activation request for RUs such as ACTLINK, CONTACT, ACTLU, or ACTPU, VTAM usually deactivates the resource and all subordinate resources, regardless of whether the resource was being activated or deactivated.

## Operator response

- Attempt to activate or trace the node again.
- If a failure still occurs, save the system log for problem determination.
- If VTAM issues this message repeatedly, disable the line. Save the system log for problem determination.
- If *code* indicates a storage problem, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command to display storage used by VTAM buffer pools and information about the common service area (CSA). Message IST981I displays total VTAM private storage information. Issue the DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a dump for problem determination.

- **Sense Code 081Cnnnn**

Correct the cause indicated by the user portion of the sense code (*nnnn*), and try the command again.

## System programmer response

- If *code* indicates a storage problem, increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
  - See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
  - See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
  - See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
  - See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps](#) and the [VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

- **Sense Code 081Cnnnn**

If an ACTLINK request failed on a VARY ACT request with the sense code of **081Cnnnn**, check the CUADDR operand of the PU (local SNA) or PCCU definition statement to make sure that the correct channel unit address (CUA) was specified for the node *nodename*.

If sense code 081C0010 is received and message IST1386I is issued, see the return code and reason code in message IST1386I to determine the cause of the failure.

- **Sense Code 08A30001**

If VTAM issues sense code 08A30001 repeatedly, determine the subarea node that is attempting to establish a switched connection. If the SSCP is authorized to request that connection, verify that both SSCPs have identical PRTCT operands coded for their PU statements on the switched major nodes. Also verify that both nodes and their SSCPs are of a level that supports call security verification.

VTAM might issue this message with sense code 08A30001 because an unauthorized subarea node is attempting to establish a switched connection to the host that received the message.

- You might need to include the LUDRPOOL macro in the NCP generation.
- Make sure that the device is available to the system and that there are no hardware problems.

## Routing code

2

## Descriptor code

5

---

**IST1140I** *command FAILED nodename – STATE state NOT VALID*

---

## Explanation

This message is the first in a group of messages that VTAM issues when the *command* is rejected because the resource *nodename* was not in a state that is valid for the request. A complete description of the message group follows.

```
IST1140I  command FAILED nodename - STATE state NOT VALID
IST1045I  NODE TYPE = nodetype
IST314I   END
```

### IST1140I

See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *command*. If a network-qualified name was entered on the command line, VTAM issues *nodename* in the form *netid.name*.

*state* is the status of *nodename* at the time of the request. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *state*.

### IST1045I

*nodetype* is the resource type of *nodename*. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for possible values.

## System action

VTAM rejects the command.

## Operator response

Use the DISPLAY ID command to monitor the progress of the node. When processing is completed, enter the commands required to obtain the network configuration or device state required.

## System programmer response

Check the system log to determine the series of events that caused the problem.

## Routing code

2

## Descriptor code

5

---

**IST1141I** *command1* FOR *nodename* OVERRIDDEN BY *command2*

---

## Explanation

VTAM issues this message when *command2* overrides *command1*, even though *command1* was entered first.

VTAM might have issued *command2* when it could not complete *command1*. For example, a VARY INACT,TYPE=IMMED command for a physical unit causes VTAM to reject a VARY REL command for the same device. The VARY INACT,TYPE=IMMED command is processed, and the VARY REL command is not executed, because the release processing is part of the deactivation processing.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1683 for a description of *command1* and *command2*.

If a network-qualified name was entered on the command line, VTAM issues *nodename* in the form *netid.name*.

## System action

VTAM rejects *command1*. Processing of *command2* continues.

## Operator response

VTAM cannot process *command1* and *command2* concurrently. *command1* is always rejected. Check the system log to determine the reason for the sequence in which the two commands were entered.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1142I** TRACE REQUEST FAILED – *nodename* NOT VALID

---

## Explanation

This message is the first in a group of messages that VTAM issues in response to a MODIFY TRACE command or TRACE start option. The trace for resource *nodename* failed because:

- *nodename* does not exist.
- *nodename* is not valid for the type of trace requested.
- if SCOPE=ALL was specified, no subnodes of the resource *nodename* were found which were valid for the type of trace requested.

A complete description of the message group follows.

```
IST1142I  TRACE REQUEST FAILED - nodename NOT VALID
IST1045I  NODE TYPE = nodetype
IST314I   END
```

If a network-qualified name was entered on the command line or start option, VTAM issues *nodename* in the form *netid.name*.

*nodetype* is the resource type of *nodename*. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for possible values.

## System action

VTAM rejects the command.

## Operator response

Ensure that you entered *nodename* correctly. If problems persist, verify that *nodename* is valid for the type of trace requested or, if SCOPE=ALL was specified, verify that at least one subnode exists that is valid for the type of trace requested.

For more information on the MODIFY TRACE command or TRACE start option, see [z/OS Communications Server: SNA Operation](#).

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1143I** **TRACE TERMINATED FOR *nodename* [ALSNAME = *alsname*]**

## Explanation

This message is the first in a group of messages that VTAM issues in response to a MODIFY NOTRACE command when the trace activity on resource *nodename* has stopped. A complete description of the message group follows.

```
IST1143I  TRACE TERMINATED FOR nodename [ALSNAME = alsname]
IST1045I  NODE TYPE = nodetype
IST314I   END
```

If a network-qualified name was entered on the command line, VTAM issues *nodename* in the form *netid.name*.

*alsname* is the name of the adjacent link station (ALS) over which the LU is traced. *alsname* is displayed if the traced node is an independent LU.

*nodetype* is the resource type of *nodename*. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for possible values.

## System action

VTAM stops tracing *nodename*. Processing continues.

**Note:** If MODIFY NOTRACE is entered with the SCOPE=ALL operand, VTAM also stops all traces on subordinate nodes to *nodename*.

## Operator response

None.

## System programmer response

None.

### Routing code

2

### Descriptor code

5

**IST1144I** **TRACE INITIATED FOR *nodename* [ALSNAME = *alsname*]**

### Explanation

This message is the first in a group of messages that VTAM issues in response to a MODIFY TRACE command when trace activity for the node *nodename* has successfully started. A complete description of the message group follows.

```
IST1144I  TRACE INITIATED FOR nodename [ALSNAME = alsname]
IST1045I  NODE TYPE = nodetype
IST314I   END
```

If a network-qualified name was entered on the command line, VTAM issues *nodename* in the form *netid.name*.

*alsname* is the name of the adjacent link station (ALS) over which the LU is traced. *alsname* is displayed if the traced node is an independent LU.

*nodetype* is the resource type of *nodename*. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for possible values.

### System action

VTAM starts tracing *nodename*.

**Note:** If you coded the SCOPE=ALL operand on the MODIFY TRACE command, VTAM initiates traces on all subordinate nodes as well.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

**IST1145I**

**TRACE REQUEST FAILED, *nodename* – STORAGE SHORTAGE**

---

## Explanation

This message is the first in a group of messages that VTAM issues when a MODIFY TRACE command, MODIFY NOTRACE command, TRACE start option, or NOTRACE start option is entered to activate or deactivate a VTAM trace for resource *nodename*, but sufficient storage is not available to build a parameter list. A complete description of the message group follows.

```
IST1145I  TRACE REQUEST FAILED, nodename – STORAGE SHORTAGE
IST1045I  NODE TYPE = nodetype
IST314I   END
```

If a network-qualified name was entered on the command line or start option, VTAM issues *nodename* in the form *netid.name*.

*nodetype* is the resource type of *nodename*. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for possible values.

## System action

VTAM rejects the command or start option. Processing continues.

## Operator response

- If VTAM issues this message in response to a command, wait a few minutes, and reenter the command. If the error persists, enter a DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.
- If VTAM issues this message during startup, wait until VTAM is initialized, and enter a DISPLAY BFRUSE command. Save the system log and dump for problem determination.

## System programmer response

Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST1146I*****nodename command U = operand FAILED***

---

### Explanation

VTAM issues this message when *command* failed for *nodename* because an unacceptable *operand* was entered.

- If *operand* is `_` (blank), a line in a channel attachment major node or a local SNA PU was defined without a channel unit address, and the channel unit address was not specified with the **U** operand on the VARY ACT command.
- If *operand* is *cua*, a VARY ACT command specifying **U=cua** was entered for a line in a channel attached major node or a local SNA PU that was not active. This error occurs when *cua* does not match the channel unit address currently in use.

If a network-qualified name was entered on the command line, VTAM issues *nodename* in the form *netid.name*.

### System action

VTAM rejects the command.

### Operator response

If *operand* is (blank), reenter the VARY ACT command specifying the channel unit address on the U operand.

If *operand* is *cua*, and *cua* is the correct channel unit address, deactivate the line or PU and reenter the command.

### System programmer response

If *operand* is (blank), you may want to specify a default channel unit address for the line or PU.

If *operand* is *cua*, no action is required.

## Routing code

2

## Descriptor code

5

---

**IST1147I*****nodename command LOGON= operand FAILED***

---

### Explanation

VTAM issues this message in response to a **VARY ACT** or **VARY LOGON** command. *command* failed for *nodename* because an unacceptable *operand* was entered.

If *operand* is a controlling LU, a controlling LU name was specified on the **LOGON** operand of a VARY ACT command for an application. Controlling LUs are only valid for logical units.

If a network-qualified name was entered on the ID operand of the command, VTAM issues *nodename* in the form *netid.name*.

If a network-qualified name was entered on the LOGON operand of the command, VTAM issues *operand* in the form *netid.name*.

## System action

VTAM rejects the command.

## Operator response

If *operand* is a controlling LU, see [z/OS Communications Server: SNA Operation](#) for information on the correct syntax of the VARY ACT command.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1148I** *nodename command RNAME = operand FAILED*

## Explanation

VTAM issues this message when *command* failed for *nodename* because an unacceptable *operand* was entered.

The command failed for one of the following reasons:

- **RNAME** = *nodename* was specified during activation of a communication controller where *nodename* is the name of a logical unit and therefore is not valid.
- The value specified in the **RNAME** *operand* is not a valid link station name.
- **RNAME** = *backup* was specified, but VTAM was not able to process backup link station *backup*.
- The value specified in the **RNAME** *operand* does not match the Network Control Program (NCP) definition.

If a network-qualified name was entered on the command line, VTAM issues *nodename* in the form *netid.name*.

## System action

VTAM rejects the command.

## Operator response

Reenter the command specifying a valid *nodename* or value for *operand*.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1149I** *VARY command PROCESSING FOR NODE nodename COMPLETE*



## Explanation

VTAM issues this message when the specified VARY command processing has completed for resource *nodename*.

If a network-qualified name was entered on the command line, VTAM issues *nodename* in the form *netid.name*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

4

---

**IST1150I** *uservar* CHANGED: *value1* TO *value2*

## Explanation

This message is part of a group of messages that VTAM issues when a MODIFY USERVAR command is used to change the value of a USERVAR. The first message in the group is IST1283I. See that message for a complete description of the group.

**Note:** This message is percolated. See [“Message rerouting and percolation”](#) on page 1707 for additional information.

*value1* is the original value of *uservar*. If a network-qualified name was entered on the previous MODIFY command, VTAM issues *value1* in the form *netid.name*.

*value2* is the new value of *uservar*. If a network-qualified name was entered on the current MODIFY command, VTAM issues *value2* in the form *netid.name*.

Any subsequent session requests to *uservar* are routed to the application named in *value2*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST1151I** **USERVAR *uservar* DEFINED: VALUE = *value***

## Explanation

This message is the first in a group of messages that VTAM issues when a MODIFY USERVAR command is used to define a USERVAR. A complete description of the message group follows.

```
IST1151I USERVAR uservar DEFINED: VALUE = value  
[IST1030I USERVAR EXIT IS exitname]  
IST314I  END
```

**Note:** This message group is percolated. See [“Message rerouting and percolation” on page 1707](#) for additional information.

## IST1151I

*uservar* is the name of the USERVAR.

The value of *uservar* has been initialized to *value*. If a network-qualified name was entered on the command line, VTAM issues *value* in the form *netid.name*.

Any subsequent session requests to *uservar* are routed to the resource named in *value*.

## IST1030I

*exitname* is the name of the USERVAR exit. If no USERVAR exit is defined, VTAM does not issue this message.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST1152I** ***nodename* CONTROLLING LU [*luname*] REMOVED**

## Explanation

VTAM issues this message when processing of the VARY NOLOGON command has been completed. Resource *nodename* will no longer be automatically logged on to *luname* when *nodename* is not in session with or queued for a session with another PLU. *luname* may or may not be included depending on how the LU is specified in the NOLOGON command.

If a network-qualified name was entered on the ID operand of the command, VTAM issues *nodename* in the form *netid.name*.

If a network-qualified name was entered on the NOLOGON operand of the command, VTAM issues *luname* in the form *netid.name*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1153I</b>	<b><i>nodename1 nodename2 SESSION bpBUF USE percentage</i></b>
-----------------	--

---

## Explanation

VTAM detected that the session indicated is using 10 percent or greater of the *bpBUF* buffer pool.

**Note:** This message is percolated. See [“Message rerouting and percolation”](#) on page 1707 for additional information.

*nodename1* and *nodename2* are the session partners for the session using the largest percentage of the pool. VTAM issues *nodename1* and *nodename2* as network-qualified names in the form *netid.name*. If VTAM does not know a node name, the node ID is presented in the form *subarea/element*, where *subarea* is the subarea and *element* is the element portion of the network address.

*bpBUF*, the name of the buffer pool, will always be IO.

*percentage* is the percentage of this buffer pool used by this session.

If the session between *nodename1* and *nodename2* is not using a large percentage of the buffer pool, the size of the buffer pool was probably underestimated.

If the session between *nodename1* and *nodename2* is using a large percentage of the buffer pool, one of the following conditions probably exists:

- Either *nodename1* or *nodename2* is malfunctioning. This could be a hardware, microcode, or application program error that causes VTAM to be flooded with data.
- Neither *nodename1* nor *nodename2* is malfunctioning, but a large amount of data is being transmitted on this session with no pacing in effect.

## System action

Message IST154I, IST1098I, or IST1099I is displayed with this message.

- If message IST154I is displayed, the buffer pool is not expanded at this time. When more storage becomes available, VTAM may try again to expand the buffer pool. VTAM may be adversely affected by this failure to obtain more buffers.
- If message IST1098I or IST1099I is displayed, processing continues.
  - If the session is an SSCP-LU session, then the LU is deactivated, and message IST1098I is displayed.
  - If the session is an LU-LU session (including CP-CP) then the session is terminated, and message IST1099I is displayed.

Once VTAM has determined that a session is using greater than 10 percent of the buffer pool, a determination is made whether to automatically terminate the session. If the percentage is greater than or equal to the HOTIOTRM start option value, VTAM initiates termination of all the sessions between *nodename1* and *nodename2*. VTAM issues message IST1099I when sessions are automatically terminated.

## Operator response

- If it appears that the problem is caused by a malfunctioning device LU, try to deactivate the device using the VARY INACT command. In extreme cases, you may have to physically disconnect or power off the device.
- If it appears that the problem is caused by a VTAM application program, take a dump of that program and terminate it. Save the system log for problem determination.
- If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination.

## System programmer response

- Ensure that session pacing is in effect for the session using the largest percentage of the buffer pool. The BIND request unit contains the values used for each session. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information about session pacing.
- If message IST154I is displayed before this message, and the session between *nodename1* and *nodename2* is not using a large percentage of the buffer pool, the size of the buffer pool was probably underestimated.
- If message IST154I was issued, use the explanation of *code* in that message to determine which buffer pool you need to modify.
- You might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
- If you want VTAM to automatically terminate these sessions, specify the HOTIOTRM start option with a value that is less than or equal to *percentage*. This start option can be modified using the MODIFY VTAMOPTS command.
- For additional information, see:
  - The [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  - The [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on the HOTIOTRM start option and other VTAM start options.
  - The [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
  - The [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST1154I*****resourcename\_1 ... resourcename\_n***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY LMTBL, TYPE=LUNAME command. The first message in the group is either IST986I or IST1006I. See the explanation of those messages for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1155I** *nodename* VARY NOLOGON = *applname* FAILED

---

## Explanation

VTAM issues this message in response to a VARY NOLOGON command. The command failed because a controlling relationship existed for *nodename* with a different application than the specified *applname*.

If a network-qualified name was entered on the ID operand of the command, VTAM issues *nodename* in the form *netid.name*.

If a network-qualified name was entered on the NOLOGON operand of the command, VTAM issues *applname* in the form *netid.name*.

## System action

Processing continues.

## Operator response

Enter a DISPLAY ID command for *nodename* to verify that a controlling relationship exists. Reenter the VARY NOLOGON command with the indicated *applname*.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1156I** USERVAR *uservar* IN *netid* HAS VALUE *value*

---

## Explanation

VTAM issues this message in response to one of the following commands:

- DISPLAY SESSIONS

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS command when the resource name specified on the command is the name of a USERVAR.

- DISPLAY ID

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command when the resource name specified on the ID operand is the name of a USERVAR. The first message in the group is IST075I.

*uservar* is a user-defined name for a network resource in network *netid* with the value of *value*. If *uservar* has a network-qualified USERVAR value, VTAM issues *value* as a network-qualified name in the form *netid.name*.

If *uservar* is both a user variable and a network resource, VTAM will display the resource and ignore the user variable value. Otherwise, VTAM will display the resource represented by the value of the USERVAR, *value*. If this message is issued in response to a DISPLAY ID command, message IST075I contains the name of the resource being displayed.

**Note:** If IDTYPE=USERVAR is entered on the command, VTAM displays the USERVAR *value* in message IST075I and not the real resource.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1157I** **DUPLICATE REGISTRATION *endnode1 endnode2***

## Explanation

This message is the first in a group of messages that VTAM issues when it receives registration requests for the same resource from two different end nodes *endnode1* and *endnode2*. This happens when one of the following conditions occurs:

- The resource has been moved from one end node to another, and the first end node has failed to delete the resource from the network node server. This is not an error condition.
- Both end nodes have a definition for the same resource, and have specified that the resource should be registered. This is an error condition.

A complete description of the message group follows the example.

```
IST1157I  DUPLICATE REGISTRATION endnode1 endnode2
IST1194I  DUPLICATE RESOURCE IS resourcename
IST314I   END
```

### IST1157I

*endnode1* and *endnode2* are the network-qualified names of the two end node control points, in the form *netid.name*.

### IST1194I

This message identifies the resource that has been registered twice.  
*resourcename* is the network-qualified name of the resource, in the form *netid.name*.

## System action

The information in the second registration request replaces the information from the first registration request. Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Ensure that duplicate resource definition has not taken place.

## Routing code

2

## Descriptor code

3

---

**IST1158I** **MODIFY TOPO COMMAND FAILED, ID = *nodename* [TGN = *tgnumber*]**

## Explanation

This message is the first in a group of messages that VTAM issues when a MODIFY TOPO command fails. A complete description of the message group follows the example.

```
IST1158I  MODIFY TOPO COMMAND FAILED, ID = nodename
[IST1159I  HOST NODE DATABASE ENTRY CANNOT BE DELETED]
[IST1160I  TYPE=FORCE MUST BE SPECIFIED FOR LOCAL TG OR ADJACENT NODE]
[IST1248I  DEACTIVATE LOCAL LINK BEFORE DELETING]
[IST1308I  RESOURCE WAS NOT FOUND IN THE TOPOLOGY DATABASE]
IST314I  END
```

### IST1158I

*nodename* is the name of the resource specified on the ID operand of the command. If a network-qualified name was entered on the command, VTAM issues *nodename* as a network-qualified name in the form *netid.name*.

*tgnumber*, if specified, is the transmission group (TG) number on the TGN operand of the command.

**TGN = *tgnumber*** is not displayed if the second message in the group is IST1159I.

### IST1159I

This message is issued when *nodename* is the same node from which the command is entered. In this message group, *nodename* in message IST1158I is the same node as **HOST NODE** in message IST1159I. You cannot delete the topology database entry representing the host node.

### IST1160I

This message is issued when TYPE=FORCE was not specified on the command, and the resource is a locally attached TG or an adjacent node. TYPE=FORCE is required to delete the topology database entry for a locally attached TG or an adjacent node.

### IST1248I

This message is issued when you attempt to delete locally attached TG *tgnumber*, and it is active. VTAM does not allow you to delete an active locally attached TG.

### IST1308I

This message is issued when *nodename* or *tgnumber* cannot be found in the topology database.

## System action

The topology database is not changed. Other processing continues.

## Operator response

**IST1159I**

Verify that *nodename* was entered correctly. If *nodename* is the same node from which the command is entered, you cannot delete the topology database entry for this resource.

**IST1160I**

To delete the local TG *tgnumber* or the adjacent node *nodename*, enter the command again specifying TYPE=FORCE.

**IST1248I**

To delete TG *tgnumber*, enter a VARY INACT command to deactivate the link first, and then reenter the MODIFY TOPO,FUNCTION=DELETE command.

**IST1308I**

Verify that *nodename* and *tgnumber*, if applicable, were entered correctly.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1159I****HOST NODE DATABASE ENTRY CANNOT BE DELETED****Explanation**

VTAM issues this message as part of a group of messages. The first message in the group is IST1158I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1160I****TYPE=FORCE MUST BE SPECIFIED FOR LOCAL TG OR ADJACENT NODE****Explanation**

VTAM issues this message as part of a group of messages. The first message in the group is IST1158I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1161I****SSCP SESSIONS**



**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY SESSIONS command. The first message in the group is either IST873I or IST878I. See the explanation of the first message in the group for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1162I** *sessiontype = count*

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY SESSIONS command. The first message in the group is either IST873I or IST878I. See the explanation of the first message in the group for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1163I** **RSN HPR LEFT WEIGHT**

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tn command. See [IST1299I](#) for a complete description of this message group.

**Routing code**

2

**Descriptor code**

5

---

**IST1164I** *rsn hpr time isl\_wgt*

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tn command. See [IST1299I](#) for a complete description of this message group.

**Routing code**

2

## Descriptor code

5

---

**IST1166I** **VIRTUAL NODE *nodename* CONNECTION ACTIVATION FAILED**

---

### Explanation

This message is the first in a group of messages that VTAM issues in response to a VARY ACT for a line when the activation of the logical connection with the virtual node fails. Possible message groups follow:

```
IST1166I  VIRTUAL NODE nodename CONNECTION ACTIVATION FAILED
IST1226I  TOPOLOGY UPDATE FAILED, INSUFFICIENT STORAGE
IST314I   END
```

```
IST1166I  VIRTUAL NODE nodename CONNECTION ACTIVATION FAILED
IST1334I  TGN NOT AVAILABLE
IST314I   END
```

This message group is issued when one of the following has occurred:

- The topology update for the active logical connection failed due to insufficient storage.
- A transmission group (TG) number could not be assigned because all of the TG numbers for the connection network are being used.

- **IST134I**

*groupname* is the symbolic name of the line group in which the connection network is defined.

*nodename* is the name of the major node in which the line group is defined.

This message is followed by message IST1622I, IST1623I, or IST1624I.

#### **IST1622I**

- This message indicates that a particular DLCADDR operand in a set of DLCADDR operands is coded incorrectly.
- *subfield\_id* and *subfield\_description* can be one of the following combinations:

***subfield\_id***

***subfield\_description***

**7**

TRAFFIC DESCRIPTOR

**8**

QUALITY OF SERVICE (QoS)

**9**

TRANSIT NETWORK SELECTION

#### **IST1623I**

- This message indicates that two DLCADDR operands in a set of DLCADDR operands are coded with the same subfield ID.
- *subfield\_id* and *subfield\_description* can be one of the following combinations:

***subfield\_id***

***subfield\_description***

**7**

TRAFFIC DESCRIPTOR

**8**

QUALITY OF SERVICE (QoS)

**9**

TRANSIT NETWORK SELECTION

#### **IST1624I**

This message indicates that a DLCADDR operand with subfield 7 is not coded in a set of DLCADDR operands.

## System action

Processing continues.

## Operator response

### IST1226I

Issue the DISPLAY BFRUSE command to display information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I.

Issue the DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a dump for problem determination.

### IST1334I

Save the system log for problem determination.

### IST1346I

Save the system log and request a dump for problem determination.

### IST1622I

Save the system log for problem determination.

### IST1623I

Save the system log for problem determination.

### IST1624I

Save the system log for problem determination.

## System programmer response

### IST1226I

Increase storage as required.

See [z/OS Communications Server: SNA Operation](#) for more information.

### IST1334I

- Make additional TG numbers available using one of the following methods:
  - Deactivate one or more lines in order to free up TG numbers.
  - Define a new virtual node by specifying a new VNNAME on one or more of the lines and reactivate the line. Each virtual node must be defined on both sides of the line.

### IST1346I

Verify that the NCP is at a level that supports the connection network function (Version 6 Release 3 or higher). See the appropriate NCP manual for more information.

### IST1622I

Correct the DLCADDR operand that is in error in the set of DLCADDR operands on the GROUP definition statement in the XCA major node indicated in message IST134I. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node.

### IST1623I

Delete all but one DLCADDR operand with the same subfield identifier in the set of DLCADDR operands on the GROUP definition statement in the XCA major node indicated in message IST134I. See the [z/OS](#)

Communications Server: SNA Resource Definition Reference for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node.

## IST1624I

Code a DLCADDR operand with subfield 7 to define traffic management options in the set of DLCADDR operands on the GROUP definition statement in the XCA major node indicated in message IST134I. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node.

## Routing code

2

## Descriptor code

5

---

## IST1167I VN *nodename* CONNECTION DEACTIVATION FAILED

## Explanation

This message is the first in a group of messages VTAM issues when the deactivation of the logical connection with the virtual node fails because the topology update for the inactive logical connection did not complete successfully. A complete description of the message group follows.

```
IST1167I  VN nodename CONNECTION DEACTIVATION FAILED
IST1226I  TOPOLOGY UPDATE FAILED, INSUFFICIENT STORAGE
IST314I   END
```

*nodename* is the name of the virtual node.

## System action

Processing continues.

## Operator response

Issue the DISPLAY BFRUSE command to display information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I.

Issue the DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a dump for problem determination.

## System programmer response

Increase storage.

For more information see the [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#).

## Routing code

2

## Descriptor code

5

---

## IST1168I VIRTUAL NODE *nodename* CONNECTION ACTIVE

## Explanation

VTAM issues this message in response to a VARY ACT command for a line when the logical connection with the virtual node becomes active.

*nodename* is the name of the virtual node.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1169E*****poaname* REPLY ID FOR MESSAGE *msgid* NOT AVAILABLE**

---

## Explanation

VTAM has a write-to-operator with reply (WTOR) message *msgid* to send to the program operator application (POA) *poaname*, but a reply ID is not available for this *poaname*. This can occur for either of the following reasons:

- The POA is not issuing RCVCMDC macros quickly enough to receive outstanding WTOR messages.
- The outstanding WTOR messages have been received by the POA, but replies have not been received by VTAM.

*poaname* is the name of the POA that is to receive the VTAM message.

*msgid* is the ID of the failing message.

## System action

Message *msgid* and all subsequent WTOR messages will be rerouted to the system console until a reply ID becomes available for this *poaname*.

## Operator response

1. Issue DISPLAY ID=*poaname* and save the system log for problem determination. Message IST271I will provide the *jobname* related to the *poaname*.
2. Request a dump of the application program (*jobname*) and VTAM for problem determination.

## System programmer response

- If the POA is not issuing RCVCMDC macros quickly enough, you can clear the VTAM message queue for *poaname* by issuing RCVCMDC macros with OPTCD=NQ until the queue is empty.
- If RCVCMDC macros are being issued quickly enough, examine the dump and the VTAM internal trace (if available) to determine why the messages are not being received or responded to quickly enough.

- The POA must issue a SENDCMD macro to send a REPLY command to VTAM for each of the outstanding WTOR messages. Check to ensure that the RVCMD and SENDCMD macros are being received by VTAM.
- You might need to change the POA RVCMD processing so that RVCMDs are issued more frequently.
- You can also change the dispatching priority of the POA. See your operating system documentation for information on dispatching priority.
- You can cancel the job related to *poaname*. This will clear the VTAM message queue for *poaname*.

See program operator coding requirements in [z/OS Communications Server: SNA Programming](#) for information on program operator applications, RVCMD and SENDCMD macros, and VTAM reply IDs.

## Routing code

2

## Descriptor code

11

---

**IST1176I** **BASIC FROZEN**

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY STATS command when TYPE=COMPRESS is specified. See the explanation of message IST1435I for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

**IST1177I** *level input basic frozen*

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY STATS command when TYPE=COMPRESS is specified. See the explanation of message IST1435I for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

**IST1183I** *exitname EXIT RETURNED A CODE OF usercode [label diagcode]*

## Explanation

This message is issued by VTAM in response to a condition identified in an installation-wide exit.

- For base exits, this message is issued as a stand-alone message.
- For multiple exits, this message is issued in a message group. A complete description of the message group follows the example.

```
IST1183I  exitname EXIT RETURNED A CODE OF usercode [label diagcode ]
IST314I   END
```

## IST1183I

- *exitname* is the name of the installation-wide routine.
- *usercode* is the hexadecimal return code in register 15 passed by the exit routine.
- *label* and *diagcode* are not issued for all exits.

*label* is message text specific to *exitname* that labels the VTAM diagnosis code *diagcode*.

*diagcode* is a VTAM-generated code for the exit *exitname*.

## System action

The system action depends on the hexadecimal *usercode* for *exitname* in message IST1183I. If *diagcode* is displayed, the system action might depend on this code.

## Operator response

Save the system log for problem determination.

## System programmer response

Use *exitname*, the exit return code *usercode*, *label*, and *diagcode* in message IST1183I when referring to [z/OS Communications Server: SNA Customization](#) to determine the meaning of the codes and to ensure that the proper codes are defined in the exit routine.

If you are using the IBM-supplied USERVAR exit routine specific to the Transaction Processing Facility (TPF) environment, see the [z/OS Communications Server: SNA Customization](#) for return codes.

If [z/OS Communications Server: SNA Customization](#) requires no specific exit return code from the exit, check with the author of the exit routine for a description of the user-written codes.

## Routing code

2

## Descriptor code

5

---

**IST1184I** **CPNAME = *cpname* – NETSRVR = *network\_node\_server***

## Explanation

This message is part of several groups of messages that VTAM issues in response to a DISPLAY DIRECTORY or DISPLAY ID=*cdrsc* command.

- If DISPLAY DIRECTORY is issued, the first message in the group is IST1186I. See the description of IST1186I for more information.
- If DISPLAY ID=*cdrsc* is issued, IST1184I may be issued alone or in a message subgroup or both.
  - IST1184I may be issued with other messages displaying CDRSC information:

```
IST1184I  CPNAME = cpname – NETSRVR = ***NA***
```

- IST1184I may be issued in the following subgroup:

```
[IST075I  NAME = nodename, TYPE = nodetype]
IST1186I  DIRECTORY ENTRY = entrytype resourcetype
IST1184I  CPNAME = cpname – NETSRVR = network_node_server
[IST1402I SRTIMER = srtimer SRCOUNT = srcount]
```

```
[IST1401I  RESOURCE NOT FOUND-RETRY IN time SEC(S) OR number REQUEST(S)]
IST314I    END
```

**Note:** If the IDTYPE operand was specified on the DISPLAY ID command, information about subarea resources might precede the IST1186I subgroup. See [z/OS Communications Server: SNA Operation](#) for more information.

### IST075I

This message is only displayed for a DISPLAY ID command.

*nodename* is the resource name specified on the ID operand of the command.

*nodetype* is the resource type of *nodename*. See Chapter 17, “Node and ID types in VTAM messages,” on page 1699 for a description of *nodetype*.

### IST1184I

- *cpname* is the network-qualified name of the owning control point in the form *netid.name*.

In the combined APPN and subarea network, the owning CP might be an SSCP or a network node in a different APPN subnetwork. All owning CPs found in or through a subarea network are represented to the origin CP as an end node being served by the interchange node through which the resource was found.

- *network\_node\_server* is the network-qualified name of the network node server in the form *netid.name*. *network\_node\_server* represents the network node in the host's APPN subnetwork that should be contacted to locate the target resource. If DISPLAY ID=*cdrsc* is issued, *network\_node\_server* might be **\*\*\*NA\*\*\***, indicating that this information is not applicable.

**Note:** If the CPNAME displayed is actually a CDRM name and the subject resource has a different NETID than its owning CDRM, then the NETID displayed might be that of the resource (rather than the CDRM), if this is the only information available.

### IST1186I

- This message indicates that the resource has been found in the directory database and displays information about the resource.
- *entrytype* is one of the following:

#### DEFINED

The resource was pre-defined to the directory database. A DEFINED directory entry might become a DYNAMIC directory entry if a search request learns new information about the resource, such as the NETID or the name of the owning CP.

#### DYNAMIC

The resource was learned of as the result of a dynamic search request and was stored.

#### REGISTERED

The resource was registered to the directory database through end node resource registration.

- *resourcetype* represents the resource type known by the host APPN directory and may be different from the actual type of the resource. *resourcetype* is one of the following:

#### EN

Represents an end node, which is also known as the owning control point (CP) of a resource.

#### LU

Represents a logical unit.

#### NN

Represents the network node in the host's APPN subnetwork.

### IST1401I

- *cpname* is the network-qualified name of the owning control point in the form *netid.name*.

In the combined APPN and subarea network, the owning CP might be an SSCP or a network node in a different APPN subnetwork. All owning CPs found in or through a subarea network are represented to the origin CP as an end node being served by the interchange node through which the resource was found.

- *network\_node\_server* is the network-qualified name of the network node server in the form *netid.name*. *network\_node\_server* represents the network node in the host's APPN subnetwork that should be contacted



to locate the target resource. If `DISPLAY ID=cdrrsc` is issued, `network_node_server` might be **\*\*\*NA\*\*\***, indicating that this information is not applicable.

**Note:** If the CPNAME displayed is actually a CDRM name and the subject resource has a different NETID than its owning CDRM, then the NETID displayed might be that of the resource (rather than the CDRM), if this is the only information available.

**IST1402I**

- VTAM issues this message when the SRCHRED start option is ON. The SRCOUNT and SRTIMER values that are being used for the displayed resource are shown.

*strtimer* is the amount of time in seconds that VTAM will limit searching for a resource that it previously was unable to locate.

*srcount* is the number of requests that VTAM limit searching for the resource that it was previously unable to locate.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

### Descriptor code

5

NAME = *resourcename* – DIRECTORY ENTRY = *entrytype resourcetype*

### Explanation

VTAM issues this message as part of a subgroup of messages in response to a DISPLAY DIRECTRY command. The first message in the subgroup is IST1184I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

<b>IST1186I</b>	<b>DIRECTORY ENTRY =</b> <i>entrytype resourcetype</i>
-----------------	--

### Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command or a DISPLAY DIRECTRY command.

- If DISPLAY DIRECTORY is issued, the following message group is displayed:

```

[IST350I  DISPLAY TYPE = DIRECTORY]
  IST1186I  DIRECTORY ENTRY = entrytype resourcetype
  IST1184I  CPNAME = cpname - NETSRVR = network_node_server
[IST484I  SUBAREA = subarea]
[IST1703I  DESIRED LOCATE SIZE = desiredlocatesize, LAS LOCATE SIZE = lastlocatesize]
[IST1402I  SRTIMER = srtimer SRCOUNT = srcount]
[IST1401I  RESOURCE NOT FOUND-RETRY IN time SEC(S) OR number REQUEST(S)]
[IST1185I  NAME = resourcename - DIRECTORY ENTRY = entrytype resourcetype]
  IST314I  END

```

- If DISPLAY ID is issued, the following message group may be displayed:

```

[IST075I  NAME = nodename, TYPE = nodetype]
  IST1186I  DIRECTORY ENTRY = entrytype resourcetype
  IST1184I  CPNAME = cpname - NETSRVR = network_node_server
[IST484I  SUBAREA = subarea]
[IST1703I  DESIRED LOCATE SIZE = desiredlocatesize, LAS LOCATE SIZE = lastlocatesize]
[IST1402I  SRTIMER = srtimer SRCOUNT = srcount]
[IST1401I  RESOURCE NOT FOUND-RETRY IN time SEC(S) OR number REQUEST(S)]
  IST314I  END

```

**Note:** If the IDTYPE operand was specified on the DISPLAY ID command, information about subarea resources might precede the IST1186I subgroup. See [z/OS Communications Server: SNA Operation](#) for more information.

### IST075I

This message is only displayed for a DISPLAY ID command.

*nodename* is the resource name specified on the ID operand of the command.

*nodetype* is the resource type of *nodename*. See [Chapter 17, "Node and ID types in VTAM messages,"](#) on page 1699 for a description of *nodetype*.

### IST350I

This message is only displayed for a DISPLAY DIRECTRY command and is always **DIRECTORY**.

### IST484I

*subarea* is the subarea number of the logical unit.

### IST1184I

- *cpname* is the network-qualified name of the owning control point in the form *netid.name*.

In the combined APPN and subarea network, the owning CP might be an SSCP or a network node in a different APPN subnetwork. All owning CPs found in or through a subarea network are represented to the origin CP as an end node being served by the interchange node through which the resource was found.

- *network\_node\_server* is the network-qualified name of the network node server in the form *netid.name*. *network\_node\_server* represents the network node in the host's APPN subnetwork that should be contacted to locate the target resource. If DISPLAY ID=*cdrsc* is issued, *network\_node\_server* might be **\*\*\*NA\*\*\***, indicating that this information is not applicable.

**Note:** If the CPNAME displayed is actually a CDRM name and the subject resource has a different NETID than its owning CDRM, then the NETID displayed might be that of the resource (rather than the CDRM), if this is the only information available.

### IST1185I

- This message is issued only when there are resources subordinate to *cpname* in message IST1184I, and is repeated for each subordinate resource.
- *resourcename* is the network-qualified name of a resource that is subordinate to *cpname* in message IST1184I. VTAM issues *resourcename* in the form *netid.name*.
- *entrytype* is one of the following:

#### DEFINED

The resource was pre-defined to the directory database. A DEFINED directory entry might become a DYNAMIC directory entry if a search request learns new information about the resource, such as the NETID or the name of the owning CP

**DYNAMIC**

The resource was found as the result of a dynamic search request and was stored.

**REGISTERED**

The resource was registered to the directory database through end node resource registration.

- *resourcetype* represents the resource type known by the host APPN directory and may be different from the actual type of the resource. *resourcetype* is one of the following:

**EN**

Represents the owning control point (CP) of a resource.

In a combined APPN and subarea network, the owning CP may actually be an SSCP or a network node in a different APPN subnetwork. All owning CPs found in or through a subarea network are represented to the origin CP as an end node being served by the interchange node through which the resource was found.

**LU**

Represents a logical unit.

**NN**

Represents the network node in the host's APPN subnetwork that should be contacted to locate the target resource.

See [z/OS Communications Server: SNA Operation](#) for more information.

**IST1186I**

- This message indicates that the resource has been found in the directory database and displays information about the resource.
- *entrytype* is one of the following:

**DEFINED**

The resource was pre-defined to the directory database. A DEFINED directory entry might become a DYNAMIC directory entry if a search request learns new information about the resource, such as the NETID or the name of the owning CP.

**DYNAMIC**

The resource was learned of as the result of a dynamic search request and was stored.

**REGISTERED**

The resource either was registered to the directory database through end node resource registration, or resource represents the host CP.

- *resourcetype* represents the resource type known by the host APPN directory and may be different from the actual type of the resource. *resourcetype* is one of the following:

**EN**

Represents an end node, which is also known as the owning control point (CP) of a resource.

**LU**

Represents a logical unit.

**NN**

Represents the network node in the host's APPN subnetwork.

**IST1401I**

- VTAM issues this message when the SRCHRED start option is ON, and the resource being displayed represents a search reduction entry. Searches will be limited for this resource as indicated by the *time* and *number* fields. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information on the processing of a search reduction entry.
  - *time* is the remaining number of seconds that VTAM will limit searches for the resource it previously was unable to locate. Once the specified number of seconds expire, subsequent searches for the resource will not be limited.
  - *number* indicates the amount of requests necessary before VTAM will search for the resource with no search reduction limitations.

- If **NEXT** is displayed, VTAM will not limit the next search request for the resource.
- Otherwise, VTAM will limit the search until *number* requests have been received. For example, if *number* is **2**, VTAM will limit the first request received, but will not limit the second request received.
- A value of **\*NA\*** for *time* or *number* means **Not applicable**. . This value will appear when the timer or counter has been set to 0.
- The SRTIMER and SRCOUNT threshold values being used for this resource are displayed in message IST1402I.

#### IST1402I

- VTAM issues this message when the SRCHRED start option is ON. The SRCOUNT and SRTIMER values that are being used for the displayed resource are shown.

*srtimer* is the amount of time in seconds that VTAM will limit searching for a resource that it previously was unable to locate.

*srcount* is the number of requests that VTAM limit searching for the resource that it was previously unable to locate.

#### IST1703I

*desiredlocatesize* is the size of the APPN locate message required to retrieve the complete routing information for the target LU. The valid range is 1-128 kilobytes.

*lastlocatesize* is the size of the APPN locate message last used to retrieve the routing information for the target LU. The valid range is 1-128 kilobytes.

The node that initiates the APPN search will attempt to find a route on which every APPN network node supports the *desiredlocatesize* required by the target LU. If such a route is not available, a route that supports a smaller locate message size will be used to gather routing information for the target LU. In this case, the *desiredlocatesize* will be greater than the *lastlocatesize*. This implies that the origin node that initiated the search does not have all the routing information for the target LU and this could result in the selection of a non-optimal session route to the target LU, or a session setup failure in the worst case.

*lastlocatesize* refers to only the locate path between network nodes and does not include the path between a network node server and served end nodes. If the destination LU is on an end node that does not support locate sizes larger than 1K, the *lastlocatesize* may be larger than 1K. To display the locate size supported by served end nodes, issue the command D NET,TOPO,LIST=EN,LOCSIZE=\* at the network node server.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

**IST1187I** *value NOT VALID-APPN NOT SUPPORTED BY resourcename*

# Explanation

VTAM issues this message when the specified command or operand is not valid because *resourcename* does not support advanced peer-to-peer networking (APPN).

*value* is one of the following:

- The name of the command that failed. For a description of *value*, see [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#).
- The name of the operand that caused the command to fail.

For more information on *value*, see [z/OS Communications Server: SNA Operation](#).

*resourcename* is the name of the resource.

- If ID=*resourcename* was specified, *resourcename* is the network-qualified name of the resource that was specified on the command.
- If ID=*resourcename* was not specified, *resourcename* is the network-qualified name of the host where the command was entered.

VTAM issues *resourcename* in the form *netid.name*.

# System action

VTAM rejects the command.

# Operator response

Ensure that you entered the command correctly. If problems persist, save the system log for problem determination.

If ID=*resourcename* was specified, print the major node definition for *resourcename*.

# System programmer response

If ID=*resourcename* was specified, verify that *resourcename* supports APPN.

# Routing code

2

# Descriptor code

5

---

**IST1188I** **VTAM level STARTED AT time ON date**

# Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY VTAMOPTS command.

Possible message groups follow.

- This message group is issued in response to a DISPLAY VTAMOPTS command when FORMAT=CURRENT is specified or defaulted on the command.

```
IST1188I  VTAM level STARTED AT time ON date
IST1349I  COMPONENT ID IS dddd-ddddd-ddd
IST1348I  VTAM STARTED AS nodetype
IST1189I  option = current_value [option = current_value]
:
IST1904I  option = current_value
[IST1911I  value]
```

```

:
IST314I  END

```

- This message group is issued in response to a DISPLAY VTAMOPTS command when FORMAT=MODIFIED or FORMAT=COMPLETE is specified on the command.
  - If FORMAT=MODIFIED is entered, VTAM displays information about start options that have been modified since VTAM initialization.
  - If FORMAT=COMPLETE is entered, VTAM displays information about all specified options.

```

IST1188I  VTAM level STARTED AT time ON date
IST1349I  COMPONENT ID IS dddd-ddddd-ddd
IST1348I  VTAM STARTED AS nodetype
IST1309I  START OPTION      CURRENT VALUE      ORIGINAL VALUE  ORIGIN
IST1310I  option            current_value      original_value  origin
:
IST924I  -----
IST1905I  START OPTION      = option
IST1906I  CURRENT VALUE     = current_value
[IST1911I value]
IST1907I  ORIGINAL VALUE    = original_value
[IST1911I value]
IST1908I  ORIGIN            = origin
:
IST314I  END

```

See [z/OS Communications Server: SNA Operation](#) for more information.

### IST1188I

*level* is the version (x) and release (y) of VTAM for z/OS Communications Server that is being run. . For example, **CS x.y** is displayed for VTAM for z/OS Communications Server x.y.

The *date* and *time* values specify when VTAM was started. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

### IST1189I

- *option* is the name of a VTAM start option.
  - This message, and optionally IST1904I, are repeated to display all options specified on the command.
  - If OPTION=\* is specified, VTAM displays the value of all start options.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for the names of possible *options*.
- *current\_value* is the current value of *option*.
  - If *current\_value* represents time, this message displays this value in seconds. For example, if a value of 1 minute is specified for the CDRSCTI start option, VTAM displays *current\_value* as **60S**.
  - If *current\_value* is **\*\*\*NA\*\*\***, this indicates that *option* is not applicable for the host configuration. For example, if the host is configured as a subarea node without any APPN function, an APPN *option* cannot be specified.
  - If *current\_value* is **\*BLANKS\***, this indicates that no value was entered, and the default is blanks.
  - If *current\_value* represents a character string that can be longer than 17 characters, then IST1904I is used to display *option*.

### IST1309I and IST1310I

- *option* is the name of the VTAM start option.
  - IST1309I, IST1310I, and IST1905I are issued as many times as necessary to display all the options specified on the command.
  - If OPTION=\* is specified, VTAM displays the value of all start options.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for the names of possible *options*.
- *current\_value* is the current value of *option*.
- *original\_value* is the original value that was specified for *option*.

- If *current\_value* and *original\_value* represent time, this message displays those values in seconds. For example, if a value of 1 minute is specified for the CDRSCTI start option during start processing, VTAM displays *current\_value* as **nS** and *original\_value* as **60S**.
- If *current\_value* and *original\_value* are **\*\*\*NA\*\*\***, this indicates that *option* is not applicable for the host configuration. For example, if the host is configured as a subarea node without any APPN function, an APPN *option* cannot be specified.
- If *current\_value* and *original\_value* are **\*BLANKS\***, this indicates that no value was entered, and the default is blanks.
- If *current\_value* or *original\_value* represents a character string that can be longer than 17 characters, then the message group starting with IST1905I is used to display *option*.

*origin* indicates where *original\_value* was specified. Possible values are:

**ATCSTRxx**

The start list

**DEFAULT**

The IBM-supplied default start options

**OPERATOR**

The start options entered by the operator

**\*\*\*NA\*\*\***

*current\_value* and *original\_value* are **\*\*\*NA\*\*\***

**IST1348I**

*nodetype* indicates the node type of this host and is determined by start options that are specified or defaulted. Possible values are:

- **END NODE**
- **INTERCHANGE NODE**
- **MIGRATION DATA HOST**
- **NETWORK NODE**
- **SUBAREA NODE**

**IST1349I**

*dddd-ddddd-ddd* is the component identifier assigned by VTAM. This identifier is used by IBM for VTAM program maintenance. See the [z/OS Communications Server: SNA Programming](#) for a description of vector lists and more information about the component identifier.

**IST1904I**

- *option* is the name of a VTAM start option.
  - Messages IST1189II, IST1904I, or IST1911I are repeated to display all options specified on the command.
  - If OPTION=\* is specified, VTAM displays the value of all start options.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for the names of possible options.

- *current\_value* is the current value, or up to the first 49 characters of the current value, of *option*.

IST1904I is displayed only if *current\_value* is longer than 17 characters. If *current\_value* is longer than 49 characters, the first 49 characters are displayed as *current\_value* and the remaining characters are displayed using one or more IST1911I messages.

**IST1905I**

- *option* is the name of the start option being displayed.
  - The message group beginning with IST1905I is used instead of IST1309I and IST1310I when the value of the start option is a character string that can exceed 17 characters.
  - See the [z/OS Communications Server: SNA Resource Definition Reference](#) for the names of possible options.

## IST1906I

*current\_value* is the current setting of the start option identified as *option* in message IST1905I.

If *current\_value* is **\*BLANKS\***, then no value was entered, and the default is blanks.

IST1906I is used only if either *current\_value* represents a character string that is longer than 17 characters, or *original\_value* on IST1907I represents a character string that is longer than 17 characters. If *current\_value* is greater than 43 characters, the first 43 characters are displayed as *current\_value* and the remaining characters are displayed using one or more IST1911I messages.

## IST1907I

*original\_value* is the original value that was specified for the start option identified as *option* in message IST1905I.

If *original\_value* is **\*BLANKS\***, then no value was entered, and the default is blanks.

IST1907I is used only if either *original\_value* represents a character string that is longer than 17 characters, or *current\_value* on IST1906I represents a character string that is longer than 17 characters. If *original\_value* is greater than 43 characters, the first 43 characters are displayed as *original\_value* and the remaining characters are displayed using one or more IST1911I messages.

## IST1908I

- *origin* indicates where *original\_value*, as displayed in message IST1907I, was initially specified for the start option identified as *option* in message IST1905I. Possible values are:

### ATCSTRxx

The start list.

### DEFAULT

The IBM-supplied default start options.

### OPERATOR

The start options entered by the operator.

## IST1911I

*value* is the continuation of *current\_value* on IST1904I or IST1906I, or the continuation of *original\_value* on IST1907I. IST1911I is repeated as often as necessary to display the entire *current\_value* or *original\_value*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST1189I *option = current\_value [option = current\_value]*



## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.

VTAM also might issue this message as part of a group of messages in response to a DISPLAY STATS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1190I</b>	<b>OPEN FAILED FOR <i>datasetname</i> ABEND = <i>abendcode</i> RC = <i>returncode</i></b>
-----------------	---

---

## Explanation

The sequential access method OPEN function failed for the specified data set.

*datasetname* is the DDNAME for the data set.

*abendcode* is the abend code associated with the OPEN failure. The values for *abendcode* are found in the applicable operating system documentation.

*returncode* is the return code associated with the abend code. The values for *returncode* are found in the applicable operating system documentation.

## System action

VTAM processing continues. *datasetname* is not available for use.

## Operator response

Save the system log for problem determination.

## System programmer response

Ensure that *datasetname* is defined in the VTAM start procedure and is available for use. The data set characteristics should be compatible with those specified in the [z/OS Communications Server: New Function Summary](#). For further responses, consult the applicable sequential access method documentation.

## Routing code

2

## Descriptor code

3

---

<b>IST1191I</b>	<b>I/O ERROR ON <i>datasetname</i> {ERROR = <i>description</i>   ABEND = <i>abendcode</i> RC = <i>returncode</i>}</b>
-----------------	---

---

## Explanation

An I/O error occurred for the specified data set.

*datasetname* is the DDNAME for the data set.

*description* is the error description portion of the message generated by the sequential access method SYNADAF macro.

*abendcode* is the abend code associated with the failure. The values for *abendcode* are found in the applicable operating system documentation.

*returncode* provides the return code associated with the abend code. The values for *returncode* are found in the applicable operating system documentation.

### **System action**

Processing continues.

### **Operator response**

Save the system log for problem determination.

### **System programmer response**

If an abend code and a return code are provided, see your operating system documentation for an explanation of the codes. Use the codes in conjunction with your applicable sequential access method documentation to resolve the problem.

If the error description portion of the message generated by the SYNADAF macro is provided, see the applicable sequential access method documentation for more information.

### **Routing code**

2

### **Descriptor code**

3

---

**IST1192I** **CLOSE FAILED FOR *datasetname* ABEND = *abendcode* RC = *returncode***

### **Explanation**

The sequential access method CLOSE function failed for the specified data set.

*datasetname* is the DDNAME for the data set.

*abendcode* is the abend code associated with the CLOSE failure. The values for *abendcode* are found in the applicable operating system documentation.

*returncode* is the return code associated with the abend code. The values for *returncode* are found in the applicable operating system documentation.

### **System action**

Processing continues.

### **Operator response**

Save the system log for problem determination.

### **System programmer response**

Consult the applicable sequential access method documentation for appropriate responses.

## Routing code

2

## Descriptor code

3

---

**IST1193I*****sessiontype* SESSION DEACTIVATION FAILURE FOR *resource***

---

## Explanation

VTAM issues this message when it is unable to complete the *sessiontype* session deactivation.

- If *sessiontype* is **CP-CP**, *resource* is the name of the adjacent control point. If the network where the resource resides is known to VTAM, *resource* is issued as a network-qualified name in the form *netid.name*. The CP-CP session deactivation failure is due to a lack of storage.
- If *sessiontype* is **CP-SVR**, *resource* is the name of the CDRSC representing the dependent LU requester (DLUR). If the network where the resource resides is known to VTAM, *resource* is issued as a network-qualified name in the form *netid.name*. The CP-SVR session deactivation failure is due to either a lack of storage or a failure to find the DLUR element control block.

## System action

Processing continues.

## Operator response

- If *sessiontype* is **CP-CP**, issue a DISPLAY ID=*resource*,CPNODE=YES,E command to determine whether CP-CP sessions are still active with *resource*. If they are, issue a VARY INACT,ID=*resource*,CPNODE=YES command to bring the CP-CP sessions down. When the CP-CP sessions are successfully deactivated, message IST1097I will appear.
- If *sessiontype* is **CP-SVR**, issue a DISPLAY ID=*resource* command to determine whether CP-SVR sessions are still active with *resource*. If they are, issue a VARY INACT,ID=*resource* command to bring the CP-SVR sessions down. When the CP-SVR sessions are successfully deactivated, message IST1133I will appear.

## System programmer response

None.

## Routing code

2

## Descriptor code

3

---

**IST1194I****DUPLICATE RESOURCE IS *resourcename***

---

## Explanation

VTAM issues this message as part of a group of messages when VTAM has received registration requests for the same resource from two different end nodes. The first message in the group is IST1157I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

3

---

**IST1196I****APPN CONNECTION FOR *resourcename* INACTIVE – TGN = *tgn***

---

## Explanation

VTAM issues this message when an APPN connection for an adjacent control point becomes inactive. The major node to which the adjacent control point was attached has been deactivated.

*resourcename* is the network-qualified name of the adjacent control point in the form *netid.name*.

*tgn* is the transmission group number. If the APPN connection fails before it is fully established, the TGN might be this host's view of the TGN before it has been fully negotiated.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1197I****ADJCP MAJOR NODE = *majornode***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ADJCP command for an adjacent control point. Possible message groups follow.

- If SCOPE=ALL was specified on the command, VTAM issues the following message group:

```
IST350I  DISPLAY TYPE = ADJACENT CONTROL POINT
IST486I  STATUS= ACTIV, DESIRED STATE= ACTIV
IST1197I ADJCP MAJOR NODE = majornode
IST1101I ADJACENT CP DISPLAY SUMMARY FOR adjcpname
IST1102I NODENAME          NODETYPE CONNECTIONS CP CONNECTIONS NATIVE
IST1103I nodename          nodetype connections cp_connections native
IST2157I ALIASRCH = value
[IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:]
[IST2252I netid [netid] [netid] [netid] [netid] [netid] [netid]
:
IST1104I CONNECTION SUMMARY FOR adjcpname
IST1105I RESOURCE STATUS    TGN CP-CP TG CHARACTERISTICS
IST1106I resource status   tgn cp-cp tg_characteristics
:
IST314I  END
```

- If SCOPE=ALL was not specified on the command, VTAM issues the following message group:

```
IST350I  DISPLAY TYPE = ADJACENT CONTROL POINT
IST486I  STATUS= ACTIV, DESIRED STATE= ACTIV
```

```
IST1197I  ADJCP MAJOR NODE = majornode
IST314I   END
```

## IST1197I

*majornode* is the name of the major node that contains the resources. VTAM issues *majornode* in the form *netid.name*.

## IST1101I – IST1106I, IST2157I, IST2251I, IST2252I

For a description of this message subgroup, see the explanation of message [IST1101I](#).

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

## Example

```
D NET,ADJCP,ID=NETA.CP2A,SCOPE=ALL
IST097I DISPLAY ACCEPTED
IST350I DISPLAY TYPE = ADJACENT CONTROL POINT
IST486I STATUS= ACTIV, DESIRED STATE= ACTIV
IST1197I ADJCP MAJOR NODE = ADJCP1
IST1101I ADJCP DISPLAY SUMMARY FOR NETA.CP2A
IST1102I NODENAME          NODETYPE CONNECTIONS CP CONNECTIONS NATIVE
IST1103I NETA.CP2A         NN          1          1          NO
IST2157I ALIASRCH = YES
IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:
IST2252I  NETA          NETB          NETC
IST1104I CONNECTION SUMMARY FOR NETA.CP2A
IST1105I RESOURCE STATUS TGN CP-CP TG CHARACTERISTICS
IST1106I AHHCPU5 AC/R 21 YES 98710000000000000100014C00808080
IST1500I STATE TRACE = OFF
IST1493I RTP SUMMARY FOR NETA.CP2A COUNT = 2 RTPONLY = NO
IST1486I RTP NAME STATE DESTINATION CP MNPS TYPE
IST1487I CNR00002 CONNECTED NETA.CP2A NO CPCP
IST1487I CNR00001 CONNECTED NETA.CP2A NO CPCP
IST314I END
```

## IST1198I

***resourcename* DELETED FROM DIRECTORY**

## Explanation

VTAM issues this message when the MODIFY DIRECTRY,ID=*name* command changed the owning CP's name (CPNAME) for *resourcename* to this host's CP name.

Resources owned by this host are not duplicated in the APPN resource directory so *resourcename* has been deleted from the APPN resource directory.

*resourcename* is the network-qualified name of the resource in the form *netid.name*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1199I** *command FOR resourcename FAILED, UNKNOWN RESOURCE*

## Explanation

VTAM issues this message in response to one of the following commands:

- MODIFY DIRECTORY,UPDATE which attempted to change the owning CP or the network node server for *resourcename*. The name specified on either the CPNAME, ID or NETSRVR operand is unknown to the APPN directory and cannot be modified.
- MODIFY DIRECTORY,DELETE which attempted to delete resource *resourcename*. The name specified on the ID operand is not known to the APPN directory and cannot be modified.

*command* is always **F DIRECTORY** which refers to the MODIFY DIRECTORY,UPDATE or MODIFY DIRECTORY,DELETE commands.

*resourcename* is the network-qualified name of the resource in the form *netid.name*. *resourcename* can be the same resource that was specified on the ID operand of the MODIFY DIRECTORY command or a resource that is subordinate to the resource named on the command.

- If *resourcename* is the same as the name specified on the ID operand, then *resourcename* is not known to the APPN directory.
- If *resourcename* is not the same as the name specified on the ID operand, then the name specified on the ID operand is a CDRSC major node. VTAM is in the process of changing the owning CP or network node server for all the minor nodes subordinate to the CDRSC major node. The *resourcename* minor node is no longer known to the APPN directory.

## System action

Processing continues.

## Operator response

- If *resourcename* is the same as the name specified on the ID operand of the MODIFY DIRECTORY command, ensure that you entered *resourcename* correctly.
- If *resourcename* is not the same as the name specified on the ID operand of the MODIFY DIRECTORY command, then no further action is needed.

## System programmer response

None.

**Routing code**

2

**Descriptor code**

5





---

## Chapter 8. IST messages for VTAM network operators

### IST1200I - IST1599I

This chapter lists the VTAM messages beginning with IST in the range of IST1200I through IST1599I. These messages can appear on a network operator's console.

See [Appendix E, "Message text for VTAM operator messages,"](#) on page 1785 for a list of the text of all VTAM operator messages.

**Note:** Messages that begin with the prefix **ISTF** are issued by the VTAM dump analysis tool and the VTAM internal trace (VIT) analysis tool. Help information is available as a part of each tool by pressing F1. Therefore, **ISTF** messages are not documented in [z/OS Communications Server: SNA Messages](#). See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information.

---

**IST1200I** *tsouserid* TSO USERID, TRACE = {ON|OFF}

---

#### Explanation

VTAM issues this message as part of a message group in response to one of the following commands:

- DISPLAY TRACES, TYPE=TSO,ID=*tsouserid*
- DISPLAY TRACES, TYPE=TSO,ID=\*
- DISPLAY TRACES, TYPE=ALL

This message indicates whether the TSO trace for *tsouserid* is active or inactive.

- For DISPLAY TRACES, TYPE=TSO,ID=*tsouserid* and DISPLAY TRACES, TYPE=TSO,ID=\*, the following message group is displayed:

```
IST350I  DISPLAY TYPE = TRACES,TYPE=TSO
IST1200I tsouserid TSO USERID, TRACE = {ON|OFF}
:
IST314I  END
```

- For DISPLAY TRACES, TYPE=ALL, VTAM issues additional messages displaying the output for TYPE=NODES, TYPE=TSO, and TYPE=VTAM.

For additional information and examples of command displays, see the [z/OS Communications Server: SNA Operation](#).

#### System action

Processing continues.

#### Operator response

None.

#### System programmer response

None.

#### Routing code

2

## Descriptor code

5

---

**IST1201I****COMMAND REJECTED BY ISTCMMND EXIT**

---

## Explanation

The user command verification exit (**ISTCMMND**) rejected the operator command. This message always refers to the command last entered. See [z/OS Communications Server: SNA Customization](#) for more information on the user command verification exit.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Ensure that the command issued was supposed to fail.

- If the command was programmed to fail, there is no action; the command and verification exit is working as designed.
- If the command was not programmed to fail, review the command and verification exit to ensure proper execution.

## Routing code

2

## Descriptor code

5

---

**IST1202I****VALUE *resourcename* FOR *operand* IS NOT A VALID NAME**

---

## Explanation

VTAM issues this message when the value *resourcename* of *operand* is not a valid resource name because it is syntactically incorrect. This message is issued in response to the following commands:

- DISPLAY APPLS
- DISPLAY CDRMS
- DISPLAY CDRSCS
- DISPLAY CLSTRS
- DISPLAY EE
- DISPLAY EEDIAG
- DISPLAY GROUPS
- DISPLAY LINES
- DISPLAY PENDING
- DISPLAY RSCLIST
- DISPLAY STATIONS
- DISPLAY STORUSE

- DISPLAY TERMS

### System action

If *operand* is **ID**, and at least one valid resource name has been specified, processing of the DISPLAY command will continue.

### Operator response

Ensure that you entered the command correctly. If problems persist, see [z/OS Communications Server: SNA Operation](#) for information on the correct syntax of DISPLAY commands.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

<b>IST1203I</b>	<b>VALUE <i>resourcename</i> FOR <i>operand</i> IS UNKNOWN RESOURCE</b>
-----------------	---

---

### Explanation

VTAM issues this message when the value *resourcename* of *operand* is a resource that is syntactically correct, but is not defined to VTAM. This message is issued in response to the following commands:

- DISPLAY APPLS
- DISPLAY CDRMS
- DISPLAY CDRSCS
- DISPLAY CLSTRS
- DISPLAY EE
- DISPLAY EEDIAG
- DISPLAY GROUPS
- DISPLAY LINES
- DISPLAY PENDING
- DISPLAY RSCLIST
- DISPLAY STATIONS
- DISPLAY TERMS
- MODIFY RTP

### System action

If *operand* is **ID**, and at least one valid resource name has been specified, processing of the DISPLAY or MODIFY command will continue.

### Operator response

Ensure that you entered the command correctly. If problems persist, save the system log and print the major node definition for problem determination.

## System programmer response

Add a definition statement for the major node of the resource. To use the new definition, you must deactivate and reactivate the major node. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on definition statements.

## Routing code

2

## Descriptor code

5

---

**IST1204I** **VALUE *resourcename* FOR *operand* NOT VALID FOR REQUEST**

---

## Explanation

VTAM issues this message when the value *resourcename* for *operand* is a resource that is defined to VTAM, but cannot be specified for this particular command, operand, or configuration. This message is issued in response to the following commands:

- DISPLAY APPLS
- DISPLAY CDRMS
- DISPLAY CDRSCS
- DISPLAY CLSTRS
- DISPLAY EE
- DISPLAY EEDIAG
- DISPLAY ID=physical\_unit
- DISPLAY GROUPS
- DISPLAY LINES
- DISPLAY PENDING
- DISPLAY STATIONS
- DISPLAY TERMS
- MODIFY RTP

## System action

If *operand* is **ID**, and at least one valid resource name has been specified, processing of the DISPLAY or MODIFY command will continue.

## Operator response

Ensure that you entered the command correctly. If problems persist, see [z/OS Communications Server: SNA Operation](#) for a description of the type of resources that are valid for the ID operand of the DISPLAY command you are using.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1205I****MANAGEMENT SERVICES TRANSPORT UNAVAILABLE**

---

### Explanation

This message is the first in a group of messages that VTAM issues when the management services transport is not available.

The second message in the group indicates the reason that the management services transport is not available and can be one of the following:

#### **IST1206I LOAD FAILED FOR THE PROGRAM-TO-PROGRAM INTERFACE**

VTAM is unable to load the program-to-program interface module (CNMCNETV). This module is needed to send management services transport data to network management.

#### **IST1207I NETWORK MANAGEMENT IS INACTIVE**

VTAM is unable to use the management services transport because a network management application, such as the NetView program, is inactive.

#### **IST1208I PROGRAM-TO-PROGRAM INTERFACE MODULE IS INACTIVE**

VTAM is not able to send management services transport data to network management because the program-to-program interface module is not initialized.

#### **IST1209I PROGRAM-TO-PROGRAM INTERFACE MODULE STORAGE SHORTAGE**

VTAM is unable to send management services transport data to network management because the program-to-program interface module is out of storage.

### System action

Processing continues.

### Operator response

#### **IST1206I**

Save the system log for problem determination.

#### **IST1207I**

Ensure that network management has been started. When network management connects to the network management interface module, then VTAM continues initialization for the Management Services Transport. See your network management documentation for details on how to start network management.

#### **IST1208I**

Ensure that the program-to-program interface module has been initialized. VTAM will continue trying to connect to the program-to-program interface module repeatedly for the first hour, and then once every hour. See your program-to-program interface documentation for details on how to initialize the interface module.

#### **IST1209I**

Save the system log for problem determination.

### System programmer response

#### **IST1206I**

Ensure that the program-to-program interface module CNMCNETV resides in LPALIB. You must restart VTAM to use the management services transport.

#### **IST1207I**

None.

#### **IST1208I**

None.

**IST1209I**

You might need to increase the buffer queue limit for the program-to-program interface module. See your program-to-program interface documentation for more details.

**Routing code**

2

**Descriptor code**

5

---

**IST1206I****LOAD FAILED FOR THE PROGRAM-TO-PROGRAM INTERFACE**

---

**Explanation**

VTAM issues this message as part of a group of messages when the management services transport is not available. The first message in the group is IST1205I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1207I****NETWORK MANAGEMENT IS INACTIVE**

---

**Explanation**

VTAM issues this message as part of a group of messages when the management services transport is not available. The first message in the group is IST1205I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1208I****PROGRAM-TO-PROGRAM INTERFACE MODULE IS INACTIVE**

---

**Explanation**

VTAM issues this message as part of a group of messages when the management services transport is not available. The first message in the group is IST1205I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

## Explanation

VTAM issues this message as part of a group of messages when the management services transport is not available. The first message in the group is IST1205I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

## IST1211I

**I/O ERROR *terminalname* command *ncp\_response*[ *bsc\_status*]**

## Explanation

VTAM issues this message when an I/O error occurred on a BSC 3270 terminal or control unit. This is probably a hardware error.

*terminalname* is the name of a terminal or control unit. If the network where the resource resides is known to VTAM, *terminalname* is issued as a network-qualified name in the form *netid.name*.

*command* is the basic transmission unit (BTU) command and modifier. It represents the command that the NCP received when the I/O error occurred. For more information, see *NCP and EP Reference Summary and Data Areas* for the 3725 and 3745.

*ncp\_response* is the system and extended response that the NCP sends upon receiving the command. For more information, see *NCP and EP Reference Summary and Data Areas* for the 3725 and 3745.

*bsc\_status* is the BSC status information. For more information, see the *3174 Functional Description*

## System action

- For an I/O error on a BSC 3270 terminal, VTAM sends an error indication to the application program.
- For an I/O error on a BSC 3270 control unit, VTAM may resume polling for the data from the control unit.

## Operator response

If the problem persists, save the system log for problem determination.

## System programmer response

Correct the problem as determined by the problem determination output.

## Routing code

2,8,1

## Descriptor code

4

---

## IST1212I

**{ACBNAME|LUNAME} = *nodename* STATUS = *status***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY TSOUSER command. A complete description of the message group follows the example.

```
IST075I  NAME = nodename, TYPE = TSO USERID
IST486I  STATUS = currentstatus, DESIRED STATE = desiredstate
IST576I  TSO TRACE = {ON|OFF}
IST1212I ACBNAME = nodename STATUS = status
IST1212I LUNAME = nodename STATUS = status
IST314I  END
```

### IST075I

This message displays the name of the TSO user ID associated with the application and the logical unit (LU).

### IST486I

This message indicates the current status of the TSO user ID and the state that is desired. If VTAM cannot determine the desired state, *desiredstate* will be **\*\*\*NA\*\*\***.

### IST576I

This message indicates whether the TSO trace is on or off for a particular TSO user.

### IST1212I

- This message appears twice in the group:
  - With **ACBNAME** displaying the application status *status* of the application name *nodename* with which the TSO user ID is associated
  - With **LUNAME** displaying the status *status* of the logical unit *nodename*.
- If the network where the resource resides is known to VTAM, *nodename* is issued as a network-qualified name in the form *netid.name*.
- See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *status*.
- If the TSO user ID has been disconnected from the LU, the LU *status* will still be **ACT/S** (active and in session) if it is in session with another application. To find the LU's session partner, enter a DISPLAY ID command for the logical unit *nodename*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2,8

## Descriptor code

5

---

**IST1213I*****profilename LU-LU VERIFY ERROR code***



## Explanation

VTAM issues this message when an LU 6.2 application program requests that a session be established, but a session level LU-LU verification violation or error occurred.

*profilename* is the name of the security manager profile defined for the LU pair. The format of *profilename* is *local\_netid.local\_name.partner\_netid.partner\_name* where:

*local\_netid* is the local network ID

*local\_name* is the ACB name of the local application program

*partner\_netid* is the network ID of the session partner

*partner\_name* is the LU name of the session partner.

*code* is the type of security violation that occurred.

**03**

The security manager locked the profile.

**04**

The profile contains an invalid session key.

**05**

*partner\_name* rejected the session due to a security related error.

**06**

*local\_name* was defined with REQUIRED session level LU-LU verification, but one of the following occurred:

- *local\_name* is the PLU, but no password was defined for *profilename*.
- *partner\_name* is the PLU requesting a session without using session level LU-LU verification.

**07**

Session level LU-LU verification data for the session between *local\_name* and *partner\_name* matched the data for an outstanding session activation request.

**08**

*local\_name* was defined with optional verification, and a password was defined for *profilename*, indicating that session level LU-LU verification is necessary. *partner\_name* requested a session without verification.

**09**

*local\_name* was defined with optional verification, and no password was defined for *profilename*, indicating that session level LU-LU verification should not be used. *partner\_name* requested a session with verification.

**0B**

The profile was changed during session activation.

**0C**

The password for the profile has expired.

**0D**

*local\_name* was defined to use only the enhanced protocol (SECLVL=LEVEL2 is specified on the APPL definition statement). *partner\_name* does not support the enhanced protocol.

**20**

The security manager component is either not available or overloaded (received a large number of requests in a short period of time).

**3C**

The security manager component failed.

## System action

Session activation failed.

## Operator response

For codes **03**, **04**, **0B**, and **0C**, enter the MODIFY PROFILES command for the local LU. If VTAM issues this message repeatedly, notify the security administrator of *code* and *profilename*.

For code **05**, consult message IST970I or message IST1213I issued to the partner LU for specific actions.

For codes **06**, **08**, and **09**, enter the MODIFY PROFILES command for the local LU. If VTAM issues this message repeatedly, save the system log for problem determination.

For codes **07** and **0D**, notify the security administrator of *code* and *profilename*.

For codes **20** and **3C**, save the system log for problem determination.

## System programmer response

For code **05**, consult message IST970I or message IST1213I issued to the partner LU for specific actions.

For codes **06**, **08**, and **09**, check the VERIFY operand specified on the APPL statements to identify the correct level for the two LUs.

For code **20**, verify that the security manager is installed and resource class APPCLU is active.

If the security manager is installed and resource class APPCLU is active, the problem may be that the security manager is overloaded. Lowering the value of AUTOSES on the LU definition statements may solve the problem.

For code **3C**, verify that the security manager is installed and resource class APPCLU is active.

## Routing code

2

## Descriptor code

5

---

**IST1214I****FFST text**

## Explanation

VTAM attempted to establish an interface to and was unsuccessful. The failure is related to the FFST installation on the operating system.

*text* is one of the following:

### **SUBSYSTEM IS NOT INSTALLED**

The FFST Subsystem is not installed on your operating system. VTAM can be initialized without it.

### **INITIALIZATION MODULE IS NOT FOUND**

The FFST initialization module, EPWINIT, could not be found in an accessible library. The FFST subsystem may or may not be installed on your system. VTAM initializes without it.

### **INTERFACE MODULE IS NOT FOUND**

The FFST Subsystem is installed but the interface module cannot be found.

### **VTAM CONFIGURATION MODULE IS NOT FOUND**

The FFST Subsystem is installed but the VTAM configuration module cannot be found.

## System action

VTAM initialization continues, but FFST will not be available to support VTAM diagnostics.

## Operator response

Save the system log for problem determination.

## System programmer response

Determine whether FFST support is desired for VTAM. If so, then verify that ISTRACZF was installed during VTAM installation.

You must restart VTAM if FFST support is desired for diagnosis.

## Routing code

2

## Descriptor code

5

---

**IST1215I****ERROR IN START LIST *list* – *reason***

---

## Explanation

VTAM issues this message when an error occurs while processing the start list *list*.

*list* is the start option list that contains the error.

*reason* can be one of the following:

### **I/O ERROR**

An error occurred while reading the start list *list*.

### **MEMBER NOT FOUND**

The start list *list* could not be found in the VTAM definition library.

### **START OPTION NOT VALID**

There is an error in a start option.

### **SYNTAX ERROR**

The start list *list* contains invalid syntax.

## System action

This message is followed by either message IST1216A or message IST1084I.

- Message IST1216A prompts you for a response, and VTAM will wait for a reply.
- Message IST1084I indicates whether VTAM defaults, ATCSTR00, or a specific start list will be used. Processing continues.

## Operator response

If prompted by message IST1216A, enter 1, 2, or 3. Otherwise, no response is needed.

## System programmer response

### **I/O ERROR**

See the applicable sequential access method documentation for more information.

### **MEMBER NOT FOUND**

Message IST116I is issued prior to this message. See the explanation of that message for additional information.

### **START OPTION NOT VALID**

There are several messages that may be issued prior to this message depending on the reason for the problem. Possible messages include IST057I, IST058I, IST059I, IST092I, IST176I, IST652I, IST1052-1056I, IST1064I, and IST1069I-1078I. See the explanation of the appropriate messages for additional information.

## SYNTAX ERROR

Message IST052I, IST115I or IST1249I is issued prior to this message. See the explanation of the appropriate message for additional information.

## Routing code

2

## Descriptor code

5

---

**IST1216A****ENTER 1 TO CONTINUE-2 TO REENTER LIST-3 TO TERMINATE VTAM**

## Explanation

VTAM issues this message when an error occurs in a start list. Message IST1215I is issued prior to this message and indicates the name of the start list and the reason for the failure. See that message for additional information.

## System action

VTAM waits for a response.

- If **1** is entered, VTAM will continue processing. The *reason* in message IST1215I determines the action.

### I/O ERROR

The start list is not processed.

### MEMBER NOT FOUND

All start options in the list are ignored.

### START OPTION NOT VALID

Valid start options in the list are processed, and message IST1311A is issued to prompt for new start options.

### SYNTAX ERROR

All start options processed before the syntax error is encountered are processed. Message IST1311A is issued to prompt for new start options.

- If **2** is entered, VTAM issues message IST015A to prompt for a new start list ID.
- If **3** is entered, all processing is stopped and VTAM is terminated.

## Operator response

Enter 1, 2, or 3.

1 to continue

2 to reenter a new start list ID when prompted by IST015A

3 to terminate VTAM.

## System programmer response

None.

## Routing code

1

## Descriptor code

2

---

**IST1217A****RESPONSE NOT VALID: REENTER 1, 2, OR 3**

---

**Explanation**

VTAM issues this message when 1, 2, or 3 is not entered in response to message IST1216A. See the explanation of that message for additional information.

**Routing code**

1

**Descriptor code**2

---

**IST1218I****ACB ERROR FIELD = *acberflg*****Explanation**

VTAM issues this message as part of a group of messages when VTAM is terminated because an access method control block (ACB) macro failed. The first message in the group is IST049I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**5

---

**IST1219I****RTNCD = *rtncd*, FDB2 = *fdb2*****Explanation**

VTAM issues this message as part of a group of messages when an APING transaction failed or VTAM is terminated because a SETLOGON macro failed. The first message in the group is IST049I or IST1472I. See the explanation of those messages for a complete description.

**Routing code**

2

**Descriptor code**5

---

**IST1220I****SSCPNAME NETID CURRENT STATE ROUTING STATUS****Explanation**

VTAM issues this message as part of a message subgroup. The first message in the subgroup is IST611I. See the explanation of that message for a complete description.

**Routing code**

8

## Descriptor code

5

---

**IST1221I** *chtyp DEV = device\_address STATUS = status STATE = system\_state*

---

### Explanation

VTAM issues this message as part of a message group in response to:

- A DISPLAY ID command to identify the operational status of all **READ** and **WRITE** subchannels.
- A DISPLAY ID command for an MPC line or a transport resource list entry (TRLE).
- A DISPLAY TRL command for an active TRLE.

The message group varies if the TRLE is using the Queued Direct I/O (QDIO) interface to either an IBM OSA-Express Adapter or a HiperSockets device or if the TRLE is using Enhanced Queued Direct I/O (EQDIO). If the message group is for a TRLE that is not using QDIO or EQDIO, the message group will look as follows:

This message group displays a TRLE that does not represent an OSA-Express adapter or HiperSockets interface, or EQDIO.

```
IST075I  NAME = nodename, TYPE = LINE
IST486I  STATUS = currentstatus, DESIRED STATE = desiredstate
IST087I  TYPE = line_type, CONTROL = line_control, HPDT = hpdvalue
IST1954I TRL MAJOR NODE = trl_major_node_name
IST1715I MPCLEVEL = mpc_level MPCUSAGE = mpc_usage
IST1717I ULPID = ulp_id
[IST2219I resource ACTIVATION WAITING FOR MINIMUM NUMBER OF DEVICES]
[IST1801I UNITS OF WORK FOR NCB AT ADDRESS stor_addr]
[IST1802I pn CURRENT = cur AVERAGE = avg MAXIMUM = max]
[IST1577I HEADER SIZE = hpsize DATA SIZE = dsize STORAGE = storage]
IST1221I chtyp DEV = device_address STATUS = status STATE = system_state
:
[IST1577I HEADER SIZE = hpsize DATA SIZE = dsize STORAGE = storage]
[IST1221I chtyp DEV = device_address STATUS = status STATE = system_state]
:
IST314I  END
```

**Note:** VTAM displays all **WRITE** subchannel addresses for *nodename* value, followed by all **READ** subchannel addresses for *nodename*. For TCP/IP channel DLC connections, there is only one **R/W** subchannel.

The following is an example of the message group if it is for a TRLE that uses QDIO:

```
IST075I  NAME = nodename, TYPE = LINE
IST486I  STATUS = currentstatus, DESIRED STATE = desiredstate
IST087I  TYPE = line_type, CONTROL = line_control, HPDT = hpdvalue
IST1954I TRL MAJOR NODE = trl_major_node_name
IST1715I MPCLEVEL = mpc_level MPCUSAGE = mpc_usage
[IST1716I PORTNAME = port_name LINKNUM = link_num OSA CODE LEVEL = code_level]
[IST2263I PORTNAME = port_name PORTNUM = port_num OSA CODE LEVEL = code_level]
[IST2337I CHPID TYPE = ch_type CHPID = chpid_num PNETID = network_id]
[IST2184I QDIOSYNC = ALLINOUT - SYNCID = TRAP01 - SAVED = YES]
[IST1577I HEADER SIZE = hpsize DATA SIZE = dsize STORAGE = storage]
IST1221I chtyp DEV = device_address STATUS = status STATE = system_state
:
[IST1577I HEADER SIZE = hpsize DATA SIZE = dsize STORAGE = storage]
[IST1221I chtyp DEV = device_address STATUS = status STATE = system_state]
:
IST924I  -----
[IST1221I DATA DEV = device_address STATUS = status STATE = system_state]
[IST1724I I/O TRACE = iotrc TRACE LENGTH = length]
[IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface]
[IST2309I ACCELERATED ROUTING ENABLED]
[IST2310I ACCELERATED ROUTING DISABLED]
[IST2331I QUEUE    QUEUE    READ    QUEUE    ]
[IST2332I ID      TYPE     STORAGE  STATUS   ]
[IST2205I -----]
[IST2333I qid     qtype    storage_amount  qstat    ]
[IST924I -----]
[IST2457I OSA DETECTED INBOUND ERRORS ON queue_name QUEUE:]
[IST2458I TOTAL INVALID INBOUND PACKETS = num_packets]
[IST2459I LAST INVALID INBOUND PACKET AT time ON date]
[IST2460I TOTAL INBOUND SBAL ERRORS    = error_count]
[IST2461I LAST INBOUND SBAL ERROR AT error_time ON error_date]
```

```

[IST2462I CONSECUTIVE SBAL ERRORS: LAST = last_count MAX = max_count]
[IST2463I MAX CONSECUTIVE SBAL ERRORS AT error_time ON error_date]
[IST924I -----]
[IST2305I NUMBER OF DISCARDED INBOUND READ BUFFERS = sbalcnt]
[IST2386I NUMBER OF DISCARDED OUTBOUND WRITE BUFFERS = wbufcnt]
[IST1757I PRIORITYx: congstate PRIORITYx: congstate]
[IST1757I PRIORITYx: congstate PRIORITYx: congstate]
[IST2190I DEVICEID PARAMETER FOR OSAENTA TRACE COMMAND = deviceid]
[IST1801I UNITS OF WORK FOR NCB AT ADDRESS stor_addr]
[IST1802I pn CURRENT = cur AVERAGE = avg MAXIMUM = max]
IST924I -----]
:
[IST1221I TRACE DEV = device_address STATUS = status STATE = system_state]
[IST1724I I/O TRACE = iotrc TRACE LENGTH = length]
[IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface]

[IST2319I PHYSICAL CHANNEL ID = pchid]
[IST2309I ACCELERATED ROUTING ENABLED]
[IST2310I ACCELERATED ROUTING DISABLED]
[IST2331I QUEUE QUEUE READ QUEUE ]
[IST2332I ID TYPE STORAGE STATUS ]
[IST2205I -----]
[IST2333I qid qtype storage_amount qstat ]
[IST2305I NUMBER OF DISCARDED INBOUND READ BUFFERS = sbalcnt]
[IST2386I NUMBER OF DISCARDED OUTBOUND WRITE BUFFERS = wbufcnt]
[IST1757I PRIORITY1: congstate PRIORITY2: ****NA****]
[IST1757I PRIORITY3: ****NA**** PRIORITY4: ****NA****]
IST1801I UNITS OF WORK FOR NCB AT ADDRESS stor_addr
IST1802I pn CURRENT = cur AVERAGE = avg MAXIMUM = max
[IST924I -----]
:
IST314I END

```

The following is an example of the message group if it is for a D NET,ID=trle that uses EQDIO:

```

IST075I NAME = nodename, TYPE = TRLE
IST486I STATUS= currentstatus, DESIRED STATE=desiredstate
IST087I TYPE = NA , CONTROL = MPC , HPDT = NA
IST1954I TRL MAJOR NODE = ISTTRL
IST1715I MPCLEVEL = EQDIO MPCUSAGE = EXCLUSIVE
[IST2337I CHPID TYPE = NTDOH CHPID = chpid_num PNETID = network_id]
[IST1221I EQDIO DEV = device_address STATUS = status STATE = system_state]
[IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface]
IST2310I ACCELERATED ROUTING DISABLED
IST1500I STATE TRACE = OFF
IST314I END

```

The following is an example of the message group if it is for a D NET,TRL,TRLE=trle that uses EQDIO:

```

IIST075I NAME = nodename, TYPE = TRLE
IST1954I TRL MAJOR NODE = ISTTRL
IST486I STATUS= currentstatus, DESIRED STATE=desiredstate
IST087I TYPE = NA , CONTROL = MPC , HPDT = NA
IST1715I MPCLEVEL = EQDIO MPCUSAGE = EXCLUSIVE
[IST2337I CHPID TYPE = OSH CHPID = chpid_num PNETID = network_id]
[IST1221I EQDIO DEV = device_address STATUS = status STATE = system_state]
[IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface]
IST2310I ACCELERATED ROUTING DISABLED
[IST924I -----]
[IST2468I INBOUND TRANSMISSION INFORMATION: ]
[IST924I -----]
[IST2469I QUEUE/ QUEUE STORAGE QUEUE ]
[IST2470I ID TYPE CUR MIN MAX STATUS ]
[IST2205I -----]
[IST2471I CTRL/0 CONTROL curstor minstor maxsto qstatus]
[IST2472I READ/qid qtype curstor minstor maxsto qstatus]
[IST2478I NUMBER OF DISCARDED INBOUND READ BUFFERS = bufrcnt]
[IST924I -----]
[IST2473I OUTBOUND TRANSMISSION INFORMATION: ]
[IST924I -----]
[IST2474I QUEUE/ QUEUE UNITS OF WORK QUEUE ]
[IST2475I ID TYPE CUR AVG MAX STATUS ]
[IST2205I -----]
[IST2476I CTRL/1 CONTROL curwork avgwork maxwork cong_state ]
[IST2477I WRT/qid PRIORITY1 curwork avgwork maxwork cong_state ]
[IST2477I WRT/qid PRIORITY2 curwork avgwork maxwork cong_state ]
[IST2477I WRT/qid PRIORITY3 curwork avgwork maxwork cong_state ]
[IST2477I WRT/qid PRIORITY4 curwork avgwork maxwork cong_state ]

```

```
[IST2479I      NUMBER OF DISCARDED OUTBOUND WRITE BUFFERS = bufrcnt ]
IST314I  END
```

**Note:** VTAM displays all **WRITE** subchannel addresses for the node specified by the *nodename* value, followed by all **READ** subchannel addresses for that node, followed by all **DATA** subchannel addresses, followed by all **TRACE** subchannel addresses. DATA subchannel addresses and TRACE subchannel addresses are displayed only for an OSA-Express TRLE. For each DATA and TRACE subchannel address that is currently being used by an upper-layer protocol (ULP), the name of the z/OS Communications Server ULP (for example, the TCP/IP procedure name) using that data subchannel is displayed.

#### IST075I

In the message text:

##### ***nodename***

The name of the resource that was entered on the DISPLAY ID command.

##### ***nodetype***

The resource type of the major or minor node. The *nodetype* value is always **LINE** for this message group.

#### IST087I

In the message text:

##### ***line\_type***

The type of line. The *line\_type* value is always **LEASED** for this message group.

##### ***line\_control***

The *line\_control* value is always **MPC** (multipath channel) for this message group.

##### ***hpdvalue***

The *hpdvalue* can be one of the following:

##### **YES**

Indicates the connection is capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.

##### **NO**

Indicates the connection is not capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.

##### **\*NA\***

Is displayed when the connection is not active.

#### IST486I

In the message text:

##### ***currentstatus***

The current status of the node. See the [z/OS Communications Server: IP and SNA Codes](#) for status information.

##### ***desiredstate***

The node state that is desired. See the [z/OS Communications Server: IP and SNA Codes](#) for status information. If VTAM cannot determine the desired state, *desiredstate* is **\*\*\*NA\*\*\***.

#### IST924I

This message is used as a separator message.

#### IST1221I

In the message text:

##### ***chtyp***

The type of subchannel. Possible values are READ, WRITE, R/W, DATA, EQDIO or TRACE

##### ***device\_address***

The hexadecimal address of the subchannel that is displayed.



**status**

The condition or state of the subchannel that is displayed. Possible values are:

**ACTIVE**

Subchannel is active.

**INOP**

Subchannel path is inoperative.

**RESET**

Subchannel path is not ready.

**SLOWDN**

Subchannel path is in slowdown mode.

**ACTPEND**

DLC is in the process of activating.

**OPEN.PEND**

DLC is in the process of opening a connection.

**IDX.PEND**

DLC is in the process of IDXINIT transmission for a DATA channel.

**START.PEND**

DLC is in the process of starting data flow for a connection.

**INACT.PEND**

DLC is in the process of deactivating.

**system\_state**

The *system\_state* value can be one of the following:

**ONLINE**

An MVS VARY ONLINE command for the subchannel has completed successfully and the channel is now available for use.

**OFFLINE**

An MVS VARY OFFLINE command has been issued for the subchannel and the command has completed successfully. The subchannel is no longer available for use.

**PEND\_OFFLINE**

An MVS VARY OFFLINE command has been issued for the subchannel and the subchannel is in the process of completing the command.

**N/A**

The system state cannot be determined for DATA subchannel addresses. This state is also displayed in cases where VTAM has not allocated or could not allocate the UCB for the subchannel.

**Tip:** If the MVS status of the subchannel is required, you can use the D U,xxxx command, where xxxx is the subchannel address.

**IST1577I**

This message is displayed only when HPDT=YES in message IST087I. This message is not displayed if the TRLE is IUTSAMEH, which is the TRLE for same-host communication.

In the message text:

**hpsize**

The MPC header segment size, in bytes.

**dsize**

The maximum MPC data segment size, in kilobytes.

**storage**

The storage medium that is used for inbound data (on READ subchannels). Possible values are:

**ECSA**

An extended common service area buffer provided by the communications storage manager (CSM).

**DATASPACE**

A data space buffer provided by the communications storage manager (CSM).

**\*\*\*NA\*\*\***

Not applicable. This value is issued for WRITE subchannels.

**IST1715I**

In the message text:

***mpc\_level***

The level of MPC connection. Possible values are:

**HPDT**

Indicates that the connection is capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.

**NOHPDT**

Indicates that the connection is not capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.

**QDIO**

(Queued Direct I/O) Indicates that the connection performs channel I/O operations using direct IO instead of CCW channel operations. The connection is also HPDT capable, and can therefore perform the direct IO to or from communications storage manager (CSM) buffers.

**EQDIO**

Enhanced Queued Direct I/O indicates that the connection performs channel I/O operations by using direct I/O instead of CCW channel operations.

***mpc\_usage***

Indicates whether the MPC connection can be used exclusively by only one ULP, or shared by multiple ULPs. Possible values are:

**SHARE**

Indicates that the connection can be shared by multiple ULPs.

**EXCLUSIVE**

Indicates that the connection can only be used by the first ULP that requests usage of the MPC connection.

**IST1716I**

This message is displayed only for TRLEs representing an IBM OSA-Express Adapter.

In the message text:

***port\_name***

The port name to be assigned to the port on the IBM Open Systems Adapter. Each IBM Open Systems Adapter has one *port\_name* that is represented by one TRLE.

***link\_num***

The relative adapter number of the OSA-Express Adapter port represented by this TRLE. For an IBM Open Systems Adapter used for native access to an ATM network, the *link\_num* value is N/A.

***code\_level***

The OSA processor code level of the OSA. For some versions of OSA, the *code\_level* value is N/A. For detailed instructions about setting up an OSA feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

**IST1717I**

This message is displayed for all TRLEs that are currently being used by at least one ULP. A separate IST1717I message will be displayed for each ULP using this TRLE. For a dynamic TCP TRLE, or an exclusively owned TRLE, only one message with ULPID will be issued, because there can only be one ULP using each of these TRLEs. For an OSA-Express Adapter, one message with ULPID will be issued for each Datapath channel address in use by a ULP. For other TRLEs, more than one ULPID message might be issued, depending on how many upper-layer protocols are using the TRLE.

In the message text:

**ulp\_id**

The name of a z/OS Communications Server upper-layer protocol (ULP) that is using the TRLE or using one of the datapath channels of an OSA-Express TRLE.

- For TCP/IP ULPs, the *ulp\_id* value is the TCPIP job name.
- For ANNC ULPs, the *ulp\_id* value is the SNA PU name.
- For EE ULPs, the *ulp\_id* value is the XCA major node name.

For all TRLEs with MPCLEVEL = QDIO, IST1717I will also display the interface dedicated to this datapath channel address. For all TRLEs whose MPCLEVEL is not QDIO, the *ulp\_interface* will be \*NA\*.

**ulp\_interface**

The name of either the interface or the device that is using one of the datapath channels of an OSA-Express TRLE.

**IST1724I**

This message is issued in response to DISPLAY ID or DISPLAY TRL commands. This message appears for a TRLE representing an OSA-Express adapter.

In the message text:

**iotrc**

Specifies whether I/O Trace is active for this OSA-Express data device (ON or OFF).

**length**

Specifies the number of bytes being recorded for I/O Trace for this OSA-Express data device.

For information about setting up an OSA-Express feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

**IST1757I**

This message is issued in response to DISPLAY ID or DISPLAY TRL commands. This message will appear for a TRLE representing an OSA Adapter.

In the message text:

**x**

The write priority level.

**congstate**

The congestion state of that priority level. The *congstate* value is **CONGESTED** when, at least once in the last congestion reporting window, all 128 writes for the priority level were unavailable. Otherwise *congstate* will be **UNCONGESTED**.

**IST1954I**

In the message text:

**trl\_major\_node\_name**

The name of the TRL major node defining the TRLE.

**IST2184I**

This message is displayed for only a TRLE that represents an OSA-Express2 or later adapter and only when the OSA-Express2 or later adapter is armed for QDIOSYNC. See [QDIOSYNC facility in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for a description of the QDIOSYNC trace function.

In the message text:

**armstate**

The OPTION operand value from the MODIFY TRACE command or TRACE start option.

**Tip:** The OSA might be collecting more than what is specified by the *armstate* value while OSA merges the options for all Armed data devices.

Possible values are:

**ALLIN**

OSA is collecting inbound diagnostic data for all devices.

**ALLINOUT**

OSA is collecting inbound and outbound diagnostic data for all devices.

**ALLOUT**

OSA is collecting outbound diagnostic data for all devices.

**IN**

OSA is collecting inbound diagnostic data for devices defined to this VTAM.

**INOUT**

OSA is collecting inbound and outbound diagnostic data for devices defined to this VTAM.

**OUT**

OSA is collecting outbound diagnostic data for devices defined to this VTAM.

**syncid**

The SYNCID operand value from the MODIFY TRACE command or TRACE start option. This value is to be used as part of a correlator when the OSA-Express2 or later diagnostic data is captured.

**saved\_state**

The SAVE operand value from the MODIFY TRACE command or TRACE start option. Valid values are YES or NO.

**IST2190I**

This message is issued in response to DISPLAY ID or DISPLAY TRL commands for a TRLE configured with an MPCLEVEL parameter value of QDIO representing an OSA-Express adapter. This message appears for each active datapath channel if the OSA supports the OSA-Express network traffic analyzer (OSAENTA) trace function. The message displays the DEVICEID parameter, a number that uniquely identifies this datapath channel to the OSA-Express adapter. When a TCP/IP stack is performing the OSAENTA trace function for this OSA, this DEVICEID parameter can be specified on a TCP/IP OSAENTA profile configuration statement or a VARY TCPIP,,OSAENTA command to limit the tracing to just the user of this data device. See [OSA-Express network traffic analyzer trace in z/OS Communications Server: IP Configuration Guide](#) for more information about the OSAENTA trace function.

In the message text:

**deviceid**

The form *cs-mf-cl-us*, where

*cs* is the Channel subsystem ID for this data path device.

*mf* is the LPAR multiple image facility ID for the LPAR using this datapath device.

*cl* is the control unit logical identifier for this datapath device.

*ua* is the unit address for this data path device.

Each identifier is a 2 digit hexadecimal value in the range 00-FF.

**IST2205I**

This message is used as a separator message

**IST2219I**

This message is issued if the *resource* value defines an MPC channel-to-channel group, the activation of which is presently suspended waiting for the minimum required number of read and write devices to become available.

In the message text:

**resource**

The name of the TRLE or MPC subarea line that defines the MPC group.

**IST2263I**

This message is displayed if either of the following scenarios is true:

- PORTNUM is specified on the QDIO TRLE definition statement.

- VTAM detected it is connected to an IBM OSA-Express3 or later feature in QDIO mode.

In the message text:

***port\_name***

The port name to be assigned to the port on the IBM Open Systems Adapter. Each IBM Open Systems Adapter has one port name that is represented by one TRLE.

***port\_num***

The OSA-Express3 or later physical port number to be used for this QDIO MPC group. For OSA-Express2 and earlier or later adapters, only one physical port is available, so the *port\_num* value will be 0.

***code\_level***

The OSA processor code level of the OSA-Express. For some versions of OSA-Express, the *code\_level* value will be N/A.

**IST2305I**

This is issued in response to DISPLAY NET,ID=*trlename* or DISPLAY NET,TRL,TRLE=*trlename* commands when the TRLE represents HiperSockets or an OSA-Express adapter.

In the message text:

***sbalcnt***

The number of storage block address lists (SBAL) that have been discarded since the activation of the device.

**IST2309I**

This message indicates that the upper-layer protocol (ULP) that is using the datapath channel of the OSA-Express or HiperSockets TRLE is using accelerated routing. If the ULP is a TCP/IP stack, then you can display the accelerator routing table by issuing the Netstat ROUTe/-r command with the QDIOACCEL modifier for a particular TCP/IP stack. For details about how to display the accelerator routing table, see the [Netstat ROUTe/-r report in z/OS Communications Server: IP System Administrator's Commands](#).

**IST2310I**

This message indicates that the upper-layer protocol (ULP) that is using the datapath channel of the OSA-Express or HiperSockets TRLE is not using accelerated routing.

**IST2319I**

This message is issued if the TRLE that is displayed represents an IBM iQDIO Adapter (CHPID).

In the message text:

***pchid***

The internal QDIO (IQD) physical channel identifier is an internal system generated identifier that represents the internal logical network. The *pchid* is associated with the IQD CHPID and can span the entire central processor complex (CPC), based on the system configuration of the IQD CHPID. Operating systems that are running on this CPC, which are connected to the same IQD physical channel identifier, are using the same internal logical network and therefore have network connectivity. The IQD *pchid* is subject to change during a power-on reset of the CPC, or with dynamic I/O updates for the IQD CHPID.

**IST2331I**

This message is the first of two header messages for the information displayed in message IST2333I.

**IST2332I**

This message is the second of two header messages for the information displayed in message IST2333I.

**IST2333I**

When OSA Express supports QDIO inbound workload queueing, z/OS Communications Server can initialize multiple input queues. IST2333I is displayed once for each initialized read queue.

In the message text:

**qid**

The queue identifier of the read queue. The *qid* value is in the form RD/*qid*. RD/1 represents the primary read queue and RD/2 through RD/8 represent any initialized ancillary read queues.

**qtype**

The queue type for this read queue. Possible values are PRIMARY, BULKDATA, EE, IPSEC, SYSDIST, or ZCX.

**storage\_amount**

The amount of storage defined by the VTAM start option QDIOSTG (or IQDIOSTG for iQDIO data devices). The VTAM start option value can be overridden on an individual device basis when READSTORAGE is configured on the LINK or INTERFACE statement in the TCP/IP profile.

A *storage\_amount* value of \*\*\*NA\*\*\* appears if the *qstat* value is not ACTIVE. The queue has no read buffers and cannot be used by OSA Express to present inbound data.

The *storage\_amount* value is displayed both in megabytes and in the number of QDIO read buffers that are storage block access lists (SBALs) that VTAM will use for this data device for inbound (read) processing. The *storage\_amount* value is in the following format:

```
n.nM(nnn SBALS)
```

where *n.n* is the amount of storage in megabytes and *nnn* is the number of SBALs.

For an OSA-Express in QDIO mode, the size of an SBAL is fixed at 64 KB. For an iQDIO (HiperSockets) device, the SBAL size is variable. The iQDIO SBAL size is configured in a hardware configuration definition (HCD) when the maximum frame size (MFS) is specified. The default MFS is 16 KB, and the values 24 KB, 40 KB, and 64 KB are also supported. For an iQDIO device, both the VTAM start option IQDIOSTG and TCP/IP profile LINK or INTERFACE statement parameter READSTORAGE have an effect only when an MFS of 64 KB was configured.

**qstat**

The status of this read queue. Possible values are:

**ACTIVE**

The queue type is initialized and currently in use by the TCP/IP stack.

**INITIALIZATION FAILURE**

The queue type failed to initialize and will not be used by the TCP/IP stack.

**NOT IN USE**

The queue type is not currently in use by the TCP/IP stack.

**NOT SUPPORTED BY OSA**

The queue type is not supported by the OSA-Express adapter and will not be used by the TCP/IP stack.

**IST2337I**

This message is issued in response to DISPLAY NET,ID=*trlenam*e or DISPLAY NET,TRL,TRLE=*trlenam*e commands when the TRLE represents HiperSockets or an OSA-Express adapter, or OSH.

In the message text:

**chpid\_type**

The type of channel path identifier (CHPID) used by this TRLE:

**OSD**

Channel type for an OSA-Express CHPID configured in QDIO mode.

**OSM**

Channel type for an OSA-Express CHPID configured for attachment to the intranode management network.

**OSX**

Channel type for an OSA-Express CHPID configured for attachment to the intraensemble data network.

**IQD**

Channel type for HiperSockets (Internal Queued Direct I/O) communications.

## **OSH**

Channel type for OSH.

### ***chpid\_num***

The hexadecimal channel path identifier (CHPID) for the OSA adapter or HiperSockets device.

### ***network\_id***

The physical network identifier.

- When *chpid\_type* is OSX, *network\_id* is always **IEDN**.
- When *chpid\_type* is OSD or IQD, *network\_id* is either the configured network identifier of the adapter, or **\*\*NA\*\*** if no network identifier was configured for the adapter.
- For all other *chpid\_type* values, *network\_id* is **\*\*NA\*\***.

## **IST2386I**

This message is issued in response to DISPLAY NET,ID=*trlenam*e or DISPLAY NET,TRL,TRLE=*trlenam*e commands when the TRLE represents HiperSockets or an OSA-Express adapter.

In the message text:

### ***wbufcnt***

The number of outbound write buffers that have been discarded since the activation of the device.

## **IST2457I**

This message is issued in response to DISPLAY NET,ID=*trlenam*e or DISPLAY NET,TRL,TRLE=*trlenam*e commands when the TRLE represents an OSA-Express adapter, and OSA QDIO errors have been detected since the activation of the device. This message is followed by a group of messages that display QDIO error information (can include IST2458I, IST2459I, IST2460I, IST2461I, IST2462I, and IST2463I, depending on the type of QDIO errors). This message and the group of messages that follow it can be displayed once for each read queue.

In the message text:

### ***queue\_name***

The name of the inbound read queue.

## **IST2458I**

This message is issued in response to DISPLAY NET,ID=*trlenam*e or DISPLAY NET,TRL,TRLE=*trlenam*e commands when the TRLE represents an OSA-Express adapter, and OSA QDIO errors were detected since the activation of the device.

In the message text:

### ***num\_packets***

The number of inbound packets marked with invalid frame errors since the activation of the device.

## **IST2459I**

This message is issued in response to DISPLAY NET,ID=*trlenam*e or DISPLAY NET,TRL,TRLE=*trlenam*e commands when the TRLE represents an OSA-Express adapter, and OSA QDIO errors were detected since the activation of the device.

In the message text:

### ***time***

The time of the last inbound invalid frame error.

### ***date***

The date of the last inbound invalid frame error.

## **IST2460I**

This message is issued in response to DISPLAY NET,ID=*trlenam*e or DISPLAY NET,TRL,TRLE=*trlenam*e commands when the TRLE represents an OSA-Express adapter, and OSA QDIO errors were detected since the activation of the device.

In the message text:

***error\_count***

The count of inbound SBAL errors since the activation of the device.

**IST2461I**

This message is issued in response to DISPLAY NET,ID=*trlename* or DISPLAY NET,TRL,TRLE=*trlename* commands when the TRLE represents an OSA-Express adapter, and OSA QDIO errors were detected since the activation of the device.

In the message text:

***error\_time***

The time of last inbound SBAL error.

***error\_date***

The date of last inbound SBAL error.

**IST2462I**

This message is issued in response to DISPLAY NET,ID=*trlename* or DISPLAY NET,TRL,TRLE=*trlename* commands when the TRLE represents an OSA-Express adapter, and OSA QDIO errors were detected since the activation of the device.

In the message text:

***last\_count***

The count of the last consecutive batch of SBAL errors.

***max\_count***

The largest count for consecutive SBAL errors.

**IST2463I**

This message is issued in response to DISPLAY NET,ID=*trlename* or DISPLAY NET,TRL,TRLE=*trlename* commands when the TRLE represents an OSA-Express adapter, and OSA QDIO errors were detected since the activation of the device.

In the message text:

***error\_time***

The time of occurrence of the largest count of consecutive SBAL errors.

***error\_date***

The date of occurrence of the largest count of consecutive SBAL errors.

**IST2468I**

This message is the header message for the inbound queue information for the OSH TRLE.

**IST2469I**

This message is the first of two header messages for the information displayed in messages IST2471I and IST2472I.

**IST2470I**

This message is the second of two header messages for the information displayed in messages IST2471I and IST2472I.

**IST2471I**

This message displays information for the inbound control queue, which is always queue ID 0 with a queue type of CONTROL .

In the message text:

***cursto***

The current amount of storage used by the inbound control queue.



***minsto***

The minimum amount of storage used by the inbound control queue.

***maxsto***

The maximum amount of storage used by the inbound control queue.

***qstatus***

The status of the inbound control queue. Possible values are:

**ACTIVE**

The queue type is initialized and currently in use by the TCP/IP stack.

**INITIALIZATION FAILURE**

The queue type failed to initialize and will not be used by the TCP/IP stack.

**NOT IN USE**

The queue type is not currently in use by the TCP/IP stack.

**IST2472I**

This message displays information for one of the inbound read queues. IST2472I is displayed once for each initialized read queue.

In the message text:

***qid***

The queue identifier of the read queue.

***qtype***

The queue type for this read queue. Possible values are PRIMARY, BULKDATA, EE, IPSEC, SYSDIST, IPROUTER or ZCX.

***cursto***

The current amount of storage used by this read queue.

***minsto***

The minimum amount of storage used by this read queue.

***maxsto***

The maximum amount of storage used by this read queue.

***qstatus***

The status of this read queue. Possible values are:

**ACTIVE**

The queue type is initialized and currently in use by the TCP/IP stack.

**INITIALIZATION FAILURE**

The queue type failed to initialize and will not be used by the TCP/IP stack.

**NOT IN USE**

The queue type is not currently in use by the TCP/IP stack.

**IST2473I**

This message is the header message for the outbound queue information for the OSH TRLE.

**IST2474I**

This message is the first of two header messages for the information displayed in messages IST2476I and IST2477I.

**IST2475I**

This message is the second of two header messages for the information displayed in messages IST2476I and IST2477I.

**IST2476I**

This message displays information for the outbound control queue, which is always queue ID 1 with a queue type of CONTROL.

In the message text:

Each of the following counts CURRENT, AVERAGE, and MAXIMUM is a 4-digit (*nnnn*) decimal number with a range of 1 - 9999. When the count exceeds 9999, the number will be expressed as *nnnK* (thousands - such as 12 K). The highest value that can be displayed is 999 K.

***curwork***

The current total number of outbound work units that are being processed by the DLC layer for this queue.

***avgwork***

The average number of outbound work units that have been processed by the DLC layer for this device since activation. Average means how many outbound work units are present at the DLC layer for this queue each time the DLC processes outbound work.

***maxwork***

The maximum number of outbound work elements that accumulated in the DLC layer for this queue since activation.

***congstat***

The congestion state of that priority level. The *congstate* value is CONGESTED when, at least once in the last congestion reporting window, all the writes for the priority level were unavailable. Otherwise, *congstate* will be UNCONGESTED.

**IST2477I**

This message displays information for one of the outbound write queues. IST2477I is displayed once for each initialized write queue.

In the message text:

***qid***

The queue identifier of the write queue.

***qtype***

The queue type for this write queue. Possible values are PRIORITY1, PRIORITY2, PRIORITY3, and PRIORITY4.

Each of the following counts CURRENT, AVERAGE, and MAXIMUM is a 4-digit (*nnnn*) decimal number with a range of 1 - 9999. When the count exceeds 9999, the number will be expressed as *nnnK* (thousands - such as 12 K). The highest value that can be displayed is 999 K.

***curwork***

The current total number of outbound work units that are being processed by the DLC layer for this queue.

***avgwork***

The average number of outbound work units that have been processed by the DLC layer for this device since activation. Average means how many outbound work units are present at the DLC layer for this queue each time the DLC processes outbound work.

***maxwork***

The maximum number of outbound work elements that accumulated in the DLC layer for this queue since activation.

***congstat***

The congestion state of that priority level. The *congstate* value is CONGESTED when, at least once in the last congestion reporting window, all the writes for the priority level were unavailable. Otherwise, *congstate* will be UNCONGESTED.

**IST2478I**

This message displays the number of buffers that have been discarded for the read queue in the preceding message IST2472I. IST2478I is only displayed if buffers have been lost for the queue.

In the message text:

### ***bufrcnt***

The number of buffers that have been discarded since the activation of the queue.

### **IST2479I**

This message displays the number of buffers that have been discarded for the write queue in the preceding message IST2477I. IST2479I is only displayed if buffers have been lost for the queue.

In the message text:

### ***bufrcnt***

The number of outbound write buffers that have been discarded since the activation of the queue.

## **System action**

Processing continues.

## **Operator response**

For MPC or TRLE configurations defined with multiple READ and multiple WRITE devices, MPC dynamics enables an operator to dynamically add and remove subchannels to and from the MPC/TRLE group.

- If a READ or WRITE MPC or TRLE subchannel displays as OFFLINE, issue an MVS ONLINE command (for example, VARY cua,ONLINE) to dynamically add the device back to the MPC or TRLE group.
- If a READ or WRITE MPC or TRLE subchannel displays as ONLINE, and you want to remove the subchannel from the group, issue the MVS OFFLINE command (for example, VARY cua,OFFLINE) to dynamically remove the device from the MPC or TRLE group.

**Restriction:** For subarea MPC connections, the MPCDYN=YES operand must be coded on the MPC GROUP or LINE definition to enable MPC dynamics.

## **System programmer response**

For message IST2333I, use the *storage\_amount* value to confirm the system storage use and to tune the performance of a specific data device.

## **Routing code**

2

## **Descriptor code**

5

---

**IST1222I** {WRITE|READ|DATA|TRACE} DEVICE *device\_address* IS INOPERATIVE,  
NAME IS *resource\_name*

## **Explanation**

VTAM issues this message when a **WRITE**, **READ**, **DATA**, or **TRACE** path to or from an adjacent node is no longer active. It provides information about potential problems and may be issued prior to the deactivation of a line.

*device\_address* is the hexadecimal address of the **WRITE**, **READ**, **DATA**, or **TRACE** subchannel that is displayed.

*resource\_name* is either:

- The name of a leased line defined for a type 5 physical unit.
- The name of an element in the active transport resource list, also called a TRLE name.

## **System action**

Processing continues.

## Operator response

- If *resource\_name* is a transport resource list element (TRLE) name, you might want to deactivate the resource that is using this TRLE, and then activate the resource again. If *resource\_name* is a line, you might want to take the line down and restart the line. If *resource\_name* is neither a TRLE name or a line, no action is necessary. Note that the efficiency of data transfer might be affected.
- If the inoperative subchannel path is critical to your network, save the system log for problem determination.
  - Message IOS000I or other related messages may be issued and can provide additional information.
  - If there are no available paths and the line is deactivated, VTAM issues additional error messages. Also check for messages on the console log of the VTAM on the other side of the multipath channel.
- Check for any FFST probe output. See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about FFST and for a description of FFST probes.
- Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on using EREP.
- If you use a network management application such as the NetView program, check to see whether an alert was recorded for this problem.

## System programmer response

If the output does not indicate a hardware problem, and you cannot determine the cause of the problem, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

2

## Descriptor code

4

---

IST1223I	BN NATIVE TIME LEFT LOCATE SIZE
----------	---------------------------------

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command. See [IST1295I](#) for a complete description of possible message groups.

## Routing code

2

## Descriptor code

5

---

IST1224I	<i>bn native time_left locate_size</i>
----------	--

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command. See [IST1295I](#) for a complete description of possible message groups.

### Routing code

2

### Descriptor code

5

---

**IST1225I** **VIRTUAL NODE *nodename* CONNECTION INACTIVE**

### Explanation

VTAM issues this message in response to a VARY INACT for a line when the logical connection with the virtual node becomes inactive.

*nodename* is the name of the virtual node.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

**IST1226I** **TOPOLOGY UPDATE FAILED, INSUFFICIENT STORAGE**

### Explanation

This message is part of a group messages that VTAM issues in response to a VARY ACT for a line when the activation of the logical connection to the virtual node fails. The failure occurred because the topology update for the active logical connection failed due to insufficient storage. The first message in the group is IST1166I or IST1167I. See the explanation of those messages for a complete description.

### Routing code

2

### Descriptor code

5

---

**IST1227I** *id value = description*

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY STATS command. See the explanation of IST1345I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST1228I*****command FOR resourcename FAILED, CODE = code***

---

## Explanation

VTAM issues this message in response to a MODIFY DIRECTRY,UPDATE command which attempted to change the owning CP or the network node server for *resourcename*. The name specified for either the CPNAME or NETSRVR operand is not consistent with the information found in the APPN directory.

*command* is always **F DIRECTRY** which refers to the MODIFY DIRECTRY,UPDATE command.

*resourcename* is the network-qualified name of the resource in the form *netid.name*. *resourcename* can be the same resource that you entered on the ID operand of the MODIFY DIRECTRY,UPDATE command or a resource that is subordinate to the resource named on the command.

The following list of values for *code* describes the failure:

### Code

#### Error

**1**

*resourcename* was identified in the APPN directory as a network node. Attempting to change the owning CP or network node server of a network node is not valid.

**2**

*resourcename* was identified in the APPN directory as an end node and the CPNAME operand was specified on the MODIFY DIRECTRY,UPDATE command. Attempting to change the owning CP of an end node is not valid.

**3**

*resourcename* was identified as a non-control point in the APPN directory and the CPNAME operand was not specified on the MODIFY DIRECTRY,UPDATE command. When *resourcename* is a non-control point, the CPNAME operand is required to identify the resource's owning control point (CP).

## System action

The hierarchy for *resourcename* is not updated. Other processing continues.

## Operator response

Use the DISPLAY ID command to obtain the current type of *resourcename*. Then, reenter the MODIFY DIRECTRY,UPDATE command with the proper operands specified. See the [z/OS Communications Server: SNA Operation](#) for more information on the MODIFY DIRECTRY command.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1229I****command FAILED, resource name IS NOT A {CP|EN|NN}**

---

## Explanation

VTAM issues this message in response to a MODIFY DIRECTORY,UPDATE command for **one** of the following reasons:

- The MODIFY DIRECTORY,UPDATE command included the operand CPNAME=*resource name* which attempted to specify *resource name* as a **CP** (control point). *resource name* is not identified as a **CP** in the APPN directory.
- The MODIFY DIRECTORY,UPDATE command included the operands CPNAME=*resource name* and NETSRVR=*name* which indicates that *resource name* is a **EN** (end node). *resource name* is not identified as a **EN** in the APPN directory.
- The MODIFY DIRECTORY,UPDATE command included the operand NETSRVR=*resource name* which attempted to specify *resource name* as a **NN** (network node). *resource name* is not identified as a **NN** in the APPN directory.

*command* is always **F DIRECTORY** which refers to the MODIFY DIRECTORY,UPDATE command.

*resource name* is the network-qualified name specified on either the CPNAME operand or the NETSRVR operand, in the form *netid.name*.

## System action

VTAM ignores the MODIFY DIRECTORY,UPDATE command. Other processing continues.

## Operator response

Verify that *resource name* is spelled correctly, and reenter the command.

Issue the DISPLAY ID command to verify the current type of *resource name*. If *resource name* is expected to be either a control point or a network node, save the system log for problem determination.

## System programmer response

You can change the type of *resource name* in the APPN directory with the following actions:

- Enter the MODIFY DIRECTORY,DELETE,ID=*resource name* command.
- Change the type of the *resource name* specified in the definition list and activate the list.
- Reenter the MODIFY DIRECTORY,UPDATE command with either the CPNAME or NETSRVR operand, depending upon the desired result.

## Routing code

2

## Descriptor code

5

---

**IST1230I****TIME = time DATE = date ID = id**

---

## Explanation

This message is the first in a group of messages that displays tuning statistics.

If message [IST1505I](#) appears in the display, see that message for a complete description of the message group for XCF connections.

If message **IST1613I** appears in the display, see that message for a complete description of the message group for TCP/IP resources.

If message **IST2366I** appears in the display, see that message for a complete description of the message group for RoCE resources.

If message **IST2488I** appears in the display, see that message for a complete description of the message group for Network Express resources.

A complete description of the message groups for other connections follows.

This message group displays tuning statistics for a multipath channel-to-channel adapter. Messages **IST924I** - **IST1570I** are repeated for each subchannel address.

```

IST1230I TIME      = time      DATE      = date      ID = id
IST1231I IPDU      = ipdu      OPDU      = opdu
IST1569I INLP      = inlp      ONLP      = onlp
IST1232I TSWEET    = tsweep    QSWEEP    = qsweep
IST924I -----
IST1233I DEV       = dev       DIR       = dir
IST1234I BSIZE     = bsize     MAXBYTES  = maxbytes
IST1235I SIO       = sio       SLOWDOWN  = slowdown
IST1236I BYTECNTO  = bytecnto  BYTECNT  = bytecnt
IST1570I NBYTECTO  = nbyTECTO  NBYTECT  = nbyTECT
IST314I  END

```

This message group displays tuning statistics for a queued direct I/O (QDIO) or a HiperSockets (IQDIO) adapter. Message subgroup **IST924I** - **IST1570I** is repeated for each subchannel address. Message subgroup **IST924I** - **IST1811I** is repeated for each direct I/O READ or WRITE queue.

The **IST924I** - **IST1811I** message subgroup for a direct I/O READ queue contains different messages than the message subgroup that is displayed for a direct I/O WRITE queue. In this example, each direct I/O queue subgroup contains an actual value in the *dir* field in message **IST1233I**, so each subgroup can be identified clearly.

```

IST1230I TIME      = time      DATE      = date      ID = id
IST1231I IPDU      = ipdu      OPDU      = opdu
IST1569I INLP      = inlp      ONLP      = onlp
IST1232I TSWEET    = tsweep    QSWEEP    = qsweep
IST924I -----
IST1233I DEV       = dev       DIR       = dir
IST1234I BSIZE     = bsize     MAXBYTES  = maxbytes
IST1235I SIO       = sio       SLOWDOWN  = slowdown
IST1236I BYTECNTO  = bytecnto  BYTECNT  = bytecnt
IST1570I NBYTECTO  = nbyTECTO  NBYTECT  = nbyTECT
IST924I -----
IST1233I DEV       = dev       DIR       = RD/x (queue_type)
[IST1719I PCIREALO  = pcirealo  PCIREAL   = pcireal]
[IST1720I PCIVIRTO  = pcivirto  PCIVIRT   = pcivirt]
[IST1750I PCITHRSO  = pcithrso  PCITHRSH  = pcithrsh]
[IST1751I PCIUNPRO  = pciunpro  PCIUNPRD  = pciunprd]
[IST2316I EARLYINO  = earlyino  EARLYINT  = earlyint]
[IST2317I ULPRETUO  = ulpretuo  ULPRETU   = ulpretu]
[IST1752I RPROCDEO  = rprocdeo  RPROCDEF  = rprocdef]
[IST1753I RREPLDEO  = rrepldeo  RREPLDEF  = rrepldef]
IST1754I NOREADSO  = noreadso  NOREADS   = noreads
IST1721I SBALCNTO  = sbalcnto  SBALCNT   = sbalcnt
IST1722I PACKCNTO  = packcnto  PACKCNT   = packcnt
IST2185I FRINVCTO  = frinvcto  FRINVCT   = frinvct
IST1236I BYTECNTO  = bytecnto  BYTECNT   = bytecnt
IST1810I PKTIQDO  = pktiqdo   PKTIQD   = pktiqd
IST1811I BYTIQDO  = bytiqdo   BYTIQD   = bytiqd
IST924I -----
IST1233I DEV       = dev       DIR       = WR/1
IST1755I SBALMAX   = sbalmax   SBALAVG   = sbalavg
IST1756I QDPHMAX   = qdpthmax  QDPHAVG  = qdpthavg
IST1723I SIGACNTO  = sigacnto  SIGACNT   = sigacnt
IST1721I SBALCNTO  = sbalcnto  SBALCNT   = sbalcnt
IST1722I PACKCNTO  = packcnto  PACKCNT   = packcnt
IST2242I SIGMCNTO  = sigmcnto  SIGMCNT   = sigmcnt
IST1236I BYTECNTO  = bytecnto  BYTECNT   = bytecnt
IST1810I PKTIQDO  = pktiqdo   PKTIQD   = pktiqd
IST1811I BYTIQDO  = bytiqdo   BYTIQD   = bytiqd
IST314I  END

```



Many of the messages in this group contain both a count and an overflow. Both the count and overflow are maintained in unsigned 32-bit variables (unless otherwise indicated). Since an unsigned 32-bit variable can only contain a value up to and including 4294967295 ('FFFFFFFF'X), the variable will wrap through 0 if an increment results in exceeding this value. When such a wrap occurs, the overflow is incremented by 1. Therefore, the total count is determined as follows:

$$\text{Total} = (\text{overflow} * 4294967296) + \text{count}$$

**Note:** in the context of the QDIO (Queued Direct IO) interface, a single DATAPATH subchannel address represents both read and write DMA (Direct Memory Access) based data transfer points. In addition, the write transfer point is comprised of multiple priority levels (sometimes referred to as queues). For QDIO DATAPATH subchannel addresses, this sequence of messages is repeated for each data transfer point or priority level.

### IST1230I

In the message text:

#### ***date and time***

The *date* and *time* values specify when the record was reported. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

#### ***id***

The name of the link for which tuning statistics are being recorded. The link name is from one of the following sources:

- The name specified on the LINE definition statement in the associated channel-attached major node.
- The name specified on the TRLE definition statement in the TRL definition deck.
- An internally generated TRLE name.

### IST1231I

In the message text:

#### ***ipdu***

The total number of inbound PDUs received.

#### ***opdu***

The total number of outbound PDUs transmitted.

### IST1232I

In the message text:

#### ***tsweep***

The number of sweeps initiated as a result of a timeout. A sweep is a special data block that is exchanged with the adjacent host to verify that data has not been lost. Only the host with the highest subarea number will initiate timer sweeps.

#### ***qsweep***

The number of sweeps initiated as a result of excessive receive queue depth.

- Receive queue depth represents the number of bytes of data waiting to be passed to the next layer.
- Excessive receive queue depth usually indicates a problem with reserialization of the data segment. Possible causes are a mismatch in the speed of the read subchannels or a lack of available I/O buffers.

### IST1233I

In the message text:

#### ***dev***

The hexadecimal subchannel address of the device for which tuning statistics are being recorded. It corresponds to one of the addresses coded on the READ, WRITE, or DATAPATH statement on the LINE or TRLE definition statement.

#### ***dir***

The direction of this resource. Possible values are:

- READ
- WRITE
- RD/x (*queue\_type*)
  - The *x* value is the QDIO read input queue number for this QDIO data device.
  - The *queue\_type* value is the queue type. The *queue\_type* value can be a maximum of 8 characters. Possible values include PRIMARY, BULKDATA, SYSDIST, EE, IPSEC, ZCX, or N/A. The N/A value indicates that the queue is initialized but is not currently in use by the TCP/IP stack.
- WR/x
  - The *x* value is the QDIO write priority level.

#### IST1234I

In the message text:

##### ***bsize***

The maximum buffer size supported by this device.

##### ***maxbytes***

The number of bytes used in the largest channel program. This field provides information about the utilization or packing of data into the transmit or receive buffer. As this number approaches *bsize*, this indicates that maximum instantaneous utilization of the device's buffer has occurred.

#### IST1235I

In the message text:

##### ***sio***

The number of start I/O operations counted for the subchannel. This number is reset each time VTAM reports tuning statistics and is expressed in decimal. The value of *sio* is never larger than 65535. If *sio* is 65535, its value is reset to 0 when the next start I/O operation takes place.

##### ***slowdown***

The number of times slowdown mode has been entered. If *slowdown* is incrementing, this indicates a lack of available I/O buffers.

- If **DIR = READ** in message IST1233I, *slowdown* is incremented every time the channel program cannot be reinitiated immediately because of a lack of I/O buffers to unpack the inbound data.
- If **DIR = WRITE** in message IST1233I, *slowdown* is **\*\*N/A\*\***.

#### IST1236I

In the message text:

##### ***bytecnto***

The PDU byte count overflow.

##### ***bytecnt***

The byte count. This value represents the accumulated number of bytes of PDUs transmitted on the **WRITE** subchannel or received on the **READ** subchannel.

#### IST1569I

In the message text:

##### ***inlp***

The total number of inbound NLPs received.

##### ***onlp***

The total number of outbound NLPs transmitted.

#### IST1570I

In the message text:

##### ***nbytecto***

The NLP byte count overflow.

***nbytect***

The NLP byte count. This value represents the accumulated number of bytes of NLPs transmitted on the **WRITE** subchannel or received on the **READ** subchannel.

**IST1719I**

In the message text:

***pcirealo***

The real PCI (Program Controlled Interrupt) overflow.

***pcireal***

The real PCI count. This value represents the accumulated number of real PCI interrupts fielded by the QDIO Program-Controlled Interrupt Exit for the QDIO **READ** data transfer point.

A real PCI is an execution of the QDIO Program-Controlled Interrupt Exit as a result of a call from the system interrupt handler. The higher the ratio of real PCI to virtual PCI, the less successful QDIO is at avoiding the overhead of the system interrupt handler.

**IST1720I**

In the message text:

***pcivirto***

The virtual PCI overflow.

***pcivirt***

The virtual PCI count. This value represents the accumulated number of virtual PCI interrupts fielded by the QDIO Program-Controlled Interrupt Exit for the QDIO **READ** data transfer point.

A virtual PCI is an execution of the QDIO Program-Controlled Interrupt Exit as a result of a call from the QDIO device driver. The higher the ratio of virtual PCI to real PCI, the more successful QDIO is at avoiding the overhead of the system interrupt handler.

**IST1721I**

In the message text:

***sbalcnto***

The storage block address list (SBAL) count overflow.

***sbalcnt***

The SBAL count. This value represents the accumulated number of SBALs used for I/O on the QDIO **WRITE** priority level or the QDIO **READ** data transfer point.

An SBAL serves a similar function in QDIO that an indirect-data-address word (IDAW) list serves in traditional I/O.

**IST1722I**

In the message text:

***packcnto***

The packet count overflow.

***packcnt***

The packet count. This value represents the accumulated number of packets transmitted on the QDIO **WRITE** priority level or received on the QDIO **READ** data transfer point.

A packet is a single unit of data as presented to the QDIO device driver (for example, a datagram or TCP packet).

**IST1723I**

In the message text:

***sigacnto***

The SIGA (Signal Adapter) count overflow.

***sigacnt***

The SIGA count. This value represents the accumulated number of SIGA instructions issued for the QDIO **WRITE** priority level.

SIGA tells the QDIO adapter that data is ready to be written. This count will not directly correlate with the data rate as QDIO employs a tack-in mechanism similar to Seldom Ending Channel Program.

**IST1750I**

In the message text:

***pcithrso***

The threshold PCI overflow.

***pcithrsh***

The threshold PCI count. This value represents the accumulated number of threshold PCI interrupts fielded by the QDIO Program-Controlled Interrupt Exit for the QDIO **READ** data transfer point.

A threshold PCI is a real PCI generated by the adapter because one of the threshold conditions which controls the PCI processing was met.

A count of zero indicates that the QDIO device driver is providing sufficient resources to keep pace with the inbound data stream from the adapter.

**IST1751I**

In the message text:

***pciunpro***

The unproductive PCI overflow.

***pciunprd***

The unproductive PCI count. This value represents the accumulated number of unproductive PCI interrupts fielded by the QDIO Program-Controlled Interrupt Exit for the QDIO **READ** data transfer point.

A threshold PCI is a real PCI generated by the adapter because one of the threshold conditions which controls the PCI processing was met.

A count of zero indicates that the QDIO device driver is providing sufficient resources to keep pace with the inbound data stream from the adapter.

An unproductive PCI is a real PCI where the QDIO Program-Controlled Interrupt Exit failed to find any completed reads. An unproductive PCI will occur when a virtual PCI causes the processing of read completions for which a real PCI is pending. An unproductive PCI indicates that the system interrupt handler overhead was incurred unnecessarily.

**IST1752I**

In the message text:

***rprocdeo***

The read processing deferral overflow.

***rprocdef***

The read processing deferral count. This value represents the accumulated number of read processing deferrals by the QDIO Program-Controlled Interrupt Exit for the QDIO **READ** data transfer point.

A read processing deferral occurs when the QDIO Program-Controlled Interrupt Exit must defer a read completion because a control block cannot be obtained to represent the inbound data. Read processing deferrals (along with read replenishment deferrals) might cause the NOREADS count to be nonzero.

**IST1753I**

In the message text:

***rrepldeo***

The read replenishment deferral overflow.

***rrepldef***

The read replenishment deferral count. This value represents the accumulated number of read replenishment deferrals by the QDIO Program-Controlled Interrupt Exit for the QDIO **READ** data transfer point.

A read replenishment deferral occurs when the QDIO Program-Controlled Interrupt Exit does not have enough available read buffers to tack-in a new read. Read replenishment deferrals (along with read processing deferrals) might cause the NOREADS count to be nonzero.

**IST1754I**

In the message text:

***noreadso***

The reads exhausted overflow.

***noreads***

The reads exhausted count. This value represents the accumulated number of times reads were exhausted on entry to the QDIO Program-Controlled Interrupt Exit for the QDIO **READ** data transfer point.

This value is incremented by 1 each time the QDIO Program-Controlled Interrupt Exit is invoked and it detects that all the read buffers are full (the adapter has no place to move additional inbound data). A zero total is preferred because lack of read buffers might result in the adapter discarding inbound data. Examination of the read processing and read replenishment deferral counts might indicate the reason the QDIO device driver is not providing sufficient resources to accept the inbound data from the adapter.

**IST1755I**

In the message text:

***sbalmax***

The maximum number of active SBALs at the completion of the write initiation process for the QDIO **WRITE** priority level. This value will be in the range 0-128 (0 meaning the priority level had no outbound activity in the interval and 128 meaning that at one point in the interval ALL the SBALs for the priority level were active).

***sbalavg***

The average number of active SBALs at the completion of the write initiation process for the QDIO **WRITE** priority level. This value will be in the range 0-128 (0 meaning the priority level had no outbound activity in the interval and 128 meaning that every time the QDIO write initiator completed, all 128 SBALs were active).

**IST1756I**

In the message text:

***qdpthmax***

The maximum number of work elements left on the outbound work queue at the completion of the write initiation process for the QDIO **WRITE** priority level. This value will be a number in the range 0-54 or a character constant **>254**.

***qdpthavg***

The average number of work elements left on the outbound work queue at the completion of the write initiation process of the QDIO **WRITE** priority level. This value will be a number in the range 0-254 or a character constant **>254**.

A nonzero value for either of these fields suggests the adapter is not accepting outbound data as fast as the device driver is presenting it.

**IST1810I**

In the message text:

***pktiqdo***

The IQDIO packet count overflow.

***pktiqd***

The IQDIO packet count. If this message is for a QDIO or IQDIO DATAPATH device with a direction of read, the value represents the accumulated number of packets received on this particular QDIO or IQDIO

READ data transfer point and subsequently routed outbound using IQDIO routing or QDIO Accelerator. If this message is for a QDIO or IQDIO DATAPATH device with a direction of WR, the value represents the accumulated number of packets transmitted on the write priority level for this device after being received inbound and subsequently routed outbound using IQDIO routing or QDIO Accelerator.

A packet is a single unit of data as presented to the QDIO device driver (for example, a datagram or TCP packet).

#### **IST1811I**

In the message text:

##### ***bytiqdo***

The IQDIO byte count overflow.

##### ***bytiqd***

The IQDIO byte count. If this message is for a QDIO or IQDIO DATAPATH device with a direction of read, the value represents the accumulated number of bytes received on this particular QDIO or IQDIO READ data transfer point and subsequently routed outbound using IQDIO routing or QDIO Accelerator. If this message is for a QDIO or IQDIO DATAPATH device with a direction of WR, the value represents the accumulated number of bytes transmitted on the write priority level for this device after being received inbound and subsequently routed outbound using IQDIO routing or QDIO Accelerator.

#### **IST2185I**

In the message text:

##### ***frinvcto***

The frame invalidation error count overflow.

##### ***frinvct***

The frame invalidation error count. This message applies to inbound data received on a QDIO DATAPATH device. The value represents the accumulated number of frame invalidation packets that were received and discarded. A frame invalidation packet is an inbound packet marked as invalid by OSA-Express3 or later.

**Rule:** These fields are 0 for OSA-Express, OSA-Express2 or later, and iQDIO ports.

For detailed instructions about setting up an OSA-Express feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

#### **IST2242I**

In the message text:

##### ***sigmcnto***

The iQDIO (HiperSockets) multiple write SIGA count overflow.

##### ***sigmcnt***

The iQDIO (HiperSockets) multiple write SIGA count. This value is the accumulated number of signal adapter (SIGA) multiple write instructions issued for the IQDIO WRITE priority level.

SIGA multiple write tells the IQDIO device that multiple storage block address lists (SBALs) with data are ready to be written. This count does not directly correlate with the data rate because the number of SBALs represented by each SIGA multiple write might vary.

#### **IST2316I**

In the message text:

##### ***earlyino***

The early interrupt count overflow.

##### ***earlyint***

The early interrupt count. This message applies to inbound data that is received on a QDIO DATAPATH device. The value represents the number of times that an OSA-Express feature that is operating in optimized latency mode signaled the host with an interrupt that indicates that no data was currently available to process, but that data that is destined to this host was received.

**Rule:** These fields are both 0 for any QDIO DATAPATH device that is not operating in optimized latency mode.

## IST2317I

In the message text:

### *ulpretuo*

The Upper-Layer Protocol (ULP) return with no data available count overflow.

### *ulpretu*

The ULP return with no data available count. This message applies to inbound data received on a QDIO DATAPATH device. The value represents the number of times that VTAM presented data to the ULP from an OSA-Express feature that is operating in optimized latency mode, and when VTAM received the ULP return, it found that there was no more data to process.

**Rule:** These fields are both 0 for any QDIO DATAPATH device that is not operating in optimized latency mode.

## System action

Processing continues.

## Operator response

To discontinue statistics recording, enter the MODIFY NOTNSTAT command.

## System programmer response

For additional information on tuning and analyzing tuning statistics, see the [z/OS Communications Server: SNA Network Implementation Guide](#).

## Routing code

2

## Descriptor code

4

## Example

This message group displays tuning statistics for a Multi Path Channel Adapter with the following TRLE definitions:

```
TRLE1C    TRLE    LNCTL=MPC,
              READ=(0408,02F0),
              WRITE=(0508,03F0)

IST1230I  TIME      = 07570625    DATE      = 08102      ID   = TRLE1C
IST1231I  IPDU      =      53987    OPDU      =      52031
IST1569I  INLP      =              0    ONLP      =              0
IST1232I  TSWEPT    =              0    QSWEPT    =              0
IST924I  -----
IST1233I  DEV        = 0508          DIR        = WRITE
IST1234I  BSIZE      =              4095    MAXBYTES =      3930
IST1235I  SIO        =              8203    SLOWDOWN = *****
IST1236I  BYTECNT0   =              0    BYTECNT   = 157031499
IST1570I  NBYTECTO   =              0    NBYTECT   =              0
IST924I  -----
IST1233I  DEV        = 03F0          DIR        = WRITE
IST1234I  BSIZE      =              4095    MAXBYTES =      3930
IST1235I  SIO        =              21988    SLOWDOWN = *****
IST1236I  BYTECNT0   =              0    BYTECNT   = 77055685
IST1570I  NBYTECTO   =              0    NBYTECT   =              0
IST924I  -----
IST1233I  DEV        = 0408          DIR        = READ
IST1234I  BSIZE      =              4095    MAXBYTES =      341
IST1235I  SIO        =              53032    SLOWDOWN =              0
IST1236I  BYTECNT0   =              0    BYTECNT   = 8199621
IST1570I  NBYTECTO   =              0    NBYTECT   =              0
IST924I  -----
```

```

IST1233I DEV      = 02F0      DIR      = READ
IST1234I BSIZE    =          4095 MAXBYTES =      301
IST1235I SIO      =          35 SLOWDOWN =          0
IST1236I BYTECNT0 =          0 BYTECNT =      7719
IST1570I NBYTECT0 =          0 NBYTECT  =          0
IST314I  END

```

This message group displays tuning statistics for a QDIO or an iQDIO Adapter with the following TRLE definitions:

```

NSQDIO11 TRLE LNCTL=MPC,
               MPCLEVEL=QDIO,
               READ=(0E28),
               WRITE=(0E29),
               DATAPATH=(0E2A,0E2B),
               PORTNAME=(NSQDIO1,0)

IST1230I TIME      = 18051835  DATE      = 09182      ID   = QDIO101
IST1231I IPDU      =          0 OPDU      =          0
IST1569I INLP      =          0 ONLP      =          0
IST1232I TSWEPT    =          0 QSWEPT    =          0
IST924I -----
IST1233I DEV       = 0E29      DIR       = WRITE
IST1234I BSIZE     =          4096 MAXBYTES =          0
IST1235I SIO       =          0 SLOWDOWN = *****NA*****
IST1236I BYTECNT0  =          0 BYTECNT  =          0
IST1570I NBYTECT0  =          0 NBYTECT   =          0
IST924I -----
IST1233I DEV       = 0E28      DIR       = READ
IST1234I BSIZE     =          4092 MAXBYTES =          0
IST1235I SIO       =          0 SLOWDOWN =          0
IST1236I BYTECNT0  =          0 BYTECNT  =          0
IST1570I NBYTECT0  =          0 NBYTECT   =          0
IST924I -----
IST1233I DEV       = 0E2A      DIR       = RD/1 (PRIMARY)
IST1719I PCIREALO  =          0 PCIREAL   =          12
IST1720I PCIVIRTO  =          0 PCIVIRT   =          0
IST1750I PCITHRSO  =          0 PCITHRSH  =          0
IST1751I PCIUNPRO  =          0 PCIUNPRD  =          0
IST2316I EARLYINO  =          0 EARLYINT  =          0
IST2317I ULPRETUO  =          0 ULPRETU   =          0
IST1752I RPROCDEO  =          0 RPROCDEF  =          0
IST1753I RREPLDEO  =          0 RREPLDEF  =          0
IST1754I NOREADSO  =          0 NOREADS   =          0
IST1721I SBALCNT0  =          0 SBALCNT   =          6
IST1722I PACKCNT0  =          0 PACKCNT   =          6
IST2185I FRINVCTO  =          0 FRINVCT   =          0
IST1236I BYTECNT0  =          0 BYTECNT   =          528
IST1810I PKTIQDO  =          0 PKTIQD    =          5
IST1811I BYTIQDO  =          0 BYTIQD    =          444
IST924I -----
IST1233I DEV       = 0E2A      DIR       = RD/2 (SYSDIST)
IST1754I NOREADSO  =          0 NOREADS   =          0
IST1721I SBALCNT0  =          0 SBALCNT   =          6
IST1722I PACKCNT0  =          0 PACKCNT   =          6
IST2185I FRINVCTO  =          0 FRINVCT   =          0
IST1236I BYTECNT0  =          0 BYTECNT   =          528
IST1810I PKTIQDO  =          0 PKTIQD    =          6
IST1811I BYTIQDO  =          0 BYTIQD    =          528
IST924I -----
IST1233I DEV       = 0E2A      DIR       = WR/1
IST1755I SBALMAX   =          0 SBALAVG   =          0
IST1756I QDPTHMAX  =          0 QDPTHAVG  =          0
IST1723I SIGACNT0  =          0 SIGACNT   =          0
IST1721I SBALCNT0  =          0 SBALCNT   =          0
IST1722I PACKCNT0  =          0 PACKCNT   =          0
IST2242I SIGMCNT0  =          0 SIGMCNT   =          0
IST1236I BYTECNT0  =          0 BYTECNT   =          0
IST1810I PKTIQDO  =          0 PKTIQD    =          0
IST1811I BYTIQDO  =          0 BYTIQD    =          0
IST924I -----
IST1233I DEV       = 0E2A      DIR       = WR/2
IST1755I SBALMAX   =          0 SBALAVG   =          0
IST1756I QDPTHMAX  =          0 QDPTHAVG  =          0
IST1723I SIGACNT0  =          0 SIGACNT   =          0
IST1721I SBALCNT0  =          0 SBALCNT   =          0
IST1722I PACKCNT0  =          0 PACKCNT   =          0
IST2242I SIGMCNT0  =          0 SIGMCNT   =          0
IST1236I BYTECNT0  =          0 BYTECNT   =          0
IST1810I PKTIQDO  =          0 PKTIQD    =          0

```



```

IST1811I BYTIQDO =          0 BYTIQD =          0
IST924I -----
IST1233I DEV      = 0E2A      DIR      = WR/3
IST1755I SBALMAX  =          0 SBALAVG =          0
IST1756I QDPHMAX  =          0 QDPHAVG =          0
IST1723I SIGACNT  =          0 SIGACNT =          0
IST1721I SBALCNT  =          0 SBALCNT =          0
IST1722I PACKCNT  =          0 PACKCNT =          0
IST2242I SIGMCNT  =          0 SIGMCNT =          0
IST1236I BYTECNT  =          0 BYTECNT =          0
IST1810I PKTIQDO  =          0 PKTIQD  =          0
IST1811I BYTIQDO  =          0 BYTIQD  =          0
IST924I -----
IST1233I DEV      = 0E2A      DIR      = WR/4
IST1755I SBALMAX  =          0 SBALAVG =          0
IST1756I QDPHMAX  =          0 QDPHAVG =          0
IST1723I SIGACNT  =          0 SIGACNT =          0
IST1721I SBALCNT  =          0 SBALCNT =          0
IST1722I PACKCNT  =          0 PACKCNT =          0
IST2242I SIGMCNT  =          0 SIGMCNT =          0
IST1236I BYTECNT  =          0 BYTECNT =          0
IST1810I PKTIQDO  =          0 PKTIQD  =          0
IST1811I BYTIQDO  =          0 BYTIQD  =          0

```

---

**IST1231I** **IPDU = *ipdu* OPDU = *opdu***

### Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

### Routing code

2

### Descriptor code

4

---

**IST1232I** **TSWEEP = *tsweep* QSWEEP = *qsweep***

### Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

### Routing code

2

### Descriptor code

4

---

**IST1233I** **DEV = *dev* DIR = *dir***

### Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

## Routing code

2

## Descriptor code

4

---

**IST1234I** **BSIZE = *bsize* MAXBYTES = *maxbytes***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

## Routing code

2

## Descriptor code

4

---

**IST1235I** **SIO = *sio* SLOWDOWN = *slowdown***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

## Routing code

2

## Descriptor code

4

---

**IST1236I** **BYTECNT0 = *bytecnt0* BYTECNT = *bytecnt* [DIR = *direction*]**

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources or for Network Express resources. The first message in the group is IST1230I.

See the message:

- [“IST1230I” on page 691](#) for a complete description of the MPC resources message group.
- [“IST2488I” on page 1575](#) for a complete description of the Network Express resources message group.

## Routing code

2

## Descriptor code

5

---

**IST1237I** ***state* = *number* [ *state* = *number* ]**

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY SESSIONS,LIST=SUMMARY command. The first message in the group is IST873I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1238I** **DSPNAME CURRENT MAXIMUM QUEUED**

---

## Explanation

VTAM issues this message as part of a subgroup of messages in response to a DISPLAY STORUSE,DSPNAME=*dspname* command requesting information for a specific network management application.

A complete description of the message group follows.

```
IST350I  DISPLAY TYPE = STORAGE USAGE
IST1238I  DSPNAME  CURRENT    MAXIMUM    QUEUED
IST1239I  dspname  current    maximum    queued
IST314I  END
```

**Note:** If DISPLAY STORUSE,DSPNAME=\* is entered, VTAM displays storage usage for all network management applications and all other data spaces.

### IST350I

This message identifies the type of information in the display and is always **STORAGE USAGE** for this message group.

### IST1238I

This message is a header message for the information displayed in message IST1239I.

### IST1239I

- *dspname* is the name of a data space created by VTAM and is the network management data space specified on the DISPLAY STORUSE command. The data space name is generated automatically when the data space is created by VTAM and is in one of the following formats:

- **ISTcccc**  
    *cccc* is **0–FFFFC**
- ccccIST**  
    *cccc* is **1–99999**

*current* is the current storage usage, and is expressed in kilobytes.  
*maximum* is the maximum storage usage since the data space was created, and is expressed in kilobytes.  
*queued* is the current storage usage of requests queued for processing, and is expressed in kilobytes.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1239I** *dspname current maximum queued*

---

## Explanation

VTAM issues this message as part of a message subgroup. The first message in the subgroup is IST1238I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1240I** **DSPNAME CURRENT MAXIMUM JOBNAME APPL COUNT**

---

## Explanation

VTAM issues this message as part of a subgroup of messages in response to a DISPLAY STORUSE command. A complete description of the message group follows.

This message group is issued for the following commands:

**DISPLAY STORUSE,DSPNAME=*dspname***

Displays storage usage for a specific data space.

**DISPLAY STORUSE,JOBNAME=*jobname***

Displays storage usage for a specific VTAM application job.

**DISPLAY STORUSE,APPL=*applname***

Displays storage usage for a specific application.

**DISPLAY STORUSE,APPL=\***

Displays storage usage for all applications.

```
IST350I DISPLAY TYPE = STORAGE USAGE
IST1240I DSPNAME  CURRENT  MAXIMUM  JOBNAME  APPL    COUNT
IST1241I dspname  current   maximum   jobname  applname applcount
:
[IST1315I DISPLAY TRUNCATED AT keyword = number]
IST1454I count type DISPLAYED
IST314I  END
```

**DISPLAY STORUSE,DSPNAME=\***

Displays storage usage for all data spaces.

**DISPLAY STORUSE,JOBNAME=\***

Displays storage usage for all VTAM application jobs.

**IST350I**

This message identifies the type of information in the display and is always **STORAGE USAGE** for this message group.

#### **IST1240I**

This message is a header message for the information displayed in message IST1241I.

#### **IST1241I**

*dspname* is the name of a data space created by VTAM. The data space name is generated automatically when the data space is created by VTAM and is in one of the following formats:

##### **ISTcccc**

*cccc* is **0–FFFFC**

##### **ccccIST**

*cccc* is **1–99999**

*current* is the current storage usage, and is expressed in kilobytes.

*maximum* is the maximum storage usage since the data space was created, and is expressed in kilobytes.

*jobname* is the name of one of the VTAM application jobs that can store information in the data space *dspname*.

*applname* is the name of one of the VTAM applications that can store information in the data space *dspname*.

*applcount* is the number of active VTAM applications that can store information in the data space *dspname*.

#### **IST1315I**

VTAM issues this message when the number of resources to be displayed exceeds the value specified for the MAX or NUM operand.

*keyword* is either **MAX** or **NUM**.

*number* is the value specified for either the MAX or NUM operand.

#### **IST1454I**

This message gives the number of resources displayed.

*count* is the number of resources displayed.

*type* is the type of resource for which storage information is displayed.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

### **Routing code**

2

### **Descriptor code**

5

---

#### **IST1241I**

*dspname current maximum jobname applname applcount*

## Explanation

VTAM issues this message as part of a message subgroup. The first message in the subgroup is IST1240I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1242I** **POOL CURRENT MAXIMUM [POOL CURRENT MAXIMUM]**

---

## Explanation

This message is the first message in a group of messages that VTAM issues in response to a DISPLAY STORUSE command.

Examples of possible message groups follow.

- DISPLAY STORUSE,POOL=*poolname*

This message group displays information for a specific storage pool.

```
IST350I  DISPLAY TYPE = STORAGE USAGE
IST1242I  POOL          CURRENT  MAXIMUM
IST1243I  poolname current  maximum
[IST1315I  DISPLAY TRUNCATED AT keyword = number]
IST1454I  1 POOL(S) DISPLAYED
IST314I  END
```

- DISPLAY STORUSE,POOL=\* command.

This message group displays storage usage for all storage pools, including summary information for storage pools and modules.

```
IST350I  DISPLAY TYPE = STORAGE USAGE
IST1242I  POOL          CURRENT  MAXIMUM  [POOL          CURRENT  MAXIMUM]
IST1243I  poolname current  maximum  [poolname current  maximum]
[IST1315I  DISPLAY TRUNCATED AT keyword = number]
IST1454I  1 POOL(S) DISPLAYED
IST924I  -----
IST1244I  TOTAL      storage_type  POOL STORAGE USAGE:  current maximum
IST1244I  TOTAL      storage_type  POOL STORAGE USAGE:  current maximum
IST1244I  TOTAL      storage_type  POOL STORAGE USAGE:  current maximum
IST924I  -----
[IST981I  VTAM PRIVATE: CURRENT = currentK, MAXIMUM USED = maximumK]
IST924I  -----
IST1565I  type      MODULES = currentK
IST1565I  type      MODULES = currentK
IST1565I  type      MODULES = currentK
IST314I  END
```

### IST350I

This message identifies the type of information in the display and is always **STORAGE USAGE** for this message group.

### IST981I

*currentK* is the amount of VTAM private storage currently in use. This does not include the amount of private storage required to load the VTAM modules.

*maximumK* is the maximum amount of VTAM private storage ever in use since VTAM was started.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information about storage pools.

If this message does not appear in the display, you may need to reissue the DISPLAY STORUSE command, specifying a higher value for the MAX operand. See the [z/OS Communications Server: SNA Operation](#) for additional information.

#### IST1242I

This message is a header message for the information displayed in message IST1243I.

#### IST1243I

*poolname* is the name of the storage pool specified on the DISPLAY STORUSE command.

*current* is the total current storage usage, in kilobytes, for storage pools<sup>1</sup>.

*maximum* is the total maximum storage usage, in kilobytes, for storage pools since VTAM was initialized<sup>1</sup>.

#### IST1244I

*storage\_type* is either **PRIVATE** (private storage), **COMMON** (common storage), or **HVCOMM** (High Virtual Common).

*current* is the total current storage usage for storage pools and is expressed in kilobytes<sup>1</sup>.

*maximum* is the total maximum storage usage since VTAM was initialized, and is expressed in kilobytes<sup>1</sup>.

#### IST1315I

VTAM issues this message when the number of pools to be displayed exceeds the value specified for the MAX or NUM operand.

*keyword* is either **MAX** or **NUM**.

*number* is the value specified for either the MAX or NUM operand.

#### IST1454I

This message shows the total number of storage pools for which storage usage information is displayed.

#### IST1565I

- *type* can be one of the following:

##### **CSA**

31-bit and 24-bit addressable common storage acquired for VTAM modules

##### **CSA24**

24-bit addressable common storage acquired for VTAM modules

##### **PRIVATE**

Private storage used to load VTAM modules

- *currentK* is the current VTAM CSA allocation for modules.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

---

<sup>1</sup> High virtual common storage *current* and *maximum* values might exceed 9999999 kilobytes (approximately 10 gigabytes). If they do, 9999999 is displayed.

## Descriptor code

5

---

<b>IST1243I</b>	<i>poolname current maximum [poolname current maximum]</i>
-----------------	--

---

## Explanation

VTAM issues this message as part of a message subgroup. The first message in the subgroup is IST1242I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1244I</b>	<b>TOTAL <i>storage_type</i> POOL STORAGE USAGE: <i>current maximum</i></b>
-----------------	---

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY STORUSE,POOL=\* command requesting storage usage for all private, common, and high virtual common storage pools. See IST1242I for a complete description of this message group.

*storage\_type* is either **PRIVATE** (private storage), **COMMON** (common storage), or **HVCOMM** (High Virtual Common).

*current* is the total current storage usage, and is expressed in kilobytes<sup>1</sup>.

*maximum* is the total maximum storage usage since VTAM was initialized, and is expressed in kilobytes<sup>2</sup>.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1245I</b>	<b>NO NETWORK NODE SERVER IS AVAILABLE FOR CP-CP SESSIONS</b>
-----------------	---

---

---

<sup>2</sup> High virtual common storage *current* and *maximum* values might exceed 9999999 kilobytes (approximately 10 gigabytes). If they do, 9999999 is displayed.



## Explanation

VTAM issues this message when an active CP-CP session with a network node was lost, and VTAM could not find another suitable network node server. In this situation, the original CP-CP session could have been activated by an operator command.

This message is also issued when no CP-CP session with a network node exists, and VTAM could not find a suitable network node server when one of the following events occurred:

- Activation of a new network node server list
- Operator modification of the NNSPREF start option to specify a new preferred network node server
- Completion of VTAM initialization when the NNSPREF start option has been specified with the name of a network node

**Note:** If this message appears when VTAM is initializing, it might indicate a temporary condition that will be resolved when the pending link activations initiated by the VTAM configuration list are completed.

## System action

Processing continues.

## Operator response

Enter the VARY ACT,ID=*adjcpname* command and specify the desired server. VTAM will attempt to establish a CP-CP session with *adjcpname* even if *adjcpname* is not allowed by the current network node server list.

## System programmer response

You should modify the network node server list to define additional network nodes as acceptable servers. Either add new NETSRVR definition statements for individual network nodes or add a nameless NETSRVR definition statement that allows any known network node to act as the network node server.

After the list has been modified, issue a VARY ACT,ID=*member\_name* command where *member\_name* is the member in the definition library that contains the edited network node server list.

If the network node server list is left unchanged, VTAM may not be able to acquire a new server if the current server fails.

## Routing code

2

## Descriptor code

5

---

IST1246I	ADJACENT CP NOT DEFINED IN CURRENT NETWORK NODE SERVER LIST
----------	---

## Explanation

VTAM issues this message as part of a group of messages when this end node is unable to establish a session with a network node. The first message in the group is IST1110I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1247I****ALL ATTEMPTS TO ESTABLISH A SESSION WERE UNSUCCESSFUL**

---

## Explanation

VTAM issues this message as part of a group of messages when this end node is unable to establish a session with a network node. The first message in the group is IST1110I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1248I****DEACTIVATE LOCAL LINK BEFORE DELETING**

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST1158I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1249I****SYNTAX ERROR AT RECORD *record\_number* IN MEMBER *member***

---

## Explanation

This message is the first in a group of messages that VTAM issues when a syntax error is detected in a statement in the definition library. A complete description of the message group follows.

```
IST1249I SYNTAX ERROR AT RECORD record_number IN MEMBER member  
IST258I  STMT IN ERROR = text  
IST314I  END
```

*record\_number* is the number of logical records of *member* that had been processed when the error was detected. This number is equivalent to the line or record number seen for that record when *member* is viewed in an editor.

*member* is the member of the definition library containing the statement that is in error.

*text* is the text of the statement containing the syntax error. The error could be any assembler coding error, such as a non-blank character in column 72 followed by a blank in column 16 of the continuation line. A common error is a comma missing before a continuation symbol in column 72.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Correct the statement in error. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on correct syntax for definition statements.

## Routing code

2

## Descriptor code

5

---

**IST1250I** **NAME LEVEL MODULE STATUS**

---

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY EXIT,ID=*exitname* or DISPLAY EXIT,ID=\* command. A complete description of the message group follows.

```
IST350I  DISPLAY TYPE = EXIT
IST1250I NAME      LEVEL      MODULE      STATUS
IST1251I exitname exitlevel module      status
:
[IST1315I DISPLAY TRUNCATED AT MAX = number]
[IST199I  OPTIONS = {NONE|optionlist}]
:
IST1454I count EXIT(S) DISPLAYED
IST314I  END
```

**Note:** If the command specifies ID=\*, IST1251I is repeated to display the status of all exits. If the command specifies ID=ISTEXCAA, and the exit is active, IST199I is repeated to display all functions supported by this exit.

### IST199I

- *optionlist* can include the following options:

- ACCTING**  
Initial and final accounting
- ADJ\_DSRL**  
Adjacent SSCP selection for DSRLST processing
- ADJSSCP**  
Adjacent SSCP selection
- ALIAS**  
Alias translation
- ALL**  
All functions of the exit are traced
- ALS**  
Adjacent link station selection
- ALS\_CDRS**  
Adjacent link station selection for CDRSCs
- ALS\_DSRL**  
Adjacent link station selection for DSRLST processing
- BEGIN**  
Begin function

**END**

End function

**GWPATH**

Gateway path selection

**INITA\_IO**

Initial authorization for INIT OTHER CD

**INITAUTH**

Initial authorization

**REPL**

Exit replacement and replaced function

**SECAUTH**

Secondary authorization

**VRSEL**

Virtual route selection

**XRF**

XRF session switch

**IST350I**

This message identifies the type of information shown in the display. For this message group, the display type is always **EXIT**.

**IST1250I and IST1251I subgroup**

- *exitname* is the name of a user-written exit routine.
- *exitlevel* is the internal exit version identifier. See [z/OS Communications Server: SNA Customization for the explanation of \*exitlevel\* for \*exitname\*](#). If *exitlevel* is not coded, **\*\*\*NA\*\*\*** is displayed.
- *module* is the module name of a user-written exit routine.
- *status* is the state of *exitname* when the DISPLAY EXIT command was issued, and can be one of the following:

**ACTIVE**

The exit is operational.

**INACTIVE**

The exit is not available for use.

**PENDING ACTIVE**

The exit is in the process of being activated.

**PENDING ACTIVE REPLACE**

The exit is in the activation phase of a MODIFY EXIT,ID=*exitname*,OPT=REPL command.

**PENDING INACTIVE**

The exit is in the process of being deactivated and is available only for termination activity.

**PENDING INACTIVE REPLACE**

The exit is in the deactivation phase of a MODIFY EXIT,ID=*exitname*,OPT=REPL command.

**IST1315I**

VTAM issues this message when the number of exits to be displayed exceeds the value specified on the MAX operand.

*number* is the value specified for the MAX operand.

**IST1454I**

*count* is the number of exits displayed.

**System action**

Processing continues.

## Operator response

### ACTIVE

None.

### INACTIVE

This value of *status* is displayed in two situations:

- The exit is installed but is not available for use.

Use the MODIFY EXIT command to activate *exitname*. See the [z/OS Communications Server: SNA Operation](#) for information on the MODIFY EXIT command.

- The exit is not installed.

Save the system log for problem determination.

### PENDING ACTIVE, PENDING ACTIVE REPLACE, PENDING INACTIVE, and PENDING INACTIVE REPLACE

If *exitname* remains in a pending state, there may be a problem. Save the system log for problem determination.

## System programmer response

If the exit is necessary for your operation, you may have to halt VTAM and fix the problem with the user-written exit before continuing. See [z/OS Communications Server: SNA Customization](#) for additional information.

## Routing code

2

## Descriptor code

5

---

**IST1251I** *exitname exitlevel module status*

## Explanation

VTAM issues this message as part of a message subgroup. The first message in the subgroup is IST1250I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1252I** **DEFINED NETWORK NODE SERVER LIST, NAME = *nnslist***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY NETSRVR command. A complete description of the message group follows.

```
IST350I  DISPLAY TYPE = NETWORK NODE SERVER LIST
IST1252I  DEFINED NETWORK NODE SERVER LIST, NAME = nnslist
IST1253I  nodename [sluinit] [enbcast]
:
IST924I  -----
[IST1254I  SERVER LIST PROCESSED ORDER = {FIRST|NEXT}
IST924I  -----]
[IST1255I  OTHER NETWORK NODES ALLOWED AS SERVERS
IST1253I  nodename [sluinit] [enbcast]]
```

```

:
IST924I -----
IST1256I CURRENT NETWORK NODE SERVER
IST1253I nodename [sluinit] [enbcast]
[IST924I -----]
[IST1672I CURRENT NETWORK NODE SERVER NOT FOUND IN ACTIVE NETSRVR LIST]
IST1677I PREFERRED NETWORK NODE SERVER
IST1253I nodename [sluinit] [enbcast]
IST314I END

```

## IST350I

This message identifies the type of information in the display and is always **NETWORK NODE SERVER LIST** for this message group.

### IST1252I and IST1253I subgroup: List of Network Nodes Defined as Servers

- This message subgroup displays all network nodes that are explicitly defined in the network node server list *nnslist*.
- *nodename* can be one of the following:

The network-qualified name of an adjacent network node in the form *netid.name*.

**\*\*\*\*NAMELESS\*\*\*\*** is displayed if the network node server list contains a nameless entry.

**NONE** is displayed if no network nodes have been explicitly defined as potential servers, and the network node server list does not contain a nameless entry.

- *sluinit* is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either **SLUINIT=REQ** or **SLUINIT=OPT**.
- *enbcast* is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either **ENBCAST=NO** or **ENBCAST=YES**.

### IST1254I: Order for Processing the Network Node Server List

- This message is displayed when one or more network nodes have been explicitly defined to act as a server for this end node. It indicates the order in which the network node server list is processed.

**FIRST** indicates that the search for a server begins with the first network node specified on the list.

**NEXT** indicates that the search for a server begins with the network node on the list that follows the last entry that was successfully or unsuccessfully tried.

### IST1255I and IST1253I subgroup: List of Other Network Nodes Allowed as Servers

- This message subgroup is only displayed if SCOPE=ALL was specified on the command. It displays all the network nodes that can act as a network node server for this end node but are not explicitly defined in the network node server list.
- *nodename* is the network-qualified name of an adjacent network node in the form *netid.name*.
  - **NONE** is displayed in either of the following situations:
    - The network node server list does not contain a nameless entry.
    - The network node service list contains a nameless entry, but there are no other known adjacent network nodes that support CP-CP sessions.
  - *sluinit* is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either **SLUINIT=REQ** or **SLUINIT=OPT**.
  - *enbcast* is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either **ENBCAST=NO** or **ENBCAST=YES**.

### IST1256I and IST1253I subgroup: Network Node Currently Selected as Server

- This message subgroup displays the name of the network node currently selected as this end node's network node server. The name displayed here is the name of an adjacent network node that this end node has most recently determined to be a suitable network node server and with which this end node has either established CP-CP sessions or is in the process of establishing CP-CP sessions. At the time the DISPLAY NETSRVR command displays this name, CP-CP sessions with this network node might not yet be fully active.
- *nodename* is the network-qualified name of an adjacent network node in the form *netid.name*.

**NONE** is displayed if this end node could not find a suitable network node server or could not successfully establish CP-CP sessions with any of the network nodes it found suitable as network node servers.

- *sluinit* is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either **SLUINIT=REQ** or **SLUINIT=OPT**.
- *enbcast* is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either **ENBCAST=NO** or **ENBCAST=YES**.

#### **IST1672I**

- This message is displayed in response to a DISPLAY NETSRVR command. VTAM displays the message when the active network node server list does not contain either an explicit entry for the current network node server or a nameless entry.

#### **IST1677I and IST1253I subgroup: Network Node Specified as the Preferred Network Node Server**

- This message subgroup displays the name of the network node specified as the preferred network node server for this end node. The preferred network node server is specified by the NNSPREF start option.
- *nodename* is the network-qualified name of an adjacent network node in the form *netid.name*.
- **NONE** is displayed if this end node does not have a preferred network node server.
- *sluinit* is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either **SLUINIT=REQ** or **SLUINIT=OPT**.
- *enbcast* is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either **ENBCAST=NO** or **ENBCAST=YES**.

### **System action**

Processing continues.

### **Operator response**

If this message group displays the network node server list as expected, no response is necessary.

If the message group displays unexpected results, save the system log for problem determination.

#### **IST1256I and IST1253I subgroup:**

If *nodename* is not the desired server but the network node server list is correct, then deactivate the session to the current server and reactivate the list.

#### **IST1672I**

- If the current network node server is the one desired, activate a network node server list that includes the current network node server. If no network node server list member includes the current network node server, contact the system programmer to code the current network node server in a network node server list member. Then activate that list.

If the current network node server is not the one desired, deactivate the CP-CP session with the current network node server. The new network node server will be selected from the candidates specified in the active network node server list.

### **System programmer response**

If the message group displays unexpected results:

1. Correct the network node server list.
2. Ask the operator to reactivate the modified list by entering the VARY ACT,ID=*member\_name* command where *member\_name* is the name of the definition list member that contains the network node server list.

#### **IST1252I and IST1253I subgroup:**

- If a specific node is missing from the list, add a NETSRVR definition statement that explicitly adds that node to the group of network node server list definition statements.

**Note:** List all NETSRVR definition statements that explicitly name a network node **before** a NETSRVR definition statement that allows any network node to act as server.

#### IST1254I:

If **ORDER** does not display the desired value, then change the VBUILD,TYPE=NETSRVR definition statement to specify the correct order of server selection.

#### IST1255I and IST1253I subgroup:

- By default, when no network nodes are explicitly defined as servers, any network node can be used as long as SLUINIT=OPT is defined on the nameless entry.

Also, if a NETSRVR definition statement without a specific network node name is included at the end of the definition statements, then any network node is allowed to act as server as long as SLUINIT=OPT is defined on the nameless entry.

To use only explicitly defined network nodes as servers, build the network node server list with the VBUILD,TYPE=NETSRVR definition statement and explicitly name each network node on an individual NETSRVR definition statement.

#### IST1256I and IST1253I subgroup:

- If *nodename* is not the desired server and the network node server list is not correct, then modify the network node server list with the VBUILD,TYPE=NETSRVR definition statement and explicitly name each network node on an individual NETSRVR definition statement.

For information on building the network node server list, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

#### IST1672I

- If requested by the operator, code the name of the current network node server in a network node server list member.

#### IST1677I and IST1253I subgroup

- If *nodename* is not the network node you want as the preferred network node server for this end node, have the operator change the NNSPREF start option value to the network node that you want.

## Routing code

2

## Descriptor code

5

---

IST1253I	<i>nodename [sluinit] [enbcast]</i>
----------	-------------------------------------

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY NETSRVR command. The first message in the group is IST1252I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

IST1254I	SERVER LIST PROCESSED ORDER = {FIRST NEXT}
----------	--



Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY NETSRVR command. The first message in the group is IST1252I. See the explanation of that message for a complete description.

Routing code

2

Descriptor code

5

IST1255I OTHER NETWORK NODES ALLOWED AS SERVERS

Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY NETSRVR command. The first message in the group is IST1252I. See the explanation of that message for a complete description.

Routing code

2

Descriptor code

5

IST1256I CURRENT NETWORK NODE SERVER

Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY NETSRVR command. The first message in the group is IST1252I. See the explanation of that message for a complete description.

Routing code

2

Descriptor code

5

IST1257I SEQUENCE NOT VALID, STATEMENT IGNORED, SKIPPING TO EOF

Explanation

This message is the first in a group of messages that VTAM issues when the network node server list contains NETSRVR statements that are out of order. All NETSRVR statements that explicitly name a network node to act as server must **precede** a NETSRVR statement that does not explicitly name a network node.

A complete description of the message group follows the example.

```
IST1257I SEQUENCE NOT VALID, STATEMENT IGNORED, SKIPPING TO EOF
IST701I CONFIG configname LABEL = labelname
        STMT TYPE = statementname
IST314I END
```

IST701I

*configname* is the name assigned to the VBUILD statement.  
*labelname* is the name of the network node specified on the NETSRVR statement.

*statementname* is the NETSRVR statement.

## System action

Any NETSRVR statements following the NETSTVR statement that does not explicitly name a network node are ignored. Processing continues.

## Operator response

The system programmer should modify the network node server list. After the list has been modified, issue VARY ACT,ID=*member\_name*, where *member\_name* is the name of the definition list member that contains the edited network node server list.

## System programmer response

Correct the ordering of the NETSRVR definition statements that comprise the network node server list. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information on building the network node server list.

## Routing code

2

## Descriptor code

5

---

**IST1258I** *value IS NOT VALID FOR nodetype*

## Explanation

VTAM issues this message when the command or operand is not valid for the node.

*value* is one of the following:

- The name of the command that failed. For a description of *value*, see [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683.
- The name or value of the operand that caused the command to fail.

For more information on *value*, see [z/OS Communications Server: SNA Operation](#).

## System action

VTAM rejects the command.

## Operator response

Ensure that you entered the command correctly. If problems persist, save the system log for problem determination.

## System programmer response

If necessary, correct the NODETYPE start option for this end node or network node. Then, reactivate the system. For information on the NODETYPE start option, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST1259I****VBUILD TYPE = *type1* IS ONLY VALID FOR *type2***

---

## Explanation

VTAM issues this message in the following situations:

- If the *type1* value is NETSRVR, VTAM issues this message at this network node when an attempt is made to build a network node server list. Network nodes function as their own servers. In this case, the *type2* value is EN.
- If the *type1* value is ADJCLUST or BNCOSMAP, VTAM issues this message when a VBUILD statement is defined for a node that is not a border node. In this case, the *type2* value is BN.
- If the *type1* value is GRPREFS, VTAM issues this message when a VBUILD statement is defined for a node that is not in a sysplex. In this case, the *type2* value is SYSPLEX.

## System action

The VBUILD statement is ignored. Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

If the *type1* value is NETSRVR:

- To define this node as a network node, delete the network node server list definition from the network node system definitions.
- To define this node as an end node, correct the start options to define this node as an end node. See the [z/OS Communications Server: SNA Resource Definition Reference](#).

If the *type1* value is ADJCLUST:

- To define this node as a border node, modify the start options as needed.
- If you do not want to define this node as a border node, delete the appropriate ADJCLUST or COSMAP definition statements.

If the *type1* value is GRPREFS or BNCOSMAP:

- To define this node in a sysplex, modify MVS to be a sysplex host.
- If you do not want to define this node in a sysplex, delete the GRPFREFS definition statement.

## Routing code

2

## Descriptor code

5

---

**IST1260I*****type* TRUNCATED–INSUFFICIENT STORAGE**

---

## Explanation

This message is the first in a group of messages that VTAM issues when a lack of storage prevents VTAM from creating a complete internal representation of the specified resource type. It is also issued as a stand-alone

message when a lack of storage prevents VTAM from allocating a larger trace table for TRS topology or route traces.

The message is issued alone when one 40 KB buffer of storage for the TRStopology table or route trace table is full and an attempt is made to allocate an additional buffer of storage for TRS trace table entries.

A complete description of the message group follows the example.

```
IST1260I  type TRUNCATED-INSUFFICIENT STORAGE
IST701I   CONFIG configname LABEL = labelname STMT TYPE = statementname
IST314I   END
```

*type* indicates the specified resource and can be one of the following:

**NETWORK NODE SERVER LIST**  
**ADJACENT CLUSTER TABLE**  
**COSMAP TABLE**  
**TRS TOPOLOGY TRACE TABLE**  
**APPN ROUTE TRACE TABLE**

#### IST701I

This message identifies where in the resource the truncation occurred.

- If *type* is **NETWORK NODE SERVER LIST**:
  - *configname* is the name assigned to the VBUILD definition statement.
  - *labelname* is the name of the network node specified on the NETSRVR definition statement.
  - *statementname* is the NETSRVR definition statement.
- If *type* is **ADJACENT CLUSTER TABLE** or **COSMAP TABLE**:
  - *configname* is the name assigned to the VBUILD definition statement.
  - *labelname* is the name specified by NETID on the NETWORK definition statement.
  - *statementname* is the NETWORK definition statement.

The VTAM definition statements and tables are described in the [z/OS Communications Server: SNA Resource Definition Reference](#).

## System action

VTAM uses as many of the entries as it is able to process successfully and ignores the rest.

If *type* is **TRS TOPOLOGY TRACE TABLE** or **APPN ROUTE TRACE TABLE**, the table will be truncated at the end of the already allocated buffer of storage and additional entries in the table will wrap back to the beginning of the table. If storage is available the next time the end of the trace table is reached, another attempt will be made to allocate an additional buffer of storage for the table.

If *type* is **NETWORK NODE SERVER LIST**, an entry indicating that any known network node can act as the network node server is added at the end of the truncated list.

Processing continues.

## Operator response

Issue the DISPLAY BFRUSE command to display information about the common storage area (CSA). Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools.

If *type* is **ADJACENT CLUSTER TABLE** or **COSMAP TABLE**, enter a DISPLAY ADJCLUST command or a DISPLAY COSMAP command to determine which entries were recorded.

Save the system log and request a dump for problem determination.

## System programmer response

Increase storage as required.

If *type* is **NETWORK NODE SERVER LIST**, after the storage shortage problem is corrected:

- Ask the operator to enter the VARY ACT,ID=*member\_name* command where *member\_name* is the name of the definition list member that contains the network node server list.

See the [z/OS Communications Server: SNA Operation](#) for more information.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST1261I** **ABEND OCCURRED DURING LINK DEFINITION**

---

## Explanation

VTAM issues this message as part of a message group when an attempt to define the link to APPN Topology and Routing Services has failed. The first message in the group is IST1118I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

3

---

**IST1262I** **MODULE *modulename* LOAD FAILED – *reason***

---

## Explanation

VTAM issues this message in response to a MODIFY EXIT command when the module *modulename* fails to load. *modulename* is the name of the module that failed to load.

*reason* provides information about the cause of the load failure and can be one of the following:

### **DEFINED AS ALIAS IN CSLOD**

Either the alias module *modulename* could not be located in the vector list of its load module or the alias module was loaded before the vector list.

### **INSUFFICIENT STORAGE**

Not enough storage was available to process the load request.

### **I/O ERROR LOADING MODULE**

An I/O error occurred when loading *modulename*.

### **I/O TIMEOUT LOADING MODULE**

An attempt was made to load *modulename*, but a system or hardware problem has caused the module load facility to time out while waiting for I/O to complete.

### **LOADER INOPERATIVE**

This can occur for one of the following reasons:

- A previous module load never completed.

- The VTAM-directed load subtask, ISTINMLS, abnormally ended during a load request.
- The VTAM-directed load subtask, ISTINMLS, has not completed its initialization.

### LOCK PROTOCOL VIOLATION

A locking protocol violation occurred while VTAM was trying to satisfy the load request.

### MODULE NOT IN ISTCSLOD

*modulename* is not in ISTCSLOD.

### MODULE NOT FOUND

The resource identified by *modulename* does not exist.

## System action

- If *reason* is **LOADER INOPERATIVE**, all subsequent commands that require the loader will fail. If the I/O load operation eventually succeeds, load operations are again enabled.
- If *reason* is **MODULE NOT IN ISTCSLOD** or **DEFINED AS ALIAS IN CSLOD**, VTAM initialization or an activation request might fail.
- For all other *reasons*, the MODIFY EXIT command is ignored, and VTAM uses the old exit.

## Operator response

- If *reason* is **INSUFFICIENT STORAGE**, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination. When more storage is available, reenter the command.
- If *reason* is **MODULE NOT FOUND**, ensure that you entered the command correctly. See the [z/OS Communications Server: SNA Operation](#) for more information.
- For the following values of *reason*, save the system log for problem determination.
  - **DEFINED AS ALIAS IN CSLOD**
  - **I/O ERROR LOADING MODULE**
  - **I/O TIMEOUT LOADING MODULE**
  - **LOADER INOPERATIVE**
  - **LOCK PROTOCOL VIOLATION**
  - **MODULE NOT IN ISTCSLOD**

## System programmer response

- If *reason* is **INSUFFICIENT STORAGE**, use the [z/OS Communications Server: New Function Summary](#) to review VTAM storage requirements. See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

If the operation is critical, deactivate some major nodes in order to free up storage for the command, and then reenter the command.

- If *reason* is **I/O ERROR LOADING MODULE** or **I/O TIMEOUT LOADING MODULE**, examine your VTAMLST file to make sure the requirements for the VTAM system are correct for your system.
- If *reason* is **LOADER INOPERATIVE** or **LOCK PROTOCOL VIOLATION**, contact the IBM Support Center.
- If *reason* is **MODULE NOT IN ISTCSLOD** or **DEFINED AS ALIAS IN CSLOD**, contact the IBM Support Center.

## Routing code

## Descriptor code

5

---

**IST1263I**

***command* FOR *nodename* FORCED COLD, *datasetname* {EMPTY|ERROR}**

---

## Explanation

VTAM activated *nodename* to its initial (cold) status because the configuration restart data set (checkpoint data set) for the node *nodename* contained no records or an error occurred.

*command* is either **START** or **VARY ACT**.

*nodename* is the name of the affected node. If *nodename* is session-capable, VTAM issues *nodename* as a network-qualified name in the form *netid.name*.

*datasetname* is the DDNAME for the checkpoint data set.

- An empty configuration restart data set indicates that the node has not been previously activated with checkpointing. You cannot perform a warm activation for a node that was not previously activated.
- If the message indicates an error, a previous message will give an explanation of the error.

## NO DATA SET

The checkpoint data set does not exist

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1264I**

***command* FOR *nodename* FAILED DURING DEFINITION**

---

## Explanation

VTAM issues this message when the *command* entered to activate or acquire the major node *nodename* failed during network definition.

*command* is the command that failed. Possible values are:

## VARY ACT or VARY ACQ

The VARY ACT or VARY ACQ command for a major node definition is in error.

## VARY DRDS

Processing of a VARY DRDS (dynamic reconfiguration data set) command failed, and the entire definition was rejected.

## MODIFY DR

A MODIFY DR command failed.

*nodename* is the name of the major node that was specified on the command. If *nodename* is session-capable, VTAM issues *nodename* as a network-qualified name in the form *netid.name*.

## System action

The command fails. The major node or DRDS definition and its resources remain inactive, and VTAM cannot use them.

## Operator response

Save the system log and print the major node definition for problem determination.

## System programmer response

Previous messages provide information about the cause of the failure.

- If this is a definition error, correct the major node definition or DRDS definition to resolve the problem before the operator reenters the command.
- If this is not a definition error, tell the operator to reenter the command using the correct major node name. See [z/OS Communications Server: SNA Operation](#) for more information about *command*.

## Routing code

2

## Descriptor code

5

---

**IST1265I** *command FOR nodename FAILED – reason*

---

## Explanation

The operator entered a VARY ACT command *command* with the WARM operand for the node *nodename*.

*command* is the command that failed.

*nodename* is the name of the node specified on the command. If *nodename* is session-capable, VTAM issues *nodename* as a network-qualified name in the form *netid.name*.

VTAM rejected the command for one of the following *reasons*:

### ***cpdsname* EMPTY**

Configuration-restart data set (checkpoint data set) *cpdsname* contained no records. (An empty configuration-restart data set generally indicates that the node has not been previously activated with checkpointing. You cannot reactivate a node to a warm status if the node was not previously activated.)

### ***cpdsname* ERROR**

VTAM encountered an error while processing the configuration-restart data set (checkpoint data set) *cpdsname*. A previous message provides an explanation of the error.

### **NO DATA SET**

The checkpoint data set does not exist.

## System action

The command fails. Other processing continues.

## Operator response

To activate the node to initial (cold) status, reenter the VARY ACT command without the WARM operand.



## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1266I</b>	<b><i>command FOR nodename AFFECTS NEW SESSIONS ONLY</i></b>
-----------------	--

---

## Explanation

The operator entered the MODIFY ENCR *command* and changed the cryptographic session level of *nodename*. However, node *nodename* is in session or has queued sessions. The change will not affect the current or queued sessions, but will affect future sessions for *nodename*.

*nodename* is the name of the node specified on the command. If *nodename* is session-capable, VTAM issues *nodename* as a network-qualified name in the form *netid.name*.

## System action

VTAM retains the new cryptographic session level specified in the MODIFY ENCR command and uses it when processing subsequent session-establishment requests.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1267I</b>	<b><i>command FAILED – CANNOT DEFINE nodename</i></b>
-----------------	---

---

## Explanation

VTAM stopped processing the *command*. VTAM could not define the resource *nodename* for one of the following reasons:

- *nodename* has the same name as another resource in this domain.
- *nodename* has the same network address as another resource in this domain.
- The value for VNNAME for *nodename* matches the value for CPNAME on a PU in this domain.
- The value for VNNAME for *nodename* refers to an ADJCP for which VN=YES is not specified.

*command* is the command that failed. See [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683 for a description of *command*.

*nodename* is the name of the resource specified on the command. If *nodename* is session-capable, VTAM issues *nodename* as a network-qualified name in the form *netid.name*.

## System action

VTAM rejects the command.

## Operator response

Display *nodename*:

- If the resource already exists, *command* failed because the resource was already defined.
- If *nodename* is a communication controller, enter a DISPLAY STATIONS command.
- If the subarea of *nodename* is listed as an adjacent subarea in the display, another communication controller has been defined for that subarea. The communication controller might still exist if the link to that subarea is still active. To correct the problem, enter a VARY INACT command for the link to the adjacent subarea.
- If the resource does not exist, display VNNNAME. If VNNNAME already exists, *command* failed because the VNNNAME was already defined with a different nodetype.

Save the system log for problem determination.

## System programmer response

Ensure that *nodename* has a unique name, unique network address, or unique VNNNAME. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on VNNNAME definitions.

## Routing code

2

## Descriptor code

5

---

**IST1268I** *nodename* DEACTIVATION request FAILED: *code*

## Explanation

VTAM cannot complete deactivation of *nodename* because *request* has failed with a sense code of *code*.

For a description of *request*, see [Chapter 16, “Command and RU types in VTAM messages,”](#) on page 1683.

*code* is the sense code. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

If *nodename* is session-capable, VTAM issues *nodename* as a network-qualified name in the form *netid.name*.

## System action

VARY deactivate processing for *nodename* is pending. The node is not available to VTAM.

## Operator response

Enter a VARY INACT,TYPE=FORCE command to deactivate the node. If the problem persists, save the system log for problem determination.

## System programmer response

Use the system log and *code* to assist you in determining the cause of the problem.

## Routing code

2

## Descriptor code

5

---

**IST1269I*****command FOR nodename FAILED***

---

## Explanation

VTAM issues this message when processing of the *command* for *nodename* failed. For example, a deactivate command failed because no storage was available to continue.

*nodename* is the name of the resource and is either an NCP or logical unit (LU). If the resource is an LU, VTAM issues *nodename* as a network-qualified name in the form *netid.name*.

## System action

VTAM rejects the command.

## Operator response

- If message IST383I or IST1268I precedes this message, enter a VARY INACT,TYPE=FORCE command to deactivate the resource.
- If this is a storage problem, messages IST561I, IST562I, IST563I, IST564I, IST565I or IST566I may be issued prior to this message to indicate the type of storage affected.

If message IST467I is displayed with contacted error type 5, see the programmer response of that message for additional information.

Issue the DISPLAY BFRUSE command to display storage used by VTAM buffer pools and information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a dump for problem determination.

## System programmer response

For a storage problem, verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx), and restart VTAM to use the start option.

See the [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

**Explanation**

VTAM issues this message when the *command* failed because *nodename* is not active.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1683 for a description of *command*.

Either of the following conditions may have occurred.

- A forced deactivate command was entered for *nodename*, and the resource is already inactive.
- A forced reactivate command was entered for *nodename*. The resource is being activated, but the activate processing has not proceeded far enough.

If *nodename* is session-capable, VTAM issues *nodename* as a network-qualified name in the form *netid.name*.

**System action**

VTAM stops processing *command*.

**Operator response**

Ensure that you entered the command for the correct node. If so, save the system log for problem determination.

**System programmer response**

Use the system log to assist you in correcting the problem. When you have corrected the error condition, ask the operator to reenter the command.

**Routing code**

2

**Descriptor code**

5

**Explanation**

VTAM issues this message when *command2* has been scheduled for *nodename*. *command1* is responsible for scheduling *command2*. For example, explicit deactivation of a peripheral node causes implicit deactivation of that node's LUs.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1683 for a description of *command1* and *command2*.

If *nodename* is session-capable, VTAM issues *nodename* as a network-qualified name in the form *netid.name*.

**System action**

Processing of *command2* continues.

**Operator response**

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1272I*****command* nodename CONTINUES – *name* UNDEFINED**

---

## Explanation

During processing of the *command*, VTAM determined that it cannot define *name* as a part of *nodename* for one of the following reasons:

- Adjacent control point *name* is not a valid node type.
- NCP frame relay switching equipment set (FRSESET) *name* has the same name as another FRSESET in this domain.
- Resource *name* contains one of the following errors:
  - *name* has the same name as another resource in this domain.
  - *name* has the same network address as another resource in this domain.
  - *name* has the same value for CPNAME as another resource in this domain.
  - *name* has the same value for LUALIAS as another resource in this domain.
  - *name* has the same values for IDBLK and IDNUM as another resource in this domain.
  - *name* is in an NCP major node definition, and there is a CDRM definition with the same SUBAREA address as the NCP major node definition.
  - *name* has a value for VNNAME that matches the value for CPNAME on a PU in this domain.
  - *name* has a value for VNNAME that refers to an ADJCP for which VN=YES is not specified.
  - *name* has the same transmission group number (TGN) as another resource in this domain.
- Storage is not available to process the request.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *command*.

If *name* is session-capable, VTAM issues *name* as a network-qualified name in the form *netid.name*.

## System action

Processing of *command* continues. However, VTAM cannot use *name*.

## Operator response

- This is usually a definition error. Enter a DISPLAY ID command for *name* to check for duplicate names. Save the system log for problem determination.
- If you cannot find a definition error, check for an insufficient storage problem by entering the DISPLAY BFRUSE command. Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

This message might be issued during session takeover processing. See the section on common APPN problems in the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for a description of session takeover problems.

This message might be issued while processing a VARY ACT command with the UPDATE=ALL option specified. The resource specified by *name* did not complete processing. Issue the command again to allow this resource to process completely.

## System programmer response

- If the definition failed because of a definition error, use the system log to assist you in correcting the problem. If there are duplicate operands on NCP and VTAM definition statements, you must change one or both of the duplicate statements if you want both resources to be defined at the same time. See the section on common APPN problems in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information about this problem. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on VNNAME definitions.
- If the definition failed because of insufficient storage, increase storage as required for the VTAM address space.
  - See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
  - See the [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, and the DISPLAY STORUSE command.
  - See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

**IST1273I** *command2 nodename FAILED: command1 PENDING*

---

## Explanation

Processing of *command1* causes VTAM to reject *command2* for *nodename* because *command1* takes precedence over *command2*. For example, the VARY REL command causes any subsequent VARY INACT for the same node to fail.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *command1* and *command2*.

If *nodename* is session-capable, VTAM issues *nodename* as a network-qualified name in the form *netid.name*.

## System action

Processing of *command1* continues, but VTAM rejects *command2*.

## Operator response

Monitor the progress of *command1* with DISPLAY commands. When *command1* processing has completed, enter the command required to achieve the desired network configuration or device state.

In the above example, if you want *nodename* to be an active part of the network, enter a VARY ACQ command for *nodename* followed by a VARY ACT command for *nodename*.

Save the system log for problem determination.

## System programmer response

Check the system log to determine the series of commands that caused the problem.

## Routing code

2

## Descriptor code

5

---

**IST1274I*****command minornode FAILED: highernode NOT ACTIVE***

---

### Explanation

VTAM issues this message when a *command* was entered to activate node *minornode* (a logical unit, physical unit, physical unit type 4, or link). The command failed because its higher-level node *highernode* is not currently in a valid state.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *command*.

*minornode* is a logical unit, physical unit (device or communication controller), or link.

- If *minornode* is a logical unit, *highernode* is a physical unit. VTAM issues *minornode* as a network-qualified name in the form *netid.name*.
- If *minornode* is a physical unit (device or communication controller), *highernode* is its link.
- If *minornode* is a link, *highernode* is the physical unit specified on the PHYSRSC operand on the GROUP definition statement for the line group.

If the physical unit, defined in the NCP definition, whose name is specified by the PHYSRSC keyword is a switched PU that is not currently connected, then *highernode* is the physical line.

*highernode* must be active before *minornode* can be activated.

### System action

VTAM rejects the command.

### Operator response

Enter a VARY ACT command for *highernode* before activating *minornode*.

### System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1275I*****operand IGNORED ON command nodename***

---

### Explanation

### Explanation

VTAM issues this message when an *operand* was entered that is not valid for the resource *nodename* specified on the *command*.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1683 for a description of *command*.  
If *nodename* is session-capable, VTAM issues *nodename* as a network-qualified name in the form *netid.name*.

### System action

Processing of *command* continues, but VTAM ignores *operand*.

### Operator response

You do not need to reenter the command. For the next use of the command, check the valid operands for the command in [z/OS Communications Server: SNA Operation](#).

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

<b>IST1276I</b>	<b><i>cdrsname status CDRM = cdrmname</i></b>
-----------------	---

### Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY command for cross-domain resources. It results from one of the following:

- A DISPLAY ID command that specifies a CDRSC major node.
- A DISPLAY ID command that specifies a model CDRSC.
- A DISPLAY CDRSCS command requesting information about cross-domain resources defined to this domain.

The message lists the resource name, its status, and the name of the controlling CDRM.

VTAM repeats this message as many times as needed to list all the cross-domain resources in this major node, in this domain, or that were created from this model CDRSC.

*cdrsname* is the name of the resource. The name is network-qualified in the form *netid.name* if the resource is a real CDRSC. The name is not network-qualified if the resource is an alias CDRSC.

*status* is the status of the resource. See [z/OS Communications Server: IP and SNA Codes](#) for a description of *status*.

*cdrmname* is the name of the controlling CDRM. If the CDRM is not available, then *cdrmname* is **\*\*\*NA\*\*\***.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.



## Routing code

8

## Descriptor code

5

---

**IST1277I** *commandinfo* [*statementname*] *action resource* [TO *toname*] [FROM *fromname*] **FAILED**

### Explanation

This message is the first in a group of messages that VTAM issues to indicate that a dynamic reconfiguration or dynamic change failed. The failure resulted from one of the following commands:

- MODIFY DR command
- VARY ACT command
- VARY DRDS command

Possible message groups follow:

- **MODIFY DR command**

```
IST1277I MODIFY DR action resource [TO toname] FROM fromname FAILED
IST523I REASON = reason
IST314I END
```

#### **IST1277I**

- *commandinfo* is always **MODIFY DR** for this message group.
- *action* is the command type:
  - **DELETE** to delete a physical or logical unit
  - **MOVE** to move a physical unit and its associated LUs.
- *resource* is the name of the physical unit or logical unit affected by the command. If the resource is a logical unit, VTAM issues *resource* as a network-qualified name in the form *netid.name*.
- *toname* is the name of the line to which the PU is being moved, and is only displayed when *action* is **MOVE**.
- *fromname* is the name of the line from which the PU is being moved or deleted, or the name of the PU from which the LU is being deleted.

#### **IST523I**

This message explains the reason for the failure. Possible values of *reason* are explained later in this message explanation.

- **VARY DRDS command**

```
IST1277I DR drname [statementname] action resource [TO toname]
[FROM fromname] FAILED
IST523I REASON = reason
IST368I FUNCTION GROUP functiongroup FAILED
IST314I END
```

#### **IST1277I**

- *commandinfo* is always **DR** *drname* for this message group. *drname* is the name of the dynamic reconfiguration data set containing the reconfiguration definition statements.
- *statementname*, if specified, is the name of the specific definition statement that failed.
- *action* is the definition statement:
  - **ADD** to add a physical or logical unit
  - **DELETE** to delete a physical or logical unit

- **MOVE** to move a physical unit and its associated LUs.
- *resource* is the name of the physical unit or logical unit affected by the definition statement. If the resource is a logical unit, VTAM issues *resource* as a network-qualified name in the form *netid.name*.
- *toname* is the name of the line to which the PU is being moved or added, or the name of the PU to which the LU is to be added. *toname* is only displayed when *action* is **MOVE** or **ADD**.
- *fromname* is the name of the line from which the PU is being moved or deleted, or the name of the PU from which the LU is being deleted. *fromname* is only displayed when *action* is **MOVE** or **DELETE**.

#### IST523I

This message explains the reason for the failure. Possible values of *reason* are explained later in this message explanation.

#### IST368I

This message names the specific definition statement in the dynamic reconfiguration data set that failed. *functiongroup* is the name on the ADD, DELETE, or MOVE definition statement in the VARY DRDS deck of the specific definition statement that failed.

#### • VARY ACT command

```
IST1277I DR dname [statementname] action resource
          [TO toname] [FROM fromname] FAILED
IST523I  REASON = reason
IST314I  END
```

#### IST1277I

- *commandinfo* is always **VARY ACT** for this message group.
- *statementname* is the major node name which was specified on the ID operand of the VARY ACT command.
- *action* is the action being performed when the failure occurred:
  - **ADD** to add a resource
  - **CHANGE** to change an operand value
  - **DELETE** to delete a resource
  - **MOVE** to move a physical unit and its associated LUs or to move an logical unit
- *resource* is the name of the resource affected by the command. If the resource is a logical unit, VTAM issues *resource* as a network-qualified name in the form *netid.name*.
- *toname* is the name of the higher level resource to which the resource is being moved or added. *toname* is only displayed when *action* is **MOVE** or **ADD**.
- *fromname* is the name of the higher level resource from which the resource is being moved or deleted. *fromname* is only displayed when *action* is **MOVE** or **DELETE**.

#### IST523I

This message explains the reason for the failure. Possible values of *reason* follow.

The second message in each message group is IST523I, and this message explains the reason for the failure. *reason* can be one of the following:

#### DUPLICATE STATION ID

An attempt was made to perform a DR CHANGE of IDBLK or IDNUM for a switched PU, but the resulting station ID was not unique in the network.

#### DR DELETE INVALID FOR INDEPENDENT LU

An attempt was made to perform a DR DELETE on an independent LU which is not associated to the adjacent link station specified on the FROM operand. This is not a valid request.

#### DR NOT SUPPORTED

An attempt was made to perform a DR function for a resource that is not an NCP or is a level of NCP that does not support DR or this function of DR.

**INSUFFICIENT STORAGE**

VTAM was unable to allocate storage during a DR operation.

**INVALID MACRO**

A definition statement was read that is not a valid member in this type of definition deck. For example, a GROUP definition statement is not a valid member in a DR deck.

**INVALID NAME**

*functiongroup* is invalid for the PU or LU definition statement.

**INVALID PARAMETER**

An operand was found in a definition statement that is not valid or allowed.

**INVALID RESOURCE CURRENT STATE**

An attempt was made to move or delete a resource whose current state will not allow the change. The resource must be in an inactive, reset, release, or defined state. Also, a model CDRSC must not have clone CDRSCs associated with it.

**INVALID RESOURCE TYPE**

An attempt was made to move or delete a resource for which dynamic reconfiguration is not allowed. DR ADD, DELETE and MOVE may be performed for SNA type 1, 2, or 2.1 PUs and their subordinate LUs, as well as for dependent LUs and some independent LUs.

**INVALID TO/FROM RESOURCE TYPE**

An attempt was made to add, delete, or move a resource to or from a target resource that does not allow dynamic reconfiguration. DR ADD is allowed to lines and PUs. DR DELETE is allowed from lines and PUs. DR MOVE is allowed both to and from lines and PUs.

**INVALID VALUE**

An operand on a definition statement was found to have a coded value that is invalid for this operand.

**INVALID VALUE FOR ADDR**

The value coded in a PU definition statement for the ADDR operand was found to be a duplicate of a PU ADDR already under the target line.

**MACRO SEQUENCE ERROR**

A DR definition deck contained definition statements that were out of sequence. Line targets must be followed by PUs; PU definition statements must be followed by LUs. PU definition statements must follow additions to lines, moves to lines, moves from lines, and deletions from lines. LU definition statements must follow additions to PUs, moves to PUs, and deletions from PUs.

**MISSING MACRO**

A DR definition deck was missing a definition statement. VBUILD definition statements are required. Null definition decks are invalid (a VBUILD definition statement with nothing following). Null function groups are invalid (a function group with no PU or LU definition statements).

**MISSING NAME ON PU OR LU MACRO**

A PU or LU definition statement in a DR definition deck did not have a name coded. The name is required on all PU and LU resources being added, deleted, or moved.

**MISSING PARAMETER**

A definition statement in a DR definition deck did not contain a required operand.

**NO RESOURCES FOUND UNDER FROM LINE/PU**

The line or PU resource for which a DR DELETE or DR MOVE function was requested had no resources under it.

**PUTYPE CANNOT BE CHANGED DYNAMICALLY**

An attempt was made to change the value of PUTYPE on the specified resource.

**RESOURCE NOT FOUND WHERE SPECIFIED**

An attempt was made to delete or move a resource that does not exist under the specified target *fromname*.

**SYNTAX ERROR**

There is a syntax error in the DR definition deck.

**TO/FROM RESOURCE NOT IN SAME NCP**

An attempt was made to DR move a PU or LU from a line in an NCP to a line in a different NCP.

## TO/FROM RESOURCE UNKNOWN

An attempt was made to add or move a resource to a target that does not exist or to delete or move a resource from a target that does not exist.

## UPDATE=ALL REQUIRED - UPDATE=ADD VIOLATES HIERARCHY

An attempt was made to update an Enterprise Extender XCA major node with a VARY ACT,UPDATE=ADD command after one of the following changes was made to the definitions:

- A second PU was added under a LINE
- A PU name was changed
- The PU prefix was added or changed on the AUTOGEN keyword on a GROUP definition statement.

## System action

- For MODIFY DR, processing of that command is terminated.
- For VARY DRDS, the *functiongroup* specified in message IST368I is not processed. Any other function groups in the DR data set *drname* are processed.
- For VARY ACT, the remaining definition statements are processed unless the *resource* is a PU. In that case, the LUs subordinate to *resource* are not processed.

## Operator response

Enter a DISPLAY command for *resource* in message IST886I. Save the system log for problem determination.

If *reason* is **INSUFFICIENT STORAGE**, enter the DISPLAY BFRUSE or DISPLAY STORUSE command. Save the system log and request a dump for problem determination.

If *reason* is UPDATE=ALL REQUIRED - UPDATE=ADD VIOLATES HIERARCHY, do the following:

- If a second PU was added under a LINE, remove the second PU from the definitions. There can only be one PU defined per LINE.
- If a PU name was changed, re-enter the VARY ACT command with UPDATE=ALL instead of UPDATE=ADD.
- If the PU prefix was added or changed on the AUTOGEN keyword on a GROUP definition statement, re-enter the VARY ACT command with UPDATE=ALL instead of UPDATE=ADD.

## System programmer response

Use the output from the operator to correct the command issued and the definition statements (if appropriate).

If *reason* is **INSUFFICIENT STORAGE**, increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See the [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

## Descriptor code

5

---

**IST1278I**

*runame* FROM *fromnetid* TO *tonetid* FOR *fornodename*

---

## Explanation

This message is part of a group of messages that VTAM issues when the request unit (RU) *runame* has been pending on the node *fornodename* for a period of time without receipt of a corresponding response unit. The first message in the group is IST1436I. See the description of that message for more information.

## Routing code

8

## Descriptor code

4

---

**IST1279I**

*resourcename* NOT UPDATED, *operand* AND CDRSC CONFLICT

---

## Explanation

VTAM issues this message when a MODIFY DIRECTRY,UPDATE command is processed for a CDRSC major node that contains a CDRSC with the same name as the resource specified on the CPNAME or NETSRVR operand.

The resource specified on either the CPNAME or NETSRVR operand cannot be the same name as the CDRSC that is being updated. Either an incorrect value was entered for the CPNAME or NETSRVR operand, or a CDRSC is incorrectly defined.

*resourcename* is the network-qualified name of the CDRSC being updated in the form *netid.name*.

*operand* is either **CPNAME** or **NETSRVR** and indicates the operand that was specified on the command.

## System action

The CDRSC *resourcename* is not updated. Other processing continues.

## Operator response

Verify that the resource specified on either the CPNAME or NETSRVR operand was correct and reenter the command. If problems persist, save the system log for problem determination.

## System programmer response

Check the definition library to ensure that the CDRSC definition is correct. If necessary, change the CDRSC definition so that it can be defined as an owning CP or a network node server.

## Routing code

2

## Descriptor code

5

---

**IST1280I**

SESSION TYPE = *sessiontype* – SENSE = *code*

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is either IST1110I or IST1097I. See the explanation of the appropriate message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1281I** *luname* ON command MUST BE NETWORK QUALIFIED

---

## Explanation

VTAM issues this message in response to a MODIFY *command*. *luname* must be a network-qualified name because the application program that is in session with *luname* is using network-qualified names.

*luname* is the name of the logical unit that is specified on the MODIFY command.

*command* is the MODIFY command that is entered and is either **F CNOS** or **F DEFINE**.

## System action

The command failed. Other processing continues.

## Operator response

- Reenter the MODIFY command with the required network-qualified name specified as *netid.luname*.
- If the network ID is not known, you can enter a DISPLAY,CNOS command or DISPLAY,CONVID command specifying *luname* on the LUNAME operand. VTAM displays all logical units with the specified name that are associated with the application program and the network ID of each logical unit.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST1282I** MESSAGE FROM *exitname* IN *modulename*

---

## Explanation

VTAM issues this message as part of a message group when an exit (for example, the session management exit, ISTEEXAA) calls VTAM Exit Services to issue a message on the system console. A complete description of the message group follows.

**Note:** If VTAM detects an error in attempting to issue message IST1405I, message IST1455I may be issued. See the explanation of that message for a complete description.

```
IST1282I  MESSAGE FROM exitname IN modulename
IST1405I      data
:
```

```
[IST1405I      data]
IST314I      END
```

## IST1282I

*exitname* is the CSECT name of the exit, for example, ISTECAA, that provided the text for the message.  
*module name* is the name of the load module that contains exit *exitname*.

## IST1405I

*data* is up to 56 characters of text provided by *exitname*.

One or more IST1405I messages will be issued until all of the text provided by *exitname* has been displayed.  
The maximum amount of text displayed in one message group is 4096 characters (approximately seventy-four IST1405I messages).

## System action

Processing continues.

## Operator response

Save the complete text of the message group for problem determination.

## System programmer response

If you have questions regarding *data*, contact the author of *exitname*. See [z/OS Communications Server: SNA Customization](#) for information on *exitname*.

## Routing code

2

## Descriptor code

4

---

## IST1283I

## MODIFY USERVAR COMMAND COMPLETE

## Explanation

This message is the first in a group of messages that VTAM issues in response to a MODIFY USERVAR command when the USERVAR has previously been defined. Possible message groups follow.

**Note:** The following messages are percolated. See [“Message rerouting and percolation” on page 1707](#) for additional information.

- If MSGLVL=V4R1 or above is specified, the following message group is displayed:

```
IST1283I MODIFY USERVAR COMMAND COMPLETE
[IST1150I uservar CHANGED: value1 TO value2]
[IST1030I USERVAR EXIT IS exitname]
[IST973I  USERVAR uservar {CLASS HAS BEEN CHANGED FROM AUTO TO USER|
          TYPE HAS BEEN CHANGED FROM type TO type}]
IST314I  END
```

- If MSGLVL=BASE is specified or taken as the default, the following message group is displayed:

```
IST1283I MODIFY USERVAR COMMAND COMPLETE
[IST813I  USERVAR uservar CHANGED FROM value1 to value2]
[IST1030I USERVAR EXIT IS exitname]
[IST973I  USERVAR uservar {CLASS HAS BEEN CHANGED FROM AUTO TO USER|
          TYPE HAS BEEN CHANGED FROM type TO type}]
IST314I  END
```

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of the MSGLEVEL start option and for a description of the MSGLVL operand on the USSMSG macro.

#### **IST813I**

If network-qualified names are not displayed, VTAM issues this message when the value of *uservar* has been changed.

*value1* is the original value of *uservar*.

*value2* is the new value of *uservar*.

Any subsequent session requests to *uservar* are routed to the application named in *value2*.

#### **IST973I**

- VTAM issues this message when one or both of the following has occurred:

- **CLASS HAS BEEN CHANGED FROM AUTO TO USER**

The MODIFY command was entered for a USERVAR that was being managed automatically by VTAM, thereby changing the class to user-managed.

**Note:** VTAM no longer manages the updating or deletion of this USERVAR.

- **TYPE HAS BEEN CHANGED FROM *type* TO *type***

The type of a user-managed USERVAR has been changed.

*type* can be **STATIC**, **DYNAMIC**, or **VOLATILE**.

#### **IST1030I**

VTAM issues this message if the USERVAR exit is associated with *uservar*.

*exitname* is the name of the USERVAR exit.

If no USERVAR exit is defined, VTAM does not issue this message.

#### **IST1150I**

If network-qualified names are displayed, VTAM issues this message when the value of *uservar* has been changed.

*value1* is the original value of *uservar*. If a network-qualified name was entered on the previous MODIFY command, VTAM issues *value1* as a network-qualified name in the form *netid.name*.

*value2* is the new value of *uservar*. If a network-qualified name was entered on the current MODIFY command, VTAM issues *value2* as a network-qualified name in the form *netid.name*.

Any subsequent session requests to *uservar* are routed to the application named in *value2*.

#### **IST1283I**

This message indicates that the MODIFY USERVAR command completed successfully.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

### **Routing code**

2



## Descriptor code

5

---

**IST1284I****LUALIAS *lualias* IS *nodename* FOR APPLICATIONS**

---

### Explanation

This message is part of a group of messages that VTAM issues in response to the following commands:

- DISPLAY ID command when the resource name specified on the ID operand is the name of an LUALIAS.
- DISPLAY SESSIONS command when either or both of the LU names specified on the command has been defined as an LUALIAS.

The first message in the group is IST075I.

*lualias* is the LUALIAS name defined for the resource *nodename*.

*nodename* is the network-qualified name of the cross-domain resource (CDRSC) in the form *netid.name*.

If *nodename* does not identify the same resource as displayed in message IST075I, use of the name *lualias* will not always identify the same resource.

For example, application programs in this domain that use the name *lualias* will identify *nodename*. However, other logical units and operator commands that use the name *lualias* will not identify *nodename*, but they identify the resource displayed in message IST075I.

### System action

Processing continues.

### Operator response

If *nodename* (in this message) does not identify the same resource as displayed in message IST075I, save the system log for problem determination.

### System programmer response

If *nodename* (in this message) does not identify the same resource as displayed in message IST075I, rename the LUALIAS for *nodename* because this name is already the real name of a resource.

## Routing code

2

## Descriptor code

5

---

**IST1285I****ADDRESS FOR *cdrcsname* DELETED FROM *alsname***

---

### Explanation

VTAM issues this message in response to an address mismatch error. VTAM attempts to delete cross-domain resource *cdrcsname* that was generated under adjacent link station *alsname*. This message indicates that *cdrcsname* was deleted.

If the PU for *alsname* is not found,

### System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1286I** **SHADOW PROCESSING FAILED, *majornode* – *minornode* RESET**

## Explanation

This message is the first in a group of messages that VTAM issues when a shadow resource (*minornode*) cannot be activated because it has the same LUALIAS name as another active resource. A complete description of the message group follows.

```
IST1286I SHADOW PROCESSING FAILED, majornode – minornode RESET
IST1287I FAILURE REASON IS LUALIAS luaslianame ALREADY IN USE
IST314I  END
```

### IST1286I

*majornode* is the name of the major node that contains the minor node *minornode*.

*minornode* is the network-qualified name of the resource that is in reset state due to the LUALIAS name conflict.

### IST1287I

*luaslianame* is the duplicate LUALIAS name.

## System action

VTAM deletes the shadow resource *minornode* and sets its state to reset. Other processing continues.

## Operator response

If you want to activate *minornode*, deactivate the active resource with the defined LUALIAS name. Then, deactivate and reactivate major node *majornode*.

Otherwise, no action is necessary. The state of *minornode* is reset, and the active resource with the LUALIAS name remains active.

## System programmer response

Ensure that your LUALIAS names are unique. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for a description of shadow resources.

## Routing code

2

## Descriptor code

5

**Explanation**

VTAM issues this message as part of a message group. The first message in the group is IST1286I. See that message for a complete description.

**Routing code**

2

**Descriptor code**

5

**Explanation**

VTAM issues this message when topology data from a previously saved data set could not be read successfully.

This message is issued primarily for information and does not indicate a loss of processing ability. If you see this message every time you start VTAM, this indicates that it will take longer to set up your first few sessions.

*code* indicates the reason for the error and is one of following:

**Code****Error**

**1**

Insufficient storage.

**2**

The disk file is undefined.

**4**

Disk I/O errors occurred. These errors are reported in separate messages issued prior to this message.

**8**

The data set recovery task abended. This message is issued with no further attempt at data set recovery.

**9**

The previously saved data set was incomplete.

**10**

The topology and routing services task abended while attempting to recover topology from the database.

**11**

The topology and routing services data set was found, but the data set will be ignored because there is a name conflict.

**12**

The topology and routing services data set will be ignored because the data set was saved in a format that is not supported by VTAM.

**System action**

Processing continues.

**Operator response****Code(s)****Error**

**1**

Issue the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you may need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See the [z/OS Communications Server: SNA Operation](#) for additional information.

Save the system log and request a dump for problem determination.

**2, 9, 11, 12**

Save the system log for problem determination.

**4, 8, 10**

Save the system log and request a dump for problem determination.

## System programmer response

### Code

#### Error

**1**

Increase storage as required.

See the [z/OS Communications Server: SNA Operation](#) and the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps](#) and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**2**

You must define the missing disk file TRSDB. See the applicable sequential access method documentation and the [z/OS Communications Server: New Function Summary](#) for additional information.

**4**

See the applicable sequential access method documentation for more information.

**8**

See the applicable sequential access method documentation for more information.

**9**

This code indicates that no action was taken to correct an earlier problem identified in message IST1122I during a previous VTAM checkpoint. You may want to check the system log for the last time you issued the MODIFY CHKPT command to review the information in message IST1122I.

**10**

Review the contents of the system dump to determine the correct problem determination action.

**11**

This code indicates that the data set cannot be used because it was saved under a different control point name. VTAM will not read the data set, but will write to it. The next time a MODIFY CHKPT command is entered, the old data set will be replaced with the new one.

**12**

This code indicates that the data set cannot be used because it was saved in a format that is not supported by VTAM. The next time a MODIFY CHKPT command is entered, the data set will be reformatted and can be used.

## Routing code

**2**

## Descriptor code

**5**

---

**IST1289I**

**FRSESET *frsesetname* PHYSICAL UNITS:**

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an NCP frame relay switching equipment set (FRSESET) or an NCP frame relay physical unit. Possible message groups follow.

- If the FRSESET statement was coded, the following message group is issued.

```
IST075I  NAME = frsesetname, TYPE = STATIC FRSESET
IST1289I FRSESET frsesetname PHYSICAL UNITS:
IST080I  primary_pu1 status  primary_pu2 status
[IST080I [backup_pu1 status] [backup_pu2 status]]
IST314I  END
```

- If the FRSESET statement was added dynamically using the VARY ACT,UPDATE=ALL command, the following message group is issued.

The second message in this group is IST1290I, IST1291I, IST1292I, or IST1294I, and indicates whether the FRSESET has been sent to the NCP.

```
IST075I  NAME = frsesetname, TYPE = DYNAMIC FRSESET
[IST1290I FRSESET HAS BEEN SUCCESSFULLY SENT TO NCP ncpname]
[IST1291I FRSESET WILL BE SENT TO THE NCP DURING PU ACTIVATION]
[IST1292I FRSESET WILL NOT BE SENT TO THE NCP DUE TO DEFINITION ERROR]
[IST1294I FRSESET HAS BEEN SENT TO NCP ncpname BUT FAILURE OCCURRED]
IST1289I FRSESET frsesetname PHYSICAL UNITS:
IST080I  primary_pu1 status  primary_pu2 status
[IST080I [backup_pu1 status] [backup_pu2 status]]
IST314I  END
```

- If the display is for an NCP frame relay physical unit, the following message group is issued.

```
IST075I  NAME = puname, TYPE = PU_T1
IST486I  STATUS = currentstatus, DESIRED STATE = desiredstate
IST081I  LINE NAME = linename, LINE GROUP = linegroup, MAJNOD = majnode
IST1289I FRSESET frsesetname PHYSICAL UNITS:
IST080I  primary_pu1 status  primary_pu2 status
[IST080I [backup_pu1 status] [backup_pu2 status]]
IST654I  I/O TRACE = {ON|OFF}, BUFFER TRACE = {ON|OFF}
IST355I  LOGICAL UNITS:
IST080I  nodename1 status1  nodename2 status2  nodename3 status3
IST314I  END
```

### IST075I

In message groups 1 and 2, *frsesetname* is the name of the NCP frame relay switching equipment set (FRSESET) specified on the ID operand of the command.

In message group 3, *puname* is the name of the physical unit specified on the ID operand of the command and is always a PU type 1.

### IST080I

- If this message follows IST1289I, it displays the names of the primary and backup physical units defined for FRSESET *frsesetname*.

Backup PUs are optional, and one or both backup PUs can be specified. If only one backup PU is specified, VTAM displays the name and status of the specified backup PU and leaves the other field blank. If no backup PUs are specified, the message is not displayed.

*primary\_pu1* is the name of the first PU specified on the SUBPORTS operand of the FRSESET definition statement.

*primary\_pu2* is the name of the second PU specified on the SUBPORTS operand of the FRSESET definition statement.

*backup\_pu1*, if specified, is the name of the third PU on the SUBPORTS operand of the FRSESET definition statement. *backup\_pu1* is the backup PU for *primary\_pu1*.

*backup\_pu2*, if specified, is the name of the fourth PU on the SUBPORTS operand of the FRSESET definition statement. *backup\_pu2* is the backup PU for *primary\_pu2*.

- If this message follows IST355I, *nodename* is the name of a logical unit.

- *status* is the status of the resource that is displayed. See [Resource Status Codes and Modifiers](#) in *z/OS Communications Server: IP and SNA Codes* for a description of these status codes.

#### **IST081I**

*linename* is the line to which *majnode* is connected.  
*groupname* is the line group to which the line *linename* belongs.  
*majnode* is the major node with which the line is associated.

#### **IST355I**

This message is a header message for IST080I when logical units and their status are displayed.

#### **IST486I**

*currentstatus* is the current status of the resource. See the [z/OS Communications Server: New Function Summary](#) for a description of *currentstatus*.  
*desiredstate* is the resource state that is desired. See the [z/OS Communications Server: New Function Summary](#) for a description of *desiredstate*. If VTAM cannot determine the desired state.

#### **IST654I**

This message indicates whether the I/O trace facility is active or inactive for *puname* in message IST075I, and whether the buffer trace facility is active or inactive for *puname*.

#### **IST1289I**

*frsesetname* is the name of the FRSESET definition statement displayed in message IST075I.

#### **IST1290I**

This message confirms that FRSESET *frsesetname* has been successfully sent to NCP *ncpname*.  
*ncpname* is the name of the NCP that received FRSESET *frsesetname*.

#### **IST1291I**

This message indicates that FRSESET *frsesetname* is valid and will be sent to the NCP when all PUs in the FRSESET have received positive RNAA responses.

#### **IST1292I**

This message indicates that FRSESET *frsesetname* will not be sent to the NCP. The FRSESET is not valid because of a definition error in the FRSESET or one of the PUs. Messages issued prior to this message group provide additional information about the error.

#### **IST1294I**

This message indicates that even though FRSESET *frsesetname* has been sent to NCP *ncpname*, a failure occurred that prevented successful completion.  
*ncpname* is the name of the NCP that rejected FRSESET *frsesetname*.  
 Either message IST380I or message IST1139I will be issued prior to this message group to provide additional information about the cause of the failure.

### **System action**

Processing continues.

- If IST1291I is displayed, the FRSESET will be sent to the NCP when all PUs in the FRSESET have received positive RNAA responses.
- If IST1292I is displayed, the PUs may or may not become active. You can monitor this by checking the PU *status* in message IST080I.
- If IST1294I is displayed, VTAM deactivates the PUs in *frsesetname*.

### **Operator response**

None, except in the following situations:

- If IST1291I is displayed, ensure that all the PUs in the FRSESET have been activated.
- If IST1292I or IST1294I is displayed, save the system log for problem determination.

## System programmer response

None, except in the following situations:

- If IST1292I is displayed, correct the definition errors in the FRSESET or the PUs. Then add new PUs to the FRSESET using dynamic reconfiguration.
- If IST1294I is displayed, correct the error indicated by the sense code in message IST380I or IST1139I. Then add new PUs to the FRSESET using dynamic reconfiguration.

For more information on the FRSESET definition statement, see the *NCP, SSP, and EP Resource Definition Reference*.

For information on dynamic reconfiguration, see the [z/OS Communications Server: SNA Network Implementation Guide](#).

## Routing code

2

## Descriptor code

5

---

<b>IST1290I</b>	<b>FRSESET HAS BEEN SUCCESSFULLY SENT TO NCP <i>ncpname</i></b>
-----------------	---

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an NCP Frame Relay Switching Equipment Set (FRSESET). See the explanation of message IST1289I for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

<b>IST1291I</b>	<b>FRSESET WILL BE SENT TO THE NCP DURING PU ACTIVATION</b>
-----------------	---

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an NCP Frame Relay Switching Equipment Set (FRSESET). See the explanation of message IST1289I for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

<b>IST1292I</b>	<b>FRSESET WILL NOT BE SENT TO THE NCP DUE TO DEFINITION ERROR</b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an NCP Frame Relay Switching Equipment Set (FRSESET). See the explanation of message IST1289I for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

**IST1294I** **FRSESET HAS BEEN SENT TO NCP *ncpname* BUT FAILURE OCCURRED**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an NCP Frame Relay Switching Equipment Set (FRSESET). See the explanation of message IST1289I for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

**IST1295I** **CP NAME NODETYPE ROUTERES CONGESTION CP-CP WEIGHT**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command. Possible message groups follow.

- This message group is issued in response to the following commands:
  - DISPLAY,TOPO,ID=*cpname*
  - DISPLAY,TOPO,ID=*cpname*,LIST=ADJ
  - DISPLAY,TOPO,LIST=CDSERV
  - DISPLAY,TOPO,LIST=ICN
  - DISPLAY,TOPO,LIST=VN
  - DISPLAY,TOPO,LIST=EN
  - DISPLAY,TOPO,LIST=NN
  - DISPLAY TOPO,ID=*cpname*,LIST=ALL when it is issued at an end node and the ID specified is not the local end node

```
IST350I  DISPLAY TYPE = TOPOLOGY
[IST1348I  VTAM STARTED AS nodetype]
[IST1805I  ONLY LOCAL TOPOLOGY INFORMATION IS AVAILABLE]
[IST1803I  parameter PARAMETER VALUE NOT VALID - DEFAULT default USED]
[IST1804I  parameter PARAMETER NOT VALID - IGNORED]
IST1295I  CP NAME          NODETYPE ROUTERES CONGESTION  CP-CP WEIGHT
IST1296I  cpname          nodetype routeres congestion  cp-cp weight
:
IST314I  END
```



- This message group is issued in response to a DISPLAY,TOPO,ID=*cpname*,LIST=ALL command when it is issued at a network node, or when it is issued at an end node and the ID that is specified is the local end node:

```

IST350I  DISPLAY TYPE = TOPOLOGY
IST1295I  CP NAME          NODETYPE ROUTERES CONGESTION CP-CP WEIGHT
IST1296I  cpname          nodetype routers congestion cp-cp weight
IST1579I  -----
IST1297I  ICN/MDH  CDSERV RSN      HPR
IST1298I  icn/mdh  cdservr rsn      option
IST1579I  -----
IST1223I  BN      NATIVE  TIME LEFT LOCATE SIZE
IST1224I  bn      native  time_left locate_size
IST924I  -----
IST2356I  PLATFORM = platform
[IST2355I  TDUDIAG THRESHOLD REACHED ON date AT time]
[IST2307I  THIS NODE DOES NOT SUPPORT UNKNOWN TOPOLOGY VECTORS]
[IST2277I  POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED]
IST924I  -----
IST2275I  TDU INFORMATION SINCE LAST RESET ON date AT time
[IST1769I  LAST TDU RECEIVED - date time FROM adjacent_cp]
[IST1784I  LAST TDU RECEIVED - NONE]
[IST2281I  LAST TDU SENT - date time]
[IST2315I  LAST TDU SENT - NONE]
IST2282I  TDU COUNTS:
IST2352I  SENT      = sent      RECEIVED = received
IST2353I  ACCEPTED  = accepted  REJECTED = rejected
IST2354I  IGNORED   = ignored
IST924I  -----
IST1299I  TRANSMISSION GROUPS ORIGINATING AT CP cpname
IST1357I  -----
IST1300I  DESTINATION CP  TGN      STATUS  TGTYPE  CPCP
IST1301I  destcpname     tgn      status  tgtype  VALUE WEIGHT
:          :              :         :         :      cpval weight
:          :              :         :         :
IST314I  END

```

## IST350I

This message identifies the type of information in the display and is always TOPOLOGY for this message group.

## IST1223I, IST1224I

- This message subgroup displays the border node status, native status, time left, and locate size for this node. A description of the message subgroup follows:

```

IST1223I  BN      NATIVE  TIME LEFT LOCATE SIZE
IST1224I  bn      native  time_left locate_size

```

### • IST1223I

This message is a header message for the information that is displayed in message IST1224I.

### • IST1224I

- *bn* indicates whether the node is a border node. Possible values are:

#### YES

The node has the border node function enabled and at least one active intersubnetwork link (ISL). For VTAM, the border node function is enabled by coding BN=YES as a VTAM start option.

#### NO

The node does not have the border node function enabled, or the border node function is enabled but no intersubnetwork link is active.

- The *native* value indicates whether the node is in the same subnetwork as the host node. Possible values are:

#### YES

*bn* is **YES**, and this node and the node issuing the display are in a subnetwork sharing topology information.

#### NO

*bn* is **YES**, and this node and the node issuing the display are not in a subnetwork sharing topology information.

**\*NA\***

*bn* is **NO**.

- *time\_left* is the number of days remaining until the node entry is removed from the topology database (garbage collected).
- *locate\_size* is the maximum APPN Locate message size supported by the node. Possible values are:

**nnnK**

The valid range for *nnn* is 1–128 expressed in kilobytes.

**IST1295I, IST1296I**

- This message subgroup displays the CP name, node type, route resistance, congestion, CP-CP session support and weight for a node. A description of the message subgroup follows:

IST1295I CP NAME	NODETYPE ROUTERES CONGESTION CP-CP WEIGHT
IST1296I cpname	nodetype routeres congestion cp-cp weight

- **IST1295I**

This message is a header message for information displayed in message IST1296I.

- **IST1296I**

- *cpname* is the network-qualified name of the control point (CP) specified on the command.
- *nodetype* is the value that was specified on the NODETYPE start option and is the node type of *cpname*. Possible values are:

**EN**

End node

**NN**

Network node

**VN**

Virtual node

**GVRN**

Global Virtual Routing Node

**UNKNOWN**

The topology database has received conflicting information about *cpname* and is in the process of determining the node type. This is a temporary situation, and the node type should be available in a short time.

If the node is quiescent, **/Q** is appended to the end of the *nodetype* value. If the node is ready for garbage collection, **/G** is appended to the end of the *nodetype* value.

- *routeres* is route resistance. This is a user-defined value specified on either the start command or in the start list and indicates the desirability of using *cpname* in intermediate routes.
  - Possible values are 0–255. A smaller value indicates higher desirability.
  - **\*NA\*** is displayed when
    - *cpname* is an end node. End nodes are not involved in intermediate routing.
    - *cpname* is a virtual node. The weight of a virtual node is always 0, so *routeres* is not involved in path weight calculation.
  - See the [ROUTERES start option information in z/OS Communications Server: SNA Resource Definition Reference](#).
- *congestion* provides session congestion information about *cpname*. Possible values are:

**NONE**

Indicates that there is no session congestion for *cpname*.

**NODE**

Indicates that *cpname* is at its session limit.

## TDU

Indicates that a large amount of topology database update (TDU) traffic is queued for the CP-CP session to *cpname*.

## NODE/TDU

Indicates that *cpname* is at its session limit and a large amount of TDU traffic is queued for the CP-CP session to *cpname*.

### \*\*\*NA\*\*\*

\*\*\*NA\*\*\* is displayed when:

- *cpname* is an end node. End nodes are not involved in intermediate routing.
- *cpname* is a virtual node. The weight of a virtual node is always 0, so congestion is not involved in path weight calculation.

**TDU** and **NODE/TDU** are displayed only when both of the following are true:

- LIST=ADJ is specified on the command.
  - The node specified on the ID operand of the command is the node at which the command is entered (the host node).
- *cp-cp* indicates whether a CP-CP session is active. Possible values are:

### YES

A CP-CP session is active to this node.

### NO

A CP-CP session is not active to this node.

### \*NA\*

*cpname* is a virtual node or *cpname* is the node that is issuing the command.

- *weight* represents the actual weight of *cpname* as calculated by VTAM using the node and Class of Service (CoS) definitions. The value of 32767 is displayed when a node is not operational or does not meet the CoS requirements specified by the APPNCOS parameter in the DISPLAY TOPO command.
- The weight of *cpname* is a measure of the relative desirability of choosing that resource in the route selection process and is 0–255 or 32767.

See the [APPN Class of Service definitions](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).

## IST1297I, IST1298I

- This message subgroup displays whether the node is an interchange node, migration data host, or central directory server, as well as the resource sequence number (RSN) for the node and HPR start option value. A description of the message subgroup follows:

IST1297I	ICN/MDH	CDSERVR	RSN	HPR
IST1298I	icn/mdh	cdservr	rsn	option

- **IST1297I**

This message is a header message for information displayed in message IST1298I.

- **IST1298I**

- The information that is displayed for an end node might not be accurate if the node on which the command is executed is not the network node server (NNS) or dependent LU server (DLUS) of the end node, or if the end node does not support the registration of local topology information.
- *icn/mdh* indicates whether *cpname* is an interchange node (ICN) or a migration data host (MDH). Possible values are:

### YES

- If NN is specified on the NODETYPE start option and the HOSTSA start option is specified, *cpname* is an interchange node.

- If EN is specified on the NODETYPE start option and the HOSTSA start option is specified, *cpname* is a migration data host.

#### NO

- If *cpname* is an NN, it is not an interchange node.
- If *cpname* is an EN, it is not a migration data node.

- *cdservr* indicates whether *cpname* is a central directory server. Possible values are:

#### YES

*cpname* is a central directory server.

#### NO

*cpname* is not a central directory server.

- *rsn* is the resource sequence number (RSN) of *cpname* expressed in decimal.

Displaying the RSN for a resource provides information about VTAM's current knowledge of that resource.

For example, if a display of a resource from two different VTAMs indicates different RSNs for the same resource, one VTAM has backlevel information. This mismatch might indicate a problem.

- *option* is the value that was coded for the HPR start option. Possible values are:

#### NONE

This node has no HPR capabilities.

#### ANR

This node provides ANR routing and can only function as an intermediate node in an HPR connection.

#### RTP

This node has all the capabilities of an ANR node and it can function as endpoints for RTP connections.

For additional information on the meaning of the values for HPR for VTAM nodes, see the description of message [IST1482I](#).

### IST1299I, IST1300I, IST1301I, IST1357I

- This message subgroup displays the TGs that originate at this node. A description of the message subgroup follows:

IST1299I IST1357I	TRANSMISSION GROUPS ORIGINATING AT CP <i>cpname</i>					
IST1300I IST1301I	DESTINATION CP <i>destcpname</i>	TGN <i>tn</i>	STATUS <i>status</i>	TGTYPE <i>tgtype</i>	CPCP VALUE	WEIGHT <i>cpval</i> <i>weight</i>

#### • IST1299I

This is a header message for the TGs that originate in the node that is displayed.

*cp\_name* is the network-qualified CP name of the origin node of the TGs.

#### • IST1300I, IST1357I

These are header messages for the TGs displayed in message IST1301I.

#### • IST1301I

- *destcpname* is the network-qualified CP name of the TG destination node.
- *tn* is the TG number. Possible values are 0–255.
- *status* is the current state of the TG. Possible values are:

#### OPER

The TG is operational.

#### INOP

The TG is not operational.

#### QUIES

The TG is quiescent.

**Tip:** The *status* value for an intercluster TG or a TG to a branch extender will always be QUIES when it is displayed in a non-owning node. The owning node of a TG is the node where the TG originates (origin node).

If the TG is ready for garbage collection, /G is appended to the end of the *status* value.

- *tgtype* is the TG type. Possible values are:

#### **BRANCH**

The TG is a branch extender. The BRANCH tgtype can be used by IBM Communications Server for Data Center Deployment on Linux. For more information about this function, see *IBM Communications Server for Linux, Quick Beginnings*, GC31-6768-04.

#### **ENDPT**

The TG is an endpoint TG. If the origin node or destination node is an EN, then the TG is an endpoint TG.

#### **ENDPT VRTG**

The TG is an endpoint VR-based TG (VRTG). A VRTG connects two APPN-capable VTAM nodes through a subarea network. A VRTG, although it creates the appearance of APPN, always represents underlying subarea connectivity. If the origin node or destination node is an EN, then the TG is an endpoint VRTG.

#### **INTERM**

The TG is an intermediate routing TG. An intermediate routing TG represents an NN to NN or NN to virtual routing node (VRN) connection.

#### **INTERM VRTG**

The TG is an intermediate routing VRTG. A VRTG connects two APPN-capable VTAM nodes through a subarea network. A VRTG, although it creates the appearance of APPN, always represents underlying subarea connectivity. An intermediate routing VRTG represents an NN to NN connection.

#### **INTERCLUST**

The TG is an intercluster (ICL) or intersubnet link (ISL) TG. These TGs are connections between border nodes or non-native nodes.

- *cpval* indicates whether this connection supports CP-CP sessions. Possible values are:

#### **YES**

The connection supports CP-CP sessions. This is not an indication that a CP-CP session is active across the TG.

#### **NO**

The connection does not support CP-CP sessions.

- *weight* represents the actual weight of the TG as calculated by VTAM using the TG, the TG profile, and the class of service (CoS) definitions. The value of 32767 is displayed when a TG is not operational or does not meet the CoS requirements specified by the APPNCOS parameter in the DISPLAY TOPO command.
  - The weight of a TG is a measure of the relative desirability of choosing that resource in the route selection process. Valid values 0–255 or 32767.
  - See the [APPN transmission group profile and the APPN Class of Service definitions in z/OS Communications Server: SNA Resource Definition Reference](#) for more information about coding TG profiles and APPN Class of Service definitions.

### **IST1348I**

- *nodetype* indicates the node type of this host and is determined by start options that are specified. Possible values are:

#### **END NODE**

The host is a pure APPN end node.

#### **MIGRATION DATA HOST**

The host is a migration data host (MDH). A node is an MDH if EN is specified on the NODETYPE start option, and the HOSTSA start option is specified.

### **IST1769I**

The *date* and *time* values specify when the last TDU was received for this node. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

The *adjacent\_cp* value is the network-qualified CP name of the adjacent node that sent the last TDU that was received for this node.

#### **IST1784I**

This message is issued if no TDU about this resource was received.

#### **IST1803I**

This message is displayed when a DISPLAY TOPO command is issued at an end node and the parameter value displayed in this message is not valid.

*value* is the parameter value that is not valid and is ignored.

*default* is the default value used for the parameter. The default value shown in this message is used.

#### **IST1804I**

This message is displayed when a DISPLAY TOPO command is issued at an end node and the parameter displayed in this message is not valid. The parameter is ignored.

*parameter* is the parameter that is not valid.

#### **IST1805I**

This message is displayed when a DISPLAY TOPO command is issued at an end node. The information displayed from the local topology database might be a subset of the information displayed when the same command is issued at a network node.

#### **IST2275I**

- This message contains the date and time when all the TDU information and TDU counters were reset. The TDU information and TDU counters for a node are reset every 24 hours when garbage collection runs, or when one of the following commands is entered:

- DISPLAY NET,TOPO,LIST=TDUINFO,CLEAR=YES
- DISPLAY NET,TOPO,LIST=TDUDIAG,CLEAR=YES
- DISPLAY NET,TOPO,LIST=TDUDIAG,ID=*cpname*,CLEAR=YES

See “[DATE and TIME formats](#)” on page 6 for information about the *date* and *time* values.

#### **IST2277I**

This message indicates that possible topology control vector corruption was detected for the node. Because the topology control vectors contain the resource sequence number (RSN) for the node, which determines how a TDU is processed, it is possible that control vector corruption could cause a TDU war. A TDU war is the endless exchange of TDUs in contention over the same topology resource, resulting in continuous performance degradation of the APPN network. Possible corruption is detected when the topology control vectors saved in the topology database for the node being processed do not appear to be formatted correctly. The most probable cause of control vector corruption is a storage overlay.

#### **IST2281I**

This message identifies the date and time of the last topology database update (TDU) that was sent for this node. See “[DATE and TIME formats](#)” on page 6 for information about the *date* and *time* values.

#### **IST2282I, IST2352I, IST2353I, IST2354I**

- This message subgroup displays topology database update (TDU) counts for this node. A description of the message subgroup follows:

```
IST2282I TDU COUNTS:
IST2352I SENT      = sent      RECEIVED = received
IST2353I ACCEPTED  = accepted  REJECTED = rejected
IST2354I IGNORED   = ignored
```

- **IST2282I**

This is a header message for topology database update (TDU) counts for this node.

- **IST2352I**

This message displays counts of TDUs sent and received for this node.

The *sent* value is the number of TDUs about the node that were sent since the last time that the TDU counts were reset.

The *received* value is the number of TDUs about the node that were received since the last time that the TDU counts were reset.

- **IST2353I**

This message displays the counts of the TDUs that were accepted and rejected for this node.

The *accepted* value is the number of TDUs about the node that were accepted since the last time that the TDU counts were reset. The TDUs contain new information about the node and the topology database was updated.

The *rejected* value is the number of TDUs about the node that were rejected since the last time that the TDU counts were reset. The TDUs were rejected because the TDUs contain outdated information about the node. TDUs that are built from the local topology database information for the node were sent as corrections.

- **IST2354I**

This message displays counts of TDUs ignored for this node.

The *ignored* value is the number of TDUs about the node that were ignored since the last time that the TDU counts were reset. The TDUs were discarded because the TDUs contained no new information.

**IST2307I**

This message indicates that the node does not support the receipt of unknown topology vectors in TDUs.

Network nodes adjacent to this node can send only the originally architected control vectors, CV44 and CV45, in TDUs to this node.

**IST2315I**

This message is issued if no TDU about this resource was sent.

**IST2355I**

This message contains the date and time when the TDUDIAG threshold was reached for this resource. See the [TDUDIAG start option](#) information in *z/OS Communications Server: SNA Resource Definition Reference* for more information about the TDUDIAG threshold. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

**IST2356I**

- *platform* is the platform identifier this node. Possible values are:

**\*\*\*\*NA\*\*\*\***

Platform identifier is unknown

**CS/2**

IBM Communications Server for OS/2

**CS/AIX®**

IBM Communications Server for AIX

**CS/LINUX Z**

IBM Communications Server for Linux on z Systems®

**CS/LINUX I**

IBM Communications Server for Linux on Intel

**CS/WINDOWS**

IBM Communications Server for Windows

**ISERIES**

IBM iSeries

**SNAPLUS2**

Hewlett-Packard SNAPplus2

- Z/OS VTAM**  
IBM z/OS Communications Server (VTAM)
- Z/VM VTAM**  
IBM z/VM® VTAM
- Z/VSE VTAM**  
IBM z/VSE® VTAM

System action

Processing continues

Operator response

None

System programmer response

None

Routing code

2

Descriptor code

5

Example

The following is an example of the display output from a DISPLAY TOPO,ID=SSCP1A,LIST=ALL command:

```
IST350I DISPLAY TYPE = TOPOLOGY
IST1295I CP NAME          NODETYPE ROUTERES CONGESTION CP-CP WEIGHT
IST1296I NETA.SSCP2A      NN         1         NONE      YES      *NA*
IST1579I -----
IST1297I                  ICN/MDH   CDSERV  RSN          HPR
IST1298I                  NO         NO      8           RTP
IST1579I -----
IST1223I                  BN         NATIVE  TIME LEFT   LOCATE SIZE
IST1224I                  NO         YES     12          16K
IST924I -----
IST2356I PLATFORM = Z/OS VTAM
IST924I -----
IST2275I TDU INFORMATION SINCE LAST RESET ON 02/11/10 AT 10:48:52
IST1769I LAST TDU RECEIVED - 02/11/10 13:40:14 FROM NETA.SSCP1A
IST2281I LAST TDU SENT - 02/11/10 13:40:20
IST2282I TDU COUNTS:
IST2352I   SENT      = 3              RECEIVED = 3
IST2353I   ACCEPTED  = 1              REJECTED  = 0
IST2354I   IGNORED   = 2
IST924I -----
IST1299I TRANSMISSION GROUPS ORIGINATING AT CP NETA.SSCP2A
IST1357I
IST1300I DESTINATION CP   TGN      STATUS  TGTYPE      CPCP
IST1301I NETA.SSCP1A     255      OPER    INTERM VRTG  YES  *NA*
IST314I END
```

**IST1296I** *cpname nodetype routeres congestion cp-cp weight*

Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command. See IST1295I for a complete description of possible message groups.



Routing code

2

Descriptor code

5

---

**IST1297I** **ICN/MDH CDSERV RSN HPR**

---

Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command. See IST1295I for a complete description of possible message groups.

Routing code

2

Descriptor code

5

---

**IST1298I** **icn/mdh cdservr rs n option**

---

Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command. See IST1295I for a complete description of possible message groups.

Routing code

2

Descriptor code

5

---

**IST1299I** **TRANSMISSION GROUPS ORIGINATING AT CP cpname**

---

Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command.

- If this message is followed by [IST1308I](#), see the explanation of that message for a complete description of the message group.
- If this message is issued in response to a DISPLAY,TOPO,ID=cpname,LIST=ALL command, see message [IST1295I](#) for a complete description of the message group.
- If this message is issued in response to the following commands, a complete description of the message group follows:
  - DISPLAY,TOPO,ORIG=cpname,DEST=cpname
  - DISPLAY,TOPO,ORIG=cpname,TGN=tgn

IST350I	DISPLAY TYPE = TOPOLOGY					
IST1299I	TRANSMISSION GROUPS ORIGINATING AT CP cpname					
IST1357I					CPCP	
IST1300I	DESTINATION CP	TGN	STATUS	TGTYPE	VALUE	WEIGHT
IST1301I	destcpname	tgn	status	tgtype	cpval	weight
IST1579I	-----					
IST2241I					TIME	ISL
IST1163I		RSN		HPR	LEFT	WEIGHT

```

IST1164I          rsn          hpr          time  isl_wgt
IST1579I          -----
IST1302I          CAPACITY PDELAY  COSTTIME  COSTBYTE
IST1303I          capacity pdelay  costtime  costbyte
IST1579I          -----
IST1304I          SECURITY UPARM1  UPARM2    UPARM3
IST1305I          security uparm1  uparm2    uparm3
IST1579I          -----
IST1736I          PU NAME
IST1737I          puname
[IST924I -----]
[IST2355I TDUDIAG THRESHOLD REACHED ON date AT time]
[IST2277I POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED]
IST924I -----
IST2275I TDU INFORMATION SINCE LAST RESET ON date AT time
[IST1769I LAST TDU RECEIVED - date time FROM adjacent_cp]
[IST1784I LAST TDU RECEIVED - NONE]
[IST2281I LAST TDU SENT - date time]
[IST2315I LAST TDU SENT - NONE]
IST2282I TDU COUNTS:
IST2352I   SENT      = sent          RECEIVED = received
IST2353I   ACCEPTED = accepted       REJECTED = rejected
IST2354I   IGNORED  = ignored
IST314I   END

```

## IST350I

This message identifies the type of information in the display and is always TOPOLOGY for this message group.

## IST1299I, IST1357I, IST1300I, IST1301I

- This message subgroup displays the origin CP name, destination CP name, TG number, status, type, CP-CP value and weight for this TG. A description of the message subgroup follows:

```

IST1299I  TRANSMISSION GROUPS ORIGINATING AT CP cpname
IST1357I
IST1300I  DESTINATION CP      TGN      STATUS  TGTYPE  CPCS
IST1301I  destcpname         tgn      status  tgtype  VALUE WEIGHT
                                cpval weight

```

### • IST1299I

This is a header message for information about a TG that originates in *cp\_name*.

The *cp\_name* value is the network-qualified CP name of the origin node of the TG.

### • IST1357I, IST1300I

These are header messages for information displayed in message IST1301I.

### • IST1301I

- The *destcpname* value is the network-qualified CP name of the TG destination node.
- The *tgn* value is the TG number. Possible values are 0-255.
- The *status* value is the current state of the TG. Possible values are:

#### OPER

The TG is operational.

#### INOP

The TG is not operational.

#### QUIES

The TG is quiescent.

**Tip:** The *status* value for an intercluster TG or a TG to a branch extender will always be QUIES when displayed in a non-owning node. The owning node of a TG is the node where the TG originates (origin node).

If the TG is ready for garbage collection, /G is appended to the end of the *status* value.

- The *tgtype* value is the TG type. Possible values are:

## BRANCH

The TG is a branch extender. The BRANCH tgtype can be used by IBM Communications Server for Data Center Deployment on Linux. For more information about this function, see *IBM Communications Server for Linux, Quick Beginnings*, GC31-6768-04.

## ENDPT

The TG is an endpoint TG. If the origin node or destination node is an EN, then the TG is an endpoint TG.

## ENDPT VRTG

The TG is an endpoint VR-based TG (VRTG). A VRTG connects two APPN-capable VTAM nodes through a subarea network. A VRTG, although it creates the appearance of APPN, always represents underlying subarea connectivity. If the origin node or destination node is an EN, then the TG is an endpoint VRTG.

## INTERM

The TG is an intermediate routing TG. An intermediate routing TG represents an NN to NN or NN to virtual routing node (VRN) connection.

## INTERM VRTG

The TG is an intermediate routing VRTG. A VRTG connects two APPN-capable VTAM nodes through a subarea network. A VRTG, although it creates the appearance of APPN, always represents underlying subarea connectivity. An intermediate routing VRTG represents an NN to NN connection.

## INTERCLUST

The TG is an intercluster (ICL) or intersubnet link (ISL) TG. These TGs are connections between border nodes or non-native nodes.

- The *cpval* value indicates whether this connection supports CP-CP sessions. Possible values are:

### YES

The connection supports CP-CP sessions. This is not an indication that a CP-CP session is active across the TG.

### NO

The connection does not support CP-CP sessions.

- The *weight* value represents the actual weight of TG *tgn* as calculated by VTAM using the TG, the TG profile, and the class of service (CoS) definitions. The value of 32767 is displayed when a TG is not operational or does not meet the CoS requirements specified by the APPNCOS parameter in the DISPLAY TOPO command.
  - The weight of TG *tgn* is a measure of the relative desirability of choosing that resource in the route selection process and is 0-255 or 32767.
  - See the [APPN transmission group profile](#) and the [APPN Class of Service definitions in z/OS Communications Server: SNA Resource Definition Reference](#) for more information about coding TG profiles and APPN Class of Service definitions.

## IST1302I, IST1303I

- This message subgroup displays TG characteristics for this TG. A description of the message subgroup follows:

IST1302I	CAPACITY	PDELAY	COSTTIME	COSTBYTE
IST1303I	capacity	pdelay	costtime	costbyte

- **IST1302I**

This is a header message for information displayed in message IST1303I.

- **IST1303I**

- The *capacity* value is a user-defined value that can be specified on the GROUP, LINE, PU, or TGP definition statements. This value represents the number of bits per second that the link will transmit. Possible values are:

### nnnnK

The valid range for *nnnn* is 1-1000 expressed in kilobits.

### nnnnM

The valid range for *nnnn* is 1-1000 expressed in megabits.

**nnnnG**

The valid range for *nnnn* is 1-1000 expressed in gigabits.

See the information about the [CAPACITY operand](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

- The *pdelay* value (propagation delay) is a user-defined value that can be specified on the GROUP, LINE, PU, or TGP definition statements. This value represents the time needed for a signal to travel from one end of the link to the other. Possible values are:

**NEGLIGIB**

Less than .48 milliseconds.

**TERRESTR**

Between .48 and 49.151 milliseconds

**PACKET**

Between 49.152 and 245.76 milliseconds.

**LONG**

Greater than 245.76 milliseconds.

See the information about the [PDELAY operand](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

- The *costtime* value is a user-defined value that can be specified on the GROUP, LINE, PU, or TGP definition statements. This value indicates the cost of the line or node per connect time.
  - Possible values are 0-255. Low values are less expensive than higher values.
  - See the information about the [COSTTIME operand](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).
- The *costbyte* value is a user-defined value that can be specified on the GROUP, LINE, PU, or TGP definition statements. This value indicates the cost of the line or node per byte sent.
  - Possible values are 0-255. Low values are less expensive than higher values.
  - See the information about the [COSTBYTE operand](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

**IST1304I, IST1305I**

- This message subgroup displays additional TG characteristics for this TG. A description of the message subgroup follows:

IST1304I	SECURITY	UPARM1	UPARM2	UPARM3
IST1305I	security	uparm1	uparm2	uparm3

- **IST1304I**

This is a header message for information displayed in message IST1305I.

- **IST1305I**

- The *security* value is the user-specified value that can be specified on the GROUP, LINE, PU, or TGP definition statements. This value indicates the security level of the transmission group. Possible values are:

**ENCRYPT**

Link encryption used.

**GUARDED**

Guarded conduit, physical only.

**PUBLIC**

Public switched network.

**SECURE**

Secure conduit, not guarded.

**SHIELDED**

Guarded conduit, physical and radiation shielded.

## UNSECURE

Not secure.

## UNDERGRO

Underground cable, not guarded.

See the information about the [SECURITY operand](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

- The *uparm1*, *uparm2*, and *uparm3* values are user-defined parameter values. The user determines the meaning of these values, and the valid range is 0-255.

See the information about the [UPARM1 operand](#), the [UPARM2 operand](#), and the [UPARM3 operand](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

## IST1736I, IST1737I

- This message subgroup displays the physical unit (PU) associated with this TG. A description of the message subgroup follows:

IST1736I	PU NAME
IST1737I	puname

- **IST1736I**

This is a header message for information displayed in message IST1737I.

- **IST1737I**

The *puname* value is the name of the physical unit.

## IST1769I

This message identifies the date and time of the last topology database update (TDU) that was received for this node. See “DATE and TIME formats” on page 6 for information about the *date* and *time* values.

The *adjacent\_node* value is the network-qualified CP name of the adjacent node that sent the last TDU that was received.

## IST1784I

This message is issued if no TDU about this resource was received.

## IST2241I, IST1163I, IST1164I

- This message subgroup displays the resource sequence number (RSN), HPR status, time left, and ISL weight for this TG. A description of the message subgroup follows:

IST2241I			TIME	ISL
IST1163I	RSN	HPR	LEFT	WEIGHT
IST1164I	rsn	hpr	time	isl_wgt

- **IST1163I**

This is a header message for information displayed in message IST1164I.

- **IST1164I**

- The *rsn* value is the RSN of the transmission group (TG) *tgn* expressed in decimal. The *tgn* is displayed in message IST1301I.
  - Displaying the RSN for a resource provides information about VTAM's current knowledge of that resource.
  - For example, if a display of a resource from two different VTAMs indicates different RSNs for the same resource, one VTAM might have backlevel information. This mismatch might indicate a problem.
- The *hpr* value indicates whether the TG is allowed to use Rapid Transport Protocols (RTP). Possible values are:

## YES

The TG is allowed to use RTP. This is not an indication that RTP is used across the TG.

## NO

The TG is not allowed to use RTP.

For more information about the *hpr* value, see the description of message [IST1482I](#).

- The *time* value is the number of days remaining until the TG is removed from the topology database (garbage collected), if the TG is either inoperative or has an odd-numbered *rsn* value. An operational TG with an even-numbered *rsn* value will not be removed from the database until the origin node is removed from the database, or until a topology database update (TDU) is received with an indication that the TG should be removed.
- The *isl\_wgt* value represents the actual weight used in route calculation of the TG *tn* value when the TG originates in a border node and the destination is an Enterprise Extender (EE) global virtual routing node (GVRN). This is the weight of the TG when it is used in a session route calculation and the PLU node calculating the route is in another subnet. When the PLU node is in another subnet, this TG is being used as an intersubnet link (ISL). The weight is calculated by z/OS Communications Server using the TG, the TG characteristics, and the class of service (CoS) definitions.
  - When the TG is used this way, a COSTBYTE value of 0 is temporarily changed to 1 to increase the weight of the TG, so the weight that is displayed in message [IST1301I](#) might be different than the ISL weight that is displayed in message [IST1164I](#). If the existing COSTBYTE value that is assigned to the TG is not 0, no change is made, and the weight that is displayed in message [IST1301I](#) is the same as the ISL weight that is displayed in message [IST1164I](#). When the TG is being used for routes that are calculated in the subnet that contains the TG, it is not being used as an ISL and the weight that is displayed in [IST1301I](#) is used. See the [Route calculation and selection information in z/OS Communications Server: SNA Network Implementation Guide](#) for more information about route calculation using EE global VRNs across network boundaries.
- The weight of a TG is a measure of the relative desirability of choosing that resource in the route selection process. The *isl\_wgt* value can be one of the following:
  - A value in the range of 0-255.
  - 32767 when a TG is not operational or does not meet the CoS requirements specified by the APPNCOS operand in the DISPLAY TOPO command.
  - \*NA\* when the APPNCOS operand is not specified on the DISPLAY TOPO command, or when the destination of the TG is not an EE GVRN.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about coding TG profiles and APPN Class of Service definitions.

### • IST2275I

- This message contains the date and time when all the TDU information and TDU counters were reset. The TDU information and TDU counters for a TG are reset every 24 hours when garbage collection runs, or when one of the following commands is entered:
  - DISPLAY NET,TOPO,LIST=TDUINFO,CLEAR=YES
  - DISPLAY NET,TOPO,LIST=TDUDIAG,CLEAR=YES
  - DISPLAY NET,TOPO,LIST=TDUDIAG,ORIG=*cpname*,DEST=*destcpname*,TGN=*tn*,CLEAR=YES

See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

### • IST2277I

This message indicates possible topology control vector corruption was detected for the TG. Because the topology control vectors contain the resource sequence number (RSN) for the TG, which determines how a TDU is processed, it is possible that control vector corruption could cause a TDU war. A TDU war is the endless exchange of TDUs in contention over the same topology resource, resulting in continuous performance degradation of the APPN network. Possible corruption is detected when the topology control vectors saved in the topology database for the TG being processed do not appear to be formatted correctly. The most probable cause of control vector corruption is a storage overlay.

### IST2281I

This message identifies the date and time of the last topology database update (TDU) that was sent for this TG. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST2282I, IST2352I, IST2353I, IST2354I**

- This message subgroup displays topology database update (TDU) counts for this TG. A description of the message subgroup follows:

```
IST2282I TDU COUNTS:
IST2352I SENT      = sent      RECEIVED = received
IST2353I ACCEPTED  = accepted  REJECTED = rejected
IST2354I IGNORED   = ignored
```

- **IST2282I**

This is a header message for topology database update (TDU) counts for this TG.

- **IST2352I**

This message displays counts of TDUs sent and received for this TG.

The *sent* value is the number of TDUs about the TG that were sent since the last time that the TDU counts were reset.

The *received* value is the number of TDUs about the TG that were received since the last time that the TDU counts were reset.

- **IST2353I**

This message displays counts of TDUs accepted and rejected for this TG.

The *accepted* value is the number of TDUs about the TG that were accepted since the last time TDU counts were reset. The TDUs contain new information about the node and the topology database was updated.

The *rejected* value is the number of TDUs about the TG that were rejected since the last time that the TDU counts were reset. The TDUs were rejected because the TDUs contain outdated information about the node. TDUs that were built from the local topology database information for the TG were sent as corrections.

- **IST2354I**

This message displays counts of TDUs ignored for this TG.

The *ignored* value is the number of TDUs about the TG that were ignored since the last time that the TDU counts were reset. The TDUs were discarded because the TDUs contained no new information.

#### **IST2315I**

This message is issued if no TDU about this resource was sent.

#### **IST2355I**

This message contains the date and time when the TDUDIAG threshold was reached for this resource. See the [TDUDIAG start option](#) information in *z/OS Communications Server: SNA Resource Definition Reference* for more information about the TDUDIAG threshold. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

### **System action**

Processing continues

### **Operator response**

None.

### **System programmer response**

None.

## Routing code

2

## Descriptor code

5

## Example

The following is an example of the display output from a DISPLAY TOPO,ORIG=SSCP1A,DEST=SSCP2A,TGN=21 command:

```
IST350I DISPLAY TYPE = TOPOLOGY
IST1299I TRANSMISSION GROUPS ORIGINATING AT CP NETA.SSCP1A
IST1357I
IST1300I DESTINATION CP      TGN      STATUS  TGTYPE      CPCP
IST1301I NETA.SSCP2A        21        OPER    INTERM      YES  WEIGHT
IST1579I -----
IST2241I                                TIME  ISL
IST1163I                                LEFT  WEIGHT
IST1164I                                12    *NA*
IST1579I -----
IST1302I CAPACITY PDELAY  COSTTIME  COSTBYTE
IST1303I 32M      TERRESTR 0         0
IST1579I -----
IST1304I SECURITY UPARM1  UPARM2    UPARM3
IST1305I UNSECURE 128    128      128
IST1579I -----
IST1736I PU NAME
IST1737I P1234567
IST924I -----
IST2275I TDU INFORMATION SINCE LAST RESET ON 02/11/10 AT 10:48:52
IST1769I LAST TDU RECEIVED - 02/11/10 13:40:14 FROM NETA.SSCP1A
IST2281I LAST TDU SENT - 02/11/10 13:40:20
IST2282I TDU COUNTS:
IST2352I SENT      = 10          RECEIVED = 4
IST2353I ACCEPTED = 0          REJECTED  = 2
IST2354I IGNORED  = 2
IST314I END
```

IST1300I	DESTINATION CP	TGN	STATUS	TGTYPE	VALUE	WEIGHT
----------	----------------	-----	--------	--------	-------	--------

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,ID=cp\_name,LIST=ALL. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tgn. See message [IST1299I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

IST1301I	destcpname	tgn	status	tgtype	cpvalue	weight
----------	------------	-----	--------	--------	---------	--------

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:



- DISPLAY TOPO,ID=cp\_name,LIST=ALL. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tn. See message [IST1299I](#) for a complete description of this message group.

### Routing code

2

### Descriptor code

5

IST1302I	CAPACITY PDELAY COSTTIME COSTBYTE
----------	-----------------------------------

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tn command. See [IST1299I](#) for a complete description of this message group.

### Routing code

2

### Descriptor code

5

IST1303I	<i>capacity pdelay costtime costbyte</i>
----------	--

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tn command. See [IST1299I](#) for a complete description of this message group.

### Routing code

2

### Descriptor code

5

IST1304I	SECURITY UPARM1 UPARM2 UPARM3
----------	-------------------------------

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tn command. See [IST1299I](#) for a complete description of this message group.

### Routing code

2

## Descriptor code

5

---

**IST1305I****security uparm1 uparm2 uparm3**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tgn command. See [IST1299I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST1306I****LAST CHECKPOINT ADJ NN EN SERVED EN CDSERVR ICN BN**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY,TOPO,LIST=SUMMARY command. A complete description of the message group follows the example.

```
IST350I  DISPLAY TYPE = TOPOLOGY
IST1306I  LAST CHECKPOINT  ADJ NN  EN  SERVED EN CDSERVR ICN  BN
IST1307I  date    time    adj nn  en  served_en cdserver icn  bn
IST1781I  INITDB CHECKPOINT DATASET  LAST GARBAGE COLLECTION
IST1785I  initdb_date initdb_time    garbage_collect_date garbage_collect_time
[IST2360I  ROUTING TREES LAST CLEARED AT clear_date clear_time BY clear_process]
IST314I  END
```

### IST350I

This message identifies the type of information shown in the display and is always **TOPOLOGY** for this message group.

### IST1306I

This message is the header for information displayed in message IST1307I.

### IST1307I

- *date* and *time* are displayed for **LAST CHECKPOINT**.

The *date* and *time* values indicate the date and time of the last topology data base checkpoint. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

*adj* is the number of nodes adjacent to the node issuing the command.

*nn* is the total number of network nodes known to the network.

*en* is the total number of end nodes with a direct APPN connection to this node.

*served\_en* is the number of adjacent end nodes served by the node issuing the command.

*cdrserv* is the total number of directory servers known to the network.

*icn* is the total number of interchange nodes known to the network.

*bn* is the total number of border nodes known to the network.

### IST1781I

This message is the header for information displayed in message IST1785I.

## IST1785I

*initdb\_date* and *initdb\_time* are the creation date and time of the topology checkpoint data set that was successfully loaded when VTAM was started with start option INITDB=TOPO or INITDB=ALL. See [“DATE and TIME formats”](#) on page 6 for information about the date and time values.

*garbage\_collect\_date* and *garbage\_collect\_time* are the date and time of the last topology data base garbage collection. See [“DATE and TIME formats”](#) on page 6 for information about the date and time values.

## IST2360I

- *clear\_date* and *clear\_time* are the date and time that the APPN routing trees were last cleared. See [“DATE and TIME formats”](#) on page 6 for information about the date and time values.
- *clear\_process* is the process that cleared the routing trees. Possible values are:

### MODIFY

The APPN routing trees were cleared with a MODIFY *procname*,TOPO,FUNCTION=CLRTREES command.

### VRR

The APPN routing trees were cleared by the VTAM recovery routine for APPN route selection services. VTAM invokes this recovery routine when an abend occurs while APPN route selection services is calculating a session route.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

---

## IST1307I

*date time adj nn en served\_en dirsrv icn bn*

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY,TOPO,LIST=SUMMARY command. See IST1306I for a complete description of the group.

## Routing code

2

## Descriptor code

5

## Explanation

VTAM issues this message as part of a group of messages when the resource specified or implied (NODE or TG) on the command cannot be found in the topology database.

If this message is the result of a MODIFY TOPO command, then the first message is IST1158. See the explanation of that message for a complete explanation.

If this message is the result of a DISPLAY TOPO command, a complete description of the message group follows the example.

```
IST350I  DISPLAY TYPE = TOPOLOGY
[IST1348I  VTAM STARTED AS nodetype]
[IST1805I  ONLY LOCAL TOPOLOGY INFORMATION IS AVAILABLE]
[IST1299I  TRANSMISSION GROUPS ORIGINATING AT CP cpname]
IST1308I  RESOURCE WAS NOT FOUND IN THE TOPOLOGY DATABASE
IST314I  END
```

## IST1299I

- Message IST1299I is issued for the following commands:

- DISPLAY,TOPO,ORIG=*cpname*,DEST=*cpname*
- DISPLAY,TOPO,ORIG=*cpname*,TGN=*tgn*

**Note:** If the origin *cpname* is not valid, message IST1299I is not issued.

- *cpname* is the name of the resource specified on the ORIG operand of the command. If a network-qualified name was entered on the command, VTAM issues *cpname* in the form *netid.name*.

## IST1308I

This message is issued when *nodename* or *tgnumber* cannot be found in the topology database.

## IST1348I

- Message IST1348I is issued for the following commands entered from an end node or a migration data host:
  - DISPLAY,TOPO,LIST=NN|EN|BN|ICN|VN|CDSERV
  - DISPLAY,TOPO,LIST=SUMMARY
- *nodetype* indicates the node type of this host and is determined by start options that are specified. Possible values are:
  - END NODE
  - MIGRATION DATA HOST

## IST1805I

This message is displayed when a DISPLAY TOPO command is issued at an end node and the requested information is not available.

## System action

Processing continues.

## Operator response

Ensure that you entered the command correctly.

## System programmer response

None.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1309I</b>	<b>START OPTION CURRENT VALUE ORIGINAL VALUE ORIGIN</b>
-----------------	---

---

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1310I</b>	<i>option current_value original_value origin</i>
-----------------	---

---

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1311A</b>	<b>ENTER START OPTION OVERRIDES OR ENTER HALT TO EXIT VTAM</b>
-----------------	--

---

**Explanation**

VTAM issues this message in response to the following situations during start processing:

- VTAM encountered an error during processing of VTAM start options.
- The operator asked for additional prompting in response to message IST051A.

**System action**

VTAM waits for a reply to this message.

- If the LIST start option is entered, VTAM ignores it.
- If HALT is entered, start processing ends and VTAM is terminated.

**Operator response**

- Enter start options to override current values, or enter a blank to indicate that you want default values. If you need another prompt for further overrides, follow the last option with a comma.
- Enter HALT to terminate VTAM.

## System programmer response

None.

## Routing code

2

## Descriptor code

1

---

**IST1312I****NO START OPTIONS HAVE BEEN MODIFIED**

## Explanation

VTAM issues this message in response to a DISPLAY VTAMOPTS command when FORMAT=MODIFIED was specified and no start options have been modified since VTAM start.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1313I****NO TRACES ACTIVE FOR *resourcename***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TRACES command when there are no active traces for *resourcename*.

*resourcename* is the name of the resource specified on the ID operand of the command.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1314I**

**TRLE = *trl\_element* STATUS = *trle\_status* CONTROL = *lnctl***

---

### Explanation

VTAM issues this message as part of a message group in response to any of the following commands:

- A DISPLAY ID command for a PU that supports an APPN host-to-host connection.
- A DISPLAY ID command for a PU that supports an XCF connection.
- A DISPLAY TRL command when the TRLE operand is not specified.

*trl\_element* is the name of an element in the active transport resource list (TRL).

When *lnctl* is TCP, the name of the TRL element (TRLE) given by *trl\_element* is dynamically generated by VTAM. The first three characters of the name are always **IUT** and the fourth character of the name indicates the device type according to the following list:

#### **C**

CDLC

#### **H**

Hyperchannel

#### **S**

Samehost

#### **W**

CLAW

#### **X**

CTC

When *lnctl* is ROCE, the name of the TRLE given by *trl\_element* is dynamically generated by VTAM. The first three characters of the name are always **IUT**, the fourth character represents the port number (1 or 2), and the last four characters represent the Peripheral Component Interconnect Express (PCIe) function ID (PFID) used by the *RoCE* feature represented by *trl\_element*.

When *lnctl* is ISM, the name of the TRLE given by *trl\_element* is dynamically generated by VTAM. The first four characters of the name are always **IUTO**, and the last four characters represent the PFID used by the internal shared memory (ISM) device represented by *trl\_element*.

*trle\_status* is the resource status code that indicates the current status of the TRL element. If *trle\_status* is **\*\*\*\*NA\*\*\*\***, then the TRL major node with the TRLE named on the PU definition must be activated. See [Resource Status Codes and Modifiers](#) in [z/OS Communications Server: IP and SNA Codes](#) for a description of these status codes.

*lnctl* is the line control setting for *trl\_element*, and can be one of the following:

#### **ISM**

internal shared memory

#### **MPC**

multipath channel

#### **ROCE**

RDMA (Remote Direct Memory Access) over Converged Ethernet

#### **TCP**

transmission control protocol

**XCF**

cross-system coupling facility

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1315I****DISPLAY TRUNCATED AT *keyword* = *number*****Explanation**

This message is part of several different message groups that VTAM issues in response to a DISPLAY command.

VTAM issues this message when the number of resources to be displayed exceeds the value specified for the MAX or NUM operand.

*keyword* is either MAX or NUM.

*number* is the value specified for the MAX or NUM operand.

This message can be issued for any of the following commands:

- DISPLAY ADJSSCPS
- DISPLAY APPLS
- DISPLAY AUTOLOG
- DISPLAY CDRMS
- DISPLAY CDRSCS
- DISPLAY CLSTRS
- DISPLAY CPCP
- DISPLAY DIRECTRY,ID=\*.name
- DISPLAY EEDIAG
- DISPLAY EXIT
- DISPLAY GROUPS
- DISPLAY GRAFFIN
- DISPLAY LINES
- DISPLAY LUGROUPS,SCOPE=ALL
- DISPLAY MAJNODES
- DISPLAY PATHTAB
- DISPLAY PENDING



- DISPLAY RSCLIST
- DISPLAY SRCHINFO
- DISPLAY SESSIONS,LIST=ALL
- DISPLAY STATIONS
- DISPLAY STATS,TYPE=CFS
- DISPLAY STATS,TYPE=VTAM
- DISPLAY STORUSE
- DISPLAY TABLE,SCOPE=ALL
- DISPLAY TERMS
- DISPLAY TGPS
- DISPLAY TRL
- DISPLAY TOPO,LIST=UNRCHTIM
- DISPLAY USERVAR.

## Routing code

2

## Descriptor code

5

---

**IST1316I** **PU NAME = *puname* STATUS = *status*TRLE = *trl\_element***

## Explanation

VTAM displays this message as part of a message group in response to a DISPLAY ID, SCOPE=ALL command for a local SNA major node which contains at least one PU that supports APPN host-to-host connections.

*puname* is the name of a PU that supports an APPN host-to-host connection.

*status* is the status of the PU. See the [z/OS Communications Server: New Function Summary](#) for status information.

*trl\_element* is the name of an element in the active transport resource list (TRL). It identifies which element defining a multipath channel (MPC) group will be used as the supporting data link control (DLC) for this APPN host-to-host connection.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

## Explanation

This message is the first in a subgroup of messages that VTAM issues in response to the DISPLAY PATHS command.

This message subgroup is displayed in a message group headed by IST148I. A complete description of the message subgroup follows.

```
IST1317I  DLCADDR SUBFIELDS FOR PID: pid [instance]
IST1318I    parameter_value
[IST1319I    parameter_value]
.
.
[IST1318I    parameter_value]
[IST1319I    parameter_value]
.
.
```

### IST1317I

*pid* is the path identifier that was specified on the PATH definition statement.

*instance* indicates that *parameter\_value* in the group of IST1318I messages that follow correspond to the *instance* instance of the message IST168I with a *pid* of **000**. You must count the group of IST168I messages to find the *instance* instance of message IST168I with a *pid* of **000**. *instance* is only displayed when *pid* is **000**.

### IST1318I

- *parameter\_value* is the DLCADDR value specified in the PATH definition statement. The message will appear as follows:

```
IST1318I yy,N'parameter value'
```

- *N* is the value specified on the DLCADDR keyword.
- *yy* is the subfield ID.
- If the DLCADDR value was coded in hexadecimal or binary coded decimal (BCD), *parameter\_value* is displayed with a blank separating every 8 characters of data. If an odd number of digits was coded for the DLCADDR value, *parameter\_value* will be padded on the left with a 0.

### IST1319I

This message is used to display overflow information from *parameter\_value* in message IST1318I.

## System action

Processing continues

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1318I</b>	<i>parameter_value</i>
-----------------	------------------------

---

### Explanation

VTAM issues this message as part of a message group. The first message in the group is either IST149I, IST1317I, or IST1351I. See the explanation of those messages for a complete description of the message group.

### Routing code

2

### Descriptor code

5

---

<b>IST1319I</b>	<i>parameter_value</i>
-----------------	------------------------

---

### Explanation

VTAM issues this message as part of a message group. The first message in the group is either IST149I, IST1317I, or IST1351I. See the explanation of those messages for a complete description of the message group.

### Routing code

2

### Descriptor code

5

---

<b>IST1320I</b>	<i>command IS ONLY VALID AT type</i>
-----------------	--------------------------------------

---

### Explanation

VTAM issues this message when *command* is not valid for the node.

*command* can be one of the following:

- **D ADJCLUST**
- **D APPNTOSA**
- **D BNCOSMAP**
- **D GRPPREFS**
- **D SAMAP**
- **D SATOAPPN**

*type* can be one of the following:

- **APPN NODE**
- **BORDER NODES**
- **NN**
- **SYSPLEX HOST**

### System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

To enter *command* from this node, define the node as a border node, an APPN node, a network node, or a sysplex host.

## Routing code

2

## Descriptor code

5

---

**IST1321I** **TABLE FOR *tabletype* [*netid*]**

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY BNCOSMAP, APPNTOSA, SATOAPPN, or SNSFILTR command. Possible message groups follow.

- If the display type is **BNCOSMAP**, the following message group is displayed.

```
IST350I  DISPLAY TYPE = BNCOSMAP
IST1321I  TABLE FOR BNCOSMAP netid
IST1322I  NON-NATIVE      NATIVE
IST1323I  non-native      native
:
IST314I  END
```

- If the display type is **APPNTOSA**, the following message group is displayed.

```
IST350I  DISPLAY TYPE = APPNTOSA
IST1321I  TABLE FOR APPNTOSA
IST1431I  APPN COS        SUBAREA COS
IST1323I  appn_cos        subarea_cos      [DEFAULT]
:
IST314I  END
```

- If the display type is **SATOAPPN**, the following message group is displayed.

```
IST350I  DISPLAY TYPE = SATOAPPN
IST1321I  TABLE FOR SATOAPPN
IST1514I  SUBAREA COS     APPNCOS
IST1323I  appn_cos        subarea_cos      [DEFAULT]
:
IST314I  END
```

- If the display type is **SNSFILTR**, the following message group is displayed.

```
IST350I  DISPLAY TYPE = SNSFILTR
IST1321I  TABLE FOR SAW SENSE FILTER
IST1551I  sense_1 sense_2 sense_3 sense_4 sense_5
:
IST314I  END
```

- If the display type is **SAMAP**, the following message group is displayed.

```
IST350I  DISPLAY TYPE = SAMAP
IST1321I  TABLE FOR SAMAP
IST1671I  subarea_number MAPSTO subarea_number
:
IST314I  END
```

**IST350I**

This message identifies the type of information shown in the display.

*type* in this message group is either **BNCOSMAP**, **APPNTOSA**, **SATOAPPN**, **SNSFILTR**, or **SAMAP**. The display contains information about the specified user-defined tables that are active in VTAM.

#### **IST1321I**

- *tabletype* is either **BNCOSMAP**, **APPNTOSA**, **SATOAPPN**, **SAW SENSE FILTER**, or **SAMAP**.
- *netid* is displayed when *tabletype* is **BNCOSMAP** and represents the network ID that corresponds to the COS mappings.
  - *netid* is the name of the network that was specified on the NETWORK definition statement.
  - **DEFAULT\_NETID** is displayed if no specific value for *netid* has been defined.

#### **IST1322I, IST1431I, IST1514I**

This message is a header for the information displayed in message IST1323I.

#### **IST1323I**

- If *tabletype* in message IST1321I is **BNCOSMAP**, this message shows the corresponding nonnative and native COS names.

*nonnative* is the name of the COS that is defined in an adjacent nonnative subnetwork.

*native* is the COS name to which the nonnative COS will map in the topology subnetwork of the issuing node.

- If *tabletype* in message IST1321I is **APPNTOSA**, this message shows the corresponding APPN and subarea COS mappings.

*appn\_cos* is the COS name that is used for routing through the APPN network.

*subarea\_cos* is the COS name that is used for routing through the subarea network.

**DEFAULT** is displayed if COSDEF=YES is specified on the MAPSTO entry of the VBUILD definition statement.

#### **IST1431I**

This message is a header for the information displayed in message IST1323I.

#### **IST1514I**

This message is issued in response to a DISPLAY SATOAPPN command.

#### **IST1551I**

*sense* is a user-specified sense code, used by VTAM to filter session awareness data concerning session setup failures for a CNM application.

#### **IST1671I**

*subarea\_number* is the subarea number coded in the SAMAP table. The two subarea numbers represent the two subarea components in the composite network node (CNN) that are connected to each other.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1322I</b>	<b>NON-NATIVE NATIVE</b>
-----------------	--------------------------

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY COSMAP command. See the explanation of message IST1321I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

<b>IST1323I</b>	<i>non-native native</i>
-----------------	--------------------------

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY COSMAP command. See the explanation of IST1321I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

<b>IST1324I</b>	<b>VNNAME = <i>vnname</i> VNGROUP = <i>vn</i>group <i>vn</i>type</b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command when one of the following resources was specified on the ID operand of the command:

- Name of a line definition statement for a NCP major node
- Name of a port definition statement for a XCA major node.

VTAM also issues this message as part of several message groups in response to a DISPLAY EE command. These message groups begin with message IST2000I or IST2002I. See the explanations of those messages for a complete description.

*vnname* is the fully qualified virtual routing node name.

*vn*group is the GROUP associated with the connection network definition. If *vn*group is not coded when *vn*type is GLOBAL, then the value in *vn*group will be a string of periods.

*vn*type indicates the type of HPR/IP (Enterprise Extender) connection network. Possible values are:

**(LOCAL)**

The connection network is being defined as a LOCAL Virtual Routing Node (the connection network cannot traverse network or subnetwork boundaries.) Either VNTYPE was not specified, or VNTYPE was specified as LOCAL on the definition of the HPR/IP (Enterprise Extender) virtual node.

**(GLOBAL)**

The connection network is being defined as a GLOBAL Virtual Routing Node (the connection network can traverse network or subnetwork boundaries.) VNTYPE was specified as GLOBAL on the definition of the HPR/IP (Enterprise Extender) virtual node.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1326I</b>	<b>CP NAME TYPE STATE STATUS SNVC</b>
-----------------	---------------------------------------

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY ADJCLUST command. The first message in the group is IST2207I. See the explanation of message [IST2207I](#) for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1327I</b>	<b><i>cpname type state status snvc</i></b>
-----------------	---

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY ADJCLUST command. The first message in the group is IST2207I. See the explanation of message [IST2207I](#) for a complete description.

**Routing code**

2

## Descriptor code

5

---

**IST1328I**

**TRLE *trl\_element* NOT FOUND**

---

## Explanation

VTAM issues this message in response to the following commands when the TRLE requested is not found in an active transport resource list (TRL):

- DISPLAY TRL,TRLE=*trl\_element*
- MODIFY TNSTAT,TRLE=*trl\_element*
- MODIFY NOTNSTAT,TRLE=*trl\_element*
- MODIFY INOPDUMP=ON,TRLE=*trl\_element*
- MODIFY INOPDUMP=OFF,TRLE=*trl\_element*

*trl\_element* is the name of an element that is not in an active TRL major node.

## System action

Processing continues

## Operator response

Activate the TRL major node definition that contains the TRLE and reissue the command. If the message is displayed again, save the system log for problem determination.

## System programmer response

If necessary, add a TRLE statement for the *trl\_element* to a TRL major node definition.

## Routing code

2

## Descriptor code

5

---

**IST1329I**

***command resource* FAILED – VIRTUAL NODE NOT DEFINED**

---

## Explanation

VTAM issues this message in response to a MODIFY TGP command when a virtual node has not been defined for *resource*.

*command* is always **MODIFY TGP**.

*resource* is one of the following:

- The resource name that is specified on the ID operand of *command*
- The resource identified by the adjacent control point that is coded on the ID operand and the transmission group number that is coded on the TGN operand of *command*.

## System action

Processing continues.



## Operator response

Ensure that you entered *resource* correctly.

If VTAM continues to issue this message, save the system log for problem determination, and print the major node definition for *resource*.

## System programmer response

Verify that *resource* has defined the virtual node by coding VNNAME and VNGROUP on:

- Port definition statement for an XCA major node
- Line or group definition statement for an NCP major node.

See to the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about these definition statements.

## Routing code

2

## Descriptor code

5

---

**IST1330I** *type CANNOT BE ACTIVATED FROM nodetype*

## Explanation

VTAM issues this message in response to a VARY ACT command when *type* cannot be activated from this *nodetype*.

*type* can be one of the following:

### APPNCOS

APPN Class of Service

### ADJCP

Adjacent control point

### ADJSSCP

Adjacent system services control point

### CDRM

Cross domain resource manager

### NCP

Network Control Program

### NETSRVR

Network node server list

### PATH

Path definition statement

### PUTYPE4

Physical unit type 4

### PUTYPE5

Physical unit type 5

### TGP

Transmission group profile

*nodetype* represents the type of node from which the command was issued, and can be one of the following:

### APPN NODE

The node is an APPN network node or APPN end node.

**EN**

The node is an APPN end node.

**MDH**

The node is a migration data host and acts as both an APPN end node and a subarea node.

**NN**

The node is an APPN network node.

**SUBAREA NODE**

The node is a subarea node. It uses network addresses for routing and maintains routing tables that reflect the configuration of a network.

Message IST072I or IST1264I follows this message and displays the name of the resource that was specified on the ID operand of the VARY ACT command.

**System action**

Processing continues.

**Operator response**

Ensure that you entered the command correctly. If problems persist, save the system log for problem determination.

**System programmer response**

Check your network configuration to determine which value (*type* or *nodetype*) is not correct.

**Routing code**

2

**Descriptor code**

5

---

**IST1333I** **ADJLIST= *listname***

**Explanation**

This message is part of several groups of messages that VTAM issues in response to a DISPLAY ID command for a CDRSC when SCOPE=ALL and to a DISPLAY ADJSSCPs, ADJLIST= \*|*listname* command.

- If the first message is IST977I, IST831I, or IST611I, see the explanations of those messages for a complete description of the message group.
- If the first message is IST350I, a complete description of the message group follows the example.

```
IST350I  DISPLAY TYPE = ADJACENT SSCP TABLE
IST1333I ADJLIST = listname
IST624I  sscpname
:
IST314I  END
```

This message group is issued when an ADJLIST and an ADJSSCP were specified on the command.

**IST350I**

This message identifies the type of information shown in the display. DISPLAY TYPE is always **ADJACENT SSCP TABLE** for this message group.

**IST624I**

VTAM issues this message for each SSCP *sscpname* in the adjacent SSCP table being displayed.

## IST1333I

This message is displayed for each ADJLIST defined and activated. It will be followed by an IST624I message for each member in the adjacent SSCP list.

An ADJLIST definition statement must be active for this message to be displayed. *listname* is the name of an adjacent SSCP table as defined by an ADJLIST definition statement.

If an adjacent SSCP table was not specified for the CDRSC,

See the descriptions of the ADJLIST definition statement in the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on adjacent SSCP tables.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1334I** **TGN NOT AVAILABLE**

## Explanation

This message is part of a group messages that VTAM issues in response to a VARY ACT for a line when the activation of the logical connection to the virtual node fails. The first message in the group is IST1166I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1335I** ***statementname* HAS NO ADJCDRM STATEMENT FOR ADJLIST *listname***

## Explanation

This message is the first in a group of messages that VTAM issues during configuration when the VBUILD TYPE=ADJSSCP definition has one or more null ADJLIST lists. The null ADJLIST lists are ignored. A complete description of the message group follows.

```
IST1335I statementname HAS NO ADJCDRM STATEMENT FOR ADJLIST listname
IST323I LABEL = label name - MACRO TYPE = macrotype - KEYWORD = keyword
```

*statementname* is the ADJSSCP statement.

*listname* is the name of the adjacent SSCP table as defined by an ADJLIST definition statement.

## System action

Adjsscp activation fails.

## Operator response

Save the system log and notify the system programmer.

## System programmer response

Correct the null ADJLIST situation by doing one of the following:

- If the ADJLIST list is not needed, remove it from the definition.
- If the ADJLIST list is needed, add one or more ADJCDRM statements following the ADJLIST statements.

## Routing code

2

## Descriptor code

5

---

**IST1336I** *puname* **ACTIVATION FAILED – CONFLICTING operand VALUES**

## Explanation

VTAM issues this message when a PU definition contains the NATIVE operand and the value conflicts with the value on the ADJCP definition.

*puname* is the name of the PU for which the activation failed.

*operand* is **NATIVE**.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Make sure that the values of the operand are the same on the ADJCP and PU definitions.

## Routing code

2

## Descriptor code

5

---

**IST1337I** *operand ON labelname* **IGNORED – ONLY VALID FOR BN**

## Explanation

VTAM issues this message when

- The NATIVE operand was specified on a GROUP, LINE, PU, or ADJCP definition statement.

- The ALIASRCH, AUTHNETS, or RTPONLY operand was specified on an ADJCP definition statement, but this node is not a border node.

The operand is ignored.

*operand* is NATIVE, ALIASRCH, AUTHNETS, or RTPONLY.

*labelname* is the label of the definition statement specifying the operand.

### System action

Processing continues.

### Operator response

Save the system log for problem determination.

### System programmer response

Remove the NATIVE, ALIASRCH, AUTHNETS, or RTPONLY operand if this node is not supposed to be a border node. Otherwise the node must be brought down and then brought back up as a border node.

### Routing code

2

### Descriptor code

5

---

**IST1338I**

***operand* VALUE ON *resource*name IGNORED- VALUES CONFLICT**

### Explanation

VTAM issues this message when an ADJCP definition contains the NATIVE or NN operand and the value conflicts with the value in the existing ADJCP definition. The NATIVE/NN value specified is ignored in favor of the existing value.

*operand* is **NATIVE** or **NN**.

*resource*name is the network-qualified name on the ADJCP statement in error. *resource*name is in the form *netid.label*.

### System action

Processing continues.

### Operator response

Save the system log for problem determination.

### System programmer response

Correct the value specified for NATIVE or NODETYPE in the dynamic ADJCP definition.

### Routing code

2

## Descriptor code

5

**IST1342I**

**DNSUFFIX = *dnsuffix***

---

### Explanation

This message is part of a group of messages which VTAM issues when a DISPLAY ID command is entered for a TCP/IP major node. A complete description of the message group follows.

```
IST075I  NAME = nodename, TYPE = TCP/IP MAJOR NODE
IST486I  STATUS= currentstatus, DESIRED STATE= desiredstate
IST1342I DNSUFFIX = dnsuffix
[IST1343I dnsuffix_continuation]
IST1692I TCB = taskno  TCP PORT = portno
IST1400I DGTIMER = dgtimer  EXTIMER = extimer
IST1406I CONTIMER = contimer  IATIMER = iatimer
IST654I  I/O TRACE = {ON|OFF}, BUFFER TRACE = {ON|OFF} [- AMOUNT = value]
IST170I  LINES:
IST232I  linename, status,[CUA = device address]
IST314I  END
```

**IST075I**

*nodename* is the name of the resource that was entered on the DISPLAY ID command.

Type is always **TCP/IP MAJOR NODE** for this display.

**IST232I**

*linename* is the name of a leased line defined for a type 5 physical unit, a switched line defined for a type 2 physical unit, or a VCNS line.

*status* is the condition or state of the channel-to-channel adapter.

*device address* is the hexadecimal channel unit address of *linename*. *device address* is only displayed for a communication adapter.

**IST486I**

*currentstatus* is the current status of the node.

*desiredstate* is the node state that is desired. If VTAM cannot determine the desired state, *desiredstate*

**IST654I**

- **AMOUNT = *value*** is displayed if **BUFFER TRACE = ON**. *value* represents the **AMOUNT** operand value specified on the TRACE start option or the MODIFY TRACE command, and indicates how much of the buffer's contents are traceable. *value* can be one of the following:

#### **PARTIAL**

The trace record has a maximum size of 256 bytes including header information.

#### **FULL**

All of the buffer's contents are traceable.

**Note:** If **AMOUNT** is not specified when the buffer contents trace is activated, the default *value* **PARTIAL** is displayed.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information.

**IST1342I**

*dnsuffix* is the domain name suffix which is the 1 to 237 character value specified on the DNSUFFIX operand of the VBUILD definition statement.

**IST1343I**

This message is used to display overflow information from *dnsuffix* in message IST1342I. *dnsuffix\_continuation* is repeated until the complete domain name suffix is displayed.

**IST1400I**

*dgtimer* is the value of the DGTIMER operand specified in the VBUILD definition statement. The value is in the range of 1 - 65535 seconds.

*extimer* is the value of the EXTIMER operand specified in the VBUILD definition statement. The value is in the range of 1 - 65535 seconds.

**IST1406I**

*contimer* is the value of the CONTIMER operand specified in the VBUILD definition statement. The value is in the range of 1 - 65535 seconds.

*iatimer* is the value of the IATIMER operand specified in the VBUILD definition statement. The value is in the range of 1 - 65535 seconds.

**IST1692I**

*taskno* is the number of MVS tasks specified on the TCB operand of the VBUILD definition statement.

*portno* is the TCP port number specified on the PORT operand of the VBUILD definition statement.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

8

**Descriptor code**

5

---

<b>IST1343I</b>	<i>dnsuffix_continuation</i>
-----------------	------------------------------

**Explanation**

VTAM issues this message as part of a group of messages. The first message in the group is IST1342I. See the explanation of that message for a complete description.

**Routing code**

8

**Descriptor code**

5

---

<b>IST1345I</b>	<b>ID VALUE DESCRIPTION</b>
-----------------	-----------------------------

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY STATS,TYPE=VTAM command.

**Notes:**

1. The information in this display may be used to calculate storage requirements for VTAM. See the [z/OS Communications Server: New Function Summary](#) for information about storage requirements for VTAM.
2. For a description of the DISPLAY STATS command, see the [z/OS Communications Server: SNA Operation](#).

A complete description of the message group follows the example.

```
IST350I  DISPLAY TYPE = STATS,TYPE=VTAM
IST1349I COMPONENT ID IS dddd-ddddd-ddd
IST1345I  ID VALUE      DESCRIPTION
IST1227I dddd value      = description
:
[IST1315I DISPLAY TRUNCATED AT keyword = number]
IST1454I count STATISTICS DISPLAYED
IST314I  END
```

## IST350I

This message identifies the type of information in the display and is always **STATS,TYPE=VTAM** for this message group.

## IST1227I

- *dddd* is a storage estimates function ID number assigned by VTAM. It can be up to five digits in length and is displayed without leading zeros.

- Possible function ID numbers and their descriptions follow:

### 2 *value* = VIT TABLE SIZE

*value* represents the number of megabytes allocated for the VTAM internal trace table.

### 5 *value* = CHANNEL-ATTACHED CONTROLLERS

*value* represents the number of channel-attached communication controllers that are defined to and owned by this VTAM. *value* includes one resource internally defined by VTAM.

### 6 *value* = MAXBFRU FOR CHANNEL-ATTACHED CONTROLLERS

*value* represents the sum of the values coded for the MAXBFRU operands for all channel-attached communication controllers defined to this VTAM.

### 7 *value* = INTERCONNECT CONTROLLERS FOR *majornode*

*value* represents the number of IBM 3172 Interconnect Controllers defined in this VTAM for *majornode*.

### 8 *value* = XCA MAJOR NODES *majornode*

*value* represents the number of external communication adapters defined in this VTAM with VBUILD, TYPE=XCA definition statements.

### 9 *value* = 3172 CONNECTIONS FOR *majornode*

*value* represents the number of unique CUADDR operands specified on the PORT definition statements for external communication adapter (XCA) *majornode*.

### 10 *value* = TOTAL LINE STATEMENTS FOR XCA MAJOR NODES

*value* represents the number of LINE statements for all external communication adapter (XCA) major nodes.

### 11 *value* = CHANNEL-TO-CHANNEL ATTACHMENTS

*value* represents the number of channel-to-channel (CTC) lines that are defined to VTAM with VBUILD,TYPE=CA definition statements and GROUP definition statements that specify LNCTL=CTCA. Multipath channel attached resources are included under **ID 120**.

### 12 *value* = TOTAL MAXBFRU FOR CTC ATTACHMENTS

*value* represents the sum of the values coded for all MAXBFRU operands for channel-to-channel (CTC) attachments defined in this VTAM.

### 13 *value* = CTC TOTAL MAXBFRU CROSS DOMAIN

*value* represents the sum of the values coded for all MAXBFRU operands for channel-to-channel (CTC) attachments to this VTAM but defined in other VTAMs.

### 14 *value* = CA CLUSTER CONTROLLER TOTAL

*value* represents the number of cluster controllers that are channel attached to this VTAM.



**15 value = SNA PU TOTAL MAXBFRU**

*value* is the sum of the values coded for all MAXBFRU operands for channel attached SNA PUs activated from this VTAM.

**16 value = LOCAL NON-SNA TERMINALS**

*value* represents the number of local non-SNA terminals that are defined on LOCAL definition statements that are part of local non-SNA major nodes.

**17 value = NETVIEW PIU TRACE BUFFER SIZE**

*value* represents the size of the NetView PIU trace buffers.

**18 value = NETVIEW PIU TRACE BUFFERS**

*value* represents the number of NetView PIU trace buffers.

**19 value = NETVIEW SAW BUFFER SIZE**

*value* represents the size of all NetView session awareness (SAW) buffers.

**20 value = NETVIEW SAW BUFFERS**

*value* represents the number of NetView session awareness (SAW) buffers.

**21 value = ICA DEVICES**

*value* represents the number of integrated communication-adapter (ICA) devices.

**22 value = DESTINATION SUBAREAS**

*value* represents the number of unique type 4 and 5 nodes with which this VTAM will communicate. *value* always includes one resource internally defined by VTAM.

**45 value = DEPENDENT LU TOTAL FOR *majornode***

*value* represents the total number of dependent LUs defined under *majornode* with VBUILD, TYPE=LOCAL coded.

**46 value = INDEPENDENT LU TOTAL**

*value* represents the total number of independent LUs for which VTAM will provide boundary function services.

**47 value = MAXIMUM SUBAREA**

*value* represents the maximum subarea number allowed in this SSCP.

**48 value = DEFINED PU TOTAL**

*value* represents the total number of PUs that are defined in this VTAM.

**49 value = ACTIVE PU TOTAL**

*value* represents the total number of PUs that are active in VTAM.

**50 value = DEFINED LU TOTAL**

*value* represents the number of device type LUs defined in this VTAM.

**51 value = ACTIVE LU TOTAL**

*value* represents the total number of LUs that are active in VTAM.

**52 value = ACTIVE DEPENDENT LU TOTAL**

*value* represents the total number of dependent LUs that are active under a VBUILD TYPE=LOCAL major node.

**53 value = LOCAL LU-LU SESSIONS**

*value* represents the number of sessions with one or both session partners defined to this VTAM under VBUILD,TYPE=LOCAL major nodes.

**54 value = PERSISTENT LU-LU SESSIONS**

*value* represents the number of sessions that exist with persistent LU-LU session-capable applications owned by this VTAM.

**55 value = LU TOTAL TSO SESSIONS**

*value* represents the number of sessions with a time-sharing option (TSO) application program running on this VTAM. This includes local, cross-domain, and cross-network resources.

**56 value = TOTAL APPL SESSIONS**

*value* represents the number of sessions with application programs running on this VTAM. This includes local, cross-domain, and cross-network resources.

**57 value = LU6.2 APPLICATIONS**

*value* represents LU 6.2 applications that will open an application control block (ACB) in this VTAM. If the node being displayed supports APPN, *value* always includes one resource internally defined for APPN.

**58 value = LU6.2 SESSIONS**

*value* represents LU 6.2 sessions with application LUs that are owned by this VTAM.

**60 value = ICSF ENCRYPTION SERVICES**

*value* represents the total number of LU-LU sessions as well as sessions between an application and another LU that will use ICSF encryption services. The ENCR operand on the APPL definition statement must be specified as REQD, COND, SEL, or OPT. The ENCR operand on the LU definition statement must be specified as REQD or OPT for encryption to be used.

**61 value = SNA DATA COMPRESSION SESSIONS**

*value* represents the number of sessions that will use SNA data compression functions.

**63 value = RECOVERABLE SESSIONS**

*value* represents the number of sessions to be recovered during a network failure. *value* includes all SSCP-LU and LU-LU sessions.

**64 value = CURRENT NUMBER OF SESSION PARTNERS**

*value* represents the total number of LUs, applications, and cross-domain resources that are currently in session.

**65 value = NUMBER OF LINES DEFINED**

*value* represents the number of lines defined on LINE statements that are owned by this VTAM. *value* includes all NCP lines owned by this SSCP as well as all lines defined under VTAM major nodes.

**66 value = SWNET STATEMENTS**

*value* represents the number of VBUILD statements for this VTAM that have TYPE=SWNET specified. *value* always includes one statement internally defined by VTAM.

**67 value = PU STATEMENTS UNDER SW LINES**

*value* represents the number of PU statements under all group statements that have DIAL=YES specified.

**68 value = MAXNO OPERAND**

*value* represents the sum of values coded for the MAXNO operand on all VBUILD TYPE=SWNET definition statements.

**69 value = MXGRP OPERAND**

*value* represents the sum of values coded for the MXGRP operand on all VBUILD TYPE=SWNET definition statements. VTAM adds 1 to *value* for each group statement in the major node.

**70 value = PATH STATEMENTS**

*value* represents all PATH definition statements under all PUs defined for switched major nodes.

**71 value = LU-APPL SESSIONS**

*value* represents the number of LUs owned by this VTAM in session with an application program owned by this VTAM (for example, a terminal logged on to CICS®). *value* includes all dynamically defined LUs.

**73 value = SAME NETWORK MULTI-NODE LU SESSIONS**

*value* represents the number of non-LU 6.2 sessions in which one LU is owned by this VTAM and the other LU is owned by another node or VTAM in the same network.

**74 value = CROSS NETWORK APPL SESSIONS**

*value* represents the number of cross-network sessions between an application program in this VTAM and a resource owned by a VTAM in another network.

**77 value = SAME DOMAIN LU6.2 SESSIONS**

*value* represents LU 6.2 sessions in which both LUs are owned by this VTAM.

**78 value = SAME NETWORK MULTI-NODE LU6.2 SESSIONS**

*value* represents the number of LU 6.2 sessions in which one LU is owned by this VTAM and the other LU is owned by another node or VTAM in the same network.

**79 value = CROSS NETWORK LU6.2 SESSIONS**

*value* represents the number of LU 6.2 sessions in which one LU is owned by this VTAM and the other LU is owned by a VTAM in another network.

**80 value = NETWORK INDEPENDENT LU TOTAL**

*value* represents the number of independent LUs either locally, remotely or CDRSC defined. All independent LUs will be represented as CDRSCs by VTAM.

**81 value = DYNAMICALLY DEFINED LU TOTAL**

*value* represents the number of dependent LUs which will be dynamically defined to PUs which are capable of receiving PSIDs (for example, 3174) when they are powered on.

**99 value = VTAM CONFIGURATION .**

*value* represents the node type in the VTAM start parameters. If the node type has not been specified, *value* will be **SUBAREA**.

**100 value = DYNAMIC DIRECTORY ENTRIES**

*value* represents the number of different LUs and CPs this VTAM needs to locate or access for session establishment or network management. If this VTAM is a central directory server, *value* also includes all resources that have been centrally registered with this VTAM.

**101 value = CENTRAL DIRECTORY SERVER SUPPORT**

*value* represents the value specified for CDSERVER in the VTAM start parameters.

- If *value* represents **CDSERVER=YES**, this VTAM is a central directory server for the network.
- If *value* represents **CDSERVER=NO**, this VTAM is not a central directory server for the network.

**102 value = REGISTERED DIRECTORY ENTRIES**

*value* represents the number of different destination LUs and CPs of other nodes that are registered to this VTAM. If VTAM supports APPN, *value* always includes one resource internally defined for APPN.

**103 value = SYSTEM DEFINED DIRECTORY ENTRIES**

*value* represents the number of different destination LUs and CPs that are system defined in the VTAMLIST for this VTAM.

**104 value = ADJACENT END NODES**

*value* represents the number of end nodes that have established CP-CP sessions with this VTAM.

**106 value = CENTRAL DIRECTORY SERVER**

*value* represents the number of central directory servers which exist in this network.

**107 value = ADJACENT NETWORK NODES**

*value* represents the number of network nodes which have established CP-CP sessions with this VTAM.

**108 value = APPN CLASS OF SERVICE**

*value* represents the total number of APPN classes of service defined in this VTAM.

**109 value = NETWORK NODES IN THE NETWORK**

*value* represents the total number of network nodes known to this VTAM.

**111 value = CONNECTION NETWORKS**

*value* represents the total number of connection networks (virtual nodes) known to this VTAM.

**112 value = SAME NETWORK MULTI-NODE APPL SESSIONS**

*value* represents the number of non-LU 6.2 sessions between application programs in this VTAM and LUs owned by another node or VTAM in the same network (for example, CICS in session with a terminal owned by another VTAM).

**113 value = PARALLEL SESSION PER LU**

*value* represents the average number of sessions for each LU with applications owned by this VTAM.

**116 value = INTERMEDIATE ROUTED SESSIONS**

*value* represents the number of sessions that this VTAM handles or routes for which neither session partner is defined to this VTAM.

**119 value = CROSS NETWORK LOGICAL UNIT SESSIONS**

*value* represents the number of non-6.2 LUs owned by this VTAM in session with a resource owned by another node or VTAM in another network (for example, a terminal logged onto CICS in another network).

**120 value = MULTIPATH CHANNEL MAJOR NODES**

*value* represents the number of channel-attached major nodes with multipath channel (MPC) support. MPC major nodes contain VBUILD,TYPE=CA definition statements with GROUP,LNCTL=MPC in the definition statement.

**121 value = MPC READ SUBCHANNEL ADDRESSES**

*value* represents the number of subchannel addresses with READ= specified on the LINE definition statement defined for a channel-attached major node for MPC support.

**122 value = MPC WRITE SUBCHANNEL ADDRESSES**

*value* represents the number of subchannel addresses with WRITE= specified on the LINE definition statement defined for a channel-attached major node for MPC support.

**123 value = MPC READ BUFFER**

*value* represents MAXBFRU for all READ subchannels defined in this VTAM. The same MAXBFRU value should be used for all READ subchannels that are defined in the same MPC major node. The number entered indicates the number of pages VTAM allocates to receive data on the MPC CTC connection.

**124 value = MPC WRITE BUFFER**

*value* represents the sum of MAXBFRU for all WRITE subchannels defined in the adjacent VTAMs that are channel attached to this VTAM for MPC support. WRITE subchannel buffer size is dependent on the MAXBFRU value for READ subchannel on the other side of VTAM. The same MAXBFRU value should be used for all WRITE subchannels that are defined in the same MPC major node. The number entered indicates the number of pages VTAM allocates to send data on the MPC CTC connection.

**125 value = APPLICATION SESSIONS**

*value* represents the number of sessions in which both session partners are applications defined to this VTAM.

**140 value = MAXIMUM DIRECTORY SIZE**

*value* represents the value specified or defaulted for the DIRSIZE start option.

**141 value = MAXIMUM TRS ROUTING TREES**

*value* represents the value specified or defaulted for the NUMTREES start option.

**142 value = END NODE TRANSMISSION GROUPS**

*value* represents the number of APPN transmission groups between this node and attached end nodes.

**143 value = NETWORK NODE TRANSMISSION GROUPS**

*value* represents the number of APPN transmission groups between this node and attached network nodes.

**144 value = VIRTUAL NODE TRANSMISSION GROUPS**

*value* represents the number of APPN transmission groups between this node and attached virtual nodes.

**151 value = DEPENDENT LU TOTAL FOR *majornode***

*value* represents the total number of dependent LUs defined in a PU type 4 or 5 major node.

**152 value = ACTIVE DEPENDENT LU REQUESTERS**

*value* represents the number of dependent LU requesters currently being served by this VTAM dependent LU server.

**153 value = ACTIVE DLUR SERVED PU TOTAL**

*value* represents the total number of physical units owned by the dependent LU requesters served by this VTAM dependent LU server.

**154 value = ACTIVE DLUR SERVED LU TOTAL**

*value* represents the number of dependent logical units owned by the dependent LU requesters served by this VTAM dependent LU server.

**155 value = VR-BASED TRANSMISSION GROUPS**

*value* represents the number of virtual-route-based transmission groups between this node and other VTAM CDRMs.

**156 value = CONNECTION NETWORK DYNAMIC TGS**

*value* represents the number of dynamic transmission groups activated by this node for use with connection networks. VTAM will create these dynamic transmission groups when both of the following exist:

- A session is established between this VTAM and another node connected via the same virtual node.
- There is no existing predefined line to the other node.

**157 value = TRANSPORT RESOURCE LIST ENTRIES**

*value* represents the number of transport resource list entries (TRLEs) active in this VTAM.

**159 value = ADJACENT CLUSTER TABLE CPNAME ENTRIES**

*value* represents the number of predefined or dynamic entries in the active adjacent cluster table. The adjacent cluster table is used by APPN Directory Services to select the sequence of nodes to search during border node search logic.

**160 value = CP-CP SESSIONS**

*value* represents the number of CP-CP sessions between this node and other nodes.

**161 value = HIGHEST ELEMENT ADDRESS ASSIGNED**

*value* represents the highest network address element number that has been assigned by VTAM. *value* is displayed in decimal. The maximum number of element addresses that can be assigned is 65 536 (X'0000' through X'FFFF').

**162 value = HIGHEST EXTENDED ELEMENT ADDRESS ASSIGNED**

*value* represents the highest extended network address element number that has been assigned by VTAM. *value* is displayed in decimal. The maximum number of element addresses that can be assigned is 16 777 216. See the [ENHADDR start option information in z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

**164 value = NUMBER OF NON-EXTENDED ELEMENT ADDRESSES IN USE**

*value* represents the number of network element addresses currently in use by VTAM. *value* is displayed in decimal. The maximum number of element addresses that can be assigned is 65 536.

**165 value = NUMBER OF EXTENDED ELEMENT ADDRESSES IN USE**

*value* represents the number of extended network element addresses currently in use by VTAM. *value* is displayed in decimal. The maximum number of element addresses that can be assigned is 16 777 216. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

**170 value = IDS3270 TOTAL SESSIONS MONITORED**

*value* represents the total number of sessions monitored by the 3270 Intrusion Detection Services. *value* is displayed in decimal.

**171 value = IDS3270 CURRENT SESSIONS MONITORED**

*value* represents the current number of sessions being monitored by the 3270 Intrusion Detection Services. *value* is displayed in decimal.

**172 value = IDS3270 SESSIONS MONITORED SINCE ENABLE**

*value* represents the total number of sessions monitored by the 3270 Intrusion Detection Services since the last time monitoring was enabled. *value* is displayed in decimal.

**173 value = IDS3270 TOTAL INCIDENTS FOUND**

*value* represents the total number of problems found by the 3270 Intrusion Detection Services. Message group IST2424I was issued to describe the problems. *value* is displayed in decimal.

**174 value = IDS3270 TOTAL SUPPRESSED CONSOLE REPORTS**

*value* represents the total number of times the 3270 Intrusion Detection Services suppressed the reporting of an incident by the IST2424I message group. However, a single message IST2424I is still written to the SYSLOG or console. *value* is displayed in decimal.

**IST1315I**

VTAM issues this message when the number of statistics to be displayed exceeds the value specified for the MAX or NUM operand.

*keyword* is either **MAX** or **NUM**.

*number* is the value specified for either the MAX or NUM operand.

**IST1345I**

This message is a header message for the information displayed in message IST1227I.

**IST1349I**

*dddd-ddddd-ddd* is the component identifier assigned by VTAM. This identifier is used by IBM for VTAM program maintenance.

See the explanation of opening and closing an application program in [z/OS Communications Server: SNA Programming](#) for a description of vector lists and more information about the component identifier.

#### **IST1454I**

*count* is the number of statistics displayed.

#### **System action**

Processing continues.

#### **Operator response**

None.

#### **System programmer response**

None.

#### **Routing code**

2

#### **Descriptor code**

5

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#### **IST1346I** **NCP DOES NOT SUPPORT CONNECTION NETWORK FUNCTION**

#### **Explanation**

This message is part of a group of messages that VTAM issues in response to a VARY ACT for a line when the activation of the logical connection to the virtual node fails. The first message in the group is IST1166I. See the explanation of that message for a complete description.

#### **Routing code**

2

#### **Descriptor code**

5

---

#### **IST1347I** **INSUFFICIENT STORAGE TO DELAY DISCONNECT OF *puname***

#### **Explanation**

VTAM issues this message when there is insufficient storage to delay the disconnection of a physical unit that was defined as DISCNT=DELAY.

*puname* is the name of the physical unit being disconnected.

#### **System action**

VTAM will attempt to disconnect the physical unit without delay.

- If message IST169I is issued for the same physical unit, the disconnection without delay was successful.
- If message IST348I is issued for the same physical unit, there was insufficient storage to disconnect the physical unit even without delay.

## Operator response

- If message IST169I follows this message, no action is required.
- If message IST348I follows IST1347I, enter a VARY INACT, TYPE=FORCE command for *puname*.
- If you have frequent command failures because of insufficient storage:
  - Issue the DISPLAY BFRUSE command. Message IST981I displays total VTAM private storage information. Issue the DISPLAY STORUSE command to display storage usage for storage pools.
  - Save the system log and request a console dump for problem determination.

## System programmer response

If insufficient storage is a recurring problem, you may need to increase storage as required.

See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on storage-related problems.

See the [z/OS Communications Server: SNA Operation](#) for more information.

## Routing code

2

## Descriptor code

5

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<b>IST1348I</b>	<b>VTAM STARTED AS <i>nodetype</i></b>
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## Explanation

VTAM issues this message in the following situations:

- During VTAM initialization
- In response to the DISPLAY VTAMOPTS command

When this message is issued in response to a DISPLAY VTAMOPTS command, it is part of a message group headed by message IST1188I. See that message for a complete description of the group.

- In response to the DISPLAY TOPO command

This message is issued when the DISPLAY TOPO command is issued from an end node or a migration data host and a command keyword that is not valid because it does not specify a local topology database entry. The topology database entry specified must be the local node or a transmission group originated at the local node. See the [z/OS Communications Server: SNA Operation](#) for the limitations on the DISPLAY TOPO commands issued on end nodes and migration data hosts.

*nodetype* indicates the node type of this host and is determined by start options that are specified or defaulted. Possible values are:

- **END NODE**
- **INTERCHANGE NODE**
- **MIGRATION DATA HOST**
- **NETWORK NODE**
- **SUBAREA NODE**

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1349I** **COMPONENT ID IS dddd-ddddd-ddd**

## Explanation

VTAM issues this message in the following situations:

- During VTAM initialization

When this message is issued during VTAM initialization, it is preceded by message IST020I.

- In response to the DISPLAY VTAMOPTS command

When this message is issued in response to a DISPLAY VTAMOPTS command, it is part of a message group headed by message IST1188I. See that message for a complete description of the group.

- In response to the DISPLAY STATS,TYPE=VTAM command

When this message is issued in response to a DISPLAY STATS,TYPE=VTAM command, it is part of a message group headed by message IST1345I. See that message for a complete description of the group.

dddd-ddddd-ddd is the component identifier assigned by VTAM. This identifier is used by IBM for VTAM program maintenance.

See the [z/OS Communications Server: SNA Programming](#) for more information about vector lists and the component identifier.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1350I** **DEFINITION ERROR: reason**



## Explanation

VTAM issues this message to provide additional information about definition errors that are displayed in messages IST322I and IST323I.

*reason* indicates the cause of the error and can be one of the following:

### **DATA LIMIT EXCEEDED AT DLCADDR ID *id***

The maximum number of bytes of data that can be specified for all the DLCADDRs on a PATH definition statement is 252 bytes. This includes two bytes of subvector headers for each DLCADDR that has been coded. The data limit was exceeded while VTAM was processing DLCADDR ID *id*. The entire definition statement containing this DLCADDR ID is not usable.

### **DELAY NOT VALID FOR PU OR VBUILD TYPE**

DISCNT=DELAY was specified in the definition but the PU or VBUILD type is incorrect. When DELAY is specified, the PU type must be 2.0 or 2.1 and the VBUILD type must be MODEL or SWNET. The default value is used for the DISCNT parameter.

### **DLCADDR ID *id* – DATA IS NOT TYPE *type***

The data provided with DLCADDR subfield ID *id* is inconsistent with the specified data type. The entire definition statement containing this DLCADDR ID is not usable.

### **DLCADDR ID *id* – DATA TYPE IS NOT VALID**

The DLCADDR data type must be D, C, X, A, or BCD. The entire definition statement containing this DLCADDR ID is not usable.

### **DLCADDR ID *id* IS NOT BETWEEN 1–96**

The specified subfield ID must be a decimal in the range 1 - 96, inclusive. The entire definition statement containing this DLCADDR ID is not usable.

**Note:** If this message refers to the first DLCADDR coded in a PATH definition statement, the system will do a limited amount of checking on subsequent DLCADDRs encountered for the PATH.

### **DLCADDR [*id*] REQUIRES AT LEAST 3 VALUES**

One DLCADDR on the PATH definition statement does not have all the required information specified. If the DLCADDR ID was specified, *id* is displayed. The entire definition statement containing this DLCADDR ID is not usable.

**Note:** If this message refers to the first DLCADDR coded in a PATH definition statement, the system will do a limited amount of checking on subsequent DLCADDRs encountered for the PATH.

### **DUPLICATE DLCADDR ID *id* IS IGNORED**

Subfield ID *id* occurs more than once, and the specifications do not have a DLCADDR with a subfield ID of 1 between them. The second specification is ignored.

### **DYNTYPE VALID ONLY ON MODEL PU**

DYNTYPE was specified on a PU definition but the VBUILD type is incorrect. When DYNTYPE is specified, the VBUILD type must be MODEL. The PU containing the DYNTYPE parameter and all subnodes associated with the PU are not usable.

### **FIRST DLCADDR ID MUST BE 1**

The first DLCADDR on the definition statement does not have a subfield ID of 1. The entire definition statement containing this DLCADDR ID is not usable.

**Note:** Since this message refers to the first DLCADDR coded in a definition statement, the system will perform a limited amount of checking on subsequent DLCADDRs encountered.

### **HOSTNAME NOT VALID WITH IPADDR**

When specified on a PATH statement as part of a switched major node definition, the HOSTNAME keyword is not valid if IPADDR is also specified on that PATH statement.

### **HPR NOT VALID WHEN HPR=NONE**

The HPR keyword is not valid when the host node is configured as not HPR-capable (HPR=NONE, or HPR=(NONE,NONE)).

### **INVALID TO SPECIFY THIS HOST EN ON NETSRVR**

It is not valid to specify the CP name of this host end node on a NETSRVR definition statement.

**IPADDR NOT VALID WITH HOSTNAME**

When specified on a GROUP statement as part of an XCA major node definition, the IPADDR keyword is not valid if HOSTNAME is also specified on that GROUP statement.

**LINKNUM IGNORED DUE TO PORTNUM CONFLICT**

The second operand, LINKNUM, specified on PORTNAME is only used for an OSA-Express port operating in QDIO mode customized for LAN emulation. The LINKNUM operand is mutually exclusive with the PORTNUM operand of the TRLE definition statement. The LINKNUM value is ignored.

**LLERP NOT VALID FOR LOCAL SNA PUS**

LLERP is not a valid keyword when coded on a PU statement in a local SNA definition deck.

**LLERP NOT VALID WHEN HPR=NONE**

LLERP is not a valid keyword for the GROUP, LINE, or PU statement if HPR=NONE was coded as a start option.

**LLERP ONLY VALID WHEN HPR=YES**

LLERP is not a valid keyword on the PU statement if HPR=NO was also coded on the PU statement.

**LMI PU NOT VALID IN FRSESET**

An attempt was made to use a local management interface (LMI) protocol PU in the FRSESET definition in message IST323I, and this is not valid. See the *NCP, SSP, and EP Resource Definition Reference* for information on the LMI keyword.

**MNPS NOT SUPPORTED IN THIS ENVIRONMENT**

PERSIST=MULTI is only valid if the VTAM on which it resides is running in an environment that supports multinode persistent sessions. The environmental requirements are:

- VTAM is running in a sysplex (non-local mode).
- The VTAM start parameter STRMNPS must specify a valid structure name, or the STRMNPS start option should not be specified.
- VTAM must be defined as an APPN node (NODETYPE=EN or NODETYPE=NN start option) that is a rapid transit protocol (RTP) level node (HPR=RTP start option).

**Note:** If PERSIST=MULTI is specified on a non-modeled application deck at a Network Node (NN), it is not supported. See the [z/OS Communications Server: SNA Network Implementation Guide](#). Change the application deck to be a modeled application. For example change the last character in the name of the application to an \* and it would now be a modeled application.

**MORE THAN ONE EE PU MODEL DEFINED**

Only the first EE PU model activated is used. This EE PU model activation is ignored because it is not the first.

**MORE THAN ONE RTP PU MODEL DEFINED**

Only the first RTP PU model activated is used. This RTP PU model activation is ignored because it is not the first.

**MORE THAN ONE VN PU MODEL DEFINED**

Only the first VN PU model activated is used. This VN PU model activation is ignored because it is not the first.

**MORE THAN ONE XCF PU MODEL DEFINED**

Only the first XCF PU model activated is used. This XCF PU model activation is ignored because it is not the first.

***puname* ALREADY USED IN *frsesetname***

*puname* cannot be used in the FRSESET definition in message IST323I because it has already been either statically or dynamically defined in FRSESET *frsesetname*.

***puname* DEFINED BUT NOT USED IN FRSESET**

*puname* is correctly defined in the NCP, but is not being used in the FRSESET definition in message IST323I.

***puname* NOT PREVIOUSLY DEFINED IN NCP**

- *puname* has been used in the FRSESET definition in message IST323I, but is not defined in the NCP.
- The OWNER= value in the FRSESET is different than the physical resource pointed to by the PHYSRSC operand.

- The NETID on the NCP build macro is different than the NETID on VTAM.

### STATIC AND DYNAMIC NOT ALLOWED IN FRSESET

The FRSESET definition in message IST323I contains both statically and dynamically defined PUs. All PUs in a FRSESET must be either static or dynamic.

### RTPONLY=YES REQUIRES START OPTION HPR=RTP

RTPONLY=YES was specified for an adjacent CP definition on a border node that did not specify RTP as the first operand on the HPR= start option. The use of RTPONLY=YES requires that HPR=RTP or HPR=(RTP,RTP|ANR|NONE) be specified for the HPR start option.

### VRTG NOT VALID FOR CROSS-NET CDRM

The VRTG keyword is not valid when specified on a CDRM statement where the corresponding NETWORK statement NETID is not the same network as this node.

### VRTG NOT VALID FOR HOST CDRM

The VRTG keyword is not valid when specified on the host CDRM (SUBAREA specified equals the subarea number of this node).

### VRTG ONLY VALID FOR ICN OR MDH

The VRTG keyword is not valid when the node is configured as an APPN or a subarea node. It is valid only when the node is configured as an interchange network node or a migration data host.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the information in messages IST322I, IST323I, and this message to assist you in correcting the error.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about VTAM definition statements. See the *NCP, SSP, and EP Resource Definition Reference* for more information about NCP definition statements.

## Routing code

2

## Descriptor code

5

---

**IST1351I** **DLURNAME DIAL NUMBER PID GID CNT**

## Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY PATHS command. A complete description of the message group follows.

```
IST1351I  DLURNAME      DIAL NUMBER      PID GID CNT
IST168I   dlurname     {phonenum|linename|blanks.}  pid gid cnt {AVA|NAV} {MAN|AUT|DIR}
[IST1575I DIALNO PID: pid[instance]]
[IST1318I parameter_value]
[IST1319I parameter_value]
:
IST314I  END
```

### IST1351I

This message is a header message for the information displayed in message IST168I.

**DLURNAME** is the dependent LU requester (DLUR) name.

#### **IST168I**

*dlurname* is the dependent LU requester name.

*phonenum* is a telephone number (for non-X.21 lines).

*linename* is a line name (for X.21 lines).

*pid* is the path identifier (PID).

*gid* is the group identifier (GID) for a group of paths across all physical units.

*cnt* is the number of times the dial operation is to be tried again at the NCP.

**AVA** indicates that the path is available for use by VTAM.

**NAV** indicates that the path is not available for use by VTAM.

**MAN** indicates manual dial.

**AUT** indicates automatic dial for non-X.21 lines.

**DIR** indicates direct dial for X.21 lines.

#### **IST1318I**

*parameter\_value* is the first 60 characters of the DIALNO value specified on the PATH definition statement, when the number of characters exceeds 32.

#### **IST1319I**

This message is used to display overflow information from *parameter\_value* in message IST1318I.

#### **IST1575I**

- This message is issued when DIALNO operand specified on the PATH definition statement exceeds 32 characters and cannot be displayed in message IST168I.

*pid* is the path identifier specified on the PATH definition statement.

*instance* indicates that the *parameter\_value* in messages IST1318I and IST1319I that follow correspond to the *instance* instance of the message IST168I with *pid* of **000**. You must count the group of IST168I messages to find the *instance* instance of message IST168I with a *pid* of **000**. *instance* is only displayed when *pid* is **000**.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

### **Routing code**

2

### **Descriptor code**

5

---

<b>IST1352I</b>	<b>DLUR NAME DLUS CONWINNER STATE DLUS CONLOSER STATE</b>
-----------------	---

# Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY DLURS command. The display lists the dependent LU requesters (DLURs) that are supported by the dependent LU server (DLUS). It also displays the CPSVRMGR session pipe status. The CPSVRMGR pipe consists of two LU 6.2 sessions, a contention winner (conwinner) and a contention loser (conloser). The states of both sessions are displayed.

IST350I	DISPLAY TYPE = DEPENDENT LU REQUESTER		
IST1352I	DLUR NAME	DLUS CONWINNER STATE	DLUS CONLOSER STATE
IST1353I	dlurname	conwinner_state	conloser_state
IST314I	END		

## IST1352I

This message is a header message for the information displayed in message IST1353I.

## IST1353I

- *dlurname* is the network-qualified CP name of the dependent LU requester in the form *netid.name*.
- *conwinner\_state* is the status of the DLUS contention winner session to the specified DLUR. The DLUS sends data on the DLUS contention winner session.
- *conloser\_state* is the status of the DLUS contention loser session to the specified DLUR. The DLUS receives data on the DLUS contention loser session.
- Possible values of *conwinner\_state* and *conloser\_state* are:
  - **ACTIVE**
  - **INACTIVE**
  - **PENDING ACTIVE**
  - **PENDING INACTIVE**
  - **RESET**

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

IST1353I	<i>dlurname conwinner_state conloser_state</i>
----------	--

# Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY DLURS command. The first message in the group is IST1352I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1354I****DLUR NAME = *dlurname* MAJNODE = *majnode***

---

## Explanation

This message is part of several message groups that VTAM issues:

- When a connection request for a DLUR served physical unit is rejected. The first message in that group is IST680I. See the explanation of that message for a complete description.
- In response to a DISPLAY ID=*dlur\_pu* command.

*dlurname* is the network-qualified CP name of the dependent LU requester (DLUR) in the form *netid.name*.  
*dlurname* is the DLUR associated with the physical unit specified on the ID operand of the command.

*majnode* is the name of the switched major node of the physical unit specified on the ID operand of the command.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1355I****PHYSICAL UNITS SUPPORTED BY DLUR *dlurname***

---

## Explanation

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY ID=*dlurname* command. It is a header message for IST089I, which contains information on the PUs that are supported by the DLUR specified on the DISPLAY command. A complete description of the message subgroup follows the example.

```
IST1355I PHYSICAL UNITS SUPPORTED BY DLUR dlnurname
IST089I  nodename TYPE = nodetype, status
:
```

**IST1355I**

*dlurname* is the name of the CDRSC representing the DLUR that is supporting the physical units being displayed. *dlurname* is the network-qualified CP name of the dependent LU requester (DLUR) in the form *netid.name*.

## IST089I

*nodename* is the physical unit that is supported by *dlurname*.

*nodetype* is always **PU**.

*status* is the status of the physical unit. See the [z/OS Communications Server: IP and SNA Codes](#) for more information on *status*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1356I</b>	<b>NETWORK NODE DOES NOT PROVIDE REQUIRED SERVER FUNCTION</b>
-----------------	---

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST1110I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1357I</b>	<b>CPCP</b>
-----------------	-------------

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,ID=cp\_name,LIST=ALL. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tgn. See message [IST1299I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST1358I****NO QUALIFYING MATCHES *for\_name***

---

## Explanation

VTAM issues this message when there are no resource names found that match the wildcard name specified on the ID operand of the DISPLAY command and other restrictions identified by keywords on the command (e.g. SCOPE, IDTYPE). It is issued for the following commands:

- DISPLAY APPLS
- DISPLAY CDRMS
- DISPLAY CDRSCS
- DISPLAY CLSTRS
- DISPLAY EE
- DISPLAY EEDIAG
- DISPLAY GROUPS
- DISPLAY GRAFFIN
- DISPLAY LINES
- DISPLAY MAJNODES
- DISPLAY PENDING
- DISPLAY RSCLIST
- DISPLAY STATIONS
- DISPLAY STATS,TYPE=CFS
- DISPLAY SRCHINFO
- DISPLAY TERMS
- DISPLAY TGPS

*for\_name* is the name specified on the ID operand of the DISPLAY command.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1359I****MEMBER NAME OWNING CP SELECTABLE APPC**

---



## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID=*generic\_name* command. A complete description of the message group follows.

```
IST075I  NAME = generic_name, TYPE = GENERIC RESOURCE
IST1359I  MEMBER NAME      OWNING CP    SELECTABLE  APPC
IST1360I  member_name      owning_cp    selectable  appc
IST1360I  member_name      owning_cp    selectable  appc
...
IST2210I  GR PREFERENCE TABLE ENTRY = entryname
IST2202I  GREXIT   = grexit   WLM       = wlm      LOCLU   = loclu
IST2204I  LOCAPPL  = locappl  PASSOLU   = passolu
[IST1393I  GENERIC RESOURCE NAME RESOLUTION EXIT IS exit_name]
IST314I  END
```

### IST075I

This message identifies the type of information in the display. The type is always **GENERIC RESOURCE** for this message group.

The *generic\_name* value is the name of the resource that is displayed. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for more information.

### IST1360I

- The *member\_name* value is the network-qualified name for the resource in the form *netid.name*. An application name registered under a generic name is called a member name.
- The *owning\_cp* value is the name of the control point (CP) that owns the resource. It is in the same network as the *member\_name* value.
- The *selectable* value can be one of the following:

#### YES

Indicates that the resource is available to be selected for resolution.

#### NO

Indicates that the resource is not available to be selected for resolution because *owning\_cp* is an end node that does not have CP-CP sessions with its network node server.

#### DEL

Indicates that the application was deleted as a generic resource. The application ACB might still be open and maintaining generic resource affinities. If you want to fully delete the generic resource from VTAM and the generic resource coupling facility structure, the application ACB must be closed and the MODIFY GR DELETE command must be issued at every host in the sysplex. See the information about [how and why a generic resource should be deleted from a sysplex in z/OS Communications Server: SNA Network Implementation Guide](#) for more information.

- The *appc* value indicates whether the resource supports advanced program-to-program communication (APPC=YES on the APPL definition statement). Possible values are: YES and NO.

### IST1393I

If exit resolution is performed, the *exit\_name* value is used. If the user has specified that the exit should no longer be used, the message will no longer be displayed once the session has been attempted with the generic resource. VTAM will resolve the generic resource names until the user specifies another exit.

The *exit\_name* value is the name of the generic resource exit.

### IST2202I

- This message lists the generic resource preferences for GREXIT, WLM, and LOCLU.
- The *grexit* value indicates whether the Generic Resource exit is called during generic resource resolution. Valid values are:

#### YES

The Generic Resource exit is called during generic resource resolution.

#### NO

The Generic Resource exit is not called during generic resource resolution.

- The *wlm* value indicates whether the MVS Workload Manager is called during generic resource resolution. Valid values are:

**YES**

The MVS Workload Manager is called during generic resource resolution.

**NO**

The MVS Workload Manager is not called during generic resource resolution.

- The *loclu* value indicates whether generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host prefers generic resource instances on this host. Valid values are:

**YES**

Generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host prefers generic resource instances on this host.

**NO**

Generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host does not prefer generic resource instances on this host.

**IST2204I**

- This message lists the generic resource preferences for LOCAPPL and PASSOLU.
- The *locappl* value indicates whether generic resource resolution for sessions initiated from an application on this host prefers generic resource instances on this host. Valid values are:

**YES**

Generic resource resolution for sessions initiated from an application on this host prefers generic resource instances on this host.

**NO**

Generic resource resolution for sessions initiated from an application on this host does not prefer generic resource instances on this host.

- The *passolu* value indicates whether generic resource resolution for third-party-initiated (CLSDST PASS) sessions prefers generic resource instances located on the OLU host. Valid values are:

**YES**

Generic resource resolution for third-party-initiated (CLSDST PASS) sessions prefers generic resource instances located on the OLU host.

**NO**

Generic resource resolution for third-party-initiated (CLSDST PASS) sessions does not prefer generic resource instances located on the OLU host.

**IST2210I**

- This message is the first line of a subgroup. This message is a header message for messages IST2202I and IST2204I. One subgroup is issued for either the VTAM or nameless default generic resource preferences and each named entry in the Generic Resource Preferences table.
- The *entryname* value is the name of the Generic Resource Preferences table entry that defines the subsequent GR preferences. Valid values are:

**\*\*DEFAULT\*\***

The VTAM default generic resource preferences.

**\*\*NAMELESS\*\***

The defined nameless Generic Resource Preferences table entry that identifies the default generic resource preferences.

**entryname**

The defined name of the Generic Resource Preferences table entry. This name also corresponds to the generic resource to which the generic resource preferences apply.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

**IST1360I** *member\_name owning\_cp selectable appc*

### Explanation

VTAM issues this message as part of a group of messages. The first message of this group is IST1359I. See the explanation of that message for a complete description.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

**IST1361I** *name FROM source IGNORED – NAME IS NOT VALID*

### Explanation

VTAM issues this message when a request to resolve a generic resource name to a real name was made, but the resolved name was not a valid name.

*name* is the name that was returned because it was not valid.

*source* indicates the function that returned the name. Possible values are:

#### **ISTEXCGR**

The generic resource name resolution exit returned *name*, which is not a valid resource name.

## WORKLOAD MANAGER

The WORKLOAD MANAGER selection exit returned *name*, which is not valid.

### System action

VTAM will resolve the generic name to the real name with the least number of active sessions. Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

If *source* is **ISTEXCGR**, check the generic resource name resolution exit (ISTEXCGR) to ensure that it is passing back the correct information to VTAM. If message IST1366I is displayed, see [“IST1366I” on page 809](#) for more information.

## Routing code

2

## Descriptor code

5

IST1363I	GENERIC RESOURCE NAME <i>generic_name</i> REPRESENTS <i>resource</i>
----------	--

### Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID=*resource* command. The first message in the group is IST075I.

*resource* is the network-qualified name of the resource specified in the command and in message IST075I.

*generic\_name* is the generic resource name given to *resource*.

### System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

### Descriptor code

5

IST1364I	<i>name</i> IS A GENERIC RESOURCE NAME FOR:
----------	---



## Explanation

VTAM issues this message in response to a nonzero return code from an MVS macro. It can be issued alone or in a group of messages. The first message in the group is IST085I or IST1365I. See the descriptions of those messages for more information.

*macroname* is the name of the MVS macro which returned the nonzero return code. Possible values are:

### **ASASYMBM**

The macro that performs symbolic substitution.

### **CSVVDYNEX**

The macro that provides dynamic exit services. This macro is invoked during initialization as part of setting up the interface to IBM Health Checker for z/OS.

### **ENFREQ**

The macro that waits to connect to the coupling facility structure.

### **HSZCHECK**

The macro that interfaces to IBM Health Checker for z/OS to manage checks. This macro is invoked during initialization as part of setting up the interface to IBM Health Checker for z/OS.

### **IWMGRREG**

The macro that accepts information about a newly-registered instance of a generic resource.

### **IWMGRSEL**

The macro that selects a specific real instance of a generic resource.

### **IXCARM**

The macro that interfaces with the automatic restart manager.

### **IXCJOIN**

The macro that places a coupling facility member in the activity state.

### **IXCQUERY**

The macro that retrieves information about the coupling facility structure.

### **IXLCONN**

The macro that makes the connection to the coupling facility structure.

### **IXLMG**

The macro that collects statistics on the structure in response to a DISPLAY STATS command.

### **IXLREBLD**

The macro that starts a rebuild for a coupling facility structure.

*reasoncode* and *returncode* provide additional information on the cause of the error. If *macroname* is **ENFREQ**, then *reasoncode* will always be **\*NA\***. See the appropriate MVS manual for more information about *reasoncode* and *returncode*.

## System action

- The system action depends on the value for *macroname*:

### **ASASYMBM**

VTAM initialization fails.

### **CSVVDYNEX**

VTAM initialization continues. VTAM checks for IBM Health Checker for z/OS are not initialized.

### **ENFREQ**

VTAM initialization fails. In the case of APPN host-to-host channel dynamics, processing continues, but the APPN host-to-host channel dynamics function is not available for use.

### **HSZCHECK**

VTAM initialization continues. VTAM checks for IBM Health Checker for z/OS are not initialized.

### **IWMGRREG**

Processing continues.

**IWMGRSEL**

Processing continues.

**IXCARM**

Processing continues.

**IXCQUERY**

No connection to the structure is attempted.

**IXLCONN**

If the problem is corrected, the system attempts to reconnect with the coupling facility structure. Message IST1370I indicates that the structure has been reconnected.

**IXLMG**

Processing continues.

**IXLREBLD**

A rebuild was not started, processing continues.

**Operator response**

- The operator response depends on the value for *macroname*:

**ASASYMBM**

Save the system log for problem determination.

**CSVVDYNEX**

Contact the system programmer.

**ENFREQ**

Save the system log for problem determination.

**HZSCHECK**

Contact the system programmer.

**IWMGRREG**

None.

**IWMGRSEL**

None.

**IXCARM**

None.

**IXCQUERY**

Save the system log for problem determination.

**IXLCONN**

Save the system log for problem determination.

**IXLMG**

None.

**IXLREBLD**

None.

**System programmer response**

- The programmer response depends on the value for *macroname*:

**ASASYMBM**

Correct the problem and restart VTAM.

**CSVVDYNEX**

If you want VTAM checks for IBM Health Checker for z/OS to be enabled, use the return and reason codes to determine the cause of the problem, correct the problem, and restart VTAM.

**ENFREQ**

Correct the problem and restart VTAM.

**HZSCHECK**

If you want VTAM checks for IBM Health Checker for z/OS to be enabled, use the return and reason codes to determine the cause of the problem, correct the problem, and restart VTAM.

**IWMGRREG**

None.

**IWMGRSEL**

None.

**IXCARM**

None.

**IXCQUERY**

Correct the problem and restart VTAM.

**IXLCONN**

If the problem is corrected, the system will attempt to reconnect with the coupling facility structure. Message IST1370I indicates that the structure has been reconnected.

**Note:** If *returncode* is **08** and *reasoncode* is **xxxx081F**, the connection attempt failed because another node with the same SSCP name has connected to the same structure. A VTAM node uses its SSCP name to build a connection name which is specified on IXLCONN. Each connection to a given structure must have a unique connection name; therefore, each VTAM which connects to a given structure must have an SSCP name which is different from all other VTAM nodes connected to that structure.

**IXLMG**

None.

**IXLREBLD**

Restore connectivity from all systems in the sysplex that have lost connectivity to a coupling facility. Use D XCF,CF to display systems connected to a coupling facility. For more information about D XCF,CF see [z/OS MVS System Commands](#).

For more information on MVS macros and the return and reason codes sent by the macros, see the following MVS documentation (the documentation must be for V5R1 or later):

**ASASYMBM**

[z/OS MVS Programming: Assembler Services Reference ABE-HSP](#)

**CSVDYNEX**

[z/OS MVS Programming: Authorized Assembler Services Reference ALE-DYN](#)

**ENFREQ**

[z/OS MVS Programming: Authorized Assembler Services Reference EDT-IXG](#)

**HZSCHECK**

[IBM Health Checker for z/OS User's Guide](#)

**IWM Prefix**

[z/OS MVS Programming: Workload Management Services](#)

**IXC Prefix**

[z/OS MVS Programming: Sysplex Services Reference](#)

**IXL Prefix**

[z/OS MVS Programming: Sysplex Services Reference](#)

**Routing code**

2

**Descriptor code**

5

**IST1367I**

**COUPLING FACILITY STRUCTURE *structure* NOT AVAILABLE**



## Explanation

This message is the first of a group of messages that VTAM issues in response to a DISPLAY STATS,TYPE=CFS when the coupling facility structure cannot be accessed. A complete description of the message group follows the example.

```
IST350I  DISPLAY TYPE = STATS,TYPE=CFS
IST1367I  COUPLING FACILITY STRUCTURE structure NOT AVAILABLE
[IST1368I  CONNECTION IS PENDING]
[IST1726I  CONNECTION IS PENDING DUE TO STORAGE SHORTAGE]
IST314I  END
```

*structure* is the name of the coupling facility structure.

If IST1368I or IST1726I is displayed, VTAM is monitoring for changes in the coupling facility resources that would allow it to connect to *structure*. When a change occurs, VTAM will automatically attempt to connect to *structure*. If IST1368I is not displayed, VTAM is not monitoring for changes in coupling facility resources and the VARY NET,CFS,ACTION=CONNECT command will need to be issued to attempt a connection to *structure*.

## System action

Processing continues.

## Operator response

If IST1368I is not displayed, issue the VARY NET,CFS,ACTION=CONNECT command to attempt a connection to *structure*. Otherwise, save the system log for problem determination. See the [z/OS Communications Server: SNA Operation](#) for more information about the VARY CFS command.

## System programmer response

If IST1368I or IST1726I is displayed, check the system log for previously issued messages IST1365I and IST1366I. In message IST1366I *returncode* and *reasoncode* will indicate why the connection could not be established. When the problem is corrected, VTAM will automatically attempt the connection again.

## Routing code

2

## Descriptor code

5

IST1368I	CONNECTION IS PENDING
----------	-----------------------

## Explanation

This message is part of a message group VTAM issues to indicate that the connection to the coupling facility structure is defined and active in the coupling facility policy but VTAM currently does not have a connection. The first message in the group is IST1367I. See the explanation of that message for additional information.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1369I** *activity IS IN PROGRESS*

## Explanation

This message is part of a message group VTAM issues in response to a DISPLAY STATS,TYPE=CF command. The first message in the group is IST1370I. See the explanation of that message for more information.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1370I** *cpname IS CONNECTED TO STRUCTURE structure*

## Explanation

This message is issued when VTAM has successfully connected to the structure. It is also part of a group of messages that VTAM issues in response to a DISPLAY STATS, TYPE=CFS command. This message group displays the current statistics for the coupling facility structure. A complete description of the message group follows the example.

```
IST350I  DISPLAY TYPE = STATS,TYPE=CFS
IST1370I  cpname IS CONNECTED TO STRUCTURE structure
IST1797I  STRUCTURE TYPE = type
[IST1517I LIST HEADERS = list_hdrs - LOCK HEADERS = lock_ents]
[IST1189I option = current_value]
[IST1518I BASE STRUCTURE IS strname]
[IST1372I STRUCTURE structure IS BEING DUMPED]
[IST1369I activity IS IN PROGRESS]
[IST1796I SYSTEM-MANAGED DUPLEXING REBUILD IS IN PROGRESS]
IST1373I  STORAGE ELEMENT SIZE = element_size
IST924I  -----
IST1374I
IST1375I  STRUCTURE SIZE          CURRENT      MAXIMUM      PERCENT
IST1376I  STORAGE ELEMENTS      curr_size   max_size   percent
IST1377I  LIST ENTRIES          curr_elements max_elements percent
[IST1519I ALTERNATE STRUCTURES ARE:]
```

```

[IST1567I alt_structure alt_structure alt_structure]
[IST924I ----- ]
[IST2221I EXPLICITBINDPORTRANGE - START: begin_port END: end_port]
[IST1823I LIST DVIPA SYSNAME TCPNAME # ASSIGNED PORTS]
[IST1824I list dvipa totalports]
[IST1825I sysname tcpname numports]
[IST1826I PORTS: port1 port2 port3 port4 port5 port6]
[IST1827I port1 port2 port3 port4 port5 port6]
[IST1828I LIST listnum IS UNCLAIMED]
[IST1829I NO CLAIMED LISTS FOUND FOR THE SPECIFIED DVIPA]
[IST1830I NO CLAIMED LISTS FOUND]
[IST1834I LIST DVIPA SYSNAME TCPNAME #ENTRIES TGDCOUNT SEQNUMBER]
[IST1835I list dvipa]
[IST1836I sysname tcpname #entries tgcount]
[IST1837I sysname tcpname #entries seqnumber]
[IST1838I LIST ENTRY KEYS:]
[IST1839I list_entry_key]
[IST1315I DISPLAY TRUNCATED AT keyword = number]IST314I END

```

### IST1189I

This message indicates that the number of lists allocated in the EZBDVIPA structure does not match the DVLSTCNT value that was active when VTAM connected to the structure. The mismatch might prevent VTAM from accessing all the lists. See [Modifying the number of lists in z/OS Communications Server: SNA Network Implementation Guide](#) for instructions on how to adjust the number of lists that VTAM can access in the EZBDVIPA structure.

*option* is DVLSTCNT

*current\_value* is the value of DVLSTCNT that was active when VTAM connected to the coupling facility structure.

### IST1315I

This message is issued when the number of lines of sysplexports or sysplex wide security associations (SWSA) structure information to be displayed equals the value specified for the MAX or NUM operand.

*keyword* is either MAX or NUM.

*number* is the value specified for either the MAX or NUM operand.

### IST1369I

- *activity* is:

#### REBUILD

The coupling facility structure is currently being rebuilt. Message IST1382I will be displayed later if the rebuild was terminated before it was completed. Message IST1383I will be displayed later when the rebuild is completed successfully.

### IST1370I

*cpname* is the network-qualified name of the CP in the form *netid.name*.

*structure* is the name of the coupling facility structure.

### IST1372I

This message is displayed if the structure is currently being dumped as the result of an MVS operator command.

*structure* is the name of the coupling facility structure.

### IST1373I

This message shows storage element size.

*element\_size* is the size, in bytes, of each storage element.

\*\*\*NA\*\*\* is displayed if *element\_size* is temporarily unavailable.

### IST1374I

This message is a header message for the information displayed in messages IST1375I, IST1376I, and IST1377I.

### IST1375I

This message shows the structure size.

*curr\_size* is the current size, in kilobytes, of the structure. This is the amount of storage currently allocated for the structure.

*max\_size* is the maximum size, in kilobytes, of the structure. This is the value coded for the SIZE parameter on the structure definition in the CFRM policy.

*percent* — **\*\*\*NA\*\*\*** is displayed for this value.

**\*\*\*NA\*\*\*** is displayed if these statistics are temporarily unavailable.

#### **IST1376I**

This message shows the number of storage elements allocated for the structure.

*curr\_elements* is the current number of storage elements allocated for the structure.

*max\_elements* is the maximum number of elements that can be allocated for the structure at its current size.

*percent* is the fraction of elements in use.

**\*\*\*NA\*\*\*** is displayed if these statistics are temporarily unavailable.

#### **IST1377I**

This message shows the number of list entries allocated for the structure.

*curr\_entries* is the current number of list entries allocated for the structure.

*max\_entries* is the maximum number of list entries that can be allocated for the structure at its current size.

*percent* is the fraction of entries in use.

**\*\*\*NA\*\*\*** is displayed if these statistics are temporarily unavailable.

#### **IST1517I**

*list\_hdrs* is the number of list headers currently allocated in the coupling facility structure.

*lock\_ents* is the number of entries in the coupling facility structure's lock table. A value of zero indicates no lock table is being used.

#### **IST1518I**

This message indicates that the coupling facility structure is an alternate structure for a VTAM function that uses multiple structures.

*strname* is the name of the alternate structure's base structure.

See [z/OS Communications Server: SNA Network Implementation Guide](#) for more information about base and alternate coupling facility structure.

#### **IST1519I**

This message indicates that the coupling facility structure is a base structure for a VTAM function that uses multiple structures and there are alternate structures defined. Message IST1567I follows listing all alternate structures associated with the base structure.

See [z/OS Communications Server: SNA Network Implementation Guide](#) for more information about base and alternate coupling facility structure.

#### **IST1567I**

This message is a list of all the alternate structures associated with the base structure identified in message IST1518I.

#### **IST1796I**

The coupling facility structure is currently undergoing a duplexing rebuild. Message IXC577I will be issued when the structure reaches the duplexing established phase. See the [z/OS MVS System Messages, Vol 10 \(IXC-IZP\)](#) for a complete explanation of IXC577I.

#### **IST1797I**

This message shows the type of coupling facility structure.

*type* is the type of coupling facility structure. Possible values are: CACHE, LIST, or LOCK.

#### **IST1823I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name and either the LIST or DVIPA keyword is specified. This message is a heading for a table showing the contents of the sysplexports CFS structure. The contents are displayed in messages IST1824I, IST1825I, IST1826I, and IST1827I.

#### **IST1824I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name and either the LIST or DVIPA keyword is specified. This message shows the list number, the dynamic virtual IP address (DVIPA) associated with the list, and the number of ephemeral ports currently assigned to SYSPLEXPORTS users of this DVIPA. If the list number is 0, this message displays EXPLICITBINDPORTRANGE in place of a DVIPA, and the number of ephemeral ports displayed is the number of ports from the explicit bind port range pool that have been allocated to TCP/IP stacks in the sysplex.

*list* is the list number in the sysplexports structure that contains the information described.

*dvipa* is the dynamic virtual IP address associated with this list number.

*totalports* is the number of ephemeral ports assigned to users of this DVIPA. The value is the total of all the values displayed in *numports* in the IST1825I messages for TCPIP stacks associated with this DVIPA.

#### **IST1825I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name and either the LIST or DVIPA keyword is specified. This message shows the MVS system name and the TCPIP stack name for a TCPIP stack that is using the Coupling Facility to assign ephemeral ports for this DVIPA. It also shows the number of ephemeral ports currently assigned to that TCPIP stack.

*sysname* is the name of the MVS node on which the TCPIP stack is running.

*tcpname* is the job name of the TCPIP stack.

*numports* is the number of ephemeral ports assigned to users of this TCPIP stack for the DVIPA displayed in the preceding IST1824I message.

#### **IST1826I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name, either the LIST or DVIPA keyword is specified, and SCOPE=ALL is specified. This message displays the first six ephemeral ports assigned to the users of the TCPIP stack displayed in the preceding IST1825I message. Any further assigned ports is displayed in message IST1827I.

#### **IST1827I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name, either the LIST or DVIPA keyword is specified, and SCOPE=ALL is specified. This message displays the next six ephemeral ports assigned to the users of the TCPIP stack displayed in the preceding IST1825I message. This message is repeated as many times as necessary to display the remaining assigned ephemeral ports for this TCPIP stack.

#### **IST1828I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name and the LIST keyword is specified. This message is displayed only if the list number specified on the LIST keyword is unclaimed. The term unclaimed means that no DVIPA is associated with that list number.

*listnum* is the input list number that was found to be unclaimed.

#### **IST1829I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name and the DVIPA keyword is specified. This message is displayed only if no lists in the structure have been claimed for the specified DVIPA. The term claimed means that a DVIPA is associated with a list number.

#### **IST1830I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name and LIST=ALL is specified. This message is displayed only if no claimed lists are found in the structure. The term claimed means that a DVIPA is associated with a list number.

#### **IST1834I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a SWSA structure name and either the LIST or DVIPA keyword is specified. This message is a heading for a table showing the contents of the SWSA CFS structure. The contents are displayed in messages IST1835I, IST1836I, IST1837I, IST1838I, and IST1839I.

#### **IST1835I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a SWSA structure name and either the LIST or DVIPA keyword is specified. This message shows the list number and the dynamic virtual IP address (DVIPA) associated with the list.

*list* is the list number in the SWSA structure containing the information described.

*dvipa* is the dynamic virtual IP address associated with this list number.

#### **IST1836I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a SWSA structure name and either the LIST or DVIPA keyword is specified. This message shows the MVS system name and the TCPIP stack name for a TCPIP stack that is using the Coupling Facility to track security associations for this DVIPA. It also shows the number of security association entries currently associated with the DVIPA and the takeover/giveback count for the DVIPA.

*sysname* is the name of the MVS node on which the TCPIP stack is running.

*tcpname* is the job name of the TCPIP stack.

*#entries* is the number of security association entries currently associated with the DVIPA displayed in the preceding IST1835 message.

*tgcount* is the takeover/giveback count. It indicates the number of times the DVIPA has been taken over by another TCPIP stack or given back to the original owning stack.

#### **IST1837I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a SWSA structure name and either the LIST or DVIPA keyword is specified. This message is displayed only for a list used to trace the outbound cryptographic distribution sequence number for a DVIPA. The message shows the MVS system name and the TCPIP stack name for a TCPIP stack that is using the Coupling Facility to track security associations for this DVIPA. It also shows the number of sequence number entries associated with the DVIPA for this list and the sequence number used for outbound cryptographic distribution for a tunnel over the DVIPA.

*sysname* is the name of the MVS node on which the TCPIP stack is running.

*tcpname* is the job name of the TCPIP stack.

*#entries* is the number of sequence number entries currently associated with the DVIPA displayed in the preceding IST1835 message. The value will always be 1.

*seqnumber* is the outbound cryptographic distribution sequence number for a tunnel over this DVIPA.

#### **IST1838I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a SWSA structure name, SCOPE=ALL, and either the LIST or DVIPA keyword is specified. This message is a heading for a table showing the list entry keys of each entry on the list specified in the preceding IST1835I message. Each list entry key is displayed in an IST1839I message following this message.

#### **IST1839I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a SWSA structure name, SCOPE=ALL, and either the LIST or DVIPA keyword is specified.

*list\_entry\_key* is the 32-byte list entry key (in hexadecimal format) of an entry on the list specified in the preceding IST1835I message.

## IST2221I

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name, and the structure has been initialized for explicit bind port range processing by a TCP/IP stack. It displays the explicit bind port range active for this structure.

The *begin\_port* value is the first port in the explicit bind port range.

The *end\_port* value is the last port in the explicit bind port range.

### System action

Processing continues.

### Operator response

\*\*\*NA\*\*\* is displayed for some statistics if the statistic is temporarily unavailable. This may occur when the structure is being dumped (IST1372I is issued) or during the rebuild process (IST1369I is issued). If the structure is being dumped, reissue the command after the dump is complete. If a rebuild is in progress, reissue the command after the rebuild has completed.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

## IST1372I

## STRUCTURE *structure* IS BEING DUMPED

### Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. It will only be displayed if the structure is currently being dumped as the result of an MVS operator command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

**IST1373I****STORAGE ELEMENT SIZE = *elements*size****Explanation**

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1374I****CURRENT MAXIMUM PERCENT****Explanation**

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1375I****STRUCTURE SIZE *curr\_size max\_size percent*****Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. This message describes the size attributes, in kilobytes, of the structure. The first message in the group is IST1370I. See the explanation of this message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1376I****STORAGE ELEMENTS *current\_elements maximum\_elements percent***



**Explanation**

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1377I** **LIST ENTRIES** *current\_entries maximum\_ entries percent*

**Explanation**

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1378I** *command* **FAILED FOR name – GENERIC RESOURCE NAME EXISTS**

**Explanation**

VTAM issues this message when *command* failed because the value specified for ID is already known to this node as a generic resource name. USERVARs and generic resource names cannot have the same name.

*command* is always **F USERVAR**.

*name* is the name specified for ID that is also a generic resource name.

**System action**

VTAM rejects the command.

**Operator response**

Reenter the command with a different USERVAR name specified on ID.

**System programmer response**

None.

**Routing code**

8

**Descriptor code**

5

---

**IST1380I** **DISCONNECTING FROM STRUCTURE** *structure*

## Explanation

VTAM issues this message when it is disconnecting from the coupling facility structure. This message is the first of a group of messages. A complete description of the message group follows.

```
IST1380I DISCONNECTING FROM STRUCTURE structure
[IST1119I FAILURE REASON - INSUFFICIENT STORAGE]
[IST2167I DISCONNECT REASON - OPERATOR COMMAND]
[IST2168I DISCONNECT REASON - NORMAL DISCONNECT]
[IST2169II FAILURE REASON - SUBTASK ABEND]
[IST2170I FAILURE REASON - VTAM HALTING]
[IST2171I FAILURE REASON - LOST CONNECTIVITY]
[IST2172I FAILURE REASON - INVALID STRUCTURE TYPE]
[IST2173I FAILURE REASON - INTERNAL COUPLING FACILITY FAILURE]
[IST2174I FAILURE REASON - INVALID CONNECTION NAME]
[IST2175I FAILURE REASON - PROCESS TIMED OUT]
[IST2176I FAILURE REASON - MVS EVENT]
[IST2177I FAILURE REASON - UNSUPPORTED COUPLING FACILITY LEVEL]
```

```
IST314I END
```

### IST1119I

VTAM disconnected from the coupling facility structure because of insufficient storage in VTAM.

### IST2167I

VTAM disconnected from the coupling facility structure in response to a VARY CFS operator command.

### IST2168I

VTAM disconnected from the coupling facility structure because of a normal disconnect. VTAM no longer has any registered users of the coupling facility.

### IST2169I

VTAM disconnected from the coupling facility structure because the connection subtask abended.

### IST2170I

VTAM disconnected from the coupling facility structure because VTAM is terminating.

### IST2171I

VTAM disconnected from the coupling facility structure because of a loss of connectivity.

### IST2172I

VTAM disconnected from the coupling facility structure because a structure type was not valid.

### IST2173I

VTAM disconnected from the coupling facility structure because of an internal CFS failure.

### IST2174I

VTAM disconnected from the coupling facility structure because a connection nam was not valid.

### IST2175I

VTAM disconnected from the coupling facility structure because a process timed out.

### IST2176I

VTAM disconnected from the coupling facility structure because of an MVS event.

### IST2177I

VTAM disconnected from the coupling facility structure because of an unsupported coupling facility level.

### IST1380I

*structure* is the name of the coupling facility structure.

## System action

The system does not attempt to reconnect to the coupling facility structure.

## Operator response

### Message

#### Operator Response

#### IST1119I

1. Issue the DISPLAY BFRUSE command to display the storage used by the VTAM buffer pools and information about the common storage area. The total VTAM private storage information is also displayed.
2. Issue the DISPLAY STORUSE command to display storage usage for storage pools.
3. Save the system log and request a dump for problem determination.

See VTAM Operator commands in *z/OS Communications Server: SNA Operation* for a description of the DISPLAY BFRUSE and the DISPLAY STORUSE command. If you cannot resolve the problem, contact the system programmer.

#### IST2167I

None.

#### IST2168I

None.

#### IST2169I

Save the system log for problem determination. If you cannot resolve the problem, contact the system programmer.

#### IST2170I

None.

#### IST2171I

Use the DISPLAY XCF,CF MVS command to determine this system's connectivity to the coupling facility containing the structure. See [Displaying cross system coupling facility \(XCF\) information in z/OS MVS System Commands](#) for a description of the DISPLAY XCF command.

Re-establish connectivity to the coupling facility. Use the VARY NET,CFS,ACTION=CONNECT command to re-establish connectivity to the coupling facility. See [VTAM Operator commands in z/OS Communications Server: SNA Operation](#) for a description of the VARY NET,CFS command. Save the system log for problem determination. If you can not resolve the problem, contact the system programmer.

#### IST2172I

Save the system log for problem determination. If you cannot resolve the problem, contact the system programmer.

#### IST2173I

Save the system log for problem determination. If you cannot resolve the problem, contact the system programmer.

#### IST2174I

Save the system log for problem determination. If you cannot resolve the problem, contact the system programmer.

#### IST2175I

Save the system log for problem determination. If you cannot resolve the problem, contact the system programmer.

#### IST2176I

Save the system log for problem determination. If you cannot resolve the problem, contact the system programmer.

#### IST2177I

Save the system log for problem determination. If you cannot resolve the problem, contact the system programmer.

## System programmer response

### Message

#### Programmer Response

##### IST1119I

Increase storage as required. Restart VTAM to reconnect to the coupling facility structure.

See [VTAM Operator commands in z/OS Communications Server: SNA Operation](#) for a description of the DISPLAY BFRUSE and the DISPLAY STORUSE command.

See [storage problem procedure in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information about storage problems.

##### IST2167I

None.

##### IST2168I

None.

##### IST2169I

Review the system log to assist in problem determination. Contact the IBM software support center.

##### IST2170I

None.

##### IST2171I

Review the system log to assist in problem determination.

##### IST2172I

See [Coupling facility structure attributes in z/OS Communications Server: SNA Network Implementation Guide](#) for supported structure types. If FFST is enabled, a Probe dump ISTFSC0A will be produced.

##### IST2173I

Review the system log to assist in problem determination. Contact the IBM software support center.

##### IST2174I

Contact the IBM software support center. If FFST is enabled a Probe dump ISTFSC0B will be produced.

##### IST2175I

Contact the IBM software support center. If FFST is enabled a Probe dump ISTFSC11 will be produced.

##### IST2176I

Review the system log to assist in problem determination. Contact the IBM software support center.

##### IST2177I

See [functions provided by VTAM in a sysplex in z/OS Communications Server: SNA Network Implementation Guide](#) for the Coupling Facility Control Level (CFCC) needed for the VTAM function that is being implemented.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

Not applicable.

## Module

Not applicable.

## Routing code

2

## Descriptor code

5

## Example

None.

---

**IST1381I** **REBUILD STARTED FOR STRUCTURE *structure***

## Explanation

VTAM issues this message when a rebuild has been initiated for the coupling facility structure.

*structure* is the name of the coupling facility structure.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1382I** **REBUILD HAS BEEN STOPPED FOR STRUCTURE *structure***

## Explanation

VTAM issues this message to indicate that a rebuild has been stopped before it could complete. There are two reasons a rebuild will be stopped:

- The operator entered the MVS SETXCF STOP,REBUILD command.
- VTAM has determined that there is an insufficient number of connectors to the new structure to continue.
- A connector to the original structure may have a failed persistent connection and a connection may remain failed persistent if all affinities are not deleted.

*structure* is the name of the coupling facility structure.

## System action

VTAM continues to use the old structure. Processing continues.

## Operator response

If SETXCF STOP,REBUILD was not entered, save the system log for problem determination.

If the rebuild is stopped because of a failed persistent connection either reestablish the failed connection and allow the responsible application to purge the affinities or enter the MVS SETXCF FORCE, CONNECTION, CONNAME=conname, STRNAME=structure name command to force the failed persistent connection away.

## System programmer response

If the operator did not enter the SETXCF STOP,REBUILD command, make sure all nodes in the sysplex have connectivity to the coupling facilities defined in the active coupling facility policy. A rebuild might be tried again by using the SETXCF START,REBUILD command.

## Routing code

2

## Descriptor code

5

---

<b>IST1383I</b>	<b>REBUILD COMPLETE FOR STRUCTURE <i>structure</i></b>
-----------------	--

## Explanation

VTAM issues this message to indicate that a rebuild has been completed.

*structure* is the name of the coupling facility structure that has been rebuilt.

## System action

VTAM begins using the new structure. Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1385I</b>	<b>ADJCLUST INFORMATION WAS IGNORED DUE TO INSUFFICIENT STORAGE</b>
-----------------	---

## Explanation

VTAM issues this message when a border node receives adjacent cluster information, but insufficient storage was available to store the information. This is a private storage problem.

## System action

Adjacent cluster routing will proceed as if the information had not been received.

## Operator response

Issue the DISPLAY BFRUSE command. Message IST981I displays total VTAM private storage information.

Issue the DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a console dump for problem determination.

## System programmer response

Increase storage as required. See the [z/OS Communications Server: SNA Operation](#) and the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on storage-related problems.

## Routing code

2

## Descriptor code

5

---

<b>IST1386I</b>	<b>DYNAMIC ALLOCATION FAILED FOR <i>device_address</i> CODE = <i>return_code</i> REASON = <i>reason_code</i></b>
-----------------	--

---

## Explanation

VTAM issues this message in response to a VARY ACT command for a channel-attached major node.

*device\_address* is the hexadecimal address of the link station that failed.

*return\_code* is the return code received from dynamic allocation SVC 99 and indicates the contents of Register 15.

*reason\_code* is the reason code in the parameter list and provides information about the cause of the failure.

## System action

VTAM deactivates the link station *device\_address*.

## Operator response

- Verify that *device\_address* is correct. Then, attempt to activate the link station again.
- If the command continues to fail, save the system log for problem determination.

## System programmer response

Use the output provided and the explanation of *return\_code* and *reason\_code* to assist you in correcting the problem.

See the [z/OS MVS Programming: Authorized Assembler Services Guide](#) for a description of *return\_code* and *reason\_code*.

- If **REASON = 0214**, this indicates that the unit is not available because the device is already allocated.
- If **REASON = 0238**, this indicates that space is not available in the task input/output table (TIOT). Increase the size of the TIOT table.

If you cannot determine the reason for the failure, contact the IBM Software Support Center.

## Routing code

2

## Descriptor code

5

---

<b>IST1391I</b>	<b>DELAYED DISCONNECT OF <i>puname</i> FAILED DUE TO ABEND</b>
-----------------	--

---

## Explanation

VTAM issues this message when there is an abnormal termination while attempting a delayed disconnection of a physical unit that is defined as DISCNT=DELAY. Messages IST413I, IST416I or IST931I are issued if the abnormal termination produced a dump and the system dump data set is usable at this time.

*puname* is the name of the physical unit which was not disconnected.

## System action

The attempt to disconnect the physical unit is discontinued but other processing continues.

## Operator response

Save the dump and the system log for problem determination.

If you want to disconnect this PU, enter a VARY INACT, TYPE=FORCE command for *puname*.

## System programmer response

Review the dump of the abnormal termination, if available, and console log for problem determination.

## Routing code

2

## Descriptor code

5

---

<b>IST1392I</b>	<b>DISCNTIM = <i>seconds</i> DEFINED AT <i>source</i> FOR DISCONNECT</b>
-----------------	--

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for a PU type 2 or type 2.1. It is issued if the physical unit is defined as DISCNT= DELAY.

In the message text:

### ***seconds***

The value, in seconds, defined for DISCNTIM. DISCNTIM defines the length of time VTAM will delay disconnection of the PU after the last LU-LU session is terminated.

### ***source***

The source of the DISCNTIM definition. Values can be:

### **PU**

The time of delay was specified in the PU definition. It can be changed using the MODIFY RESOURCE or MODIFY DEFAULTS command with the DISCNTIM keyword.



**HOST**

The time of delay was specified in the host at VTAM start time in the DISCNTIM start option or by allowing it to default. It can be changed by using the MODIFY VTAMOPTS command with the DISCNTIM keyword.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1393I** **GENERIC RESOURCE NAME RESOLUTION EXIT IS *exit\_name*****Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY ID=*generic\_name* command. See the explanation of IST1359I for a complete description of the message group.

**Routing code**

2

**Descriptor code**

5

---

**IST1394I** **CPNAME = *cpname* STATION ID = *stationid*****Explanation**

VTAM issues this message as part of a group of messages in the following situations:

- When a connection request for resource *nodename* in message IST680I has been rejected. Either message IST081I or IST352I follows this message with more information on resources.
- When a connection request for resource *puname* in message IST1452I has been successful.

See the description of IST680I for more information.

**Routing code**

8

**Descriptor code**

4

### Explanation

VTAM issues this message as part of a subgroup of messages in response to a DISPLAY ID=ISTNOP command. Message IST977I is the first message in the subgroup. See the description of that message for more information.

### Routing code

2

### Descriptor code

5

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a TCP/IP major node. The first message in the group is IST1342I. See the description of that message for more information.

### Routing code

8

### Descriptor code

5

### Explanation

VTAM issues this message as part of a message group in response to a DISPLAY ID or DISPLAY DIRECTORY command.

- VTAM issues this message when the SRCHRED start option is ON, and the resource being displayed represents a search reduction entry. Searches will be limited for this resource as indicated by the *time* and *number* fields. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information on the processing of a search reduction entry.
  - *time* is the remaining number of seconds that VTAM will limit searches for the resource it previously was unable to locate. Once the specified number of seconds expire, subsequent searches for the resource will not be limited.
  - *number* indicates the amount of requests necessary before VTAM will search for the resource with no search reduction limitations.
    - If **NEXT** is displayed, VTAM will not limit the next search request for the resource.
    - Otherwise, VTAM will limit the search until *number* requests have been received. For example, if *number* is **2**, VTAM will limit the first request received, but will not limit the second request received.
  - A value of **\*NA\*** for *time* or *number* means **Not applicable**. . This value will appear when the timer or counter has been set to 0.
  - The SRTIMER and SRCOUNT threshold values being used for this resource are displayed in message IST1402I.

For more information on the SRCHRED, SRCOUNT, and SRTIMER start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

**IST1402I****SRTIMER = *srtimer* SRCOUNT = *srcount***

---

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY ID or DISPLAY DIRECTORY command.

- VTAM issues this message when the SRCHRED start option is ON. The SRCOUNT and SRTIMER values that are being used for the displayed resource are shown.

*srtimer* is the amount of time in seconds that VTAM will limit searching for a resource that it previously was unable to locate.

*srcount* is the number of requests that VTAM limit searching for the resource that it was previously unable to locate.

For more information on the SRCHRED, SRCOUNT, and SRTIMER start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#). You can change the value of start options with the MODIFY VTAMOPTS. See the [z/OS Communications Server: SNA Operation](#) for more information on that command.

The values of SRTIMER and SRCOUNT can be modified with the MODIFY RESOURCE command. See the [z/OS Communications Server: SNA Operation](#) for more information.

The values of SRTIMER and SRCOUNT may also be specified for a specific resource through the CDRSC and GROUP definition statements in a CDRSC major node. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

## Routing code

2

## Descriptor code

5

---

**IST1403I****MODIFY QUERY REPLY FROM *ncpname***

---

## Explanation

This message is the first in a group of messages that VTAM issues when a reply is received in response to a MODIFY QUERY command. A complete description of the message group follows.

```
IST1403I  MODIFY QUERY REPLY FROM ncpname
IST1404I  id data
...
[IST1405I  data]
...
IST314I   END
```

**IST1403I**

*ncpname* is the name of the NCP that was specified on the ID operand of the MODIFY QUERY command.

**IST1404I**

*id* is the subfield ID of the vector specified on the command.

*data* is the information that was requested from *ncpname*.

## **IST1405I**

This message is used to display overflow *data* from IST1404I.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

### **Routing code**

2

### **Descriptor code**

5

---

<b>IST1404I</b>	<i>id data</i>
-----------------	----------------

### **Explanation**

VTAM issues this message as part of a group of messages. The first message in the group is IST1403I. See the explanation of that message for a complete description.

### **Routing code**

2

### **Descriptor code**

5

---

<b>IST1405I</b>	<i>data</i>
-----------------	-------------

### **Explanation**

VTAM issues this message as part of a group of messages. The first message in the group is either IST1282I or IST1403I. See the explanation of those messages for a complete description.

### **Routing code**

2

### **Descriptor code**

5

---

<b>IST1406I</b>	<b>CONTIMER = <i>contimer</i> IATIMER = <i>iatimer</i></b>
-----------------	--

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a TCP/IP major node. The first message in the group is IST1342I. See the description of that message for more information.

## Routing code

8

## Descriptor code

5

---

<b>IST1408I</b>	<b>MODIFY TGP NOT APPLICABLE FOR <i>resource_type resource_name</i></b>
-----------------	---

---

## Explanation

VTAM issues this message when a MODIFY TGP command fails because both of the following conditions exist:

- The PU used in the connection was created dynamically.
- The topology reporting status for the connection is one of the following when the DISPLAY ADJCP command is issued:

### **AC/N**

Active, but not reported to APPN topology and routing services.

### **AO/N**

Active with override but not reported to APPN topology and routing services.

### **AQ/N**

Quiesced, but not reported to APPN topology and routing services.

### **IN/N**

Inactive, but not reported to APPN topology and routing services.

### **NEV**

Never reported to APPN topology and routing services.

*resource\_type* indicates the type of resource and can be either **CP** or **PU**.

*resource\_name* is the name of the resource.

- If *resource\_type* is **CP**, then *resource\_name* is the resource identified by the adjacent control point that is coded on the ID operand and the transmission group number that is coded on the TGN operand of MODIFY TGP.
- If *resource\_type* is **PU**, then *resource\_name* is the dynamic PU name that is specified on the ID operand of MODIFY TGP.

For more information about the MODIFY TGP command, see the [z/OS Communications Server: SNA Operation](#).

## System action

Processing continues.

## Operator response

Issue a DISPLAY ADJCP command to check the status for the connection. For more information about the DISPLAY ADJCP command, see the [z/OS Communications Server: SNA Operation](#).

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1409I*****luname ASSOC = associatedlu ETYPE = entrytype***

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY LMTBL,TYPE=LUNAME,SCOPE=ALL command. See the explanation of message IST1006I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST1410I*****QUERY status resource***

---

## Explanation

VTAM issues this message to report the status of a MODIFY QUERY command.

*resource* is the target of the query.

*status* is the status of this command and can be one of the following:

### **SENT TO**

This command or series of commands has been sent to *resource* as specified on the MODIFY QUERY command.

### **QUEUED FOR**

This command is part of a series of MODIFY QUERY commands. It will be queued for *resource* until the complete series is received.

### **RESET FOR**

This series of commands queued for *resource* will be purged. This occurs when the program operator application (POA) specified CONTINUE=RESET on the MODIFY QUERY command or when an error occurs in processing the command.

## System action

The action taken by VTAM depends on the *status* reported:

- If *status* is **RESET FOR**, the series of MODIFY QUERY commands for this *resource* will be purged by VTAM.
- If *status* is **SENT TO**, this command or series of commands will be sent to the *resource*.
- If *status* is **QUEUED FOR**, this command will be queued for *resource* until all commands in the series have been received.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1411I** **INOP GENERATED FOR *resourcename***

---

## Explanation

This message is the first in a group of messages that VTAM issues when an error condition has been detected for external communications adapter (XCA) node *resourcename*.

Possible message groups follow.

- If the XCA resource is for a local area network (LAN), and the LAN operation has been identified, VTAM issues the following messages:

```
IST1411I  INOP GENERATED FOR resourcename
IST1412I  lan_operation action - RETURN CODE return_code
IST314I   END
```

- If the XCA resource is for a local area network (LAN) and the LAN operation is not identified, or if the XCA resource is for an Enterprise Extender (HPR/IP) resource, VTAM issues the following messages:

```
IST1411I  INOP GENERATED FOR resourcename
IST1430I  REASON FOR INOP IS reason
IST314I   END
```

### IST1411I

*resourcename* is the name of the XCA resource where the INOP condition occurred.

### IST1412I

- *lan\_operation* is the name of the LAN operation that failed. This name is used by the IBM Software Support Center if additional problem determination assistance is needed.
- *action* is one of the following:

#### FAILED

*lan\_operation* is a LAN operation for which a negative response was returned.

#### RECEIVED

*lan\_operation* is a LAN operation that was received and reported a change in connectivity.

- *return\_code*, if displayed, is a 4-digit hexadecimal code issued by *resourcename* and provides information about the cause of the problem. See the [LAN channel station error return codes](#) information in [z/OS Communications Server: IP and SNA Codes](#) for a description of *return\_code*. If no return code is available, **\*NA\*** is displayed. This code is used by the IBM Software Support Center if additional problem determination assistance is needed.

### IST1430I

- *reason* is one of the following:

#### APPN CONNECTION ENDED BY ACTIVATION XID

An APPN connection across an EE network is being terminated because a new activation XID request has been received over a connection that has already been established.

**APPN CONNECTION ENDED DUE TO INACTIVITY**

An APPN connection over an EE switched virtual circuit (SVC) or over Enterprise Extender (HPR/IP) is being terminated because no HPR session traffic has been detected for the DISCNT time period specified on the PU statement representing this connection.

**APPN CONNECTION FAILED – STORAGE FAILURE**

An APPN connection across an EE network is being terminated because a storage failure occurred during connection establishment or liveness processing.

**EE HEALTH VERIFICATION FAILURE**

During the activation of the EE Connection, VTAM sent Logical Data Link Control (LDLC) probes to the remote partner to determine if all five ports are accessible. VTAM did not receive a successful response to all of the LDLC probe requests. VTAM terminated the activation of the EE connection due to the failure of the EE health verification.

**INBOUND PIU COULD NOT BE ROUTED**

Possible causes for the INOP include:

- An ABEND occurred while processing the PIU. Message IST1037I is also issued and provides additional information.
- A PIU segment was received out of sequence.
- A PIU was lost. A segment was received that did not complete a PIU before the start of a new PIU.
- The segment size was too large. An inbound PIU was received and the segment size exceeded the maximum frame size or the maximum PIU size.
- The PIU was not valid for one of the following reasons:
  - The PIU was not a FID4.
  - The inner PIU was not a FID0 or FID2.
  - The PIU length is too short to include an RH on a VR pacing response.
  - The data count field in the PIU exceeded the PIU size.

**Note:** If the INOPDUMP start option is ON, then an SVC dump was requested by ISTTSCPD.

**LDLC COMMAND ERROR**

An LDLC command was received that is not recognized or was received out of order for an APPN connection across an EE network.

**MACADDR OR SAPADDR IN USE**

The remote MACADDR or SAPADDR for this connection duplicates a remote MACADDR or SAPADDR that is in use.

**TCP/IP JOB *jobname* IS NOT AVAILABLE**

The TCP/IP job *jobname* is no longer available.

**TIMEOUT OCCURRED – PORT TIMER EXPIRED**

The time period specified on the PORT definition statement of the XCA major node expired, and no response to a request had been received.

**UNRECOGNIZED OPERATION**

The reason for the INOP could not be determined by the module issuing this message group.

**XID ERROR**

An XID received during the establishment of an APPN connection across an EE network contained an error.

**XID OR LDLC COMMAND TIMEOUT**

An XID or LDLC COMMAND to establish an APPN connection across an Enterprise Extender (HPR/IP) network did not receive a response after transmission and multiple retries.

**System action**

Error recovery will be attempted for *resourcename*, and subsequent VTAM messages will indicate the results of the error recovery. Processing continues.



## Operator response

Enter a `DISPLAY ID=resource,SCOPE=ALL` command to determine the status of the resource. Save the system log for problem determination. Also:

- If *reason* is **XID OR LDLC COMMAND TIMEOUT**, re-attempt the activation of the APPN connection.
- If *reason* is **TCP/IP JOB jobname IS NOT AVAILABLE**, issue the `DISPLAY TCPIP` command, which lists each TCP/IP job and its version. See [z/OS Communications Server: IP User's Guide and Commands](#) for a complete description of the `DISPLAY TCPIP` command.

## System programmer response

- If message IST1412I is issued, use the system log and the description of *return\_code* to assist you in correcting the problem.

If *lan\_operation* is **CLOSE\_STATION\_INDICATION**, *action* is **RECEIVED**, and *return\_code* is **\*NA\***, VTAM has been informed that the station, previously opened or in the process of being opened, has closed.

- If message IST1430I is issued, the value of *reason* determines the actions to be taken:

### APPN CONNECTION ENDED BY ACTIVATION XID

An effort to activate a new APPN connection has been received over an already active connection. The existing APPN connection and EE SVC or PVC will be terminated and automatically restarted. When the new APPN connection attempt is tried again, the SVC or PVC should be re-established.

### APPN CONNECTION ENDED DUE TO INACTIVITY

No HPR traffic has been detected for the DISCNT time period specified on the PU statement representing this connection. The EE switched virtual circuit (SVC) will be terminated. This is a normal condition when session traffic has ceased to use this connection. The next session request will cause activation of another EE SVC.

### APPN CONNECTION FAILED – STORAGE FAILURE

During APPN connection establishment, either an XID or an LDLC COMMAND could not be transmitted to the remote node because no storage was available. The APPN connection will be terminated. When the storage failure condition is relieved, this connection can be tried again.

### EE HEALTH VERIFICATION FAILURE

Issue `D NET,EEDIAG,ID=resource,TEST=YES` to test the EE connection. See the information about understanding the EE connectivity test output in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) to interpret the output from the EEDIAG command.

### INBOUND PIU COULD NOT BE ROUTED

- An ABEND occurred while processing the PIU. See IST1037I for recommended actions.
- A PIU was received out of sequence.

The TG sequence number in the FID4 TH of the inbound PIU did not match the next sequence number that VTAM expected to receive. If VTAM internal trace was running, then PIU discard trace entries were written. Look for a DSCD entry that contains discard reason code 0001 and a module ID in the DSC2 trace record of LS6I. See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for the format and content of the DSCD and DSC2 trace entries.

- A PIU was lost.

A segment was received that did not complete a PIU before the start of a new PIU. If VTAM internal trace was running, then PIU discard trace entries were written. Look for DSCD entries that contain discard reason codes 0001 and 0004 and the module ID in the trace record of LS6Z. See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for the format and content of the DSCD trace entry.

- The segment size was too large.

An inbound PIU was received and the segment size exceeded the maximum frame size and the maximum PIU size. The maximum segment size for inbound PIUs is determined by the maximum PIU or frame size passed in the XID. If VTAM internal trace was running, then PIU discard trace entries were

written. Look for DSCD entries that contain discard reason codes 0003 and 0004 and a module ID in the DSC2 trace record of LS6Z. See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for the format and content of the DSCD and DSC2 trace entries.

- The PIU was not valid.

If the INOPDUMP start option is ON, then an SVC DUMP was attempted by ISTTSCPD, whose name will appear in the title of the dump. Use the system log and dump to assist you in determining the reason for the INOP. See [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on the INOPDUMP start option. If VTAM internal trace was running, then PIU discard trace entries were written. Look for a DSCD entry that contains discard reason code 0002 and a module ID in the DSC2 trace record of LS6I. See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for the format and content of the DSCD and DSC2 trace entries.

#### **LDLC COMMAND ERROR**

The XID Done LDLC command establishing the primary end of the connection was received before XID negotiation completed. The remote node did not properly complete XID negotiation.

#### **MACADDR OR SAPADDR IN USE**

Verify that the MACADDR and SAPADDR for this connection is a unique pair. See [z/OS Communications Server: SNA Resource Definition Reference](#) for additional information on specifying MACADDR and SAPADDR in the XCA major node.

#### **TCP/IP JOB *jobname* IS NOT AVAILABLE**

The Enterprise Extender (HPR/IP) connection to TCP/IP was established, but due to a change in the TCP/IP job to which VTAM was attached, the connection cannot continue. The TCP/IP job name can be supplied to VTAM using the VTAM start option TCPNAME, which is modifiable using the MODIFY VTAMOPTS command. If the Enterprise Extender is active, a change in the TCPNAME value will not be detected. The TCPNAME value is used only when the Enterprise Extender is started. If the TCPNAME option is not used, the Enterprise Extender selects any TCP/IP job that is active.

#### **TIMEOUT OCCURRED – PORT TIMER EXPIRED**

Verify that the TIMER value on the PORT definition statement is high enough. See [z/OS Communications Server: SNA Resource Definition Reference](#) for additional information.

#### **UNRECOGNIZED OPERATION**

The reason for the INOP could not be determined. Contact the IBM support center.

#### **XID ERROR**

Either a non format 3 XID or an XID with an appended Control Vector 22 was received. The format of the XID or control vector 22 can be used to determine what part of the XID is not valid.

#### **XID OR LDLC COMMAND TIMEOUT**

During APPN connection establishment, either an XID or an LDLC COMMAND was sent to the remote node. No response was received. The XID or LDLC command was retransmitted multiple times without response.

Enterprise Extender (HPR\IP): Try the connection again by reissuing the dial. If failure persists, determine if the failure is a result of a system definition error or a network error. If the failure is a result of a system definition error, correct the error. If the failure is a result of a network error, contact the IP network provider.

## **Routing code**

8

## **Descriptor code**

4

---

**IST1412I**

***lan\_operation action – RETURN CODE return\_code***

## Explanation

This message is part of a group of messages. The first message in the group is IST1411I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

<b>IST1413I</b>	<b><i>error_type</i> – REDIAL ATTEMPTED FOR <i>puname</i></b>
-----------------	---

---

## Explanation

VTAM issues this message if a redial for physical resource *puname* has been attempted.

*error\_type* can be one of the following:

### PROTOCOL VIOLATION

A CV X'51' was not found on the ACTPU response or REQACTPU for the first PU activated for this dependent LU requester.

### SESSION OUTAGE

One of the CPSVRMGR sessions between VTAM and the dependent LU requester was terminated by methods other than a VARY INACT command.

### TDU ERROR

A topology database update (TDU) error has occurred. The end node dependent LU requester attempted to register its topology with its network node server and has received a negative response.

*puname* is the name of the physical resource.

## System action

Redial is attempted. If the redial for *puname* completes successfully, message IST093I will be issued. If the redial does not complete successfully, message IST619I or IST1416I will be issued.

## Operator response

Save the system log for problem determination.

- When *error\_type* is **PROTOCOL VIOLATION**, First Failure Support Technology (FFST) probe ISTCSC13 is triggered. For more information on this probe, see the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#).
- When *error\_type* is **SESSION OUTAGE**, a buffer contents trace can provide additional information. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information.
- When *error\_type* is **TDU ERROR**, First Failure Support Technology (FFST) probe ISTCSC14 is triggered. For more information on this probe, see the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#).

## System programmer response

- When *error\_type* is **PROTOCOL VIOLATION**, locate the ACTPU response (if doing a VARY DIAL) or locate the REQACTPU (if doing DLUR-initiated CPSVRMGR pipe activation) for the first PU activated on this CPSVRMGR pipe. Verify that the RU is formatted correctly and that it contains all the required control vectors.
- When *error\_type* is **SESSION OUTAGE**, verify that all links to the dependent LU requester (DLUR) are still available for use and that the DLUR is still active.

- When *error\_type* is **TDU ERROR**, locate the failed TDU RU in the dump and verify that the RU is formatted correctly.

## Routing code

2

## Descriptor code

5

**IST1414I**

***error\_type* – REDIAL NOT ATTEMPTED FOR *puname***

---

## Explanation

VTAM issues this message if a redial for physical resource *puname* will not be attempted.

*error\_type* can be one of the following:

### PROTOCOL VIOLATION

A CV51 was not found on the ACTPU response or REQACTPU for the first PU activated for this dependent LU requester.

### SESSION OUTAGE

One of the CPSVRMGR sessions between VTAM and the dependent LU requester was terminated by methods other than a VARY INACT command.

### TDU ERROR

A topology database update (TDU) error has occurred. The end node dependent LU requester attempted to register its topology with its network node server and has received a negative response.

*puname* is the name of the physical resource.

## System action

A redial for *puname* is not attempted.

## Operator response

Save the system log for problem determination.

- When *error\_type* is **PROTOCOL VIOLATION**, First Failure Support Technology (FFST) probe ISTCSC13 is triggered. For more information on this probe, see the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#).
- When *error\_type* is **SESSION OUTAGE**, a buffer contents trace can provide additional information. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#).
- When *error\_type* is **TDU ERROR**, First Failure Support Technology (FFST) probe ISTCSC14 is triggered. For more information on this probe, see the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#).

## System programmer response

- When *error\_type* is **PROTOCOL VIOLATION**, locate the ACTPU response (if doing a VARY DIAL) or locate the REQACTPU (if doing DLUR-initiated CPSVRMGR pipe activation) for the first PU activated on this CPSVRMGR pipe. Verify that the RU is formatted correctly and that it contains all the required control vectors.
- When *error\_type* is **SESSION OUTAGE**, verify that all links to the dependent LU requester (DLUR) are still available for use and that the DLUR is still active.
- When *error\_type* is **TDU ERROR**, locate the failed TDU RU in the dump and verify that the RU is formatted correctly.

## Routing code

2

## Descriptor code

5

---

**IST1415I** *resource\_name* **CONFLICTS WITH A GENERIC RESOURCE NAME**

---

### Explanation

VTAM issues this message in response to a DISPLAY ID=*resource\_name* command, when IDTYPE is specified and both of the following conditions exist:

- *resource\_name* is both a generic name and a real resource.
- The value of IDTYPE= is not **GENERIC**.

### System action

VTAM displays information for the real resource name rather than the generic name. Processing continues.

If the generic resource resolution is suspended due to unavailability of the coupling facility (that is, rebuild of the coupling facility is in progress), a dynamic CDRSC will be temporarily created to represent the generic resource. This message is generated for informational purposes only; it is not an error message.

### Operator response

To display generic name information, specify IDTYPE=GENERIC on the DISPLAY ID command.

### System programmer response

One of the duplicate names should be renamed. As long as the duplicate names exist, the real resource is blocked from having sessions with another resource. Also, searches will always find the generic name.

## Routing code

2

## Descriptor code

5

---

**IST1416I** ID = *nodename* **FAILED – RECOVERY IN PROGRESS**

---

### Explanation

VTAM recognized a failure condition for node *nodename* and is attempting to recover the node. See subsequent messages for the results of that recovery attempt.

If the network where the node resides is known to VTAM, *nodename* is a network-qualified name in the form *netid.name*.

### System action

Users of *nodename* or devices attached to *nodename* may be notified of the failure. VTAM attempts to recover *nodename*.

## Operator response

Wait for additional messages indicating the success or failure of the recovery attempt.

## System programmer response

None.

## Routing code

2, 8

## Descriptor code

4

---

IST1417I	NETID	NAME	STATUS	NODETYPE	MAJNODE
----------	-------	------	--------	----------	---------

---

## Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY RSCLIST command. A complete description of the message group follows.

```
IST350I  DISPLAY TYPE = RSCLIST
IST1417I  NETID      NAME      STATUS      NODETYPE      MAJNODE
IST1418I  netid     name       status       nodetype      majnode
.
[IST924I  -----]
[IST1203I  VALUE resourcename FOR operand IS UNKNOWN RESOURCE ]
[IST924I  -----]
[IST1358I  NO QUALIFYING MATCHES FOR id]
[IST924I  -----]
[IST1417I  NETID      NAME      STATUS      NODETYPE      MAJNODE]
[IST1418I  netid     name       status       nodetype      majnode]
IST314I  END
```

### IST350I

This message identifies the type of information in the display and is always RSCLIST for this message group.

### IST1203I

This message is displayed when the value *resourcename* of *operand* is a resource that is syntactically correct but is not defined to VTAM.

*resourcename* is the name of the resource that is not defined to VTAM.

*operand* is the operand on the DISPLAY RSCLIST command.

### IST1358I

This message is issued when there are no resource names found that match the wildcard name specified on the ID operand of the DISPLAY RSCLIST command and other restrictions identified by keywords on the command (for example: SCOPE, IDTYPE).

*id* is the name specified on the ID operand of the DISPLAY RSCLIST command.

### IST1417I

This message is a header message for the information displayed in message IST1418I.

### IST1418I

- IST1418I will occur as many times as is necessary to meet the specification of the ID keyword. If ID is a single value, IST1418I will occur once; if ID is a wildcard specification, IST1418I may occur multiple times.
- If multiple values are specified for the ID keyword (for example: ID=(A,B\*,C)), each grouping will be separated by IST924I.

*netid* is the network identifier of the resource being displayed. An asterisk symbol (\*) indicates that VTAM has not learned the *netid* of the resource or no longer has information about the *netid* for this resource.

*name* is the name of the resource being displayed. Only resources matching the pattern specified by the ID keyword will be displayed.

*status* is the current status of *name*. See [Resource Status Codes and Modifiers](#) in [z/OS Communications Server: IP and SNA Codes](#) for potential values.

*nodetype* is the resource type of the major or minor node. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for a description of *nodetype*.

*majnode* is the name of the major node containing *netid.name*.

- See the [z/OS Communications Server: SNA Operation](#) for more information.
- See the information about how and why a generic resource should be deleted from a sysplex in [z/OS Communications Server: SNA Network Implementation Guide](#) for more information about node type GENERIC USERVAR.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

3

---

<b>IST1418I</b>	<i>netid name status nodetype majnode</i>
-----------------	---

---

## Explanation

This message is part of a group of messages. The first message in the group is IST1417I. See the explanation of that message for a full description.

## Routing code

2

## Descriptor code

5

---

<b>IST1419I</b>	<b>DUPLICATE SESSION INFORMATION REPORTED FOR <i>luname</i></b>
-----------------	---

---

## Explanation

This message is the first in a group of messages that VTAM issues after the completion of a VARY ACT command when a BFSESSINFO request unit (RU) is received during SSCP takeover processing. This message group indicates that VTAM now owns two type 2.1 link stations in the direction of the same logical unit *luname* for

one or more of the sessions described by the BFSESSINFO RU. A complete description of the message group follows.

```
IST1419I DUPLICATE SESSION INFORMATION REPORTED FOR luname
IST1420I UNABLE TO ASSOCIATE THE FOLLOWING SESSION(S) WITH puname
IST873I      PLU              SLU              SID              STATUS
IST874I      netid.pluname    netid.sluname    sessionid          status
[IST874I      netid.pluname    netid.sluname    sessionid          status]
IST314I      END
```

### IST1419I

*luname* is the network-qualified name of the independent logical unit.

### IST1420I

*puname* is the name of the type 2.1 link station (takeover physical unit) that is associated with the BFSESSINFO RU.

### IST873I

This message is a header message for the information displayed in message IST874I.

### IST874I

*pluname* is the network-qualified primary session partner name.

*sluname* is the network-qualified secondary session partner name.

*sessionid* is the session identifier. For additional information on the session, enter a DISPLAY SESSIONS,SID=*sessionid* command.

*status* is the session status. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of possible session initiation and termination states.

Status modifiers will not display in the *status* field of this message group. Enter a DISPLAY SESSIONS,SID=*sessionid* command to obtain this information.

## System action

Subsequent messages will be issued if errors are encountered while processing the BFSESSINFO RU. If no errors are encountered during BFSESSINFO RU processing, session states are not changed. However, certain session and problem determination information will not be available until the link that was taken over is given back to the original owning SSCP.

## Operator response

Save the system log for problem determination.

Since certain session and problem determination information will not be available until the link that was taken over is given back to the original owning SSCP, information such as *luname*, *puname*, and *sessionids* of the affected sessions should be saved. This information may be useful if, for example, *puname* is about to be deactivated because system information indicates that no logical units are currently using it.

Entering a DISPLAY command for *puname* may not show all of the logical units that are currently using the PU. Therefore, saving the information in this message group will enable you to DISPLAY specific logical units and/or sessions to determine whether the PU is currently in use.

### Notes:

1. When a DISPLAY ID=*luname* command is entered with SCOPE=ALL, all sessions involving *luname* are displayed. Sessions that use type 2.1 adjacent link stations are displayed in groups, following message IST1081I indicating the adjacent link station (PU) being used for those sessions.

However, sessions that were listed in the IST1419I message group during an SSCP takeover will not be displayed following message IST1081I for *puname* in message IST1420I.

2. When a DISPLAY ID=*puname* command is entered with SCOPE=ALL, a list of logical units that are currently using that PU are displayed following message IST355I.



However, some of the logical units that are using *puname* may not be displayed, if the only sessions using *puname* are sessions that were displayed in the IST1419I message group during an SSCP takeover.

For an explanation of SSCP takeover, see the [z/OS Communications Server: SNA Network Implementation Guide](#).

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

<b>IST1420I</b>	<b>UNABLE TO ASSOCIATE THE FOLLOWING SESSION(S) WITH <i>puname</i></b>
-----------------	--

---

### Explanation

This message is part of a group of messages that VTAM issues during SSCP takeover processing. The first message in the group is IST1419I. See the explanation of that message for a complete description.

### Routing code

2

### Descriptor code

5

---

<b>IST1421I</b>	<b><i>nodetype resourcename</i> HAS DUPLICATE ADDRESS</b>
-----------------	---

---

### Explanation

This message is part of a message group. The first message in the group is either IST718I or IST1693I. See the explanation of those messages for a complete description.

### Routing code

8

### Descriptor code

5

---

<b>IST1422I</b>	<b>SAVED TRACE REQUESTS FOR <i>value</i></b>
-----------------	--

---

### Explanation

VTAM issues this message as part of a message group in response to a DISPLAY TRACES command. See the explanation of message IST1041I for a complete description of this message group.

### Routing code

2

## Descriptor code

5

---

**IST1423I*****rscname* REJECTED BECAUSE DSPLYWLD = *option***

---

## Explanation

The *rscname* value for an ID keyword of a DISPLAY command included a wildcard specification (\* or ?). Wildcards are not permitted on this DISPLAY command because the current value of the DSPLYWLD start option is *option*. Potential values for *option* are:

### **NOWILD**

Wildcards are not permitted in any DISPLAY commands.

### **OPERONLY**

Wildcards are permitted in DISPLAY commands from the network operator, but not from Program Operator Applications.

### **POAONLY**

Wildcards are permitted in DISPLAY commands from Program Operator Applications, but not from the network operator.

## System action

Processing continues with the remaining ID keyword values in the DISPLAY command.

## Operator response

Use the MODIFY VTAMOPTS command to change the DSPLYWLD value and reissue the DISPLAY command.

## System programmer response

If wildcards should be permitted from either the network operator or Program Operator Applications, update the value of the DSPLYWLD start option in the VTAM start list (ATCSTRxx) to DSPLYWLD=FULLWILD.

## Routing code

2

## Descriptor code

5

---

**IST1424I****APPLICATIONS DEFINED USING THIS MODEL:**

---

## Explanation

VTAM issues this message as part of a subgroup in response to a DISPLAY ID command when the resource identified by ID is a model application program. A complete description of the message subgroup follows.

```
IST1424I  APPLICATIONS DEFINED USING THIS MODEL:
IST080I   nodename1 status1 nodename2 status2 nodename3 status3
:
```

### **IST080I**

This message lists the dynamic application programs that have been defined using this model.

*nodename* is the name of the dynamic application program.

See [Resource Status Codes and Modifiers](#) [inz/OS Communications Server: IP and SNA Codes](#) for a description of these status codes.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

<b>IST1425I</b>	<b>DEFINED USING MODEL <i>model_name</i></b>
-----------------	--

### Explanation

VTAM issues this message in response to a DISPLAY ID command when the resource identified by ID is a dynamic application program or a clone CDRSC. If the ID is a dynamic application program, it identifies the model application program from which this dynamic application program was built; it will not be network qualified. If the ID is a clone CDRSC, it identifies the model CDRSC from which this clone CDRSC was built. The model CDRSC name will be network qualified if it is not an alias model CDRSC; if it is an alias model CDRSC, it will not be network qualified.

*model\_name* is the name of the model resource definition. If ID specifies a CDRSC, the *model\_name* can be a network-qualified name in the form *netid.name*.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

<b>IST1426I</b>	<b>NO APPLICATIONS DEFINED USING THIS MODEL</b>
-----------------	---

### Explanation

VTAM issues this message in response to a DISPLAY ID command when the resource identified by ID is a model application program and no dynamic application programs have been defined using this model.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1427I** **NAME = *resource\_name* FOUND TYPE = *found\_type***

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY DIRECTORY command when SCOPE=NSEARCH is specified. A complete description of the message group follows.

- If the resource name specified on the command is not found, the following message group is displayed.

```
IST350I  DISPLAY TYPE = NETWORK SEARCH
IST1427I NAME = resource_name  FOUND TYPE = found_type
IST314I  END
```

- If one instance of the resource name specified on the command is found, the following message group is displayed.

```
IST350I  DISPLAY TYPE = NETWORK SEARCH
IST1427I NAME = resource_name  FOUND TYPE = found_type
IST1184I CPNAME = cpname - NETSRVR = network_node_server
IST314I  END
```

- If duplicate instances of the resource name specified on the command are found, the following message group is displayed.

```
IST350I  DISPLAY TYPE = NETWORK SEARCH
IST1427I NAME = resource_name  FOUND TYPE = found_type
IST1184I CPNAME = cpname - NETSRVR = network_node_server
IST924I  -----
IST1427I NAME = resource_name  FOUND TYPE = found_type
IST1184I CPNAME = cpname - NETSRVR = network_node_server
:
IST314I  END
```

Following are some of the situations in which all instances of *resource\_name* might not be returned.

- The resource is not registered to its network node server and the end node does not allow searching on a domain broadcast.
- A response is not returned in the time allotted for a Locate, as determined by the IOPURGE start option.
- Subarea searching is restricted due to the SSEARCH start option.
- The SNVC start option limit has been exceeded, preventing a border node from searching nonnative subnetworks.
- The search request is restricted by search reduction entries at nodes from which the command is **not** issued. Search reduction entries are ignored at the node from which the command is issued.

- An exit is restricting searches.
- Due to current network topology, the resource is unreachable via Locate flows (for example, an outage has occurred in the network).

#### **IST350I**

This message identifies the type of information in the display and is always **NETWORK SEARCH** for this message group.

#### **IST1184I**

*cpname* is the network-qualified name of the owning control point in the form *netid.name*.

*network\_node\_server* is the network-qualified name of the network node server in the form *netid.name*.

#### **IST1427I**

- *resource\_name* is the name of the resource specified on the command.

**Note:** If the resource specified is a generic resource name or USERVAR, the name can be translated by nodes from which the command is **not** issued. In this case, *resource\_name* will be the actual network name of the resource rather than the name specified.

- *found\_type* is determined by the start options that are specified or defaulted. Possible values are:

##### **NONE**

The resource was not found.

##### **OWNER**

The resource was found, and this response is from the actual owner of the resource.

##### **SURROGATE**

The resource was found, and this response is from a node connected to the resource by a LEN connection and is providing network services for the resource.

##### **WILDCARD**

The resource was found, but is only used if other responses are not received. This response is returned by a node that has either:

- A generic definition for a connection to a network that might contain the target resource
- A backup resource definition for the specified resource. VTAM uses this for connectable application programs and inactive LUs.

- Resources of *found\_type* **OWNER** will be issued first, followed by *found\_type* **SURROGATE** and *found\_type* **WILDCARD**.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

### **Routing code**

2

### **Descriptor code**

5

**Explanation**

VTAM issues this message as part of a group of messages when an error condition has been detected for an External Communications Adapter (XCA) node. The first message in the group is IST1411I. See the description of that message for more information.

**Routing code**

4

**Descriptor code**8

---

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY COSMAP command. See the explanation of IST1321I for a complete description of the group.

**Routing code**

2

**Descriptor code**5

---

**Explanation**

VTAM issues this message when the value of the DYNLU operand or DYNLU start option does not match the value of the CDRSC operand on the CDRM definition statement. These values determine whether dynamic CDRSC definitions are allowed.

*cpname* is the network-qualified name of the adjacent control point in the form *netid.name*.

**System action**

Even though session traffic may continue to flow, this conflict may result in intermittent session failures. Processing continues.

**Operator response**

Save the system log for problem determination.

**System programmer response**

To correct the conflict, ensure that the values for DYNLU and CDRSC match.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of the DYNLU and CDRSC operands and the DYNLU start option.

**Routing code**

8

## Descriptor code

5

---

**IST1433I*****rscname* REJECTED - DSPLYWLD = NO FOR APPL *applname***

---

## Explanation

The *rscname* value for an ID keyword of a DISPLAY command issued by Program Operator Application *applname* included a wildcard specification (\* or ?). Wildcards are not permitted on DISPLAY commands from *applname* because the application's definition statement specifies DSPLYWLD=NO.

## System action

Processing continues with the remaining ID keyword values in the DISPLAY command.

## Operator response

No action is required unless wildcards are to be permitted in DISPLAY commands from this application.

## System programmer response

If wildcards should be permitted, update the value of the DSPLYWLD keyword on the APPL definition statement for *applname* to DSPLYWLD=YES.

## Routing code

5

## Descriptor code

2

---

**IST1434I****DLUR ANS SUPPORT CONFLICT FOR PU *puname* – SET TO ANS=STOP**

---

## Explanation

VTAM issues this message when a dependent LU server PU has the ANS (Automatic Network Shutdown) keyword coded as CONT and the dependent LU requester (DLUR) is only capable of supporting ANS=STOP.

*puname* is the name of the dependent LU server PU.

## System action

VTAM changes the ANS value coded on the PU to the default (ANS=STOP).

## Operator response

Save the system log for problem determination.

## System programmer response

The DLUR being used with the DLUS does not have ANS=CONT support. To prevent the message from being issued, either allow ANS to default or code ANS=STOP for those DLUS PUs in the switched major nodes which have this DLUR coded for the DLURNAME parameter on the PU's PATH statements.

## Routing code

2

## Descriptor code

5

**IST1435I**

**LEVEL INPUT OUTPUT**

### Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY STATS command when TYPE=COMPRESS is specified.

A complete description of the message group follows the example.

```
IST350I  DISPLAY TYPE = STATS,TYPE=COMPRESS
IST1435I  LEVEL  INPUT                                OUTPUT
IST1176I                                     BASIC    FROZEN
IST1177I    0    input                                basic    **NA**
IST1177I    1    input                                basic    **NA**
IST1177I    2    input                                basic    frozen
IST1177I    3    input                                basic    frozen
IST1177I    4    input                                basic    frozen
IST314I  END
```

### IST350I

This message identifies the type of information shown in the display. For this message group, type is always **STATS,TYPE=COMPRESS**.

### IST1176I

This message is a header message for message IST1177I.

BASIC and FROZEN are OUTPUT values indicating the number of half-sessions using a given compression level for outgoing data.

For more information, see the description of message IST1177I.

### IST1177I

- This message is issued once for each possible data compression level.
- *level* is **0**, **1**, **2**, **3**, or **4**.
  - Level **0** indicates that no data compression is used. This is the default compression level.
  - Level **1** indicates that VTAM uses run length encoding (RLE) compression. This type of compression simply replaces strings of identical characters with one or two bytes, without using a compression dictionary.
  - Levels **2**, **3**, and **4** indicate that VTAM uses an adaptive compression algorithm. This type of compression replaces strings of data with codes of 9, 10, and 12 bits for levels 2, 3, and 4, respectively. Codes identify entries in dictionaries of data strings.

In BASIC mode, which is always the initial mode, VTAM continuously updates the dictionaries so that they reflect the most recently compressed data.

In FROZEN mode, VTAM stops updating (freezes) the dictionaries to speed up compression processing. In this mode, VTAM can take advantage of the ESA/390 data compression facility, if it is available on the CPU.

Compression periodically switches from FROZEN mode to BASIC mode to resume updating of the dictionaries. It switches back to FROZEN when the dictionaries again reflect the most recently compressed data.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information on the RLE and adaptive compression algorithms.

- The **INPUT** value *input* represents the number of half-sessions using a given compression level for incoming data.
  - When a session is established, *input* is incremented by one at the input compression level used by the corresponding half-session in this host.



- When a session ends, *input* is decremented by one at the input compression level used by the corresponding half-session in this host.
- The **OUTPUT** values *basic* and *frozen* represent the number of half-sessions using a given compression level for outgoing data.
  - When a session is established, *basic* is incremented by one at the output compression level used by the corresponding half-session in this host.
  - Each time VTAM freezes the compression dictionaries for a half-session on output, *basic* for that half-session is decremented by one, and *frozen* at the same level is incremented by one.

Each time VTAM resumes updating the compression dictionaries for a half-session on output, *frozen* for that half-session is decremented by one, and *basic* at the same level is incremented by one.

  - When a session ends, *basic* or *frozen* (depending on the compression state at the time) is decremented by one at the output compression level used by the corresponding half-session in this host.

**Note:** A session with both half-sessions in the same host is prevented from using compression. Each of its two half-sessions is counted separately for **INPUT** and **OUTPUT** on level 0.

### IST1435I

- This message serves as a header for message IST1177I.
  - LEVEL indicates the data compression level.
  - INPUT indicates the number of half-sessions (one end of a session) using a given compression level for incoming data.
  - OUTPUT indicates the number of half-sessions using a given compression level for outgoing data. Values are *basic* and *frozen*.
- For more information, see the description of message IST1177I.

### System action

Processing continues.

### Operator response

None.

### System programmer response

You can use the information in this display to monitor the distribution of sessions for different compression levels. This distribution can be altered by using any of the following:

- MODIFY COMPRESS command
- MODIFY VTAMOPTS,CMPMIPS=*cmpmips* command
- CMPVTAM start option
- CMPMIPS start option
- APPL definition statement by CMPAPPLO or CMPAPPLI.

Use the DISPLAY SESSIONS,SID=*sid* command to monitor the compression performance of individual sessions. See the explanation of message IST879I for a description of the information in this display.

See [z/OS Communications Server: SNA Operation](#) for more information on commands. See the [z/OS Communications Server: SNA Resource Definition Reference](#).

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information about Data Compression.

## Routing code

2

## Descriptor code

5

---

### IST1436I

### RU PENDING:

## Explanation

This message is the first in a group of messages that VTAM issues when the request unit (RU) *runame* has been pending on the node *fornodename* for a period of time without receipt of a corresponding response unit. A complete description of the message group follows.

```
IST1436I RU PENDING:
IST1278I runame FROM fromnetid TO tonetid FOR fornodename
[IST531I FROM SUBAREA = subarea, ELEMENT = element]
[IST531I TO SUBAREA = subarea, ELEMENT = element]
IST1051I EVENT CODE = code
IST1062I EVENT ID = eventid
```

**Note:** If *runame* remains outstanding for subsequent intervals, these messages will be repeated at such intervals until *runame* is received or until the request unit is purged.

### IST531I

VTAM will not issue this message if both **FROM** network name *fromnetid* and **TO** network name *tonetid* are displayed in this message.

VTAM will display this message once if one of the network names is unknown and twice if both of the network names are unknown.

If the subarea and element addresses are unknown, VTAM issues either **0** or **\*NA\*** in place of the address.

### IST1051I

*code* is an event code that identifies which format of event ID is being displayed.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

### IST1062I

*eventid* is an internal VTAM identifier of the pending request.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *eventid*.

### IST1278I

- *runame* is the request unit (RU) that is pending. See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *runame*.
- The origin and destination of *runame* are identified by one of the following:
  - Network names (*fromnetid* and *tonetid*) as displayed in this message.
  - Network addresses (subarea number *subarea* and element number *element*) as displayed in message IST531I.

**Note:** VTAM will not issue message IST531I if both **FROM** network name *fromnetid* and **TO** network name *tonetid* are displayed in this message. VTAM will display message IST531I once if one of the network names is unknown and twice if both of the network names are unknown. If the subarea and element addresses are unknown, VTAM issues either **0** or **\*NA\*** in place of the address.

- *fornodename* is the name of the node with the pending RU. If *fornodename* is session-capable, VTAM issues *fornodename* as a network-qualified name in the form *netid.name*.

### IST1436I

This is the header message for message IST1278I.

## System action

Processing continues, awaiting the corresponding response unit.

## Operator response

This message group indicates that a problem **may** exist. The longer an RU remains outstanding (that is, the more often these messages reappear for the same RU), the more probable it is that a problem exists.

If a particular RU remains outstanding for an extended period of time, display the node for which the I/O is pending, and save the system log for problem determination.

- If *runame* is **CD DSEARCH**, this message group may indicate one of the following problems:

- A low IOINT value and no ADJSSCP table values were coded.
- The DYNASSCP start option and the ADJSSCP table are not properly tuned.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information about these DSRLST problems.

- If *runame* is **CHAR CODED**, this message group indicates that VTAM sent a USSMSG to the LU and is waiting for a response. This is usually a device problem. A frequent cause of this error is when a user powers off the terminal without logging off first. To correct the situation, enter a VARY INACT command for the resource *forname* and then enter a VARY ACT for the same resource.
- If *runame* is **NMVT**, this message group may indicate that the device is not real-time-monitor-capable. This means that the device did not process the response and return the requested information properly to the NetView program for most devices, or to the RS/6000 network management program for RS/6000 devices. A microcode change is needed to permanently resolve this problem.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information about this problem.

## System programmer response

You can use the MODIFY IOPD command to change the time-out interval controlling the display of this message. See the [z/OS Communications Server: SNA Operation](#) for additional information.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on the wait procedure.

## Routing code

8

## Descriptor code

4

---

**IST1438I** **LOGMODE *logmode* UNKNOWN IN THIS DOMAIN, DEFAULT IS**  
**ISTCOSDF**

## Explanation

This message is part of a message group that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message in the group is IST879I. See the description of that message for more information.

## Routing code

2

## Descriptor code

5

**IST1439I**

*percent PERCENT OF storage\_type USED FOR STRUCTURE structure*

---

## Explanation

VTAM has detected a possible storage shortage problem in a coupling facility structure. You can issue D NET,STATS,TYPE=CFS,STRNAME=*structure* to get the storage utilization for the structure.

This message is issued for each storage type that exceeds 80% storage being used.

This message will remain on the screen until the problem has been corrected.

- *percent* is the percentage in use for *storage\_type*.
- *storage\_type* identifies the type of storage shortage. Possible values are:

### ELEMENTS

The storage shortage pertains to list elements in a coupling facility list structure.

### ENTRIES

The storage shortage pertains to list entries in a coupling facility list structure.

- *structure* is the name of the coupling facility structure.

## System action

- If *percent* is greater than 90 and *storage\_type* is either ENTRIES or ELEMENTS, then VTAM automatically attempts to alter the ratio of ENTRIES and ELEMENTS.
- If *percent* is greater than 90 for *storage\_type* ENTRIES and ELEMENTS, then VTAM automatically attempts to alter the size to the SIZE value coded in CFRM policy.
- If the alter attempts fail to relieve the storage problem or *percent* is 100, VTAM attempts a rebuild of the structure to change the number of entries or elements available.
- If *percent* is 100 and *storage\_type* is ENTRIES or ELEMENTS, attempts to register generic resources or attempts to log on to generic resources might fail.

## Operator response

Issue D NET,STATS,TYPE=CFS,STRNAME=*structure* and perform the following based on the structure size indicated in message IST1375I:

- If the current size is smaller than the maximum size, rebuild the structure into a facility with space that will allow the maximum size to be allocated.
- If the current size and maximum size are the same, update the size of the structure in the active CFRM policy and start a rebuild.

**Note:** See the [z/OS Communications Server: SNA Network Implementation Guide](#) for information on estimating coupling facility structure storage.

If *storage\_type* is **ENTRIES** or **ELEMENTS** and the percentage is less than 100, a rebuild could be started using the SETXCF START,REBUILD command. This will cause VTAM to adjust the number of entries and elements available in the structure. If a rebuild is not started by operator, VTAM automatically attempts a rebuild in the case when the storage is totally exhausted (*percent* is 100).

## System programmer response

None.

## Routing code

2

## Descriptor code

11

---

**IST1440I**

**USE = *text***

---

### Explanation

VTAM issues this message in response to a DISPLAY ID command, when the resource being displayed is a line in an NCP major node.

*text* identifies the usage of the line

#### **EP, DEFINED RESOURCE, CANNOT BE REDEFINED**

indicates that the line is in EP mode, is a defined line and cannot be redefined.

#### **NCP, DEFINED RESOURCE, CANNOT BE REDEFINED**

indicates that the line is in NCP mode, is a defined line and cannot be redefined.

#### **NCP, DEFINED RESOURCE, CAN BE REDEFINED**

indicates that the line is in NCP mode, is a defined line and can be redefined.

#### **NCP, SPARE RESOURCE, CAN BE REDEFINED**

indicates that the line is in NCP mode, is a spare line and can be redefined.

### System action

Processing continues

### Operator response

None

### System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1441I**

**VARY ACT FOR *linename* FAILED, USE=SPARE**

---

### Explanation

VTAM issues this message in response to a VARY ACT command, when the resource being activated is a spare line.

*linename* identifies the name of the line.

### System action

Processing continues

### Operator response

If the line should be DEFINED, issue the MODIFY LINEDEF command, specifying USE=DEFINED.

## System programmer response

None

## Routing code

2

## Descriptor code

5

---

<b>IST1442I</b>	<b>MODIFY LINEDEF FAILED, <i>linename</i> CANNOT BE REDEFINED</b>
-----------------	---

---

## Explanation

VTAM issues this message in response to a MODIFY LINEDEF command, when the line cannot be redefined. *linename* identifies the name of the line.

## System action

Processing continues.

## Operator response

Display the line to ensure the correct line is being used.  
Save the system log for problem determination.

## System programmer response

Ensure that the line has been defined correctly.

## Routing code

2

## Descriptor code

5

---

<b>IST1445I</b>	<b>RESOURCE <i>value</i> FOR USERVAR <i>uservar</i> NOT FOUND</b>
-----------------	---

---

## Explanation

VTAM issues this message in response to a DISPLAY ID=*uservar*,IDTYPE=USERVAR when the application program, *value*, that is associated with USERVAR, *uservar*, is not defined to VTAM.

*value* is the VALUE of the USERVAR. *value* is an application program that is displayed as a network-qualified name in the form *netid.name*, if *value* was a network-qualified name on the MODIFY USERVAR command.  
*uservar* is the name of the USERVAR.

## System action

VTAM rejects the command.

## Operator response

Activate the application major node containing *value* and reenter the command.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST1446I****SYMBOLIC SUBSTITUTION NOT AVAILABLE IN THIS RELEASE OF MVS**

## Explanation

VTAM issues this message when an ampersand (&) is encountered in an input record in a member of VTAMLST and VTAM is running on a release of MVS that does not support symbolic substitution. Symbolic substitution is available on MVS V5R2 and later releases.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Correct the VTAM definition library member by removing the ampersand or symbolic variable.

## Routing code

2

## Descriptor code

5

---

**IST1447I****REGISTRATION TYPE = *registration\_type***

## Explanation

This message is issued with a group of messages in response to the DISPLAY ID command. It displays the registration type for the resource, if applicable.

*registration\_type* can have the following values:

### **NO**

Resource registration type is none.

### **NETSRVR**

Resource registration type is network node server.

### **CDSERV**

Resource registration type is central directory server.

The value for *resource\_type* is determined by resource definition unless it has been changed by the MODIFY RESOURCE command. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information about resource registration.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1449I****DEFAULTS WILL BE USED IF NO OVERRIDE IS SPECIFIED**

## Explanation

VTAM issues this message during START processing when a start option is specified with a value that is not valid or when a syntax error is detected in the START command. After issuing IST1449I, VTAM will issue IST1311A to prompt the operator to reenter the start options. If the operator does not enter overriding values, VTAM will use default values for the start options in error.

## System action

Processing will be halted while VTAM waits for a reply to IST1311A.

- If the LIST start option is entered, VTAM ignores it.
- If HALT is entered, start processing ends and VTAM is terminated.

## Operator response

- Enter start options to override current values, or enter a blank to indicate that you want default values. If you need another prompt for further overrides, follow the last option with a comma.
- Enter HALT to terminate VTAM.

## System programmer response

None.

## Routing code

2

## Descriptor code

3

---

**IST1450I****GLOBAL TNSTAT = *status* CNSL = *console* TIME = *interval***

## Explanation

VTAM issues this message as part of the response to the DISPLAY TNSTAT or MODIFY TNSTAT commands.



When *status* is ACTIVE, that indicates that all non-TRLE devices are recording, and recording will be initiated automatically for newly activated devices. When *status* is INACTIVE, that indicates that recording is not in effect for non-TRLE controlled devices, nor will recording be initiated automatically for newly activated devices.

When *console* is YES, that indicates that tuning statistics reports are displayed at the system console. When *console* is NO, that indicates that tuning statistics reports are not displayed at the system console.

*interval* is the number of minutes in the tuning statistics reporting interval.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

**IST1451I** **TRLE = trlename TNSTAT = status**

### Explanation

VTAM issues this message as part of the response to the DISPLAY TNSTAT, MODIFY TNSTAT and MODIFY NOTNSTAT commands.

*trlename* is the name of the TRLE for which status is being reported.

*status* indicates the results of the MODIFY command or the status of tuning statistics recording for *trlename*.

- When *status* is ACTIVE, tuning statistics are currently being recorded for the devices in the TRLE.
- When *status* is INACTIVE, tuning statistics are not currently being recorded for the devices in the TRLE.
- When *status* is FAILED, VTAM does not support collection of tuning statistics for the TRLE specified as *trlename* on the MODIFY command. See [Gathering tuning statistics in z/OS Communications Server: SNA Network Implementation Guide](#) for more information.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1452I** *type* MISMATCH IGNORED FOR *puname*

## Explanation

VTAM issues this message as part of a group of messages when a connection for the switched physical unit *puname* was established, but the CP name or the station ID of *puname* did not match the CP name or station ID that was passed in the XID request. A complete description of the message group follows.

```
IST1452I  type MISMATCH IGNORED FOR puname
IST1394I  CPNAME = cpname  STATION ID = stationid
IST314I   END
```

### IST1452I

*puname* is the name of the PU.

*type* is the type of mismatch that occurred. Possible values are: **CPNAME** or **STATION ID**.

### IST1394I

*cpname* is the network-qualified name of the control point (CP) that was passed in the XID from the node attempting the connection. VTAM displays *cpname* in the form *netid.name*.

*stationid* is the station identifier expressed in hexadecimal. For more information on station identifier formats, see the descriptions of the IDBLK and IDNUM operands in the [z/OS Communications Server: SNA Resource Definition Reference](#).

## System action

The connection will be established. Processing continues.

## Operator response

Enter a DISPLAY ID on *puname* and save the system log for problem determination.

## System programmer response

Perform one of the following:

- Reinitialize the physical unit with the correct station identifier or CP name.
- Check for a CP name or station ID mismatch between the PU and the switched major node and revise as needed.

## Routing code

2

## Descriptor code

3

---

**IST1453I** VARY INACT FOR *resourcename* FAILED - FRSESET PU ACTIVE

## Explanation

VTAM issues this message when a VARY NET,INACT,ID=*resourcename* was attempted for a frame relay LMI PU and at least one FRESESET PU associated with that LMI PU is still active. The deactivation attempt is ignored.

## System action

Processing continues. The deactivation attempt is ignored.

## Operator response

All of the FRESESET PUs must be deactivated before deactivation of the LMI PU. To determine the FRESESET PUs defined under the LMI PU you want to deactivate, perform the following steps:

1. Issue a DISPLAY ID for the LMI PU you want to deactivate to get the corresponding line name.
2. Issue a DISPLAY LINE (with SCOPE=ALL) to obtain the names for the FRESESET PUs defined under the line.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1454I** *count type DISPLAYED [FOR ID = *rscname* | FOR LU = *rscname*]*

## Explanation

IST1454I is issued once for every ID value (*rscname*) specified on the DISPLAY command and indicates how many (*count*) resources matched the command specifications (for example ID, EXCLUDE, SCOPE, IDTYPE). This message was issued in response to one of the following commands.

- DISPLAY ADJSSCPs
- DISPLAY APPLs
- DISPLAY CDRMS
- DISPLAY CDRSCs
- DISPLAY CPCP
- DISPLAY CLSTRs
- DISPLAY EXIT
- DISPLAY GRAFFIN
- DISPLAY GROUPs
- DISPLAY LINES
- DISPLAY LUGROUPs,SCOPE=ALL
- DISPLAY MAJNODEs
- DISPLAY PATHTAB
- DISPLAY PENDING
- DISPLAY RSCLIST
- DISPLAY SRCHINFO
- DISPLAY STATIONs

- DISPLAY STATS,TYPE=VTAM
- DISPLAY STORUSE
- DISPLAY TABLE,SCOPE=ALL
- DISPLAY TERMS
- DISPLAY TGPS
- DISPLAY TOPO,LIST=TDUINFO
- DISPLAY TRL
- DISPLAY USERVAR.

*rscname* is network-qualified only if the corresponding ID keyword was network-qualified on the DISPLAY command. FOR ID=*rscname* is not present if ID was not coded on the command.

IST1454I is issued even if the specified MAX limit is reached for the command.

*type* is based on the command issued, as follows:

**Display Command  
type**

**DISPLAY ADJSSCPS**  
RESOURCE(S)

**DISPLAY APPLS**  
RESOURCE(S)

**DISPLAY CDRMS**  
RESOURCE(S)

**DISPLAY CDRSCS**  
RESOURCE(S)

**DISPLAY CLSTRS**  
RESOURCE(S)

**DISPLAY CPCP**  
ADJCP(S)

**DISPLAY EXIT**  
EXIT(S)

**DISPLAY GRAFFIN**  
AFFINITY, AFFINITIES

**DISPLAY GROUPS**  
RESOURCE(S)

**DISPLAY LINES**  
RESOURCE(S)

**DISPLAY LUGROUPS**  
RESOURCE(S)

**DISPLAY MAJNODES**  
RESOURCE(S)

**DISPLAY PATHTAB**  
PATH(S)

**DISPLAY PENDING**  
RESOURCE(S)

**DISPLAY RSCLIST**  
RESOURCE(S)

**DISPLAY SRCHINFO,LIST=ALL**  
PAIR(S)

**DISPLAY SRCHINFO,LIST=SUMMARY**  
CP NAME(S), SSCP(S)

**DISPLAY SRCHINFO,SID**

ADJSSCP(S)

**DISPLAY STATIONS**

STATION(S)

**DISPLAY STATS,TYPE=VTAM**

STATISTICS

**DISPLAY STORUSE,APPL**

APPL(S)

**DISPLAY STORUSE,DSPNAME**

DSPNAME(S)

**DISPLAY STORUSE,JOBNAME**

JOBNAME(S)

**DISPLAY STORUSE,POOL**

POOL(S)

**DISPLAY TABLE**

RESOURCE(S)

**DISPLAY TERMS**

RESOURCE(S)

**DISPLAY TOPO,LIST=TDUINFO**

TDUINFO(S)

**DISPLAY TGPS**

TGP(S)

**DISPLAY TRL**

TRLE(S)

**DISPLAY USERVAR**

USERVAR(S)

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1455I****ERROR DETECTED BY EXIT SERVICES FOR *exitname* IN *modulename***

## Explanation

This message is the first in a group of messages issued by VTAM exit services when an error has been detected while processing a request from a user-written exit. A complete description of the message group follows.

```
IST1455I ERROR DETECTED BY EXIT SERVICES FOR exitname IN modulename
IST1456I FUNCTION function - REASON: reason
IST314I  END
```

### IST1455I

*exitname* is the CSECT name of the exit.

*modulename* is the name of the load module that contains *exitname*.

### IST1456I

- *function* is the function being performed by VTAM exit services and can be one of the following:

#### **\*UNKNOWN**

The function requested could not be determined.

#### **MESSAGE**

The exit *exitname* requested the message function.

- *reason* is the reason for the error and can be one of the following:

#### **EXSPL POINTER IS ZERO**

The pointer to the EXSPL (passed by the exit in register 1) is zero.

#### **INPUT PARMLIST POINTER IS ZERO**

The pointer to the input parameter list in the EXSPL is zero.

#### **MESSAGE LENGTH IS NOT VALID**

The message text length specified in the EXMPL is not valid. Message text length must be greater than 0 and less than or equal to 4096 (decimal).

#### **MESSAGE TEXT POINTER IS ZERO**

The pointer to the message text in the EXMPL is zero.

#### **REQUESTED FUNCTION IS NOT VALID**

The function code specified in the EXSPL is not defined to (nor supported by) the current level of VTAM exit services.

#### **VTAM MESSAGE MACRO FAILED**

The macro used by VTAM to send a message to the system console returned a nonzero return code to exit services.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

Correct the error in *exitname*. See [z/OS Communications Server: SNA Customization](#) for more information on *exitname*.

## Routing code

2

## Descriptor code

4

---

**IST1456I** **FUNCTION** *function* — **REASON:** *reason*

---

## Explanation

VTAM issues this message as part of a message group. The first message in the group is IST1455I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

4

---

**IST1457I** **VTAM APING VERSION** *apver* (**PARTNER TP VERSION** *partver*)

---

## Explanation

This message is the first in a group of messages that VTAM APING transaction program (TP) issues in response to the DISPLAY APING command. This group of messages provides information about the exchange of data between the APING TP and its partner TP. A complete description of the message group issued for a normal, non-exception APING transaction on the APING side follows.

The following is an example of messages that could be issued in the message group.

```
IST1457I VTAM APING VERSION apver (PARTNER TP VERSION partver)
IST1490I DLU=dluname SID=sid
IST1462I ECHO IS [ON|OFF|FORCED]
IST1463I ALLOCATION DURATION: time MILLISECONDS
IST1464I PROGRAM STARTUP AND VERSION EXCHANGE: time MILLISECONDS
[IST1465I      DURATION      DATA SENT      DATA RATE      DATA RATE]
[IST1466I      (MILLISECONDS) (BYTES)      (KBYTE/SEC)  (MBIT/SEC)]
[IST1467I      dur      dsnt      drkb      drmb]
[IST1467I      dur      dsnt      drkb      drmb]
[IST1468I TOTALS:      durt      dsntt      drkbt      drmbt]
[IST1469I DURATION STATISTICS:]
[IST1470I MINIMUM = min  AVERAGE = avg  MAXIMUM = max]
IST314I END
```

### IST1457I

*apver* identifies the VTAM version of APING.

*partver* identifies the APING version of the partner TP.

### IST1462I

- This message displays the value of ECHO. Possible values are:

**NO**

The partner TP does not echo back to APING.

**YES**

The partner TP does echo back to APING.

**FORCED**

The issuer has specified ECHO=NO, but the partner TP cannot support ECHO=NO. In this case, ECHO=YES will be used.

### IST1463I

This message displays the time it takes to perform the conversation allocation between APING and its partner TP.

#### **IST1464I**

This message displays the time it takes to perform the version exchange between APING and its partner TP. The time starts when the data is sent and timer stops when the partner's version has been received.

#### **IST1465I**

This message is a header message for information displayed in message IST1467I.

#### **IST1466I**

This message is a header message for information displayed in message IST1467I.

#### **IST1467I**

*dur* is the time it takes to send the data and receive the echo (or confirm for one way transactions).

*dsnt* is the count of sent and received bytes. If message IST1462I indicates that ECHO IS OFF, the total is (SIZE \* CONSEC) from the D NET,APING command. Otherwise, the total is (2 \* SIZE \* CONSEC).

*drkb* is the data rate in KB.

*drmb* is the data rate in MB.

Decimal values are not displayed in the message. If a decimal results from data rate calculations, the number is truncated to the whole number. If the decimal value is less than one, zero is displayed.

#### **IST1468I**

*durt* is the total of the duration time in all IST1467I messages.

*dsntt* is the total of the data sent for all IST1467I messages.

*drkbt* is the data rate in KB calculated from all of the data rates in message IST1467I.

*drmbt* is the data rate in MB calculated from all of the data rates in message IST1467I.

Decimal values are not displayed in the message. If a decimal results from data rate calculations, the number is truncated to the whole number. If the decimal value is less than one, zero is displayed.

#### **IST1469I**

This message states that message IST1470I is going to display duration statistics.

#### **IST1470I**

*min* is the minimum duration displayed in all IST1467I messages.

*avg* is the average of all the duration times displayed in message IST1467I messages.

*max* is the maximum duration displayed in all IST1467I messages.

#### **IST1490I**

*dluname* is the name of the destination logical unit (DLU) with which the APING transaction occurs.

*sid* is the session identifier (SID) that is used to identify the session over which the APING transaction occurs. The value \*\*\*NA\*\*\* will be displayed if the session identifier was not currently available to VTAM.

If VTAM allocates a session to transmit the APING data, a message group with IST1489I as the first message is also issued. The name of the DLU in the two message groups might not match if any name translation has occurred on the route between the LUs.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.



## Routing code

2

## Descriptor code

5

---

**IST1458I****ORIGIN ADJSUB VR TP ER REVERSE ER**

## Explanation

This message is part of a message group. Please see the explanation for message IST1489I for a detailed explanation of this message.

## Routing code

2

## Descriptor code

5

---

**IST1459I*****originsa destsa vr tp er re***

## Explanation

This message is part of a message group. Please see the explanation for message IST1489I for a detailed explanation of this message.

## Routing code

2

## Descriptor code

5

---

**IST1460I****TGN CPNAME TG TYPE HPR**

## Explanation

This message is part of a message group. The first message is either IST879I, IST1476I, IST1489I, IST1494I, IST2102I, IST2103I, or IST2104I. See the explanation of those messages for a full description.

## Routing code

2

## Descriptor code

5

---

**IST1461I*****tgn cpname tgtype hpr***

## Explanation

This message is part of a group of messages. The first message is either IST879I, IST1476I, IST1489I, IST1494I, IST2102I, IST2103I, or IST2104I. See the explanation of those messages for a full description.

## Routing code

2

## Descriptor code

5

---

**IST1462I****ECHO IS *echotype***

## Explanation

This message is part of a message group. Please see the explanation for message IST1457I for a detailed explanation of this message.

## Routing code

2

## Descriptor code

5

---

**IST1463I****ALLOCATION DURATION: *time* MILLISECONDS**

## Explanation

This message is part of a message group. Please see the explanation for message IST1457I for a detailed explanation of this message.

## Routing code

2

## Descriptor code

5

---

**IST1464I****PROGRAM STARTUP AND VERSION EXCHANGE: *time* MILLISECONDS**

## Explanation

This message is part of a message group. Please see the explanation for message IST1457I for a detailed explanation of this message.

## Routing code

2

## Descriptor code

5

---

**IST1465I****DURATION DATA SENT DATA RATE DATA RATE**

## Explanation

This message is part of a message group. Please see the explanation for message IST1457I for a detailed explanation of this message.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1466I</b>	<b>(MILLISECONDS) (BYTES) (KBYTE/SEC) (MBIT/SEC)</b>
-----------------	--

**Explanation**

This message is part of a message group. Please see the explanation for message IST1457I for a detailed explanation of this message.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1467I</b>	<i>dur dsnt drkb drmb</i>
-----------------	---------------------------

**Explanation**

This message is part of a message group. Please see the explanation for message IST1457I for a detailed explanation of this message.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1468I</b>	<b>TOTALS: <i>dur dsnt drkb drmb</i></b>
-----------------	--

**Explanation**

This message is part of a message group. Please see the explanation for message IST1457I for a detailed explanation of this message.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1469I</b>	<b>DURATION STATISTICS:</b>
-----------------	-----------------------------

**Explanation**

This message is part of a message group. Please see the explanation for message IST1457I for a detailed explanation of this message.

## Routing code

2

## Descriptor code

5

---

**IST1470I****MINIMUM = *min* AVERAGE = *avg* MAXIMUM = *max***

---

## Explanation

This message is part of a message group. Please see the explanation for message IST1457I for a detailed explanation of this message.

## Routing code

2

## Descriptor code

5

---

**IST1471I****SESSION UNAVAILABLE FOR APING**

---

## Explanation

This message is a single line message issued in response to a DISPLAY APING command when VTAM is unable to start an APING transaction because no sessions are available for the specified partner and logmode.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1472I****APING *errtype* ERROR**

---

## Explanation

This message is the first in a group of messages that VTAM issues when an error case occurs in processing the DISPLAY APING command. The group can be issued a significant amount of time after the DISPLAY APING command has been issued.

- The following is an example of the message group:

```
IST1472I APING TRANSACTION ERROR
IST1219I RTNCD=rtncd, FDB2=fdb2
IST1002I RCPRI=rcpri, RCSEC=rcsec
IST1473I SENSE = sense_code
IST314I END
```

#### **IST1002I**

*rcpri* is the value of the primary return code issued by VTAM.

*rcses* is the value of the secondary return code issued by VTAM.

#### **IST1219I**

*rtncd* is the error field RPLRTNCD. It is a hexadecimal value returned by the SETLOGON macro.

*fdb2* is the feedback field RPLFDB2. It is a hexadecimal value returned by the SETLOGON macro.

#### **IST1472I**

This message states that an APING transaction error has occurred.

*errtype* states what type of APING error has occurred. If the APING error is due to a protocol violation of APINGD, *errtype* is PROTOCOL. Otherwise, *errtype* is TRANSACTION.

#### **IST1473I**

This message provides sense code information.

### **System action**

Processing stops.

### **Operator response**

Try the DISPLAY APING command again. If the command still fails, save the system log for problem determination.

### **System programmer response**

Use the system log and return code information to assist you in correcting the problem.

### **Routing code**

2

### **Descriptor code**

5

---

**IST1473I** **SENSE = *sense\_code***

### **Explanation**

This message is part of a message group. See IST1472I for a detailed explanation of this message.

### **Routing code**

2

### **Descriptor code**

5

---

**IST1474I** ***tpname* TP CONCURRENT INSTANCE LIMIT = *value***

## Explanation

This message is issued in response to the DISPLAY APINGDTP or DISPLAY APINGTP command and displays the number of APINGD or APING transaction programs that are allowed to run concurrently.

*tpname* is either APING or APINGD.

*value* shows the number of instances of the APING or APINGD transaction program allowed to run concurrently. *value* can be either a numeric value or UNLIMITED. UNLIMITED indicates that there is no limit to the number of instances of this transaction program allowed to run concurrently.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST1475I

EXIT *exitname* INVOKED: RE-ENTER FORCE COMMAND

## Explanation

VTAM issues this message in response to the MODIFY EXIT OPTION=FORCE command when the exit to be forced inactive is currently being invoked.

- *exitname* is displayed in the form *routine\_name.instance\_name* where:

*routine\_name* is the name of the installation-wide exit routine.

*instance\_name* is the instance name of the exit routine. When issued for the base exit, *instance\_name* is blank.

## System action

Inactivation continues. Under certain circumstances, however, the exit might "hang" in a pending inactive state.

## Operator response

Wait a short period, then enter D NET, EXIT to display the exit being forced. If the state is still PENDING INACTIVE, reissue the command. Otherwise, no further action is necessary.

## System programmer response

None.

## Routing code

2

## Descriptor code

3

**IST1476I**

**TCID X'tcid' - REMOTE TCID X'remote\_tcid'**

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a type 2.1 node representing a Rapid Transport Protocol (RTP) route. This message is the first in a group of messages and the full description of the message group follows.

- If the DISPLAY ID command was issued without HPRDIAG=YES specified, the following message group is displayed:

```
IST1476I      TCID X'tcid' - REMOTE TCID X'remote_tcid'
IST1481I      DESTINATION CP nodename - NCE X'nceid'
IST1587I      ORIGIN NCE X'nceid'
[IST1966I      ACTIVATED AS ACTIVE ON date AT time]
[IST1967I      ACTIVATED AS PASSIVE ON date AT time]
[IST2237I      puname CURRENTLY REPRESENTS A LIMITED RESOURCE]
IST1477I      ALLOWED DATA FLOW RATE = allowed units
IST1516I      INITIAL DATA FLOW RATE = initial units
IST1841I      ACTUAL DATA FLOW RATE = actual units
IST1511I      MAXIMUM NETWORK LAYER PACKET SIZE = size BYTES
IST1478I      NUMBER OF UNACKNOWLEDGED BUFFERS = buffers
IST1479I      RTP CONNECTION STATE = state - MNPS = mnps
[IST1959I      DATA FLOW STATE: NORMAL]
[IST1961I      DATA FLOW STATE: STALLED]
IST1855I      NUMBER OF SESSIONS USING RTP = sessions
[IST1697I      RTP PACING ALGORITHM = ARB RESPONSIVE MODE]
[IST2267I      RTP PACING ALGORITHM = ARB PROGRESSIVE MODE]
[IST2395I      RTP PACING ALGORITHM = ARB BASE MODE]
[IST1480I      RTP END TO END ROUTE - RSCV PATH]
[IST1460I      TGN      CPNAME      TG TYPE      HPR]
[IST1461I      tgn      cpname      tgtype      hpr]
[IST875I      ALSNAME TOWARDS adjacent_resource_type = resource_name]
[IST1738I      ANR LABEL      TP      ER NUMBER]
[IST1739I      anr_label      tp      er_number]
[IST1588I      RTP END TO END ROUTE - COMPUTED SESSION PATH]
[IST1460I      TGN      CPNAME      TG TYPE      HPR ]
[IST1461I      tgn      cpname      tgtype      hpr ]
[IST875I      ALSNAME TOWARDS adjacent_resource_type = resource_name]
[IST1738I      ANR LABEL      TP      ER NUMBER]
[IST1739I      anr_label      tp      er_number]
```

- If the DISPLAY ID command was issued with HPRDIAG=YES specified, the following message group is displayed:

```
IST1476I      TCID X'tcid' - REMOTE TCID X'remote_tcid'
IST1481I      DESTINATION CP nodename - NCE X'nceid'
IST1587I      ORIGIN NCE X'nceid'
[IST1966I      ACTIVATED AS ACTIVE ON date AT time]
[IST1967I      ACTIVATED AS PASSIVE ON date AT time]
[IST2237I      puname CURRENTLY REPRESENTS A LIMITED RESOURCE]
IST1479I      RTP CONNECTION STATE = state - MNPS = mnps
[IST1959I      DATA FLOW STATE: NORMAL]
[IST1961I      DATA FLOW STATE: STALLED]
IST1855I      NUMBER OF SESSIONS USING RTP = sessions
[IST1480I      RTP END TO END ROUTE - RSCV PATH]
[IST1460I      TGN      CPNAME      TG TYPE      HPR]
[IST1461I      tgn      cpname      tgtype      hpr]
[IST875I      ALSNAME TOWARDS adjacent_resource_type = resource_name]
[IST1738I      ANR LABEL      TP      ER NUMBER]
[IST1739I      anr_label      tp      er_number]
[IST1588I      RTP END TO END ROUTE - COMPUTED SESSION PATH]
[IST1460I      TGN      CPNAME      TG TYPE      HPR]
[IST1461I      tgn      cpname      tgtype      hpr]
[IST875I      ALSNAME TOWARDS adjacent_resource_type = resource_name]
[IST1738I      ANR LABEL      TP      ER NUMBER]
[IST1739I      anr_label      tp      er_number]
IST924I      -----
```

The remainder of this display is described under [IST1968I](#). See that message for more information.

## IST875I

This message displays information about the adjacent link station (**ALSNAME**), which is the physical connection to the adjacent node.

*adjacent\_resource\_type* will always be RTP, which means that the ALSNAME is used in the direction of the other endpoint of the RTP pipe.

*resource\_name* is the name of the adjacent link station (ALS).

## IST924I

This message is used as a separator message to group together messages IST1857I, IST1858I, and IST1859I in the display.

## IST1460I

This message is a header message for information displayed in message IST1461I.

## IST1461I

- The route selection control vector (RSCV) is displayed for the route to the destination node of the partner transaction program. Multiple IST1461I messages might be needed to display the full route.
- *tgn* is the transmission group number.
- *cpname* is the destination CP name for the transmission group.

**Tip:** The *cpname* for a composite node might not always be correct. When an SSCP takeover occurs for an NCP in a composite node and the *cpname* was changed, the new *cpname* is not reflected in the display of the RTP end-to-end route.

- *tgtype* is the transmission group type. The values for *tgtype* can be one of the following:

### APPN

Indicates that this TG is an APPN-based TG.

### INTERCHANGE

Indicates that this TG represents a TG from an interchange node to a subarea node.

### VRTG

Indicates that this TG is a virtual-route-based TG.

### ISL

Indicates that this TG is an intersubnet TG.

- *hpr* corresponds with the HPR start option. The values for *hpr* can be:

### RTP

indicates this VTAM provides RTP-level HPR support.

### ANR

indicates this VTAM provides ANR-level HPR support.

### \*NA\*

indicates this VTAM provides no HPR support.

## IST1476I

*tcid* is a transport connection identifier, assigned by this node, that uniquely identifies the session endpoint.

*remote\_tcid* is a transport connection identifier, assigned by the RTP partner node, that uniquely identifies the session endpoint.

## IST1477I

*allowed* is the allowed rate at which data can be sent over the RTP connection at the time this message is displayed.

*units* is the unit of measure for the rate and is displayed in bits, kilobits, megabits, or gigabits per second (BITS/SEC, KBITS/SEC, MBITS/SEC, or GBITS/SEC).

The data flow rate is updated approximately every second while data is flowing.

## IST1478I



*buffers* is the number of I/O buffers, containing outbound data, that have been sent to the partner without an acknowledgment since the HPR PU was activated.

#### **IST1479I**

- *state* is the connection state of the RTP. The values for *state* can be:

##### **INITIAL**

Initial state at startup time.

##### **ALS\_PENDING**

Waiting for adjacent link station processing.

##### **ALS\_ASSIGNED**

Adjacent link station processing is complete.

##### **OPENED**

Initial state for active partner after startup.

##### **CALLING**

Active partner sending connection setup to the partner.

##### **CALLING/PATHSWITCH**

RTP path switch is in progress while in CALLING state.

##### **CONNECTED**

RTP is active.

##### **CONNECTED/BACKPRESSURE**

RTP backpressure is currently being applied.

##### **CONNECTED/PATHSWITCH**

RTP path switch is in progress.

##### **DISCONNECT**

Doing disconnect processing.

##### **DISCONNECTED**

Disconnect processing is complete and last message has been sent.

##### **LISTENING**

Initial state for passive partner after startup.

##### **LISTENING/PATHSWITCH**

RTP path switch is in progress while in LISTENING state.

##### **PENDING\_ACT**

Waiting for activation to complete.

##### **PENDING\_INACT**

Waiting for deactivation to complete.

##### **PENDING TAKEOVR**

Multinode persistent session planned takeover is in progress.

##### **RECOVERY**

Multinode persistent session recovery in progress.

*mnps* indicates if the RTP end-to-end route is being used by an MNPS application. The values for *mnps* can be:

##### **YES**

The RTP is being used by an MNPS application.

##### **NO**

The RTP is not being used by an MNPS application.

#### **IST1480I**

This message informs users that the messages that follow describe the RSCV end-to-end path of the RTP route. The RSCV path represents the route used to send data from the origin CP to the destination CP. This message group will not be displayed if the RTP is processing a path switch or the RSCV is not available.

#### **IST1481I**

*nodename* is the network-qualified name of destination partner's CP in the form *netid.name* for this RTP route.

*nceid* is the destination partner's network connection endpoint (NCE) ID for this RTP route.

#### **IST1511I**

*size* is the maximum size of a network layer packet (NLP) that can be sent over this Rapid Transport Protocol (RTP) connection in bytes.

#### **IST1516I**

*initial* is the initial data flow rate for this Rapid Transport Protocol (RTP) connection.

*units* is the unit of measure for the rate and is displayed in bits, kilobits, megabits, or gigabits per second (BITS/SEC, KBITS/SEC, MBITS/SEC, or GBITS/SEC).

#### **IST1587I**

*nceid* is this node's network connection endpoint (NCE) ID for the Rapid Transport Protocol (RTP) connection.

#### **IST1588I**

This message informs users that the messages that follow describe the computed end-to-end path of the Rapid Transport Protocol (RTP) route. This message is displayed if the physical path is different from the computed path. The physical and computed session paths can be different when one of the RTP endpoints is associated with a multiple node persistent session (MNPS) application program.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for additional information when the computed path is different from the physical path.

#### **IST1697I**

This message indicates that the responsive-mode adaptive rate-based (ARB) pacing algorithm is being used.

#### **IST1738I**

This message is a header message for information displayed in message IST1739I.

#### **IST1739I**

*anr\_label* is an identifier for a unidirectional transmission link between two nodes. A node will use this routing label internally to correctly forward HPR network layer packet (NLP) data along a given Rapid Transport Protocol (RTP) connection.

*tp* is the subarea transmission priority. When *anr\_label* represents a subarea transmission link, *tp* identifies the priority of data flowing over an explicit route during a session.

*er\_number* is the explicit route number. When *anr\_label* represents a subarea transmission link, *er\_number* represents the underlying subarea explicit route used for the HPR NLP traffic.

#### **IST1841I**

This message shows the actual data flow rate for this Rapid Transport Protocol (RTP). It should be compared with the allowed data rate displayed by message IST1477I, and the initial data rate displayed by IST1516I.

*actual* is the actual rate at which data is being sent over the RTP connection at the time this message is displayed.

*units* is the unit of measure for the rate and is displayed in bits, kilobits, megabits, or gigabits per second (BITS/SEC, KBITS/SEC, MBITS/SEC, or GBITS/SEC).

The data flow rate is updated approximately every second while data is flowing.

#### **IST1855I**

*sessions* is the number of fully active sessions that are currently using this Rapid Transport Protocol (RTP).

#### **IST1959I**

This message indicates that data is flowing on the RTP pipe.

#### **IST1961I**

- This message indicates that data is not flowing on the RTP pipe. The data flow is stalled for one of the following reasons:

- The RTP partner requests retransmission of at least one NLP, but the request cannot be honored.
- The RTP partner repeatedly requests the retransmission of the same NLP. In this case, VTAM honors the request by retransmitting the NLP, but the partner does not receive this NLP.
- A stalled RTP pipe causes all the sessions using the pipe to stall. A persistent STALLED state might require forced inactivation of the HPR PU. If you want VTAM to automatically deactivate stalled RTP pipes after a specified amount of time, use the HPRSTALL start option. See the [HPRSTALL start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).

#### **IST1966I**

This message shows when the RTP pipe was activated. It is issued only if the PU is the active end of the pipe. The *date* and *time* values specify the date and time of the activation. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

#### **IST1967I**

This message shows when the RTP pipe was activated. It is issued only if the PU is the passive end of the pipe.

The *date* and *time* values specify the date and time of the activation. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

#### **IST2237I**

This message indicates that a DISCNT value was coded on the physical link of the underlying DLC. *puname* is the name of the Rapid Transport Protocol (RTP) PU being displayed.

#### **IST2267I**

This message indicates that the progressive-mode adaptive rate-based (ARB) pacing algorithm is being used.

#### **IST2395I**

This message indicates that the base-mode adaptive rate-based (ARB) pacing algorithm is being used.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

### **Routing code**

2

### **Descriptor code**

5

---

#### **IST1477I**

**ALLOWED DATA FLOW RATE = *allowed units***

### **Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route.

The first message in the group is either [IST1476I](#) or [IST1968I](#). See the description of those messages for more information.

## Routing code

2

## Descriptor code

5

---

**IST1478I****NUMBER OF UNACKNOWLEDGED BUFFERS = *buffers***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 node representing a Rapid Transport Protocol (RTP) route.

The first message in the group is either [IST1476I](#) or [IST1968I](#). See the description of those messages for more information.

## Routing code

2

## Descriptor code

5

---

**IST1479I****RTP CONNECTION STATE = *state* - MNPS = *mnps***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a type 2.1 node representing a Rapid Transport Protocol (RTP) route.

The first message in the group is [IST1476I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1480I****RTP END TO END ROUTE - RSCV PATH**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command or a MODIFY RTP command.

- If DISPLAY ID is issued for a type 2.1 node representing a Rapid Transport Protocol (RTP) route, the first message is [IST1476I](#). See the description of that message for more information.
- If MODIFY RTP is issued, the first message is [IST1494I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1481I** **DESTINATION CP *nodename* – NCE *nceid***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 node representing a Rapid Transport Protocol (RTP) route.

The first message in the group is [IST1476I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1482I** **HPR = *hpr* – OVERRIDE =*override* – CONNECTION =*connection***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a APPN capable PU type 2.1.

*hpr*, *override*, and *connection* indicates whether this PU or CDRM is capable of using Rapid Transport Protocols (RTP).

*hpr* can be **RTP**, **ANR**, or **NONE**.

*override* and *connection* can be **YES** or **NO**.

HPR corresponds with the HPR operand on the group, line, PU, or CDRM definition statement and the HPR start option.

HPR start option	HPR operand coded on the group, line, or PU definition statement		
	Default	No coded	Yes coded
None, None	None	None	None
ANR, None	None	None	ANR
RTP, None	None	None	RTP
ANR, ANR	ANR	None	ANR
RTP, ANR	ANR	None	RTP
RTP, RTP	RTP	None	RTP

The HPR capability of the PU or CDRM can be overridden by the *hpr* operand on the V ACT command for other than NONE coded on the HPR start option.

The HPR value for the CDRM is only valid when the CDRM is active, otherwise it reflects the value for the last time the CDRM was active or if never active, it will be none.

OVERRIDE is the value of the HPR operand on the V ACT command or N/A if not coded.

Link activation can change the HPR capability of the PU or CDRM for each activation of the link.

CONNECTION is the HPR capability of the PU or CDRM after the connection becomes active or N/A if no connection.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1483I** **DTEAD = *dteaddr* VNREVCHG = ACCEPT|REJECT**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command when a line was specified on the ID operand of the command.

A complete description of the message group follows the example.

```
IST1484I          vnnetid.vname          vngroup
IST1483I DTEAD = dteaddr      VNREVCHG = ACCEPT|REJECT
```

### IST1484I

*vnname* is the network-qualified name in the form *netid.name*.

### IST1483I

*dteaddr* is the DTE address that was specified on the DTEAD operand of the LINE definition statement for the NCP major node.

VNREVCHG specifies whether a node will accept or reject call request packets that indicate the destination node is to pay for the call.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1484I** *vnnetid.vnname vngroup*

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command when a line was specified on the ID operand of the command.

This message will be issued when multiple connection networks have been defined and will immediately follow message IST1324I.

A complete description of the message group follows the example.

IST1324I	VNNAME = vnname	VNGROUP = vngroup
IST1484I	vnnetid.vnname	vngroup

## IST1324I

*vnname* is the connection network CP name that was specified on subfield 1 of the DLCADDR keyword of the LINE definition statement for the NCP major node.

*vngroup* is the name of the logical group that was specified on subfield 1 of the DLCADDR keyword operand of the LINE definition statement for the NCP major node. This group will be used to establish the link between the NCP major node and other adjacent nodes in the connection network.

## IST1484I

*vnname* is the network-qualified name in the form *vnnetid.name*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1485I** **DLCADDR SUBFIELDS FOR *name***

## Explanation

VTAM issues this message as a header for a group of IST1318I messages in response to one of the following commands:

- A DISPLAY ADJCP command when the ID operand specifies the name of a X.25 virtual node and SCOPE=ALL is specified

A complete description of the message group follows the example.

```

IST1485I DLCADDR SUBFIELDS FOR name
IST1318I parameter_value
IST1318I parameter_value
[IST1319I parameter_value]
.
.
IST314I  END

```

### IST1318I

- *parameter\_value* is the DLCADDR value specified on the LINE or GROUP definition statement. The message will appear as follows:

```
IST1318I yy,N'parameter_value'
```

- *N* is the value specified on the DLCADDR keyword.
- *yy* is the subfield ID.
- If the DLCADDR value was coded in hexadecimal or binary coded decimal (BCD), *parameter\_value* is displayed with a blank separating every 8 characters of data. If an odd number of digits was coded for the DLCADDR value, *parameter\_value* will be padded on the left with a zero.

### IST1319I

This message is used to display overflow information from *parameter\_value* in message IST1318I.

### IST1485I

*name* identifies LINE or GROUP definition statement where the DLCADDR statements are coded.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1486I</b>	<b>RTP NAME STATE DESTINATION CP MNPS TYPE</b>
-----------------	--

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ADJCP ID= command for an adjacent control point (ADJCP) that has a Rapid Transport Protocol (RTP) connected to it or in response to a DISPLAY ID= command where ID is the name of the RTP major node.

This message is the first in a group of messages and the full description of the message group follows the example.

IST1486I RTP NAME	STATE	DESTINATION CP	MNPS	TYPE
IST1487I puname	state	nodename	mnps	type
.				



**IST1486I**

This message is a header message for the information displayed in message IST1487I.

**IST1487I**

*puname* is the RTP PU NAME of the adjacent link station (RTP ALS).

*state* is the connection state of the RTP and can be one of the following:

**INITIAL**

Initial state at startup time

**ALS\_PENDING**

Waiting for adjacent link station processing

**ALS\_ASSIGNED**

Adjacent link station processing is complete

**OPENED**

Initial state for active partner after startup

**CALLING**

Active partner sending connection setup to the passive partner

**LISTENING**

Initial state for passive partner after startup

**CONNECTED**

RTP is active

**DISCONNECTED**

Disconnect processing is complete and last message has been sent

**DISCONNECT**

Disconnect processing is in progress

**PENDING\_ACT**

Waiting for activation to complete

**PENDING\_INACT**

Waiting for inactivation to complete

**PENDING\_INACT**

Waiting for inactivation to complete

**PENDING TAKEOVR**

Multinode persistent session application program planned takeover is in progress

**RECOVERY**

Multi-node persistent session application program recovery in progress

*nodename* is the destination partner's name in the form of *netid.name* for this RTP.

*mnps* indicates if the RTP connection is being used by an MNPS application and can be one of the following:

**YES**

The RTP connection is being used by an MNPS application.

**NO**

The RTP connection is not being used by an MNPS application.

*type* indicates the type of RTP connection and can be one of the following:

**CPCP**

CP\_CP RTP

**RSTP**

Route\_Setup RTP

**LULU**

LU\_LU RTP

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1487I</b>	<b>puname state nodename mnps type</b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ADJCP ID command for an adjacent control point (ADJCP) that has a Rapid Transport Protocol (RTP) connected to it or in response to a DISPLAY ID= command where ID is the name of the RTP major node.

The first message in the group is IST1486I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1488I</b>	<b><i>action OF RTP puname AS role TO cpnetid.cpname</i></b>
-----------------	--

---

## Explanation

Depending on the value of the HPRITMSG start option, this message might be issued alone or as the first message in a group of messages when a Rapid Transport Protocol (RTP) is activated or deactivated.

If the HPRITMSG start option is the value BASE (default):

- When an RTP pipe is activating, VTAM issues the following IST1488I message:

```
IST1488I ACTIVATION OF RTP puname AS role TO cpnetid.cpname
```

- When an RTP pipe is deactivating, VTAM issues the following IST1488I message:

```
IST1488I INACTIVATION OF RTP puname AS role TO cpnetid.cpname
```

If the HPRITMSG start option is the value ENHANCED:

- When an RTP pipe is activating, VTAM issues the following IST1488I message group:

```
IST1488I ACTIVATION OF RTP puname AS role TO cpnetid.cpname
[IST1962I APPNCOS = appncos_name- PRIORITY = NETWORK]
[IST1963I APPNCOS = appncos_name- PRIORITY = HIGH]
[IST1964I APPNCOS = appncos_name- PRIORITY = MEDIUM]
[IST1965I APPNCOS = appncos_name- PRIORITY = LOW]
```

```

[IST1480I RTP END TO END ROUTE - RSCV PATH]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgtype hpr]
[.]
IST314I END

```

- When an RTP pipe is deactivating, VTAM issues the following IST1488I message group:

```

IST1488I INACTIVATION OF RTP puname AS role TO cpnetid.cpname
[IST1962I APPNCOS = appncos_name- PRIORITY = NETWORK]
[IST1963I APPNCOS = appncos_name- PRIORITY = HIGH]
[IST1964I APPNCOS = appncos_name- PRIORITY = MEDIUM]
[IST1965I APPNCOS = appncos_name- PRIORITY = LOW]
IST314I END

```

## IST1460I

This message is a header message for information displayed in message IST1461I.

## IST1461I

- In the message text:

### ***tgn***

The transmission group number.

### ***cpname***

The destination CP name for the transmission group.

### ***tgtype***

The the transmission group type. Possible values are:

- APPN
- INTERCHANGE
- VRTG
- ISL

### ***hpr***

Corresponds with the HPR start option. Possible values are:

#### **RTP**

Indicates that this VTAM provides RTP-level HPR support.

#### **ANR**

Indicates that this VTAM provides ANR-level HPR support.

#### **\*NA\***

Indicate that the link to the next node is not HPR capable.

- When a link in a particular route is not HPR capable, then the HPR capability for the next node cannot be determined.

## IST1480I

This message informs the operator that the messages that follow describe the RSCV end-to-end path of the RTP route. The RSCV path represents the route used to send data from the origin CP to the destination CP.

## IST1488I

- In the message text:

### ***action***

Indicates the process that caused this message to be issued. Possible values are:

#### **ACTIVATION**

The RTP activation has been completed.

#### **INACTIVATION**

The RTP inactivation has been completed.

***puname***

The RTP PU name by which VTAM knows the RTP adjacent link station (ALS).

***role***

The role of this partner in the RTP connection. Possible values are:

**ACTIVE**

This partner initiated the activation of the RTP.

**PASSIVE**

This partner did not initiate the activation of the RTP.

***cpnetid.cpname***

The network-qualified cp name of the RTP partner.

**IST1962I**

- This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of **network**.
- In the message text:

***appncos\_name***

The APPNCOS name associated with this RTP pipe.

**IST1963I**

- This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of **high**.
- In the message text:

***appncos\_name***

The APPNCOS name associated with this RTP pipe.

**IST1964I**

- This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of **medium**.
- In the message text:

***appncos\_name***

The APPNCOS name associated with this RTP pipe.

**IST1965I**

- This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of **low**.
- In the message text:

***appncos\_name***

The APPNCOS name associated with this RTP pipe.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

## Routing code

2

## Descriptor code

5

---

**IST1489I****APING SESSION INFORMATION**

### Explanation

This message is the first in a group of messages that VTAM issues in response to a session startup due to the DISPLAY APING command. A complete description of the message group follows the example.

The following is an example of messages that could be issued in the message group.

```
IST1489I APING SESSION INFORMATION
IST1490I DLU=dluname SID=sid
IST933I LOGMODE = logmode, COS = cosentry
IST875I APPNCOS TOWARDS SLU = resource_name
IST1458I ORIGIN ADJSUB VR TP ER REVERSE ER
IST1459I originsa destsa vr tp er rev_er
IST1460I TGN CPNAME TG TYPE HPR
IST1461I tgn cpname tgtype hpr
IST314I END
```

### IST875I

*resource\_name* is the APPN class of service (CoS) name.

### IST933

This message is part of message group IST879I or IST1489I.

### IST1458I

This message is a header message for information displayed in message IST1459I.

### IST1459I

*originsa* is the originating subarea number.

*destsa* is the destination subarea number.

*vr* is the virtual route number.

*tp* is the transmission priority of the virtual route.

*er* is the number of the explicit route from APING to its partner TP.

*rev\_er* is the number of the explicit route from APINGD to its partner TP.

### IST1460I

This message is a header message for information displayed in message IST1461I.

### IST1461I

- The route selection control vector (RSCV) is displayed for the route to the destination node of the partner TP. Multiple IST1461I messages might be needed to display the full route. There are cases where the entire route is not displayed to the node named on the ID operand of the DISPLAY APING command (when border nodes, interchange nodes, and LEN connections are on the session path). In these cases, IST1461I displays as much of the RSCV as is available.
  - *tgn* is the transmission group number.
  - *cpname* is the destination cpname for the transmission group.
- Note:** The *cpname* for a composite node might not always be correct. When an SSCP takeover occurs for an NCP in a composite node and the *cpname* was changed, the new *cpname* is not reflected in the display of the RTP end-to-end route.
- *tgtype* is the transmission group type. The values for *tgtype* can be one of the following:

**APPN**

Indicates that this TG is an APPN-based TG.

**INTERCHANGE**

Indicates that this TG represents a TG from an interchange node to a subarea node.

**VRTG**

Indicates that this TG is a virtual-route-based TG.

**ISL**

Indicates that this TG is an intersubnet TG.

- *hpr* corresponds with the HPR start option. The values for *hpr* are:

**RTP**

indicates this VTAM provides RTP-level HPR support

**ANR**

indicates this VTAM provides ANR-level HPR support

**\*NA\***

indicates the link to the next node is not HPR capable

**Note:** When a link in a particular route is not HPR capable, then the HPR capability for the next node cannot be determined.

**IST1489I**

This message is the first in a group of messages that display information about the newly activated VTAM APING session.

**IST1490I**

*dluname* is the name of the destination logical unit (DLU) with which the APING transaction occurs.

*sid* is the session identifier (SID) used to identify the session over which the APING transaction occurs. The value **\*\*\*NA\*\*\*** is displayed if the session identifier is not currently available to VTAM.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1490I** **DLU=dluname SID=sid****Explanation**

VTAM issues this message in response to a valid D NET,APING command to display the results of that command. It is part of two groups of messages.

The first messages in the groups are IST1457I and IST1489I. See the explanations of those messages for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1493I** **RTP SUMMARY FOR *adjcpname* COUNT = *count* RTPONLY = *value***

---

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID= command where ID is the name of an adjacent control point (ADJCP) major node or in response to a DISPLAY ADJCP,ID= command.

*adjcpname* is the name of the adjacent control point. If the network where the resource resides is known to VTAM, *adjcpname* is issued as a network-qualified name in the form netid.name.

*count* is the number of Rapid Transport Protocols (RTPs) connected to this ADJCP. If no RTPs are active to this ADJCP, *count* will be zero.

*value* is the value of the RTPONLY operand for this adjacent node. Possible values are: YES, NO, and NA (not applicable). NA is used whenever this message is displayed by a node that is not defined as a border node (the BN=NO start option was specified or defaulted), or when the node identified by *adjcpname* is a native network node or end node.

**Note:** The destination CP of the RTP is considered an ADJCP to this VTAM while there is at least one active RTP to it.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1494I** **PATH SWITCH *status* FOR RTP *puname* TO *cpname***

---

### Explanation

This message is the first in a group of messages that VTAM issues in response to an RTP path switch.

- If *status* is **COMPLETED**, the following message group is displayed:

```
IST1494I PATH SWITCH status FOR RTP puname TO cpname
IST1480I RTP END TO END ROUTE - RSCV PATH
IST1460I TGN CPNAME TG TYPE HPR
IST1461I tgn cpname tgtype hpr
:
IST314I END
```

- If *status* is **FAILED**, the following message group is displayed:

```
IST1494I PATH SWITCH status FOR RTP puname TO cpname
IST1495I NO ALTERNATE ROUTE AVAILABLE
IST314I  END
```

- If *status* is **OVERRIDDEN**, the following message group is displayed:

```
IST1494I PATH SWITCH status FOR RTP puname TO cpname
IST1937I PATH SWITCH REASON: INITIATED BY REMOTE PARTNER
IST314I  END
```

- If *status* is **STARTED**, the following message group is displayed:

```
IST1494I PATH SWITCH status FOR RTP puname TO cpname
[IST1817I PATH SWITCH REASON: RTP CONNECTION UNAVAILABLE]
[IST1818I PATH SWITCH REASON: SHORT REQUEST RETRY LIMIT EXHAUSTED]
[IST1819I PATH SWITCH REASON: TG INOP]
[IST1820I PATH SWITCH REASON: MODIFY RTP COMMAND ISSUED]
[IST1821I PATH SWITCH REASON: AUTO PATH SWITCH FOR PSRETRY]
[IST1822I PATH SWITCH REASON: UNKNOWN]
[IST1937I PATH SWITCH REASON: INITIATED BY REMOTE PARTNER]
[IST2239I PATH SWITCH REASON: MNPS ENDPOINT RECOVERY]
[IST2335I PATH SWITCH REASON: XMIT STALL RECOVERY]
IST314I  END
```

## IST1460I

This message is a header message for information displayed in message IST1461I.

## IST1461I

- *tgn* is the transmission group number.
- *cpname* is the destination CP name for the transmission group.
- *tgtype* is the transmission group type. The values for *tgtype* can be one of the following:

### APPN

Indicates that this TG is an APPN-based TG.

### INTERCHANGE

Indicates that this TG represents a TG from an interchange node to a subarea node.

### VRTG

Indicates that this TG is a virtual-route-based TG.

### ISL

Indicates that this TG is an intersubnet TG.

- *hpr* corresponds with the HPR start option. The values for *hpr* can be:

### RTP

indicates this VTAM provides RTP-level HPR support

### ANR

indicates this VTAM provides ANR-level HPR support

### \*NA\*

indicates the link to the next node is not HPR capable

**Note:** When a link in a particular route is not HPR capable, then the HPR capability for the next node cannot be determined.

## IST1480I

This message informs the operator that the messages that follow describe the RSCV end-to-end path of the RTP route. The RSCV path represents the route used to send data from the origin CP to the destination CP.

## IST1494I

- *status* is the outcome of VTAM attempting to do a path switch for this specific RTP.



**COMPLETED**

VTAM was able to complete the path switch for this specific RTP.

**FAILED**

VTAM was not able to complete the path switch for this specific RTP.

**OVERRIDDEN**

VTAM and the partner RTP endpoint have both initiated a path switch for this specific RTP at the same time. The partner RTP endpoint's path switch is accepted by VTAM (this RTP endpoint). This message is issued to indicate the path switch initiated by this RTP endpoint has been overridden by the partner.

**STARTED**

VTAM has begun the path switch for this specific RTP.

- *puname* is the RTP PU NAME of the adjacent link station (RTP ALS).
- *cpname* is the CP name of the remote partner.

**IST1495I**

No alternate route could be established for the RTP, therefore, no path switch took place. The current RTP remains active.

**IST1817I**

The underlying physical connection or the RTP itself is not in a state suitable for RTP traffic.

**IST1818I**

The RTP partner is not responding to status requests initiated by this RTP endpoint. Each time a status request is sent to the partner a short request timer is set to timeout the transaction. If the short request timer expires and no response is received from the partner, the process is repeated. This process will repeat until the retry limit for the RTP pipe is exhausted. When the retry limit is met, a path switch is requested to try to restore communications with the RTP partner.

The short request timer is an internally calculated value. It is based on the observed response time of the RTP pipe. This timer cannot be specified externally.

**Tip:** HPRPSDLY can be used to add a delay to the path switch when there are network or node constraints with partners. See the [HPRPSDLY start option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

**IST1819I**

The physical connection that the RTP pipe traverses has suffered an INOP condition.

**IST1820I**

An operator has issued an F RTP command to force an RTP path switch.

**IST1821I**

The PSRETRY start option value is forcing an automatic path switch for this RTP connection.

**IST1822I**

The reason for the RTP path switch is unavailable.

**IST1937I**

The path switch was initiated by the remote partner.

**IST2239I**

The path switch is initiated for the recovery of an MNPS application.

**IST2335I**

The path switch is initiated when a transmission (XMIT) stall recovery is attempted. A transmission stall condition occurs after VTAM retransmits an NLP for the sixth time and at least 10 seconds has elapsed since the NLP was first retransmitted. VTAM attempts recovery by initiating an HPR path switch.

## System action

Processing continues.

## Operator response

If *status* is **FAILED**, save the system log for problem determination and provide the files used for system definition.

## System programmer response

Use the output and system definition files provided to assist in determining the cause of the problem. (You might need to work with system programmers in other networks to determine the adjacent SSCP tables used in another network to define the system.)

## Routing code

2

## Descriptor code

5

---

<b>IST1495I</b>	<b>NO ALTERNATE ROUTE AVAILABLE</b>
-----------------	-------------------------------------

## Explanation

This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is IST1494I. See the description of that message for more information.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1496I</b>	<b>DISPLAY APING FAILED - PRIOR APING IS EXECUTING</b>
-----------------	--

## Explanation

VTAM cannot execute a DISPLAY APING command because a prior DISPLAY APING request is still executing. VTAM only allows one DISPLAY APING command to execute at a time.

## System action

VTAM rejects the command.

## Operator response

Reenter the command once the prior APING completes execution. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for instructions on terminating the currently executing APING, should that become necessary.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1498I** **LOADING NCP FROM *source***

## Explanation

VTAM issues this message as a result of a DISPLAY ID command for an NCP that is in PLOAD (Pending Load) status.

*source* indicates if the NCP is being loaded from the host or from the 3720 or 3745 Communication Controller external disk.

This message follows IST247I when the NCP is in the PLOAD state.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

2. 8

---

**IST1499I** **AHHC SUBCHANNEL *address state***

## Explanation

This message is issued when the MVS status of a subchannel changes.

*address* is the subchannel address.

*state* is the subchannel address state, and can be one of the following:

**ONLINE**

An MVS VARY ONLINE command is issued for a subchannel and VTAM successfully completes activation for the subchannel.

**OFFLINE.PENDING**

An MVS VARY OFFLINE command is issued for a subchannel and VTAM and MVS are in the process of completing deallocation for the subchannel.

**OFFLINE**

Deactivation processing has completed and MVS acknowledges that the subchannel is OFFLINE.

**REACCESSIBLE**

An INOP situation occurs and MVS deactivates and then reactivates a subchannel without operator intervention.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

4

---

**IST1500I**

**STATE TRACE = *status***

**Explanation**

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY ID command for a traceable node. It indicates whether the state of the resource specified on the ID parameter is being traced.

*status* will be **ON** or **OFF**. For more information, see the [z/OS Communications Server: SNA Operation](#).

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

8

## Descriptor code

5

---

**IST1501I****XCF TOKEN = *token***

---

### Explanation

VTAM issues this message as part of a message group in response to a DISPLAY ID=VTAM command or when a cross-system coupling facility (XCF) path to an adjacent node is no longer active. If message IST1504I precedes this message, see the description of IST1504I for a description of the message group.

This message is issued to inform the operator of the XCF token that MVS has assigned to VTAM. An XCF token identifies each VTAM in the MVS sysplex under XCF connectivity. Support personnel will use this message to correlate VTAM diagnostic information with MVS diagnostic information.

A complete description of the message group follows the example.

```
IST075I NAME = nodename, TYPE = nodetype  
IST1501I XCF TOKEN = token
```

**IST075I**

*nodename* is the name of the resource or ID type that is displayed.

**IST1501I**

*token* is the XCF token MVS assigned to the adjacent VTAM.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

---

**IST1502I****ADJACENT CP = *CP\_name\_of\_other\_side***

---

### Explanation

This message is part of a message subgroup. The first message in the subgroup is IST1503I. See the explanation of that message for a complete description of the subgroup.

---

**IST1503I****XCF TOKEN = *token* STATUS = *status***

---

### Explanation

VTAM issues this message in response to the DISPLAY TRL, TRLE=*trl\_entry\_name* or a DISPLAY ID=*trl\_entry\_name* command when *trle\_name* is the name of the dynamically created TRLE that defines the XCF connection between two VTAMs. This message is also issued in response to a DISPLAY TRL, XCFCP=*cp\_name* command.

When MPC connectivity exists, message IST1221I is normally displayed. XCF TRLE's do not have device addresses as MPC TRLEs have and thus, only the XCF token and the status of the XCF TRLE are displayed. Message IST1503I will be issued instead of message IST1221I to display XCF connection status. A complete description of the message group follows the example.

```
IST075I NAME=name, TYPE=type  
IST486I STATUS=currentstatus, DESIRED STATE=desiredstate
```

```
IST087I TYPE = line_type, CONTROL = line_control, HPDT = hpdvalue
IST1503I XCF TOKEN = token      STATUS = status
IST1502I ADJACENT CP = CP_name_of_other_side
IST314I  END
```

## IST075I

*name* is the name of the resource or ID type that is displayed.

See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for a description of *type*. **IST087I**

- This message is part of several different message groups that VTAM issues in response to DISPLAY commands.
- *line\_type* is **LEASED**.
- *line\_control* is **XCF**.
- *hpdvalue* can be one of the following:

### YES

Indicates the connection is capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.

### NO

Indicates the connection is not capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.

### \*NA\*

Is displayed when *line\_control* is not MPC or when the connection is not active.

## IST486I

This message displays the status of the XCF TRLE entered on the DISPLAY command.

*currentstatus* is the current status of the node. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *currentstatus*.

*desiredstate* is the node state that is desired. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *desiredstate*. If VTAM cannot determine the desired state, *desiredstate* will be

## IST1502I

*CP\_name\_of\_other\_side* identifies the CP name of the VTAM on the other side of this XCF connection which is represented by the TRLE in message IST075I.

## IST1503I

- *token* is the XCF token MVS assigned to the adjacent VTAM.
- *status* is the condition or state of the XCF connection.
- Valid values for the *status* are:

### ACTIVE

Connection is active.

### INOP

Connection is inoperative.

### RESET

Connection is not ready.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

---

### IST1504I XCF CONNECTION WITH *cp\_name* IS INOPERATIVE

#### Explanation

This message is the first message in a group of two messages that VTAM issues when a cross-system coupling facility (XCF) READ/WRITE path to an adjacent node is no longer active. This message provides information about a potential problem and can be used to correlate VTAM diagnostic information with MVS diagnostic information. This message can be issued prior to the deactivation of an XCF local SNA PU, prior to an XCF group exit, or prior to the deactivation of a dynamic local SNA major node indicating that XCF connectivity has been terminated for that CP.

A complete description of the message group follows the example.

```
IST1504I  XCF CONNECTION WITH cp_name IS INOPERATIVE
IST1501I  XCF TOKEN = token
```

#### IST1504I

*cp\_name* is the network qualified CP name of the adjacent VTAM.

#### IST1501I

*token* is the XCF token MVS assigned to the adjacent VTAM.

## System action

Processing continues.

## Operator response

You may want to reactivate the dynamic XCF local SNA PU or the dynamic local SNA major node (ISTLSXCF). Otherwise, no action is necessary.

You may want to save the system log for problem determination if the inoperative connection is critical to the network.

## System programmer response

None.

---

### IST1505I TYPE = *type* TOKEN = *token*

#### Explanation

VTAM issues this message as part of a group of messages that display tuning statistics for XCF connections.

A complete description of the message group follows the example.

```
IST1230I  TIME      = time      DATE      = date      ID = id
IST1231I  IPDU      = ipdu      OPDU      = opdu
IST1232I  TSWEPT    = tsweep    QSWEEP    = qsweep
IST924I  -----
IST1505I  TYPE      = type      TOKEN     = token
IST1234I  BSIZE     = bsize     MAXBYTES  = maxbytes
IST1236I  BYTECNT0  = bytecnt0  BYTECNT   = bytecnt   DIR  = direction
IST1236I  BYTECNT0  = bytecnt0  BYTECNT   = bytecnt   DIR  = direction
:
IST314I  END
```

#### IST1230I

- *time* is in the format hh:mm:ss:pp, where:

- *hh* is the hour
- *mm* is the minutes
- *ss* is the seconds
- *pp* is hundredths of a second.
- The *date* value specifies the date that the record was reported.

#### IST1231I

*ipdu* is the total number of inbound PDU's received.  
*opdu* is the total number of outbound PDU's sent.

#### IST1232I

*tsweep* is the number of sweeps initiated during a time-out.  
*qsweep* is the number of sweeps initiated due to excessive receive queue depth.

#### IST1234I

*bsize* is the maximum buffer size supported by the device.  
*maxbytes* is number of bytes used in the largest channel program.

#### IST1236I

*bytecnto* is the byte count overflow.  
*bytecnt* is the byte count.  
*direction* is the direction of data flow over this device. *direction* can be either SENT or RECEIVED.

#### IST1505I

*type* is **XCF**.  
*token* is the XCF token MVS assigned to the adjacent VTAM.

### System action

Processing continues.

### Operator response

To discontinue statistic recording, enter the MODIFY NOTNSTAT command.

### System programmer response

For additional information on tuning and analyzing tuning statistics, see the [z/OS Communications Server: SNA Network Implementation Guide](#).

---

#### IST1506I

**command FAILED FOR nodename - MEMBER LEAVING GROUP**

### Explanation

An operator issues a VARY ACT to activate the local SNA PU. A deactivation request is received. VTAM issues this message to indicate the activation of the local SNA PU has failed because a deactivation request was received. The VTAM represented by the PU leaves the XCF group.

*command* is always **VARY ACT**.  
*nodename* is the name specified for ID that is always a dynamic local SNA PU.

### System action

VTAM rejects the command.



## Operator response

None

## System programmer response

None.

---

**IST1507I****VR-BASED TG NOT SUPPORTED**

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST1110I. See the explanation of that message for a complete description.

---

**IST1508I****CP-CP SESSIONS ON VR-BASED TG NOT SUPPORTED**

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST1110I. See the explanation of that message for a complete description.

---

**IST1509I*****new\_dlogmod* UNKNOWN BUT ACCEPTED -- PREVIOUS VALUE WAS  
*old\_dlogmod***

## Explanation

VTAM issues this message in response to a MODIFY DEFAULTS command and a MODIFY RESOURCE command which has successfully associated the *new\_dlogmod* with the resource specified in the MODIFY command even though the *new\_dlogmod* is not known to VTAM.

*new\_dlogmod* is the new DLOGMOD value that is assigned to the resource.

*old\_dlogmod* is the previous DLOGMOD value for the resource. *old\_dlogmod* might not be known; it is only the previous value assigned to the resource.

## System action

None.

## Operator response

Verify that the value specified for DLOGMOD is valid. You might need to modify the logon mode table (MODETAB) to include the new logon mode entry (DLOGMOD).

The previous value for DLOGMOD can be used to reset the resource's DLOGMOD value. Be aware that the previous DLOGMOD value might be known. Since MODIFY DEFAULTS and MODIFY RESOURCE changes the value regardless of whether the new DLOGMOD is known, the value could be from a previous command. Also, no verification of the DLOGMOD value is performed during system definition.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an HPR-capable PU.

LLERP (link level error recovery procedure) is the LLERP capability of this PU as sent in the XID when the connection was established.

RECEIVED is the LLERP capability of the adjacent node's PU as received on the XID when the connection was established.

The values for *llerp* are:

### **required**

*llerp* is required

### **notpref**

*llerp* is not preferred but will be used if partner requires it.

The values for *received* are:

### **required**

*llerp* is required

### **notpref**

*llerp* is not preferred, but will be used if a partner requires it.

### **notallow**

*llerp* is not allowed on this connection.

HPR start option	LLERP operand coded on the PU statement		
	default	notpref	required
NONE	LLERP is not valid		
ANR	notpref	notpref	required
RTP	required	required	required

The HPR capability of the PU will be forced to NO if **REQUIRED** is specified for *llerp* and **NOTALLOW** is specified for *received*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 node representing a Rapid Transport Protocol (RTP) route.

The first message in the group is either [IST1476I](#) or [IST1968I](#). See the description of those messages for more information.

## Routing code

2

## Descriptor code

5

## Explanation

VTAM issues this message when an error condition has been detected for local area network (LAN).

*lan\_operation* is the name of the LAN operation that failed.

*return\_code* is a 4-digit hexadecimal code. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *return\_code*.

*channel\_unit\_address* is the channel device address of the port in error.

## System action

VTAM does not perform the request.

## Operator response

Enter a DISPLAY NET,ID=*name*,E to display the xca major node and its resources. Save the system log for problem determination.

## System programmer response

See the [z/OS Communications Server: IP and SNA Codes](#).

**Note:** If *lan\_operation* is ACTIVATE\_SAP\_CONFIRM, and *return\_code* is 763A or 7658, verify that no XCA PORT definition statement includes too many lines. These lines can be explicitly defined by either the LINE definition statements or by the AUTOGEN parameter on the GROUP definition statement. The total number of lines under a PORT cannot exceed 255; or if OF/2 is being used in the D/T3172 IBM Interconnect Controller, then the total number of lines cannot exceed 245. If multiple GROUP definition statements are defined under a PORT definition statement, then the total number of lines is the sum of the number of lines defined explicitly or by the AUTOGEN parameters on the GROUP definition statements.

## Explanation

VTAM issues this message when an error condition has been detected for a local area network (LAN).

- *lan\_operation* is the abbreviated name of the LAN operation that failed.
- *reason* indicates the cause of the error and can be:

### PORT TIMER LESS THAN LLC REPLY TIMER

The TIMER value on the PORT definition statement in the XCA major node is less than the result of the REPLY TIMER (T1) times the (maximum number of transmissions (N2)+1), specified on the system parameters of the IBM 3172 Interconnect Controller.

### System action

VTAM does not perform the request.

### Operator response

Save the system log for problem determination.

### System programmer response

Adjust timer value on the port statement in the XCA major node to be greater than the T1 reply time defined in the IBM 3172 Interconnect Controller.

---

**IST1514I** **SUBAREA COS APPNCOS**

### Explanation

This message is part of a group that VTAM issues in response to a DISPLAY SATOAPPN command. See the explanation of message IST1321I for a complete description of the message group.

### Routing code

2

### Descriptor code

5

---

**IST1515I** ***tracetype* TRACE ACTIVE**

### Explanation

VTAM issues this message when a buffer, I/O, module, resource state, or QDIOSYNC trace is activated. If message IST199I follows this message, see the explanation of that message for a complete description of the group.

If message IST199I does not follow this message, *tracetype* is either **BUFFER**, **IO**, or **QDIOSYNC**.

### Routing code

2

### Descriptor code

5

---

**IST1516I** **INITIAL DATA FLOW RATE = *initial units***

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 node representing a Rapid Transport Protocol (RTP) route.

The first message in the group is either [IST1476I](#) or [IST1968I](#). See the description of those messages for more information.

## Routing code

2

## Descriptor code

5

---

**IST1517I****LIST HEADERS = *list\_hdrs* – LOCK HEADERS = *lock\_ents***

---

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1518I****BASE STRUCTURE IS *strname***

---

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1519I****ALTERNATE STRUCTURES ARE:**

---

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1520I****SUBAREA SEARCH INFORMATION:**

---

## Explanation

This message is part of several subgroups of messages that VTAM issues in response to a DISPLAY SRCHINFO command. See the explanation of messages IST1521I, IST1523I, or IST1531I for a complete description of the message subgroups.

## Routing code

2

## Descriptor code

5

---

**IST1521I** *sscp\_dir* NAME CDINIT DSRLST IOCD INTOTH TOTAL

---

### Explanation

This message is the first of a subgroup of messages issued in response to a DISPLAY SRCHINFO,LIST=SUMMARY command. The OLU, DLU, LU1, LU2, FROMSCP, FROMSSCP, TOCP, and TOSSCP operands might have been used to limit the output displayed in the subgroup. A complete description of the message subgroup follows the example.

```
IST350I  DISPLAY TYPE = SRCHINFO
IST1520I  SUBAREA SEARCH INFORMATION:
IST1521I   sscp_dir NAME          CDINIT   DSRLST   IOCD   INTOTH   TOTAL
IST1522I   sscpname              cdinit    dsrlst    iocd    intoth    total
:
IST1525I  TOTAL NUMBER OF OUTSTANDING SEARCHES = srchcnt
IST1454I  count SSCPNAME(S) DISPLAYED
IST924I  -----
IST1526I  APPN SEARCH INFORMATION:
IST1527I   cp_dir NAME          TYPE STATUS BROADCAST DIRECTED   TOTAL
IST1528I   cpname              type status broadcast directed   total
:
IST1525I  TOTAL NUMBER OF OUTSTANDING SEARCHES = srchcnt
IST1454I  count CPNAMES(S) DISPLAYED
IST314I  END
```

### IST1454I

- The value for *count* can be:
  - The sum of CP names displayed in message IST1528I messages for the APPN message subgroup.
  - The sum of SSCP names displayed in message IST1522I messages for the subarea message subgroup.

### IST1520I

This message is a header message for the subarea messages that follow. Subarea information is only provided if TYPE=SUBAREA or TYPE=ALL was specified on the DISPLAY SRCHINFO command.

### IST1521I

- This message is a header message for the information displayed in message IST1522I.
- The value for *sscp\_dir* can be:

#### FROMSSCP

The FROMSSCP operand was specified on the DISPLAY SRCHINFO command.

#### TOSSCP

The TOSSCP operand was specified, or neither FROMSSCP nor TOSSCP was specified, on the DISPLAY SRCHINFO command.

### IST1522I

One IST1522I message will be issued for each unique SSCP with an outstanding CDINIT, DSRLST, Init\_Other CD, or Init\_Other RU.

A DISPLAY SRCHINFO,LIST=ALL command can provide additional information about the outstanding RUs.

*sscpname* is the originating SSCP of the search request if FROMSSCP was specified, the name of the destination SSCP if TOSSCP was specified.

*cdinit* is the decimal number of outstanding CDINIT RUs.

*dsrlst* is the decimal number of outstanding DSRLST RUs.

*iocd* is the decimal number of outstanding Init\_Other CD RUs.

*intoth* is the decimal number of outstanding Init\_Other RUs.

*total* is the total in decimal of the *cdinit*, *dsrlst*, *iocd* and *intoth* columns.

### **IST1525I**

In the subarea message subgroup, *srchcnt* is the decimal total of the *total* columns in all of the IST1522I messages for SSCPs.

In the APPN message subgroup, *srchcnt* is the decimal total of the *total* columns in all of the IST1528I messages for CPs.

This message is not displayed if the MAX operand value from the DISPLAY SRCHINFO command was exceeded.

### **IST1526I**

This message is a header message for the APPN messages that follow. APPN information is only provided if TYPE=APPN or TYPE=ALL was specified on the DISPLAY SRCHINFO command.

### **IST1527I**

- This message is a header message for the information displayed in message IST1528I.
- The value for *cp\_dir* can be:

#### **FROMCP**

The FROMCP operand was specified on the DISPLAY SRCHINFO command.

#### **TOCP**

The TOCP was specified, or neither the FROMCP nor TOCP operand was specified, on the DISPLAY SRCHINFO command.

### **IST1528I**

- One IST1528I message will be issued for each CP with at least one outstanding search request.
- A DISPLAY SRCHINFO,LIST=ALL command can provide additional information about the outstanding searches.
- *cpname* is the network-qualified name of a CP with an outstanding search request. If TOCP is specified, *cpname* is the destination of the search request. If FROMCP is specified, *cpname* is the origin of the search request.
- *type* is the node type for the adjacent CP. The values for *type* can be:

#### **EN**

*cpname* is an end node.

#### **NN**

*cpname* is a network node.

- *status* is the current congestion status of the adjacent CP. The values for *status* can be:

#### **OPEN**

APPN Locates are being sent to this *cpname*.

#### **HELD**

APPN Locate searches are not being sent to this *cpname*.

- *broadcast* is the decimal number of broadcast locates (for example, INN, EN, NN) outstanding for this adjacent CP.
- *directed* is the decimal number of directed locates outstanding for this adjacent CP.
- *total* is the decimal number of locates outstanding for this adjacent CP, including directed, broadcast, and other types of locates.

## **Operator response**

Issue the DISPLAY SRCHINFO command multiple times. If there is no change in the number of searches outstanding to a particular node, or if the count only increases, the node not be responding to search requests. Issue a DISPLAY SRCHINFO,LIST=ALL,TOCP=xxxxxxx,TOSSCP=xxxxxxx command where:

xxxxxxx is the *sscpname* in message IST1522I or the *cpname* in message IST1528I.

## Routing code

2

## Descriptor code

5

---

**IST1522I** *sscpname cdinit dsrlst iocd intoth total*

## Explanation

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,LIST=SUMMARY command. The first message of the subgroup is IST1521I. See the explanation of that message for a complete description of the message subgroup.

## Routing code

2

## Descriptor code

5

---

**IST1523I** **OLU DLU SID RU**

## Explanation

This message is the first of a subgroup of messages issued in response to a DISPLAY SRCHINFO,LIST=ALL command. The OLU, DLU, LU1, LU2, FROMCPL, FROMSSCP, TOCP, and TOSSCP operands might have been used to limit the output displayed in the subgroup. A complete description of the message subgroup follows.

```
IST350I  DISPLAY TYPE = SRCHINFO
IST1520I  SUBAREA SEARCH INFORMATION:
IST1523I      OLU          DLU          SID      RU
IST1524I      olu          dlu          sid      rutype
:
IST1454I  count REQUEST(S) DISPLAYED
IST924I  -----
IST1526I  APPN SEARCH INFORMATION:
IST1529I      OLU          DLU          SID      LOCATE
IST1530I      olu          dlu          sid      locates
:
IST1525I  TOTAL NUMBER OF OUTSTANDING SEARCHES = srchcnt
IST1454I  count REQUEST(S) DISPLAYED
IST314I  END
```

### IST1454I

- One message is displayed for each outstanding search request.
- In the subarea message subgroup, *count* is the decimal number of IST1524I messages displayed.
- In the APPN message subgroup, *count* is the decimal number of IST1530I messages displayed.

### IST1520I

This message is a header message for the subarea messages that follow. Subarea information is only provided if TYPE=SUBAREA or TYPE=ALL was specified on the DISPLAY SRCHINFO command.

### IST1523I

This message is a header message for the information displayed in message IST1524I.

### IST1524I

- *olu* is the network-qualified name of the LU originating the search request.
  - If *rutype* is IOCD, *olu* is the name of the secondary LU.



- In mixed configurations involving both subarea and APPN nodes, *olu* might be the name of a host as the search request is transferred between the subarea and APPN components of the various VTAMs.
- *dlu* is the network-qualified name of the LU that is the destination of the search request.
  - If the search request for the DLU was forwarded to ISTAPNCP or to another internal component of VTAM, the DLU name will be that of the host on which the DISPLAY SRCHINFO command was issued. In such a case, multiple IST1524I messages might be displayed — one for the OLU to the host and another for the OLU to the DLU.
  - If *rutype* is IOCD, *dlu* is name of the primary LU.
- *sid* is the session identifier (SID) for the search request. The SID is also known as the procedure correlation identification (PCID). If the PCID is unavailable, the value for *sid* is **\*\*\*NA\*\*\***. For example, if an INQUIRE APPSTAT is issued, the DSRLST shown represents an internal flow between two VTAM components, with the second component assigning the PCID.
- *rutype* is the type of request unit represented by the search request. The value for *rutype* can be:

#### **CDINIT**

Cross-domain Initiate

#### **DSRLST**

Directed Search List

#### **IOCD**

Init\_Other CD

#### **INTOTH**

Init\_Other

#### **\*\*\*NA\*\***

This search is concentrated behind another search request. Information about the other search can be found by issuing a DISPLAY SRCHINFO,SID=*sid* command.

Note that the Init\_Other CD RU is called "CDINIT OTH" in message IST530I messages and "IOCD" in message IST1524I messages.

- The *sid* value can be used in a DISPLAY SRCHINFO,SID=*sid* command to obtain additional information about a particular search.

#### **IST1525I**

*srchcnt* is the total of the *locates* column in all of the IST1530I messages, expressed as a decimal number.

This message is **not** displayed if the MAX operand value on the DISPLAY SRCHINFO command was exceeded.

#### **IST1526I**

This message is a header message for the APPN messages that follow. APPN information is only provided if TYPE=APPN or TYPE=ALL was specified on the DISPLAY SRCHINFO command.

#### **IST1529I**

This message is a header message for the information displayed in message IST1530I.

#### **IST1530I**

One message is displayed for each outstanding search request. The searches displayed by IST1530I are ordered from the newest to the oldest request.

*olu* is the network-qualified name of the LU originating the search request. *olu* is **\*\*\*NA\*\*** for an intermediate network node (INN) on a directed search.

*dlu* is the network-qualified name of the LU that is the destination of the search request. *dlu* is **\*\*\*NA\*\*** for an INN on a directed search.

*sid* is the session ID (SID) for the search request. The SID is also known as the procedure correlation identification (PCID).

*locates* is the decimal number of locates pending for the session. A value of 0 for *locates* indicates that the search request is concentrated behind another search for the same destination LU, initiated by the host CP.

The *sid* value can be used in a DISPLAY SRCHINFO,SID=*sid* command to obtain additional information about a particular search.

**Operator response**

If initiation of a specific session is stalling, issue DISPLAY SRCHINFO,PCID and DISPLAY ID=name,E for the specific session. A VARY TERM command might be needed to terminate the stalling session.

If multiple searches are pending to a specific adjacent node, perform diagnosis on that node to determine the reason the searches are not being processed. If that adjacent node is VTAM, DISPLAY SRCHINFO,LIST=ALL and DISPLAY SRCHINFO,PCID commands can be issued from that host to determine the cause of the stall. If the adjacent node is not a VTAM, consult the product specific documentation. VARY TERM,SID can be issued to session request

**Routing code**

2

**Descriptor code**

5

---

**IST1524I** *olu dlu sid rutype*

**Explanation**

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,LIST=ALL command. The first message of the subgroup is IST1523I. See the explanation of that message for a complete description of the subgroup.

**Routing code**

2

**Descriptor code**

5

---

**IST1525I** **TOTAL NUMBER OF OUTSTANDING SEARCHES = *srchcnt***

**Explanation**

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO command. The first message of the subgroup is either IST1521I or IST1523I. See the explanation of those messages for a complete description of the subgroup.

**Routing code**

2

**Descriptor code**

5

---

**IST1526I** **APPN SEARCH INFORMATION:**

**Explanation**

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO command. The first message of the subgroup is IST1521I, IST1523I, or IST1531I. See the explanation of those messages for a complete description of the subgroup.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1527I</b>	<b><i>cp_dir</i></b>	<b>NAME</b>	<b>TYPE</b>	<b>STATUS</b>	<b>BROADCAST</b>	<b>DIRECTED</b>	<b>TOTAL</b>
-----------------	----------------------	-------------	-------------	---------------	------------------	-----------------	--------------

---

**Explanation**

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,LIST=SUMMARY command. The first message of the subgroup is IST1521I. See the explanation of that message for a complete description of the subgroup.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1528I</b>	<b><i>cpname</i></b>	<b><i>type</i></b>	<b><i>status</i></b>	<b><i>broadcast</i></b>	<b><i>directed</i></b>	<b><i>total</i></b>
-----------------	----------------------	--------------------	----------------------	-------------------------	------------------------	---------------------

---

**Explanation**

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,LIST=SUMMARY command. The first message of the subgroup is IST1521I. See the explanation of that message for a complete description of the subgroup.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1529I</b>	<b>OLU</b>	<b>DLU</b>	<b>SID</b>	<b>LOCATE</b>
-----------------	------------	------------	------------	---------------

---

**Explanation**

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,LIST=ALL command. The first message of the subgroup is IST1523I. See the explanation of that message for a complete description of the subgroup.

**Routing code**

2

## Descriptor code

5

**IST1530I**

*olu dlu sid locates*

## Explanation

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,LIST=ALL command. The first message of the subgroup is IST1523I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

5

**IST1531I**

**SID = *sid* CP(OLU) = *origcp***

## Explanation

This message is the first of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command.

Possible message subgroups follow. Note that the group will be displayed if the SID can be located, even if no search is outstanding. This means this group will be displayed if DISPLAY SRCHINFO,SID is issued using a SID for an active session, for example.

- If search information can be found in the subarea network, VTAM issues the following messages:

```
IST350I  DISPLAY TYPE = SRCHINFO
IST1520I  SUBAREA SEARCH INFORMATION:
IST1531I  SID = sid                      CP(OLU) = origcp
IST1532I  OLU = oluname                  DLU = dluname
IST1540I  SEARCH STATUS = status         SSCP(OLU) = sscpolu
[IST1539I  PCID MODIFIER = pcidmod]
IST1534I  SSCP/CP IN OLU DIRECTION = dirolu
IST1533I  SEARCH CONCENTRATED = conc     RDS = rds
[IST1536I  CONCENTRATED BEHIND conc_pcid conc_mod]
[IST1543I  REQUESTS CONCENTRATED BEHIND THIS SEARCH = nbr_conc]
[IST1705I  sc_option = sc_value FROM START OPTION]
[IST1704I  sc_option = sc_value FROM ADJACENT SSCP TABLE]
[IST894I  ADJSSCPs TRIED FAILURE SENSE ADJSSCPs TRIED FAILURE SENSE
IST895I  sscpname sense sscpname sense
:
IST1454I  count ADJSSCPs DISPLAYED]
[IST1537I  AWAITING REPLY FROM THE FOLLOWING NODE(S):
IST1538I  name name name]
```

- If search information can be found in the subarea network, but no adjacent SSCP routing information is available, VTAM issues the following messages:

```
IST350I  DISPLAY TYPE = SRCHINFO
IST1520I  SUBAREA SEARCH INFORMATION:
IST1531I  SID = sid                      CP(OLU) = origcp
IST1532I  OLU = oluname                  DLU = dluname
IST1540I  SEARCH STATUS = status         SSCP(OLU) = sscpolu
[IST1539I  PCID MODIFIER = pcidmod]
IST1534I  SSCP/CP IN OLU DIRECTION = dirolu
IST1533I  SEARCH CONCENTRATED = conc     RDS = rds
[IST1536I  CONCENTRATED BEHIND conc_pcid conc_mod]
[IST1543I  REQUESTS CONCENTRATED BEHIND THIS SEARCH = nbr_conc]
IST1542I  NO ADJSSCP ROUTING INFORMATION AVAILABLE
[IST1537I  AWAITING REPLY FROM THE FOLLOWING NODE(S):
IST1538I  name name name]
```

- If search information can be found in the APPN network, VTAM issues the following messages alone or following the subarea message subgroup with an IST924I separator message.

```

IST1526I  APPN SEARCH INFORMATION:
IST1531I      SID = sid                      CP(OLU) = origcp
IST1532I      OLU = oluname                  DLU = dluname
IST1539I      PCID MODIFIER = pcidmod
IST1545I      NODE ROLE VECTOR = role
IST1541I      LOCATES PENDING = locates      CURRENT TASK = task
IST1533I      SEARCH CONCENTRATED = conc      RDS = rds
[IST1548I      BROADCAST = bdcst      DIRECTED = drctd]
IST1534I      SSCP/CP IN OLU DIRECTION = dirolu
IST1535I      REPLY RETURNED TO ORIGINATING CP = reply
[IST1536I      CONCENTRATED BEHIND conc_pcid conc_mod]
[IST1543I      REQUESTS CONCENTRATED BEHIND THIS SEARCH = nbr_conc]
[IST1537I      AWAITING REPLY FROM THE FOLLOWING NODE(S):
IST1538I          name          name          name
:
IST1454I  node_cnt NODE(S) DISPLAYED]

```

### IST894I

This message is a header for the information displayed in message IST895I.

### IST895I

This message is issued when adjacent SSCP routing is in progress. An IST895I message is issued for each SSCP, in the order it was tried, until all adjacent SSCP routing information has been displayed or until the MAX operand value on the DISPLAY SRCHINFO command has been reached.

*sscpname* is the adjacent SSCP through which trial-and-error routing was attempted.

*sense* is the sense code indicating the cause of failure.

### IST1454I

- The value for *count* can be:
  - The total number of adjacent SSCPs, in decimal, displayed in the IST895I messages.
  - The total number of adjacent CPs, in decimal, displayed in the IST1538I messages.

### IST1520I

This message is a header for the subarea messages that follow. Subarea information is provided if TYPE=SUBAREA or TYPE=ALL was specified on the DISPLAY SRCHINFO command.

### IST1526I

This message is a header for the APPN messages that follow. APPN information is provided if TYPE=APPN or TYPE=ALL was specified on the DISPLAY SRCHINFO command.

### IST1531I

*sid* is the session ID (SID) for the session. The session ID, also known as the procedure correlation ID (PCID), is applicable to both APPN and subarea searches.

*origcp* is the name of the control point for the LU that originated the search request. If *origcp* is ISTAPNCP, the search request was passed from the APPN component of this host to the subarea component. In mixed environments involving both subarea and APPN nodes, *origcp* could be the name of a host involved in transferring the search request between APPN and subarea (for example, in a subarea search initiated by a central directory server (CDS)).

### IST1532I

*oluname* is the network-qualified name of the LU that is originating the search request. If known, the OLU's real name is shown. Otherwise, \*\*\*NA\*\*\* is shown.

*dluname* is the network-qualified name of the LU that is the destination of the session request. If known, the DLU's real name is shown. Otherwise, the DLU alias name is shown.

### IST1533I

- The values for *conc* can be:

**YES**

Search is concentrated behind a scout search, attempting to locate a specific resource.

**NO**

Search is not concentrated behind a scout search, attempting to located a specific resource.

- The values for *rds* can be:

**YES**

This is a resource discovery search (RDS), a type of scout search.

**NO**

This is not a resource discovery search (RDS).

**IST1534I**

This message gives the name of the adjacent CP or SSCP (*dirolu*) in the direction of the originating LU (OLU).

**IST1535I**

- The values for *reply* can be:

**YES**

If a positive reply was returned towards the parent CP.

**NO**

If a positive reply was not returned towards the parent CP.

**IST1536I**

This message is issued only if CONCENTRATED=YES in message IST1533I.

*conc\_pcid* is the procedure correlation ID (PCID) of the scout search behind which this search is concentrated.

*conc\_mod* is the PCID modifier of the scout search behind which this search is concentrated.

**IST1537I**

This message is issued only if CONCENTRATED = NO in message IST1533I. It is a header message for the information displayed in message IST1538I.

**IST1538I**

- In the subarea message subgroup:

*name* is the network-qualified name of an SSCP from which this search is awaiting a reply. If the name is ISTAPNCP, the host is awaiting a response from a search of the APPN network.

- In the APPN message subgroup:

*name* is the network-qualified name of a control point from which this search is awaiting a reply. If a host appears to be awaiting a reply from itself, as shown by *name* in message IST1538I, the host is awaiting a response from a search of the subarea network.

**IST1539I**

*pcidmod* is the procedure correlation ID (PCID) modifier to the PCID in message IST1531I.

**IST1540I**

*status* is the status of the search request. See in the [z/OS Communications Server: IP and SNA Codes](#) for list of *status* values.

*sscpolu* is the name of the SSCP originating the search request. Note that this might not be the CP(OLU) if the network consists of both subarea and APPN nodes.

**IST1541I**

- *locates* is the number of Locates outstanding for this PCID.
- *task* is the current task being performed on behalf of the search. The value for *task* can be:

**Value****Meaning**

<b>X'00'</b>	Null task
<b>X'01'</b>	Directory Services Management Exit
<b>X'02'</b>	Directory services database query
<b>X'03'</b>	Topology and routing services database query
<b>X'04'</b>	Forward to network node server
<b>X'05'</b>	One hop if directory services database is found (i.e. a directed search to an End Node)
<b>X'06'</b>	One hop if control vector X'0E' is received for request
<b>X'07'</b>	Non-Verify attempt
<b>X'08'</b>	Directed due to network node destination LU hierarchy received on a search request
<b>X'09'</b>	Directed if directory services database is found
<b>X'0A'</b>	Directed if the topology and routing services valid route selection CV is returned
<b>X'0B'</b>	Directed if information is learned from scout search
<b>X'0C'</b>	Directed to a directory server
<b>X'0D'</b>	Directed to a higher function directory server
<b>X'0E'</b>	Directed to a directory server retry
<b>X'0F'</b>	Directed to a gateway node
<b>X'10'</b>	Sequential directed search to alternate directory servers
<b>X'11'</b>	Sequential directed search to interchange node
<b>X'12'</b>	Subarea symbol resolution table (SRT) cache search
<b>X'13'</b>	Subarea search after a positive cache search
<b>X'14'</b>	Subarea search after a positive directory services directory entry database query
<b>X'15'</b>	Subarea search after a negative or no cache search
<b>X'16'</b>	Domain Broadcast search
<b>X'17'</b>	Originate network broadcast search
<b>X'18'</b>	Forward network broadcast not originated by this node

**X'19'**

One-hop search request due to end node destination LU hierarchy received on a search request

**X'1A'**

A cross-subnetwork directed search due to information received on the original request

**X'1B'**

A cross-network directed search due to information found in the directory services database

**X'1C'**

A directed search due to information found in the topology and routing services database

**X'1D'**

Sequential directed search with the intent of finding the resource cross-subnetwork

**X'1E'**

Generic cache search

**X'1F'**

A subarea search due to a SESS\_INIT\_INFO\_RPY interprocess signal

**X'20'**

A directed search due to a SEARCH\_RPY interprocess signal following a positive CACHE\_SEARCH\_RPY interprocess signal

**X'21'**

Directed search due to a SEARCH\_RPY interprocess signal following a positive directory services database query

**X'22'**

Directory services database query after resource discovery search found

**X'23'**

Directed to Resource Selector Node (RSN)

**X'3F'**

Post processing.

**IST1542I**

This message is issued when no adjacent SSCP routing information is available.

**IST1543I**

This message is issued when CONCENTRATED = NO appears in message IST1533I and when the number of searches concentrated behind this search is nonzero.

*nbr\_conc* is the number of other searches concentrated behind this scout search.

**IST1545I**

- *role* is a hexadecimal representation of the node role vector for this search. More than one bit can be on.

**Code****Description****X'8000'**

CP originating LU

**X'4000'**

CP destination LU

**X'2000'**

NN originating LU

**X'1000'**

NN destination LU

**X'0800'**

Owning directory server

**X'0400'**

Alternate directory server



**X'0200'**

Intermediate network server

**X'0100'**

Intermediate network node (INN) directed.

**X'0080'**

Intermediate network node (INN) broadcast.

**X'0040'**

Intermediate network node (INN) on a request that requires border node processing.

**IST1548I**

- The values for *bdcst* can be:

**YES**

A broadcast search is in progress.

**NO**

A broadcast search is not in progress.

- The values for *drctd* can be:

**YES**

A directed search is in progress.

**NO**

A directed search is not in progress.

**Note:** Both *bdcst* and *drctd* can be YES at the same time (for example, a directed search from an end node that is turned into a broadcast search by the network node server (NNS)).

- This message is only issued if CONCENTRATE = NO in message IST1533I.

**IST1704I or IST1705I**

*sc\_option* indicates a search control option associated with the search being displayed. Possible values are: SORDER and SSCPORD. When VTAM is enabled for APPN, both search control options will be displayed with SORDER being first. When VTAM is not enabled for APPN, SSCPORD will be the only search control option displayed. Either IST1704I or IST1705I will be issued for each search control option displayed.

*sc\_value* indicates the value of the search control option associated with the search being displayed. If *sc\_value* is ADJLIST, the adjacent SSCP table associated with the search being displayed is for a resource that specified an adjacent CDRM list (ADJLIST); therefore, the SORDER and SSCPORD search control options do not apply.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1532I****OLU = *oluname* DLU = *dluname*****Explanation**

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

**Routing code**

2

**Descriptor code**

5

---

**IST1533I****SEARCH CONCENTRATED = *conc* RDS = *rds*****Explanation**

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

**Routing code**

2

**Descriptor code**

5

---

**IST1534I****SSCP/CP IN OLU DIRECTION = *dirolu*****Explanation**

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

**Routing code**

2

**Descriptor code**

5

---

**IST1535I****REPLY RETURNED TO ORIGINATING CP = *reply*****Explanation**

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

**Routing code**

2

## 5

2

## 5

2

## 5

2

5

## Routing code

2

## Descriptor code

5

---

**IST1540I** **SEARCH STATUS = *status* SSCP(OLU) = *sscpolu***

---

## Explanation

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

5

---

**IST1541I** **LOCATES PENDING = *locates* CURRENT TASK = *task***

---

## Explanation

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

5

---

**IST1542I** **NO ADJSSCP ROUTING INFORMATION AVAILABLE**

---

## Explanation

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

5

---

**IST1543I** **REQUESTS CONCENTRATED BEHIND THIS SEARCH = *nbr\_conc***

---

### Explanation

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

### Routing code

2

### Descriptor code

5

---

**IST1544I** **DIAL OUT PURGE IN PROGRESS - ID = *nodename***

### Explanation

VTAM issues this message as part of a group of messages when a call collision occurs. Call collision occurs when a dial in and a dial out attempt to use the same line at the same time. The first message in the group is either IST680I or IST690I. See the explanation of those messages for a complete description.

### Routing code

8

### Descriptor code

4

---

**IST1545I** **NODE ROLE VECTOR = *role***

### Explanation

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

### Routing code

2

### Descriptor code

5

---

**IST1546I** **CDRM STATUS SUBAREA ELEMENT NETID SSCPID**

### Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY command concerning the cross-domain resource manager (CDRM). This message is the result of one of the following:

- A DISPLAY ID command for a cross-domain resource manager major node
- A DISPLAY CDRMS command requesting information about cross-domain resource managers (CDRMS) defined to this domain.

IST1546I	CDRM	STATUS	SUBAREA	ELEMENT	NETID	SSCPID
IST1547I	<i>cdrmname</i>	<i>status</i>	<i>subarea</i>	<i>element</i>	<i>cdrmnetid</i>	<i>sscpid</i>
:						

**IST1546I**

This message is a header for IST1547I.

**IST1547I**

This message is issued for each cross-domain resource.  
*cdrmname* is the CDRM name.  
*status* is the resource status.  
*subarea* is the subarea address of the CDRM in decimal. If the subarea address is not available, *subarea* will be **N/A**.  
*element* is the element address of the CDRM in decimal. If the element address is not available, *element* will be **N/A**.  
*cdrmnetid* is the network ID of *cdrmname*.  
*sscpid* is the SSCP identifier of the CDRM. *sscpid* will be displayed for a host CDRM and for an external CDRM with an SSCP-SSCP session with this host. *sscpid* is not available for a CDRM without an SSCP-SSCP session with this host and will be displayed as N/A.

**Routing code**

2

**Descriptor code**

5

---

**IST1547I** *cdrmname status subarea element cdrmnetid sscpid*

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY CDRMS or DISPLAY ID=cdrm\_major\_node command. See the description of IST1546I for a complete description of the message group.

**Routing code**

2

**Descriptor code**

5

---

**IST1548I** **BROADCAST = bdcst DIRECTED = drctd**

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the group is IST1531I. See the explanation of that message for a complete description of the subgroup.

**Routing code**

2

**Descriptor code**

5

---

**IST1549I** **OWNER = owning\_VTAM MNPS STATE = state**

## Explanation

VTAM issues this message in response to a DISPLAY ID command when a multinode persistent application is specified and the application is not defined to the VTAM on which the command is issued, but is found in the multinode persistent session coupling facility structure.

*owning\_VTAM* is the VTAM where the multinode persistent application last opened its ACB.

The application can be in one of the following states:

### **CLEANUP**

The data related to this application is being cleaned up in the multinode persistent coupling facility structure.

### **DISABLED**

The application OPENed its ACB and specified PERSIST=YES, but has not yet issued SETLOGON OPTCD=PERSIST. Data for the application is stored in the coupling facility structure in case the application chooses to enable persistence. However, sessions are not restored in the event of a failure.

### **ENABLED**

The application issued SETLOGON OPTCD=PERSIST. Multinode persistent sessions will be restored in the event of a failure.

### **RECOVERY PENDING**

A failure of the VTAM owning the application was detected. Wait for the application to recover.

### **SNPS RECOVERY PENDING**

The application failed, or issued CLOSE, while it was enabled for persistence. The application is now waiting for recovery on its owning VTAM or some other VTAM. In the event of subsequent failure of the owning VTAM, the sessions will be maintained and thus can be restored.

### **SUSPECT**

The data associated with this application might be invalid; in the event of failure, the application's sessions will not be recovered. This might be caused by the following:

- The multinode persistent coupling facility structure containing the application's data is currently being rebuilt.
- The *owning\_VTAM* lost connectivity to the multinode persistent session structure containing the application's data.

### **TAKEOVER ACKNOWLEDGED**

The application received a forced takeover request, asking the application to move from its current owning node to a different node in the sysplex. The application is in the process of completing its persistent CLOSE ACB processing prior to moving to the new owning node. The owning VTAM is the CP where the application is undergoing persistent CLOSE processing, and not the VTAM to which the application is expected to eventually move.

### **TAKEOVER IN PROGRESS**

The application is moving from one VTAM to another VTAM. The owning VTAM is the CP where the application is expected to end up. If the owning CP were to fail, sessions in this state would be maintained and could be recovered.

### **TERMINATE**

The application CLOSEd its ACB, in a non-persistent manner, on its owning VTAM, but not all the multinode persistent sessions or RTP connections have been terminated yet.

### **UNKNOWN STATE**

The application is MNPS capable, but there is currently no local application status block (ASB) available for this VTAM to use to determine the MNPS state of the application. This will most probably occur when the application is attempting to move from one VTAM to this VTAM, but the ownership of the application has not yet been transferred between the VTAMs.

Operators can display the current application state from other VTAMs in the sysplex that are connected to the MNPS structure.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1550I**

**MNPS STATE = *state***

## Explanation

VTAM issues this message in response to a DISPLAY ID command when a multinode persistent (MNPS) application is specified, and the application is found on the VTAM on which the command is issued.

The application can be in one of the following states:

### **CLEANUP**

The data related to this application is being cleaned up in the MNPS coupling facility structure.

### **DEFINED**

The application was defined with PERSIST=M on the application definition statement, but VTAM is not in the proper environment to perform the MNPS function. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for a description of the MNPS environment.

### **DISABLED**

The application OPENed its ACB and specified PERSIST=YES, but has not yet issued SETLOGON OPTCD=PERSIST. Data for the application is stored in the coupling facility structure in case the application chooses to enable persistence. However, sessions are not restored in the event of a failure.

### **ENABLED**

The application issued SETLOGON OPTCD=PERSIST. Sessions will be restored in the event of a failure.

### **RECOVERY PENDING**

A failure of the VTAM owning the application was detected. Wait for the application to recover.

### **SNPS RECOVERY PENDING**

The application failed, or issued CLOSE, while it was enabled for persistence. The application is now waiting for recovery on its owning VTAM or some other VTAM. In the event of subsequent failure of the owning VTAM, the sessions will be maintained and thus can be restored.

### **SUSPECT**

The data associated with this application might be invalid; in the event of failure, the application's sessions will not be recovered. This might be caused by the current rebuilding of MNPS structure that contains the application's data.

### **TAKEOVER ACKNOWLEDGED**

The application received a forced takeover request, asking the application to move from its current owning node to a different node in the sysplex. The application is in the process of completing its persistent CLOSE ACB processing prior to moving to the new owning node. The owning VTAM is the CP where the application is undergoing persistent CLOSE processing, and not the VTAM to which the application is expected to eventually move.



**TAKEOVER IN PROGRESS**

The application is moving from one VTAM to another VTAM. The owning VTAM is the CP where the application is expected to end up. If the owning CP were to fail, sessions in this state would be maintained and could be recovered.

**TERMINATE**

The application CLOSED, in a non-persistent manner, on its owning VTAM, but not all the sessions or RTP connections have been terminated yet.

**UNKNOWN STATE**

The application is MNPS capable, but there is currently no local application status block (ASB) available for this VTAM to use to determine the MNPS state of the application. This will most probably occur when the application is attempting to move from one VTAM to this VTAM, but the ownership of the application has not yet been transferred between the VTAMs.

Operators can display the current application state from other VTAMs in the sysplex that are connected to the MNPS structure.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1551I** *sense\_1 sense\_2 sense\_3 sense\_4 sense\_5*

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY SNSFILTR command. See the explanation of IST1321I for a complete description of the group.

**Routing code**

2

**Descriptor code**

5

---

**IST1552I** **MAC = *mac\_level* MACTYPE = *mac\_type*.**

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID, DISPLAY MODEL, or DISPLAY LUGROUPS command. The first message in the group is IST228I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1553I**

*atm\_address address\_type address\_format*

## Explanation

This message is part of a group of messages. See the explanation of message IST1559I for a complete description of the group.

## Routing code

2

## Descriptor code

5

## Automation

This message was deleted in z/OS 3.1.

---

**IST1554I**

**PVCNAME = *pvc\_name***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an ATM native permanent virtual channel (PVC).

*pvc\_name* is the name of the PVC, as defined on the PVCNAME operand on the LINE definition statement in the external communication adapter (XCA) major node.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

## Automation

This message was deleted in z/OS 3.1.

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a remote PU connected through an ATM native switched virtual channel (SVC) or a permanent virtual channel (PVC).

The virtual path connection identifier (VPCI) is represented by the first two hexadecimal digits in *vpci\_vci*.

The virtual channel identifier (VCI) is represented by the last four hexadecimal digits in *vpci\_vci*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

## Automation

This message was deleted in z/OS 3.1.

## Explanation

This message is the first message in a group of messages that VTAM issues in response to a failed inactivation or activation request for an ATM native permanent virtual channel (PVC) or switched virtual channel (SVC) connection. VTAM issues the same group of messages when an existing native ATM PVC or SVC connection fails.

A complete description of the message group follows the example.

```
IST1556I ATM connection_type FAILURE: ID = node_name STATUS = status_code
[IST1562I CAUSE = cause_code]
[IST1558I DIAG = diagnostic_code]
[IST1558I DIAG = diagnostic_code]
[IST1562I CAUSE = cause_code]
[IST1558I DIAG = diagnostic_code]
[IST1558I DIAG = diagnostic_code]
IST314I  END
```

## IST1556I

- *connection\_type* can be one of the following:

### CALL

Indicates the failure of an activation or inactivation request for an ATM native PVC or SVC connection.

### DISABLE

Indicates the failure of an inactivation request for an incoming call filter for an ATM native port on the IBM Open Systems Adapter.

## ENABLE

Indicates the failure of an activation request for an incoming call filter for an ATM native port on the IBM Open Systems Adapter.

## PORT

Indicates the failure of an activation or inactivation request for an ATM native port on the IBM Open Systems Adapter.

- If *connection\_type* is DISABLE, ENABLE, or PORT, *node\_name* is the name of an external communication adapter (XCA) major node that defines an ATM native port.
- If *connection\_type* is CALL, *node\_name* is the name of the PU definition statement that represents the remote PU that is connected through an ATM native SVC.
- *status\_code* indicates the cause of a failure detected by the IBM Open Systems Adapter. See the [z/OS Communications Server: IP and SNA Codes](#) for an explanation of what the status code means.

## IST1562I

- *cause\_code* indicates the cause of a failure detected by the ATM network. See the [z/OS Communications Server: IP and SNA Codes](#) for an explanation of what the cause code means.

**Note:** This message might be repeated if there are multiple cause codes associated with the failure.

## IST1558I

- *diagnostic\_code* indicates additional information about the cause of a failure detected by the ATM network. See the [z/OS Communications Server: IP and SNA Codes](#) for an explanation of what the diagnostic code means.

**Note:** This message might be repeated to accommodate diagnostic codes that are longer than 24 bytes.

## System action

For call failures, the dial or activation of the PU fails. For enable and disable failures, no incoming calls can be accepted from the ATM native port. For port failures, all lines and PUs for the port will be deactivated.

## Operator response

If *status\_code*, *cause\_code*, or *diagnostic\_code* indicates that the failure is a result of a temporary condition, reactivate the PU.

## System programmer response

If failure persists after reactivation attempts, examine *status\_code*, *cause\_code*, or *diagnostic\_code* to determine whether the failure is a result of a system definition error or a network error. If the failure is a result of a system definition error, correct the error. If the failure is a result of a network error, contact the ATM network provider.

## Routing code

2

## Descriptor code

5

## Automation

This message was deleted in z/OS 3.1.

---

## IST1557I

**MEDIUM** = *medium*, **PORT NAME** = *port\_name*

## Explanation

VTAM issues this message when a DISPLAY ID command is entered for an external communication adapter (XCA) major node that defines an ATM native connection.

*medium* is the type of shared access transport facility (SATF) represented by the XCA major node. ATM is the only valid value for an ATM native connection.

*port\_name* is the name of the port on the IBM Open Systems Adapter through which the ATM native connection is made.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

## Automation

This message was deleted in z/OS 3.1.

---

**IST1558I** **DIAG = *diagnostic\_code***

## Explanation

This message is part of a group of messages. See the explanation of message IST1556I for a complete description of the group.

## Routing code

2

## Descriptor code

5

## Automation

This message was deleted in z/OS 3.1.

---

**IST1559I** **ATM ADDRESS TYPE FORMAT**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for:

- An external communication adapter (XCA) major node that defines an ATM native port.

- A remote node connected through an ATM native switched virtual channel (SVC).

A complete description of the message group follows the example.

IST1559I	ATM ADDRESS	TYPE	FORMAT
IST1553I	atm_address	address_type	address_format

### IST1559I

Message IST1559I is a header line identifying information in subsequent occurrences of message IST1553I.

### IST1553I

- For an XCA major node, *address\_type* can be LOCAL or GATEWAY.
  - LOCAL *atm\_address* is the address, in hexadecimal, of a local IBM Open Systems Adapter port defined by the XCA major node.
  - GATEWAY *atm\_address* is the public E164 address, in decimal, through which a local IBM Open Systems Adapter port can be reached.
- For a remote node connected through an ATM native SVC, *address\_type* can be LOCAL or REMOTE.
  - LOCAL *atm\_address* is the address, in decimal, of the local IBM Open Systems Adapter port through which the remote node is connected.
  - REMOTE *atm\_address* is the address, in decimal, of the remote node.
- *address\_format* can be one of the following:

#### E164

Indicates that the address is in a public ATM network and is in the native E164 address format.

#### NSAP

Indicates that the address is in a private ATM network and is in the International Organization for Standardization (ISO) network service access point (NSAP) address format.

- **Note:** An \*NA\* in all three fields of the message indicates that an address is not available, most probably because a line defined in the XCA major node was not activated.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

## Automation

This message was deleted in z/OS 3.1.

---

**IST1560I** **VARY ACT *statement\_name* CHANGE FAILED**

# Explanation

This message is the first in a group of messages that VTAM issues to indicate the failure of a dynamic change to a TRLE major node. The failure resulted from a VARY ACT command.

A complete description of the message group follows the example.

```
IST1560I VARY ACT statement_name CHANGE FAILED
IST1561I PORTNAME ON TRLE NOT VALID
IST314I  END
```

## IST1560I

*statement\_name* is the major node name that was specified on the ID operand of the VARY ACT command.

## IST1561I

### PORTNAME ON TRLE NOT VALID

An attempt was made to add or modify a TRLE definition statement that specified an invalid name on the PORTNAME operand. A probable cause is that the name specified on the PORTNAME operand is not unique in this node or is already active.

# System action

The remaining definition statements are processed.

# Operator response

Enter a DISPLAY command for ISTTRL. Save the system log for problem determination.

# System programmer response

Use the output from the operator to correct the TRLE definition statement in error.

# Routing code

2

# Descriptor code

5

IST1561I	PORTNAME ON TRLE NOT VALID
----------	----------------------------

# Explanation

This message is issued either as part of a group of messages or as a single message. If the message is issued as part of a group of messages, see the explanation of message IST1560I for a complete description of the group. If message IST1560I does not precede IST1561I, see the explanations of the messages that follow IST1561I for more information.

# Routing code

2

# Descriptor code

5

IST1562I	CAUSE = <i>cause_code</i>
----------	---------------------------

## Explanation

This message is part of a group of messages. See the explanation of message IST1556I for a complete description of the group.

## Routing code

2

## Descriptor code

5

## Automation

This message was deleted in z/OS 3.1.

---

**IST1563I** CKEYNAME = *ckeyname* CKEY = *ckey\_value* CERTIFY = *certify\_value*

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID, DISPLAY MODEL, or DISPLAY LUGROUPS command. The first message in the group is IST228I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1564I** TSO NOT ACTIVE

## Explanation

VTAM issues this message when DISPLAY TSOUSER command is entered for a given user ID, but there is no TSO active.

## System action

Processing continues.

## Operator response

Start TSO and try the command again.

## System programmer response

None.

## Routing code

2

## Descriptor code

5



**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY BFRUSE or a DISPLAY STORUSE command. For a DISPLAY BFRUSE command, the first message in the group is IST449I. For a DISPLAY STORUSE command, the first message in the group is IST1242I. See the explanation of those messages for a complete description.

**Routing code**

2

**Descriptor code**

5

**Explanation**

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

**Explanation**

VTAM issues this message as part of a message group. The first message in the group is IST440I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

4

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

## Routing code

2

## Descriptor code

4

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

## Routing code

2

## Descriptor code

4

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY VTAMSTOR,MODULE command. A complete description of the message group follows the example.

```
IST1571I module_name ENTRY POINT IS address LEVEL IS svc_level
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST314I END
```

### IST1571I

- *module\_name* is the module name provided in the DISPLAY VTAMSTOR command.
- *address* is the hexadecimal storage address of the module's entry point.
- *svc\_level* is the service level of the module. This will usually contain a PTF number or a Julian date; if this is not available, the field will contain \*\*NA\*\*. The Julian date will be of the format *yy.ddd*, where *yy* is the year and *ddd* is the day.
- There are two special values that might appear in this field.
  - **REPLACD** is stored in the service level when a module or table is replaced. For example, if a MODIFY EXIT command replaced ISTEXCAA, the service level for ISTEXCAA would be REPLACD. Because ISTIECDM is only loaded to support ISTEXCAA, it will also be replaced when ISTEXCAA is replaced. Therefore, REPLACD will also be stored in the service level of ISTIECDM or the supporting module for the EXIT being loaded.
  - **LM NAME** is stored in the service level when a module is loaded and the module name cannot be found at the beginning of the module. LM NAME indicates that name of the module was retrieved from the load module name.

## IST1574I

This message displays storage beginning at the *address* indicated in message IST1571I. This message is issued twice to display a total of 32 bytes beginning with *address*.

*offset* is the hexadecimal offset of the storage from the *address* in message IST1571I.

*hexdata\_1*, *hexdata\_2*, *hexdata\_3*, and *hexdata\_4* each display four bytes of the storage in hexadecimal format.

*EBCDIC\_data* displays sixteen bytes of the storage in EBCDIC format.

For some modules, the entry point address does not point to the beginning of the modules. Processing for the DISPLAY VTAMSTOR,MODULE command will display up to 32 bytes prior to the entry point address. This will be displayed as a negative offset. Less than 32 bytes might be displayed if the beginning of the module is found.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

8

### Descriptor code

5

---

## IST1572I

**MODULE *module\_name* CANNOT BE LOCATED**

### Explanation

VTAM issues this message in response to a DISPLAY VTAMSTOR command when the value specified on the MODULE parameter (*module\_name*) cannot be located in storage. For the value on the MODULE parameter to be found, it must be the name in the eyecatcher of the module.

This message does not indicate that the module or CSECT is not loaded in storage; it just indicates that the defined searching algorithms cannot locate it.

### System action

Processing continues.

### Operator response

Verify that the name is a valid VTAM module name.

### System programmer response

None.

### Routing code

8

## Descriptor code

5

---

<b>IST1573I</b>	<b><i>type</i> STORAGE DISPLAY BEGINS AT LOCATION <i>address</i></b>
-----------------	--

---

### Explanation

VTAM issues this message as the first of a group of messages in response to a DISPLAY VTAMSTOR,RESOURCE or DISPLAY VTAMSTOR,NETADDR command or as part of the IST1863I message group. See the description of that message when IST1573I is not the first message in the group.

The following is a complete description of the IST1573I message group:

```
IST1573I type STORAGE DISPLAY BEGINS AT LOCATION address
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
:
IST314I END
```

### IST1573I

*type* indicates the type of storage being displayed. The values for *type* are RDTE or RDTE PROFILE.  
*address* indicates the hexadecimal storage address for the beginning of the display.

### IST1574I

This message displays storage beginning at the *address* indicated in message IST1573I. This message is issued as many times as necessary to display the entire RDTE or RDTE profile.

*offset* is the hexadecimal offset of the storage from the *address* in message IST1571I.

*hexdata\_1*, *hexdata\_2*, *hexdata\_3*, and *hexdata\_4* each display four bytes of the storage in hexadecimal format.

*EBCDIC\_data* displays sixteen bytes of the storage in EBCDIC format.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

<b>IST1574I</b>	<b><i>offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data</i></b>
-----------------	--

---

### Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST467I, IST1571I, IST1573I, IST1650I, IST1658I, or IST1863I. See the explanation of those messages for a complete description.

**Routing code**

8

**Descriptor code**

5

---

**IST1575I** **DIALNO FOR PID: *pid(instance)***

---

**Explanation**

VTAM issues this message as part of a message group. The first message in the group is either IST149I or IST1351I. See the explanation of those messages for a complete description of the message group.

**Routing code**

2

**Descriptor code**

5

---

**IST1576I** **DYNAMIC SWITCHED MAJOR NODE *nodename* CREATED**

---

**Explanation**

VTAM issues this message to indicate that a new dynamic switched major node, *nodename*, was created as part of processing to create a dynamic PU or LU.

**System action**

Major node *nodename* is created.

**Operator response**

None. DISPLAY commands can now be issued for *nodename*.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1577I** **HEADER SIZE = *hpsize* DATA SIZE = *dsize* STORAGE = *storage***

---

**Explanation**

VTAM issues this message as part of a message subgroup. See [“IST1221I” on page 674](#) for a complete description.

**Routing code**

2

## Descriptor code

5

**IST1578I**

***inoptype* INOP DETECTED FOR *trlenam* BY *modname* CODE=*code***

---

### Explanation

A module detected an inoperative condition for a resource. This message follows message IST1222I, IST1501I, or IST1717I.

*inoptype* is the type of inoperative condition and can be one of the following:

#### DEVICE

One of the following conditions has occurred:

- A device in a multipath channel (MPC) group is inoperative.
- A RoCE interface for a TCP/IP stack is inoperative. The TCP/IP stack is identified by the ULPID value in the preceding message IST1717I.
- A Network Express interface for a TCP/IP stack is inoperative. The TCP/IP stack is identified by the ULPID value in the preceding message IST1717I.

#### HARD

The entire MPC group is inoperative, and is not expected to recover without intervention.

#### SOFT

The entire MPC group is inoperative; however, recovery of the connection is possible.

*trlenam* is the name of the TRLE definition statement in the TRL major node that defines the MPC connection, or the system-generated TRLE that represents the RoCE interface.

*modname* is the name of the module that detected the inoperative condition.

*code* identifies the point in *modname* where the inoperative condition was detected. *code* also categorizes the inoperative condition into the following:

#### Code

##### Category

##### 1–99

VTAM internal error

The inoperative condition was issued because of a VTAM internal logic error.

##### 100–199

Probable hardware error

The inoperative condition was probably generated due to unexpected channel status presented to VTAM from the hardware.

##### 200–255

Should not occur condition

This condition could not be categorized into either a software or hardware error.

VTAM provides the ability to take a diagnostic dump when an inoperative condition is detected. The INOPDUMP and INOPCODE start options and commands are used to enable the dump function for specific resources, modules, and codes. See [z/OS Communications Server: SNA Operation](#) for information about the INOPDUMP command and the INOPCODE command.

If *modname* is ISTTSC8W and *code* is 200, this indicates a failure when VTAM is trying to send data to another node in a sysplex via the Cross-system Coupling Facility (XCF). If this message is preceded by MVS message IXC409D, an XCF signaling path between the two nodes was lost. The resource, *trlenam*, is the name of the dynamic XCF TRLE used by VTAM for connectivity between the two nodes. A display of the corresponding dynamic XCF PU will show the CP name of the other node. The VTAM in this other node might not be aware of the inoperative condition. The loss of the XCF signaling path might be transient or permanent. When the signaling path is restored, the VTAM in the other node will be informed of the inoperative condition of this connection, and

the corresponding PU in that node will go inoperative. Connectivity can be restored at that time by reactivating one of the PUs.

**System action**

If *inoptype* is DEVICE and *trlename* represents an MPC connection, the channel listed in the preceding message is deactivated. The device might be dynamically added back to the active group without disruption using APPN host-to-host channel dynamics.

If *inoptype* is DEVICE and *trlename* represents a RoCE interface, the RoCE interface listed in the preceding message is deactivated. The TCP/IP stack might attempt recovery of the RoCE interface.

If *inoptype* is DEVICE and *trlename* represents a Network Express interface, the RoCE interface listed in the preceding message is deactivated. The TCP/IP stack might attempt recovery of the Network Express interface.

If *inoptype* is HARD, resource *trlename* is deactivated and all service access points (SAPs) for *trlename* are notified of the condition.

If *inoptype* is SOFT, resource *trlename* is deactivated and all service access points (SAP) for *trlename* are notified of the condition. VTAM attempts to reactivate *trlename*.

**Operator response**

If *inoptype* is DEVICE and *trlename* represents an MPC connection, no further action is required.

If *inoptype* is DEVICE and *trlename* represents a RoCE interface, no further action is required. If recovery fails, save the system log for problem determination.

If *inoptype* is DEVICE and *trlename* represents a Network Express interface, no further action is required. If recovery fails, save the system log for problem determination.

If *inoptype* is HARD, reactivate resource *trlename*. If the activation fails, and the MPC group is critical to your network, save the system log for problem determination.

If *inoptype* is SOFT, and this is the first occurrence of the message, no further action is required. If *inoptype* is SOFT, and this is not the first occurrence of the message, attempt to reactivate *trlename*. If the activation fails, and the MPC group is critical to your network, save the system log for problem determination.

**System programmer response**

For *code* values in the "VTAM internal error" or "should not occur condition" categories, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms.
- If no applicable matches are found, or if you do not have access to IBMLink, obtain a diagnostic dump for this error and report the problem to IBM. If you have access to IBMLink, the problem can be reported to IBM using the Electronic Technical Report (ETR) option on IBMLink.

For *code* values in the "probable hardware error" category, contact the appropriate hardware support organization to analyze this error.

**Routing code**

2

**Descriptor code**

5

IST1579I -----

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,ID=cp\_name,LIST=ALL. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tgn. See message [IST1299I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST1580I****XID RECEIVED BY VTAM:**

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST467I or IST1658I. See the explanation of those messages for a complete description.

## Routing code

8

## Descriptor code

5

---

**IST1582I****CONTROL VECTOR X'22' ANALYSIS**

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST467I or IST1658I. See the explanation of those messages for a complete description.

## Routing code

8

## Descriptor code

5

---

**IST1583I****BYTE OFFSET OF FIRST BYTE IN ERROR = *byteoffset***

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST467I or IST1658I. See the explanation of those messages for a complete description.

## Routing code

8



## Descriptor code

5

---

<b>IST1584I</b>	<b>BIT OFFSET OF FIRST BIT IN ERROR = <i>bitoffset</i></b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST467I or IST1658I. See the explanation of those messages for a complete description.

## Routing code

8

## Descriptor code

5

---

<b>IST1585I</b>	<b>SENSE CODE = <i>sense</i></b>
-----------------	----------------------------------

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST467I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

5

---

<b>IST1586I</b>	<b>XID SENT BY VTAM:</b>
-----------------	--------------------------

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST467I or IST1658I. See the explanation of those messages for a complete description.

## Routing code

8

## Descriptor code

5

---

<b>IST1587I</b>	<b>ORIGIN NCE X'<i>n</i>ceid'</b>
-----------------	-----------------------------------

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a type 2.1 node representing a Rapid Transport Protocol (RTP) route.

The first message in the group is [IST1476I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1588I****RTP END TO END ROUTE - COMPUTED SESSION PATH**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a type 2.1 node representing a Rapid Transport Protocol (RTP) route.

The first message in the group is [IST1476I](#). See the description of that message for more information.

## System action

None.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1589I****XNETALS = *xnetalsvalue***

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a type 2.1 PU.

*xnetalsvalue* is the value of the XNETALS operand defined for the PU specified on the DISPLAY ID command. *xnetalsvalue* can be one of the following:

### YES

Nonnative NETIDs are allowed.

### NO

The native NETID is to used.

## System action

Processing continues

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

9

---

**IST1590I** **PU NETID DIFFERENT THAN HOST AND CONTACTED REQUEST**

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1590I  PU NETID DIFFERENT THAN HOST AND CONTACTED REQUEST
IST314I  END
```

## IST605I

A request from *nodename* failed.

*text1* : *text2* specifies the RU in error, and is **REQUEST : CONTACTED** for this message group.

## IST1590I

One of the following occurred:

- The PU is being reactivated. The NETID was not specified on the PU definition statement, and the NETID received in the CONTACTED request is not the same as the NETID received on a previous activation of this PU.
- NETID=(,NOXNETLS) was coded on the PU definition statement and the CONTACTED RU contained a NETID that does not match this VTAM NETID.

## System action

*nodename* is deactivated.

## Operator response

Save the system log for problem determination.

## System programmer response

- Verify that the network ID passed in the contacted RU matches the network ID specified in the PU definition statement.
- If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected *nodename*. If *nodename* is link-attached, run a line trace for the affected line.

Enter a MODIFY TRACE,ID=*ncpname* command, where *ncpname* is the name of the NCP major node that contains the peripheral PU or link station *nodename* (as opposed to the NCP major node adjacent to the link station *nodename*).

## Routing code

2

## Descriptor code

5

---

**IST1591I** **NCP NOT LOADED**

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1591I  NCP NOT LOADED
IST314I  END
```

### IST605I

A request from *nodename* failed.

*text1* : *text2* specifies the RU in error, and is **REQUEST : CONTACTED** for this message group.

### IST1591I

The CONTACTED request from the NCP indicates that LOAD is required.

## System action

*nodename* is deactivated.

## Operator response

Save the system log for problem determination.

## System programmer response

- If the node should be activated, reactivate it, specifying LOAD=YES on the command.
- If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected *nodename*. If *nodename* is link-attached, run a line trace for the affected line.

Enter a MODIFY TRACE,ID=*ncpname* command, where *ncpname* is the name of the NCP major node that contains the peripheral PU or link station *nodename* (as opposed to the node adjacent to the link station *nodename*).

## Routing code

2

## Descriptor code

5

---

**IST1592I****NETID IN XID DID NOT MATCH NETID OF PU**

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1592I  NETID IN XID DID NOT MATCH NETID OF PU
IST314I  END
```

### IST605I

A request from *nodename* failed.

*text1* : *text2* specifies the RU in error, and is **REQUEST : CONTACTED** for this message group.

### IST1592I

The NETID received in the XID is not the same as the NETID defined on the PU definition statement, or a nonnative NETID is not allowed for this PU.

### System action

*nodename* is deactivated.

## Operator response

Save the system log for problem determination.

## System programmer response

- Verify that the network ID passed in the contacted RU matches the network ID specified in the PU definition statement.
- If this connection is to be allowed, then correct the NETID defined on the PU or correct the NETID configured in the device being contacted.

## Routing code

2

### Descriptor code

5

IST1593I	RESOURCE TYPE NOT VALID
----------	-------------------------

### Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1593I  RESOURCE TYPE NOT VALID
IST314I  END
```

**IST605I**

A request from *nodename* failed.

*text1* : *text2* specifies the RU in error, and is **REQUEST : CONTACTED** for this message group.

**IST1593I**

The nodename received in the CONTACTED request is already defined to VTAM and is not an adjacent CP, PU, or link station or RNAME.

### System action

*nodename* is deactivated.

## Operator response

Save the system log for problem determination.

### System programmer response

- If the node should be activated, then the duplicate name condition must be resolved. Correct the VTAM definition that defines *nodename*, or determine the reason that the connecting node is sending in the conflicting information.

- If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected *nodename*. If *nodename* is link-attached, run a line trace for the affected line.

Enter a MODIFY TRACE,ID=*ncpname* command, where *ncpname* is the name of the NCP major node that contains the peripheral PU or link station *nodename* (as opposed to the NCP major node adjacent to the link station *nodename*).

## Routing code

2

## Descriptor code

5

---

**IST1594I** **CPNAME IN CONTACTED REQUEST SAME AS SSCPNAME**

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1594I  CPNAME IN CONTACTED REQUEST SAME AS SSCPNAME
IST314I  END
```

### IST605I

A request from *nodename* failed.

*text1* : *text2* specifies the RU in error, and is **REQUEST : CONTACTED** for this message group.

### IST1594I

The CPNAME received in control vector (CV) X'0E' appended to the XID is the same as this host's SSCPNAME start parameter.

## System action

*nodename* is deactivated.

## Operator response

Save the system log for problem determination.

## System programmer response

- If the node should be activated, then the CPNAME must be corrected before the reactivation can succeed. The *cpname* is most probably configured or defined in the node *nodename* that is being contacted.
- If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected *nodename*. If *nodename* is link-attached, run a line trace for the affected line.

Enter a MODIFY TRACE,ID=*ncpname* command, where *ncpname* is the name of the NCP major node that contains the peripheral PU or link station *nodename* (as opposed to the NCP major node adjacent to the link station *nodename*).

## Routing code

2

## Descriptor code

5

**IST1595I**

**LINK STATION NOT ASSOCIATED WITH AN NCP**

---

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1595I  LINK STATION NOT ASSOCIATED WITH AN NCP
IST314I  END
```

## IST605I

A request from *nodename* failed.

*text1* : *text2* specifies the RU in error, and is **REQUEST : CONTACTED** for this message group.

## IST1595I

A **CONTACTED** request was received for a link station indicating that an adjacent communication controller was not loaded. There are three possible situations:

- The link station *nodename* was being activated as a result of a VARY ACT command directed at the link station itself (direct or indirect activation of the link station). VTAM expected to find the adjacent communication controller already loaded with an NCP, but it was not. The link station activation fails because VTAM does not perform load operations when only a link station is activated.
- The link-station *nodename* was being activated as a result of error recovery to an NCP adjacent to *nodename* (automatic activation of the link station).
- The link station *nodename* was being activated as a result of a VARY ACT command to an NCP adjacent to *nodename*. The NCP is not loaded because LOAD=NO was specified on the VARY ACT command.

## System action

*nodename* is deactivated, and the adjacent NCP remains pending awaiting the successful activation of one or more other adjacent link stations.

## Operator response

After first ensuring that the NCP is inactive, the communication controller adjacent to link station *nodename* needs to be loaded by activating an NCP for this communication controller.

The link station *nodename* can be reactivated:

- Automatically, as part of the NCP activation
- Directly or indirectly (for example, by using a VARY ACT command after the NCP is successfully activated).

If the NCP repeatedly abends after being loaded, dump the failing NCP for further troubleshooting.

## System programmer response

No further recommended response.

## Routing code

2

## Descriptor code

5

---

**IST1596I****SWITCHED LINK STATION STATE PCTD2 NOT VALID FOR LOAD**

---

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1596I  SWITCHED LINK STATION STATE PCTD2 NOT VALID FOR LOAD
IST314I  END
```

## IST605I

A request from *nodename* failed.

*text1* : *text2* specifies the RU in error, and is **REQUEST : CONTACTED** for this message group.

## IST1596I

The activation cannot proceed due to the current NCP state of PCTD2.

## System action

*nodename* is deactivated, and the adjacent NCP remains pending awaiting the successful activation of one or more other adjacent link stations.

## Operator response

After ensuring that the NCP is inactive, the communication controller adjacent to link station *nodename* needs to be loaded by activating an NCP for this communication controller.

The link station *nodename* can be reactivated:

- Automatically, as part of the NCP activation
- Directly or indirectly (for example, by using a VARY ACT command after the NCP is successfully activated).

If the NCP repeatedly abends after being loaded, dump the failing NCP for further troubleshooting.

## System programmer response

No further recommended response.

## Routing code

2

## Descriptor code

5

---

**IST1597I****SWITCHED CALL=IN NCP NOT VALID**

---

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1597I  SWITCHED CALL=IN NCP NOT VALID
IST314I  END
```



## IST605I

A request from *nodename* failed.

*text1* : *text2* specifies the RU in error, and is **REQUEST : CONTACTED** for this message group.

## IST1597I

A switched connection to an NCP must be defined with a CALL=OUT PATH definition.

### System action

*nodename* is deactivated, and the adjacent NCP remains pending awaiting the successful activation of one or more other adjacent link stations.

### Operator response

After ensuring that the NCP is inactive, the communication controller adjacent to link station *nodename* needs to be loaded by activating an NCP for this communication controller.

The link station *nodename* can be reactivated:

- Automatically, as part of the NCP activation
- Directly or indirectly (for example, by using a VARY ACT command after the NCP is successfully activated).

If the NCP repeatedly abends after being loaded, dump the failing NCP for further troubleshooting.

### System programmer response

No further recommended response.

### Routing code

2

### Descriptor code

5

---

## IST1598I

## LEASED LINK STATION STATE PCTD2 NOT VALID FOR LOAD

### Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1598I  LEASED LINK STATION STATE PCTD2 NOT VALID FOR LOAD
IST314I  END
```

## IST605I

A request from *nodename* failed.

*text1* : *text2* specifies the RU in error, and is **REQUEST : CONTACTED** for this message group.

## IST1598I

The NCP was in a PCTD2 state when the NCP indicated that a LOAD was required. NCP must be in a CONTACTED state to perform a load.

## System action

*nodename* is deactivated, and the adjacent NCP remains pending awaiting the successful activation of one or more other adjacent link stations.

## Operator response

After ensuring that the NCP is inactive, the communication controller adjacent to link station *nodename* needs to be loaded by activating an NCP for this communication controller.

The link station *nodename* can be reactivated:

- Automatically, as part of the NCP activation
- Directly or indirectly (for example, by using a VARY ACT command after the NCP is successfully activated).

If the NCP repeatedly abends after being loaded, dump the failing NCP for further troubleshooting.

## System programmer response

No further recommended response.

## Routing code

2

## Descriptor code

5

---

**IST1599I NCP INDICATES LOAD REQUIRED BUT LOAD=NO**

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1599I  NCP INDICATES LOAD REQUIRED BUT LOAD=NO
IST314I  END
```

## IST605I

A request from *nodename* failed.

*text1* : *text2* specifies the RU in error, and is **REQUEST : CONTACTED** for this message group.

## IST1599I

The CONTACTED request received from the NCP indicates that the NCP needs to be loaded, but the VARY ACT command was issued with the LOAD parameter defaulted to or specified LOAD=NO.

## System action

*nodename* is deactivated, and the adjacent NCP remains pending awaiting the successful activation of one or more other adjacent link stations.

## Operator response

After first ensuring that the NCP is inactive, the communication controller adjacent to link station *nodename* needs to be loaded by activating an NCP for this communication controller.

The link station *nodename* can be reactivated:

- Automatically, as part of the NCP activation

- Directly or indirectly (for example, by using a VARY ACT command after the NCP is successfully activated).

If the NCP repeatedly abends after being loaded, dump the failing NCP for further troubleshooting.

**System programmer response**

No further recommended response.

**Routing code**

2

**Descriptor code**

5



---

## Chapter 9. IST messages for VTAM network operators

### IST1600I - IST1999I

This chapter lists the VTAM messages beginning with IST in the range of IST1600I through IST1999I. These messages can appear on a network operator's console.

See [Appendix E, "Message text for VTAM operator messages,"](#) on page 1785 for a list of the text of all VTAM operator messages.

**Note:** Messages that begin with the prefix **ISTF** are issued by the VTAM dump analysis tool and the VTAM internal trace (VIT) analysis tool. Help information is available as a part of each tool by pressing F1. Therefore, **ISTF** messages are not documented in [z/OS Communications Server: SNA Messages](#). See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information.

---

#### IST1600I

#### LOAD MODULE MISMATCH – LOAD=NO

#### Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1600I  LOAD MODULE MISMATCH - LOAD=NO
IST314I  END
```

#### IST605I

A response sent by *nodename* contained invalid data.

*text1* : *text2* specifies the RU in error, and is **RESPONSE : ACTPU** for this message group.

#### IST1600I

The NCP load module name received in an ACTPU response does not match the NCP load module name in the VTAM definition. LOAD=NO was defaulted to or specified on the VARY ACT command.

#### System action

*nodename* is deactivated.

#### Operator response

Save the system log for problem determination.

#### System programmer response

- If the node should be activated, reactivate it.
- If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected *nodename*. If *nodename* is link-attached, run a line trace for the affected line.

#### Routing code

2

#### Descriptor code

5

## Explanation

VTAM issues this message when the sending of APPN search requests to an adjacent control point (CP) has been suspended or resumed.

*cp\_name* is the name of the adjacent CP.

*status* can be either SUSPENDED or RESUMED.

When *status* is SUSPENDED, severe network congestion has occurred.

VTAM suspends sending of APPN search requests to an adjacent CP when the maximum congestion threshold reaches the value specified by the MAXLOCAT start option.

VTAM resumes sending APPN search requests to an adjacent CP when a minimum congestion threshold is reached.

For information on the minimum and maximum congestion thresholds, see the description of the MAXLOCAT start option in the [z/OS Communications Server: SNA Resource Definition Reference](#).

## System action

When the maximum congestion threshold is reached, VTAM stops sending new APPN search requests to the adjacent CP.

When the minimum congestion threshold is reached, VTAM resumes sending APPN search requests to the adjacent CP.

## Operator response

If *status* is RESUMED, no action is required.

If *status* is SUSPENDED, issue a DISPLAY STORUSE command to ensure that VTAM has enough private storage with which to operate. If storage is critical, issue a VARY INACT,ID=*cp\_name*,TYPE=FORCE command to terminate CP-CP sessions with the adjacent CP.

Termination of CP-CP sessions with the adjacent CP clears the outbound data queue, and frees storage. However, the adjacent CP might be able to recover and allow VTAM to resume sending APPN search requests.

Notify the system programmer of the *cp\_name*. New LU-LU sessions fail if APPN search requests are required to pass through *cp\_name*.

## System programmer response

Determine the severity of the problem based on the network configuration and the status of VTAM private storage. Termination of CP-CP sessions with the adjacent CP clears the outbound data queue, and frees storage. However, the adjacent CP might be able to recover and allow VTAM to resume sending APPN search requests.

Determine that the maximum threshold value is appropriate for the network. If the value needs to be adjusted, change the value of the MAXLOCAT start option.

## Routing code

2

## Descriptor code

3

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1602I  RU ERROR: EXTRA CV X'xx'
IST314I  END
```

### IST605I

A response sent by *nodename* contained invalid data.

*text1* : *text2* specifies the RU in error, and is **RESPONSE : ACTPU** for this message group.

### IST1602I

Multiple Control Vectors X'09', X'0B', X'11', or X'FE' were returned with the ACTPU response from the NCP.

## System action

*nodename* is deactivated.

## Operator response

Save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

A buffer trace can provide additional information regarding the cause of the error.

## System programmer response

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

2

## Descriptor code

5

---

**IST1603I****RU ERROR: INVALID POSITIVE RESPONSE**

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1603I  RU ERROR: INVALID POSITIVE RESPONSE
IST314I  END
```

### IST605I

A response sent by *nodename* contained invalid data.

*text1* : *text2* specifies the RU in error, and is **RESPONSE : ACTPU** for this message group.

**IST1603I** One of the following has occurred:

Reserved bits are nonzero.  
The ACTPU response length is incorrect.  
The ACTPU response is not format 1 or format 2.  
The ACTPU response type is not ERP or COLD.

## System action

*nodename* is deactivated.

## Operator response

Save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

A buffer trace can provide additional information regarding the cause of the error.

## System programmer response

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

2

## Descriptor code

5

---

**IST1604I****RU ERROR: LENGTH, FORMAT, OR TYPE NOT VALID**

---

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1604I  RU ERROR: LENGTH, FORMAT, OR TYPE NOT VALID
IST314I  END
```

### IST605I

A response sent by *nodename* contained invalid data.

*text1* : *text2* specifies the RU in error, and is **RESPONSE : ACTPU** for this message group.

### IST1604I

One of the following has occurred:

Reserved bits are nonzero.  
The ACTPU response length is incorrect.  
The ACTPU response is not format 0 or format 3.  
The ACTPU response type is not ERP or COLD.

## System action

*nodename* is deactivated.



## Operator response

Save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

A buffer trace can provide additional information regarding the cause of the error.

## System programmer response

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

2

## Descriptor code

5

---

<b>IST1605I</b>	<b>RU ERROR: MISSING CV X'0B'</b>
-----------------	-----------------------------------

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1605I  RU ERROR: MISSING CV X'0B'
IST314I  END
```

### IST605I

A response sent by *nodename* contained invalid data.

*text1* : *text2* specifies the RU in error, and is **RESPONSE : ACTPU** for this message group.

### IST1605I

A format 3 ACTPU response was received, but did not include an SSCP-PU capabilities vector, CV X'0B', which is required.

## System action

*nodename* is deactivated.

## Operator response

Save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

A buffer trace can provide additional information regarding the cause of the error.

## System programmer response

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

2

## Descriptor code

5

---

**IST1606I DIAL RETRY FAILED**

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1606I  DIAL RETRY FAILED
IST314I  END
```

### IST605I

A response sent by *nodename* contained invalid data.

*text1* : *text2* specifies the RU in error, and is **RESPONSE : ACTPU** for this message group.

### IST1606I

Consecutive dial attempts have failed for this *nodename*. This may be due to line problems.

## System action

VTAM rejects the command. Other processing continues.

## Operator response

Try the command again. If the condition persists, save the system log for problem determination.

## System programmer response

- If the node should be activated, reactivate it.
- If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected nodename. If nodename is link-attached, run a line trace for the affected line.

## Routing code

2

## Descriptor code

5

---

**IST1607I RU ERROR: RESPONSE TOO LONG**

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1607I  RU ERROR: RESPONSE TOO LONG
IST314I  END
```

### IST605I

A response sent by *nodename* contained invalid data.

*text1* : *text2* specifies the RU in error, and is **RESPONSE : ACTPU** for this message group.

### IST1607I

The ACTPU response received from the NCP is too long.

## System action

*nodename* is deactivated.

## Operator response

Save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

A buffer trace can provide additional information regarding the cause of the error.

## System programmer response

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

2

## Descriptor code

5

---

**IST1608I** **RU ERROR: RESPONSE TOO SHORT**

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1608I  RU ERROR: RESPONSE TOO SHORT
IST314I  END
```

### IST605I

A response sent by *nodename* contained invalid data.

*text1* : *text2* specifies the RU in error, and is **RESPONSE : ACTPU** for this message group.

### IST1608I

The ACTPU response received from the NCP is too short. This includes the length of the ACTPU response and its vectors.

## System action

*nodename* is deactivated.

## Operator response

Save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

A buffer trace can provide additional information regarding the cause of the error.

## System programmer response

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

2

## Descriptor code

5

---

**IST1609I****CV X'0B' INDICATES ADJACENT LINK STATION NOT SUPPORTED**

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1609I  CV X'0B' INDICATES ADJACENT LINK STATION NOT SUPPORTED
IST314I  END
```

### IST605I

A response sent by *nodename* contained invalid data.

*text1* : *text2* specifies the RU in error, and is **RESPONSE : ACTPU** for this message group.

### IST1609I

A required indicator for Adjacent Link Station Address support is not present in the control vector (CV) X'0B'.

## System action

*nodename* is deactivated.

## Operator response

Save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User's Guide and Reference* for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

A buffer trace can provide additional information regarding the cause of the error.

## System programmer response

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

## Routing code

2

## Descriptor code

5

---

**IST1610I** **CORRELATOR MISMATCH – LOAD=NO**

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1610I  CORRELATOR MISMATCH – LOAD=NO
IST314I  END
```

## IST605I

A response sent by *nodename* contained invalid data.

*text1* : *text2* specifies the RU in error, and is **RESPONSE : ACTPU** for this message group.

## IST1610I

The VARY ACT command defaulted to or specified LOAD=NO, and the generated correlator did not match the correlator loaded in the communications controller.

## System action

*nodename* is deactivated.

## Operator response

Save the system log for problem determination.

## System programmer response

- If the node should be activated, reactivate it.
- If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected *nodename*. If *nodename* is link-attached, run a line trace for the affected line.

Enter a MODIFY TRACE,ID=*nodename* command.

## Routing code

2

## Descriptor code

5

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1611I  CORRELATOR MISMATCH - NCP ACQUIRED BEFORE ACTIVATION
IST314I  END
```

### IST605I

A response sent by *nodename* contained invalid data.

*text1* : *text2* specifies the RU in error, and is **RESPONSE : ACTPU** for this message group.

### IST1611I

The VARY ACT command defaulted to or specified LOAD=NO, and the generated correlator did not match the correlator loaded in the communications controller.

## System action

*nodename* is deactivated.

## Operator response

Save the system log for problem determination.

## System programmer response

- If the node should be activated, reactivate it.
- If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected *nodename*. If *nodename* is link-attached, run a line trace for the affected line.

Enter a MODIFY TRACE,ID=*nodename* command.

## Routing code

2

## Descriptor code

5

## Explanation

This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename - text1 : text2
IST1612I  LOAD MODULE MISMATCH - EXPECTED loadmod1 FOUND loadmod2
IST314I  END
```

### IST605I

A response sent by *nodename* contained invalid data.

*text1* : *text2* specifies the RU in error, and is **RESPONSE : ACTPU** for this message group.

### IST1612I

The NCP load module name, *loadmod1*, received in the ACTPU response did not match the NCP load module name, *loadmod2*, found in the VTAM definition.

**System action**

*nodename* is deactivated.

**Operator response**

Enter a VARY ACT,LOAD=NO command to activate the NCP with the load module used during IPL.

**System programmer response**

No further recommended response.

**Routing code**

2

**Descriptor code**

5

**IST1613I** **TYPE = type ATTN = attn**

---

**Explanation**

This message is the first in a subgroup of messages that displays tuning statistics for a TCP/IP connection. A complete description of the message groups follow.

This message group displays tuning statistics for a TCP/IP channel-to-channel (CTC), or HyperChannel connection.

IST1230I	TIME	= time	DATE	= date	ID	= id
IST1613I	TYPE	= type	ATTN	= attn		
IST1614I	READSIO	= readsio	PACKET	= packet	BYT	= byt
IST1615I	ARPACKET	= arpacket	ARBYTE	= arbyte	MAX	= max
IST1616I	WRITESIO	= writesio	PACKET	= packet	BYT	= byt
IST1617I	AWPACKET	= awpacket	AWBYTE	= awbyte	MAX	= max
IST314I	END					

This message group displays tuning statistics for a TCP/IP Common Link Access to Workstation (CLAW) connection.

IST1230I	TIME	= time	DATE	= date	ID	= id
IST1613I	TYPE	= type	ATTN	= attn		
IST1614I	READSIO	= readsio	PACKET	= packet	BYT	= byt
IST1615I	ARPACKET	= arpacket	ARBYTE	= arbyte	MAX	= max
IST1616I	WRITESIO	= writesio	PACKET	= packet	BYT	= byt
IST1617I	AWPACKET	= awpacket	AWBYTE	= awbyte	MAX	= max
IST1618I	READCCW	= readccw	PCICNT	= pcicnt		
IST1619I	WRITECCW	= writeccw	APPEND	= append]		
IST314I	END					

This message group displays tuning statistics for a TCP/IP channel data link control (CDLC) connection.

IST1230I	TIME	= time	DATE	= date	ID	= id
IST1613I	TYPE	= type	ATTN	= attn		
IST1653I	RWSIO	= rwsio	WCH	= wch	RCH	= rch
IST1654I	INPACKET	= inpacket	INBYTE	= inbyte	MAX	= max
IST1655I	OTPACKET	= otpacket	OTBYTE	= otbyte	MAX	= max
IST314I	END					

**IST1230I**

The *time* and *date* values specify when the record was reported. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

*id* is the name of the link for which tuning statistics are being recorded, and is the name specified on the LINE definition statement in the associated channel-attached major node.

#### **IST1613I**

- *type* is the TCP/IP resource type, which can be one of the following:

##### **CDLC**

Channel data link control

##### **CLAW**

Common Link Access to Workstation

##### **CTC**

Channel-to-channel

##### **HYP**

Hyperchannel

- *attn* is the number of unsolicited attention interrupts received.

#### **IST1614I**

This message is issued for CLAW and CTC resources only.

*readsio* is the number of READ start I/Os issued.

*packet* is the number of inbound TCP/IP packets received.

*byt* is the number of inbound TCP/IP bytes received.

#### **IST1615I**

This message is issued for CLAW and CTC resources only.

*arpacket* is the average number of TCP/IP packets received.

*arbyte* is the average number of TCP/IP bytes received.

*max* is the largest TCP/IP packet received.

#### **IST1616I**

This message is issued for CLAW and CTC resources only.

*writesio* is the number of WRITE start I/Os issued.

*packet* is the number of outbound TCP/IP packets sent.

*byt* is the number of outbound TCP/IP bytes sent.

#### **IST1617I**

This message is issued for CLAW and CTC resources only.

*awpacket* is the average number of TCP/IP packets sent.

*awbyte* is the average number of TCP/IP bytes sent.

*max* is the largest TCP/IP packet sent.

#### **IST1618I**

This message is issued for CLAW resources only.

*readccw* is the number of READ CCWs used.

*pcicnt* is the number of PCI interrupts received.

#### **IST1619I**

This message is issued for CLAW resources only.

*writeccw* is the number of WRITE CCWs issued.

*append* is the number of WRITE appends done.

#### **IST1653I**



This message is issued for CDLC resources only.

*rwsio* is the number of read/write SIOs issued.

*wch* is the total number of write channel programs issued.

$rch$  is the total number of read channel programs issued.

**IST1654I**

This message is issued for CDLC resources only.

*inpacket* is the number of inbound TCP/IP packets received.

*inbyte* is the number of inbound TCP/IP bytes received.

*max* is the largest TCP/IP packet received.

**IST1655I**

This message is issued for CDLC resources only.

*otpacket* is the number of outbound TCP/IP packets sent.

*otbyte* is the number of outbound TCP/IP bytes sent.

*max* is the largest TCP/IP packet sent.

### System action

Processing continues

## Operator response

None

## System programmer response

None.

## Routing code

2

### Descriptor code

4

IST1614I	READSIO = <i>readsio</i> PACKET = <i>packet</i> BYT = <i>byt</i>
----------	--

### Explanation

VTAM issues this message as part of a message subgroup. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

### Descriptor code

4

---

**IST1615I**                      **ARPACKET =** *arpacket* **ARBYTE =** *arbyte* **MAX =** *max*

## Explanation

VTAM issues this message as part of a message subgroup. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

4

---

<b>IST1616I</b>	<b>WRITESIO = <i>writesio</i> PACKET = <i>packet</i> BYT = <i>byt</i></b>
-----------------	---

## Explanation

VTAM issues this message as part of a message subgroup. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

4

---

<b>IST1617I</b>	<b>AWPACKET = <i>awpacket</i> AWBYTE = <i>awbyte</i> MAX = <i>max</i></b>
-----------------	---

## Explanation

VTAM issues this message as part of a message subgroup. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

4

---

<b>IST1618I</b>	<b>READCCW = <i>readccw</i> PCICNT = <i>pcicnt</i></b>
-----------------	--

## Explanation

VTAM issues this message as part of a message subgroup and is only issued for TCP/IP resource type CLAW. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

4

---

<b>IST1619I</b>	<b>WRITECCW = <i>writeccw</i> APPEND = <i>append</i></b>
-----------------	--

## Explanation

VTAM issues this message as part of a message subgroup and is only issued for TCP/IP resource type CLAW. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

4

---

**IST1621I** **DUPLICATE CP NAME: *cname* FOR ID = *pname***

---

## Explanation

VTAM issues this message in response to VARY ACT of a PU (or major node containing the PU) when the network-qualified name of this node and the network-qualified name of the remote node are found to be the same. This message is followed by message IST259I.

*cname* is the network-qualified name of the node that the PU represents.

*pname* is the name of the PU being activated.

## System action

Processing continues, but the specified PU is in an INOP condition.

## Operator response

Save the system log for problem determination.

## System programmer response

Determine which remote node has the same fully qualified network name as this node, and change one of the names.

## Routing code

2

## Descriptor code

5

---

**IST1622I** **DLCADDR SUBFIELD *subfield\_id* NOT VALID - *subfield\_description***

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST1166I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1623I</b>	<b>DUPLICATE DLCADDR SUBFIELD <i>subfield_id</i> - <i>subfield_description</i></b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST1166I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1624I</b>	<b>DLCADDR SUBFIELD <i>subfield_id</i> NOT SPECIFIED - <i>subfield_description</i></b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST1166I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1625I</b>	<b>STORAGE ADDRESS <i>address</i> IS UNAVAILABLE</b>
-----------------	--

---

## Explanation

This message is issued in response to a DISPLAY VTAMSTOR,ADDRESS command. *address* points to storage which would result in a protection exception if accessed.

This message may be issued at two different points during processing of the command. If the address of the storage for the length specified has any protection exceptions, this message will be issued in response to the command. If processing for the command begun issuing messages, this message will be issued following IST1574I and then the message group will be terminated with IST314I.

## System action

None.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST1626I****ALL DATA IN *structure\_name* FOR *appl\_name* REMOVED**

---

## Explanation

This message is the first of a group of messages VTAM issues when data owned by a multi-node persistent session (MNPS) application program is deleted from a MNPS coupling facility structure after a VTAM failure. The second message in the group gives the reason the data was deleted. A complete description of the message group follows.

```
IST1626I ALL DATA IN structure_name FOR appl_name REMOVED
[IST1627I MULTI-NODE PERSISTENT SESSION TIMER EXPIRED]
[IST1628I DATA WAS IN AN UNRECOVERABLE STATE - state]
IST314I END
```

### **IST1626I**

*structure\_name* is the coupling facility structure from which the data was deleted.

*appl\_name* is the network-qualified name of the application program that owned the deleted data.

### **IST1627I**

The MNPS application program was not recovered in the time specified by the persistent timer. The persistent timer is set using the PSTIMER option on SETLOGON OPTCD=PERSIST.

### **IST1628I**

*state* can be one of the following:

#### **Cleanup**

Another VTAM cleaned up the data when it failed.

#### **Disabled**

At the time of the VTAM failure, the application had not issued SETLOGON OPTCD=PERSIST.

#### **Suspect**

At the time of the VTAM failure either the structure was being rebuilt or the VTAM did not have connectivity to the structure.

#### **Terminate**

The application had closed its ACB, in a non-persistent manner, but not all the MNPS sessions or connections were terminated when the VTAM failed.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1627I****MULTI-NODE PERSISTENT SESSION TIMER EXPIRED**

---

## Explanation

This message is part of a subgroup of messages that VTAM issues in when data has been deleted from the multi-node persistent session coupling facility structure. See the explanation of message IST1626I for a complete description of the message subgroup.

## Routing code

2

## Descriptor code

5

---

**IST1628I****DATA WAS IN AN UNRECOVERABLE STATE - *state***

---

## Explanation

This message is part of a subgroup of messages that VTAM issues in when data has been deleted from the multi-node persistent session coupling facility structure. See the explanation of message IST1626I for a complete description of the message subgroup.

## Routing code

2

## Descriptor code

5

---

**IST1629I****MODSRCH = *modsrch\_value***

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a model application program or a dynamic application program. *modsrch\_value* specifies the current value of the MODSRCH operand, and can be FIRST, LAST, or NEVER. See [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the MODSRCH operand for the application program major node.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1630I** *name* **ACTIVATION FAILED - HPR=RTP REQUIRED WITH HPDT MPC**

## Explanation

VTAM issues this message in response to VARY ACT of a PU or a major node when VTAM or the local PU is not configured for HPR RTP support, and the MPC group that the PU or major node will be using for connectivity provides HPDT support. If the activation failure is for a PU, this message is followed by IST259I.

*name* is the name of the PU or major node for which the activation failed.

## System action

Processing continues. If the activation failure is for a PU, the specified PU is in an INOP condition.

## Operator response

Reconfigure VTAM or the PU to support HPR=RTP, or reconfigure the TRLE that the PU references to specify MPCLEVEL=NOHPDT. The VARY ACT command may then be entered again.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1631I** *resource* **SUBCHANNEL** *cua* *status*

## Explanation

This message is issued when the status of a subchannel that uses multipath channel (MPC) changes.

*resource* is the name of the TRLE or MPC subarea line that contains the subchannel.

*cua* is the subchannel address.

*status* is the subchannel address status, and can be one of the following:

### **DEVICE ALREADY ALLOCATED**

The subchannel is already in use.

### **DEVICE NOT GENNED AS OSH**

The device is not configured to be OSH.

### **DEVICE NOT FOUND**

The subchannel was not found by MVS.

### **EQDIO CHSC INVALID**

There was a channel subsystem call (CHSC) failure for an enhanced QDIO (EQDIO) device.

**EQDIO CULA UNAVAILABLE**

The subchannel for an OSA adapter is missing the Control Unit Logical Address (CULA).

**EQDIO DEVICE ERROR**

The EQDIO device had a problem.

**INSUFFICIENT RX QUEUES**

There was a channel subsystem call (CHSC) issued for an enhanced QDIO (EQDIO) device. The response was for a valid QDIO device, but the number of receive queues supported by the hardware is insufficient for device activation.

**INSUFFICIENT TX QUEUES**

There was a channel subsystem call (CHSC) issued for an enhanced QDIO (EQDIO) device. The response was for a valid QDIO device, but the number of write queues supported by the hardware is insufficient for device activation.

**INVALID DEVICE TYPE**

The subchannel device type does not match the characteristics of the *resource* value.

**INVALID QDIO PORT NUMBER**

The port number (PORTNUM) specified on the QDIO TRLE definition exceeds the number of physical ports available on the OSA-Express3 or later CHPID.

**IQDIO CULA UNAVAILABLE**

The data subchannel for HiperSockets (IQDIO) is missing the control unit logical address (CULA).

**NO PATH AVAILABLE**

There is no path available to the subchannel.

**NO STORAGE TO ALLOCATE**

There is insufficient storage available to activate the subchannel.

**NOT ADDED TO VIRTUAL NET**

An ensemble virtual network does not include this host and this OSA-Express interface.

**NOT AN ENSEMBLE MEMBER**

Either the central processing complex (CPC) is not configured as a member of an ensemble, or this specific z/OS image is not included as a member of the ensemble because the VTAM start option ENSEMBLE is set to the value NO. z/OS Communications Server will not permit connectivity to either the intraensemble data network or the intranode management network. z/OS Communications Server denies this connectivity by denying the activation of OSX and OSM interfaces.

**OFFLINE**

Deactivation processing has completed and MVS acknowledges that the subchannel is off line.

**OFFLINE.PENDING**

An MVS VARY OFFLINE command is issued for a subchannel and VTAM and MVS are in the process of completing deallocation for the subchannel.

**ONLINE**

An MVS VARY ONLINE command is issued for a subchannel and VTAM successfully completes activation for the subchannel.

**OPEN FOR DEVICE FAILED**

The attempt to activate the subchannel failed.

**QDIO CULA UNAVAILABLE**

The data subchannel for an OSA adapter is missing the Control Unit Logical Address (CULA).

**QDIO DEVICE NOT FOUND**

The data subchannel for an OSA adapter was not found by MVS.

**QDIO DEVICE PATH INVALID**

The subchannel for an OSE-Express adapter, or iQDIO device has a path that is not valid, or is not online to MVS.

**QDIO DEVICE TYPE NOT OSD**

The subchannel for an OSA adapter is not of type OSD.



**QDIO DEVICE TYPE NOT OSM**

The subchannel for an OSA-Express adapter is not an OSM subchannel.

**QDIO DEVICE TYPE NOT OSX**

The subchannel for an OSA-Express adapter is not an OSX subchannel.

**QDIO INVALID SUBCHANNEL**

There was a channel subsystem call (CHSC) failure for a QDIO device.

**QDIO PNET SERVICE FAILED**

The service to access the physical network ID for the OSA-Express adapter represented by the *resource* value failed.

**QDIO UCBINFO UNAVAILABLE**

The subchannel for an OSA adapter has a path that is not valid.

**REACCESSIBLE**

An INOP situation occurs and MVS deactivates and then reactivates a subchannel without operator intervention.

**System action**

None.

**Operator response**

Depending on the value of *status*, take the following action:

**NO PATH AVAILABLE**

Ensure that all devices are on line and have PATHs available.

**OFFLINE**

Issue an MVS VARY ONLINE command to use this subchannel for this device.

If activation succeeded or is pending for this resource, no further response is needed. The subchannel will be dynamically made available to the resource when it comes online. If activation failed, attempt reactivation after making the previously described adjustments.

**System programmer response**

Depending on the value of *status*, take the following action:

**DEVICE ALREADY ALLOCATED**

Ensure that the same subchannel is not used for multiple devices.

**DEVICE NOT FOUND**

Ensure that the subchannel address indicated has been defined to MVS.

**DEVICE NOT GENNED AS OSH**

Ensure that the device is defined with a type of OSH.

**EQDIO CULA UNAVAILABLE**

Contact the IBM Software Support Center.

**EQDIO DEVICE ERROR**

Contact the IBM Software Support Center.

**INVALID DEVICE TYPE**

Ensure that the subchannel address indicated was defined to MVS with a type that matches the *resource* value containing this subchannel. For example, if the *resource* value is a transport resource list element (TRLE) with LNCTL=MPC, ensure that the type of the subchannel is for a channel-to-channel adapter connection.

**INVALID QDIO PORT NUMBER**

Issue the D NET,TRL,TRLE=*trlename* command. Locate message IST2263I in the display output. Ensure that the displayed PORTNUM value does not exceed the number of physical ports available with OSA-Express3 or

later. For instance, if OSA-Express3 or later supports 2 physical ports, the only valid PORTNUM values are 0 and 1.

**IQDIO CULA UNAVAILABLE**

Contact the IBM Software Support Center.

**NO STORAGE TO ALLOCATE**

A storage shortage unrelated to this device activation has occurred. Attempt to determine the reason for the storage shortage.

**NOT ADDED TO VIRTUAL NET**

Use the network virtualization function to perform the following steps:

1. Create a virtual network.
2. Add this z/OS image as a host to that virtual network.
3. Specify the OSA-Express OSX interface corresponding to the TRLE in this message as a network interface.
4. Ensure that the VLANID parameter for the TCP/IP interface that is being activated is the VLAN ID of the virtual network that you created.

**OPEN FOR DEVICE FAILED**

Contact the IBM Software Support Center.

**QDIO CULA UNAVAILABLE**

Contact the IBM Software Support Center.

**QDIO DEVICE NOT FOUND**

Ensure that the subchannel address indicated has been defined to MVS.

**EQDIO CHSC INVALID**

Contact the IBM Software Support Center.

**INSUFFICIENT RX QUEUES**

Contact the IBM Software Support Center.

**INSUFFICIENT TX QUEUES**

Contact the IBM Software Support Center.

**QDIO DEVICE PATH INVALID**

Ensure that the subchannels on the TRLE for an OSA or HiperSockets adapter have been correctly defined. For an OSA-Express device, the subchannels should be type OSD, OSX, or OSM. For a HiperSockets device, the subchannels should be type IQD. Also ensure that the failing *cua* has not been redefined since the device was last activated on this system.

**QDIO DEVICE TYPE NOT OSD**

The subchannel is not connected to an OSA-Express adapter that is configured in QDIO mode. Ensure that the READ, WRITE, and DATAPATH subchannels that are associated with the TRLE are defined as type OSD.

**QDIO DEVICE TYPE NOT OSM**

The subchannel is not connected to the intranode management network. Ensure that the CHPID that is defined has an OSM channel type of OSM.

**QDIO DEVICE TYPE NOT OSX**

An OSX INTERFACE is being activated by TCP/IP, but the subchannel address is not connected to the intraensemble data network. If the OSXCHPID parameter is defined on the INTERFACE, ensure that the CHPID that is defined has a channel type of OSX. If the OSXPORTNAME parameter is defined on the INTERFACE statement, ensure that the subchannel addresses on the TRLE that match the PORTNAME are of type OSX.

**QDIO INVALID SUBCHANNEL**

Contact the IBM Software Support Center.

**QDIO PNET SERVICE FAILED**

Contact the IBM Software Support Center.

**QDIO UCBINFO UNAVAILABLE**

Ensure that the specified subchannel address was defined to MVS with a type that matches the QDIO TRLE that contains this subchannel. For example, if the subchannel is to an OSA adapter, ensure that the subchannel type is OSD, OSX, or OSM.

**Routing code**

2

**Descriptor code**

5

---

**IST1632I****VPACING = *value*****Explanation**

This message is issued in response to a DISPLAY ID command for an application program.  
*value* is the VPACING value coded on the APPL definition statement.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1633I****ASRCVLM = *asrcvlm*****Explanation**

This message is issued in response to a DISPLAY ID command for an application program.  
*asrcvlm* is the ASRCVLM value coded on the APPL definition statement.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

## Descriptor code

5

---

**IST1634I** DATA SPACE USAGE: CURRENT = *dscurrent* MAXIMUM = *dsmax*

## Explanation

This message is issued in response to a DISPLAY ID command for an application program.

*dscurrent* is the number of bytes currently being used in the application's data space. If multiple ACBs are opened in the address space, *dscurrent* represents the total usage for all ACBs.

*dsmax* is a maximum number of bytes used by the application's data space.

## System action

Processing continues.

## Operator response

None.

## System programmer response

The value of *dsmax* can be used to tune the ASRCVLM operand on the APPL definition statement.

## Routing code

2

## Descriptor code

5

---

**IST1635I** {PLU|SLU} HSCB TYPE: *hscbtype* LOCATED AT ADDRESS X'*hscbaddr*

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1636I** PACING STAGE(S) AND VALUES:

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1637I****PLU--STAGE 1--SLU**

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1638I****stage: PRIMARY TO SECONDARY DIRECTION - *pacingtype***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1639I****PRIMARY SEND: CURRENT = *pscur* NEXT = *psnext***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1640I****SECONDARY RECEIVE = *srcvcnt***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1641I</b>	<b>stage: SECONDARY TO PRIMARY DIRECTION - <i>pacngtype</i></b>
-----------------	---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1642I</b>	<b>SECONDARY SEND: CURRENT = <i>sscur</i> NEXT = <i>ssnext</i></b>
-----------------	--

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1643I</b>	<b>PRIMARY RECEIVE = <i>prvcnt</i></b>
-----------------	--

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1644I** **PLU--STAGE 1-----|-----STAGE 2--SLU**

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1645I** **PLU--STAGE 1-----|-----STAGE 2-----|-----STAGE 3--SLU**

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1649I** **ORIGIN = *origin* TARGET = *target* STATUS = *status***

---

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY TRL command for an active TRL entry using TCP/IP SAMEHOST DLC connections.

A complete description of the message group follows the example.

```
IST075I  NAME = nodename, TYPE = type
IST087I  TYPE = line_type, CONTROL = line_control, HPDT = hpdtvalue
IST486I  STATUS = currentstatus, DESIRED STATE = desiredstate
IST1649I  ORIGIN = origin    TARGET = target    STATUS = status
IST314I  END
```

### IST075I

*nodename* is the name of the TRLE that was entered on the DISPLAY TRL command.

Node type is always **TRLE** for this message group.

### IST087I

*line\_type* is always **LEASED** for this message group.

*line\_control* is always **TCP** for this message group.

*hpdtvalue* is always **\*NA\*** for this message group.

### IST486I

*currentstatus* is the current status of the node. See the [z/OS Communications Server: IP and SNA Codes](#) for status information.

*desiredstate* is the node state that is desired. See the [z/OS Communications Server: IP and SNA Codes](#) for status information. If VTAM cannot determine the desired state, *desiredstate* is **\*\*\*NA\*\*\***.

#### IST1649I

- *origin* is the name of the origin address space.
- *target* is the name of the target address space.
- *status* is the condition or state of the connection that is displayed. Possible values are:

##### ACTIVE

Connection is active.

##### INOP

Connection path is inoperative.

##### RESET

Connection path is not ready.

##### SLOWDN

Connection path is in slowdown.

##### ACTPEND

Connection is in the process of activation.

##### INACTPEND

Connection is in the process of deactivation.

#### System action

Processing continues.

#### Operator response

None.

#### System programmer response

None.

#### Routing code

2

#### Descriptor code

5

---

<b>IST1650I</b>	<b>IDX INITIALIZATION FAILED FOR <i>trlename</i> DEVICE <i>device_number</i></b>
	<b>CODE <i>code</i></b>

#### Explanation

This message is the first in a group of messages that VTAM issues when an identification exchange (IDX) device failed to initialize. A complete description of the message group follows.

```
IST1650I  IDX INITIALIZATION FAILED FOR trlename DEVICE device_number CODE code
IST1651I  IDX RECEIVED BY VTAM:
IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
:
IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST1652I  IDX SENT BY VTAM:
IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
:
```



```
IST1574I      offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST314I      END
```

## IST1650I

VTAM issues this message while processing an OPENPATH request unit when initializing an identification exchange (IDX) with a device, such as the IBM S/390® Open Systems Adapter or a HiperSockets (iQDIO) adapter. VTAM also issues this message when a failure occurs performing an IDX exchange with an Enhanced QDIO (EQDIO) device such as the Network Express adapter.

- The *trlename* value is the name of the device, as defined on the TRLE definition statement in the TRL major node or dynamically created in the ISTTRL major node.
- The *device\_number* value is the hexadecimal address of the WRITE or READ subchannel, as defined on the WRITE or READ operand on the TRLE definition statement in the TRL major node, or the EQDIO device number.
- For EQDIO, the *code* value is a 2-byte hexadecimal value that indicates the reason that the device failed to initialize. See the IBM Network Express publications for a description of the failures generated by the EQDIO device.
- For other devices, the *code* value is a 1-byte hexadecimal value that indicates the reason that the device failed to initialize. The *code* value is one of the following:
  - If the *code* value is less than X'80', it is a code that is generated by the OSA or the HiperSockets adapter. See the *OSA IDX failure return codes* information in <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference> for a description of the failures generated by the OSA. Contact the IBM Software Support Center for failures generated by the HiperSocket adapter.
  - If the *code* value is greater than or equal to X'80', then that code is byte 3 of a data link control (DLC) status code that describes the error. Byte 2 of the DLC status code that describes this type of error is X'40'. Together, bytes 2 and 3 of a DLC status code form the completion code. For example, if code is X'80', this error is documented as completion code X'4080'. See the *completion code* information in [z/OS Communications Server: IP and SNA Codes](#) for a description of the completion code.

## IST1574I

This message displays the IDX received from (if preceded by message IST1651I) or sent to (if preceded by message IST1652I) the IDX device.

*offset* is the hexadecimal offset in the IDX.

*hexdata\_1*, *hexdata\_2*, *hexdata\_3* and *hexdata\_4* each display 4 bytes of the IDX in hexadecimal format.

*EBCDIC\_data* displays 16 bytes of the IDX in EBCDIC format. Unprintable characters are represented by periods.

## IST1651I

This message is a header for the information displayed in message IST1574I for the IDX received from the IDX device.

## IST1652I

This message is a header for the information displayed in message IST1574I for the IDX sent by VTAM to the IDX device.

## System action

The IDX connection is not established.

## Operator response

For non-EQDIO devices, save the system log and print the TRL major node definition for problem determination.

For *code* 8B (insufficient storage), wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY STORUSE and DISPLAY CSM commands. Save the system log and dump for problem determination.

For EQDIO devices, save the system log and dump for problem determination.

## System programmer response

For non-QDIO devices:

For *code* 82, verify that the subchannel address in the I/O generation and in the TRL major node are correct.

For *code* 8B (insufficient storage):

- See the [z/OS Communications Server: New Function Summary](#) for help to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See the [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY STORUSE command, the DISPLAY CSM command, the MODIFY CSM command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps or about analyzing storage using the VIT analysis tool if external trace is active.

For *code* 8C, verify that the TRL major node name is configured correctly in the IDX device.

For an apparent software problem, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

For EQDIO devices, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## Routing code

8

## Descriptor code

5

---

<b>IST1651I</b>	<b>IDX RECEIVED BY VTAM:</b>
-----------------	------------------------------

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST1650I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

5

---

<b>IST1652I</b>	<b>IDX SENT BY VTAM:</b>
-----------------	--------------------------

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST1650I. See the explanation of that message for a complete description.

**Routing code**

8

**Descriptor code**

5

---

**IST1653I** **RWSIO = *rwsio* WCH = *wch* RCH = *rch***

**Explanation**

VTAM issues this message as part of a message subgroup. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.

**Routing code**

2

**Descriptor code**

4

---

**IST1654I** **INPACKET = *inpacket* INBYTE = *inbyte* MAX = *max***

**Explanation**

VTAM issues this message as part of a message subgroup. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.

**Routing code**

2

**Descriptor code**

4

---

**IST1655I** **OTPACKET = *otpacket* OTBYTE = *otbyte* MAX = *max***

**Explanation**

VTAM issues this message as part of a message subgroup. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.

**Routing code**

2

**Descriptor code**

4

---

**IST1658I** **XID3 NEGOTIATION ERROR - DEVICE *devicename* - SENSE = *code***

## Explanation

This message is the first of a group of messages that VTAM issues when it detects an XID3 negotiation error during activation of a TCP/IP over CDLC connection. A complete description of the message group follows the example.

```
IST1658I XID3 NEGOTIATION ERROR - DEVICE devicename - SENSE = code
IST1580I XID RECEIVED BY VTAM:
IST1574I   offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
:
IST1574I   offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
[IST1583I   BYTE OFFSET OF FIRST BYTE IN ERROR = byteoffset
IST1584I   BIT OFFSET OF FIRST BIT IN ERROR = bitoffset]
[IST1582I   CONTROL VECTOR X'22' ANALYSIS:
IST1583I   BYTE OFFSET OF FIRST BYTE IN ERROR = byteoffset
IST1584I   BIT OFFSET OF FIRST BIT IN ERROR = bitoffset]
[IST1586I XID SENT BY VTAM:
IST1574I   offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
:
IST1574I   offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data]
IST314I  END
```

### IST1658I

- An XID3 negotiation error has been detected by VTAM during activation of a TCP/IP over CDLC connection with CDLC device *devicename*.

*code* is the sense code and indicates the reason for the failure. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of *code*.

### IST1580I

This message is a header for the information displayed in messages IST1574I and IST1582I through IST1586I for the XID3 received from the CDLC device.

### IST1574I

This message displays the XID3 received from (if preceded by message IST1651I) or sent to (if preceded by message IST1652I) the CDLC device.

*offset* is the hexadecimal offset in the XID3.

*hexdata\_1*, *hexdata\_2*, *hexdata\_3* and *hexdata\_4* each display 4 bytes of the XID3 in hexadecimal format.

*EBCDIC\_data* displays 16 bytes of the XID3 in EBCDIC format. Unprintable characters are represented by periods.

### IST1582I

This message is a header for the information displayed in messages IST1583I and IST1584I. Messages IST1582I through IST1584I are present only if CV X'22' is present in the XID3.

### IST1583I

*byteoffset* is the hexadecimal offset of the byte containing the error, as determined by the CDLC device. Offsets are from byte 0 in the XID3.

### IST1584I

*bitoffset* is the hexadecimal offset of the bit containing the error, as determined by the CDLC device. Offsets are from bit 0 in the XID3.

### IST1586I

This message is a header for the information displayed in message IST1574I for the XID3 sent by VTAM to the CDLC device. This message is issued only if the host either detected a mismatch between the sent XID3 and the received XID3, or if a CV X'22' is present in the received XID3.

## System action

Activation of the TCP/IP over CDLC connection halts. TCP/IP continues.

## Operator response

Notify system programmer.

## System programmer response

This is normally a configuration problem, probably caused by an incompatibility between the definitions in the PROFILE.TCPIP and the definitions in the NCP generation. The sense code indicates the reason for the failure. Correct the problem and restart the TCP/IP over CDLC connection.

The received XID3 may contain a CV X'22' (See *System Network Architecture Formats*, GA27-3136). Presence of the CV X'22' indicates that the CDLC device rejected the XID3 sent from the host. The CV X'22' contains an offset (from the start of the XID3 sent by VTAM) to the unacceptable field.

## Routing code

8

## Descriptor code

5

---

<b>IST1660A</b>	<b>ENTER PASSWORD FOR <i>command cmdtype</i></b>
-----------------	--

---

## Explanation

VTAM issues this message when the DISPLAY APING command is entered with the PASSWORD parameter. The operator must reply with the 1-8 character password for LU6.2 conversation level security.

*command* is the operator command entered.

*cmdtype* is the operator command type entered.

## System action

VTAM processing continues. Message IST1660A remains outstanding and the DISPLAY APING command does not complete until the operator replies with the password.

## Operator response

Reply with the 1-8 character password.

## System programmer response

None.

## Routing code

2, 9

## Descriptor code

3

---

<b>IST1661I</b>	<b><i>parameter</i> PARAMETER NOT VALID FROM PROGRAM OPERATOR</b>
-----------------	---

---

## Explanation

This message is the first in a group of messages that VTAM issues when a DISPLAY APING command is entered with the PASSWORD parameter from a Program Operator Application (POA). Since there is no capability to

suppress the password from displaying via the Program Operator Interface, the command is failed. A complete description of the message group follows.

```
IST1661I parameter PARAMETER NOT VALID FROM PROGRAM OPERATOR
IST1663I command cmdtype COMMAND FAILED - reason
IST314I END
```

#### **IST1661I**

*parameter* is the parameter entered on the command.

#### **IST1663I**

- *command* is the operator command entered.
- *cmdtype* is the operator command type entered.
- *reason* is one of the following values:

##### **SECURITY VIOLATION**

Processing the DISPLAY APING command as entered would allow the password to be displayed in the Program Operator Application log, which is a security exposure.

#### **System action**

VTAM rejects the command.

#### **Operator response**

Reenter the command without the PASSWORD parameter or enter the command with the PASSWORD parameter from an MVS console.

#### **System programmer response**

None.

#### **Routing code**

2

#### **Descriptor code**

5

---

**IST1662I** *parameter* **PARAMETER VALUE NOT ALLOWED**

#### **Explanation**

This message is the first in a group of messages that VTAM issues when a DISPLAY APING command is entered from the MVS console with a value specified on the PASSWORD parameter (i.e. PASSWORD=xxxxx). Since entering the password value on the command causes it to be displayed on the console and in the system log, which is a security exposure, the command is failed. A full explanation of the message group follows.

```
IST1662I parameter PARAMETER VALUE NOT ALLOWED
IST1663I command cmdtype COMMAND FAILED - reason
IST314I END
```

#### **IST1662I**

*parameter* is the parameter entered on the command.

#### **IST1663I**

- *command* is the operator command entered.

- *cmdtype* is the operator command type entered.
- *reason* is one of the following values:

#### **SECURITY VIOLATION**

Processing the DISPLAY APING command as entered would allow the password to be displayed in the system log, which is a security exposure.

#### **System action**

VTAM rejects the command.

#### **Operator response**

Reenter the command from an MVS console without a value specified on the PASSWORD parameter.

#### **System programmer response**

None.

#### **Routing code**

2

#### **Descriptor code**

5

---

<b>IST1663I</b>	<i>command cmdtype</i> <b>COMMAND FAILED - reason</b>
-----------------	---

#### **Explanation**

VTAM issues this message when a DISPLAY APING command is entered with the PASSWORD parameter and the command is rejected. When it is issued as part of a message group the first message in the group is either IST1661I, IST1662I, or IST1664I. See the explanation of those messages for a complete description. A full description of the message when it is issued alone follows.

- *command* is the operator command entered.
- *cmdtype* is the operator command type entered.
- *reason* is one of the following values:

#### **WTOR FAILURE**

An internal VTAM failure occurred attempting to issue WTOR message IST1660A.

#### **System action**

VTAM rejects the command.

#### **Operator response**

Reenter the command. If the command continues to fail with this reason, save the system log for problem determination and contact the system programmer.

#### **System programmer response**

If the command fails repeatedly, contact the IBM Software Support Center.

## Routing code

2

## Descriptor code

5

---

**IST1664I****PASSWORD MUST BE 1-8 CHARACTERS**

## Explanation

This message is the first in a group of messages that VTAM issues when a blank password for DISPLAY APING is entered in reply to message IST1660A. A full explanation of the message group follows.

```
IST1664I PASSWORD MUST BE 1-8 CHARACTERS
IST1663I command cmdtype COMMAND FAILED - reason
IST314I END
```

**IST1664I**

The DISPLAY APING password entered was blank. It must be 1-8 characters in length.

**IST1663I**

- *command* is the operator command entered.
- *cmdtype* is the operator command type entered.
- *reason* is one of the following values:

### **PASSWORD NOT VALID**

The blank password entered for DISPLAY APING is not valid. It must be 1-8 characters in length.

## System action

VTAM rejects the command.

## Operator response

Reenter the command and respond to message IST1660A with a valid password.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1665I****CSALIMIT VALUE *value* EXCEEDS SYSTEM CSA LIMIT**

## Explanation

This message is the first in a group of messages that VTAM issues during start processing or in response to a Modify VTAMOPTS,CSALIMIT or Modify CSALIMIT command when the value specified for CSALIMIT is above the system CSA limit. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the system CSA limit. A complete description of the message follows:



**Note:** The SYSTEM CSA LIMIT in messages IST1665I and IST1666I refers to the 90% of the total system CSA that VTAM is allowed to use.

```
IST1665I CSALIMIT VALUE value EXCEEDS SYSTEM CSA LIMIT
IST1666I SYSTEM CSA LIMIT WILL BE USED FOR CSALIMIT
IST495I type HAS BEEN SET TO value
```

#### IST495I

*type* is CSALIMIT.

*value* is the value to be used for CSALIMIT, expressed in kilobytes.

#### IST1665I

*value* is the value specified (but rejected) for the CSALIMIT.

### System action

Processing continues with CSALIMIT set to the system CSA limit.

### Operator response

Save the system log for problem determination.

### System programmer response

Check the value specified for CSALIMIT in the start list, on the start command, or the Modify command. Use the D NET,BFRUSE command to see what the system CSA limit is.

---

#### IST1666I

#### SYSTEM CSA LIMIT WILL BE USED FOR CSALIMIT

### Explanation

There are two ways this message can be issued:

This message is part of a group of messages that VTAM issues during start processing or in response to a Modify VTAMOPTS, CSALIMIT or Modify CSALIMIT command when the value specified for CSALIMIT is above the system CSA limit. The first message in the group is IST1665I. See the explanation of that message for a full description.

This message is the first in a group of messages that VTAM issues in response to a Modify VTAMOPTS,CSALIMIT or Modify CSALIMIT command when the value specified for CSALIMIT is 0. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the system CSA limit. A complete description of the message follows:

**Note:** The SYSTEM CSA LIMIT in messages IST1665I and IST1666I refers to the 90% of the total system CSA that VTAM is allowed to use.

```
IST1666I SYSTEM CSA LIMIT WILL BE USED FOR CSALIMIT
IST495I type HAS BEEN SET TO value
```

#### IST495I

*type* is CSALIMIT.

*value* is the value to be used for CSALIMIT, expressed in kilobytes.

### System action

Processing continues with CSALIMIT set to the system CSA limit.

### Operator response

None.

## System programmer response

None.

---

**IST1667I** **SYSTEM CSA LIMIT = *sys\_csa\_limit***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the group is IST449I. See the explanation of that message for a full description.

---

**IST1668I** **LUNAME IPADDR..PORT**

## Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY ID,IDTYPE=IPADDR command when multiple LUs are associated with the specified TN3270 client IP address. A complete description of the message group follows.

```
IST1668I LUNAME      IPADDR..PORT
IST1670I netid.luname ipaddr..portno
:
IST314I  END
```

## IST1668I

Message IST1668I is a column header for IST1670I.

## IST1670I

Message IST1670I is issued for each LU associated with the specified TN3270 client IP address.

*netid.luname* is the network-qualified name of the LU.

*ipaddr* is the specified TN3270 client IP address.

*portno* is the port number associated with this IP address. The IP address and port number identify the remote TN3270 client.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1669I** **IPADDR..PORT *ipaddr..portno***

## Explanation

This message is part of a group of messages that VTAM issues for one of the following reasons:

- In response to a DISPLAY ID command for a TN3270-connected application, CDRSC, or LU resource.
- In response to a DISPLAY ID,IDTYPE=IPADDR command when only one TN3270 client application, CDRSC, or LU is associated with the specified TN3270 client IP address.
- In response to a DISPLAY TSouser command for a TN3270-connected application, CDRSC, or LU resource.
- When a session setup fails as part of message group IST663I and the resource is a TN3270-connected application, CDRSC, or LU resource.

**Note:** The saving and displaying of the IP Information for TELNET 3270 Clients is controlled by the IPINFO Start Option. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1670I</b>	<i>netid.luname ipaddr..portno</i>
-----------------	------------------------------------

## Explanation

This message is issued as part of a group of messages that VTAM issues in response to a DISPLAY ID TYPE=IPADDR command when multiple LUs are associated with the specified TN3270 client IP address.

The first message in the group is IST1668I. See the description of that message for a detailed explanation.

## Routing code

2

## Descriptor code

5

---

<b>IST1671I</b>	<i>subarea_number MAPSTO subarea_number</i>
-----------------	---

## Explanation

This message is part of a group that VTAM issues in response to a DISPLAY SAMAP command. See the explanation of message IST1321I for a complete description of the message group.

## System action

Processing Continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1672I</b>	<b>CURRENT NETWORK NODE SERVER NOT FOUND IN ACTIVE NETSRVR LIST</b>
-----------------	---

---

## Explanation

VTAM issues this message as part of a group of messages, or as a stand-alone message. The first message in the group is IST1252I. See the explanation of that message for a complete description of the group. There are two cases when VTAM issues this message alone.

- This message is issued when a NETSRVR list is activated and the active NETSRVR list does not include an explicit entry for the current network node server and also does not include a nameless entry.
- This message is issued when the operator enters a MODIFY VTAMOPTS,NNSPREF=NONE command and the current NNS is the former preferred NNS, the former preferred NNS is not found in the active NETSRVR list, and the active NETSRVR list does not include a nameless entry.

## System action

Processing continues.

## Operator response

If the current network node server is the one desired, activate a network node server list that includes the current network node server. If no network node server list member includes the current network node server, contact the system programmer to code the current network node server in a network node server list member. Then activate that list.

If the current network node server is not the one desired, deactivate the CP-CP session with the current network node server. The new network node server will be selected from the candidates specified in the active network node server list.

## System programmer response

If requested by the operator, code the name of the current network node server in a network node server list member.

## Routing code

2

## Descriptor code

4

---

<b>IST1673I</b>	<b>SWITCH TO PREFERRED NETWORK NODE SERVER IS COMPLETE</b>
-----------------	--

---

### Explanation

VTAM issues this message as part of a group of messages issued at an end node when the end node establishes CP-CP sessions with a network node server. The first message in the group is IST1096I. See the explanation of that message for a complete description.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

---

**IST1674I** **PREFERRED NETWORK NODE SERVER = {nodename|NONE}**

### Explanation

VTAM issues this message in response to a MODIFY VTAMOPTS,NNSPREF command entered at a VTAM end node. If the command was entered with the name of an adjacent network node, the message identifies that network node as the preferred network node server for this end node. If the command was entered with the value NONE, the message indicates that no preferred network node server is currently defined for this end node.

### System action

Processing continues

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

4

---

**IST1675I** **ACTIVE NETSRVR LIST AND PREFERRED NN SERVER ARE MERGED**

### Explanation

VTAM issues this message in response to either the activation of a network node server list at an end node or the entry at an end node of a MODIFY VTAMOPTS,NNSPREF=nodename command. In the first case, the message is displayed when the network node server list being activated does not contain an explicit entry for the current preferred network node server. In the second case, the message is displayed when the network node being defined as this end node's preferred network node server is not explicitly defined in the currently active network node server list.

In both cases, the message indicates that the preferred network node server and the contents of the network node server list member have been merged into a single list.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

4

---

<b>IST1676I</b>	<b>SWITCH TO PREFERRED NETWORK NODE SERVER FAILED - CODE =</b> <i>code</i>
-----------------	---

## Explanation

This message is issued when this end node has attempted but failed to switch CP-CP sessions from its current network node server to its preferred network node server. When it is issued as part of a message group the first message in the group is IST1110I. See the explanation of that message for a complete description of the message group. The following is a full description of the message when it is issued alone.

*code* is the code associated with the failure:

**4**

There is no active CP-capable link to the preferred server.

**8**

See the sense code in message IST1280I to determine the reason for the failure.

**12**

The switch to the preferred network node server specified by the MODIFY VTAMOPTS,NNSPREF command currently being processed has been terminated because a later MODIFY VTAMOPTS,NNSPREF command has superseded it.

**16**

The switch of CP-CP sessions to the adjacent CP specified on the NNSPREF start option failed because the adjacent CP is actually an end node. CP-CP sessions between adjacent end nodes (EN) are not allowed.

## System action

Processing continues.

## Operator response

The operator response is determined by the error code:

**4**

Activate a CP-capable link from the EN to the preferred network node server.

**8**

Save the console output and contact system programmer to determine causes for failure of CP-CP session activation attempt.

**12**

No action is necessary.

16

Contact the system programmer to help determine the correct value for the NNSPREF start option.

### System programmer response

None.

### Routing code

2

### Descriptor code

4

---

**IST1677I**

**PREFERRED NETWORK NODE SERVER**

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY NETSRVR command. The first message in the group is IST1252I. See the explanation of that message for a complete description.

### System action

None.

### Operator response

None.

### System programmer response

None.

---

**IST1678I**

**FFST NOT AVAILABLE**

### Explanation

This message will be issued at the end of VTAM initialization if VTAM detects that the FFST product has not been installed and activated. VTAM also issues this message in response to a DISPLAY VTAMOPTS,OPTION=\* command.

### System action

Processing continues.

### Operator response

None.

### System programmer response

Although it is not required, VTAM Service highly recommends that the FFST product be installed and activated to speed the resolution of VTAM problems.

---

**IST1679I**

**MEDIUM = *medium***

## Explanation

VTAM issues this message as part of a group when a DISPLAY ID command is entered for an external communication adapter (XCA) major node that defines an Enterprise Extender (HPR/IP) connection.

*medium* is the type of shared access transport facility (SATF) represented by the XCA major node. HPRIP is the only valid value for an Enterprise Extender (HPR/IP) connection.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1680I</b>	<b><i>type IP ADDRESS ip_address</i></b>
-----------------	--

## Explanation

VTAM issues this message in response to the following:

- The first VARY ACTIVATE command for an Enterprise Extender (HPR/IP) link.
- A DISPLAY PATHS command for a PATH statement that represents a connection to an Enterprise Extender node. See the explanation of IST149I for a complete description.
- The TCP/IP stack cannot find a route to a specified static VIPA address, or in response to an XID or LDLC command timeout failure during APPN connection establishment across an Enterprise Extender network. See the explanation of IST1892I for a complete description.
- A DISPLAY ID for the following:
  - An external communication adapter (XCA) major node that defines an Enterprise Extender (HPR/IP) port.
  - A remote node connected through Enterprise Extender (HPR/IP).
- The activation of an Enterprise Extender (HPR/IP) connection fails because the remote IP address is not in the same IP address family as the local IP address. See IST1891I for a complete description of this message group.
- The same VNNAME is defined more than once in the Enterprise Extender XCA major node but the IPADDR value, or HOSTNAME value, or IP address resolved from the HOSTNAME value associated with each VNNAME definition is not unique. See IST1899I for a complete description of this message group.
- A DISPLAY EE command. The DISPLAY EE command issues one of several message groups, depending on the format of the command. These message groups begin with message IST2000I, IST2001I, IST2002I, IST2119I, or IST2145I. See the explanation of these messages for a complete description.
- A DISPLAY EEDIAG command. The DISPLAY EEDIAG command issues one of several message groups, depending on the format of the command. These message groups begin with message IST2065I, IST2066I, IST2119I, IST2130I or IST2145I. See the explanation of those messages for a complete description.



- An Enterprise Extender predefined connection request fails because the local and remote IP addresses are not unique. This message group begins with message IST2123I. See the explanation of [IST2123I](#) for a complete description.
- An Enterprise Extender connection request across a connection network fails because an existing connection across a different connection network has the same local and remote IP addresses. This message group begins with message IST2387I. See the explanation of [IST2387I](#) for a complete description.
- The activation of an EE XCA major node group that experienced problems associated with the LDLC timer operands. This message is issued as part of a message group headed by [IST2188I](#). See the explanation of that message for a complete description.

*type* is either LOCAL or REMOTE, indicating which IP address is being displayed.

*ip\_address* is the IP address. An **\*\*\*\*NA\*\*\*\*** in this field indicates that the value is not available because a line defined in the XCA major node has not been activated, or the name-to-address resolution of the HOSTNAME associated with this PATH definition has not completed or was unsuccessful.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1681I** **LOCAL SAP = *local\_sap* REMOTE SAP = *remote\_sap***

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY ID for

- An external communication adapter (XCA) major node that defines an Enterprise Extender (HPR/IP) port.
- A remote node connected through Enterprise Extender (HPR/IP).

*local\_sap* is the decimal value of the service access point of the local node.

*remote\_sap* is the decimal value of the service access point of the remote node.

The SAPs, along with the *ip\_address* in message IST1680I, uniquely identify a link. An **\*\*\*\*NA\*\*\*\*** in either the *local\_sap* or the *remote\_sap* indicates that the value is not available because a line defined in the XCA major node has not been activated.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1682I** **HPR/IP *call\_type* FAILURE: ID = *node\_name***

## Explanation

This message is the first message in a group of messages that VTAM issues in response to a failed activation request for an Enterprise Extender (HPR/IP) connection.

A complete description of the message group follows the example.

```
IST1682I HPR/IP call_type FAILURE: ID = node_name
IST1684I RETURN CODE = return_value REASON CODE = errno
IST314I  END
```

### IST1682I

- *call\_type* is:

#### GETIBMOP

Indicates the failure of the TCP/IP API call *getibmopt()*, which returns the list of TCP/IP jobs that are running.

- *node\_name* is the name of an external communication adapter (XCA) major node that defines an HPR/IP (Enterprise Extender) port.

### IST1684I

*return\_value* will always be -1, indicating an error.

*errno* is the Sockets Extended Return Code. See the [z/OS Communications Server: IP and SNA Codes](#) for the Sockets Extended Return Code table.

## System action

The XCA major node is deactivated.

## Operator response

If *return\_value* or *errno* indicates that the failure is a result of a temporary condition, reactivate the PU.

## System programmer response

If failure persists after reactivation attempts, examine *return\_value* and *errno* to determine whether the failure is a result of a system definition error or a network error. If the failure is a result of a system definition error, correct the error. If the failure is a result of a network error, contact the IP network provider.

## Routing code

2

## Descriptor code

5

## Explanation

VTAM issues this message in response to a failed activation or inactivation request for an HPR/IP (Enterprise Extender) connection.

- *connection\_type* can be one of the following:

### CALL

Indicates the failure of an activation or inactivation request for an HPR/IP (Enterprise Extender) connection.

### ENABLE

Indicates the failure of an activation request for an incoming call over an HPR/IP (Enterprise Extender) connection.

### PORT

Indicates the failure of an activation or inactivation request for an HPR/IP (Enterprise Extender) connection.

- *node\_name* is the name of an external communication adapter (XCA) major node that defines an HPR/IP (Enterprise Extender) port.
- *status\_code* is the DLC status code and it indicates the cause of a failure detected by the connection manager. See [z/OS Communications Server: IP and SNA Codes](#) for a description of the DLC status codes.

## System action

For call failures, the dial or activation of the PU fails. For enable and disable failures, no incoming calls can be accepted from the HPR/IP (Enterprise Extender) connection. For port failures, all lines and PUs for the port will be deactivated.

## Operator response

If *status\_code* indicates that the failure is a result of a temporary condition, reactivate the PU.

## System programmer response

If failure persists after reactivation attempts, examine *status\_code* to determine whether the failure is a result of a system definition error or a network error. If the failure is a result of a system definition error, correct the error. If the failure is a result of a network error, contact the IP network provider.

## Routing code

2

## Descriptor code

5

## Explanation

This message is part of several groups of messages. See the explanation of message IST1682I, IST2187I, IST2390I, or IST2391I for complete descriptions of the message groups.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1685I** TCP/IP JOB NAME = *jobname*

## Explanation

VTAM issues this message in response to the first VARY ACTIVATE command for an Enterprise Extender (HPR/IP) link or in response to a DISPLAY ID command for an external communication adapter (XCA) major node that defines an Enterprise Extender (HPR/IP) connection.

VTAM also issues this message as part a message group in response to a DISPLAY EE command. This message group begins with message IST2000I. See the explanation of that message for a complete description.

*jobname* is the 1-8 character TCP/IP job name used to start the TCP/IP address space. When using HPR over IP, VTAM acts as a TCP/IP application. Consequently, VTAM must know the job name of TCP/IP. See the [z/OS Communications Server: IP Configuration Guide](#) for information about the TCP/IP job name.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1686I** NO USABLE TCP/IP JOB AVAILABLE FOR HPR/IP

## Explanation

VTAM issues this message in response to a failed activation request for an HPR/IP (Enterprise Extender) connection because no usable TCP/IP job is running.

When using HPR over IP, VTAM acts as a TCP/IP application. Consequently, VTAM must know the job name of TCP/IP.

If the TCPNAME start or modify option was specified, this message is issued when the TCP/IP job specified as a start or modify option is not running, has the wrong version, or has the wrong status.

If the TCPNAME start or modify option was not specified, VTAM issues this message when it was unable to find an executing TCP/IP job with an acceptable version and status.

The job name is specified on the TCPIPJOBNAME statement in the TCP/IP data file. See the [z/OS Communications Server: IP Configuration Guide](#) for information about the TCPIPJOBNAME statement.

## System action

The HPR/IP (Enterprise Extender) port will not be activated.

## Operator response

Check the status of the TCP/IP jobs by issuing the DISPLAY TCPIP command. Issue the MODIFY VTAMOPTS command to change the TCP/IP job name that will be used. Then repeat the activation command for the Enterprise Extender. See the [z/OS Communications Server: IP Configuration Guide](#) for more information about the DISPLAY TCPIP command.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1687I HPR/IP PORT NOT AVAILABLE**

---

## Explanation

VTAM issues this message in response to a failed activation request for an HPR/IP (Enterprise Extender) connection because one or more of the five ports required for HPR/IP (Enterprise Extender) are not available.

The ports reserved for use by HPR/IP (Enterprise Extender) are decimal port numbers:

### 12000

LDLC signal traffic

### 12001

Network-priority data

### 12002

High-priority data

### 12003

Medium-priority data

### 12004

Low-priority data

## System action

The HPR/IP (Enterprise Extender) port will not be activated.

## Operator response

Issue the TCP/IP command NETSTAT SOCKETS to display the TCP/IP applications and the ports they are using. Stop the TCP/IP applications that are using any of the HPR/IP (Enterprise Extender) ports. Then repeat the activation command for the Enterprise Extender. See the [z/OS Communications Server: IP Configuration Guide](#) for more information about the NETSTAT command.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1688I** **EXCESSIVE TIME *elapsed* DETECTED FOR STRUCTURE *structure\_name***

## Explanation

A coupling facility related process has not completed in *elapsed* minutes.

*elapsed* is the number of minutes since the process began.

*structure\_name* is the name of the coupling facility structure to which the process is related.

The process may be one of the following:

- Connecting to *structure\_name* and repopulating the data in *structure\_name*
- Rebuilding *structure\_name*
- Performing peer recovery for another VTAM which has failed or disconnected from *structure\_name*

If VTAM has been waiting longer than 9999 minutes, \*NA\* is displayed for the value of *elapsed*. This message may be issued as a single message or as part of the IST1370I message group in response to DISPLAY NET,STATS,TYPE=CFS.

## System action

Processing continues.

## Operator response

This message is issued as a warning that the process might be stalled. VTAM will wait at least three minutes for the process to complete before issuing this message for the first time. Usually, three minutes is enough time to complete any of the processes listed above. However, in certain circumstances, these processes might legitimately require longer than three minutes to complete. These circumstances include: performing a rebuild of multiple coupling facility structures, multiple VTAMs connecting to the structure at the same time, multiple VTAMs disconnecting from the structure at the same time, or performing multiple back-to-back rebuilds. Allow extra time in these circumstances for the processes to complete before attempting to determine whether a stall situation has occurred.

Stall situations might occur for the following reasons: a VTAM failed to give a response during a rebuild, a VTAM failed to confirm a user sync point, or a VTAM failed to free a structure lock and other VTAMs are waiting to obtain the lock.

to determine whether there is a stall:

1. Issue D XCF,STRNAME=*structure\_name*. Examine the output to determine whether any connectors have outstanding responses or if there is an outstanding user sync point. See [z/OS UNIX System Services Command Reference](#) for information about the DISPLAY XCF command.
2. For documentation purposes, obtain dumps of all VTAMs in the sysplex and also dump the coupling facility structure *structure\_name*. If the connection process is attempted again, activate the CFS VIT option before obtaining the dumps.
3. Issue the VARY NET,CFS,ACTION=DISCONNECT command on the systems with outstanding responses. After all the systems have disconnected, you may issue V NET,CFS,ACTION=CONNECT to have them reconnect to *structure\_name*. See [z/OS Communications Server: SNA Operation](#) for information about the VARY CFS command.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

**IST1689I** *command\_name* FAILED - NOT CONNECTED TO *structure\_name*

### Explanation

The command,*command\_name*, failed for *structure\_name* because VTAM is not currently connected to *structure\_name*.

*command\_name* is the name of the command that failed.

*structure\_name* is the name of the coupling facility structure specified on *command\_name*.

### System action

Processing continues.

### Operator response

Issue DISPLAY NET,STATS,TYPE=CFS to determine the coupling facility structures to which VTAM is connected.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

**IST1690I** VARY CFS FAILED - ALREADY CONNECTED TO *structure\_name*

## Explanation

The VARY CFS,ACTION=CONNECT command failed because there is already an active connection to *structure\_name*.

*structure\_name* is the name of the coupling facility structure specified on the VARY CFS command.

## System action

Processing continues.

## Operator response

Issue DISPLAY NET,STATS,TYPE=CFS to determine the coupling facility structures to which VTAM is connected.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST1691I

VARY CFS FAILED - *structure\_name* IS NOT AVAILABLE

## Explanation

The VARY CFS,ACTION=CONNECT command failed because the *structure\_name* is not defined in the CFRM policy or a VTAM start option (i.e. STRGR=NONE) indicated not to connect to the structure.

*structure\_name* is the name of the coupling facility structure specified on the VARY CFS command.

## System action

Processing continues.

## Operator response

Issue DISPLAY XCF,STR to view a list of structures defined in the active CFRM policy. If *structure\_name* is not listed, the structure must be defined before VTAM is able to connect. If *structure\_name* is listed, issue DISPLAY NET,VTAMOPTS and find the structure's start option values (STRGR). If the value is NONE, VTAM must be restarted and the start option value must be set to *structure\_name*.

See [z/OS UNIX System Services Command Reference](#) for more information on the DISPLAY XCF command. See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY VTAMOPTS command.

## System programmer response

If *structure\_name* is not defined in the CFRM policy, define the structure in the policy and reactivate it, then restart VTAM. See [z/OS MVS Setting Up a Sysplex](#) for information on updating and activating the CFRM policy. If the structure's start option has a value of NONE, change the value in the start list to *structure\_name*. See [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about VTAM start options.

## Routing code

2



## Descriptor code

5

---

**IST1692I****TCB = *taskno* TCP PORT = *portno***

---

## Explanation

VTAM issues this message as part of a group of messages. The first message in the group is IST1342I. See the explanation of that message for complete description.

## System action

The command failed. Other processing continues.

## Operator response

- Reenter the MODIFY command with the required network-qualified name specified as *netid.majnode*.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST1693I****NETWORK ADDRESS RECEIVED FOR *resourcenname* IN USE**

---

## Explanation

This message is the first in a group of messages. This message is issued during cross domain or cross network LU-to-LU session setup when the network address for the specified *resourcenname* could not be defined. VTAM detected another resource using the network address returned by the gateway NCP for *resourcenname*. A complete description of the message group follows.

```
IST1693I NETWORK ADDRESS RECEIVED FOR resourcenname IN USE
IST1421I nodetype dupresource HAS DUPLICATE ADDRESS
IST314I  END
```

## IST1693I

*resourcenname* is the name of the specified resource. It is in the form of *netid.name*.

## IST1421I

*nodetype* is the node type of *dupresource*. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for a description of *nodetype*.

*dupresource* is the name of the resource that is currently defined to the address in question. The form of *dupresource* is *netid.name*.

## System action

Processing continues.

Issue the `DISPLAY ID=dupresource,E` command to display information about the duplicate resource. Save the system log for problem determination.

Check your network address assignments.

## Routing code

8

## 5

<b>IST1694I</b>	<b>REASON = SEQUENCE NUMBER ERROR</b>
-----------------	---------------------------------------

This message is part of a message group. The first message in the group is IST520I. See the explanation of that message for a complete description.

## 8

## 4

IST1695I	PU NAME	CP NAME	COSNAME	SWITCH	CONGEST	STALL	SESS
----------	---------	---------	---------	--------	---------	-------	------

This message is the first of a subgroup of messages issued in response to a DISPLAY RTPS command. The output might have been filtered by other keywords on the DISPLAY RTPS command (such as CPNAME, APPNCOS, SWITCH, CONGEST, STALL, or ID). A complete description of the message subgroup follows the example.

```

IST350I  DISPLAY TYPE = RTPS
IST1695I  PU NAME          CP NAME          COSNAME SWITCH CONGEST STALL SESS
IST1960I  puname          cpname          appncos switch congest stall sess

:
[IST1786I HPR ROUTE TEST INITIATED FOR RTP PU]
[IST1793I HPR ROUTE TEST NOT INITIATED - RTP PU NOT IN PROPER STATE]
[IST1794I HPR ROUTE TEST NOT INITIATED - TEST ALREADY IN PROGRESS]
[IST1795I HPR ROUTE TEST NOT INITIATED - INSUFFICIENT STORAGE]
[IST1809I HPR ROUTE TEST NOT INITIATED - INSUFFICIENT PATH INFORMATION]
IST2084I  count OF total MATCHING RTP PIPES DISPLAYED
[IST2248I ALL DIAGNOSTIC COUNTERS CLEARED FOR number RTP PIPES]
IST314I  END

```

This message identifies the type of information in the display and is always **RTPS** for this message group.

This message is a header message for the information displayed in message IST1960I.

### **IST1786I**

This message is displayed when TEST=YES is included on the DISPLAY RTPS command and Route Test for the specified RTP was successfully initiated. When the Route Test results become available, they will be displayed using the IST1787I message group.

### **IST1793I**

This message is displayed when TEST=YES is included on the DISPLAY RTPS command and Route Test for the specified RTP could not be initiated because the RTP PU was not in the CONNECTED state or a pathswitch was in progress.

### **IST1794I**

This message is displayed when TEST=YES is included on the DISPLAY RTPS command and Route Test for the specified RTP could not be initiated because a Route Test was already in progress.

### **IST1795I**

This message is displayed when TEST=YES is included on the DISPLAY RTPS command and Route Test for the specified RTP could not be initiated because of insufficient storage.

### **IST1809I**

This message is displayed when TEST=YES is included on the DISPLAY RTPS command and Route Test for the specified RTP could not be initiated because one or more virtual routing nodes exist on the HPR path, and the HPR endpoint issuing this message does not have all the path information necessary to perform a Route Test.

### **IST1960I**

- One IST1960I message will be issued for each RTP that matches the criteria specified on the DISPLAY RTPS command.
- *puname* is the name of the RTP pipe.
- *cpname* is the name of the CP at the other end of the pipe.
- *appncos* is the name of the class of service (CoS) used for the pipe.
- *switch* indicates whether a path switch is in progress. Valid values are:

#### **Yes**

Indicates that a path switch is in progress.

#### **No**

Indicates that a path switch is not in progress.

- *congest* indicates whether the pipe is currently congested. Valid values are:

#### **Yes**

Indicates that the pipe is currently congested.

#### **No**

Indicates that the pipe is not currently congested.

- *stall* indicates whether data flow is stalled. Valid values are:

#### **Yes**

Indicates that data flow is stalled.

#### **No**

Indicates that data flow is normal.

- *sess* indicates the number of active and pending active sessions using the pipe. The display output may show a pipe using the RSETUP (route setup) Class of Service. This pipe will be present between a pair of CPs that support RTP control flows. The value will always be 0 on this pipe.

A maximum of five digits are reserved to display the number of sessions using the pipe. *sess* will display 99999 when the count exceeds 99 998 sessions.

### **IST2084I**

*count* is the number of matching RTP pipes displayed in the output.

*total* is the total number of RTP pipes that match the parameters specified on the DISPLAY RTPS command.

The total might be larger than the displayed count because the number of RTP pipes displayed is governed by the MAX parameter.

## **IST2248I**

This message is issued if CLEAR=ALL was specified.

The *number* value is the total number of RTP pipes whose diagnostic counters are cleared.

## **System action**

For IST1786I, the system will wait for the HPR Route Test to complete and subsequently issue the IST1787I message group to display the results.

For IST1793I, IST1794I, IST1795I, and IST1809I no further action is taken for the TEST=YES operand specification.

## **Operator response**

For IST1786I, wait for the IST1787I message group.

For IST1793I, wait for the RTP PU to reach the CONNECTED state or for pathswitch completion and reissue the DISPLAY RTPS command.

For IST1794I, wait for the previous route test for this RTP PU to complete and attempt to re-issue the DISPLAY RTPS command.

For IST1795I, enter the DISPLAY BFRUSE command to display storage used by VTAM buffer pools and information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

For IST1809I, if the HPR route test function is supported by the other HPR endpoint, issue an HPR route test command from that node. To do this, you must be able to identify the RTP PU name or TCID used by the remote partner RTP node to represent this same RTP connection. This can be accomplished by using the DISPLAY ID=*rtp\_pu\_name* on the local node to obtain the REMOTE TCID for the RTP, which is shown on the end of message IST1476I in the output of this command. Then from the remote partner RTP node (shown on the IST1481I message in the prior display), you can issue DISPLAY RTPS,TEST=YES,TCID=*tcid\_value* (where *tcid\_value* is the REMOTE TCID obtained from the prior display).

## **System programmer response**

For IST1795I, verify that the operator entered the buffer pool or CSA start options as specified in the start procedures. Increase storage as required. For insufficient storage errors, you can redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See the [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## Routing code

2

## Descriptor code

5

---

<b>IST1696I</b>	<i>puname cpname appncos switch congest sessions</i>
-----------------	--

---

## Explanation

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY RTPS command. The first message of the subgroup is IST1695I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

5

---

<b>IST1697I</b>	<b>RTP PACING ALGORITHM = ARB RESPONSIVE MODE</b>
-----------------	---

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route.

The first message in the group is either [IST1476I](#) or [IST1968I](#). See the description of those messages for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST1698I</b>	<b>PROBE <i>probname</i> ATTEMPTED - FFST NOT AVAILABLE</b>
-----------------	---

---

## Explanation

VTAM encountered an anomaly and attempted to execute the FFST probe. FFST was not active or available to service the probe request. VTAM handled the request by furnishing the identification of the probe.

*probname* is the name of the probe.

## System action

VTAM processing continues.

## Operator response

Save the System Log for problem determination.

## System programmer response

Determine why FFST was not active or available, then start FFST. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) to determine the anomaly encountered.

## Routing code

2

## Descriptor code

5

---

<b>IST1700I</b>	<b><i>attribute</i> CONFLICTS WITH <i>rtype rname</i></b>
-----------------	---

---

## Explanation

VTAM issues this message along with IST489I or IST1272I to indicate what type of definition error has occurred. *attribute* indicates the type of definition name that was duplicated. The values that can be displayed in *attribute* are:

- NAME
- NET ADDR
- LUALIAS
- STATIONID (STATIONID refers to the IDBLOCK and IDNUM values.)
- ACBNAME
- CPNAME

*rtype* indicates the type of resource that has the duplicate *attribute*.

*rname* indicates the name of the resource that has the duplicate *attribute*.

## System action

Processing of *command* in messages IST489I or IST1272I continues. However, VTAM cannot use the resource indicated in message IST1272I.

## Operator response

This is a definition error. Save the system log for problem determination.

This message may be issued during session takeover processing. See the section about common APPN problems in the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for a description of session takeover problems.

## System programmer response

If there are duplicate operands on NCP and VTAM definition statements, you must change one or both of the duplicate statements if you want both resources to be defined at the same time. See the section about common APPN problems in the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information about this problem.

This message can also be issued if *rname* for this resource has also been specified as the CUADDR operand value on the LOCAL statement in a local non-SNA major node. VTAM creates an internal resource definition using the name specified on the CUADDR operand when such a channel-attached device is activated. Change the name of the resource identified in this message to a name that does not conflict with that CUADDR value

**Routing code**

2

**Descriptor code**

5

---

**IST1701I** **CP NAME LOCATE SIZE**

**Explanation**

VTAM issues this message in response to a DISPLAY TOPO command when LOCSIZE is specified. This message is a header message for information displayed in message IST1702I.

This message group is issued in response to the DISPLAY,TOPO,LIST=NN,LOCSIZE=*locate size* command.

```
IST350I  DISPLAY TYPE = TOPOLOGY
  IST1701I  CP NAME          LOCATE SIZE
  IST1702I  cpname          locate message size
  :
IST314I  END
```

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1702I** ***cpname locatemessagesize***

**Explanation**

VTAM issues this message in response to a DISPLAY TOPO command when LOCSIZE is specified.

*cpname* is the name of the control point (CP) which supports the APPN Locate message size specified on the command and is a network\_qualified name in the form *netid.name*.

*locatemessagesize* is the maximum size of APPN locate messages that *cpname* is able to support. The valid range is 1 - 128 kilobytes.

**System action**

None.

**Operator response**

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST1703I	DESIRED LOCATE SIZE = <i>desiredlocatesize</i> LAST LOCATE SIZE = <i>lastlocatesize</i>
----------	---

---

## Explanation

VTAM issues this message as part of a subgroup of messages in response to a DISPLAY DIRECTRY or DISPLAY ID command and the resource being displayed is a logical unit. The first message in the subgroup is IST1186I. See the explanation of that message for a complete description.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST1704I	<i>sc_option</i> = <i>sc_value</i> FROM ADJACENT SSCP TABLE
----------	---

---

## Explanation

This message is displayed as part of several message groups. These message groups begin with message IST611I, IST623I, IST663I, or IST1531I. See the explanations of these messages for a complete description.

## Routing code

2

## Descriptor code

5

---

IST1705I	<i>sc_option</i> = <i>sc_value</i> FROM START OPTION
----------	--

---



# Explanation

This message is displayed as part of several message groups. These message groups begin with message IST611I, IST623I, IST663I, or IST1531I. See the explanations of these messages for a complete description.

# Routing code

2

# Descriptor code

5

IST1706I	PARTNER NAME	GENERIC RESOURCE	MEMBER	ATTRIBUTES
----------	--------------	------------------	--------	------------

# Explanation

This message is the first in a group of messages that VTAM issues in response to DISPLAY GRAFFIN command. A complete description of the message group follows.

```
IST350I DISPLAY TYPE = GENERIC AFFINITY
IST1706I PARTNER NAME      GENERIC RESOURCE      MEMBER      ATTRIBUTES
IST1707I partner_name      generic_name          appl_name    attributes
.
IST314I END
```

## IST1706I

This message is a header message for information displayed in message IST1707I.

## IST1707I

- *partner\_name* is the network qualified partner LU name.
- *generic\_name* is the generic resource name of *appl\_name*.
- *appl\_name* is the application to which the partner LU has an affinity.
- *attributes* describes the attributes of the session the affinity represents. *attributes* is an eight-byte character string that has the following meaning:
  1. The first character is either **P** to indicate that the generic name has been resolved but the session is pending activation, or a hyphen (-) otherwise.
  2. The second character is either **V** to indicate that the affinity will be cleaned up by VTAM when the session is terminated, or **A** to indicate that the application is responsible for deleting the affinity. Application owned affinities might not be deleted when the session is terminated. An application owned affinity will also be deleted when the application is terminated, if the affinity is not persistent (see the fourth attribute character)
  3. The third character is either **G** to indicate that the session was started using the generic name, or **A** to indicate that the session was started using the application name.
  4. The fourth character is either **6** to indicate the affinity will persist after application termination, or a hyphen (-) otherwise. If the affinity will persist it is the responsibility of the application to delete the affinity. An affinity can persist for one of the following reasons:
    - This is an LU6.1 session.
    - This is an LU6.2 SYNCPT session.
    - The application used the SETLOGON GNAMEADD AFFIN=APPL API command to request ownership of all affinities.
    - The application used the LUAFFIN=APPL parameter on the appropriate RAPI or APPCCMD API command to request ownership of this affinity. LUAFFIN=NOTAPPL will override the other three reasons.
  5. The fifth character is either **M** to indicate that the generic resource application also supports MNPS, or a hyphen (-) otherwise. This affinity will not be deleted in a MNPS recovery scenario unless the

recovery does not occur before the PSTIMER expires. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information about MNPS.

6. The sixth character indicates who created the affinity. The value will be one of the following:

**V**

to indicate that VTAM resolved the generic name to an application name based on session count or by setting up a session directly to a member of a generic resource group.

**W**

to indicate that the WorkLoad Manager resolved the generic name to an application name based on system workload.

**X**

to indicate that the Generic Resource Resolution Exit resolved the generic name to an application name.

**S**

to indicate that the original resolver of the name is not known. This is most probably caused by a previous search request that did not cause an affinity to be created at the time of resolution. This may also occur due to such things as VTAM losing connectivity to the coupling facility, VTAM being re-IPL'ed, a structure failure of the generic resource coupling facility structure, or following an MNPS recovery.

7. The seventh character is either **L** to indicate that this affinity will be used for up to 10 minutes after the last session between the session partners ended, or a hyphen (-) otherwise. An affinity might be used for this extended time if either of the following is true:

- An LU6.2 session is established without SYNCPT or Limited Resource.
- An LU6.2 session is established, but the application specified LUAFFIN=NOTAPPL on the NIB for the OPNDST or OPNSEC.

8. The eighth character is not used and is always a hyphen (-).

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1707I</b>	<i>partner_name generic_name appl_name attributes</i>
-----------------	---

## Explanation

This message is part of a message group that VTAM issues in response to a DISPLAY GRAFFIN command. The first message in the group is IST1706I. See the explanation of that message for a complete description.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1708I</b>	<b><i>command</i> FAILED - GENERIC RESOURCES NOT AVAILABLE</b>
-----------------	--

---

## Explanation

This message is issued when *command* fails because the generic resource function is not available. This may be due to one of the following:

- VTAM is not in a parallel sysplex.
- The generic resource coupling facility structure is not defined in the active CFRM policy. Issue DISPLAY XCF,STR to display the structures defined in the CFRM policy.
- The STRGR start option was set to NONE. Issue DISPLAY VTAMOPTS to verify the value of the STRGR start option.

## System action

Processing continues.

## Operator response

If the generic resource function should be active, contact the system programmer.

## System programmer response

If the generic resource function is not active, see [z/OS Communications Server: SNA Network Implementation Guide](#) for information on how to set up generic resources.

## Routing code

2

## Descriptor code

5

---

<b>IST1709I</b>	<b><i>command_name</i> FAILED - NOT CONNECTED TO <i>structure_name</i></b>
-----------------	--

---

## Explanation

The command, *command\_name*, failed for *structure\_name* because VTAM is not currently connected to *structure\_name*.

*command\_name* is the name of the command that failed.

*structure\_name* is the name of the coupling facility structure specified on *command\_name*.

## System action

Processing continues. If *command\_name* is MODIFY GR then generic resource data local to this host might have been deleted.

## Operator response

Issue DISPLAY NET,STATS,TYPE=CFS to determine the coupling facility structures to which VTAM is connected.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1710I RSCV FROM PLU SAVED AT SESSION ACTIVATION**

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID=sid,PATHINFO=YES command when the session has RSCV information for the PLU. See the explanation of message IST879I for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

**IST1711I RSCV TOWARDS SLU SAVED AT SESSION ACTIVATION**

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID=sid,PATHINFO=YES command when the session has RSCV information for the SLU. See the explanation of message IST879I for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

**IST1713I RTP RSCV IN THE DIRECTION OF THE *session\_partner***

---

## Explanation

This message is displayed in response to a DISPLAY SESSIONS,SID=sid,PATHINFO=YES command for an HPR session. It displays the RSCV for the RTP pipe. See the explanation of message IST879I for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

**IST1714I****NO PATH INFORMATION EXISTS**

---

## Explanation

This message is displayed in response to a DISPLAY SESSIONS,SID=sid,PATHINFO=YES command but no path information exists to be displayed. See the explanation of message IST879I for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

**IST1715I****MPCLEVEL = *mpc\_level* MPCUSAGE = *mpc\_usage***

---

## Explanation

This message is part of several message groups that VTAM issues in response to DISPLAY ID or DISPLAY TRL commands.

*mpc\_level* indicates the level of MPC connection, and can be one of the following:

- HPDT indicates that the connection is capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.
- NOHPDT indicates that the connection is not capable of performing channel I/O directly to or from CSM buffers.
- QDIO (Queued Direct I/O) indicates that the connection performs channel I/O operations using direct I/O instead of CCW channel operations. An MPCLEVEL of QDIO implies that the connection is also HPDT capable, and can perform the direct I/O to or from CSM buffers.
- EQDIO (Enhanced Queued Direct I/O) indicates that the connection performs channel I/O operations using direct I/O using control queues instead of CCW channel operations.

An MPCLEVEL of EQDIO implies that the connection is also HPDT capable, and can perform the direct I/O to or from CSM buffers.

*mpc\_usage* indicates whether the MPC connection can be used exclusively by only one upper-layer protocol (ULP), or shared by multiple ULPs. It can be one of the following:

- If *mpclevel* is QDIO or HPDT, *mpc\_usage* is:
  - SHARE indicates that the connection can be shared by multiple ULPs.
  - EXCLUSIVE indicates that the connection can only be used by the first ULP that requests usage of the MPC connection.
- If *mpclevel* is NOHPDT, *mpc\_usage* is **\*\*\*NA\*\*\***.
- If *mpclevel* is EQDIO, *mpc\_usage* is EXCLUSIVE—indicates that the connection (this device number) can only be used by the first ULP that requests usage of this MPC connection. The EQDIO adapter (CHPID) can be shared through additional connections each using unique device numbers. Each EQDIO device number is represented by a unique dynamically created EQDIO TRLE.

For detailed instructions about setting up an OSA feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

<b>IST1716I</b>	<b>PORTNAME = <i>port_name</i> LINKNUM = <i>link_num</i> OSA CODE LEVEL = <i>code_level</i></b>
-----------------	---

## Explanation

This message is part of several message groups that VTAM issues in response to DISPLAY ID or DISPLAY TRL commands. This message will appear if the TRLE being displayed represents an IBM OSA Adapter.

When the TRLE represents an OSA device:

- *port\_name* is the port name to be assigned to the port on the IBM Open Systems Adapter. Each IBM Open Systems Adapter has one *port\_name* that is represented by one TRLE.
- *link\_num* indicates the relative adapter number of the OSA Adapter port represented by this TRLE.
- *code\_level* indicates the OSA processor code level of the OSA. For some versions of OSA, *code\_level* will be \*NA\*.

When the TRLE represents the IQDIO device IUTIQDIO:

- *port\_name* is a reserved name of IUTIQDxx where xx = the hexadecimal IQD CHPID in use.
- *link\_num* is not applicable and will be displayed as 0.
- *code\_level* will be \*NA\*.

For detailed instructions about setting up an OSA feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## System action

Processing continues.

## Operator response

None.

## System programmer response

If the *code\_level* value is \*NA\*, contact your hardware support personnel for code level information.

## Routing code

8

## Descriptor code

5

---

**IST1717I****ULPID = *ulp\_id* ULP INTERFACE = *ulp\_interface***

---

### Explanation

This message is issued in these different situations:

- As part of several message groups that VTAM issues in response to DISPLAY ID or DISPLAY TRL commands.
- As the first message in a message group that is issued when a RoCE interface, an Internal Shared Memory (ISM) interface, or a z/OS Container Extensions (zCX) network support interface becomes inoperative.
- As part of a message group that VTAM issues when it detects the failure of a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link.
- As part of a message group that VTAM issues when it detects the failure of a Shared Memory Communications - Direct Memory Access (SMC-D) link.
- As part of a message group that VTAM issues when an overdue adapter interrupt is detected (AIMON support) for a QDIO or an iQDIO interface.

When this message is issued in response to a DISPLAY command, this message is displayed for all TRLEs that are currently being used by at least one Upper-layer Protocol (ULP). A separate message IST1717I will be displayed for each ULP using this TRLE.

- For a dynamic TCP TRLE, or an exclusively owned TRLE, only one message with ULPID is issued, because there can only be one ULP using each of these TRLEs.
- For an OSA Adapter, one message with ULPID is issued for each Datapath channel address in use by a ULP.
- For other TRLEs, more than one message with ULPID might be issued, depending on how many upper-layer protocols are using the TRLE.
- When the DISPLAY command is issued for a zCX TRLE, this message is the first message in the following message group:

```
IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface
{IST2456I  NUMBER OF DISCARDED INBOUND PACKETS = pkt_cnt}
```

When this message is issued in response to a RoCE interface, an ISM interface, or a zCX interface becoming inoperative, it is the first message in this message group:

```
IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface
IST1578I inoptype INOP DETECTED FOR trlenam BY modnam CODE = code
```

When this message is issued in response to an SMC-R link failure, this message is displayed to identify the TCP/IP stack associated with the failing SMC-R link. See message [“IST2406I” on page 1487](#) for an explanation of the message group.

When this message is issued in response to an SMC-D link failure, this message is displayed to identify the TCP/IP stack associated with the failing SMC-D link. See message [“IST2421I” on page 1507](#) for an explanation of the message group.

When this message is issued for a QDIO or an iQDIO link which is missing an adapter interrupt (detected by AIMON support), this message is displayed to identify the TCP/IP stack associated with the missing interrupt. See message [IST2419I](#) for an explanation of the message group.

**IST1717I**

This message provides ULP information.

***ulp\_id***

Specifies the name of a z/OS Communications Server ULP that is using the TRLE, the SMC-R link, the SMC-D link, one of the datapath channels of an OSA-Express TRLE, or one of the iQDIO datapath devices.

- For TCP/IP or zCX ULPs, the *ulp\_id* is the job name.
- For ANNC ULPs, the *ulp\_id* is the SNA PU name.
- For EE ULPs, the *ulp\_id* is the XCA major node name.

***ulp\_interface***

Specifies the name of either the interface or the device that is using the TRLE, the SMC-R link, the SMC-D link, or one of the datapath channels of an OSA or iQDIO TRLE.

- For TRLEs with MPCLEVEL=QDIO, *ulp\_interface* is the name of the interface dedicated to this datapath channel address of the OSA TRLE.
- For TRLEs with CONTROL=ROCE, *ulp\_interface* is the name of the interface dedicated to the *RoCE* TRLE.
- For TRLEs with CONTROL=ISM, *ulp\_interface* is the name of the interface dedicated to the ISM TRLE.
- For all other TRLEs, *ulp\_interface* is \*NA\*.
- For SMC-R links, *ulp\_interface* is the name of the *RoCE* interface that was being used by the failing link.
- For SMC-D links, *ulp\_interface* is the name of the ISM interface that was being used by the failing link.
- For iQDIO links, *ulp\_interface* is the name of the iQDIO interface for which a missing interrupt was detected (AIMON support).
- For QDIO links, *ulp\_interface* is the name of the QDIO interface for which a missing interrupt was detected (AIMON support).

For detailed instructions about setting up an OSA feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

**IST1578I**

This message provides information about the inoperative condition for a *RoCE* interface or ISM interface for the TCP/IP stack represented by *ulp\_id*. This message also provides information about the inoperative condition for a z/OS Container Extensions (zCX) network support for the TCP/IP or zCX stack represented by *ulp\_id*.

***inoptype***

Specifies the type of inoperative condition. In this message group, the only possible value is DEVICE.

***trlename***

Specifies the name of the system-generated TRLE that represents the *RoCE* interface, ISM interface, or zCX interface.

***modname***

Specifies the name of the module that detected the inoperative condition.

***code***

Identifies the point in *modname* where the inoperative condition was detected.

See message [IST1578I](#) for more details.

**IST2456I**

This conditionally issued message displays the number of inbound packets dropped in response to congestion detected on either the TCP/IP stack or zCX server represented by *ulp\_id*.

***pkt\_cnt***

The 1 - 10 digit count of packets dropped due to inbound congestion.

See message [IST2456I](#) for more details.

**System action**

- When this message is issued in response to a DISPLAY command, processing continues.



- When this message is issued in response to a *RoCE* interface, ISM interface, or zCX interface becoming inoperative, the interface is deactivated. The TCP/IP stack or zCX stack might attempt recovery of the interface.
- When this message is issued in response to an SMC-R link failure, processing continues. See message “IST2406I” on page 1487 for more details.
- When this message is issued in response to an SMC-D link failure, processing continues. See message “IST2421I” on page 1507 for more details.
- When this message is issued in response to a missing QDIO or iQDIO interrupt (AIMON support), a virtual interrupt is generated and processing continues. See message [IST2419I](#) for more details.

## Operator response

- When this message is issued in response to a DISPLAY command, none.
- When this message is issued in response to a *RoCE* interface, ISM interface, or zCX interface becoming inoperative, no further action is required. If recovery fails, save the system log for problem determination.
- When this message is issued in response to an SMC-R link or SMC-D link failure, contact the system programmer.
- When this message is issued in response to a missing QDIO or iQDIO interrupt (AIMON support), contact the system programmer.

## System programmer response

- When this message is issued in response to a DISPLAY command, none.
- When this message is issued in response to a *RoCE* interface, ISM interface, or zCX interface becoming inoperative, use *code* to determine the correct course of action. See message “IST1578I” on page 938 for more details.
- When this message is issued in response to an SMC-R link failure, use information in the IST2406I message group to determine the correct course of action. See message “IST2406I” on page 1487 for more details.
- When this message is issued in response to an SMC-D link failure, use information in the IST2421I message group to determine the correct course of action. See message “IST2421I” on page 1507 for more details.
- When this message is issued in response to a missing QDIO or iQDIO interrupt (AIMON support), use information in the IST2419I message group to determine the correct course of action. See message [IST2419I](#) for more details.

## Routing code

2

## Descriptor code

5

---

**IST1718I** **DATAPATH DEVICE *device\_addr* NOT FOUND FOR TRLE *trle***

## Explanation

The subchannel address specified on the DEVICE keyword on the MODIFY TRACE command is not coded on the DATAPATH keyword on the TRLE statement.

*device\_addr* is the value coded on the DEVICE keyword on the MODIFY TRACE command.

*trle* is the name of the TRLE coded on the ID keyword on the MODIFY TRACE command.

For detailed instructions about setting up an OSA feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## System action

The command will fail.

## Operator response

Enter a valid subchannel address on the DEVICE keyword on the MODIFY TRACE command.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1719I** **PCIREALO = *pcirealo* PCIREAL = *pcireal***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources, *RoCE* resources or for Network Express resources. The first message in the group is IST1230I. See message [IST1230I](#) for a complete description of the MPC resources message group. See message [IST2366I](#) for a complete description of the *RoCE* resources message group. See message [IST2488I](#) for a complete description of the Network Express resources message group.

For detailed instructions about setting up an OSA feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## Routing code

2

## Descriptor code

5

---

**IST1720I** **PCIVIRTO = *pcivirto* PCIVIRT = *pcivirt***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources or for Network Express resources. The first message in the group is IST1230I. See message [“IST1230I” on page 691](#) for a complete description of the MPC resources message group. See message [“IST2488I” on page 1575](#) for a complete description of the Network Express resources message group.

For detailed instructions about setting up an OSA feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## Routing code

2

## Descriptor code

5

---

**IST1721I****SBALCNTO = *sbalcnto* SBALCNT = *sbalcnt***

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

For detailed instructions about setting up an OSA-Express feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1722I****PACKCNTO = *packcnto* PACKCNT = *packcnt***

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources or for Network Express resources. The first message in the group is IST1230I. See message “IST1230I” on page 691 for a complete description of the MPC resources message group. See message “IST2488I” on page 1575 for a complete description of the Network Express resources message group.

For detailed instructions about setting up an OSA feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## Routing code

2

## Descriptor code

5

---

**IST1723I****SIGACNTO = *sigacnto* SIGACNT = *sigacnt***

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

For detailed instructions about setting up an OSA feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## Routing code

2

## Descriptor code

5

---

**IST1724I** **I/O TRACE = *iotrc* TRACE LENGTH = *length***

---

## Explanation

This message is part of several message groups that VTAM issues in response to DISPLAY ID or DISPLAY TRL commands. This message will appear for a TRLE representing an OSA Adapter or a RoCE feature.

*iotrc* specifies whether I/O Trace is active for this device (**ON** or **OFF**).

*length* specifies the number of bytes being recorded for I/O Trace for this device.

For detailed instructions about setting up an OSA feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST1725E** **STORAGE SHORTAGE IN *structure\_name* - UNABLE TO RECONNECT**

---

## Explanation

This message is issued when VTAM is attempting to reconnect to a coupling facility structure. A storage shortage in the structure was detected before attempting to reconnect. A storage shortage is defined as one or more of the following:

- 80% or greater of list entries are being used.
- 80% or greater of list elements are being used.

Before VTAM will connect to the structure, the storage problem must be corrected.

*structure\_name* is the name of the MVS coupling facility structure.

### System action

VTAM will remain disconnected from the coupling facility structure until the storage usage drops below 80%.

### Operator response

Issue D NET,STATS,TYPE=CFS,STRNAME=*structure\_name* to display the storage utilization of *structure\_name*.

If either entry or element utilization is greater than 80%, start a rebuild using the SETXCF START,REBUILD command. This will cause VTAM to adjust the number of entries and elements in use. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information about the SETXCF command.

If the rebuild does not relieve the storage shortage, the size of the structure will need to be increased. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for information about how to adjust the size in the case of a storage shortage.

To force VTAM to reconnect to the structure regardless of storage utilization, issue the V NET,CFS,ACTION=CONNECT command.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

**IST1726I**

**CONNECTION IS PENDING DUE TO STORAGE SHORTAGE**

### Explanation

This message is part of a message group VTAM issues to indicate that the connection to the coupling facility structure is defined and active in the coupling facility policy but VTAM currently does not have a connection. The first message in the group is IST1367I. See the explanation of that message for additional information.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

### Routing code

2

## Descriptor code

5

---

**IST1727I****DNS NAME: *dns\_name***

---

## Explanation

VTAM issues this message as part of several different message groups. It is optional and is issued for one of the following reasons:

- In response to a DISPLAY ID command for a TN3270-connected application, CDRSC, or LU resource.
- In response to a DISPLAY ID,IDTYPE=IPADDR command when only one TN3270 client application, CDRSC, or LU is associated with the specified TN3270 client IP address.
- In response to a DISPLAY TSOUSER command for a TN3270-connected application, CDRSC, or LU resource.
- When a session setup fails as part of message group IST663I and the resource is a TN3270-connected application, CDRSC, or LU resource.

If the message ends with the (..) characters, it means that the DNS name was truncated as passed to z/OS Communications Server from the TN3270 Server. See the [z/OS Communications Server: IP Configuration Guide](#) for information about enabling messages.

**Note:** The saving and displaying of the IP Information for TELNET 3270 Clients is controlled by the IPINFO Start Option. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

*dns\_name* is the DNS NAME of the TN3270 client.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1728I*****dns\_name\_continued***

---

## Explanation

This message is a continuation of message IST1727I. It is issued as many times as necessary to display the entire DNS name. If the message ends with the (..) characters, it means that the DNS name was truncated as passed to z/OS Communications Server from the TN3270 Server.

*dns\_name\_continued* is the continuation of the DNS NAME displayed in message IST1727I.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1729I</b>	<b>OPTION <i>traceopt</i> MUST BE CODED WHEN SUBTRACE <i>subtrace</i> IS SPECIFIED</b>
-----------------	--

---

## Explanation

This message is issued in response to a MODIFY TRACE,TYPE=VTAM command or when TRACE,TYPE=VTAM is specified on the TRACE start option and SUBTRACE is specified without a valid OPTION parameter on the command.

## System action

VTAM rejects the request. For start VTAM command, VTAM will issue message IST1311A to prompt you for the correct value of the TRACE or NOTRACE option.

## Operator response

Enter the command again with the trace option specified on this message to activate or deactivate the SUBTRACE type.

## System programmer response

If these start options are coded in an ATCSTRxx file, correct the trace option value for the TRACE or NOTRACE in that file. For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

## Routing code

2

## Descriptor code

5

---

<b>IST1730I</b>	<b>SUBTRACE <i>subtrace</i> ACTIVE UNDER TRACE OPTION <i>traceopt</i></b>
-----------------	---

---

## Explanation

This message displays the current active subtrace option and its associated trace option. VTAM issues this message as part of a group of messages. The first message in the group is IST315I. See the explanation of that message for a complete description.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1731I</b>	<b><i>name</i> ACTIVATION FAILED - HPR=RTP REQUIRED WITH HPR/IP</b>
-----------------	---

---

## Explanation

VTAM issues this message in response to a VARY ACT command on an XCA major node when VTAM is not configured for HPR RTP support and the port statement defines the shared access transport facility (SATF) as MEDIUM=HPRIP (Enterprise Extender).

*name* is the name of the major node for which the activation failed.

## System action

Processing continues.

## Operator response

Reconfigure VTAM to support HPR=RTP, or reconfigure the XCA port to specify an SATF which does not require HPR=RTP. The VARY ACT command may then be entered again.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1732I</b>	<b>VTAM INITIATED SLOWDOWN TERMINATION FOR DEVICE <i>device</i></b>
-----------------	---

---

## Explanation

This message indicates the end of a slowdown condition for a channel-attached SNA device. The time interval identified by the second subparameter of the SLOWVAL start option has expired, causing VTAM to initiate I/O to *device* to force it out of a slowdown condition. This message will be preceded by IST1733I, which indicates that the device has been in a slowdown condition longer than the time period identified by the first subparameter of the SLOWVAL start option.

*device* is the name of the device.

## System action

VTAM has initiated I/O to *device* to force it out of slowdown mode. VTAM will again send traffic to *device*.



## Operator response

None.

## System programmer response

If VTAM is required to initiate termination of the slowdown condition, then either 1) the signal from device to VTAM to exit slowdown has been lost or 2) the device is incapable of obtaining sufficient buffers to exit slowdown. For the first situation, the VTAM action will be sufficient to restart traffic to the device, although the lost signal should be investigated as a potential device or network problem. For the second condition, VTAM restarting traffic to the device will only force it back into a slowdown condition if buffers are still not available. Be sure the SLOWVAL start option values are sufficiently high.

## Routing code

2

## Descriptor code

4

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<b>IST1733I</b>	<b><i>device</i> DEVICE HAS BEEN IN SLOWDOWN MORE THAN <i>time</i> SECONDS</b>
-----------------	--

---

## Explanation

The threshold identified by the first subparameter of the SLOWVAL start option has been exceeded. This means that the device is not accepting data from VTAM. This message can also be received for local SNA devices, (for example, 3174 controllers).

*device* is the name of the device that has been in slowdown mode.

*time* is value of the first subparameter of the SLOWVAL start option.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1734I</b>	<b>DEVICE <i>device</i> INITIATED SLOWDOWN TERMINATION</b>
-----------------	--

---

## Explanation

This message indicates the end of a slowdown condition for a channel-attached SNA device. The device sent VTAM a signal indicating that it should be removed from the slowdown condition. This message will be preceded

by IST1733I, which indicates that the device has been in a slowdown condition longer than the time period identified by the first subparameter of the SLOWVAL start option.

*device* is the name of the device.

**System action**

VTAM resumes normal I/O.

**Operator response**

None.

**System programmer response**

Devices may enter and exit slowdown many times, based on the availability of buffers. This is a normal condition. The fact that IST1733I and this message are issued, however may indicate that either the first subparameter of the SLOWVAL start option is too low, or that the device is having problems obtaining sufficient buffers to allow it to exit slowdown in a timely manner.

**Routing code**

2

**Descriptor code**

4

---

<b>IST1736I</b>	<b>PU NAME</b>
-----------------	----------------

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tgn command. See [IST1299I](#) for a complete description of this message group.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1737I</b>	<b><i>puname</i></b>
-----------------	----------------------

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tgn command. See [IST1299I](#) for a complete description of this message group.

**Routing code**

2

**Descriptor code**

5

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY ID =*nodename* where *nodename* is an RTP PU. See [IST1476I](#) for a complete description of the message group.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY ID =*nodename* where *nodename* is an RTP PU. See [IST1476I](#) for a complete description of the message group.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

**Explanation**

VTAM issues this message when the library member IBMTGPS was empty.

*library* is the data definition name (DDNAME) specified for the definition library.

### **System action**

VTAM initialization continues. However, the IBM-supplied classes of service may not be available for TGP selection.

### **Operator response**

If the TG's classes of service have been defined under a different member name and are activated by configuration list processing or by a VARY ACT command, then no action is necessary.

### **System programmer response**

Verify that IBMTGPS was intentionally left empty.

### **Routing code**

2

### **Descriptor code**

5

---

**IST1743I** **IBMTGPS IN *library* NOT FOUND - PROCESSING CONTINUES**

### **Explanation**

VTAM issues this message when the library member IBMTGPS was not found.

*library* is the data definition name (DDNAME) specified for the definition library.

### **System action**

VTAM initialization continues. However, the IBM-supplied classes of service may not be available for TGP selection.

### **Operator response**

If the TG's classes of service have been defined under a different member name and are activated by configuration list processing or by a VARY ACT command, then no action is necessary.

### **System programmer response**

Verify that IBMTGPS was intentionally not found.

### **Routing code**

2

### **Descriptor code**

5

---

**IST1744I** **IBMTGPS IN *library* IN ERROR - PROCESSING CONTINUES**

### **Explanation**

VTAM issues this message when the library member IBMTGPS contained a syntax error.

*library* is the data definition name (DDNAME) specified for the definition library.

## System action

VTAM initialization continues. However, the IBM-supplied classes of service may not be available for TGP selection.

## Operator response

If the TG's classes of service have been defined under a different member name and are activated by configuration list processing or by a VARY ACT command, then no action is necessary.

## System programmer response

See the [z/OS Communications Server: IP Configuration Guide](#) for more information.

## Routing code

2

## Descriptor code

5

---

**IST1745I** *rscname* REJECTED BECAUSE VARYWLD = *option*

## Explanation

The *rscname* value for the ID keyword of a VARY command included a wildcard specification (\* or ?). Wildcards are not permitted on this VARY command because the current value of the VARYWLD start option is *option*. Potential values for *option* are:

### NOWILD

Wildcards are not permitted in any VARY commands.

### OPERONLY

Wildcards are permitted in VARY commands from the network operator, but not from Program Operator Applications.

### POAONLY

Wildcards are permitted in VARY commands from Program Operator Applications, but not from the network operator.

## System action

Processing continues.

## Operator response

Use the MODIFY VTAMOPTS command to change the VARYWLD value and reissue the VARY command.

## System programmer response

If wildcards should be permitted from either the network operator or Program Operator Applications, update the value of the VARYWLD start option in the VTAM start list (ATCSTRxx) to VARYWLD=FULLWILD.

## Routing code

5

## Descriptor code

2

---

**IST1746I*****command* COMMAND PROCESSING COMPLETE**

---

## Explanation

VTAM issues this message when the command processing to a Program Operator Application (POA) is complete. This message does not appear on the system operator console. See the [z/OS Communications Server: SNA Programming](#) for more information.

*command* is the command entered through the program operator interface. The valid *commands* are VARY, MODIFY and DISPLAY.

This is the last message issued in response to the *command*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1747I****SUMMARY OF STATE INFORMATION:**

---

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY LINES or DISPLAY CLSTRS command. This message is a header for message IST1748I.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1748I** *state1 = count1 [ state2 = count2 [ state3 = count3 ] ]*

---

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY CLSTRS or DISPLAY LINES command.

If there are more than 3 states, the message is repeated as many times as necessary to display all states.

*state* is a resource status code. See [z/OS Communications Server: IP and SNA Codes](#) for potential values.

*count* is the number of resources in the *state* displayed.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1749I** *rscname REJECTED - VARYWLD = NO FOR APPL applname*

---

## Explanation

The *rscname* value for the ID keyword of a VARY command issued by Program Operator Application *applname* included a wildcard specification (\* or ?). Wildcards are not permitted on VARY commands from *applname* because the application's definition statement specifies VARYWLD=NO.

## System action

Processing continues.

## Operator response

No action is required unless wildcards are to be permitted in VARY commands from this application.

## System programmer response

If wildcards should be permitted, update the value of the VARYWLD keyword on the APPL definition statement for *applname* to VARYWLD=YES.

## Routing code

5

## Descriptor code

2

---

**IST1750I****PCITHRSO = *pcithrso* PCITHRSH = *pcithrsh***

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources or for Network Express resources. The first message in the group is IST1230I. See message “IST1230I” on page 691 for a complete description of the MPC resources message group. See message “IST2488I” on page 1575 for a complete description of the Network Express resources message group.

For detailed instructions about setting up an OSA-Express feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## Routing code

2

## Descriptor code

5

---

**IST1751I****PCIUNPRO = *pciunpro* PCIUNPRD = *pciunprd***

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources, *RoCE* resources or for Network Express resources. The first message in the group is IST1230I. See message *IST1230I* for a complete description of the MPC resources message group. See message *IST2366I* for a complete description of the *RoCE* resources message group. See message *IST2488I* for a complete description of the Network Express resources message group.

For detailed instructions about setting up an OSA-Express feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## Routing code

2

## Descriptor code

5

---

**IST1752I****RPROCDEO = *rprocdeo* RPROCDEF = *rprocdef***

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources or for Network Express resources. The first message in the group is IST1230I. See message “IST1230I” on page 691 for a complete description of the MPC resources message group. See message “IST2488I” on page 1575 for a complete description of the Network Express resources message group.

For detailed instructions about setting up an OSA-Express feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.



## Routing code

2

## Descriptor code

5

---

**IST1753I****RREPLDEO = *rrepldeo* RREPLDEF = *rrepldef***

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources or for Network Express resources. The first message in the group is IST1230I. See message “IST1230I” on page 691 for a complete description of the MPC resources message group. See message “IST2488I” on page 1575 for a complete description of the Network Express resources message group.

For detailed instructions about setting up an OSA-Express feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## Routing code

2

## Descriptor code

5

---

**IST1754I****NOREADSO = *noreadso* NOREADS = *noreads***

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

For detailed instructions about setting up an OSA-Express feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## Routing code

2

## Descriptor code

5

---

**IST1755I****SBALMAX = *sbalmax* SBALAVG = *sbalavg***

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

For detailed instructions about setting up an OSA-Express feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## Routing code

2

## Descriptor code

5

---

**IST1756I****QDPTHMAX = *qdpthmax* QDPTHAVG = *qdpthavg***

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources or for Network Express resources. The first message in the group is IST1230I. See message “IST1230I” on page 691 for a complete description of the MPC resources message group. See message “IST2488I” on page 1575 for a complete description of the Network Express resources message group.

For detailed instructions about setting up an OSA-Express feature, see <https://www.ibm.com/docs/en/zos/2.3.0?topic=osa-z-systems-express-customers-guide-reference>.

## Routing code

2

## Descriptor code

5

---

**IST1757I****PRIORITYx: *congstate* PRIORITYx: *congstate***

---

## Explanation

This message is part of several message groups that VTAM issues in response to DISPLAY ID or DISPLAY TRL commands. This message will appear for a TRLE representing an OSA Adapter.

x specifies the write priority level.

*congstate* specifies the congestion state of that priority level. *congstate* will be **CONGESTED** when, at least once in the last congestion reporting window, all 128 writes for the priority level were unavailable. Otherwise *congstate* will be **UNCONGESTED**.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID=sid,PATHINFO=YES command when the session has RSCV information reported by the DLUR node which acts as the CP(SLU). See the explanation of message IST879I for a complete description of the group.

**Routing code**

2

**Descriptor code**5

---

**Explanation**

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID=sid,PATHINFO=YES command for an HPR session when the SLU endpoint of the session is at a DLUR node. The PLU endpoint of the session might be this z/OS Communications Server node. The RSCV displayed is the path of the RTP pipe from the perspective of the DLUR node. See the explanation of message IST879I for a complete description of the group.

**Routing code**

2

**Descriptor code**5

---

**Explanation**

VTAM received an MVS VARY OFFLINE command for the subchannel *cua* in the MPC group defined in *trlenam*. The command is not allowed because the subchannel *cua* is the last active Read or Write device in this MPC group.

*trlenam* is the name of the TRLE that contains the subchannel.

*cua* is the subchannel address.

**System action**

The VARY OFFLINE is ignored by VTAM and the CUA remains in a (system) pending offline state. Processing continues.

**Operator response**

If the intention is to deactivate the entire MPC group, issue a VARY OFFLINE FORCE command for the CUA, or deactivate the users of the MPC group as follows:

1. Issue VARY INACT command to the related SNA PU.
2. Issue STOP DEVICE command to the related TCP/IP devices.
3. When the MPC group is used by both SNA and TCP/IP issue both VARY INACT and STOP DEVICE.

4. When the MPC group is used by multiple TCP/IP stacks, a STOP DEVICE command must be issued for each TCP/IP stack using the group.
5. When the MPC group is QDIO (OSA-Express) and all devices are stopped, the MPC group will not deactivate until a specified time period (approximately 2 minutes) is exceeded. VARY OFFLINE FORCE will deactivate the MPC (QDIO) group immediately.

## System programmer response

See the [z/OS Communications Server: IP Configuration Guide](#) for an explanation of how the keyword LASTRW on the TRLE definition statement affects the VTAM processing related to VARY OFFLINE (when associated with the last active read or write device in an MPC group). Careful consideration should be given when deciding how this keyword should be defined for your operating environment.

## Routing code

2

## Descriptor code

5

---

**IST1761I*****parameter* PARAMETER EXTRANEIOUS FOR DISPLAY ID COMMAND**

---

## Explanation

VTAM issues this message when an extraneous parameter is specified for a DISPLAY ID command.

*parameter* is the parameter that is not valid for a DISPLAY ID command.

### Notes:

1. This message might be issued as the result of the intended verb of the command being specified incorrectly. For example, a DISPLAY NCPSTOR command issued with NCPSTOR misspelled:

```
DISPLAY NET,NCPSTORE,ID=name,ADDR=address
```

will result in this message issued with the text:

```
IST1761I ADDR PARAMETER EXTRANEIOUS FOR DISPLAY ID COMMAND
```

2. The parameter might be valid for other combinations of parameters and resource types.
3. Parameters on the operator commands are not processed in the order they are provided in the command.
4. All positional parameters in a command that occur before the first positional keyword parameter will be labeled **Px**, starting with **P1**.

## System action

VTAM rejects the command.

## Operator response

Reenter the command correctly. See the [z/OS Communications Server: SNA Operation](#) for the correct syntax.

## System programmer response

None.

## Routing code

8

## Descriptor code

5

---

**IST1762I*****line* ACT FAILED, TCPNAME OR IPADDR START OPTION REQUIRED**

---

## Explanation

This message is displayed when an Enterprise Extender (HPR/IP) line activation fails because no value was specified in the TCPNAME and IPADDR start options. Without one of these values coded, VTAM cannot determine which TCP/IP stack will be used for Enterprise Extender (HPR/IP) data traffic.

*line* is the name of the Enterprise Extender (HPR/IP) line that failed.

## System action

Enterprise Extender (HPR/IP) line activation failed.

## Operator response

Code either TCPNAME or IPADDR as a VTAM start option. Temporarily, you can issue a MODIFY VTAMOPTS command and specify the value of one of these start options.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1763I****NO ACTIVE CP-CP SESSION-CAPABLE TGS EXIST**

---

## Explanation

VTAM issues this message in response to a DISPLAY CPCP command when there is no active CP-CP session-capable TG connection to any node.

## System action

The DISPLAY command fails. Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1764I** NO ACTIVE CP-CP SESSION-CAPABLE TG TO *cpname*

---

## Explanation

VTAM issues this message in response to a DISPLAY CPCP command when there is no active CP-CP session capable TG connection to the adjacent node that you specified.

*cpname* is the network-qualified name of the adjacent node.

## System action

The DISPLAY command fails. Processing continues.

## Operator response

Verify that the CP name specified in the ID operand is valid. If the CP name entered belongs to a node in the network, there is currently no active CP-CP session-capable connection to this node.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1765I** ADJACENT CP WINNER LOSER STATE NODE ANDCB

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY CPCP command or when a CP-CP session cannot be activated. When a CP-CP session cannot be activated, the first message in the group is IST1110I. See the explanation of that message for a complete description of the message group.

When this message is issued in response to a DISPLAY CPCP command, this message is the first message in the group. A complete description of the message group follows the example.

```
IST350I  DISPLAY TYPE = CP-CP SESSION STATUS
IST1765I  ADJACENT CP      WINNER  LOSER  STATE      NODE ANDCB
IST1766I  adjacent_cp      cw_state cl_state state    node address
:
[IST1315I DISPLAY TRUNCATED AT MAX = number]
IST1454I  count ADJCP(S) DISPLAYED
IST314I   END
```

## IST350I

- This message identifies the type of information in the display and is always CP-CP SESSION STATUS for this message group.

**Note:** CP-CP sessions see the contention winner and contention loser sessions of the CP-CP session pair.

## IST1765I

This message is a header message for the information displayed in message IST1766I.

## IST1766I

- One IST1766I will be issued for each adjacent node displayed.
- *adjacent\_cp* is the network-qualified CP name of the adjacent control point.
- *cw\_state* is the status of the contention winner CP-CP session. Valid values are:

**ACT**

Active

**INACT**

Inactive

**PACT**

Pending active

**PINACT**

Pending inactive

- *cl\_state* is the status of the contention loser CP-CP session. Valid values are:

**ACT**

Active

**INACT**

Inactive

**PACT**

Pending active

**PINACT**

Pending inactive

- *state* is the state of the CP-CP sessions to the adjacent node being displayed. Valid values are:

**UP**

One or more of the contention winner and contention loser sessions are active or pending-active.

**DOWN**

Both contention winner and contention loser sessions are coming down but are not completely inactive.

**BOTH DOWN**

Both contention winner and contention loser sessions are inactive.

- *node* is the APPN node type of the adjacent control point. Valid values are:

**EN**

End node

**NN**

Network node

- *address* is the hexadecimal storage address for the adjacent node control block where the CP-CP session information is saved.

**IST1454I**

*count* is the total number of adjacent CPs that support CP-CP sessions.

**IST1315I**

VTAM issues this message when the number of CP-CP session status to be displayed exceeds the value specified on the MAX operand.

*number* is the value specified for the MAX operand.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1766I</b>	<i>adjacent_cp cw_state cl_state state node address</i>
-----------------	---

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY CPCP command or when a CP-CP session cannot be activated. When a CP-CP session cannot be activated, the first message in the group is IST1110I. See the explanation of that message for a complete description of the message group. When this message is issued in response to a DISPLAY CPCP command, see IST1765I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

<b>IST1767I</b>	<b>TRACE INITIATED FOR <i>number</i> DYNAMIC APPLICATIONS</b>
-----------------	---

---

## Explanation

VTAM issues this message in response to a MODIFY TRACE command with all of the following:

- The ID operand specified as a model application name
- The SCOPE operand specified as ALL
- The TYPE operand specified as IO or BUF

MODIFY TRACE is used to initiate the IO or buffer trace on the model application and all the existing dynamic applications associated with the model. If there is at least one dynamic application associated with the model, this message will be issued to display the number of dynamic applications affected by the command.

*number* is the number of dynamic applications whose IO trace or buffer trace is initiated by a modify trace command.

## System action

Processing Continues.

## Operator response

None.

## System programmer response

None.



## Routing code

2

## Descriptor code

5

---

**IST1768I****TRACE TERMINATED FOR *number* DYNAMIC APPLICATIONS**

---

## Explanation

VTAM issues this message in response to a MODIFY NOTRACE command with all of the following:

- The ID operand specified as a model application name
- The SCOPE operand specified as ALL
- The TYPE operand specified as IO or BUF

MODIFY NOTRACE is used to terminate the IO or buffer trace on the model application and all the existing dynamic applications associated with the model. If there is at least one dynamic application associated with the model, this message will be issued to display the number of dynamic applications affected by the command.

*number* is the number of dynamic applications whose IO trace or buffer trace is terminated by a modify trace command.

## System action

Processing Continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1769I****LAST TDU RECEIVED - *date time* FROM *adjacent\_cp***

---

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=*cp\_name*. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=*orig\_cp\_name*,DEST=*dest\_cp\_name*,TGN=*tgn*. See message [IST2311I](#) for a complete description of this message group.
- DISPLAY TOPO,ID=*cp\_name*,LIST=ALL. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=*orig\_cp\_name*,DEST=*dest\_cp\_name* or DISPLAY TOPO,ORIG=*orig\_cp\_name*,TGN=*tgn*. See message [IST1299I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST1773I****TNSTAT RECORDS CANNOT BE SENT TO SMF - SMF NOT IN SYSTEM**

---

## Explanation

This message is issued when SMF is unavailable at one of the following times:

- During VTAM initialization time and the TNSTAT start option was specified.
- A DISPLAY or MODIFY TNSTAT command has been accepted.
- When tuning statistics summary records have been built.

## System action

Processing continues.

## Operator response

If you intended to have SMF collect the TNSTAT summary records, then initiate SMF.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1774I****OPTIMAL CNN ROUTE NOT CHOSEN - ENTRY/EXIT SUBAREA  
MISMATCH**

---

## Explanation

This message is the first in a group of messages that VTAM issues when an optimal CNN route exists and is not chosen during session activation. A complete description of the message group follows the example.

```
IST1774I OPTIMAL CNN ROUTE NOT CHOSEN - ENTRY/EXIT SUBAREA MISMATCH
IST1775I CNN ENTRY SUBAREA = entry_subarea  CNN EXIT SUBAREA = exit_subarea
IST664I REAL  OLU=luname1      REAL  DLU=luname2
IST889I SID = session_id
IST314I END
```

## IST664I

The origin LU may be either the PLU or SLU. The same applies for the destination LU. If the origin or destination LU name is unknown, VTAM displays **\*\*\*NA\*\*\***.

## IST889I

*sessid* is a unique identifier for the session. If the session ID is unknown, VTAM displays **\*\*\*NA\*\*\***.

## IST1774I

- A CNN Route is not optimal if the following conditions are both true:
  - The chosen CNN entry and exit TG subareas do not match.
  - Another active TG to the network node is found that has the same characteristics as the chosen entry TG and the same subarea as the CNN exit TG.
- The reason a nonoptimal route might be chosen is one of the following:
  - The topology of the CNN is not known by the APPN topology and route selection process.
  - The route was calculated by a non-VTAM node that does not support the use of subarea numbers in route calculation.
- The following figure is an example of a configuration:

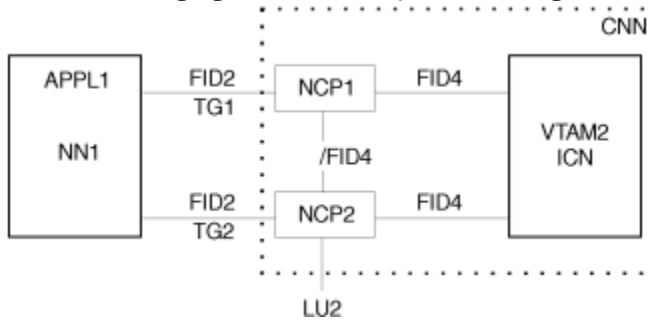


Figure 4. Sample configuration

- In this figure, the CNN is composed of VTAM2, NCP1, and NCP2. The subarea of NCP1 is the CNN entry TG subarea and the subarea of NCP2 is the CNN exit TG subarea. A session is started between APPL1 (PLU) and LU2 (SLU). If the adjacent network node (NN1) chooses to use TG1 instead of TG2, then the IST1774I message group will appear on VTAM2.

**Note:** The APPN node that picked the CNN entry TG (NN1 in the above configuration) is the NNS of the PLU, which may or may not be a VTAM. In addition, the NNS of the PLU may or may not be directly adjacent to the CNN.

### IST1775I

This message follows IST1774I and indicates the CNN entry subarea and the CNN exit subarea.

*entry\_subarea* is the decimal subarea of the node in the CNN where the BIND entered the CNN from the PLU.

*exit\_subarea* is the decimal subarea of the node in the CNN where the BIND exited the CNN to the SLU.

## System action

Processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

If the APPN node calculating the session route (choosing the CNN entry subarea) was not VTAM, then change the APPN TG characteristics. If the APPN node calculating the session route (choosing the CNN entry subarea) was pre-V2R7 VTAM and the session partner is an LU on the CNN exit subarea (NCP), then change the APPN TG characteristics. See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information about APPN TG characteristics. If the APPN node calculating the session route is, at a minimum, V2R7 VTAM, then request a dump of the VTAM calculating the session route for problem determination. CNNRTMSG=SUPPRESS may be specified as the start option value or modified with the MODIFY VTAMOPTS command to suppress message group IST1774I.

## Routing code

8

## Descriptor code

4

---

**IST1775I** **CNN ENTRY SUBAREA = *entry\_subarea* CNN EXIT SUBAREA = *exit\_subarea***

---

## Explanation

VTAM issues this message as part of a message group to indicate that an optimal route through a CNN was not chosen during session establishment. See IST1774I for a complete description of the message group.

## Routing code

8

## Descriptor code

4

---

**IST1776I** **TOPOLOGY RESOURCES WITH MOST RECENT TDU ACTIVITY**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT command. Possible message groups follow:

- This message group is issued if you allow the FORMAT command to default or you specify FORMAT=SHORT:

```
IST350I  DISPLAY TYPE = TDU INFORMATION
IST1776I  TOPOLOGY RESOURCES WITH MOST RECENT TDU ACTIVITY
IST2275I  TDU INFORMATION SINCE LAST RESET ON date AT time
IST2290I  TDUDIAG START OPTION = tdudiag_value
[IST2276I  NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED]
[IST924I  -----]
[IST2277I  POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED]
[IST2278I  SINCE VTAM START ON start_date AT start_time]
[IST2284I  FOR THE FOLLOWING NODES AND TGS]
[IST2279I  CP NAME          DESTINATION CP    TGN    TIME DETECTED]
[IST2280I  cp_name          destination_cp    tgn    date_detected time_detected]
:
[IST2301I  num OF total TOPOLOGY RESOURCES DISPLAYED]
[IST924I  -----]
[IST2359I  NO TDU INFORMATION EXISTS]
[IST1779I  TDUS RECEIVED BETWEEN first_tdu_date first_tdu_time - last_tdu_date last_tdu_time]
[IST1777I  CP NAME          RSN          DESTINATION CP    TGN ACC  REJ]
[IST1778I  cp_name          rsn          destination_cp    tgn count1 count2]
:
[IST2301I  num OF total TOPOLOGY RESOURCES DISPLAYED]
[IST924I  -----]
[IST2285I  TDUS SENT BETWEEN first_tdu_date first_tdu_time - last_tdu_date last_tdu_time]
[IST2288I  CP NAME          RSN          DESTINATION CP    TGN SENT REC]
[IST1778I  cp_name          rsn          destination_cp    tgn count1 count2]
:
[IST2301I  num OF total TOPOLOGY RESOURCES DISPLAYED]
IST314I  END
```

- If you specify FORMAT=LONG on the DISPLAY TOPO command, the display sections for TDUs received and TDUs sent are replaced with the following:

```
[IST924I  -----]
[IST2359I  NO TDU INFORMATION EXISTS]
[IST1779I  TDUS RECEIVED BETWEEN first_tdu_date first_tdu_time - last_tdu_date last_tdu_time]
[IST2357I  CP NAME          RSN          DESTINATION CP    TGN]
[IST2358I  cp_name          rsn          destination_cp    tgn]
```

```

[IST2353I  ACCEPTED = accepted      REJECTED = rejected]
:
[IST2301I num OF total TOPOLOGY RESOURCES DISPLAYED]
[IST924I -----]
[IST2285I TDUS SENT BETWEEN first_tdu_date first_tdu_time - last_tdu_date last_tdu_time]
[IST2357I CP NAME          RSN          DESTINATION CP      TGN]
[IST2358I cp_name          rs          destination_cp      tgn]
[IST2352I SENT            = sent          RECEIVED = received]
:
[IST2301I num OF total TOPOLOGY RESOURCES DISPLAYED]
IST314I END

```

## IST350I

This message identifies the type of information in the display and is always TDU INFORMATION for this message group.

## IST1776I

This is a header message for the most recent topology database updates (TDUs) and possible control vector corruption.

## IST1777I

This is a header message for the information about topology resources in the TDUs that were received most recently that is displayed in the IST1778I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

ACC is the abbreviation for ACCEPTED.

REJ is the abbreviation for REJECTED.

## IST1778I

- One IST1778I is issued for each topology resource displayed in a subgroup when the FORMAT=SHORT operand is specified or the default FORMAT value is taken.
- The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the last TDU count reset is smaller than the number requested on the display command, the number of IST1778I messages that are displayed in the subgroup will be smaller than the NUM value that was specified.
- *cp\_name* is the network-qualified CP name of the node if the resource that is displayed is a node. If the resource that is displayed is a TG, *cp\_name* is the network-qualified CP name of the TG origin node.
- *rsn* is the resource sequence number (RSN) expressed in decimal.
- *destination\_cp* is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. \*\*\*NA\*\*\* is displayed if the resource is a node.
- *tgn* is the transmission group number associated with the TG that is displayed. NA is displayed if the resource is a node.
- If the subgroup displays the information about topology resources in the TDUs that were received most recently:
  - *count1* is the total number of inbound TDUs that were accepted for this resource at the time the displayed TDU was received. Inbound TDUs are accepted when they contain new information that causes the resource record to be updated.
  - *count2* is the total number of inbound TDUs that were rejected for this resource at the time the displayed TDU was received. Inbound TDUs are rejected when they contain inconsistent information that causes outbound TDUs to be sent as corrections.
- If the subgroup displays the information about topology resources in the TDUs that were sent most recently:
  - *count1* is the total number of outbound TDUs that were sent for this resource at the time the displayed TDU was sent.
  - *count2* is the total number of inbound TDUs that were received for this resource at the time the displayed TDU was sent.

**Tip:** A *rsn* value of **\*\*\*\*\*** or TDU counter values of **\*\*\*\*\*** indicates that the values are greater than the available space for those values to be displayed in message IST1778I. You can enter the command with the **FORMAT=LONG** operand to display these values in a format that includes two lines of output for each resource.

#### **IST1779I**

This is a header message for message subgroups that display information about topology resources in the TDUs that were received most recently.

The *date* and *time* values indicate the date and time for the first topology resource and the last topology resource that are displayed in the subgroup. When there are no topology resources on the list, the *first\_tdu\_date* and *first\_tdu\_time* values display the date and time of the last reset of TDU information and TDU counters and the *last\_tdu\_date* and *last\_tdu\_time* values display the current date and time. See [“DATE and TIME formats”](#) on page 6 for information about the date and time values.

The first topology resource that is displayed in the subgroup is from the TDU that was received most recently. The last topology resource that is displayed in the subgroup is from the TDU that was received least recently.

#### **IST2275I**

This message displays the date and time when all the TDU information and TDU counters were reset. All TDU information and TDU counters are reset every 24 hours when garbage collection runs, or when a **DISPLAY NET,TOPO,LIST=TDUINFO,CLEAR=YES** or a **DISPLAY NET,TOPO,LIST=TDUDIAG,CLEAR=YES** command is entered. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

#### **IST2276I**

This message indicates that no corruption of topology control vectors was detected since VTAM was started.

#### **IST2277I**

This is a header message for a message subgroup that displays information about topology resources that have control vectors in the topology database that have possibly been corrupted.

Because the topology control vectors contain the resource sequence number (RSN) for a node or TG, which determines how the TDU is processed, it is possible that control vector corruption could cause a TDU war. The most probable cause of control vector corruption is a storage overlay.

#### **IST2278I**

This message displays the date and time that VTAM was started. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

Unlike the lists of topology resources in the TDUs that were received or sent most recently, the list of topology resources with possible topology control vector corruption is never cleared and includes any possible corruption detection since the start of VTAM.

#### **IST2279I**

This is a header message for the information about topology resources with possible topology control vector corruption that is displayed in the IST2280I messages that follow.

#### **IST2280I**

One IST2280I message is displayed for each topology resource that has control vectors that have possibly been corrupted.

Information about possible corrupted control vectors is maintained from the start of VTAM and is not deleted when TDU information is reset. All topology resources that have possible corrupted control vectors are displayed in this subgroup, regardless of the reset of TDU information.

The **NUM** operand can be specified on the **DISPLAY** command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the start of VTAM is smaller than the number requested on the display command, the number of IST2280I messages that are displayed in the subgroup will be smaller than the **NUM** value that was specified.

*cp\_name* is the network-qualified CP name of the node, if the resource that is displayed is a node. If the resource that is displayed is a TG, *cp\_name* is the network-qualified CP name of the TG origin node.

*destination\_cp* is the network-qualified CP name of the TG's destination node, if the resource that is displayed is a TG. If the resource is a node, then **\*\*\*NA\*\*\*** is displayed.

*tgn* is the transmission group number that is associated with the TG that is displayed. If the resource is a node, **NA** is displayed .

*time\_detected* and *date\_detected* are the date and time that possible corruption of control vectors for the topology resource was detected. See [“DATE and TIME formats” on page 6](#) for information about date and time values.

#### **IST2284I**

This message indicates that possible topology control vector corruption was detected for a node or TG.

#### **IST2285I**

This is a header message for message subgroups that display information about topology resources in the TDUs that were sent most recently.

IST2285I displays the date and time for the first topology resource and the last topology resource that are displayed in the subgroup. When there are no topology resources on the list, the *first\_tdu\_date* and *first\_tdu\_time* values display the date and time of the last reset of TDU information and TDU counters. The *last\_tdu\_date* and *last\_tdu\_time* display the current date and time. See [“DATE and TIME formats” on page 6](#) for information about date and time values.

The first topology resource that is displayed in the subgroup is from the TDU that was sent most recently. The last topology resource that is displayed in the subgroup is from the TDU sent least recently.

#### **IST2288I**

This is a header message for the information about topology resources in the TDUs that were sent most recently that is displayed in the IST1778I messages that follow. These messages are displayed when **FORMAT=SHORT** is specified or the default **FORMAT** value is taken.

REC is the abbreviation for RECEIVED.

#### **IST2290I**

- *tdudiag\_value* is the user-defined TDUDIAG start option value, specified on the **START** command or in the start list. The *tdudiag\_value* value specifies when TDU diagnostic information is included with node or TG control vectors within a TDU. See the [TDUDIAG start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#). Possible values can be one of the following:

##### **A decimal value in the range of 1-65535**

This is a threshold number of times that this network node has updated the resource sequence number (RSN) for a topology resource since the last time that TDU information was reset. When this threshold value is reached for a node or TG, TDU diagnostic information is included in the outbound TDU if the RSN is updated.

##### **ALWAYS**

TDU diagnostic information is always appended with the topology control vectors included in a TDU for a topology resource when the RSN for that resource is updated by this network node.

##### **NEVER**

TDU diagnostic information is never appended with the topology control vectors included in a TDU.

#### **IST2301I**

This message displays the number of topology resources that are displayed in a message subgroup.

*num* is the total number of topology resources that are displayed in a message subgroup.

*total* is the total number of topology resource records that currently exist on the displayed list.

#### **IST2352I**

This message follows message IST2358I and this message pair displays the information about topology resources in the TDUs that were sent most recently, when the **FORMAT=LONG** operand is specified.

*sent* is the total number of TDUs that were sent for this resource at the time that the displayed TDU was sent.

*received* is the total number of TDUs that were received for this resource at the time that the displayed TDU was sent.

#### **IST2353I**

This message follows message IST2358I and this message pair displays the information about topology resources in the TDUs that were received most recently, when the FORMAT=LONG operand is specified. *accepted* is the total number of inbound TDUs that were accepted for this resource at the time that the displayed TDU was received. Inbound TDUs are accepted when they contain new information that causes the resource record to be updated. *rejected* is the total number of inbound TDUs that were rejected for this resource at the time that the displayed TDU was received. Inbound TDUs are rejected when they contain backlevel information that causes outbound TDUs to be sent as corrections.

### IST2357I

This is a header message for the information about topology resources in the TDUs that were received most recently or sent most recently. The information about each topology resource is displayed in a message pair when FORMAT=LONG is specified.

### IST2358I

This is the first of two messages that display the information about a topology resource when the FORMAT=LONG operand is specified.

The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 topology resources, or message pairs, and the maximum value is 50. If the number of topology resources on the list since the last TDU count reset is smaller than the number requested on the display command, the number of topology resources that are displayed in the subgroup will be smaller than the NUM value that was specified.

*cp\_name* is the network-qualified CP name of the node if the resource that is displayed is a node. If the resource that is displayed is a TG, *cp\_name* is the network-qualified CP name of the TG origin node.

*rsn* is the resource sequence number (RSN) expressed in decimal.

*destination\_cp* is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource that is displayed is a node, **\*\*\*NA\*\*\*** is displayed.

*tgn* is the transmission group number that is associated with the TG that is displayed. If the resource is a node, **NA** is displayed.

### IST2359I

This message is displayed when there are no topology resources that have been received or sent since the TDU information and TDU counters were last reset. Message IST2275I displays the last reset date and time.

## System action

Processing continues.

## Operator response

If you are displaying TDU information because of performance degradation of the APPN network, use the information about using the DISPLAY TOPO command with LIST=TDUINFO and LIST=TDUDIAG in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#), and do the following:

1. Repeat the display several times to see if there is a pattern of excessive TDU activity for a topology resource.
2. Enter the DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=ACTIVITY command to see the topology resources with the most frequent TDU activity.
3. If a node or TG is identified with excessive TDU activity, the following displays might provide information about the network nodes that are causing the performance degradation (TDU war):
  - DISPLAY NET,TOPO,LIST=TDUDIAG provides a summary of nodes and TGs with saved TDU diagnostic information.
  - DISPLAY NET,TOPO,LIST=TDUDIAG,ID=cp\_name provides details about saved TDU diagnostic information for a node.
  - DISPLAY NET,TOPO,LIST=TDUDIAG,ORIG=orig\_CP,DEST=dest\_CP,TGN=tng provides details about saved TDU diagnostic information for a TG.



4. If you can identify the network nodes that are involved in the TDU war, bring down the CP-CP sessions from one of the network nodes involved to all other network nodes in the network or subnetwork.
5. If you cannot stop the TDU war, save the system log and request a dump for problem determination. Contact the system programmer.

**Tip:** On the DISPLAY TOPO,LIST=TDUINFO command output, A RSN value of \*\*\*\*\* or TDU counter values of \*\*\*\*\* indicates that the value is greater than the available space for the value to be displayed in message IST1778I or IST2293I. You can use the CLEAR=YES operand specified on either the DISPLAY TOPO,LIST=TDUINFO command or the DISPLAY TOPO,LIST=TDUDIAG summary command to clear the TDU counters, but not the RSN value. Alternately, you can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

## System programmer response

Take the following actions:

- If the operator provides output from the DISPLAY TOPO,LIST=TDUINFO or DISPLAY TOPO,LIST=TDUDIAG commands, use the [using the DISPLAY TOPO command with LIST=TDUINFO and LIST=TDUDIAG in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) to analyze the TDU activity. If possible, identify the topology resource that is in contention and the network nodes that are involved in the TDU war.
- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## User response

Not applicable.

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

The following is an example of the display output from a DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT,NUM=2,FORMAT=LONG command:

```
IST350I DISPLAY TYPE = TDU INFORMATION
IST1776I TOPOLOGY RESOURCES WITH MOST RECENT TDU ACTIVITY
IST2275I TDU INFORMATION SINCE LAST RESET ON 01/29/10 AT 11:43:05
IST2290I TDUDIAG START OPTION = 1000
IST2276I NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED
IST924I -----
IST1779I TDUS RECEIVED BETWEEN 01/29/10 11:43:47 - 01/29/10 11:43:55
IST2357I CP NAME          RSN          DESTINATION CP      TGN
IST2358I NETA.SSCP2A      24369982   NETA.SSCP1A          21
```

```

IST2353I  ACCEPTED = 1435981      REJECTED = 2537561
IST2358I  NETA.SSCP2A      24369980  NETA.SSCP1A      21
IST2353I  ACCEPTED = 1435981      REJECTED = 2537560
IST2301I  2 OF 50 TOPOLOGY RESOURCES DISPLAYED
IST924I  -----
IST2285I  TDUS SENT BETWEEN 01/29/10 11:43:47 - 01/29/10 11:43:55
IST2357I  CP NAME          RSN          DESTINATION CP      TGN
IST2358I  NETA.SSCP2A      24369984  NETA.SSCP1A      21
IST2352I  SENT            = 4296828    RECEIVED = 65097324
IST2358I  NETA.SSCP2A      24369982  NETA.SSCP1A      21
IST2352I  SENT            = 4296827    RECEIVED = 65097323
IST2301I  2 OF 50 TOPOLOGY RESOURCES DISPLAYED
IST314I  END

```

---

**IST1777I**


---

**CP NAME RSN DESTINATION CP TGN ACC REJ**


---

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST1778I**


---

***cp\_name rsn destination\_cp tgn count1 count2***


---

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST1779I**


---

***TDUS RECEIVED BETWEEN first\_tdu\_date first\_tdu\_time - last\_tdu\_date last\_tdu\_time***


---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT command. See [IST1776I](#) for a complete description of the message groups.

## Routing code

2

## Descriptor code

5

---

**IST1780I** **TOPOLOGY RESOURCES WITH MOST FREQUENT TDU ACTIVITY**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY command.

- For LIST=TDUDIAG, see message [IST2274I](#) for a complete description of the message group.
- For LIST=TDUINFO, possible message groups follow:
- This message group is issued if you allow the FORMAT operand to default or you specify FORMAT=SHORT:

```
IST350I  DISPLAY TYPE = TDU INFORMATION
IST1780I  TOPOLOGY RESOURCES WITH MOST FREQUENT TDU ACTIVITY
IST2275I  TDU INFORMATION SINCE LAST RESET ON date AT time
IST2290I  TDUDIAG START OPTION = tdudiag_value
[IST2276I  NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED]
[IST924I  -----]
[IST2277I  POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED]
[IST2278I  SINCE VTAM START ON start_date AT start_time]
[IST2284I  FOR THE FOLLOWING NODES AND TGS]
[IST2279I  CP NAME          DESTINATION CP    TGN    TIME DETECTED]
[IST2280I  cp_name          destination_cp    tgn    date_detected time_detected]
:
[IST2301I  num OF total TOPOLOGY RESOURCES DISPLAYED]
[IST924I  -----]
[IST2359I  NO TDU INFORMATION EXISTS]
[IST2286I  TDUS RECEIVED:]
[IST1777I  CP NAME          RSN          DESTINATION CP    TGN ACC  REJ]
[IST1778I  cp_name          rsn          destination_cp    tgn count1 count2]
:
[IST2301I  num OF total TOPOLOGY RESOURCES DISPLAYED]
[IST924I  -----]
IST2287I  TDUS SENT:
[IST2288I  CP NAME          RSN          DESTINATION CP    TGN SENT  REC]
[IST1778I  cp_name          rsn          destination_cp    tgn count1 count2]
:
IST2301I  num OF total RECORDS DISPLAYED
[IST924I  -----]
[IST2289I  RESOURCE SEQUENCE NUMBERS UPDATED BY THIS NODE:]
[IST2292I  CP NAME          RSN          DESTINATION CP    TGN  UPDATED]
[IST2293I  cp_name          rsn          destination_cp    tgn  updated]
:
[IST2301I  num OF total TOPOLOGY RESOURCES DISPLAYED]
IST314I  END
```

- If you specify FORMAT=LONG on the DISPLAY TOPO command, the display sections for TDUs that were received, TDUs that were sent, and RSNs that were updated by this node are replaced with the following:

```
[IST924I  -----]
[IST2359I  NO TDU INFORMATION EXISTS]
[IST2286I  TDUS RECEIVED:]
[IST2357I  CP NAME          RSN          DESTINATION CP    TGN]
[IST2358I  cp_name          rsn          destination_cp    tgn]
[IST2353I  ACCEPTED = accepted    REJECTED = rejected]
:
[IST2301I  num OF total TOPOLOGY RESOURCES DISPLAYED]
[IST924I  -----]
```

```

[IST2287I TDUS SENT:]
[IST2357I CP NAME          RSN          DESTINATION CP      TGN]
[IST2358I cp_name          rs          destination_cp      tgn]
[IST2352I SENT            = sent          RECEIVED = received]
:
[IST2301I num OF total TOPOLOGY RESOURCES DISPLAYED]
[IST924I -----]
[IST2289I RESOURCE SEQUENCE NUMBERS UPDATED BY THIS NODE:]
[IST2357I CP NAME          RSN          DESTINATION CP      TGN]
[IST2358I cp_name          rs          destination_cp      tgn]
[IST2291I UPDATED        = updated]
:
[IST2301I num OF total TOPOLOGY RESOURCES DISPLAYED]
IST314I END

```

### IST350I

This message identifies the type of information in the display and is always TDU INFORMATION for this message group.

### IST1777I

This is a header message for the information about topology resources in the TDUs that were received most frequently that is displayed in the IST1778I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

ACC is the abbreviation for ACCEPTED.

REJ is the abbreviation for REJECTED.

### IST1778I

- One IST1778I is issued for each topology resource that is displayed in a subgroup when the FORMAT=SHORT operand is specified or the default FORMAT value is taken.
- The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the TDU information and TDU counters were last reset is smaller than the number requested on the display command, the number of IST1778I messages that are displayed in the subgroup will be smaller than the NUM value that was specified.
- *cp\_name* is the network-qualified CP name of the node if the resource that is displayed is a node. If the resource that is displayed is a TG, *cp\_name* is the network-qualified CP name of the TG origin node.
- *rsn* is the resource sequence number (RSN) expressed in decimal.
- *destination\_cp* is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource is a node, **\*\*\*NA\*\*\*** is displayed.
- *tgn* is the transmission group number that is associated with the TG that is displayed. If the resource is a node, **NA** is displayed.
- If the subgroup displays the information about topology resources in the TDUs that were received most frequently:
  - *count1* is the total number of inbound TDUs that were accepted for this resource at the time that the displayed TDU was received. Inbound TDUs are accepted when they contain new information that causes the resource record to be updated.
  - *count2* is the total number of inbound TDUs that were rejected for this resource at the time that the displayed TDU was received. Inbound TDUs are rejected when they contain inconsistent information that causes outbound TDUs to be sent as corrections.
- If the subgroup displays the information about topology resources in the TDUs that were sent most frequently:
  - *count1* is the total number of outbound TDUs that were sent for this resource at the time that the displayed TDU was sent.
  - *count2* is the total number of inbound TDUs that were received for this resource at the time that the displayed TDU was sent.

**Tip:** A RSN value of **\*\*\*\*\*** or TDU counter values of **\*\*\*\*\*** indicates that the values are greater than the available space for those values to be displayed in message IST1778I. You can enter the command with the **FORMAT=LONG** operand to display these values in a format that includes two lines of output for each resource.

#### **IST1780I**

This is a header message for the most frequent topology database updates (TDUs), possible control vector corruption, and resource sequence number (RSN) updates by this node.

#### **IST2275I**

This message displays the date and time when all the TDU information and TDU counters were reset. All TDU information and TDU counters are reset every 24 hours when garbage collection runs, or when a **DISPLAY NET,TOPO,LIST=TDUINFO,CLEAR=YES** or a **DISPLAY NET,TOPO,LIST=TDUDIAG,CLEAR=YES** command is entered. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

#### **IST2276I**

This message indicates that no corruption of topology control vectors was detected since VTAM was started.

#### **IST2277I**

This is a header message for a message subgroup that displays information about topology resources that have control vectors in the topology database that have possibly been corrupted.

Because the topology control vectors contain the resource sequence number (RSN) for a node or TG, which determines how a TDU is processed, it is possible that control vector corruption could cause a TDU war. The most probable cause of control vector corruption is a storage overlay.

#### **IST2278I**

This message displays the date and time that VTAM was started. See [“DATE and TIME formats”](#) on page 6 for information about date and time values.

Unlike the lists of topology resources in the TDUs that were received or sent most frequently, the list of topology resources with possible topology control vector corruption is never cleared and includes any possible corruption detection since the start of VTAM.

#### **IST2279I**

This is a header message for the information about topology resources with possible topology control vector corruption that is displayed in the IST2280I messages that follow.

#### **IST2280I**

One IST2280I is displayed for each topology resource with control vectors that have possibly been corrupted. Information about possible corrupted control vectors is maintained from the start of VTAM and is not deleted when TDU information is reset. All topology resources with possible corrupted control vectors are displayed in this subgroup, regardless of the reset of TDU information.

The **NUM** operand can be specified on the **DISPLAY** command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the start of VTAM is smaller than the number requested on the display command, the number of IST2280I messages that are displayed in the subgroup will be smaller than the **NUM** value that was specified.

*cp\_name* is the network-qualified CP name of the node if the resource that is displayed is a node. If the resource that is displayed is a TG, *cp\_name* is the network-qualified CP name of the TG origin node.

*destination\_cp* is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource is a node, **\*\*\*NA\*\*\*** is displayed.

*tgn* is the transmission group number that is associated with the TG that is displayed. If the resource is a node, **NA** is displayed.

*time\_detected* and *date\_detected* is the date and time that possible corruption of control vectors for the topology resource was detected. See [“DATE and TIME formats”](#) on page 6 for information about date and time values.

#### **IST2284I**

This message indicates that possible topology control vector corruption was detected for a node or TG.

### IST2286I

This is a header message for message subgroups that display information about topology resources in the TDUs that were received in inbound TDUs most frequently.

The first topology resource that is displayed in the subgroup is the resource with the most frequent TDU activity. The last topology resource that is displayed in the subgroup is the resource with the least frequent TDU activity.

### IST2287I

This is a header message for message subgroups that display information about topology resources in the TDUs that were sent most frequently.

The first topology resource that is displayed in the subgroup is the resource with the most frequent TDU activity. The last topology resource that is displayed in the subgroup is the resource with the least frequent TDU activity.

### IST2288I

This is a header message for the information about topology resources in the TDUs that were sent most frequently, that is displayed in the IST1778I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

REC is the abbreviation for RECEIVED.

### IST2289I

This is a header message for information about topology resources that have resource sequence numbers (RSNs) that were updated by this node.

The first topology resource that is displayed in the subgroup is the resource with a RSN that was updated most frequently. The last topology resource that is displayed in the subgroup is the resource with a RSN that was updated least frequently.

### IST2290I

- *tdudiag\_value* is the user-defined TDUDIAG start option value, specified on the START command or in the start list, and specifies when TDU diagnostic information is included with node or TG control vectors within a TDU. See the [TDUDIAG start option](#) information in *z/OS Communications Server: SNA Resource Definition Reference* for additional information about this start option. Possible values can be one of the following:

- A decimal value in the range 1-65535. This is a threshold number of times this network node has updated the resource sequence number (RSN) for a topology resource since the last time TDU information was reset. When this threshold value is reached for a node or TG, TDU diagnostic information is included in the outbound TDU if the RSN is updated.
- **ALWAYS** specifies that TDU diagnostic information is always appended with the topology control vectors included in a TDU for a topology resource when the RSN for that resource is updated by this network node.
- **NEVER** specifies that TDU diagnostic information is never appended with the topology control vectors included in a TDU.

### IST2291I

This message follows message IST2358I and this message pair displays the information about topology resources that have a RSN that was updated by this node, when the FORMAT=LONG operand is specified.

*updated* is the number of times that the topology resource had been updated at the time of the last RSN update.

### IST2292I

This is a header message for the information about topology resources with RSNs that were updated by this node. The topology resources are displayed in the IST2293I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

### IST2293I

One IST2293I is issued for each topology resource that has a RSN that was updated by this node. The first IST2293I message in this message subgroup describes the topology resource whose RSN was updated by this node most frequently.

The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the TDU information and TDU counters were last reset is smaller than the number requested on the display command, the number of IST2293I messages that are displayed in the subgroup will be smaller than the NUM value that was specified.

*cp\_name* is the network-qualified CP name of the node if the resource that is displayed is a node. If the resource that is displayed is a TG, *cp\_name* is the network-qualified CP name of the TG origin node.

*rsn* is the updated RSN expressed in decimal.

*destination\_cp* is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource is a node, **\*\*\*NA\*\*\*** is displayed.

*tgn* is the transmission group number that is associated with the TG that is displayed. If the resource is a node, **NA** is displayed.

*updated* is the number of times that the topology resource has been updated at the time of the last RSN update.

**Tip:** A RSN value of **\*\*\*\*\*** or update counter value of **\*\*\*\*\*** indicates that the value is greater than the available space for the value to be displayed in message IST2293I. You can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

### IST2301I

This message displays the number of topology resources in a message subgroup.

*num* is the total number of topology resources that are displayed.

*total* is the total number of topology resource records that are on the displayed list.

### IST2352I

This message follows message IST2358I when the FORMAT=LONG operand is specified. The message pair displays the information about topology resources in the TDUs that were sent most frequently.

*sent* is the total number of TDUs that were sent for this resource at the time that the displayed TDU was sent.

*received* is the total number of TDUs that were received for this resource at the time that the displayed TDU was sent.

### IST2353I

This message follows message IST2358I when the FORMAT=LONG operand is specified. The message pair displays the information about topology resources in the TDUs that were received most frequently.

*accepted* is the total number of inbound TDUs that were accepted for this resource at the time that the displayed TDU was received. Inbound TDUs are accepted when they contain new information that causes the resource record to be updated.

*rejected* is the total number of inbound TDUs that were rejected for this resource at the time that the displayed TDU was received. Inbound TDUs are rejected when they contain inconsistent information that causes outbound TDUs to be sent as corrections.

### IST2357I

- This is a header message for the information about topology resources that is displayed in message pairs when FORMAT=LONG is specified. The information is displayed in three sections:

- topology resources in the TDUs that were received most frequently
- topology resources in the TDUs that were sent most frequently
- topology resources with RSNs that were updated by this node

### IST2358I

This is the first of two messages that display the information about a topology resource when the FORMAT=LONG operand is specified.

The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 topology resources, or message pairs, and the maximum value is 50. If the number of topology resources on the list since the last TDU count reset is smaller than the number requested on the display command, the number of topology resources that are displayed in the subgroup will be smaller than the NUM value that was specified.

*cp\_name* is the network-qualified CP name of the node if the resource that is displayed is a node. If the resource that is displayed is a TG, *cp\_name* is the network-qualified CP name of the TG origin node.

*rsn* is the resource sequence number (RSN) expressed in decimal.

*destination\_cp* is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource is a node, **\*\*\*NA\*\*\*** is displayed.

*tgn* is the transmission group number that is associated with the TG that is displayed. If the resource is a node, **NA** is displayed.

## IST2359I

This message is displayed when there are no topology resources that have been received, sent, or had RSNs updated since the TDU information and TDU counters were last reset. Message IST2275I displays last reset date and time.

## System action

Processing continues.

## Operator response

If you are displaying TDU information because of performance degradation of the APPN network, use the information about [using the DISPLAY TOPO command with LIST=TDUINFO and LIST=TDUDIAG in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#), and do the following:

1. Repeat the display several times to see if there is a pattern of excessive TDU activity for a topology resource.
2. Enter the DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=RECENT command to see the topology resources with the most recent TDU activity.
3. If a node or TG is identified with excessive TDU activity, the following displays might provide information about the network nodes that are causing the performance degradation (TDU war):
  - DISPLAY NET,TOPO,LIST=TDUDIAG provides a summary of nodes and TGs with saved TDU diagnostic information.
  - DISPLAY NET,TOPO,LIST=TDUDIAG,ID=cp\_name provides details about saved TDU diagnostic information for a node.
  - DISPLAY NET,TOPO,LIST=TDUDIAG,ORIG=orig\_CP,DEST=dest\_CP,TGN=tgn provides details about saved TDU diagnostic information for a TG.
4. If you can identify the network nodes that are involved in the TDU war, bring down the CP-CP sessions from one of the network nodes involved to all other network nodes in the network or subnetwork.

**Tip:** On the DISPLAY NET,TOPO,LIST=TDUINFO command output, A RSN value of **\*\*\*\*\*** or TDU counter values of **\*\*\*\*\*** indicates that the value is greater than the available space for the value to be displayed in message IST1778I or IST2293I. You can clear the TDU counters, but not the RSN, with the CLEAR=YES operand specified on either the DISPLAY TOPO,LIST=TDUINFO command or the DISPLAY TOPO,LIST=TDUDIAG summary command. Alternately, you can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

## System programmer response

Take the following actions:

- If the operator provides output from the DISPLAY NET,TOPO,LIST=TDUINFO or DISPLAY NET,TOPO,LIST=TDUDIAG command, use the [using the DISPLAY TOPO command with LIST=TDUINFO and LIST=TDUDIAG in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) to analyze



the TDU activity. If possible, identify the topology resource that is in contention and the network nodes that are involved in the TDU war.

- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## Problem determination

See the system programmer response.

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

The following is an example of the display output from a DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=ACTIVITY,NUM=5,FORMAT=SHORT command:

```
IST350I DISPLAY TYPE = TDU INFORMATION
IST1780I TOPOLOGY RESOURCES WITH MOST FREQUENT TDU ACTIVITY
IST2275I TDU INFORMATION SINCE LAST RESET ON 01/29/10 AT 11:43:05
IST2290I TDUDIAG START OPTION = 1000
IST2276I NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED
IST924I -----
IST2286I TDUS RECEIVED:
IST1777I CP NAME          RSN      DESTINATION CP    TGN ACC  REJ
IST1778I NETA.SSCP2A      6       NETA.SSCP1A      21  2    0
IST1778I CNRA.LVRN4A      2       NETA.SSCP2A      21  1    0
IST1778I NETA.SSCP2A      2       CNRA.LVRN4A      21  1    0
IST1778I NETA.SSCPAA      4       NETA.SSCP1A      21  1    0
IST1778I NETA.SSCPAA      2       ***NA***         NA  1    0
IST2301I 5 OF 6 TOPOLOGY RESOURCES DISPLAYED
IST924I -----
IST2287I TDUS SENT:
IST2288I CP NAME          RSN      DESTINATION CP    TGN SENT REC
IST1778I NETA.SSCP2A      6       NETA.SSCP1A      21  3    3
IST1778I NETA.SSCP1A      6       NETA.SSCP2A      21  3    1
IST1778I NETA.SSCP2A      2       ***NA***         NA  2    1
IST1778I NETA.SSCP1A      2       ***NA***         NA  2    0
IST1778I CNRA.LVRN4A      2       NETA.SSCP2A      21  1    1
IST2301I 5 OF 11 TOPOLOGY RESOURCES DISPLAYED
IST924I -----
IST2289I RESOURCE SEQUENCE NUMBERS UPDATED BY THIS NODE:
IST2292I CP NAME          RSN      DESTINATION CP    TGN  UPDATED
IST2293I NETA.SSCP1A      6       NETA.SSCP2A      21    1
IST2293I CNRA.LVRN4A      2       NETA.SSCP1A      21    1
IST2293I NETA.SSCP1A      2       CNRA.LVRN4A      21    1
IST2301I 3 OF 3 TOPOLOGY RESOURCES DISPLAYED
IST314I END
```

---

**IST1781I**

**INITDB CHECKPOINT DATASET LAST GARBAGE COLLECTION**

## Explanation

VTAM issues this message as part of a group messages in response to a DISPLAY TOPO, LIST=SUMMARY command. See IST1306I for a complete description of the message group.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IST1782I	ENTRY NAME	TABLE NAME	ACTIVATION TIME
----------	------------	------------	-----------------

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY COS,TYPE=APPN command. A complete description of the message group follows the example.

```
IST350I  DISPLAY TYPE = APPN COS
IST1782I  ENTRY NAME      TABLE NAME      ACTIVATION TIME
IST1783I  cos_entry       cos_table         date          time
:
IST314I  END
```

### IST350I

This message identifies the type of information in the display and is always APPN Class of Service for this message group.

### IST1782I

This message is a header message for the information displayed in message IST1783I.

### IST1783I

One IST1783I will be issued for each APPN COS entry displayed.  
*cos\_entry* is the name of the APPN Class of Service entry.  
*cos\_table* is the name of the last APPNCOS table that was used to create or update the Class of Service entry.  
The *date* and *time* values are displayed in the ACTIVATION TIME field. The *date* and *time* values specify when the Class of Service entry was created or last updated. See [“DATE and TIME formats” on page 6](#) for information about the *date* value.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1783I</b>	<i>cos_entry cos_table date time</i>
-----------------	--------------------------------------

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY COS,TYPE=APPN command. The first message of the group is IST1782I. See the explanation of that message for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

<b>IST1784I</b>	<b>LAST TDU RECEIVED - NONE</b>
-----------------	---------------------------------

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=cp\_name. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tgn. See message [IST2311I](#) for a complete description of this message group.
- DISPLAY TOPO,ID=cp\_name,LIST=ALL. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tgn. See message [IST1299I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

<b>IST1785I</b>	<i>initdb_date initdb_time garbage_collect_date garbage_collect_time</i>
-----------------	--

# Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY,TOPO,LIST=SUMMARY command. See IST1306I for a complete description of the group.

# Routing code

2

# Descriptor code

5

IST1786I

HPR ROUTE TEST INITIATED FOR RTP PU

# Explanation

VTAM issues this message as part of a subgroup of messages in response to a DISPLAY RTPS command. The first message of the subgroup is IST1695I. See the explanation of that message for a complete description of the subgroup.

# Routing code

2

# Descriptor code

5

IST1787I

HPR ROUTE TEST RESULTS FOR RTP PU *puname*

# Explanation

VTAM issues this message as the first of a message group to display the results of an HPR Route Test for *puname*. This HPR Route Test was initiated in response to a DISPLAY RTPS command with ID=*puname* or TCID=*tcid\_value* and TEST=YES being issued for the RTP PU identified by *puname*. This message is the first in a group of messages and the full description of the message group follows the example.

```
IST1787I HPR ROUTE TEST RESULTS FOR RTP PU puname
IST1788I NODE CP NAME      TG NUMBER  PARTNER CP NAME  INTERNODAL TIME
IST1789I                                     (MILLISECONDS)
IST1790I node_cpname      tg_number  partner_cpname  internodal_time
[IST1791I HPR ROUTE TEST PACKET NOT RETURNED BY NODE cpname]
IST1792I TOTAL RTP TRAVERSAL TIME traversal_time MILLISECONDS
IST314I  END
```

# IST1787I

*puname* is the RTP PU for which the Route Test results are displayed.

# IST1788I

This message serves as a header for message IST1788I to identify the output columns in that message.

# IST1789I

This message shows that the internodal\_time value is in milliseconds.

# IST1790I

- This message provides the data obtained by the Route Test. One of these messages will be issued for each link (Transmission Group) in the RTP pipe.
- *node\_cpname* is the CP name of the node owning the Transmission Group(TG).
- *tg\_number* is the negotiated TG number for this RTP or **UNKNOWN** if the real TG information is not available.

- *partner\_cpname* is the CP name of the partner node for this TG.
  - *internodal\_time* is the time it took for a Route Test packet to traverse this TG, in milliseconds, or **\*\*\*NA\*\*\*** if this test packet did not return.
- Note:** The sum of the internodal times shown in the IST1790I messages might be as much as 1 ms less for each hop in the RTP than the total RTP traversal time shown in message IST1792I, because integer division might cause internodal times to be truncated during calculation.

**IST1791I**

This message will be issued for all nodes in the RTP pipe that did not return a Route Test packet.  
*cpname* is the CP name of the node that did not return the Route Test packet.

**IST1792I**

This message tells how long it took a Route Test packet to be sent from this VTAM to the other end of the RTP pipe.  
*traversal\_time* is the total time in milliseconds it took for a Route Test packet to travel from VTAM to the other end of the RTP pipe.

**System action**

Processing continues.

**Operator response**

Examine the internodal and traversal times for each link (Transmission Group) to identify any links where the traversal time is slow. Route Test packets not returned would indicate a problem with one or more of the links between this host node and the node identified by IST1791I. Path Switching for this RTP should be automatically attempted by the system.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

IST1788I	NODE CP NAME TG NUMBER PARTNER CP NAME INTERNODAL TIME
----------	--

**Explanation**

This message is part of a group of messages that VTAM issues in response to an HPR Route Test. The first message of the group is IST1787I. See the explanation of that message for a complete description of the group.

**Routing code**

2

**Descriptor code**

5

IST1789I	(MILLISECONDS)
----------	----------------

## Explanation

This message is part of a group of messages that VTAM issues in response to an HPR Route Test. The first message of the group is IST1787I. See the explanation of that message for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

<b>IST1790I</b>	<i>node_cpname tg_number partner_cpname internodal_time</i>
-----------------	---

---

## Explanation

This message is part of a group of messages that VTAM issues in response to an HPR Route Test. The first message of the group is IST1787I. See the explanation of that message for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

<b>IST1791I</b>	<b>HPR ROUTE TEST PACKET NOT RETURNED BY NODE <i>cp_name</i></b>
-----------------	--

---

## Explanation

This message is part of a group of messages that VTAM issues in response to an HPR Route Test. The first message of the group is IST1787I. See the explanation of that message for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

<b>IST1792I</b>	<b>TOTAL RTP TRAVERSAL TIME <i>traversal_time</i> MILLISECONDS</b>
-----------------	--

---

## Explanation

This message is part of a group of messages that VTAM issues in response to an HPR Route Test. The first message of the group is IST1787I. See the explanation of that message for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

<b>IST1793I</b>	<b>HPR ROUTE TEST NOT INITIATED - RTP PU NOT IN PROPER STATE</b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a subgroup of messages in response to a DISPLAY RTPS command. The first message of the subgroup is IST1695I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

5

---

<b>IST1794I</b>	<b>HPR ROUTE TEST NOT INITIATED - TEST ALREADY IN PROGRESS</b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a subgroup of messages in response to a DISPLAY RTPS command. The first message of the subgroup is IST1695I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

5

---

<b>IST1795I</b>	<b>HPR ROUTE TEST NOT INITIATED - INSUFFICIENT STORAGE</b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a subgroup of messages in response to a DISPLAY RTPS command. The first message of the subgroup is IST1695I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

5

---

<b>IST1796I</b>	<b>SYSTEM-MANAGED DUPLEXING REBUILD IS IN PROGRESS</b>
-----------------	--

---

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1797I****STRUCTURE TYPE = *type*****Explanation**

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1798I****TOPOLOGY DATASET RETRIEVED WAS CREATED ON *date time*****Explanation**

VTAM issues this message when topology data from a previously saved topology checkpoint data set has been read successfully at VTAM initialization.

The *date* and *time* values specify when the data set was created. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1799I****NO ROUTE AVAILABLE TO DESTINATION IP ADDRESS *ipaddr*****Explanation**

This message is the first in a group of messages that VTAM issues when the TCP/IP stack could not find a route to the destination VIPA address specified. A complete description of the message group follows the example.

```
IST1799I NO ROUTE AVAILABLE TO DESTINATION IP ADDRESS ipaddr
IST1680I type IP ADDRESS ip_address
IST314I   END
```

**IST1799I**

*ipaddr* is the destination static VIPA address.

**IST1680I**



*type* indicates which IP address is being displayed. In this message group, *type* is always LOCAL.  
*ip\_address* is the source static VIPA address.

### System action

The Enterprise Extender connection will fail to activate and the associated link will be deactivated because no route was available.

### Operator response

None.

### System programmer response

There is no route to this IP address. For an Enterprise Extender connection, the address must be a static VIPA and a route must be available between the two endpoints of the connection. Determine if this address has been specified correctly and that there is a route in both directions between the endpoints of the Enterprise Extender connection.

### Routing code

2

### Descriptor code

5

---

**IST1800I**

**TRLE = *trlename* \*\* CONGESTED \*\***

### Explanation

This message is issued in response to the following display commands when the associated device is congested:

- D NET TRL
- D NET,TRL,TRLE=*trlename*
- D NET,ID=*trlename*

**\*\* CONGESTED \*\*** indicates that the associated device *trlename* has an excessive amount of outbound I/O work that is queued at the Data Link Control (DLC) layer. This congestion might be related to system storage problems (such as storage shortages) for this system.

### System action

None.

### Operator response

When a device is marked congested, further action is required to determine whether the congestion is related to a system storage problem. The following steps should be taken:

1. Review the system console for any messages related to current storage shortage conditions.
2. Issue the following display commands:
  - VTAM display commands:
    - D NET,CSM
    - D NET,BFRUSE
    - D NET,STORUSE,POOL=\*
  - TCP/IP display command (if applicable):

– D TCPIP,, STOR

3. Issue D NET,TRL,TRLE= trlenam to obtain more details about the device congestion (reference message IST1802I).
4. Activate VTAM tuning statistics (TNSTAT) or RMF (or other monitoring tools) to monitor this specific device.
5. Display the active jobs in the system to determine whether new work was recently started.

If the previous steps indicate a system storage shortage is present, it might be necessary to obtain documentation (such as a CONSOLE LOG and a DUMP) to diagnose the congestion related to this device. This condition might be relieved by stopping the device (TCP/IP) or inactivating the PU (SNA).

## System programmer response

The following steps might be required to isolate a system storage problem that is related to an I/O device:

1. Review the network configuration related to this device or any recent configuration changes for this system.
2. Review or monitor (using the output from VTAM TNSTAT or RMF) the network traffic related to this device. Compare the actual workload to the I/O capacity of the hardware device.
3. Determine if the congestion is related to a specific time of day, job, application, or type of work load.
4. Verify that Missing Interrupt Handler (MIH) is defined for the write devices.
5. Review or verify that the maintenance level for the hardware device is current.
6. Consider automating the necessary storage displays to monitor system conditions.

## Routing code

2

## Descriptor code

5

---

**IST1801I**

**UNITS OF WORK FOR NCB AT ADDRESS *stor\_addr***

## Explanation

This message is displayed as a result of display command D NET,TRL,TRLE= *trlenam* or D NET,ID = *trlenam*.

*stor\_addr* is the storage address of the Node Control Block (NCB) that is related to this device. For a description of the counts of units of work, see IST1802I.

## System action

None.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1802I**

*pn* **CURRENT = cur AVERAGE = avg MAXIMUM = max**

---

## Explanation

This message is issued as a result of display command D NET,TRL,TRLE=*trlenam*e, or D NET,ID=*trlenam*e. This message provides the detailed counts of units of work for a specific device or MPC group measured at the Data Link Control (DLC) layer.

*pn* is the Priority Queue Number (such as P1) for this device. *pn* is only displayed when applicable to a DLC.

Each of the following counts CURRENT, AVERAGE, and MAXIMUM is a 4-digit (nnnn) decimal number with a range of 1 - 9999. When the count exceeds 9999, the number will be expressed as nnnK (thousands - such as 12K). The highest value that can be displayed is 999K.

*cur* is the current total number of outbound work units that are being processed by the DLC layer for this device or MPC group.

*avg* is the average number of outbound work units that have been processed by the DLC layer for this device since activation. Average means how many outbound work units are present at the DLC layer for this device each time the DLC processes outbound work.

*max* is the maximum number of outbound work elements that accumulated in the DLC layer for this device since activation.

## System action

None.

## Operator response

None. However, if the CURRENT COUNT is excessive, the device might be marked \*\* CONGESTED \*\*. See IST1800I for an explanation of \*\* CONGESTED \*\*.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1803I**

*parameter* **PARAMETER VALUE NOT VALID - DEFAULT default USED**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command. See [IST1295I](#) for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST1804I**

*parameter* **PARAMETER NOT VALID - IGNORED**

---

## Explanation

VTAM can issue this message as part of a group of messages or as a stand-alone message.

When VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command, see [IST1295I](#) for a complete description of the message group.

VTAM issues this message alone in response to a MODIFY RESOURCE, ID=cdrrsc\_name, ADJLIST=list, ACTION=UPDATE when the command is entered in a pure APPN node. A pure APPN node is a VTAM that is started with start options NODETYPE=NN or NODETYPE=EN, but without HOSTSA or with HOSTSA and SACONNS=NO.

*parameter* is the parameter that is not valid on the command. For the MODIFY RESOURCE command in a pure APPN node, *parameter* will always be ADJLIST.

## System action

Processing continues. If this message is issued in response to a MODIFY RESOURCE command, the specified ADJLIST is not associated with the CDRSC.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1805I**

**ONLY LOCAL TOPOLOGY INFORMATION IS AVAILABLE**

---

## Explanation

VTAM issues this message when a DISPLAY TOPO command is issued at an end node and one of the following is true:

- The requested information is not available at the end node. In this case, this message will be displayed before IST1308I.
- The information displayed might be a subset of the information displayed when the same command is issued at a network node. In this case, this message is part of a group of messages in response to a DISPLAY TOPO command. See [IST1295I](#) for a complete description of the message group.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1806I NO DIAL-IN LINE FOUND FOR HPR/IP SWITCHED CONNECTION**

---

## Explanation

This message is issued when there are no HPR/IP (Enterprise Extender) lines available to accept a dial in predefined Enterprise Extender (EE) network connection. The lines are defined in the HPR/IP (Enterprise Extender) XCA major node.

## System action

Processing continues and the EE connection was not established. The other side of the EE connection (where the dial out was initiated) will eventually discover the connection was not established, and an INOP will be generated (due to a timeout while waiting for a response to EE connection initiation).

## Operator response

Save the system log and contact the system programmer for problem determination.

## System programmer response

Add lines to one of the GROUPs used to define HPR/IP (Enterprise Extender) predefined connections in the XCA major node. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information about defining EE connections and see the [z/OS Communications Server: SNA Network Implementation Guide](#) for general information about Enterprise Extender.

## Routing code

2

## Descriptor code

5

---

**IST1807I NO DIAL-IN LINE FOR HPR/IP VIRTUAL NODE *nodename***

---

## Explanation

This message is issued when there are no HPR/IP (Enterprise Extender) lines available to accept a dial in for an Enterprise Extender (EE) Connection Network. The lines are defined in the HPR/IP (Enterprise Extender) XCA major node.

*nodename* is the name of the HPR/IP (Enterprise Extender) virtual node for a connection network.

## System action

Processing continues and the EE connection was not established. The other side of the EE connection (where the dial out was initiated) will eventually discover that the connection was not established and an INOP will be generated (due to a timeout while waiting for a response to EE connection initiation.)

## Operator response

Save the system log and contact the system programmer for problem determination.

## System programmer response

Add lines to the GROUP used to define the HPR/IP (Enterprise Extender) Connection Network in the XCA major node. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information about defining EE connections and see the [z/OS Communications Server: SNA Network Implementation Guide](#) for general information about Enterprise Extender.

## Routing code

2

## Descriptor code

5

---

<b>IST1809I</b>	<b>HPR ROUTE TEST NOT INITIATED - INSUFFICIENT PATH INFORMATION</b>
-----------------	---

---

## Explanation

VTAM issues this message as part of a subgroup of messages in response to a DISPLAY RTPS command. The first message of the subgroup is IST1695I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

5

---

<b>IST1810I</b>	<b>PKTIQDO = <i>pktiqdo</i> PKTIQD = <i>pktiqd</i></b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources or for Network Express resources. The first message in the group is IST1230I.

See the message:

- [“IST1230I” on page 691](#) for a complete description of the MPC resources message group.
- [“IST2488I” on page 1575](#) for a complete description of the Network Express resources message group.

## Routing code

2

## Descriptor code

5

---

<b>IST1811I</b>	<b>BYTIQDO = <i>bytiqdo</i> BYTIQD = <i>bytiqdo</i></b>
-----------------	---

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources or for Network Express resources. The first message in the group is IST1230I.

See the message:

- “IST1230I” on page 691 for a complete description of the MPC resources message group.
- “IST2488I” on page 1575 for a complete description of the Network Express resources message group.

## Routing code

2

## Descriptor code

5

---

<b>IST1816I</b>	<b>PARAMETER 1 FOR DISCNTIM MUST BE NUMERIC OR IMMED</b>
-----------------	--

---

## Explanation

VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the first parameter specified for the DISCNTIM start option is not correct. The first parameter for the DISCNTIM start option must be numeric, or the character value IMMED.

## System action

VTAM ignores the option. If the error occurred during START processing, VTAM will issue message IST1311A to prompt you to enter the start option value of DISCNTIM again. See IST1311A for more information. If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

## Operator response

If the error occurred during START processing, enter a valid value for parameter one of DISCNTIM option in response to IST1311A. You can also enter a blank if you want to accept the default value for DISCNTIM. If the error occurred in response to a MODIFY VTAMOPTS command, issue the command again, specifying a valid value for parameter one of DISCNTIM.

## System programmer response

If the error occurred during START processing, correct the value for DISCNTIM, if DISCNTIM is coded in an ATCSTRxx file. If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

## Routing code

2

## Descriptor code

5

---

<b>IST1817I</b>	<b>PATH SWITCH REASON: RTP CONNECTION UNAVAILABLE</b>
-----------------	---

---

## Explanation

This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either [IST1494I](#) or [IST1968I](#). See the description of those messages for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST1818I</b>	<b>PATH SWITCH REASON: SHORT REQUEST RETRY LIMIT EXHAUSTED</b>
-----------------	--

## Explanation

This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either [IST1494I](#) or [IST1968I](#). See the description of those messages for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST1819I</b>	<b>PATH SWITCH REASON: TG INOP</b>
-----------------	------------------------------------

## Explanation

This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either [IST1494I](#) or [IST1968I](#). See the description of those messages for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST1820I</b>	<b>PATH SWITCH REASON: MODIFY RTP COMMAND ISSUED</b>
-----------------	--

## Explanation

This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either [IST1494I](#) or [IST1968I](#). See the description of those messages for more information.

## Routing code

2



## Descriptor code

5

---

<b>IST1821I</b>	<b>PATH SWITCH REASON: AUTO PATH SWITCH FOR PSRETRY</b>
-----------------	---

---

## Explanation

This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either [IST1494I](#) or [IST1968I](#). See the description of those messages for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST1822I</b>	<b>PATH SWITCH REASON: UNKNOWN</b>
-----------------	------------------------------------

---

## Explanation

This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either [IST1494I](#) or [IST1968I](#). See the description of those messages for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST1823I</b>	<b>LIST DVIPA SYSNAME TCPNAME # ASSIGNED PORTS</b>
-----------------	--

---

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1824I</b>	<b><i>list dvipa numports</i></b>
-----------------	-----------------------------------

---

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1825I** *sysname tcpname numports*

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1826I** **PORTS:** *port1 port2 port3 port4 port5 port6*

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1827I** *port1 port2 port3 port4 port5 port6*

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1828I** **LIST** *listnum* **IS UNCLAIMED**

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1829I****NO CLAIMED LISTS FOUND FOR THE SPECIFIED DVIPA**

---

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1830I****NO CLAIMED LISTS FOUND**

---

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1831I*****percent OF SYSTEM CSA STORAGE REMAINING = sys\_csa\_avail***

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the group is IST449I. See the explanation of that message for a full description.

## Routing code

2

## Descriptor code

5

---

**IST1832I****CSALIMIT VALUE *csa\_limit* MIGHT BE TOO SMALL**

---

## Explanation

VTAM issues this message when a nonzero value is specified for CSALIMIT that is less than 25 Megabytes (25 000 Kilobytes) and the ,F modifier is specified to make it an absolute setting. This message is informational because the value coded might be appropriate for your system.

*csa\_limit* is the CSA limit specified in the CSALIMIT start option or a MODIFY CSALIMIT command.

## System action

Processing continues.

## Operator response

When VTAM is active, issue a DISPLAY BFRUSE,BUFFER=\* command and save the console output for the system programmer.

## System programmer response

See the [z/OS Communications Server: SNA Resource Definition Reference](#) and the [z/OS Communications Server: SNA Network Implementation Guide](#) for information about setting the CSALIMIT value too low. See the [z/OS Communications Server: SNA Operation](#) for details on using the VTAM DISPLAY BFRUSE command output to determine the currently available and the total system CSA.

## Routing code

2

## Descriptor code

3

---

IST1833I	CSA STORAGE ALLOCATION EXCEEDS SPECIFIED CSALIMIT VALUE
----------	---

## Explanation

A CSA storage request caused VTAM to exceed the value specified for CSALIMIT.

## System action

Processing continues.

## Operator response

Monitor CSA storage usage with the DISPLAY BFRUSE,BUFFER=\* command. See the [z/OS Communications Server: SNA Operation](#) for details. Save this console output for the System Programmer.

## System programmer response

Determine if the current value for CSALIMIT is set too low and modify it, if necessary. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information about specifying a low CSALIMIT value. See the [z/OS Communications Server: SNA Operation](#) for details on using the VTAM DISPLAY BFRUSE command output to determine the currently available and the total system CSA. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) about storage problem procedures for CSA storage problems.

## Routing code

2

## Descriptor code

3

---

IST1834I	LIST DVIPA SYSNAME TCPNAME #ENTRIES TGDCOUNT SEQNUMBER
----------	--

**Explanation**

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1835I** *list dvipa*

**Explanation**

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1836I** *sysname tcpname #entries tgcount*

**Explanation**

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1837I** *sysname tcpname #entries seqnumber*

**Explanation**

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1838I** **LIST ENTRY KEYS:**

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1839I</b>	<b><i>list_entry_key</i></b>
-----------------	------------------------------

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1840I</b>	<b>DLUR = <i>dlurname</i></b>
-----------------	-------------------------------

## Explanation

VTAM issues this message as part of a message group to indicate the name of the dependent LU requester (DLUR ) associated with a resource for which a negative response to a request was received. The first message in the group is IST1139I. See the description of that message for a complete description.

---

<b>IST1841I</b>	<b>ACTUAL DATA FLOW RATE = <i>actual units</i></b>
-----------------	--

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. The first message in the group is either [IST1476I](#) or [IST1968I](#). See the description of those messages for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST1842I</b>	<b>NUMBER OF NLPS RETRANSMITTED = <i>retransmitted</i></b>
-----------------	--

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

### Descriptor code

5

<b>IST1843I</b>	<b>NUMBER OF NLPS ON WAITING-TO-SEND QUEUE = </b> <i>waitsend</i>
-----------------	---

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a rapid transport protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

## Routing code

2

### Descriptor code

5

IST1844I ARB MODE = *mode*

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

## Routing code

2

### Descriptor code

5

IST1845I	BOUNDARY DIVIDING REGIONS <i>lower</i> AND <i>upper</i> = <i>boundary</i> MILLISECONDS
----------	---

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

## Routing code

2

### Descriptor code

5

IST1846I	<i>type</i> RECEIVER THRESHOLD = <i>threshold</i> MICROSECONDS
----------	--

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1847I</b>	<b>NUMBER OF NLPS ON WAITING-FOR-ACKNOWLEDGEMENT QUEUE =</b> <i>waitack</i>
-----------------	--

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1848I</b>	<b>SEND BYTE COUNT = <i>sendcount</i> RECEIVE BYTE COUNT = <i>receivecount</i></b>
-----------------	--

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1476I](#). See the description of that message for more information.

**Routing code**

2

**Descriptor code**

5

---

<b>IST1849I</b>	<b>LARGEST NLP SENT = <i>size</i> BYTES</b>
-----------------	---

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

**Routing code**

2



## Descriptor code

5

---

**IST1850I** **LARGEST NLP RECEIVED = *size* BYTES**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1851I** **SMOOTHED ROUND TRIP TIME = *smoothed\_time* MILLISECONDS**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1852I** **LIVENESS TIMER = *liveness* SECONDS**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1853I** **NUMBER OF NLPS ON OUT-OF-SEQUENCE QUEUE = *out\_of\_sequence***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1854I** NUMBER OF NLPS ON INBOUND SEGMENTS QUEUE = *inbound\_segs*

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1855I** NUMBER OF SESSIONS USING RTP = *sessions*

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. The first message in the group is [IST1476I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1856I** LAST PATH SWITCH OCCURRENCE WAS ON *date* AT *time*

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1857I** BACKPRESSURE REASON COUNTS:

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

### Routing code

2

### Descriptor code

5

---

**IST1858I** **PATHSWITCH SEND QUEUE MAX STORAGE FAILURE STALLED PIPE**

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

### Routing code

2

### Descriptor code

5

---

**IST1859I** ***pathswitch sendqmax storefail stalledpipe***

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

### Routing code

2

### Descriptor code

5

---

**IST1860I** **NUMBER OF NLPS SENT = sent - OVERFLOW = overflow**

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1476I](#). See the description of that message for more information.

### Routing code

2

# Descriptor code

5

**IST1861I** NUMBER OF NLPS RECEIVED = *received* - OVERFLOW = *overflow*

# Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1476I](#). See the description of that message for more information.

# Routing code

2

# Descriptor code

5

**IST1862I** ARB MAXIMUM SEND RATE = *maximum units*

# Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

# Routing code

2

# Descriptor code

5

**IST1863I** SUBAREA INDEX ELEMENT

# Explanation

This message is the first of a group of messages that VTAM issues in response to a DISPLAY VTAMSTOR command to display storage contents associated with a resource name or a network address. A complete description of the message group follows the example.

```
IST1863I SUBAREA      INDEX      ELEMENT
IST1864I X'saHex'(saDec) X'indHex' (indDec) X'eleHex' (eleDec)
IST1573I type STORAGE DISPLAY BEGINS AT LOCATION address
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
:
IST314I END
```

# IST1573I

*type* indicates the type of storage being displayed. The values for *type* are RDTE or RDTE PROFILE.  
*address* indicates the hexadecimal storage address for the beginning of the display.

# IST1574I

This message displays storage beginning at the address indicated in message IST1573I. This message is issued as many times as necessary to display the entire RDTE or RDTE profile.  
*offset* is the hexadecimal offset of the storage from the address in message IST1573I.

*hexdata\_1*, *hexdata\_2*, *hexdata\_3*, and *hexdata\_4* each display four bytes of the storage in hexadecimal format.  
*EBCDIC\_data* displays sixteen bytes of the storage in EBCDIC format.

**IST1863I**

This message is the header for the information displayed in message IST1864I.

**IST1864I**

This message provides the requested network address in hexadecimal and decimal.  
*saHex* is the subarea address in hexadecimal.  
*saDec* is the subarea address in decimal.  
*indHex* is the index in hexadecimal.  
*indDec* is the index in decimal.  
*eleHex* is the element in hexadecimal.  
*eleDec* is the element in decimal.

**System action**

None.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1864I** *X'saHex'(saDec) X'indHex' (indDec) X'eleHex' (eleDec)*

**Explanation**

This is part of the message group that begins with message IST1863I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST1865I** **GLOBAL INOPDUMP = status**

**Explanation**

This message is the first in a group of messages in response to the DISPLAY INOPDUMP or MODIFY INOPDUMP commands. Possible message groups follow:

- In response to a DISPLAY INOPDUMP command when INOPDUMP is globally set for all control groups:

```
IST350I DISPLAY TYPE = INOPDUMP
IST1865I GLOBAL INOPDUMP = status
[IST924I -----]
[IST1954I TRL MAJOR NODE = trl_major_node_name]
[IST1866I TRLE = trlename INOPDUMP = ON]
:
IST314I  END
```

- In response to a DISPLAY INOPDUMP command when INOPDUMP is selectively enabled for one or more control groups:

```
IST350I DISPLAY TYPE = INOPDUMP
IST1865I GLOBAL INOPDUMP = ON BY CONTROL GROUPS
IST1904I INOPDUMP = current_value
[IST924I -----]
[IST1954I TRL MAJOR NODE = trl_major_node_name]
[IST1866I TRLE = trlename INOPDUMP = ON]
:
IST314I  END
```

- In response to a MODIFY INOPDUMP command:

```
IST1865I GLOBAL INOPDUMP = status
[IST1866I TRLE = trlename INOPDUMP = status]
:
[IST1867I INOPDUMP = status FOR ALL TRLE BASED RESOURCES]
IST223I MODIFY COMMAND COMPLETE
IST314I  END
```

- In response to a MODIFY VTAMOPTS, INOPDUMP command:

```
IST1865I GLOBAL INOPDUMP = status
IST1867I INOPDUMP = status FOR ALL TRLE BASED RESOURCES
IST314I  END
```

## IST223I

VTAM issues this message when the MODIFY command has successfully completed.

## IST350I

This message identifies the type of information shown in the display. For this message group, type is always INOPDUMP.

## IST1865I

- *status* can be one of the following:
  - ON indicates that all active non-TRLE controlled resources might attempt to initiate an automatic VTAM dump when an inoperative condition is detected.
  - OFF indicates that no active non-TRLE controlled resources will attempt to initiate an automatic VTAM dump when an inoperative condition is detected.
  - ON BY CONTROL GROUPS indicates that INOPDUMP has been selectively enabled for resources identified by specific control group classifications. These resources might attempt to initiate an automatic VTAM dump when an inoperative condition is detected.
  - OFF BY CONTROL GROUPS indicates that INOPDUMP has been selectively disabled for resources identified by specific control group classifications. These resources will not attempt to initiate an automatic VTAM dump when an inoperative condition is detected.
- The global INOPDUMP status is the default used to initialize each TRLE-based resource INOPDUMP status when the TRLEs are activated.

## IST1866I

- If you receive this message in response to a DISPLAY INOPDUMP command, it will appear once for each TRLE with INOPDUMP=ON.
- *trlename* is the name of the TRLE for which status is being reported.

- *status* can be one of the following:
  - ON indicates that the resources defined in the TRLE might attempt to initiate an automatic VTAM dump when an inoperative condition is detected.
  - OFF indicates that the resources defined in the TRLE will not attempt to initiate an automatic VTAM dump when an inoperative condition is detected.

#### **IST1867I**

- *status* can be one of the following:
  - ON indicates that the INOPDUMP status for every TRLE in all active predefined TRL major nodes has been set to ON.
  - OFF indicates that the INOPDUMP status for every TRLE in all active predefined TRL major nodes has been set OFF.
  - SELECTIVELY PROCESSED indicates that a MODIFY VTAMOPTS,INOPDUMP command has been issued to enable or disable INOPDUMP processing selectively by control groups. The INOPDUMP status for every TRLE in all active predefined TRL major nodes which match the specified control groups has been set appropriately.
- This message is a reminder to the operator that use of the MODIFY VTAMOPTS,INOPDUMP command or a global MODIFY INOPDUMP command also sets the INOPDUMP status for each TRLE in all active predefined TRL major nodes. However, if there are no active predefined TRL major nodes, this message will not appear in the response.

#### **IST1904I**

INOPDUMP is the name of the VTAM start option.

*current\_value* lists the names of the INOPDUMP control groups which are currently enabled. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information regarding INOPDUMP control groups.

#### **IST1954I**

*trl\_major\_node\_name* is the name of the TRL major node defining the TRLE for which status is being reported. This message is issued once for each active predefined TRL major node.

### **System action**

Processing continues

### **Operator response**

None.

### **System programmer response**

None.

### **Routing code**

2

### **Descriptor code**

5

---

#### **IST1866I**

**TRLE = *trlename* INOPDUMP = *status***

### **Explanation**

VTAM issues this message as part of the response to the following commands:

- DISPLAY INOPDUMP to show all TRLEs for which INOPDUMP = ON; see [IST1865I](#) for an example of this message group.
- MODIFY INOPDUMP (with the TRLE operand) to show the new INOPDUMP status of each TRLE in the operand list; see [IST1865I](#) for an example of this message group.
- DISPLAY ID=trlename when INOPDUMP=ON for trlename.
- DISPLAY TRLE=trlename when INOPDUMP=ON for trlename.

*trlename* is the name of the TRLE for which status is being reported.

*status* can be one of the following:

- ON indicates that the resources defined in the TRLE might attempt to initiate an automatic VTAM dump when an inoperative condition is detected.
- OFF indicates that the resources defined in the TRLE will not attempt to initiate an automatic VTAM dump when an inoperative condition is detected.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1867I** **INOPDUMP = *status* FOR ALL TRLE-BASED RESOURCES**

---

## Explanation

This message is part of a message group that begins with message IST1865I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1868I** **DISPLAY APING FAILED - TP INSTANCE LIMIT EXCEEDED**

---

## Explanation

The DISPLAY APING command was issued; however, the instance limit for the APING command transaction program (TP) has already been reached, so no further DISPLAY APING commands may be started until an executing APING completes.



## System action

Processing continues.

## Operator response

Wait until a currently executing DISPLAY APING command completes and reissue the command, or issue the MODIFY APINGTP command to increase the APING command TP instance limit.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1869I** **NO *tpname* SESSIONS EXIST**

## Explanation

A DISPLAY APINGTP or DISPLAY APINGDTP operator command was issued specifying LIST=ALL or LIST=COUNT to display session information for active instances of the requested TP. However, there are no sessions active for that transaction program.

*tpname* is either APING or APINGD.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1870I** ***tpname* HAS *count* ACTIVE SESSIONS**

## Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY APINGTP or DISPLAY APINGDTP command when LIST=ALL is specified. The message will be issued without detailed session

information in response to one of these commands when LIST=COUNT is specified. A complete description of the message group follows the example.

```
IST1870I tpname HAS count ACTIVE SESSIONS
[IST1888I lotype = luname SID = sid]
[IST1888I lotype = luname SID = sid]
IST314I END
```

### IST1870I

*tpname* is either APING or APINGD.

*count* shows the number of active sessions for the specified transaction program.

### IST1888I

*lotype* is either DLU or OLU.

*luname* is the name of the destination logical unit (DLU) or originating logical unit (OLU) with which the APING session exists.

*sid* is the session identifier (SID) used to identify the session over which the APING transaction occurs. The value **\*\*\*NA\*\*\*** is displayed if the session identifier is not currently available to VTAM.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1871I** MESSAGE TRIGGER: MESSAGE = *msgnum* MATCHLIM = *matchlimit*

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY CSDUMP command. This message group displays the status of the message trigger used to trigger a dump and the sense trigger used to trigger a dump. A complete description of the message group follows the example.

```
IST350I DISPLAY TYPE = CSDUMP TRIGGERS
[IST1871I MESSAGE TRIGGER: MESSAGE = msgnum MATCHLIM = matchlimit]
[IST1872I VALUE fieldnum = specifiedtext]
[IST2235I REMOTE DUMP FOR XCF LINK INOP: remote_dump]
[IST2234I MESSAGE TRIGGER: TCPNAME = tcpjobname]
[IST2399I MESSAGE TRIGGER: RNICTRLE = rnic_trlenam]
[IST1874I MESSAGE TRIGGER: NONE]
[IST1873I SENSE TRIGGER: SENSE = sensecode RU = rucode MATCHLIM = matchlimit]
[IST2240I SENSE TRIGGER: TCPNAME = tcpjobname]
[IST1875I SENSE TRIGGER: NONE]
IST314I END
```

### IST350I

This message identifies the type of information shown in the display. For this message group, type is always CSDUMP TRIGGERS and the display contains the status of the CSDUMP triggers.

#### **IST1871I**

This message is issued when a message trigger is used to trigger a dump.  
*msgnum* is the message number of the message trigger.  
*matchlimit* specifies the number of times the message trigger will be used.

#### **IST1872I**

This message displays the contents of the message variable text fields if the variable text field was specified for the message. This message will be issued for each of the values that the user specified in the format (value\_1,value\_2,value\_3). If any value is skipped, this message is issued with the value of **\*NONE\***. No message will be issued for trailing values not specified.  
*fieldnum* is the field number of the message variable text field. The fields are numbered in the order in which they appear in the trigger message.  
*specifiedtext* is the value that the user specified to be used for a trigger.

#### **IST1873I**

This message contains the information about the sense trigger used to trigger a dump.  
*sensecode* is the sense code used as the trigger.  
*rcode* is the request unit code used as a trigger. If there is no RU specified for a sense trigger, a value of **\*ANY\*** is displayed.  
*matchlimit* specifies the number of times the sense trigger can be used.

#### **IST1874I**

This message indicates that no message trigger is set.

#### **IST1875I**

This message indicates that no sense trigger is set.

#### **IST2234I**

This message displays the TCP job name associated with the message trigger.  
The *tcpjobname* value is the job name of the TCP stack that is specified for this trigger.

#### **IST2235I**

This message indicates whether a dump of the remote VTAM will be attempted when an XCF link connecting two VTAMs in a sysplex goes INOP.  
The *remote\_dump* value is either YES or NO.

#### **IST2240I**

This message displays the TCP job name associated with the sense trigger.  
The *tcpjobname* value is the job name of the TCP stack that is specified for this trigger.

#### **IST2399I**

This message displays the TRLE name associated with the message trigger.  
The *rnic\_trlename* value is the name of a RoCE TRLE that is specified for this trigger.

### **System action**

Processing continues.

### **Operator response**

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1872I</b>	<b>VALUE</b> <i>fieldnum</i> = <i>specifiedtext</i>
-----------------	---

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. See IST1871I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

<b>IST1873I</b>	<b>SENSE TRIGGER: SENSE</b> = <i>sensecode</i> <b>RU</b> = <i>rucode</i> <b>MATCHLIM</b> = <i>matchlimit</i>
-----------------	--

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. See IST1871I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

<b>IST1874I</b>	<b>MESSAGE TRIGGER: NONE</b>
-----------------	------------------------------

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. The first message in the group is either this message or IST1871I. See IST1871I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

<b>IST1875I</b>	<b>SENSE TRIGGER: NONE</b>
-----------------	----------------------------

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. See IST1871I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

### IST1876I MESSAGE TRIGGER DELETED

## Explanation

VTAM issues this message in response to a MODIFY CSDUMP command with the DELETE operand specified. The following is a complete description of the group:

```
[IST1876I MESSAGE TRIGGER DELETED]
[IST1878I NO MESSAGE TRIGGER EXISTS]
[IST1877I SENSE TRIGGER DELETED]
[IST1882I NO SENSE TRIGGER EXISTS]
IST223I MODIFY CSDUMP COMMAND COMPLETED
IST314I END
```

### IST1876I

VTAM deleted the message trigger that was set to cause a dump to be taken. This message is issued if DELETE=ALL or DELETE=MESSAGE is specified.

### IST1877I

VTAM deleted the sense trigger that was set to cause a dump to be taken. This message is issued if DELETE=ALL or DELETE=SENSE is specified.

### IST1878I

VTAM did not find the message trigger set when processing a MODIFY CSDUMP command with DELETE=MESSAGE or DELETE=ALL specified.

### IST1882I

VTAM did not find the sense trigger set when processing a MODIFY CSDUMP command with DELETE=SENSE or DELETE=ALL specified.

## System action

Processing continues

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1877I****SENSE TRIGGER DELETED**

---

## Explanation

VTAM issues this message as a part of a message group in response to a MODIFY CSDUMP command. See IST1876I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST1878I****NO MESSAGE TRIGGER EXISTS**

---

## Explanation

VTAM issues this message as a part of a message group in response to a MODIFY CSDUMP command. See IST1876I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST1879I****VTAM DUMPING FOR CSDUMP TRIGGER MESSAGE *messagenum***

---

## Explanation

VTAM initiated a dump in response to the trigger message being detected.

*messagenum* is the message number of the trigger message.

## System action

VTAM takes a dump if the system dump data set is usable at this time. If VTAM successfully initiates the dump, the performance for other jobs might be degraded until the dump is complete.

## Operator response

Save the system log and the contents of the dump for problem determination. Contact the system programmer.

## System programmer response

Save the system log and the contents of the dump for problem determination. Contact the IBM software support center.

## Routing code

2

## Descriptor code

5

---

**IST1880I****VTAM DUMPING FOR CSDUMP TRIGGER SENSE *sensecode* RU *rcode***

---

## Explanation

VTAM initiated a dump in response to the trigger sense code being detected.

*sensecode* is the sense code used for the trigger.

*rcode* is the request unit code used for the trigger. If there is no RU specified for a sense trigger, a value of \*ANY\* is displayed.

## System action

VTAM takes a dump if the system dump data set is usable at this time. If VTAM successfully initiates the dump, the performance for other jobs might be degraded until the dump is complete.

## Operator response

Save the system log and the contents of the dump for problem determination. Contact the system programmer.

## System programmer response

Save the system log and the contents of the dump for problem determination. Contact the IBM software support center.

## Routing code

2

## Descriptor code

5

---

**IST1881I****VTAM DUMPING FOR CSDUMP - IMMEDIATE DUMP**

---

## Explanation

The VTAM Operator issued a MODIFY CSDUMP command to take a dump immediately.

## System action

VTAM takes a dump if the system dump data set is usable at this time. If VTAM successfully initiates the dump, the performance for other jobs might be degraded until the dump is complete.

## Operator response

Save the system log and the contents of the dump for problem determination. Contact the system programmer.

## System programmer response

Save the system log and the contents of the dump for problem determination. Contact the IBM software support center.

## Routing code

2

## Descriptor code

5

---

**IST1882I**

**NO SENSE TRIGGER EXISTS**

---

## Explanation

VTAM issues this message as a part of a message group in response to a MODIFY CSDUMP command. See IST1876I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST1883I**

**SESSION ESTABLISHED WITH *rscname* - DLUR *dlurname***

---

## Explanation

VTAM issues this message when a session between the physical unit with the name *rscname* has been established using DLUR *dlurname*.

*rscname* is the name of the resource.

*dlurname* is the network-qualified CP name of the dependent LU requester (DLUR) in the form netid.name. If the DLUR name cannot be determined **\*\*\*NA\*\*\*** (not available) will be displayed.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

4

---

**IST1884I**

**SESSION ENDED WITH *rscname* - DLUR *dlurname***

---

## Explanation

VTAM issues this message when the SSCP-PU session between VTAM and the physical unit with name *rscname* has ended. The PU was using DLUR *dlurname* to connect to VTAM.

*rscname* is the name of the resource.

*dlurname* is the network-qualified CP name of the dependent LU requester (DLUR) in the form netid.name. If the DLUR name cannot be determined **\*\*\*NA\*\*\*** (not available) will be displayed.



## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

8

## Descriptor code

4

---

<b>IST1885I</b>	<b>SIO = <i>sio</i> SLOWDOWN = <i>slowdown</i></b>
-----------------	--

## Explanation

VTAM issues this message in response to a DISPLAY ID command requesting the status of an XCA major node. This message is issued for XCA major nodes that specify a CUADDR.

*sio* is the number of start I/O operations counted for the subchannel. This number is cumulative (from the time that the node was last activated) and is expressed in decimal. The value of *sio* is never larger than 65535. If *sio* is 65535, its value is reset to 0 when the next start I/O operation takes place. If the subchannel is not active for this major node, *sio* will display as **N/A**.

*slowdown* indicates if the subchannel is in slowdown. Values are YES and NO. SLOWDOWN = YES means that the XCA device will not accept write data from VTAM. SLOWDOWN = NO is the normal state of the subchannel. If the subchannel is not active for this major node, *slowdown* will display as **N/A**.

## System action

Processing continues.

## Operator response

If SLOWDOWN = YES is displayed, VTAM cannot write data to this device. If this device has a large amount of data queued to be written to it, a storage shortage might occur. Storage usage displays can be used to indicate if unusually high amounts of storage are being used. DISPLAY NET, BFRUSE can be used to display VTAM storage usage and DISPLAY NET,CSM can be used to display CSM storage usage. Use any problem determination aids available for the XCA device itself to determine why it is in slowdown. If storage usage is high, and the slowdown condition persists, the operator can use the VARY command to make this XCA major node inactive.

## System programmer response

Use any diagnostics available for that device to determine why the XCA device is in slowdown.

## Routing code

2, 8

## Descriptor code

5

**Explanation**

The subchannel threshold identified by the second subparameter of MAXSLOW on the PORT definition statement on an XCA subchannel has been exceeded. This means that the XCA device passed control information to VTAM indicating that the device will not accept data. Sessions using this device will probably experience performance degradation.

*time* is the subchannel threshold value in seconds.

*device* is the subchannel (CUA) that is in slowdown.

**System action**

Processing continues.

**Operator response**

Storage usage might rise if a large amount of data is queued to be sent to the device that is in slowdown. Issue storage use display commands to determine whether storage usage is high. DISPLAY NET,BFRUSE can be used to display VTAM storage usage and DISPLAY NET,CSM can be used to display CSM storage usage. If storage usage is high and the slowdown condition persists, the operator can VARY INACT this XCA device. DISPLAY NET,MAJNODES can be used to determine which XCA nodes are active. Any diagnostic aids available for the XCA device itself should be invoked to determine why it is reporting a slowdown condition to VTAM.

**System programmer response**

Use any diagnostics available for that device to determine why the XCA device is in slowdown.

**Routing code**

2

**Descriptor code**

5

**Explanation**

This message indicates the end of a slowdown condition for an XCA device. The device sent VTAM control information indicating it is no longer in slowdown. This message will only be issued if message IST1886I was previously issued, indicating that the device was in slowdown for a period longer than the second subparameter of the MAXSLOW parameter for an XCA major node.

*device* is the subchannel CUA that has exited slowdown.

**System action**

Processing continues.

**Operator response**

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1888I** *lotype = luname SID = sid*

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY APINGDTP command or a DISPLAY APINGTP command. The first message in the group is IST1870I. See that message for a complete description of the group.

## Routing code

2

## Descriptor code

5

---

**IST1889I** **SSCP-SSCP SESSION TO *sscpname* HELD FOR PACING**

## Explanation

VTAM issues this message when an attempt to send an RU on the SSCP-SSCP session is held because the session has been in a pacing held state longer than three seconds.

This message will continue to be issued at 3-second intervals, for as long as attempts are made to send RUs on the SSCP-SSCP session and the session remains in a pacing held state.

*sscpname* is the name of the partner SSCP in session with this VTAM.

## System action

Processing continues.

## Operator response

Issue VTAM commands to help identify any network problems. Examples would be DISPLAY NET,ROUTE,BLOCKED and DISPLAY NET,ROUTE,HELD to determine status of the virtual routes. Contact the operator of the partner *sscpname* to issue similar commands and to coordinate network problem determination. If the problem persists, take a dump of the VTAM ASID by issuing a MODIFY vtamproc,CSDUMP and save the log for problem determination. To attempt to recover this SSCP-SSCP session, deactivate and reactivate the session.

## System programmer response

If a VR held or blocked condition was indicated, setting the VOSDEACT VTAM start option to YES will cause a VR to be deactivated if a VR out of sequence condition occurs. A VR out of sequence condition could result in a hung VR, if VOSDEACT is set to NO. Use the log and dump information for problem determination.

## Routing code

2

## Descriptor code

3

---

**IST1890I*****line* ACTIVATION FAILED - NO SOURCE IP ADDRESS AVAILABLE**

---

## Explanation

This message is displayed when an Enterprise Extender (HPR/IP) line activation fails because no static VIPA address was available to use for the connection. The static VIPA address is derived from any of the following sources:

- Supplied by the TCP/IP stack identified on the TCPNAME start option.
- Supplied on the IPADDR start option, or as the IPADDR operand on the XCA major node GROUP definition statement.
- Resolved from the value supplied as the HOSTNAME start option, or as the HOSTNAME operand on the XCA major node GROUP definition statement.

Without one of these values coded to provide the static VIPA address, VTAM cannot determine which TCP/IP stack will be used for Enterprise Extender (HPR/IP) data traffic.

*line* is the name of the Enterprise Extender (HPR/IP) line that failed.

## System action

Enterprise Extender (HPR/IP) line activation failed.

## Operator response

Issue DISPLAY VTAMOPTS and DISPLAY ID=*XCAmajornodename* (where *XCAmajornodename* is the name of the XCA major node that includes *line*) to determine whether settings for TCPNAME, IPADDR, or HOSTNAME are defined to the system.

If no values for the TCPNAME, IPADDR, and HOSTNAME start options or definition statement operands are defined, code a value for TCPNAME, IPADDR, or HOSTNAME as a VTAM start option. Temporarily, you can issue a MODIFY VTAMOPTS command and specify the value of one of these start options.

## System programmer response

If the activation is failing because of a lack of TCPNAME, IPADDR, or HOSTNAME setting, include the appropriate start option setting in the start list file, or update the XCA major node definition statement to include either IPADDR or HOSTNAME.

## Routing code

2

## Descriptor code

5

---

**IST1891I*****pu* DIAL FAILED - MISMATCH OF IP ADDRESS FAMILIES**

---

## Explanation

This message is the first message in a group of messages displayed when the dialing of an Enterprise Extender (HPR/IP) connection fails because the remote IP address is not in the same IP address family as the local IP address; for instance, the remote IP address is an IPv4 address and the local is an IPv6 address. If the addresses are in different family types, the Enterprise Extender connection cannot be established. A complete description of the message group follows the example.

```
IST1891I line ACTIVATION FAILED - MISMATCH OF IP ADDRESS FAMILIES
IST1680I type IP ADDRESS ip_address
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
IST1680I type IP ADDRESS ip_address
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
IST314I END
```

### IST1680I

*type* is either LOCAL or REMOTE to identify the IP address displayed.

*ip\_address* is either the remote IP address or the local IP address. The first instance of IST1680I will display the remote IP address, and the second instance of IST1680I will display the local IP address. If *ip\_address* is \*\*\*\*NA\*\*\*\*, it means that the remote node is using IPv6 protocols but the local connection is using IPv4 protocols.

### IST1891I

*line* is the name of the Enterprise Extender (HPR/IP) connection that failed.

### IST1909I

*value* is the host name, owned by a target remote node, that was used to acquire the remote IP address as part of name-to-address resolution. If the host name is longer than 44 characters, then the first 44 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

### IST1910I

*value* is the host name used to acquire the local static VIPA address used as part of the attempted route determination. If the host name is longer than 45 characters, then the first 45 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

### IST1911I

*value* is the continuation of *value* on IST1909I or IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

## System action

Activation of the Enterprise Extender (HPR/IP) connection failed.

## Operator response

None.

## System programmer response

The Enterprise Extender connection cannot activate if the local and remote IP addresses are not in the same address family. The IP addresses can be obtained from the following sources:

- For both predefined and connection network Enterprise Extender connections, the local IP address (*ip\_address* on the IST1680I instance with type LOCAL) is obtained from one of the following:
  - The TCP/IP stack identified on the TCPNAME start option.

- The IPADDR start option, or the IPADDR operand on the XCA major node GROUP definition statement associated with the Enterprise Extender connection network or predefined Enterprise Extender connection used for the failed route attempt, when IST1910I is not displayed.
- The name-to-address resolution of value on IST1910I, which represents either the value supplied as the HOSTNAME start option, or the value specified as the HOSTNAME operand on the XCA major node GROUP definition statement associated with the Enterprise Extender connection network or predefined Enterprise Extender connection used for the failed route attempt.
- For predefined Enterprise Extender connections, the remote IP address (ip\_address on the IST1680I instance with type REMOTE) is obtained from one of the following:
  - The IPADDR operand on the PATH statement, when IST1909I is not displayed.
  - The name-to-address resolution of value on IST1909I, which represents the value specified as the HOSTNAME operand on the PATH definition statement.
- For connection network Enterprise Extender connections, the remote IP address (ip\_address on the IST1680I instance with type REMOTE) is obtained from one of the following:
  - The IPv4 address provided by the remote Enterprise Extender node in the APPN Route Selection Control Vector (RSCV) describing the session route to use, when IST1909I is not displayed.
  - The name-to-address resolution of value on IST1909I, which represents the host name provided by the remote Enterprise Extender node in the APPN Route Selection Control Vector (RSCV) describing the session route to use.

Ensure that one of the following is true:

- The local or remote address was specified correctly.
- The correct local or remote host name, or both, have been used for name-to-address resolution.
- For an EE Connection Network, verify that all nodes are defining identical EE Connection Network names with an IP address from the same IP address family.

## Routing code

2

## Descriptor code

5

---

**IST1892I NO ROUTE AVAILABLE TO DESTINATION**

## Explanation

VTAM displays this message group to indicate that the TCP/IP stack could not find a route to the specified destination address when activating an Enterprise Extender connection. For an Enterprise Extender connection to activate successfully:

- The local IP address must be a static VIPA owned by a TCP/IP stack on this node
- The remote IP address must be either a static VIPA (if it is on a z/OS host) owned by the intended destination node or a network address translation (NAT) address used to ultimately access the remote node
- A route must be available between the two endpoints of the connection.

A complete description of the message group follows the example.

```
IST1892I NO ROUTE AVAILABLE TO DESTINATION
IST1680I type IP ADDRESS ip_address
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
IST1680I type IP ADDRESS ip_address
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
IST314I END
```

## IST1680I

*type* is either LOCAL or REMOTE to identify the IP address displayed.

*ip\_address* is either the remote IP address or the local IP address. The first instance of IST1680I will display the remote IP address, and the second instance of IST1680I will display the local IP address.

## IST1909I

*value* is the host name, owned by a target remote node, that was used to acquire the remote IP address as part of name-to-address resolution. If the host name is longer than 44 characters, then the first 44 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

## IST1910I

*value* is the host name used to acquire the local static VIPA address used as part of the attempted route determination. If the host name is longer than 45 characters, then the first 45 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

## IST1911I

*value* is the continuation of *value* on IST1909I or IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

## System action

The Enterprise Extender dial out attempt failed.

## Operator response

None.

## System programmer response

There is no route between these IP addresses. The IP addresses used in the connection activation attempt can be obtained in the following ways:

- For both predefined and connection network Enterprise Extender connection, the local IP address (*ip\_address* on the IST1680I instance with *type* **LOCAL**) is obtained from one of the following:
  - The TCP/IP stack identified on the TCPNAME start option.
  - The IPADDR start option, or the IPADDR operand on the XCA major node GROUP definition statement associated with the Enterprise Extender connection network or predefined Enterprise Extender connection used for the failed route attempt, when IST1910I is not displayed.
  - The name-to-address resolution of *value* on IST1910I, which represents either the value supplied as the HOSTNAME start option, or the value specified as the HOSTNAME operand on the XCA major node GROUP definition statement associated with the Enterprise Extender connection network or predefined Enterprise Extender connection used for the failed route attempt.
- For predefined Enterprise Extender connections, the remote IP address (*ip\_address* on the IST1680I instance with *type* **REMOTE**) is obtained from one of the following:
  - The IPADDR operand on the PATH statement, when IST1909I is not displayed.
  - The name-to-address resolution of *value* on IST1909I, which represents the value specified as the HOSTNAME operand on the PATH definition statement.
- For connection network Enterprise Extender connections, the remote IP address (*ip\_address* on the IST1680I instance with *type* **REMOTE**) is obtained from one of the following:
  - The IPv4 address provided by the remote Enterprise Extender node in the APPN Route Selection Control Vector (RSCV) describing the session route to use, when IST1909I is not displayed.

- The name-to-address resolution of *value* on IST1909I, which represents the host name provided by the remote Enterprise Extender node in the APPN Route Selection Control Vector (RSCV) describing the session route to use.

Ensure that all of the following are true:

- The local or remote address has been specified correctly.
- The correct local or remote host name, or both, have been used for name-to-address resolution.
- The routes exist in both directions between the attempted endpoints of the Enterprise Extender connection.
- The NAT translation tables are accurate for translating the NAT address to the ultimate target destination VIPA address (if on a z/OS host).
- The firewall along the route between the attempted endpoints of the Enterprise Extender connection is configured to allow traffic to flow from one endpoint to the other.

## Routing code

2

## Descriptor code

5

---

**IST1893I**

**NAME-TO-ADDRESS RESOLUTION FAILED**

## Explanation

This message is the first in a group of messages displayed when resolution of a host name owned by a remote node into an IP address is attempted but was unsuccessful. Name-to-address resolution is attempted as part of the following:

- LU-LU session activation when the session route traverses an Enterprise Extender connection network and the remote endpoint provides a host name, either instead of or in addition to an IP address, in the APPN Route Selection Control Vector (RSCV) representing the session route.
- VARY ACT command processing for a switched major node when the HOSTNAME operand was coded on the PATH statement.
- DISPLAY EE or DISPLAY EEDIAG command was issued which specified a remote HOSTNAME filter.

The complete message group in these situations is:

```
IST1893I NAME-TO-ADDRESS RESOLUTION FAILED
IST1909I REMOTE HOSTNAME value
[IST1911I value]
IST314I END
```

This message is also the first message in a group of messages displayed when resolution of a locally owned host name into an IP address was unsuccessfully attempted. This type of name-to-address resolution is attempted as part of the following:

- VARY ACT command processing for a line defined under a GROUP in an XCA major node when HOSTNAME was coded on the GROUP statement or was inherited from the HOSTNAME start option.
- DISPLAY EE or DISPLAY EEDIAG command was issued which specified a local HOSTNAME filter.

The complete message group in these situations is:

```
IST1893I NAME-TO-ADDRESS RESOLUTION FAILED
IST1910I LOCAL HOSTNAME value
[IST1911I value]
IST314I END
```

**IST1909I**



*value* is the host name owned by a remote node for which name-to-address resolution was attempted. If the host name is longer than 44 characters, then the first 44 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

#### **IST1910I**

*value* is the locally owned host name for which name-to-address resolution was attempted. If the host name is longer than 45 characters, then the first 45 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

#### **IST1911I**

*value* is the continuation of value on IST1909I or IST1910I. IST1911I is repeated as often as necessary to display the entire character string.

### **System action**

- For LU-LU session processing:

In addition to its host name, if the target endpoint did not supply an IP address in the APPN RSCV, then session activation fails. If an IP address was supplied in addition to the host name, then processing continues with an attempt to use the supplied IP address to establish an IP connection.

- For VARY ACT processing:

The resource activation fails.

- For DISPLAY EE or DISPLAY EEDIAG processing:

The display command is not performed.

### **Operator response**

Save the system log for problem determination. For DISPLAY EE or DISPLAY EEDIAG processing, determine whether the correct host name value is being resolved. If you specified an incorrect host name, issue the display command again specifying the correct host names.

### **System programmer response**

- For LU-LU session processing:

- Determine if the correct host name value is being supplied by the remote node on the APPN RSCV, and if not, update the appropriate start option or XCA major node definition with the correct HOSTNAME.
- If the correct host name is being supplied, verify that the name-to-address resolution mapping for the host name yields the desired static VIPA address (if on a z/OS host) of the node that owns the host name, or that it yields the correct network address translation (NAT) address to ultimately reach the target static VIPA address of the node that owns the host name. If the resolution is not correct, update the DNS zone files or local host files with the corrected name-to-address resolution. If the resolution is intended to yield an IPv6 address, ensure that the TCP/IP stack is enabled for IPv6 processing so that the resolver will search for IPv6 addresses.

- For VARY ACT command processing when activating an XCA major node:

- Determine if the correct host name value is being resolved. If the activation is using an incorrect host name, do one of the following:
  - If the failing host name is a local host name acquired from the start option, use MODIFY VTAMOPTS to correct the HOSTNAME start option.
  - If the failing host name is a local host name defined on the GROUP definition statement, deactivate the XCA major node, define the correct HOSTNAME on the appropriate GROUP definition statement, and reactivate the XCA major node.
- If the correct host name is being supplied, verify that the name-to-address resolution mapping for the host name yields the desired static VIPA address on this node. If the resolution is not correct, update the DNS zone files or the appropriate local hosts files with the corrected name-to-address resolution. If the

resolution is intended to yield an IPv6 address, ensure that the TCP/IP stack is enabled for IPv6 processing and that at least one TCP/IP IPv6 interface is active, so that the resolver will search for IPv6 addresses.

- If name-to-address resolution processing is taking a long time, (for example, because the SEARCH directive in the TCP/IP Resolver Configuration file specifies a large number of domain names) the resolution attempt might be abandoned by VTAM before it can successfully complete due to the setting of the IPRESOLV operand on the PORT definition statement associated with the XCA major node. If that is the case, increase the value of the IPRESOLV operand on the PORT definition statement.
- For VARY ACT command processing when activating a switched major node:
  - Determine if the correct host name value is being resolved. If the activation is using the incorrect host name, deactivate the switched major node, define the correct HOSTNAME on the appropriate PATH definition statement, and reactivate the switched major node.
  - If the correct host name is being supplied, verify that the name-to-address resolution mapping for the host name yields the desired static VIPA address (if on a z/OS host) of the node that owns the host name, or that it yields the correct network address translation (NAT) address to ultimately reach the target static VIPA address of the node that owns the host name. If the resolution is not correct, update the DNS zone files or the appropriate local hosts files with the corrected name-to-address resolution. If the resolution is intended to yield an IPv6 address, ensure that the TCP/IP stack is enabled for IPv6 processing so that the resolver will search for IPv6 addresses.
  - If name-to-address resolution processing is taking a long time, (for example, because the SEARCH directive in the TCP/IP Resolver Configuration file specifies a large number of domain names) the resolution attempt might be abandoned by VTAM before it can successfully complete due to the setting of the IPRESOLV operand on the PATH definition statement. If that is the case, increase the value of the IPRESOLV operand on the PATH definition statement.
- For DISPLAY EE or DISPLAY EEDIAG command processing:
  - If the correct host name is being supplied on the display command, verify the following:
    - The name-to-address resolution mapping for the host name yields the correct static VIPA address (if on a z/OS or OS/390® host) of the node that owns the host name.
    - If network address translation (NAT) is in use, the name-to-address resolution mapping for the host name yields the correct NAT address to ultimately reach the target static VIPA address of the node that owns the host name.
  - If the resolution is not correct, update the DNS zone files or the appropriate local hosts files with the corrected name-to-address resolution. If the resolution is intended to yield an IPv6 address, ensure that the TCP/IP stack is enabled for IPv6 processing so that the resolver searches for IPv6 addresses.

## Routing code

2

## Descriptor code

5

---

**IST1894I**

***value1* IGNORED - INCOMPATIBLE WITH *value2***

## Explanation

VTAM issues this message when one start option or definition statement operand is not processed because a mutually exclusive start option or definition statement was also specified. This message is issued when either of the following situations arise:

- A conflict between two start options during START command processing.
- A conflict between two definition statement operands during VARY ACT processing of a major node.

When issued during START command processing:

- *value1* is the name of the start option that will not be processed because of the start option conflict.
- *value2* is the name of the start option that will be processed, despite the start option conflict.

*value1* and *value2* are on the same definition statement.

When issued during VARY ACT command processing:

- *value1* is the name of the definition statement operand that will not be processed because of the conflict with the second definition statement operand.
- *value2* is the name of the definition statement operand that will be processed, despite the conflict with the first definition statement operand.

## System action

- For VTAM START command processing, VTAM processes the value for *value2* while ignoring the coding of *value1*. Processing continues for the remaining start options.
- For VARY ACT command processing, VTAM processes the value for *value2* while ignoring the coding of *value1*. Processing continues for any remaining definition statement operands on the major node definition deck.

## Operator response

- For VTAM START command processing, if *value1* is the preferred setting to be enforced, issue MODIFY VTAMOPTS, specifying the desired *value1* setting, to deactivate the *value2* setting and activate the *value1* setting.
- For VARY ACT command processing, if *value1* is the preferred operand to be enforced, issue VARY INACT to deactivate the major node, remove *value2* from the definition deck, and then issue VARY ACT to activate the major node with the desired operand in effect.

## System programmer response

- For VTAM START command processing, correct the start option setting in ATCSTRxx to remove the start option that is not required.
- For VARY ACT command processing, modify the definition deck to remove the definition statement operand that is not required.

## Routing code

2

## Descriptor code

5

---

**IST1895I**

***value1* RESET - INCOMPATIBLE WITH *value2***

## Explanation

VTAM issues this message when the start option specified on a MODIFY VTAMOPTS command is mutually exclusive with a start option already active for the node. The active start option is deactivated and the start option specified on the MODIFY command is activated.

*value1* is the name of the active start option that will be deactivated due to the conflict with the start option specified on the MODIFY VTAMOPTS command.

*value2* is the name of the start option that was specified on the MODIFY VTAMOPTS command.

## System action

VTAM processes *value2*, and if successful, resets *value1*. Processing continues for any remaining start options specified on the MODIFY command.

## Operator response

If *value1* is the preferred setting, issue MODIFY VTAMOPTS, specifying the *value1* setting.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1896I</b>	<b>VNNAME <i>nodename</i></b>
-----------------	-------------------------------

## Explanation

VTAM issues this message as part of a group of messages in response to failure to activate an Enterprise Extender line. The first message in the group is IST1899I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1897I</b>	<b><i>line</i> ACTIVATION FAILED - TCPNAME START OPTION REQUIRED</b>
-----------------	--

## Explanation

This message is displayed when an Enterprise Extender line activation fails because no value was specified in the TCPNAME start option. This message is issued when all of the following conditions are true:

- The IPADDR or HOSTNAME parameter is specified on any Enterprise Extender GROUP definition statement.
- Running in a CINET TCP/IP environment (Common INET - multiple TCP/IP stacks.) If OMVS is not initialized at Enterprise Extender line activation, a Common INET environment is assumed.

*line* is the name of the Enterprise Extender line that failed activation.

## System action

Enterprise Extender line activation failed.

## Operator response

Temporarily, you can issue a MODIFY VTAMOPTS command and specify the value of the TCPNAME start option. Then reissue the VARY ACT command to activate the Enterprise Extender line. Contact the system programmer.

## System programmer response

Code the TCPNAME as a VTAM start option.

## Routing code

2

## Descriptor code

5

---

**IST1898I** *line* **ACTIVATION FAILED - IPADDR OR HOSTNAME REQUIRED**

---

## Explanation

If more than one GROUP is defined in the Enterprise Extender XCA major node, and either IPADDR or HOSTNAME is specified on any of the GROUPs, then IPADDR or HOSTNAME must be supplied on all of the GROUPs, or either the IPADDR or HOSTNAME start option must be specified.

*line* is the name of the Enterprise Extender line that failed activation.

## System action

Enterprise Extender line activation failed.

## Operator response

Issue MODIFY,VTAMOPTS,IPADDR=*ipaddress* or MODIFY VTAMOPTS,HOSTNAME=*hostname*, then reactivate the Enterprise Extender line. Contact the system programmer with the system log.

## System programmer response

Code the required IPADDR or HOSTNAME on all the GROUP definition statements in the Enterprise Extender XCA major node, or add either the IPADDR or HOSTNAME start option to the start file. Deactivate and reactivate the Enterprise Extender XCA major node to pick up the parameter changes.

## Routing code

2

## Descriptor code

5

---

**IST1899I** *line* **ACTIVATION FAILED - VRN INFORMATION MUST BE UNIQUE**

---

## Explanation

This message is the first message in a group of messages displayed when the same VNNAME is defined more than once in the Enterprise Extender XCA major node but the IPADDR value, or HOSTNAME value, or IP address resolved from the HOSTNAME value associated with each VNNAME definition is not unique.

A complete description of the message group follows the example.

```
IST1899I line ACTIVATION FAILED - VRN INFORMATION MUST BE UNIQUE
IST1896I VNNAME nodename
IST1680I type IPADDR ipaddress
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
IST314I END
```

## IST1680I

This message is issued to display the IP address associated with the VNNAME definition. If message IST1910I is also present, then the IP address was obtained using the name-to-address resolution of *value*. If IST1910I is not displayed, then the IP address was specified as the IPADDR operand associated with the VNNAME definition.

*type* is LOCAL.

*ipaddress* is the IP address of the static VIPA used on this node. An **\*\*\*\*NA\*\*\*\*** in this field indicates that the value is not available because the name-to-address resolution of the HOSTNAME value has not completed or was unsuccessful.

## IST1896I

*nodename* is the network qualified name of the VNNAME definition with the non-unique information.

## IST1899I

*line* is the name of the Enterprise Extender line that failed activation.

## IST1910I

This message is issued when the host name associated with the VNNAME definition is not unique, or the host name is unique but the local static VIPA address that was obtained after name-to-address resolution of *value* is not unique.

*value* is the host name, or the first 45 characters of the host name, associated with the VNNAME definition. If the host name is longer than 45 characters, then the first 45 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

## IST1911I

*value* is the continuation of *value* on IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

## System action

The Enterprise Extender line is failed.

## Operator response

Contact the system programmer.

## System programmer response

Correct the Enterprise Extender definition statements, or the DNS zone files or appropriate local hosts files, such that the VRN information for VNNAME is unique.

- If IST1680I is included in the message group, but IST1910I is not, then correct the IPADDR value on the appropriate VNNAME definition so that the VNNAME/IPADDR pair is unique.
- If IST1910I is included in the message group, then either correct the HOSTNAME value on the appropriate VNNAME definition so that the VNNAME/HOSTNAME pair is unique, or correct the DNS zone files or local hosts file such that *value* will resolve to a unique static VIPA address.

Deactivate and reactivate the Enterprise Extender major node.

## Routing code

2

## Descriptor code

5

---

## IST1900I

**ASSIGNED IP ADDRESS** *ip\_address*

## Explanation

VTAM issues this message in response to the first VARY ACTIVATE command for an Enterprise Extender link. This message displays the local IP address (static VIPA) that will be used by all Enterprise Extender connections. This static VIPA is assigned by TCP/IP during port activation when both of the following conditions are true:

- The IPADDR or HOSTNAME parameter is not coded as a start option or on any of the Enterprise Extender GROUP definition statements.
- The TCPNAME start option has been specified.

*ip\_address* is the value of the IP address. If **\*\*\*\*NA\*\*\*\*** is displayed, the value is not available.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1901I** **LINES UNDER GROUP: *grpname***

## Explanation

This message is a header line that VTAM issues in response to a DISPLAY ID command for an external communication adapter (XCA) major node that defines an Enterprise Extender connection. This message is repeated in the display output when the lines defined under a particular Enterprise Extender GROUP match the requested SCOPE operand of the DISPLAY command.

*grpname* is the symbolic name of the line group in which the line being displayed is defined.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1902I****GROUP = *grpname***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an external communication adaptor (XCA) major node that defines an Enterprise Extender connection. This message is repeated for each Enterprise Extender GROUP definition statement (predefined connections) for the XCA major node.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1903I****FAILURE OVER VRN *vrnname* TO CP *partnname***

---

## Explanation

This message indicates the occurrence of a dial failure or a connection INOP for a connection over the named Virtual Routing Node (VRN) to the named partner node. This message will appear after either message IST590I (for a dial out failure) or IST1196I (for a connection INOP). IST1903I can appear as a single line message or as the first message in a message group. The description of the message group follows the example.

```
IST1903I FAILURE OVER VRN vrnname TO CP partnname
IST2050I THIS PATH WILL NOT BE SELECTED FOR UNRCHTIM = seconds SECONDS
[IST2186I THIS PATH WILL NOT BE SELECTED FOR UNRCHTIM SECONDS]
IST314I END
```

## IST1903I

- *vrnname* is the name of the VRN over which the failure occurred.
- *partnname* is the CP name of the node adjacent to the VRN that was the endpoint of the failed dial or INOPed connection.
- This message is an indication that the named partner node cannot be reached at this time using the connection network path across the named VRN. This connection network path might have been chosen for this connection because it had a lower weight than any alternate path available at one of the following times:
  - The time of this failing dial
  - The time of the dial that set up the existing connection
  - The time of a path switch to this connection network path for an existing RTP connection



- If IST1903I is issued as a single line message, and this path still has the lowest weight of any available path to the partner node, any attempt to redial the partner node will continue to try the path over this particular VRN, which will probably result in failure until the underlying problem with this path is corrected.

### **IST2050I**

- *seconds* is the number of seconds that the partner node through this VRN (both identified in message IST1903I) is considered to be unreachable.
- This message is issued on a network node. It is issued as part of a group with IST1903I when the unreachable time value on the UNRCHTIM start option is specified or the UNRCHTIM operand is specified on a PORT or GROUP definition statement that defines this VRN in an Enterprise Extender Extended Communications Adapter (XCA) major node.

See the [UNRCHTIM start option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

### **IST2186I**

This message is issued on an end node. It is issued as part of a group with IST1903I when the UNRCHTIM start option is specified or the UNRCHTIM operand is specified on a PORT or GROUP definition statement that defines this VRN in an Enterprise Extender Extended Communications Adapter (XCA) major node.

See [UNRCHTIM start option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#) and [Unreachable time \(UNRCHTIM\) considerations](#) in [z/OS Communications Server: SNA Operation](#) for more information about UNRCHTIM.

## **System action**

Processing continues. When IST2050I is issued with IST1903I, the route to the unreachable partner node through the named Enterprise Extender VRN will not be considered for a session path until the unreachable time expires. If the unreachable time expires and this path still has the lowest weight of any available path to the partner node, the path over this particular Enterprise Extender VRN will be selected on the next attempt to redial the partner node, which might again result in failure if the underlying problem with the connection has not been corrected. That dial failure will cause the unreachable time to be set again to prevent selection of the path through this Enterprise Extender VRN to the unreachable partner node for the period of time specified for that Enterprise Extender VRN. This will continue until the problem with the connection path is corrected.

## **Operator response**

If message IST2050I is included with message IST1903I, the connection path over the named Enterprise Extender VRN will remain unavailable for the number of seconds specified as the unreachable time for that VRN, to provide time for you to find and correct the source of the underlying problem. Issue the `DISPLAY TOPO,LIST=UNRCHTIM` command to display the unreachable partner information and use the output to help identify the location of the failure.

If message IST2186I is included with message IST1903I, the connection path over the named Enterprise Extender VRN will remain unavailable for the amount of time specified by the UNRCHTIM start option to provide time for you to find and correct the source of the underlying problem. The UNRCHTIM value depends on which version of z/OS Communications Server is in use on the end node's network node server (NNS). If z/OS Communications Server V1R6 or V1R7 is in use on the end node's NNS, the value comes from the end node's configuration (either the UNRCHTIM start option or the UNRCHTIM operand on the PORT or GROUP definition statement that defines the VRN). If z/OS Communications Server V1R8 or later is in use on the end node's NNS, the value comes from the NNS's configuration (either the UNRCHTIM start option or the UNRCHTIM operand on the PORT or GROUP definition statement that defines the VRN). Issue the `DISPLAY TOPO,LIST=UNRCHTIM` command on the NNS to display the unreachable partner information. This information includes the expiration time (the time at which the path will no longer be considered unreachable). This information can also be used to help identify the location of the failure.

If the problem has been corrected and the display of unreachable partner information indicates that there are paths through Enterprise Extender connection networks that will remain unavailable for some time, then you can issue the `MODIFY TOPO,FUNCTION=CLRUNRCH` command to clear the unreachable partner information to make that path available for route calculation again. If you are receiving the IST1903I message group repetitively,

you can increase the value of the UNRCHTIM start option using the MODIFY VTAMOPTS command or change the value of the UNRCHTIM operand on the PORT or GROUP statement in the EE XCA major node in VTAMLST and then use the VARY ACT,ID=*xca\_major\_node*,UPDATE=ALL command to change the value dynamically. See [UNRCHTIM start option in z/OS Communications Server: SNA Resource Definition Reference](#) and [Unreachable time \(UNRCHTIM\) considerations in z/OS Communications Server: SNA Operation](#) for more information about UNRCHTIM.

If IST1903I is issued as a single line message, to avoid repeated failures, you can temporarily make the connection path over the named VRN unavailable until the source of the underlying problem is found and corrected.

First, if it is active, turn off the start option PSRETRY. Issue the MODIFY VTAMOPTS, PSRETRY=(0,0,0,0) command to prevent any existing RTPs that are successfully using the named VRN to reach their destination endpoints from path-switching to a less attractive route. Then take one of the following actions to make the named VRN unavailable:

- Issue the MODIFY TOPO FUNCTION=QUIESCE, SCOPE=NETWORK command specifying the VRN named in IST1903I to remove the VRN from consideration by Topology in route calculations. Quiescing the VRN will make all paths through this VRN unavailable for all nodes connected to the connection network, not just the path identified in message IST1903I.
- Issue the VARY INACT command for the local link to the VRN.
- Increase the weight of this connection network path by issuing the MODIFY TGP command for the TGs to and from the VRN.

You might need to take the above actions (disabling PSRETRY and the single action chosen from the list above) from both this node and the partner node to successfully route around the connection network problem. When you have taken these actions, use established procedures to diagnose the underlying problem at both this node and the partner node to find and correct the problem.

When the problem has been corrected, reverse the actions taken above so the current connections and future connection attempts will be rerouted over the connection network path. Depending on which action was taken above, do one of the following things:

- Issue the MODIFY TOPO FUNCTION=NORMAL, SCOPE=NETWORK command for the named VRN.
- Reactivate the local link to the VRN.
- Issue the MODIFY TGP command for the TGs to and from the VRN to decrease the weight of the connection network path.

You can re-enable PSRETRY. This will cause existing RTPs to periodically check for a lower weight path and switch to it if one is available.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1904I** *option = current\_value*

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS or DISPLAY INOPDUMP command. The first message in these groups are IST1188I and IST1865I, respectively. See the explanation of those messages for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1905I** **START OPTION = *value***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1906I** **CURRENT VALUE = *current\_value***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1907I** **ORIGINAL VALUE = *original\_value***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1908I** **ORIGIN = *origin***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1909I</b>	<b>REMOTE HOSTNAME</b> <i>value</i>
-----------------	-------------------------------------

### Explanation

VTAM issues this message as part of a group of messages in response to DISPLAY ID command processing for a remote node connected using Enterprise Extender.

VTAM also issues this message as part of several message groups. These message groups begin with message IST149I, IST1891I, IST1892I, IST1893I, IST2001I, IST2065I, IST2066I, IST2119I, IST2130I, or IST2145I. See the explanations of these messages for a complete description.

*value* is the host name that was used to acquire the remote IP address associated with this connection to the remote node. If the host name is longer than 44 characters, then the first 44 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages. See the description of IST1911I for more information.

### System action

Processing continues.

### Operator response

None.

### System programmer response

None.

## Routing code

2

## Descriptor code

5

---

<b>IST1910I</b>	<b>LOCAL HOSTNAME</b> <i>value</i>
-----------------	------------------------------------

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for one of the following:

- A remote node connected using Enterprise Extender.
- An XCA major node representing Enterprise Extender connections.
- A GROUP definition statement associated with an XCA major node that represents Enterprise Extender connections.

VTAM also issues this message as part of several message groups. These message groups begin with message IST1891I, IST1892I, IST1893I, IST1899I, IST2000I, IST2001I, IST2002I, IST2065I, IST2066I, IST2119I, IST2130I or IST2145I. See the explanations of those messages for a complete description.

*value* is the host name that was used to acquire the local static VIPA address associated with this end of the Enterprise Extender connections. If the host name is longer than 45 characters, then the first 45 characters are displayed as *value* and the remaining characters are displayed using one or more IST1911I messages. See IST1911I for more information about that message.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1911I** *value*

**Explanation**

VTAM issues this message as part of a group of messages in response to DISPLAY ID command processing for one of the following:

- A remote node connected using Enterprise Extender
- An XCA major node representing Enterprise Extender connections
- A GROUP definition statement associated with an XCA major node that represents Enterprise Extender connections

VTAM also issues this message as part of several message groups. These message groups begin with message IST149I, IST1188I, IST1891I, IST1892I, IST1893I, IST1899I, IST2000I, IST2001I, IST2002I, IST2065I, IST2066I, IST2119I, IST2130I or IST2145I. See the explanations of those messages for a complete description.

*value* is the continuation information for either IST1909I or IST1910I, when the value being displayed is too long to fit on the individual message. See the individual message for a complete description.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1912I** **IP ADDRESS** *ipaddr*

**Explanation**

This message is the first in a group of messages that VTAM issues in response to a DISPLAY ID,IDTYPE=IPADDR command when multiple LUs are associated with the specified TN3270 client IP address. A complete description of the message group follows.

```
IST1912I IP ADDRESS ipaddr
IST1913I LUNAME          PORT
IST1914I netid.luname    portno
:
IST314I  END
```

**IST1912I**

Message IST1912I contains the IP address specified in the DISPLAY request.  
*ipaddr* is the IP address specified in the DISPLAY request.

**IST1913I**

Message IST1913I is a column header for IST1914I.

**IST1914I**

Message IST1914I is issued for each LU associated with the specified TN3270 client IP address.  
*netid.luname* is the network-qualified name of the LU.  
*portno* is the port number associated with the IP address. The IP address and port number identify the remote TN3270 client.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1913I** **LUNAME PORT**

## Explanation

This message is issued as part of a group of messages that VTAM issues in response to a DISPLAY ID,IDTYPE=IPADDR command when multiple LUs are associated with the specified TN3270 client IP address. The first message in the group is IST1912I. See the description of that message for a detailed explanation.

## Routing code

2

## Descriptor code

5

---

<b>IST1914I</b>	<i>netid.luname portnum</i>
-----------------	-----------------------------

## Explanation

This message is issued as part of a group of messages that VTAM issues in response to a DISPLAY ID,IDTYPE=IPADDR command when multiple LUs are associated with the specified TN3270 client IP address. The first message in the group is IST1912I. See the description of that message for a detailed explanation.

## Routing code

2

## Descriptor code

5

---

<b>IST1915I</b>	<i>line</i> <b>ACTIVATION FAILED - VNNAME ALREADY ACTIVE AS GLOBAL</b>
-----------------	--

## Explanation

If the same VNNAME is defined more than once in the Enterprise Extender XCA major node, the VNTYPE associated with the virtual routing node (VRN) must be the same. In this case, a VRN is being activated with a VNTYPE of LOCAL, but a VRN with the same VNNAME is already activate with a VNTYPE of GLOBAL.

*line* is the name of the Enterprise Extender line that failed activation.

## System action

The Enterprise Extender line activation is failed.

## Operator response

Contact the system programmer.

## System programmer response

Correct the Enterprise Extender definition statements to ensure that all virtual routing nodes with the same VNNAME are defined with the same VNTYPE. Then deactivate and reactivate the XCA major node.

## Routing code

2

## Descriptor code

5

**Explanation**

If the same VNNAME is defined more than once in the Enterprise Extender XCA major node, the VNTYPE associated with the virtual routing node (VRN) must be the same. In this case, a VRN is being activated with a VNTYPE of GLOBAL, but a VRN with the same VNNAME is already active with a VNTYPE of LOCAL.

*line* is the name of the Enterprise Extender line that failed activation.

**System action**

The Enterprise Extender line activation fails.

**Operator response**

Contact the system programmer.

**System programmer response**

Correct the Enterprise Extender definition statements to ensure that all virtual routing nodes with the same VNNAME are defined with the same VNTYPE. Then deactivate and reactivate the XCA major node.

**Routing code**

2

**Descriptor code**

5

**Explanation**

This message is issued in response to a MODIFY VTAMOPTS command specifying two start options that cannot be modified at the same time. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for an explanation of why the two start options are in conflict.

*option1* is the name of one of the start options in conflict on the MODIFY command.

*option2* is the name of the second start option that is in conflict on the MODIFY command.

**System action**

*option1* and *option2* are ignored. Any other start option specified on the MODIFY command is processed independently of these start options.

**Operator response**

Specify either MODIFY VTAMOPTS,*option1*=value or MODIFY VTAMOPTS,*option2*=value, but not both. See the [z/OS Communications Server: SNA Operation](#) for information about MODIFY VTAMOPTS.

**System programmer response**

None.

**Routing code**

2



## Descriptor code

5

---

**IST1919I** **INOPCODES FOR MODULE *modulename*:**

## Explanation

VTAM issues this message as part of a group of messages in response to a MODIFY or DISPLAY INOPCODE command. A complete description of the message group follows:

When MODIFY INOPCODE:

```
IST1919I INOPCODES FOR MODULE modulename:
IST1920I  DUMP ENABLED:
IST1921I   inopcode_list
IST1922I  DUMP DISABLED:
IST1921I   inopcode_list
IST223I MODIFY COMMAND COMPLETED
IST314I END
```

When DISPLAY INOPCODE:

```
IST350I DISPLAY TYPE = INOPCODE
IST1919I INOPCODES FOR MODULE modulename:
IST1920I  DUMP ENABLED:
IST1921I   inopcode_list
IST1922I  DUMP DISABLED:
IST1921I   inopcode_list
[IST1919I INOPCODES FOR MODULE modulename:]
[IST1920I  DUMP ENABLED: ]
[IST1921I   inopcode_list ]
[IST1922I  DUMP DISABLED: ]
[IST1921I   inopcode_list ]
:
IST314I END
```

## IST350I

This message identifies the type of information in the display and is always INOPCODE for this message group.

## IST1919I

This message is a header for subsequent IST1920I, IST1921I, and IST1922I messages. *modulename* identifies the VTAM modules for which the INOPCODES are being reported.

## IST1920I

This message is a header for subsequent IST1921I messages. This message does not appear (nor will the IST1921I continuation message appear) if there are no INOPCODEs that are dump enabled in *modulename*.

## IST1921I

*inopcode\_list* specifies up to 14 INOPCODEs in *modulename* that are dump enabled or dump disabled.

## IST1922I

This message is a header for subsequent IST1921I messages. This message does not appear (nor will the IST1921I continuation message appear) if there are no INOPCODEs that are dump disabled in *modulename*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1920I** **DUMP ENABLED:**

## Explanation

VTAM issues this message as part of a group of messages in response to a MODIFY or DISPLAY INOPCODE command. See IST1919I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST1921I** *inopcode\_list*

## Explanation

VTAM issues this message as part of a group of messages in response to a MODIFY or DISPLAY INOPCODE command. See IST1919I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST1922I** **DUMP DISABLED:**

## Explanation

VTAM issues this message as part of a group of messages in response to a MODIFY or DISPLAY INOPCODE command. See IST1919I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST1923I** **MODULE *modulename* INOPCODE *inopcode* DOES NOT EXIST**

## Explanation

VTAM issues this error message in response to a MODIFY INOPCODE command that specified *modulename* and *inopcode*. This message is issued when *modulename* is a valid VTAM module that contains INOPCODEs, but *inopcode* is not one of the codes used by *modulename*.

*modulename* is the name specified on the MODIFY INOPCODE command.

*inopcode* is the code specified on the MODIFY INOPCODE command.

## System action

Processing continues.

## Operator response

Issue DISPLAY NET,INOPCODE,MODULE=*modulename* and check the list of INOPCODEs returned. Reissue the command with the correct INOPCODE.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1924I**

***modulename* DOES NOT EXIST OR DOES NOT CONTAIN INOPCODES**

## Explanation

VTAM issues this error message in response to a MODIFY or DISPLAY INOPCODE command that specified *modulename*. This message is issued when *modulename* is not a valid VTAM module or *modulename* is a valid VTAM module but does not use any INOPCODEs.

*modulename* is the name specified on the MODIFY or DISPLAY INOPCODE command.

## System action

Processing continues.

## Operator response

Issue the DISPLAY INOPCODE command without the MODULE operand. The response shows all VTAM modules that use INOPCODEs. If necessary, correct *modulename* and reissue the MODIFY or DISPLAY INOPCODE command.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

### IST1925I SOCKET OPENED BY SNAMGMT SERVER SUBTASK

## Explanation

VTAM issues this message when the SNA Network Management Server subtask successfully opens a Listener socket. The SNA Network Management Interface is ready to process connection requests from client applications.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

### IST1926I SNAMGMT SERVER IS UNABLE TO ACCEPT CONNECTION REQUESTS

## Explanation

This message is the first of a group of messages that VTAM issues when the SNA Network Management Server is unable to accept connection requests from client applications. This occurs when VTAM cannot establish a Listener socket. The second message in the message group describes the specific failure that occurred. The message group follows:

```
IST1926I  SNAMGMT SERVER IS UNABLE TO ACCEPT CONNECTION REQUESTS
IST1927I  SOCKET callname CALL FAILED - RC = rtncode RSN = reason
IST314I  END
```

### IST1926I

This message indicates that the SNA Network Management Server is not able to successfully open a socket to accept connection requests from client applications.

### IST1927I

A UNIX System Services function call issued by the SNA Network Management Server failed, which prevents it from accepting connection requests.

*callname* is the name of the UNIX System Services function call that failed. These function calls are listed and described in the [z/OS UNIX System Services Programming: Assembler Callable Services Reference](#).

*rtncode* is the return code value, in decimal, returned from the UNIX System Services function call that failed. These return codes are listed and described in the [z/OS UNIX System Services Messages and Codes](#).

*reason* is the reason code value, in hexadecimal, returned from the UNIX System Services function call that failed. The format of the 4-byte reason code is explained in the introduction to the Reason Code section of the [z/OS UNIX System Services Messages and Codes](#), where the reason codes are listed.

## System action

The SNA Network Management Server socket remains closed and no client connection requests are accepted.

## Operator response

Save the system log for problem determination.

## System programmer response

Correct the error indicated by the UNIX System Services function call, return code and reason code identified by IST1927I.

## Routing code

2

## Descriptor code

5

---

<b>IST1927I</b>	<b>SOCKET <i>callname</i> CALL FAILED - RC = <i>rtncode</i> RSN = <i>reason</i></b>
-----------------	---

---

## Explanation

VTAM issues this message in the following situations:

- As part of a group of messages when a UNIX System Services function call issued by the SNA Network Management Server fails, which prevents it from accepting connection requests. The first message in the group is IST1926I. See the description of that message for more information about the message group.
- As part of a group of messages when a UNIX System Services function call issued by the SNA Network Management Server fails, which causes the Server to close a connection with a client application. The first message in the group is IST1933I. See the description of that message for more information about the message group.

## Routing code

2

## Descriptor code

5

---

<b>IST1928I</b>	<b>SNAMGMT CONNECTION TO <i>userid</i> IS ACTIVE</b>
-----------------	--

---

## Explanation

VTAM issues this message when a connection to the SNA Network Management Server from a client application opens.

*userid* is the user ID that owns the client application.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1929I** **SNAMGMT CONNECTION TO *userid* HAS ENDED**

## Explanation

VTAM issues this message when a connection to the SNA Network Management Server from a client application ends.

*userid* is the user ID that owns the client application. If the user ID is unknown, VTAM displays **\*\*\*NA\*\*\***.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1930I** **SOCKET CLOSED BY SNAMGMT SERVER SUBTASK**

## Explanation

VTAM issues this message when the SNA Network Management Server subtask closes the Listener socket. No connection requests from client applications will be processed.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1931I****SNAMGMT CONNECTION REFUSED FOR *userid***

---

## Explanation

VTAM issues this message when the SNA Network Management Server refuses a connection request from a client application because the VTAM capacity for simultaneous client connections has been reached.

*userid* is the user ID that owns the client application. If the user ID is unknown, VTAM displays **\*\*\*NA\*\*\***.

## System action

Processing continues. The SNA Network Management Server continues to process existing connections.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1932I****SNAMGMT SECURITY CHECK FAILED FOR *userid***

---

## Explanation

VTAM issues this message when a connection to the SNA Network Management Server from a client application is not authorized. VTAM closes the connection.

*userid* is the user ID of the application that attempted the connection to the SNA Network Management Server. If the user ID is unknown, VTAM displays **\*\*\*NA\*\*\***.

## System action

Processing continues. The SNA Network Management Server continues to accept new connections and process existing connections.

## Operator response

Contact the security administrator.

## System programmer response

If this user should be authorized to use the SNA Network Management Server, update the security server to allow this user access to the SNA Network Management Server.

## Routing code

2

## Descriptor code

5

---

**IST1933I****SNAMGMT SERVER CLOSING CONNECTION TO *userid***

---

## Explanation

VTAM issues this message as the first in a group of messages when a UNIX System Services function call issued by the SNA Network Management Server fails, which causes the Server to close a connection with a client application. The SNA Network Management Server is still able to accept client connection requests, and other existing connections are not disrupted.

```
IST1933I  SNAMGMT SERVER CLOSING CONNECTION TO userid
IST1927I  SOCKET callname CALL FAILED - RC = rtncode RSN = reason
IST314I  END
```

### IST1933I

This message indicates that the SNA Network Management Server is closing a connection with a client application owned by *userid*.

*userid* is the user ID that owns the client application whose connection is being closed. If the user ID is unknown, VTAM displays **\*\*\*NA\*\*\***.

### IST1927I

*callname* is the name of the UNIX System Services function call that failed. These functions are listed and described in the [z/OS UNIX System Services Programming: Assembler Callable Services Reference](#).

*rtncode* is the return code value, in decimal, from the UNIX System Services function call that failed. These return codes are listed and described in the [z/OS UNIX System Services Messages and Codes](#).

*reason* is the reason code value, in hexadecimal, from the UNIX System Services function call that failed. The format of the 4-byte reason code is explained in the introduction to the Reason Code section of the [z/OS UNIX System Services Messages and Codes](#), where the reason codes are listed.

## System action

VTAM closes the client connection for which this error occurred. The SNA Network Management Server remains available to service existing connections and accept new connection requests.

## Operator response

Save the system log for problem determination.

## System programmer response

Correct the error indicated by the UNIX System Services function call, return code, and reason code identified by IST1927I.

## Routing code

2

## Descriptor code

5

---

**IST1934I****IDBLK = *idblk* IDNUM = *idnum***

---



## Explanation

VTAM issues this message in response to a DISPLAY ID command for any type 1 or type 2 switched PU.

*idblk* is the value specified on the IDBLK parameter on the PU statement that defines the switched PU.

*idnum* is the value specified on the IDNUM parameter on the PU statement that defines the switched PU. *idblk* and *idnum* are used together to identify the PU.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

---

**IST1935I** **RIF = *route\_information***

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a switched PU defined for an external communication adapter (XCA) LAN connection.

*route\_information* is the hexadecimal value of the Route Information Field (RIF) for a LAN connection. See RFC 1042 for more information about this field. See [Appendix F, "Related protocol specifications," on page 1849](#) for information about accessing RFCs.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

---

**IST1936I** **LOCADDR = *locaddr***

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a logical unit.

*locaddr* is the value specified on the LOCADDR parameter on the LU statement that defines the logical unit.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

---

**IST1937I****PATH SWITCH REASON: INITIATED BY REMOTE PARTNER**

---

## Explanation

This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either [IST1494I](#) or [IST1968I](#). See the description of those messages for more information.

---

**IST1938I****APPC = *value***

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a VTAM application.

*value* is the APPC value specified on the APPL definition statement for the application being displayed.

- YES indicates that the application is APPC capable.
- NO indicates that the application is not APPC capable.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

---

**IST1939I****INACT FINAL = *status***

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a dependent LU requester (DLUR) that is represented by a CDRSC.

*status* is **YES** to indicate that a VARY INACT command with FINAL=YES was issued against the DLUR. This would indicate that there are no immediate plans to reactivate this node as a DLUR. To enable the DLUR again, issue a VARY ACT command on the DLUR CDRSC. See [z/OS Communications Server: SNA Operation](#) for additional information about the VARY INACT FINAL=YES command.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

---

**IST1940I****MODIFY COMMAND REJECTED - SNAMGMT ALREADY ACTIVE**

---

### Explanation

VTAM issues this message when the MODIFY VTAMOPTS,SNAMGMT=YES command has been issued and the SNA Network Management Server is already active.

### System action

VTAM rejects the MODIFY VTAMOPTS,SNAMGMT=YES command.

## Operator response

The SNA Network Management Server subtask may be closing the Listener socket due to either an abend of the subtask or a recently-issued MODIFY VTAMOPTS,SNAMGMT=NO command. If this is the case and you want to reactivate the SNA Network Management Server subtask after this processing completes, wait until VTAM issues message IST1930I and then reissue the MODIFY VTAMOPTS,SNAMGMT=YES command.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

IST1941I	MODIFY COMMAND REJECTED - SNAMGMT ALREADY SET TO NO
----------	---

### Explanation

VTAM issues this message when the MODIFY VTAMOPTS,SNAMGMT=NO command has been issued and the SNAMGMT start option is already set to NO.

### System action

VTAM rejects the MODIFY VTAMOPTS,SNAMGMT=NO command.

## Operator response

None.

## System programmer response

None.

## Routing code

2

### Descriptor code

5

IST1942I	APPN LOCATE SEARCH STEPS ATTEMPTED
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
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88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

## Explanation

VTAM issues this message as part of a subgroup of messages to provide locate search failure information when a locate search fails to find the destination LU. This subgroup is issued only if the LSIRFMSG function is active for this node and the APPN search fails.

```
IST1942I APPN LOCATE SEARCH STEPS ATTEMPTED
[IST1943I DIRECTED SEARCH TO A SERVED END NODE]
[IST1953I search_nodename - SENSE code FROM reply_nodename]
[IST1944I DIRECTED SEARCH TO A NETWORK NODE]
[IST1953I search_nodename - SENSE code FROM reply_nodename]
[IST1945I DIRECTED SEARCH TO A BORDER NODE]
[IST1953I search_nodename - SENSE code FROM reply_nodename]
[IST1946I LOCAL SUBAREA SEARCH]
[IST1953I search_nodename - SENSE code FROM reply_nodename]
[IST1947I BROADCAST SEARCH TO SERVED END NODES]
[IST1953I search_nodename - SENSE code FROM reply_nodename]
[IST1948I DIRECTED SEARCHES TO BORDER NODES]
[IST1953I search_nodename - SENSE code FROM reply_nodename]
[IST1949I DIRECTED SEARCH TO A CENTRAL DIRECTORY SERVER]
[IST1953I search_nodename - SENSE code FROM reply_nodename]
[IST1950I DIRECTED SEARCHES TO ALTERNATE CENTRAL DIRECTORY SERVERS]
[IST1953I search_nodename - SENSE code FROM reply_nodename]
[IST1951I BROADCAST SEARCH TO NETWORK NODES]
[IST1953I search_nodename - SENSE code FROM reply_nodename]
[IST1952I DIRECTED SEARCHES TO INTERCHANGE NODES]
[IST1953I search_nodename - SENSE code FROM reply_nodename]
IST314I END
```

### IST1942I

This message is a header message for APPN locate failure information.

### IST1943I

This message is a header message for information displayed in message IST1953I for a failed directed search to a served end node.

### IST1944I

This message is a header message for information displayed in message IST1953I for a failed directed search to a network node.

### IST1945I

This message is a header message for information displayed in message IST1953I for a failed directed search to a border node.

### IST1946I

This message is a header message for information displayed in message IST1953I for a failed search of the local subarea.

### IST1947I

This message is a header message for information displayed in message IST1953I for a failed broadcast search to served end nodes.

### IST1948I

This message is a header message for information displayed in message IST1953I for failed directed searches to border nodes.

### IST1949I

This message is a header message for information displayed in message IST1953I for a failed directed search to a central directory server.

### IST1950I

This message is a header message for information displayed in message IST1953I for failed directed searches to alternate central directory servers.

## IST1951I

This message is a header message for information displayed in message IST1953I for failed broadcast search to network nodes.

## IST1952I

This message is a header message for information displayed in message IST1953I for failed directed searches to interchange nodes.

## IST1953I

This message lists the name of a node to which a locate search is sent, the sense code returned, and the name of the node that set the failing sense code. This message will be issued for each node searched during a search step. The messages appear in the order that the replies were received.

*search\_nodename* is the network-qualified name of the node to which directory services attempted to send a locate search request.

*code* is the sense code returned in the locate reply. See the [z/OS Communications Server: IP and SNA Codes](#) for a description of sense.

*reply\_nodename* is the node that set the sense code that was returned on the locate reply. If the *reply\_nodename* value is **\*\*\*NA\*\*\***, then the CV35 on the locate reply did not contain a procedure origin name.

## System action

The locate search failed.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the output to assist in determining the cause of the problem. You might need to work with system programmers in other networks to determine the failures for resources located in other networks.

## Routing code

8

## Descriptor code

4

---

### IST1943I

### DIRECTED SEARCH TO A SERVED END NODE

## Explanation

This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

### IST1944I

### DIRECTED SEARCH TO A NETWORK NODE

## Explanation

This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

**IST1945I****DIRECTED SEARCH TO A BORDER NODE**

## Explanation

This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

**IST1946I****LOCAL SUBAREA SEARCH**

## Explanation

This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

**IST1947I****BROADCAST SEARCH TO SERVED END NODES**

## Explanation

This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

**IST1948I****DIRECTED SEARCHES TO BORDER NODES**

---

## Explanation

This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

**IST1949I****DIRECTED SEARCH TO A CENTRAL DIRECTORY SERVER**

---

## Explanation

This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

**IST1950I****DIRECTED SEARCHES TO ALTERNATE CENTRAL DIRECTORY SERVERS**

---

## Explanation

This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

**IST1951I****BROADCAST SEARCH TO NETWORK NODES**

---

## Explanation

This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

**IST1952I****DIRECTED SEARCHES TO INTERCHANGE NODES**

---

## Explanation

This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

**IST1953I*****search\_nodename - SENSE code FROM reply\_nodename***

---

## Explanation

This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

4

---

**IST1954I****TRL MAJOR NODE = *major\_node\_name***

---

## Explanation

VTAM issues this message as part of a group of messages in response to:

- A DISPLAY TRL command
- A DISPLAY ID=*trl\_element* command
- A DISPLAY INOPDUMP command
- A DISPLAY TNSTAT command

*major\_node\_name* is the name of TRL major node.

## System action

Processing continues.

## Operator response

None.



## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1955I** **STALL DETECTED FOR RTP *puname* TO *cpname***

---

## Explanation

This unsolicited message is issued when HPR detects that data flow for an RTP pipe stalled. The data flow is considered stalled because the RTP partner requested retransmission of at least one NLP, but the request cannot be honored. It might be an indication of either a device problem or an internal software problem.

**Tip:** It is not unusual for a stall to be detected on an RTP pipe that is in the process of pathswitching.

*puname* is the name of the HPR PU.

*cpname* is the name of the CP at the other end of the pipe.

## System action

HPR attempts to make an internal copy of the NLPs causing the data flow stall (known as NLP recovery). If the copy is successful the recovered NLPs are retransmitted. If the stall persists, IST1956I is issued every 30 seconds until the stall is alleviated.

## Operator response

The operator can use the DISPLAY NET,ID=*puname* or DISPLAY NET,RTPS,STALL=YES commands to monitor stalled RTP pipes.

If the data flow stall persists, issue VARY *procname*,INACT,ID=*puname*,TYPE=FORCE to deactivate the HPR PU and end the hung sessions.

If you want VTAM to automatically deactivate stalled RTP pipes after a specified amount of time, use the HPRSTALL start option. See the [HPRSTALL start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).

## System programmer response

If data flow stalls are prevalent and persistent, contact VTAM support for instructions about gathering documentation for problem determination.

## Routing code

2

## Descriptor code

4

---

**IST1956I** **STALL CONTINUES FOR RTP *puname* TO *cpname***

---

## Explanation

This unsolicited message is issued at 30-second intervals as long as data flow continues to be stalled for an RTP pipe.

*puname* is the name of the HPR PU.

*cpname* is the name of the CP at the other end of the pipe.

## System action

HPR continues to wait for the partner RTP to acknowledge receipt of the NLPs identified as causing the data flow stall. When all those NLPs are acknowledged, the data flow stall is considered alleviated and IST1957I is issued.

## Operator response

Use the DISPLAY NET,ID=*puname* or DISPLAY NET,RTPS,STALL=YES commands to monitor stalled RTP pipes.

If the data flow stall persists, issue VARY *procname*,INACT,ID=*puname*,TYPE=FORCE to deactivate the HPR PU and end the stalled sessions.

If you want VTAM to automatically deactivate stalled RTP pipes after a specified amount of time, use the HPRSTALL start option. See the [HPRSTALL start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).

## System programmer response

If data flow stalls are prevalent and persistent, contact VTAM support for instructions about gathering documentation for problem determination.

## Routing code

2

## Descriptor code

4

---

**IST1957I****STALL ALLEVIATED FOR RTP *puname* TO *cpname***

## Explanation

This unsolicited message is issued when HPR detects that a data flow stall for an RTP pipe has been alleviated. The RTP pipe data flow is back to normal.

*puname* is the name of the HPR PU.

*cpname* is the name of the CP at the other end of the pipe.

## System action

None.

## Operator response

None.

## System programmer response

None.

## Routing code

2

### Descriptor code

4

IST1958I	NUMBER OF ORPHANED BUFFERS = <i>orphaned_NLP_count</i>
----------	--

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

### Descriptor code

5

**IST1959I DATA FLOW STATE = NORMAL**

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. The first message in the group is IST1476I. See the description of that message for more information.

## Routing code

2

### Descriptor code

5

**IST1960I** *puname cpname appncos switch congest stall sessions*

### Explanation

This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY RTPS command. The first message of the subgroup is IST1695I. See the explanation of that message for a complete description of the subgroup.

## Routing code

2

### Descriptor code

5

IST1961I DATA FLOW STATE = STALLED

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. The first message in the group is [IST1476I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1962I****APPNCOS = *appncos\_name* - PRIORITY = NETWORK**

---

## Explanation

VTAM issues this message for the following reasons:

- In response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route.
- When an RTP pipe is activated and deactivated, this message might be issued as part of a group of messages headed by IST1488I. See the explanation for that message for a complete description.

This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of **network**.

*appncos\_name* is the APPNCOS name used in the direction of the other endpoint of the RTP pipe.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1963I****APPNCOS = *appncos\_name* - PRIORITY = HIGH**

---

## Explanation

VTAM issues this message for the following reasons:

- In response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route.
- When an RTP pipe is activated and deactivated, this message might be issued as part of a group of messages headed by [IST1488I](#). See the explanation for that message for a complete description.

This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of **high**.

*appncos\_name* is the APPNCOS name used in the direction of the other endpoint of the RTP pipe.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1964I** APPNCOS = *appncos\_name* - PRIORITY = MEDIUM

**Explanation**

VTAM issues this message for the following reasons:

- In response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route.
- When an RTP pipe is activated and deactivated, this message might be issued as part of a group of messages headed by [IST1488I](#). See the explanation for that message for a complete description.

This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of **medium**.

*appncos\_name* is the APPNCOS name used in the direction of the other endpoint of the RTP pipe.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IST1965I** APPNCOS = *appncos\_name* - PRIORITY = LOW

## Explanation

VTAM issues this message for the following reasons:

- In response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route.
- When an RTP pipe is activated and deactivated, this message might be issued as part of a group of messages headed by [IST1488I](#). See the explanation for that message for a complete description.

This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of **low**.

*appncos\_name* is the APPNCOS name used in the direction of the other endpoint of the RTP pipe.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1966I** **ACTIVATED AS ACTIVE ON *date* AT *time***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. The first message in the group is [IST1476I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1967I** **ACTIVATED AS PASSIVE ON *date* AT *time***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. The first message in the group is [IST1476I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

**IST1968I**

**ARB INFORMATION:**

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. This message is the first in a group of messages and the full description of the message group follows.

```
IST1968I      ARB INFORMATION:
[IST1844I      ARB MODE = mode]
[IST1697I      RTP PACING ALGORITHM = ARB RESPONSIVE MODE]
[IST2267I      RTP PACING ALGORITHM = ARB PROGRESSIVE MODE]
[IST2395I      RTP PACING ALGORITHM = ARB BASE MODE]
IST1477I      ALLOWED DATA FLOW RATE = allowed units
IST1516I      INITIAL DATA FLOW RATE = initial units
IST1841I      ACTUAL DATA FLOW RATE = actual units
IST1969I      MAXIMUM ACTUAL DATA FLOW RATE = max_rate units
IST1862I      ARB MAXIMUM SEND RATE = maximum units
[IST1845I      BOUNDARY DIVIDING REGIONS lower AND upper = boundary  MILLISECONDS]
:
[IST1846I      Type RECEIVER THRESHOLD = threshold MICROSECONDS]
:
IST1970I      RATE REDUCTIONS DUE TO RETRANSMISSIONS = count
IST924I      -----
IST1971I      TIMER INFORMATION:
IST1852I      LIVENESS TIMER = liveness SECONDS
IST1851I      SMOOTHED ROUND TRIP TIME = smoothed_time MILLISECONDS
IST1972I      SHORT REQUEST TIMER = timer MILLISECONDS
IST2229I      REFIFO TIMER = refifo MILLISECONDS

IST924I      -----
IST1973I      OUTBOUND TRANSMISSION INFORMATION:
IST1974I      NUMBER OF NLPS SENT = count ( estimate )
IST1975I      TOTAL BYTES SENT = count ( estimate )
IST1849I      LARGEST NLP SENT = size BYTES
IST1980I      SEQUENCE NUMBER = sequence_num (X'hex_value')
IST1842I      NUMBER OF NLPS RETRANSMITTED = retransmitted
IST2249I      NLP RETRANSMIT RATE = percentage
[IST2236I      LAST NLP RETRANSMITTED ON date AT time]
IST1976I      BYTES RETRANSMITTED = count ( estimate )
IST1478I      NUMBER OF UNACKNOWLEDGED BUFFERS = buffers
IST1958I      NUMBER OF ORPHANED BUFFERS = orphaned_NLP_count
IST1843I      NUMBER OF NLPS ON WAITING-TO-SEND QUEUE = waitsend
IST1847I      NUMBER OF NLPS ON WAITING-FOR-ACKNOWLEDGEMENT QUEUE = waitack
IST2268I      NUMBER OF BYTES ON WAITING-FOR-ACK QUEUE = waitforackbytes
IST1977I      MAXIMUM NUMBER OF NLPS ON WAITING-FOR-ACK QUEUE = count
IST2269I      MAXIMUM NUMBER OF BYTES ON WAITING-FOR-ACK QUEUE = maxwaitforack
IST1978I      WAITING-FOR-ACK QUEUE MAX REACHED ON date AT time
IST2085I      NUMBER OF NLPS ON OUTBOUND WORK QUEUE = num_nlps
IST2086I      MAXIMUM NUMBER OF NLPS ON OUTBOUND WORK QUEUE = max_num_nlps
IST2087I      OUTBOUND WORK QUEUE MAX REACHED ON date AT time
IST1511I      MAXIMUM NETWORK LAYER PACKET SIZE = size BYTES
IST924I      -----
IST1979I      INBOUND TRANSMISSION INFORMATION:
IST2059I      NUMBER OF NLPS RECEIVED = count ( estimate )
IST1981I      TOTAL BYTES RECEIVED = count ( estimate )
IST1850I      LARGEST NLP RECEIVED = size BYTES
IST1980I      SEQUENCE NUMBER = sequence_num (X'hex_value')
IST1853I      NUMBER OF NLPS ON OUT-OF-SEQUENCE QUEUE = outofsequence
IST2230I      MAXIMUM NUMBER OF NLPS ON OUT-OF-SEQUENCE QUEUE = maxoutofsequence

IST1854I      NUMBER OF NLPS ON INBOUND SEGMENTS QUEUE = inboundsegs
IST1982I      NUMBER OF NLPS ON INBOUND WORK QUEUE = count
IST1983I      MAXIMUM NUMBER OF NLPS ON INBOUND WORK QUEUE = count
IST924I      -----
IST1984I      PATH SWITCH INFORMATION:
IST2271I      PATH SWITCH DELAY = ps_delay_value
[IST2272I      PATH SWITCH DELAYED UNTIL date AT time]
[IST1856I      LAST PATHSWITCH OCCURRENCE WAS ON date AT time]
[IST1817I      PATH SWITCH REASON: RTP CONNECTION UNAVAILABLE]
[IST1818I      PATH SWITCH REASON: SHORT REQUEST RETRY LIMIT EXHAUSTED]
[IST1819I      PATH SWITCH REASON: TG INOP]
[IST1820I      PATH SWITCH REASON: MODIFY RTP COMMAND ISSUED]
[IST1821I      PATH SWITCH REASON: AUTO PATH SWITCH FOR PSRETRY]
```

```

[IST1937I    PATH SWITCH REASON: INITIATED BY REMOTE PARTNER]
[IST1822I    PATH SWITCH REASON: UNKNOWN]
[IST2239I    PATH SWITCH REASON: MNPS ENDPOINT RECOVERY]
[IST2335I    PATH SWITCH REASON: XMIT STALL RECOVERY]
IST1985I    PATH SWITCHES INITIATED FROM REMOTE RTP = count
IST1986I    PATH SWITCHES INITIATED FROM LOCAL RTP = count
IST1987I    PATH SWITCHES DUE TO LOCAL FAILURE = count
IST1988I    PATH SWITCHES DUE TO LOCAL PSRETRY = count
IST924I      -----
IST1857I    BACKPRESSURE REASON COUNTS:
IST1858I    PATHSWITCH  SEND QUEUE MAX  STORAGE FAILURE  STALLED PIPE
IST2205I    -----
IST1859I    pathswitch  sendqmax          storefail      stalledpipe
IST2211I    ACK QUEUE MAX
IST2205I    -----
IST2212I    ackqmax
[IST2213I    LAST BACKPRESSURE APPLIED ON date AT time]
[IST2214I    BACKPRESSURE REASON: PATHSWITCH]
[IST2215I    BACKPRESSURE REASON: SEND QUEUE MAXIMUM REACHED]
[IST2216I    BACKPRESSURE REASON: STORAGE FAILURE]
[IST2217I    BACKPRESSURE REASON: STALLED PIPE]
[IST2218I    BACKPRESSURE REASON: WAITING-FOR-ACK QUEUE MAXIMUM REACHED]

IST924I      -----
IST2250I    ALL DIAGNOSTIC COUNTERS CLEARED ON date AT time
[IST2248I    ALL DIAGNOSTIC COUNTERS CLEARED FOR number RTP PIPES]

```

### IST924I

This message is used as a separator message.

### IST1477I

*allowed* is the allowed rate at which data can be sent over the RTP connection at the time this message is displayed.

*units* is the unit of measure for the rate and is displayed in bits, kilobits, megabits, or gigabits per second (BITS/SEC, KBITS/SEC, MBITS/SEC, or GBITS/SEC).

### IST1478I

*buffers* is the number of I/O buffers containing outbound data that have been sent to the partner without an acknowledgment since the HPR PU was activated.

### IST1511I

*size* is the maximum size of a network layer packet (NLP) that can be sent over this Rapid Transfer Protocol (RTP) connection in bytes.

### IST1516I

*initial* is the initial data flow rate for this Rapid Transfer Protocol (RTP) connection.

*units* is the unit of measure for the rate and is displayed in bits, kilobits, megabits, or gigabits per second (BITS/SEC, KBITS/SEC, MBITS/SEC, or GBITS/SEC).

### IST1697I

This message indicates that the responsive-mode adaptive rate-based (ARB) pacing algorithm is being used.

### IST1817I

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a rapid transfer protocol (RTP) and the last path switch took place because the underlying physical connection or the RTP itself was not in a state suitable for RTP traffic.

### IST1818I

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a rapid transfer protocol (RTP) and the last path switch took place because the RTP partner was not responding to status requests initiated by this RTP endpoint. Each time a status request is sent to the partner a short request timer is set to time the transaction. If the short request timer expires and no response is received from the partner, the process is repeated. This process will repeat until the retry limit for the RTP



pipe is exhausted. When the retry limit is met, a path switch is requested to try to restore communications with the RTP partner.

The short request timer is an internally calculated value. It is based on the observed response time of the RTP pipe. This timer cannot be specified externally.

#### **IST1819I**

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the last path switch took place because the physical connection that the RTP pipe traversed suffered an INOP condition.

#### **IST1820I**

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the last path switch took place because an operator issued a MODIFY RTP command to force an RTP path switch.

#### **IST1821I**

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the last path switch took place because the PSRETRY start option value forced an automatic path switch for this RTP connection.

#### **IST1822I**

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the reason for the last RTP path switch is unavailable.

#### **IST1841I**

This message shows the actual data flow rate for this Rapid Transfer Protocol (RTP). It should be compared with the allowed data rate displayed by message IST1477I, and the initial data rate displayed by IST1516I. *actual* is the actual rate at which data is being sent over the RTP connection at the time this message is displayed.

*units* is the unit of measure for the rate and is displayed in bits, kilobits, megabits, or gigabits per second (BITS/SEC, KBITS/SEC, MBITS/SEC, or GBITS/SEC).

The data flow rate is updated approximately every second while data is flowing.

#### **IST1842I**

This message is issued if HPRDIAG=YES is specified.

*retransmitted* is the number of network layer packets (NLPs) that have been retransmitted for this Rapid Transfer Protocol (RTP) since the last CLEAR command was issued or the activation of the RTP pipe.

#### **IST1843I**

This message is issued if HPRDIAG=YES is specified.

*waitsend* is the number of network layer packets (NLPs) currently in the waiting-to-send queue.

#### **IST1844I**

- This message is issued if HPRDIAG=YES is specified.
- *mode* is the current Adaptive Rate-Based (ARB) pacing mode. The value is one of the following:

##### **Green**

Data transmission is being performed without significant network congestion.

##### **Yellow**

Data transmission is being slowed down because network congestion has been detected.

##### **Red**

Data transmission is being affected by severe network congestion which might result in packet loss.

#### **IST1845I**

This message is issued if HPRDIAG=YES is specified and the base mode Adaptive Rate-Based (ARB) pacing algorithm is in use for this Rapid Transfer Protocol (RTP). It is issued three times to display each of the three Delay Change Sum (DCS) boundaries dividing the four ARB regions.

*lower* is a number (1, 2, or 3) representing the ARB region below the boundary.

*upper* is a number (2, 3, or 4) representing the ARB region above the boundary.

*boundary* is the DCS boundary in milliseconds dividing the two ARB regions designated by *lower* and *upper*.

#### **IST1846I**

- This message is issued if HPRDIAG=YES is specified and the responsive mode Adaptive Rate-Based (ARB) pacing algorithm is in use for this Rapid Transfer Protocol (RTP). It is issued three times to show each of the receiver thresholds identified by the message: CURRENT, MAXIMUM and MINIMUM.
- *type* is the receiver threshold type. The value is one of the following:

##### **CURRENT**

Amount of accumulated network delay permitted before a slowdown message is returned to the connection partner.

##### **MAXIMUM**

Maximum amount of accumulated network delay specifically allowed for this link's network capacity.

##### **MINIMUM**

Minimum amount of accumulated network delay specifically allowed for this link's network capacity.

- *threshold* is the receiver threshold value, in microseconds.

#### **IST1847I**

This message is issued if HPRDIAG=YES is specified.

*waitack* is the number of network layer packets (NLPs) currently in the waiting-for-acknowledgement queue.

#### **IST1849I**

This message is issued if HPRDIAG=YES is specified.

*size* is the number of data bytes contained in the largest network layer packet (NLP) sent on this Rapid Transfer Protocol (RTP) since the last CLEAR command was issued or the activation of the RTP pipe.

#### **IST1850I**

This message is issued if HPRDIAG=YES is specified.

*size* is the number of bytes contained in the largest network layer packet (NLP) received on this Rapid Transfer Protocol (RTP) since the last CLEAR command was issued or the activation of the RTP pipe.

#### **IST1851I**

This message is issued if HPRDIAG=YES is specified.

*smoothed\_time* is the current smoothed round trip time, in milliseconds, for this Rapid Transfer Protocol (RTP). If that time is less than one millisecond, it will be rounded up to one millisecond in this message display.

#### **IST1852I**

- This message is issued if HPRDIAG=YES is specified.
- *liveness* is the value of the liveness timer, in seconds. The liveness timer specifies how long to wait without receipt of a network layer packet (NLP) from the connection partner before sending a liveness message to verify that the connection is still operational.

If *liveness* is zero, the RTP pipe is traversing a one-hop Enterprise Extender (including those RTP pipes where the RSCV describes a two-hop path across an EE connection network), and HPR Liveness Reduction for EE is enabled. The HPR ALIVE timer will not be used by this RTP endpoint. The HPR Liveness Reduction for EE function is enabled by the HPREELIV operand specified on the XCA Major Node for Enterprise Extender. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the liveness timer.

#### **IST1853I**

This message is issued if HPRDIAG=YES is specified.

*outofsequence* is the number of network layer packets (NLPs) currently in the out-of-sequence queue.

#### **IST1854I**

This message is issued if HPRDIAG=YES is specified.

*inboundsegs* is the number of network layer packets (NLPs) currently in the inbound segments queue.

#### **IST1856I**

This message is issued if HPRDIAG=YES is specified and a path switch has occurred for this Rapid Transfer Protocol (RTP). It is the first of a subgroup of messages that includes one of the following messages: IST1817I, IST1818I, IST1819I, IST1820I, IST1821I, and IST1822I. The date and time are displayed for the last path switch occurrence.

The *date* and *time* values specify the date and time of the last path switch occurrence. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST1857I**

This message is issued if HPRDIAG=YES is specified. It is a header message for the RTP backpressure information in the display.

#### **IST1858I**

This message is issued if HPRDIAG=YES is specified. It is a header message for the information displayed in message IST1859I.

#### **IST1859I**

- This message is issued if HPRDIAG=YES is specified. It displays the number of times that this Rapid Transfer Protocol (RTP) pipe went into backpressure (held up outbound data transmission) since the last CLEAR command was issued or the activation of the RTP pipe. Additional backpressure information is in message IST2211I.
- *pathswitch* is the number of times that this RTP pipe went into backpressure because of a path switch.
- *sendqmax* is the number of times that this RTP pipe went into backpressure by reaching the send queue maximum limit.
- *storefail* is the number of times that this RTP pipe went into backpressure because of a failure to obtain storage.
- *stalledpipe* is the number of times that this RTP pipe went into backpressure because of a stalled RTP pipe. An RTP pipe is considered stalled when data is not flowing because of one of the following conditions:
  - The RTP partner requests the retransmission of at least one NLP, but that request cannot be honored.
  - The RTP partner repeatedly requests the retransmission of the same NLP. In this case, VTAM honors the request by retransmitting the NLP, but the partner does not receive this NLP.

#### **IST1862I**

This message is issued if HPRDIAG=YES is specified.

*maximum* is the Adaptive Rate-Based (ARB) pacing maximum send rate that was reached for this Rapid Transfer Protocol (RTP) since the HPR PU was activated.

*units* is the unit of measure for the rate and is displayed in bits, kilobits, or megabits per second (BITS/SEC, KBITS/SEC, or MBITS/SEC).

#### **IST1937I**

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the most recent RTP path switch was initiated by the remote partner.

#### **IST1958I**

This message is issued if HPRDIAG=YES is specified.

*orphaned\_NLP\_count* is the number of I/O buffers that were not returned by the DLC since the last CLEAR command was issued or the activation of the RTP pipe. A nonzero count indicates a device or DLC problem.

### IST1968I

This message is issued if HPRDIAG=YES is specified. It is a header message for the Adaptive Rate-Based (ARB) pacing information in the display.

### IST1969I

This message is issued if HPRDIAG=YES is specified.

*max\_rate* is the maximum rate at which data was sent over the RTP connection since the last CLEAR command was issued or the activation of the RTP pipe.

*units* is the unit of measure for the rate and is displayed in bits, kilobits, or megabits per second (BITS/SEC, KBITS/SEC, or MBITS/SEC).

The data flow rate is updated approximately every second while data is flowing.

### IST1970I

This message is issued if HPRDIAG=YES is specified and IST1697I indicates that the responsive mode enhancements for the Adaptive Rate-Based (ARB) pacing algorithm is being used.

*count* is number of times the data flow rate was reduced because of excessive packet loss since the last CLEAR command was issued or the activation of the RTP pipe. This value also represents the number of times that the ARB mode changed to yellow.

### IST1971I

This message is issued if HPRDIAG=YES is specified. It is a header message for the RTP timer information in the display.

### IST1972I

This message is issued if HPRDIAG=YES is specified.

*timer* is the short request timer value. This is the amount of time allotted for the connection partner to respond to status requests from this host.

### IST1973I

This message is issued if HPRDIAG=YES is specified. It is a header message for the outbound data information in the display.

### IST1974I

- This message is issued if HPRDIAG=YES is specified.
- *count* is the number of network layer packets (NLPs) that were sent on this Rapid Transfer Protocol (RTP) since the last CLEAR command was issued or the activation of the RTP pipe.
- *estimate* is an estimate of *count*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 NLPs.

**M**

estimate is in units of 1 000 000 NLPs.

**G**

estimate is in units of 1 000 000 000 NLPs.

**T**

estimate is in units of 1 000 000 000 000 NLPs.

**P**

estimate is in units of 1 000 000 000 000 000 NLPs.

### IST1975I

- This message is issued if HPRDIAG=YES is specified.
- *count* is the total number of bytes that were sent on this Rapid Transfer Protocol (RTP) since the last CLEAR command was issued or the activation of the RTP pipe.

- *estimate* is an estimate of *count*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 bytes.

**M**

estimate is in units of 1 000 000 bytes.

**G**

estimate is in units of 1 000 000 000 bytes.

**T**

estimate is in units of 1 000 000 000 000 bytes.

**P**

estimate is in units of 1 000 000 000 000 000 bytes.

#### **IST1976I**

- This message is issued if HPRDIAG=YES is specified.
- *count* is the total number of bytes that were retransmitted on this Rapid Transfer Protocol (RTP) since the last CLEAR command was issued or the activation of the RTP pipe.
- *estimate* is an estimate of *count*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 bytes.

**M**

estimate is in units of 1 000 000 bytes.

**G**

estimate is in units of 1 000 000 000 bytes.

**T**

estimate is in units of 1 000 000 000 000 bytes.

**P**

estimate is in units of 1 000 000 000 000 000 bytes.

#### **IST1977I**

This message is issued if HPRDIAG=YES is specified.

*count* is the maximum number of network layer packets (NLPs) that have been in the waiting-for-acknowledgement queue since the last CLEAR command was issued or the activation of the RTP pipe.

#### **IST1978I**

This message is issued if HPRDIAG=YES is specified.

The *date* and *time* values specify when the waiting-for-acknowledgement queue maximum length was most recently reached. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST1979I**

This message is issued if HPRDIAG=YES is specified. It is a header message for the inbound data information in the display.

#### **IST1980I**

This message is issued if HPRDIAG=YES is specified.

*sequence\_num* is either the current send byte sequence number, if issued with the IST1973I header message, or the current receive byte sequence number, if issued with the IST1979I header message.

*hex\_value* is the hexadecimal representation of *sequence\_num*.

#### **IST1981I**

- This message is issued if HPRDIAG=YES is specified.

- *count* is the total number of bytes that were received on this Rapid Transfer Protocol (RTP) pipe since the last CLEAR command was issued or the activation of the RTP pipe.
- *estimate* is an estimate of *count*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 bytes.

**M**

estimate is in units of 1 000 000 bytes.

**G**

estimate is in units of 1 000 000 000 bytes.

**T**

estimate is in units of 1 000 000 000 000 bytes.

**P**

estimate is in units of 1 000 000 000 000 000 bytes.

#### **IST1982I**

This message is issued if HPRDIAG=YES is specified.

*count* is the number of network layer packets (NLPs) currently in the inbound work queue.

#### **IST1983I**

This message is issued if HPRDIAG=YES is specified.

*count* is the maximum number of network layer packets (NLPs) that were in the inbound work queue since the last CLEAR command was issued or the activation of the RTP pipe.

#### **IST1984I**

This message is issued if HPRDIAG=YES is specified. It is a header message for the RTP path switch information in the display.

#### **IST1985I**

This message is issued if HPRDIAG=YES is specified.

*count* is the number of RTP path switches that were initiated from the remote partner since the last CLEAR command was issued or the activation of the RTP pipe.

#### **IST1986I**

This message is issued if HPRDIAG=YES is specified.

*count* is the number of RTP path switches initiated locally since the last CLEAR command was issued or the activation of the RTP pipe.

#### **IST1987I**

This message is issued if HPRDIAG=YES is specified.

*count* is the number of RTP path switches that occurred as the result of local failure since the last CLEAR command was issued or the activation of the RTP pipe.

#### **IST1988I**

This message is issued if HPRDIAG=YES is specified.

*count* is the number of RTP path switches that occurred as the result of local PSRETRY since the last CLEAR command was issued or the activation of the RTP pipe.

#### **IST2059I**

- This message is issued if HPRDIAG=YES is specified.
- *count* is the number of network layer packets (NLPs) that were received on this Rapid Transfer Protocol (RTP) since the last CLEAR command was issued or the activation of the RTP pipe.
- *estimate* is an estimate of *count*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 NLPs.

**M**

estimate is in units of 1 000 000 NLPs.

**G**

estimate is in units of 1 000 000 000 NLPs.

**T**

estimate is in units of 1 000 000 000 000 NLPs.

**P**

estimate is in units of 1 000 000 000 000 000 NLPs.

#### **IST2085I**

This message is issued if HPRDIAG=YES is specified.

*num\_nlps* is the number of work elements currently on the RPNCB outbound work queue.

#### **IST2086I**

This message is issued if HPRDIAG=YES is specified.

*max\_num\_nlps* is the maximum number of work elements that have been on the RPNCB outbound work queue since the last CLEAR command was issued or the activation of the RTP pipe.

#### **IST2087I**

This message is issued if HPRDIAG=YES is specified.

The *date* and *time* values specify when the RPNCB outbound work queue maximum length was most recently reached. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST2205I**

This message is used as a separator message.

#### **IST2211I**

This message is issued if HPRDIAG=YES is specified. It is a header message for the information displayed in message IST2212I. This is a continuation of the information displayed in message IST1858I.

#### **IST2212I**

This message is issued if HPRDIAG=YES is specified. It displays the number of times that this Rapid Transfer Protocol (RTP) pipe went into backpressure (held up outbound data transmission) since the last CLEAR command was issued or the activation of the RTP pipe.

The *ackqmax* value is the number of times that this RTP went into backpressure by reaching the waiting-for-acknowledgement queue maximum limit.

#### **IST2213I**

This message is issued if HPRDIAG=YES is specified.

The *date* and *time* values specify when RTP backpressure was most recently applied. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST2214I**

This message is displayed following message IST2213I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the most recent RTP backpressure was applied because of a pathswitch.

#### **IST2215I**

This message is displayed following message IST2213I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the most recent RTP backpressure was applied because the send queue maximum limit was reached.

#### **IST2216I**

This message is displayed following message IST2213I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the most recent RTP backpressure was applied because of a storage failure.

#### **IST2217I**

- This message is displayed following message IST2213I if HPRDIAG=YES was specified on the DISPLAY ID command for an RTP pipe and the most recent RTP backpressure was applied because of a stalled pipe. An RTP pipe is considered stalled when data is not flowing because of one of the following conditions:
  - The RTP partner requests the retransmission of at least one NLP, but the request cannot be honored.
  - The RTP partner repeatedly requests the retransmission of the same NLP. In this case, VTAM honors the request by retransmitting the NLP, but the partner does not receive this NLP.

#### **IST2218I**

This message is displayed following message IST2213I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the most recent RTP backpressure was applied because the waiting-for-acknowledgement queue maximum limit was reached.

#### **IST2229I**

This message is issued if HPRDIAG=YES is specified.

*refifo* is the refifo timer value. This is the amount of time this end of the RTP pipe waits before reporting missing packets (gaps) to the partner.

#### **IST2230I**

This message is issued if HPRDIAG=YES is specified.

*maxoutofsequence* is the maximum number of network layer packets (NLPs) that have been on the out-of-sequence queue since the last CLEAR command was issued or the activation of the RTP pipe.

#### **IST2236I**

This message is issued if HPRDIAG=YES is specified.

The *date* and *time* values specify when a network layer packet (NLP) was most recently retransmitted for this RTP pipe since the HPR PU was activated. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST2239I**

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the last path switch took place for the recovery of an MNPS application.

#### **IST2248I**

This message is issued if HPRDIAG=YES and CLEAR=ALL are specified.

The *number* value is the total number of RTP pipes whose diagnostic counters were cleared. The *number* value is always 1 when the DISPLAY ID command is issued with HPRDIAG=YES and CLEAR=ALL.

#### **IST2249I**

This message is issued if HPRDIAG=YES is specified.

The *percentage* value is the retransmission rate as a percentage of NLPs that were sent since the last CLEAR command was issued or since the activation of the RTP pipe. The percentage is accurate to 4 decimal places.

#### **IST2250I**

This message is issued if HPRDIAG=YES is specified.

The *date* and *time* values specify when all diagnostic counters for the RTP pipe were cleared with the CLEAR command or since the activation of the pipe. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST2267I**

This message indicates that the progressive-mode adaptive rate-based (ARB) pacing algorithm is being used.



**IST2268I**

This message is issued if HPRDIAG=YES is specified.

The *waitforackbytes* value is the total number of bytes that are currently in the waiting-for-acknowledgement queue.

**IST2269I**

This message is issued if HPRDIAG=YES is specified.

The *maxwaitforack* value is the maximum number of bytes that have been in the waiting-for-acknowledgement queue since the last CLEAR command was issued or the activation of the RTP pipe. If the value displayed is 999999999, this means that the maximum value reached 999999999 bytes or more.

**IST2271I**

This message is issued if HPRDIAG=YES is specified.

The *ps\_delay\_value* value is the HPR path switch delay value, in seconds, that is configured for this RTP pipe. This value specifies the amount of time that this RTP endpoint will delay entering the path switch state as a result of an unresponsive RTP partner.

**IST2272I**

This message is issued if HPRDIAG=YES is specified and this RTP endpoint is in the path switch delay state as a result of an unresponsive partner.

The *date* and *time* values specify when all diagnostic counters for the RTP pipe were cleared with the CLEAR command or since the activation of the pipe. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

**IST2335I**

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a rapid transfer protocol (RTP) pipe and the last path switch took place because an transmission (XMIT) stalled condition was detected. The XMIT stalled condition is detected when the partner RTP end point requested an NLP to be retransmitted six times and ten seconds have elapsed since the packet was initially sent.

**IST2395I**

This message indicates that the base-mode adaptive rate-based (ARB) pacing algorithm is being used.

**System action**

None.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

**IST1969I**


---

**MAXIMUM ACTUAL DATA FLOW RATE = *max\_rate units***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1970I****RATE REDUCTIONS DUE TO RETRANSMISSIONS = *count***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1971I****TIMER INFORMATION:**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1972I****SHORT REQUEST TIMER = *timer* MILLISECONDS**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1973I****OUTBOUND TRANSMISSION INFORMATION:**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1974I****NUMBER OF NLPS SENT = *count (estimate)***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1975I****TOTAL BYTES SENT = *count (estimate)***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1976I****BYTES RETRANSMITTED = *count (estimate)***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST1977I</b>	<b>MAXIMUM NUMBER OF NLPS ON WAITING-FOR-ACK QUEUE = <i>count</i></b>
-----------------	---

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST1978I</b>	<b>WAITING-FOR-ACK QUEUE MAX REACHED ON <i>date</i> AT <i>time</i></b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST1979I</b>	<b>INBOUND TRANSMISSION INFORMATION:</b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST1980I</b>	<b>RECEIVE SEQUENCE NUMBER = <i>sequence_no</i> (<i>x'hex_value'</i>)</b>
-----------------	---

---

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

### Routing code

2

### Descriptor code

5

---

**IST1981I** **TOTAL BYTES RECEIVED = *count (estimate)***

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

### Routing code

2

### Descriptor code

5

---

**IST1982I** **NUMBER OF NLPS ON INBOUND WORK QUEUE = *count***

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

### Routing code

2

### Descriptor code

5

---

**IST1983I** **MAXIMUM NUMBER OF NLPS ON INBOUND WORK QUEUE = *count***

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

### Routing code

2

## Descriptor code

5

---

**IST1984I****PATH SWITCH INFORMATION:**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1985I****PATH SWITCHES INITIATED FROM REMOTE RTP = *count***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1986I****PATH SWITCHES INITIATED FROM LOCAL RTP = *count***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1987I****PATH SWITCHES DUE TO LOCAL FAILURE = *count***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1988I****PATH SWITCHES DUE TO LOCAL PSRETRY = *count***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST1989I****NO MATCHING AUTOLOGON REQUESTS**

## Explanation

This message is issued in response to a DISPLAY AUTOLOG command when there are no pending AUTOLOGON requests outstanding for any controlling applications, or for the controlling application identified by the ID=*operand*.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IST1990I****PENDING AUTOLOGON REQUESTS FOR:**

## Explanation

This message is the first in a group of messages that VTAM issues in response to a DISPLAY AUTOLOG command when outstanding AUTOLOGON requests exist. The complete description of the message group follows the example.

```
IST350I DISPLAY TYPE = AUTOLOG
IST1990I PENDING AUTOLOGON REQUESTS FOR:
[IST1991I pluname - WAITING FOR PLU NOTIFICATION]
[IST1992I pluname - WAITING FOR AUTOTI TIMER]
[IST1993I pluname - WAITING FOR CDRM ACTIVATION]
[IST1994I pluname - WAITING FOR CDRM OR CPCP ACTIVATION]
[IST1995I pluname - WAITING FOR AUTOCAP NODE ACTIVATION]
[IST1996I          OR AUTOTI TIMER]
[IST1998I pluname - WAITING FOR AUTOTI/AUTORTRY START OPTION]
[IST1999I          MODIFICATION OR SLU REACTIVATION]
[IST2100I pluname - NORMALLY LOGGED OFF LUS]
[IST1997I          sluname          sluname          sluname]
:
[IST1315I DISPLAY TRUNCATED AT MAX = number]
IST314I END
```

### IST350I

This message identifies the type of information shown in the display. For this message group the display type is always AUTOLOG.

### IST1315I

VTAM issues this message when the number of resources to be displayed exceeds the value specified on the MAX operand.

*number* is the value specified for the MAX operand.

### IST1990I

This message is the header message for information displayed in the AUTOLOG messages IST1991I-IST1998I and IST2100I. Only one IST1991I, IST1992I, IST1993I, IST1994I, IST1995I, IST1998I, or IST2100I will be issued for each controlling application displayed.

### IST1991I

This message is issued when the pending AUTOLOGON requests for this controlling application are waiting for notification that the controlling application is now available for sessions.

*pluname* is the name of the controlling application for which there are pending AUTOLOGON requests. *pluname* is in the form of *netid.pluname*.

If a pending AUTOLOGON request was created using the network-qualified name of the controlling application, then *pluname* will be shown as a network qualified (real) name in the form *netid.pluname*. If the pending AUTOLOGON request was created using the name of the controlling application that is not a network-qualified (alias) name, then only the unqualified name will be shown in the form *pluname*.

### IST1992I

This message is issued when the pending AUTOLOGON requests for this controlling application will be redriven when the timer set by the AUTOTI start option has expired. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for the start option description.

*pluname* is the name of the controlling application for which there are pending AUTOLOGON requests. *pluname* is in the form of *netid.pluname*.

If a pending AUTOLOGON request was created using the network-qualified name of the controlling application, then *pluname* will be shown as a network qualified (real) name in the form *netid.pluname*. If the pending AUTOLOGON request was created using the name of the controlling application that is not a network-qualified (alias) name, then only the unqualified name will be shown in the form *pluname*.

### IST1993I

This message is issued when the pending AUTOLOGON requests for this controlling application will be redriven when a new adjacent CDRM is activated. IST1996I might also be issued as a continuation of IST1993I.



*pluname* is the name of the controlling application for which there are pending AUTOLOGON requests. *pluname* is in the form of *netid.pluname*.

If a pending AUTOLOGON request was created using the network-qualified name of the controlling application, then *pluname* will be shown as a network qualified (real) name in the form *netid.pluname*. If the pending AUTOLOGON request was created using the name of the controlling application that is not a network-qualified (alias) name, then only the unqualified name will be shown in the form *pluname*.

#### **IST1994I**

This message is issued when the pending AUTOLOGON requests for this controlling application will be redriven when a new adjacent CDRM or a new CP-CP session is activated. IST1996I might also be issued as a continuation of IST1994I.

*pluname* is the name of the controlling application for which there are pending AUTOLOGON requests. *pluname* is in the form of *netid.pluname*.

If a pending AUTOLOGON request was created using the network-qualified name of the controlling application, then *pluname* will be shown as a network qualified (real) name in the form *netid.pluname*. If the pending AUTOLOGON request was created using the name of the controlling application that is not a network-qualified (alias) name, then only the unqualified name will be shown in the form *pluname*.

#### **IST1995I**

This message is issued when the pending AUTOLOGON requests for this controlling application will be redriven when a new adjacent CDRM is activated or when a new CP-CP session is activated to an adjacent APPN node which supports automatic LOGON. See the [AUTORTRY start option in the z/OS Communications Server: SNA Resource Definition Reference](#) for the start option description. IST1996I might also be issued as a continuation of IST1995I.

*pluname* is the name of the controlling application for which there are pending AUTOLOGON requests. *pluname* is in the form of *netid.pluname*.

If a pending AUTOLOGON request was created using the network-qualified name of the controlling application, then *pluname* will be shown as a network qualified (real) name in the form *netid.pluname*. If the pending AUTOLOGON request was created using the name of the controlling application that is not a network-qualified (alias) name, then only the unqualified name will be shown in the form *pluname*.

#### **IST1996I**

This message is a continuation of IST1993I, IST1994I, or IST1995I when the pending AUTOLOGON requests for the controlling application identified by the previous message will also be redriven when the timer set by the AUTOTI start option has expired. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for the start option description.

#### **IST1997I**

This message is issued when SCOPE=ALL is specified. IST1997I is repeated until all logical units are displayed or until the DSLPYMAX start option, DSPLYDEF start option, or MAX operand value on the DISPLAY AUTOLOG command has been reached. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for start option descriptions.

When IST1997I is preceded by either IST1991I, IST1992I, IST1993I, IST1994I, IST1995I, or IST1998I, then *sluname* is the name of the logical unit that has a pending AUTOLOGON request for the controlling application identified in the previous message. *sluname* is in the form *netid.sluname*.

When IST1997I is preceded by IST2100I, then *sluname* is the name of a logical unit that had performed a normal termination to the controlling application identified in message IST2100I. *sluname* is in the form *netid.sluname*.

#### **IST1998I**

This message is issued when a pending AUTOLOGON request exists for this controlling application that is not waiting for PLU notification. The AUTOTI and AUTORTRY start options are set to values which will not cause this request to be redriven. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for the start option descriptions. Message IST1999I will always be issued as a continuation of this message.

*pluname* is the name of the controlling application for which there are pending AUTOLOGON requests. *pluname* is in the form of *netid.pluname*.

If a pending AUTOLOGON request was created using the network-qualified name of the controlling application, then *pluname* will be shown as a network qualified (real) name in the form *netid.pluname*. If the pending AUTOLOGON request was created using the name of the controlling application that is not a network-qualified (alias) name, then only the unqualified name will be shown in the form *pluname*.

### **IST1999I**

This message is a continuation of the text in message IST1998I.

### **IST2100I**

This message is included when there are LUs that have normally terminated their controlling application session with the named PLU. The controlling session can be initiated by the VARY ACT,ID=*luname* or VARY AUTOLOG operator commands. See [z/OS Communications Server: SNA Operation](#) for more information. The names of the LUs in this state will be listed in the IST1997I messages immediately following the IST2100I message when SCOPE=ALL is included on the DISPLAY AUTOLOG command. See the information about the AUTOLOGON in [z/OS Communications Server: SNA Operation](#) for information on how to establish a controlling application session.

*pluname* is the name of the controlling application that has LUs that terminated their controlling session. *pluname* is in the form of *netid.pluname*.

## **System action**

Processing continues.

## **Operator response**

For messages IST1998I and IST1999I you can take the following actions to redrive a session attempt to the controlling application.

- Issue a Modify VTAMOPTS command to change the AUTOTI to a nonzero value.
- Use the following sequence of procedures to drive a session attempt to the controlling application:
  1. Issue the Display AUTOLOG command with SCOPE= ALL to obtain a list of SLU names.
  2. Use the SLU names contained in the IST1997I messages from the display command to issue VARY ACT,ID=*sluname* command for each SLU name.
- Issue a VARY AUTOLOG,ID=*pluname* to the PLU name displayed in messages IST1998I or IST1999I.

For message IST2100I, you can take the following actions to redrive a session attempt to the controlling application.

- Use the following sequence of procedures to drive a session attempt to the controlling application:
  1. Issue a DISPLAY AUTOLOG command with SCOPE=ALL to obtain a list of SLU names.
  2. Use the SLU names contained in the IST1997I messages from the display command to issue a VARY ACT,ID=*sluname* command for each SLU name.
- Issue a VARY AUTOLOG,ID=*pluname* command to the PLU name displayed in message IST2100I.

## **System programmer response**

For messages IST1998I and IST1999I, update the AUTORTY or AUTOTI start option in the VTAM start list (ATCSTRxx) to a value which will drive pending AUTOLOGON requests. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for the Start Options description.

Otherwise no action is required.

## **Routing code**

2

## Descriptor code

5

---

**IST1991I**

*pluname* - WAITING FOR PLU NOTIFICATION

---

## Explanation

This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1992I**

*pluname* - WAITING FOR AUTOTI TIMER

---

## Explanation

This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1993I**

*pluname* - WAITING FOR CDRM ACTIVATION

---

## Explanation

This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST1994I**

*pluname* - WAITING FOR CDRM OR CPCP ACTIVATION

---

## Explanation

This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1995I</b>	<b><i>pluname</i> - WAITING FOR AUTOCAP NODE ACTIVATION</b>
-----------------	---

---

## Explanation

This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1996I</b>	<b>OR AUTOTI TIMER</b>
-----------------	------------------------

---

## Explanation

This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1997I</b>	<b><i>sluname1 sluname2 sluname3</i></b>
-----------------	--

---

## Explanation

This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST1998I</b>	<b><i>pluname</i> - WAITING FOR AUTOTI/AUTORTRY START OPTION</b>
-----------------	--

---

## Explanation

This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

## Routing code

2

**Descriptor code**

5

---

**IST1999I****MODIFICATION OR SLU REACTIVATION****Explanation**

This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5



## Chapter 10. IST messages for VTAM network operators IST2000I - IST2467I

This chapter lists the VTAM messages beginning with IST in the range of IST2000I through IST2467I. These messages can appear on a network operator's console.

See [Appendix E, "Message text for VTAM operator messages,"](#) on page 1785 for a list of the text of all VTAM operator messages.

**Note:** Messages that begin with the prefix **ISTF** are issued by the VTAM dump analysis tool and the VTAM internal trace (VIT) analysis tool. Help information is available as a part of each tool by pressing F1. Therefore, **ISTF** messages are not documented in [z/OS Communications Server: SNA Messages](#). See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information.

### IST2000I

### ENTERPRISE EXTENDER GENERAL INFORMATION

#### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EE command for general Enterprise Extender information. This message is the first in a group of messages. When LIST=DETAIL is specified an optional message subgroup, beginning with message IST1680I, is displayed for each local IP address. The full description of the message group follows the example.

```
IST2000I ENTERPRISE EXTENDER GENERAL INFORMATION
IST1685I TCP/IP JOB NAME = jobname
IST2003I ENTERPRISE EXTENDER XCA MAJOR NODE NAME = name
IST2004I LIVTIME = (init_value,max_value) SRQTIME = srqtime SRQRETRY = srqretry
IST2005I IPRESOLV = ipresolv
IST2231I CURRENT CLOCK RATE = current
[IST2232I HPR CLOCK RATE LAST SET TO HIGH ON date AT time]
[IST2233I HPR CLOCK RATE LAST EXITED HIGH ON date AT time]
IST924I -----
IST2006I PORT PRIORITY = SIGNAL      NETWORK      HIGH      MEDIUM      LOW
IST2007I IPPORT NUMBER = portsig     portnet     porthigh    portmed    portlow
IST2008I IPTOS VALUE   = sigtos      nettos      hightos     medtos     lowtos
IST924I -----
[IST1680I type IP ADDRESS ip_address]
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
[IST2004I LIVTIME = (init_value,max_value) SRQTIME = srqtime SRQRETRY = srqretry]
[IST2009I RTP PIPES = rtppipes        LU-LU SESSIONS      = sessions    ]
[IST2010I INOPS DUE TO SRQRETRY EXPIRATION                = inopcount    ]
[IST1324I VNNAME = vnname             VNGROUP = vngroup vntype ]
[IST2011I AVAILABLE LINES FOR THIS EE VRN                 = vnrlnlines   ]
[IST2012I ACTIVE CONNECTIONS USING THIS EE VRN           = vnrlnconns   ]
[IST2013I AVAILABLE LINES FOR PREDEFINED EE CONNECTIONS   = predeflnlines]
[IST2014I ACTIVE PREDEFINED EE CONNECTIONS                = predeflnconns]
[IST2015I ACTIVE LOCAL VRN EE CONNECTIONS                 = lvrlnconns   ]
[IST2016I ACTIVE GLOBAL VRN EE CONNECTIONS                = gvrlnconns   ]
IST924I -----
IST2017I TOTAL RTP PIPES = totrtppipes LU-LU SESSIONS     = totsessions
IST2018I TOTAL ACTIVE PREDEFINED EE CONNECTIONS          = totpredeflnconns
IST2019I TOTAL ACTIVE LOCAL VRN EE CONNECTIONS           = totlvrlnconns
IST2020I TOTAL ACTIVE GLOBAL VRN EE CONNECTIONS          = totgvrlnconns
IST2021I TOTAL ACTIVE EE CONNECTIONS                     = totconns
IST314I END
```

#### IST924I

This message is a line separator between subgroups.

#### IST1324I

- This is the first message of an optional subgroup. When LIST=DETAIL is specified, this subgroup is displayed for each active Enterprise Extender virtual routing node. This message is a header message for messages

IST2011I and IST2012I. This message is also associated with a subgroup of messages that begins with message IST1680I.

- *vnname* is the fully qualified virtual routing node name.
- *vngroup* is the GROUP associated with the connection network definition.
- *vntype* indicates the type of HPR/IP (Enterprise Extender) connection network. The two possible values are:

#### (LOCAL)

The connection network is being defined as a LOCAL virtual routing node (the connection network cannot traverse network or subnetwork boundaries). Either VNTYPE was not specified, or VNTYPE was specified as LOCAL on the definition of the Enterprise Extender virtual routing node.

#### (GLOBAL)

The connection network is being defined as a GLOBAL virtual routing node (the connection network can traverse network or subnetwork boundaries). VNTYPE was specified as GLOBAL on the definition of the Enterprise Extender virtual routing node.

- The complete message subgroup follows the example.

```
IST1324I VNNAME = vnname          VNGROUP = vngroup vntype
IST2011I AVAILABLE LINES FOR THIS EE VRN = vrnlines
IST2012I ACTIVE CONNECTIONS USING THIS EE VRN = vinconns
```

### IST1680I

- This is the first message of an optional subgroup. When LIST=DETAIL is specified, this subgroup is displayed for each active local IP address.
- *type* is always LOCAL for this subgroup display.
- *ip\_address* is the IP address. The complete message subgroup follows the example.

```
IST1680I type IP ADDRESS ip_address
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
[IST2004I LIVTIME = (init_value,max_value) SRQTIME = srqtime SRQRETRY = srqretry]
[IST2009I RTP PIPES = rtppipes LU-LU SESSIONS = sessions ]
[IST2010I INOPS DUE TO SRQRETRY EXPIRATION = inopcount ]
[IST1324I VNNAME = vnname VNGROUP = vngroup vntype ]
[IST2011I AVAILABLE LINES FOR THIS EE VRN = vrnlines ]
[IST2012I ACTIVE CONNECTIONS USING THIS EE VRN = vinconns ]
IST2013I AVAILABLE LINES FOR PREDEFINED EE CONNECTIONS = predeflines
IST2014I ACTIVE PREDEFINED EE CONNECTIONS = predefconns
IST2015I ACTIVE LOCAL VRN EE CONNECTIONS = lvinconns
IST2016I ACTIVE GLOBAL VRN EE CONNECTIONS = gvinconns
IST924I -----
```

### IST1685I

*jobname* is the 1-8 character TCP/IP job name used to start the TCP/IP address space. See the [z/OS Communications Server: IP Configuration Guide](#) for information about the TCP/IP job name.

### IST1910I

*value* is the host name used to acquire the local static IP address displayed in message IST1680I. If the host name is longer than 45 characters, then the first 45 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

### IST1911I

*value* is the continuation of *value* on message IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

### IST2000I

This message is the header message for the general Enterprise Extender display output.

### IST2003I

*name* is the name of the Enterprise Extender XCA major node.



## IST2004I

The first occurrence of this message, under the IST2000I message group, displays the LDLC timer operands that are specified on PORT definition statement or default values.

The other occurrences of this message, under the IST1680I message group, display the LDLC timer operands that are associated with each local static VIPA address. See the information about the how and why a generic resource should be deleted from a sysplex in [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the LIVTIME operand for Enterprise Extender.

*init\_value* is the initial duration, in seconds, of an Enterprise Extender logical data link control (LDLC) liveness timer interval.

*max\_value* is the maximum duration, in seconds, of an Enterprise Extender LDLC liveness timer interval.

*srqtime* is the duration, in seconds, of the Enterprise Extender LDLC short request timer interval. The short request timer interval represents the amount of time the LDLC layer waits, without receipt of a response from the connection partner, before sending the LDLC signal again.

*srqretry* is the number of times the short request timer is tried again before the Enterprise Extender port becomes inoperative.

## IST2005I

*ipresolv* is the number of seconds VTAM waits for name-to-address resolution requests to complete before canceling the request. The value displayed is associated with the Enterprise Extender port and only affects local HOSTNAME name-to-address resolution requests.

## IST2006I

This message is a header message for the information displayed in messages IST2007I and IST2008I.

## IST2007I

This message lists the Enterprise Extender port numbers used to transmit signal, network, high, medium, and low priority data.

*portsig* is the port number used to transmit signal priority data.

*portnet* is the port number used to transmit network priority data.

*porthigh* is the port number used to transmit high priority data.

*portmed* is the port number used to transmit medium priority data.

*portlow* is the port number used to transmit low priority data.

## IST2008I

This message lists the Type of Service (TOS) values associated with each Enterprise Extender port.

*signal* is the TOS value associated with the Enterprise Extender port used for signal priority data.

*network* is the TOS value associated with the Enterprise Extender port used for network priority data.

*high* is the TOS value associated with the Enterprise Extender port used for high priority data.

*medium* is the TOS value associated with the Enterprise Extender port used for medium priority data.

*low* is the TOS value associated with the Enterprise Extender port used for low priority data.

## IST2009I

This message is associated with a subgroup of messages that begins with message IST1680I.

*rtppipes* is the number of RTP pipes, originating in this host that traverse EE connections associated with the local IP address displayed in message IST1680I of this subgroup.

*sessions* is the number of LU-LU sessions associated with the *rtppipes*.

## IST2010I

This message is associated with a subgroup of messages that begins with message IST1680I.

*inopcount* is the number of Enterprise Extender connections, associated with the local IP address displayed in message IST1680I of this subgroup, that have been INOPed by VTAM due to SRQRETRY exhaustion.

## IST2011I

This message is associated with a subgroup of messages that begins with message IST1680I.

*vrnlines* is the number of available lines associated with the virtual routing node displayed in message IST1324I of this subgroup.

#### **IST2012I**

This message is associated with a subgroup of messages that begins with message IST1680I.

*vrnconns* is the number of active EE connections associated with the virtual routing node displayed in message IST1324I of this subgroup.

#### **IST2013I**

- This message is associated with a subgroup of messages that begins with message IST1680I.
- *predeflines* is the number of available lines for predefined (non-VRN) Enterprise Extender connections that are associated with the local IP address displayed in message IST1680I of this subgroup.

**Result:** If the value for *predeflines* displays as 0, this might mean that all Enterprise Extender lines are associated with Connection Network (CN) groups. In that case, all available lines that are associated with CN groups are available for predefined connections. Lines will be selected from the local CN groups first. If no local CN lines are available, then lines will be selected from the global CN groups.

#### **IST2014I**

This message is associated with a subgroup of messages that begins with message IST1680I.

*predefconns* is the number of active predefined (non-VRN) Enterprise Extender connections that are associated with the local IP address displayed in message IST1680I of this subgroup.

#### **IST2015I**

This message is associated with a subgroup of messages that begins with message IST1680I.

*lvrnconns* is the number of Enterprise Extender LOCAL virtual routing node connections that are associated with the local IP address displayed in message IST1680I of this subgroup. *lvrnconns* is the sum of all the *vrnconns* values that are associated with LOCAL virtual routing nodes displayed in message IST2012I for this IST1680I subgroup.

#### **IST2016I**

This message is associated with a subgroup of messages that begins with message IST1680I.

*gvrnconns* is the number of Enterprise Extender GLOBAL virtual routing node connections associated with the local IP address displayed in message IST1680I of this subgroup. *gvrnconns* is the sum of all the *vrnconns* values that are associated with GLOBAL virtual routing nodes displayed in message IST2012I for this IST1680I subgroup.

#### **IST2017I**

*totrtppipes* is the total number of RTP pipes originating in this host that traverse EE connections on this host.

*totrtppipes* is the sum of the *rtpipes* values displayed in message IST2009I of each IST1680I subgroup.

*totsessions* is the total number of LU-LU sessions associated with the *totrtppipes*.

*totsessions* is the sum of the *sessions* values displayed in message IST2009I of each IST1680I subgroup.

#### **IST2018I**

*totpredefconns* is the total number of active predefined (non-VRN) Enterprise Extender connections on this host.

*totpredefconns* is the sum of the *predefconns* values displayed in message IST2014I of each IST1680I subgroup.

#### **IST2019I**

*totlvrnconns* is the total number of active Enterprise Extender connections on this host that are associated with a LOCAL virtual routing node. *totlvrnconns* is the sum of the *lvrnconns* values displayed in message IST2015I of each IST1680I subgroup.

#### **IST2020I**

*totgvrnconns* is the total number of active Enterprise Extender connections on this host that are associated with a GLOBAL virtual routing node. *totgvrnconns* is the sum of the *gvrnconns* values displayed in message IST2016I of each IST1680I subgroup.

#### **IST2021I**

*totactive* is the total number of active Enterprise Extender connections on this host. *totactive* is the sum of the *totpredefconns*, *totlvrnconns* and *totgvrnconns* values reported in messages IST2018I, IST2019I and IST2020I respectively.

#### **IST2231I**

*current* is the current rate of the HPR clock. If the HPRCLKRT start option is set to STANDARD, then the current rate will always display as STANDARD. If the HPRCLKRT start option is set to ADAPTIVE, then the current rate displays as STANDARD or HIGH, depending on network conditions.

#### **IST2232I**

This message is issued when the HPRCLKRT start option is set to ADAPTIVE and the HPR clock has entered high mode at some point.

The *date* and *time* values specify when the HPR clock most recently entered high mode. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST2233I**

This message is issued only when the HPRCLKRT start option is set to ADAPTIVE and the HPR clock has exited high mode back to standard mode.

The *date* and *time* values specify when the HPR clock most recently exited high mode. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

### **Source**

z/OS Communications Server SNA

### **Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

### **Routing code**

2

### **Descriptor code**

5

---

#### **IST2001I**

#### **ENTERPRISE EXTENDER CONNECTION INFORMATION**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EE command for Enterprise Extender connection information. This message is the first in a group of messages. The display output might consist of multiple Enterprise Extender connections being displayed. Each matching connection will be displayed in a subgroup beginning with message IST1680I. The full description of the message group follows the example.

```
IST2001I ENTERPRISE EXTENDER CONNECTION INFORMATION
[IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator]
[IST075I NAME = name, TYPE = type ]
[IST924I -----]
IST1680I type IP ADDRESS ip_address
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
IST1680I type IP ADDRESS ip_address
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
IST2346I CP NAME = cp_name
IST2022I EE CONNECTION ACTIVATED ON date AT TIME time
IST2114I LIVTIME: INITIAL = init_value MAXIMUM = max_value CURRENT = cur_value
[IST2023I CONNECTED TO LINE linename]
[IST2024I CONNECTED TO SWITCHED PU puname ]
[IST2343I EE HEALTH VERIFICATION NOT SUPPORTED BY REMOTE EE PARTNER]
IST2025I LDLC SIGNALS RETRANSMITTED AT LEAST ONE TIME = numsignals
IST2026I LDLC SIGNALS RETRANSMITTED SRORETRY TIMES = numsignals
IST2009I RTP PIPES = rtppipes LU-LU SESSIONS = sessions
IST2027I DWINOP = dwinop REDIAL = redial REDDELAY = reddelay
IST2028I KEEPACT = keepact
[IST924I -----]
[IST2030I PORT PRIORITY = SIGNAL ]
[IST2029I MTU SIZE = mtusize]
[IST2036I NLPS SENT = nlps_sent ( estimate ) ]
[IST2037I BYTES SENT = bytes_sent ( estimate ) ]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate ) ]
[IST2039I BYTES RETRANSMITTED = bytes_retransmitted ( estimate ) ]
[IST2040I NLPS RECEIVED = nlps_received ( estimate ) ]
[IST2041I BYTES RECEIVED = bytes_received ( estimate ) ]
[IST924I -----]
[IST2031I PORT PRIORITY = NETWORK]
[IST2029I MTU SIZE = mtusize]
[IST2036I NLPS SENT = nlps_sent ( estimate ) ]
[IST2037I BYTES SENT = bytes_sent ( estimate ) ]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate ) ]
[IST2039I BYTES RETRANSMITTED = bytes_retransmitted ( estimate ) ]
[IST2040I NLPS RECEIVED = nlps_received ( estimate ) ]
[IST2041I BYTES RECEIVED = bytes_received ( estimate ) ]
[IST924I -----]
[IST2032I PORT PRIORITY = HIGH ]
[IST2029I MTU SIZE = mtusize]
[IST2036I NLPS SENT = nlps_sent ( estimate ) ]
[IST2037I BYTES SENT = bytes_sent ( estimate ) ]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate ) ]
[IST2039I BYTES RETRANSMITTED = bytes_retransmitted ( estimate ) ]
[IST2040I NLPS RECEIVED = nlps_received ( estimate ) ]
[IST2041I BYTES RECEIVED = bytes_received ( estimate ) ]
[IST924I -----]
[IST2033I PORT PRIORITY = MEDIUM ]
[IST2029I MTU SIZE = mtusize]
[IST2036I NLPS SENT = nlps_sent ( estimate ) ]
[IST2037I BYTES SENT = bytes_sent ( estimate ) ]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate ) ]
[IST2039I BYTES RETRANSMITTED = bytes_retransmitted ( estimate ) ]
[IST2040I NLPS RECEIVED = nlps_received ( estimate ) ]
[IST2041I BYTES RECEIVED = bytes_received ( estimate ) ]
[IST924I -----]
[IST2034I PORT PRIORITY = LOW ]
[IST2029I MTU SIZE = mtusize]
[IST2036I NLPS SENT = nlps_sent ( estimate ) ]
[IST2037I BYTES SENT = bytes_sent ( estimate ) ]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate ) ]
[IST2039I BYTES RETRANSMITTED = bytes_retransmitted ( estimate ) ]
[IST2040I NLPS RECEIVED = nlps_received ( estimate ) ]
[IST2041I BYTES RECEIVED = bytes_received ( estimate ) ]
IST924I -----
IST2035I TOTALS FOR ALL PORT PRIORITIES
IST2036I NLPS SENT = nlps_sent ( estimate )
IST2037I BYTES SENT = bytes_sent ( estimate )
IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
```

```

IST2039I  BYTES RETRANSMITTED = bytes_retransmitted( estimate )
IST2040I  NLPS RECEIVED      = nlps_received      ( estimate )
IST2041I  BYTES RECEIVED     = bytes_received     ( estimate )
[IST2042I count OF total EE CONNECTIONS DISPLAYED ]
IST314I  END

```

## IST075I

This message is displayed when a DISPLAY EE command is issued using the ID parameter.

*name* is the name of the LINE or PU that is displayed.

*type* is described in [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699.

## IST924I

This message is a line separator between subgroups.

## IST1680I

- This is the first message of a message subgroup. For DISPLAY EE commands that result in multiple EE connections being displayed, this subgroup is displayed for each matching EE connection. When LIST=DETAIL is specified, five optional subgroups, beginning with the IST2030I subgroup and ending with the IST2034I subgroup, will also be displayed.
- *type* is either LOCAL or REMOTE, indicating which IP address is being displayed.
- *ip\_address* is the IP address.
- The complete message subgroup (LIST=SUMMARY) follows:

```

IST1680I type IP ADDRESS ip_address
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
IST1680I type IP ADDRESS ip_address
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
IST2346I CP NAME = cp_name
IST2022I EE CONNECTION ACTIVATED ON date AT TIME time
[IST2023I CONNECTED TO LINE linename ]
[IST2024I CONNECTED TO SWITCHED PU puname ]
IST2025I LDLC SIGNALS RETRANSMITTED AT LEAST ONE TIME = numsignals
IST2026I LDLC SIGNALS RETRANSMITTED SRQRETRY TIMES    = numsignals
IST2009I RTP PIPES = rtppipes      LU-LU SESSIONS    = lusessions
IST2027I DWINOP  = dwinop      REDIAL = redial      REDDELAY = reddelay
IST2028I KEEPACT = keepact
IST2029I MTU SIZE = mtusize
IST924I -----
IST2035I TOTALS FOR ALL PORT PRIORITIES
IST2036I  NLPS SENT           = nlps_sent           ( estimate )
IST2037I  BYTES SENT         = bytes_sent          ( estimate )
IST2038I  NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
IST2039I  BYTES RETRANSMITTED = bytes_retransmitted( estimate )
IST2040I  NLPS RECEIVED      = nlps_received      ( estimate )
IST2041I  BYTES RECEIVED     = bytes_received     ( estimate )

```

## IST1909I

*value* is the host name used to acquire the remote IP address associated with this connection to the remote node. If the host name is longer than 44 characters, then the first 44 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

## IST1910I

*value* is the host name used to acquire the local static IP address displayed in message IST1680I. If the host name is longer than 45 characters, then the first 45 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

## IST1911I

*value* is the continuation of *value* on messages IST1909I and IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

## IST2001I

This message is the header message for the Enterprise Extender connection display output.

## IST2009I

*rtppipes* is the number of RTP pipes originating in this host that traverse EE connections associated with the local IP address displayed in message IST1680I of this subgroup.

*sessions* is the number of LU-LU sessions associated with the *rtppipes*.

## IST2022I

The *date* and *time* values specify when this EE connection was activated. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

## IST2023I

*linename* is the name of the Enterprise Extender line that is being used for this Enterprise Extender connection.

## IST2024I

*puname* is the name of the switched PU that is being used for this Enterprise Extender connection.

## IST2025I

*numsignals* is the number of Logical Data Link Control (LDLC) signals that had to be retransmitted at least one time, prior to a response being received from the partner Enterprise Extender node.

## IST2026I

*numsignals* is the number of Logical Data Link Control (LDLC) signals that had to be retransmitted SRQRETRY times, prior to a response being received from the partner Enterprise Extender node.

## IST2027I

*dwinop* is the value of the DWINOP parameter associated with this Enterprise Extender physical unit. The DWINOP parameter specifies whether the physical unit is to be dialed after it has INOPed.

*redial* is the value of the REDIAL parameter associated with this Enterprise Extender physical unit. The REDIAL parameter specifies the number of times dialing is to be tried again before returning a dialing error to VTAM.

*reddelay* is the value of the REDDELAY parameter associated with this Enterprise Extender physical unit. The REDDELAY parameter specifies the number of seconds between each attempt to redial an Enterprise Extender connection.

## IST2028I

*keepact* is the value of the KEEPACT parameter associated with this Enterprise Extender line. The KEEPACT parameter specifies whether the line used for this Enterprise Extender connection should be automatically reactivated when the line is deactivated by a link INOP.

## IST2029I

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, or IST2034I. When policy-based routing is in effect, the MTU size might be different for each of the ports, depending on the routes chosen for EE traffic. This message is issued for each of the five EE ports, regardless of whether policy-based routing is in effect and regardless of whether the display is for an IPv4 or IPv6 connection.
- *mtusize* is the size of the largest packet that VTAM will send over this Enterprise Extender connection. The MTU size (both IPv4 and IPv6) might change during the life of the EE connection. The displayed value is obtained in the following manner:
  1. VTAM queries the TCP/IP stack to obtain its MTU size and sets the EE connection to use this value. This MTU size has already been reduced to account for various header lengths such as the IP, UDP, and LLC headers necessary for EE traffic.
  2. VTAM takes into account the VTAM MTU operand value, if it is specified. The MTU operand can be specified on three types of VTAM major nodes:
    - For EE connection networks, this operand is defined on the connection network GROUP definition statements in the EE XCA major node.

- For dial-in EE connections with associated PUs that are dynamically created, this operand is defined on the model major node (DYNTYPE=EE) PU definition statement.
  - For predefined EE connections, this operand is defined on the PU definition statement in the switched major node.
3. VTAM uses the lesser of the TCP/IP stack computed MTU size and the VTAM defined MTU operand value (if it is specified). If the TCP/IP stack value is less than 768 bytes, VTAM sets the MTU value to 768 because this is the smallest packet size allowed by the HPR architecture.

Generally, the MTU size for an EE connection is reasonably constant when the EE connection is established. However, in the event that the TCP/IP stack MTU size changes, RTP pipes with endpoints on the same node as the TCP/IP stack dynamically detect these changes when their outbound packets are being transmitted. Some reasons for MTU size changes include the following:

- New IP routes become available, which have different local MTU sizes.
- Existing IP routes become unavailable.
- Path MTU discovery is enabled for IPv4 or IPv6 EE connections, and path MTU changes are discovered in the IP network. See the [PMTUD start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).

### IST2030I, IST2031I, IST2032I, IST2033I, IST2034I, IST2035I

- Messages IST2030I through IST2034I are header messages for optional message subgroups. One subgroup is displayed for each port priority when LIST=DETAIL is specified. Each header message is followed by messages IST2029I, IST2036I, IST2037I, IST2038I, IST2039I, IST2040I, and IST2041I.
- IST2035I is a header message for a subgroup that displays a summary of all port priorities. This subgroup includes the same messages as those that are listed for each port priority subgroup, with the exception of IST2029I.
- Each of these subgroups is also associated with a subgroup of messages that begins with message IST1680I.
- A sample of one of the subgroups follows:

```
IST2030I PORT PRIORITY = SIGNAL
IST2029I MTU SIZE = mtusize
IST2036I NLPS SENT = nlps_sent ( estimate )
IST2037I BYTES SENT = bytes_sent ( estimate )
IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
IST2039I BYTES RETRANSMITTED = bytes_retransmitted ( estimate )
IST2040I NLPS RECEIVED = nlps_received ( estimate )
IST2041I BYTES RECEIVED = bytes_received ( estimate )
```

### IST2036I

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- *nlps\_sent* is the total number of network layer packets (NLP) that have been sent across this EE connection for this specific priority. This value is maintained from the time this connection was activated.
- *estimate* is an estimate of the displayed *nlps\_sent*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 NLPs.

**M**

estimate is in units of 1 000 000 NLPs.

**G**

estimate is in units of 1 000 000 000 NLPs.

**T**

estimate is in units of 1 000 000 000 000 NLPs.

**P**

estimate is in units of 1 000 000 000 000 000 NLPs.

### IST2037I

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- *bytes\_sent* is the total number of bytes that have been sent across this EE connection for this specific priority. This value is maintained from the time this connection was activated.
- *estimate* is an estimate of the displayed *bytes\_sent*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 bytes.

**M**

estimate is in units of 1 000 000 bytes.

**G**

estimate is in units of 1 000 000 000 bytes.

**T**

estimate is in units of 1 000 000 000 000 bytes.

**P**

estimate is in units of 1 000 000 000 000 000 NLPs.

### IST2038I

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- *npls\_retransmitted* is the total number of network layer packets (NLP) that have been retransmitted across this EE connection for this specific priority. This value is maintained from the time this connection was activated.
- *estimate* is an estimate of the displayed *npls\_retransmitted*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 NLPs.

**M**

estimate is in units of 1 000 000 NLPs.

**G**

estimate is in units of 1 000 000 000 NLPs.

**T**

estimate is in units of 1 000 000 000 000 NLPs.

**P**

estimate is in units of 1 000 000 000 000 000 NLPs.

### IST2039I

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- *bytes\_retransmitted* is the total number of bytes that have been retransmitted across this EE connection for this specific priority. This value is maintained from the time this connection was activated.
- *estimate* is an estimate of the displayed *bytes\_retransmitted*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 bytes.

**M**

estimate is in units of 1 000 000 bytes.

**G**

estimate is in units of 1 000 000 000 bytes.



**T**

estimate is in units of 1 000 000 000 000 bytes.

**P**

estimate is in units of 1 000 000 000 000 000 bytes.

#### **IST2040I**

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- *npls\_received* is the total number of network layer packets (NLP) that have been received across this EE connection for this specific priority. This value is maintained from the time this connection was activated.
- *estimate* is an estimate of the displayed *npls\_received*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 NLPs.

**M**

estimate is in units of 1 000 000 NLPs.

**G**

estimate is in units of 1 000 000 000 NLPs.

**T**

estimate is in units of 1 000 000 000 000 NLPs.

**P**

estimate is in units of 1 000 000 000 000 000 NLPs.

#### **IST2041I**

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- *bytes\_received* is the total number of bytes that have been received across this EE connection for this specific priority. This value is maintained from the time this connection was activated.
- *estimate* is an estimate of the displayed *bytes\_received*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 bytes.

**M**

estimate is in units of 1 000 000 bytes.

**G**

estimate is in units of 1 000 000 000 bytes.

**T**

estimate is in units of 1 000 000 000 000 bytes.

**P**

estimate is in units of 1 000 000 000 000 000 bytes.

#### **IST2042I**

This is an optional message that is issued when the DISPLAY EE command contains either a remote IPADDR or a remote HOSTNAME.

*count* is the number of matching EE connections displayed in the output.

*total* is the total number of EE connections that match the parameters specified on the DISPLAY EE command. The total might be larger than the displayed count because the number of EE connections displayed is governed by the MAX parameter.

#### **IST2114I**

This message displays the initial, maximum and current LIVTIME values for an Enterprise Extender connection. See the information about the [external communication adapter \(XCA\) major node in z/OS](#)

[Communications Server: SNA Resource Definition Reference](#) for more information about the LIVTIME operand for Enterprise Extender.

*init\_value* is the initial LIVTIME value, in seconds, defined for Enterprise Extender connections.

*max\_value* is the maximum LIVTIME value, in seconds, defined for Enterprise Extender connections.

*cur\_value* is the current LIVTIME value, in seconds, being used by this Enterprise Extender connection.

#### **IST2119I**

This is an optional message that is issued when the DISPLAY EE command contains HOSTNAME filters.

The *correlator* value is a unique display correlator associated with this DISPLAY EE command, which requires host name resolution. This correlator can be used to locate the various message groups associated with this DISPLAY EE command.

#### **IST2323I**

During the activation of the EE Connection, VTAM sent Logical Data Link Control (LDLC) probes to the remote partner to determine if all five ports are accessible. VTAM did not receive a response from any of the LDLC probe requests. VTAM continued with the activation of the EE connection between this node and the remote partner. Because VTAM received no replies to its LDLC probe requests, VTAM determined that the remote partner does not support EE health verification.

#### **IST2346I**

*cp\_name* is the CP name of the remote node associated with this Enterprise Extender connection.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

### **Source**

z/OS Communications Server SNA

### **Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

### **Routing code**

2

### **Descriptor code**

5

### **Automation**

Not recommended.

---

#### **IST2002I**

#### **ENTERPRISE EXTENDER AGGREGATE CONNECTION INFORMATION**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EE command for aggregate Enterprise Extender connection information. This message is the first in a group of messages. This message group is displayed when the DISPLAY EE command is issued and only a local IPADDR or a local HOSTNAME is supplied as input. The output information is the aggregate of all Enterprise Extender connections associated with the local IPADDR or local HOSTNAME. When LIST=DETAIL is specified, five optional message subgroups, beginning with the IST2030I subgroup and ending with the IST2034I subgroup, are displayed for each port priority. The full description of the message group follows:

```
IST2002I ENTERPRISE EXTENDER AGGREGATE CONNECTION INFORMATION
[IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator]
IST924I -----
IST1680I type IP ADDRESS ip_address
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
[IST2004I LIVTIME = (init_value,max_value) SRQTIME = srqtime SRQRETRY = srqretry]
IST2009I RTP PIPES = rtppipes LU-LU SESSIONS = sessions
IST2010I INOPS DUE TO SRQRETRY EXPIRATION = inopcount
[IST1324I VNNAME = vnname VNGROUP = vngroup vntype ]
[IST2011I AVAILABLE LINES FOR THIS EE VRN = vrnlines ]
[IST2012I ACTIVE CONNECTIONS USING THIS EE VRN = vrnconns ]
IST2013I AVAILABLE LINES FOR PREDEFINED EE CONNECTIONS = predeflines
IST2014I ACTIVE PREDEFINED EE CONNECTIONS = predefconns
IST2015I ACTIVE LOCAL VRN EE CONNECTIONS = lvinconns
IST2016I ACTIVE GLOBAL VRN EE CONNECTIONS = gvrnconns
[IST2043I TOTAL ACTIVE EE CONNECTIONS FOR LOCAL HOSTNAME = totconns ]
[IST2044I TOTAL ACTIVE EE CONNECTIONS FOR LOCAL IPADDR = totconns ]
[IST924I -----]
[IST2030I PORT PRIORITY = SIGNAL ]
[IST2036I NLPS SENT = nlps_sent ( estimate ) ]
[IST2037I BYTES SENT = bytes_sent ( estimate ) ]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate ) ]
[IST2039I BYTES RETRANSMITTED = bytes_retransmitted ( estimate ) ]
[IST2040I NLPS RECEIVED = nlps_received ( estimate ) ]
[IST2041I BYTES RECEIVED = bytes_received ( estimate ) ]
[IST924I -----]
[IST2031I PORT PRIORITY = NETWORK]
[IST2036I NLPS SENT = nlps_sent ( estimate ) ]
[IST2037I BYTES SENT = bytes_sent ( estimate ) ]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate ) ]
[IST2039I BYTES RETRANSMITTED = bytes_retransmitted ( estimate ) ]
[IST2040I NLPS RECEIVED = nlps_received ( estimate ) ]
[IST2041I BYTES RECEIVED = bytes_received ( estimate ) ]
[IST924I -----]
[IST2032I PORT PRIORITY = HIGH ]
[IST2036I NLPS SENT = nlps_sent ( estimate ) ]
[IST2037I BYTES SENT = bytes_sent ( estimate ) ]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate ) ]
[IST2039I BYTES RETRANSMITTED = bytes_retransmitted ( estimate ) ]
[IST2040I NLPS RECEIVED = nlps_received ( estimate ) ]
[IST2041I BYTES RECEIVED = bytes_received ( estimate ) ]
[IST924I -----]
[IST2033I PORT PRIORITY = MEDIUM ]
[IST2036I NLPS SENT = nlps_sent ( estimate ) ]
[IST2037I BYTES SENT = bytes_sent ( estimate ) ]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate ) ]
[IST2039I BYTES RETRANSMITTED = bytes_retransmitted ( estimate ) ]
[IST2040I NLPS RECEIVED = nlps_received ( estimate ) ]
[IST2041I BYTES RECEIVED = bytes_received ( estimate ) ]
[IST924I -----]
[IST2034I PORT PRIORITY = LOW ]
[IST2036I NLPS SENT = nlps_sent ( estimate ) ]
[IST2037I BYTES SENT = bytes_sent ( estimate ) ]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate ) ]
[IST2039I BYTES RETRANSMITTED = bytes_retransmitted ( estimate ) ]
[IST2040I NLPS RECEIVED = nlps_received ( estimate ) ]
[IST2041I BYTES RECEIVED = bytes_received ( estimate ) ]
[IST924I -----]
IST2035I TOTALS FOR ALL PORT PRIORITIES
IST2036I NLPS SENT = nlps_sent ( estimate )
IST2037I BYTES SENT = bytes_sent ( estimate )
IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
IST2039I BYTES RETRANSMITTED = bytes_retransmitted ( estimate )
IST2040I NLPS RECEIVED = nlps_received ( estimate )
IST2041I BYTES RECEIVED = bytes_received ( estimate )
IST314I END
```

## IST924I

This message is a line separator between subgroups.

## IST1324I

- This is the first message of a subgroup. This subgroup is displayed for each active Enterprise Extender virtual routing node. This message is a header message for messages IST2011I and IST2012I. This message is also associated with a subgroup of messages that begins with message IST1680I.
- *vname* is the fully qualified virtual routing node name.
- *vngr* is the GROUP associated with the connection network definition.
- *vn* indicates the type of HPR/IP (Enterprise Extender) connection network. The two possible values are:

### (LOCAL)

The connection network is being defined as a LOCAL Virtual Routing Node (the connection network cannot traverse network or subnetwork boundaries.) Either VNTYPE was not specified, or VNTYPE was specified as LOCAL on the definition of the Enterprise Extender virtual routing node.

### (GLOBAL)

The connection network is being defined as a GLOBAL Virtual Routing Node (the connection network can traverse network or subnetwork boundaries.) VNTYPE was specified as GLOBAL on the definition of the Enterprise Extender virtual routing node.

- The complete message subgroup follows the example.

```
IST1324I VNAME = vname          VNGROUP = vngroup vn
IST2011I      AVAILABLE LINES FOR THIS EE VRN      = vnlines
IST2012I      ACTIVE CONNECTIONS USING THIS EE VRN = vnconns
```

## IST1680I

*type* is always LOCAL for this display.

*ip\_address* is the IP address.

## IST1910I

*value* is the host name used to acquire the local static IP address displayed in message IST1680I. If the host name is longer than 45 characters, then the first 45 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

## IST1911I

*value* is the continuation of *value* on message IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

## IST2004I

This message displays the LDLC timer operands that are associated with the local static VIPA address displayed in message IST1680I. See the [external communication adapter \(XCA\) major node information in z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the LIVTIME operand for Enterprise Extender.

The *init\_value* value is the initial duration, in seconds, of an Enterprise Extender logical data link control (LDLC) liveness timer interval.

The *max\_value* value is the maximum duration, in seconds, of an Enterprise Extender LDLC liveness timer interval.

The *srqtime* value is the duration, in seconds, of the Enterprise Extender LDLC short request timer interval. The short request timer interval represents the amount of time the LDLC layer waits, without receipt of a response from the connection partner, before sending the LDLC signal again.

The *srqretry* value is the number of times the short request timer is tried again before the Enterprise Extender port becomes inoperative.

## IST2009I

*rtpipes* is the number of RTP pipes originating in this host that traverse EE connections associated with the local IP address displayed in message IST1680I.

*sessions* is the number of LU-LU sessions associated with the rtpipes.

#### IST2010I

*inopcount* is the number of Enterprise Extender connections associated with the local IP address displayed in message IST1680I that have been INOPed by VTAM due to SRQRETRY exhaustion.

#### IST2011I

*vrnlines* is the number of available lines associated with the virtual routing node displayed in message IST1324I of this subgroup.

#### IST2012I

*vrnconns* is the number of active EE connections associated with the virtual routing node displayed in message IST1324I of this subgroup.

#### IST2013I

*predeflines* is the number of available lines for predefined (non-VRN) Enterprise Extender connections that are associated with the local IP address displayed in message IST1680I.

#### IST2014I

*predefconns* is the number of active predefined (non-VRN) Enterprise Extender connections that are associated with the local IP address displayed in message IST1680I.

#### IST2015I

*lvrnconns* is the number of Enterprise Extender local virtual routing node connections that are associated with the local IP address displayed in message IST1680I.

*lvrnconns* is the sum of all the *vrnconns* values that are associated with LOCAL virtual routing nodes displayed in message IST2012I for this local IP address.

#### IST2016I

*gvrnconns* is the number of Enterprise Extender global virtual routing node connections associated with the local IP address displayed in message IST1680I.

*gvrnconns* is the sum of all the *vrnconns* values that are associated with GLOBAL virtual routing nodes displayed in message IST2012I for this local IP address.

#### IST2030I, IST2031I, IST2032I, IST2033I, IST2034I, IST2035I

- Messages IST2030I through IST2034I are header messages for optional message subgroups. One subgroup is displayed for each port priority when LIST=DETAIL is specified. Each header message is followed by messages IST2036I, IST2037I, IST2038I, IST2039I, IST2040I, and IST2041I.
- IST2035I is a header message for a subgroup that displays a summary of all port priorities. This subgroup includes the same messages as those that are listed for each port priority subgroup.
- Each of these subgroups is also associated with a subgroup of messages that begins with message IST1680I.
- A sample of one of the subgroups follows:

```
IST2030I PORT PRIORITY = SIGNAL
IST2036I NLPS SENT          = nlps_sent          ( estimate )
IST2037I BYTES SENT        = bytes_sent          ( estimate )
IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
IST2039I BYTES RETRANSMITTED = bytes_retransmitted( estimate )
IST2040I NLPS RECEIVED     = nlps_received       ( estimate )
IST2041I BYTES RECEIVED     = bytes_received     ( estimate )
```

#### IST2036I

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- *nlps\_sent* is the total number of network layer packets (NLP) that have been sent across all active EE connections associated with the local IP address displayed in message IST1680I. This value is the aggregate of these connections for this specific priority. Each EE connection has its own count of sent NLPs, which is maintained from the time each connection was activated.

- *estimate* is an estimate of the displayed *npls\_sent*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 NLPs.

**M**

estimate is in units of 1 000 000 NLPs.

**G**

estimate is in units of 1 000 000 000 NLPs.

**T**

estimate is in units of 1 000 000 000 000 NLPs.

**P**

estimate is in units of 1 000 000 000 000 000 NLPs.

### **IST2037I**

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- *bytes\_sent* is the total number of bytes that have been sent across all active EE connections associated with the local IP address displayed in message IST1680I. This value is the aggregate of these connections for this specific priority. Each EE connection has its own count of sent bytes, which is maintained from the time each connection was activated.
- *estimate* is an estimate of the displayed *bytes\_sent*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 bytes.

**M**

estimate is in units of 1 000 000 bytes.

**G**

estimate is in units of 1 000 000 000 bytes.

**T**

estimate is in units of 1 000 000 000 000 bytes.

**P**

estimate is in units of 1 000 000 000 000 000 bytes.

### **IST2038I**

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- *npls\_retransmitted* is the total number of network layer packets (NLP) that have been retransmitted across all active EE connections associated with the local IP address displayed in message IST1680I. This value is the aggregate of these connections for this specific priority. Each EE connection has its own count of retransmitted NLPs, which is maintained from the time each connection was activated.
- *estimate* is an estimate of the displayed *npls\_retransmitted*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 NLPs.

**M**

estimate is in units of 1 000 000 NLPs.

**G**

estimate is in units of 1 000 000 000 NLPs.

**T**

estimate is in units of 1 000 000 000 000 NLPs.

**P**

estimate is in units of 1 000 000 000 000 000 NLPs.

**IST2039I**

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- *bytes\_retransmitted* is the total number of bytes that have been retransmitted across all active EE connections associated with the local IP address displayed in message IST1680I. This value is the aggregate of these connections for this specific priority. Each EE connection has its own count of retransmitted bytes, which is maintained from the time each connection was activated.
- *estimate* is an estimate of the displayed *bytes\_retransmitted*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 bytes.

**M**

estimate is in units of 1 000 000 bytes.

**G**

estimate is in units of 1 000 000 000 bytes.

**T**

estimate is in units of 1 000 000 000 000 bytes.

**P**

estimate is in units of 1 000 000 000 000 000 bytes.

**IST2040I**

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- *nlp\_received* is the total number of network layer packets (NLP) that have been received across all active EE connections associated with the local IP address displayed in message IST1680I. This value is the aggregate of these connections for this specific priority. Each EE connection has its own count of received NLPs, which is maintained from the time each connection was activated.
- *estimate* is an estimate of the displayed *nlp\_received*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 NLPs.

**M**

estimate is in units of 1 000 000 NLPs.

**G**

estimate is in units of 1 000 000 000 NLPs.

**T**

estimate is in units of 1 000 000 000 000 NLPs.

**P**

estimate is in units of 1 000 000 000 000 000 NLPs.

**IST2041I**

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- *bytes\_received* is the total number of bytes that have been received across all active EE connections associated with the local IP address displayed in message IST1680I. This value is the aggregate of these connections for this specific priority. Each EE connection has its own count of received bytes, which is maintained from the time each connection was activated.
- *estimate* is an estimate of the displayed *bytes\_received*. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

**K**

estimate is in units of 1000 bytes.

**M**

estimate is in units of 1 000 000 bytes.

**G**

estimate is in units of 1 000 000 000 bytes.

**T**

estimate is in units of 1 000 000 000 000 bytes.

**P**

estimate is in units of 1 000 000 000 000 000 bytes.

#### **IST2043I**

*totconns* is the number of active EE connections associated with the local HOSTNAME entered as input on the DISPLAY EE command.

#### **IST2044I**

*totconns* is the number of active EE connections associated with the local IP address (IPADDR) entered as input on the DISPLAY EE command.

#### **IST2119I**

This is an optional message that is issued when the DISPLAY EE command contains HOSTNAME filters.

The *correlator* value is a unique display correlator associated with this DISPLAY EE command, which requires host name resolution. This correlator can be used to locate the various message groups associated with this DISPLAY EE command.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

### **Source**

z/OS Communications Server SNA

### **Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

### **Routing code**

2

### **Descriptor code**

5

---

**IST2003I****ENTERPRISE EXTENDER XCA MAJOR NODE NAME = *name***



## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2004I</b>	<b>LIVTIME = (<i>init_value,max_value</i>) SRQTIME = <i>srqtime</i> SRQRETRY = <i>srqretry</i></b>
-----------------	--

---

## Explanation

VTAM issues this message for the following reasons:

- As part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.
- As part of a group during the activation of an EE XCA major node group that experienced problems associated with the LDLC timer operands. In this case, the first message in the group is [IST2188I](#). See the explanation of that message for a complete description.
- As part of a group in response to a DISPLAY EE command with the following values:
  - A local IP address on the IPADDR operand or a local host name on the HOSTNAME operand is specified.
  - A remote IP address on the IPADDR operand or a remote host name on the HOSTNAME operand is not specified.
  - The ID operand is not specified.

The first message in the group is [IST2002I](#). See the explanation of that message for a complete description.

- As part of a group in response to a DISPLAY EEDIAG command with the SRQRETRY operand specified. The first message in the group is [IST2066I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2005I</b>	<b>IPRESOLV = <i>ipresolv</i></b>
-----------------	-----------------------------------

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2006I****PORT PRIORITY = SIGNAL NETWORK HIGH MEDIUM LOW**

---

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**5

---

**IST2007I****IPPORT NUMBER = *portsig portnet porthigh portmed portlow***

---

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**5

---

**IST2008I****IPTOS VALUE = *sigtos nettos hightos medtos lowtos***

---

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**5

---

**IST2009I****RTP PIPES = *rtppipes* LU-LU SESSIONS = *sessions***

---

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message [IST2000I](#), [IST2001I](#) and [IST2002I](#). See the explanations of those messages for complete descriptions.

**Routing code**

2

## Descriptor code

5

---

<b>IST2010I</b>	<b>INOPS DUE TO SRQRETRY EXPIRATION = <i>inopcount</i></b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message [IST2000I](#) and [IST2002I](#). See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

<b>IST2011I</b>	<b>AVAILABLE LINES FOR THIS EE VRN = <i>vrnlines</i></b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message [IST2000I](#) and [IST2002I](#). See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

<b>IST2012I</b>	<b>ACTIVE CONNECTIONS USING THIS EE VRN = <i>vrnconns</i></b>
-----------------	---

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message [IST2000I](#) and [IST2002I](#). See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

<b>IST2013I</b>	<b>AVAILABLE LINES FOR PREDEFINED EE CONNECTIONS = <i>predeflines</i></b>
-----------------	---

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message [IST2000I](#) and [IST2002I](#). See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

**IST2014I****ACTIVE PREDEFINED EE CONNECTIONS = *predefconns***

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message [IST2000I](#) and [IST2002I](#). See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

**IST2015I****ACTIVE LOCAL VRN EE CONNECTIONS = *lvrnconns***

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message [IST2000I](#) and [IST2002I](#). See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

**IST2016I****ACTIVE GLOBAL VRN EE CONNECTIONS = *gvrnconns***

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message [IST2000I](#) and [IST2002I](#). See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

**IST2017I****TOTAL RTP PIPES = *totrtppipes* LU-LU SESSIONS = *totsessions***

---

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#) See the explanation of that message for more information.

**Routing code**

2

**Descriptor code**

5

---

**IST2018I** **TOTAL ACTIVE PREDEFINED EE CONNECTIONS = *totpredefconns***

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST2019I** **TOTAL ACTIVE LOCAL VRN EE CONNECTIONS = *totlvrnconns***

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST2020I** **TOTAL ACTIVE GLOBAL VRN EE CONNECTIONS = *totgvrnconns***

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST2021I** **TOTAL ACTIVE EE CONNECTIONS = *totconns***

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2022I** **EE CONNECTION ACTIVATED ON *date* AT *time***

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2001I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2023I** **CONNECTED TO LINE *linename***

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE or DISPLAY EEDIAG command. The first message in the group is [IST2001I](#), [IST2065I](#), [IST2066I](#), or [IST2119I](#). See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

**IST2024I** **CONNECTED TO SWITCHED PU *puname***

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE or DISPLAY EEDIAG command. The first message in the group is [IST2001I](#), [IST2065I](#), or [IST2066I](#). See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

**IST2025I****LDLC SIGNALS RETRANSMITTED AT LEAST ONE TIME = *numsignals***

---

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2001I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**5

---

**IST2026I****LDLC SIGNALS RETRANSMITTED SRQRETRY TIMES = *numsignals***

---

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2001I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**5

---

**IST2027I****DWINOP = *dwinop* REDIAL = *redial* REDDELAY = *reddelay***

---

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2001I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**5

---

**IST2028I****KEEPACT = *keepact***

---

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2001I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message group that contains this message begins with IST2001I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

**Routing code**

2

**Descriptor code**

5

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

**Routing code**

2

**Descriptor code**

5



**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

**Routing code**

2

**Descriptor code**

5

---

**IST2033I** **PORT PRIORITY = MEDIUM**

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

**Routing code**

2

**Descriptor code**

5

---

**IST2034I** **PORT PRIORITY = LOW**

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

**Routing code**

2

**Descriptor code**

5

---

**IST2035I** **TOTALS FOR ALL PORT PRIORITIES**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

**IST2036I** **NLPS SENT = *nlps\_sent* ( *estimate* )**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

**IST2037I** **BYTES SENT = *bytes\_sent* ( *estimate* )**

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I. See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

**IST2038I** **NLPS RETRANSMITTED = *nlps\_retransmitted* ( *estimate* )**

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

IST2039I	BYTES RETRANSMITTED = <i>bytes_retransmitted</i> ( <i>estimate</i> )
----------	--

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I. See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

IST2040I	NLPS RECEIVED = <i>nlps_received</i> ( <i>estimate</i> )
----------	--

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I. See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

IST2041I	BYTES RECEIVED = <i>bytes_received</i> ( <i>estimate</i> )
----------	--

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups which contain this message begin with message IST2001I and IST2002I. See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

**IST2042I****count OF total EE CONNECTIONS DISPLAYED**

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE or DISPLAY EEDIAG command. The first message in the group is either [IST2001I](#), [IST2065I](#), or [IST2066I](#). See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

**IST2043I****TOTAL ACTIVE EE CONNECTIONS FOR LOCAL HOSTNAME = *totconns***

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2002I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2044I****TOTAL ACTIVE EE CONNECTIONS FOR LOCAL IPADDR = *totconns***

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2002I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST2045I****ENTERPRISE EXTENDER XCA MAJOR NODE NOT ACTIVE**

---

## Explanation

This message is issued in response to a DISPLAY EE or a DISPLAY EEDIAG command if the Enterprise Extender XCA major node is not active.

## System action

The DISPLAY EE or DISPLAY EEDIAGcommand is not performed.

## Operator response

Activate the Enterprise Extender XCA major node if you want Enterprise Extender connectivity.

## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2046I****MNPS FORCED TAKEOVER TIMER EXPIRED FOR *applname***

## Explanation

An MNPS forced takeover request was received and accepted for the MNPS application *applname* owned by the VTAM issuing this message, but the processing necessary to transfer ownership of the application to the requesting node did not complete in the anticipated amount of time.

*applname* is the name of the application requested to move as part of forced takeover processing.

## System action

Ownership of the application is transferred unconditionally to the requesting node. Access to the MNPS coupling facility data structure is restricted for the copy of the application on the VTAM issuing this message, so that any coupling facility updates attempted at the VTAM issuing this message will not affect the data in the structure.

## Operator response

Issue VARY INACT,ID=*applname* to attempt to clean up the local information about the application.

## System programmer response

Collect VTAM internal traces at the VTAM issuing this message and contact IBM Service to determine why the CLOSE ACB processing did not complete as anticipated.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

4

---

**IST2047I** *name DOES NOT HAVE AN ACTIVE EE CONNECTION*

---

## Explanation

The LINE or PU name entered on the ID operand of the DISPLAY EE or DISPLAY EEDIAG command does not have an active Enterprise Extender connection at this time. No Enterprise Extender specific information is available.

## System action

The DISPLAY EE or DISPLAY EEDIAG command is not performed.

## Operator response

Verify the name supplied on the ID operand of the DISPLAY EE or DISPLAY EEDIAG command is correct. Issue a DISPLAY ID=*name*,E command to verify the current state of this LINE or PU. See [z/OS Communications Server: SNA Operation](#) for more information about commands or command syntax.

## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2048I** **LOCAL IPADDR IS NOT VALID WITH LOCAL HOSTNAME**

---

## Explanation

A DISPLAY EE or DISPLAY EEDIAG command was entered that specified both a local IPADDR and a local HOSTNAME. Only one local input is allowed.

## System action

The DISPLAY EE or DISPLAY EEDIAG command was not performed.

## Operator response

Issue the DISPLAY EE or DISPLAY EEDIAG command again specifying either a local IPADDR or a local HOSTNAME, but not both. See [z/OS Communications Server: SNA Operation](#) for more information about commands or command syntax.

## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2049I****REMOTE IPADDR IS NOT VALID WITH REMOTE HOSTNAME**

## Explanation

A DISPLAY EE or DISPLAY EEDIAG command was entered that specified both a remote IPADDR and a remote HOSTNAME. Only one remote input is allowed.

## System action

The DISPLAY EE or DISPLAY EEDIAG command is not performed.

## Operator response

Issue the DISPLAY EE or DISPLAY EEDIAG command again specifying either a remote IPADDR or a remote HOSTNAME, but not both. See [z/OS Communications Server: SNA Operation](#) for more information about commands or command syntax.

## System programmer response

None.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

---

<b>IST2050I</b>	<b>THIS PATH WILL NOT BE SELECTED FOR UNRCHTIM = <i>seconds</i> SECONDS</b>
-----------------	---

---

**Explanation**

VTAM issues this message as part of a group of messages when a dial failure or a connection INOP occurs on a network node for a connection over an Enterprise Extender Virtual Routing Node (VRN) to a specific partner node. The first message in the group is [IST1903I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IST2052I</b>	<b>ORIGIN NODE PARTNER NODE UNRCHTIM EXPIRES</b>
-----------------	--

---

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=UNRCHTIM command. The first message in the group is [IST2057I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IST2054I</b>	<b>VIRTUAL NODE PARTNER NODE UNRCHTIM EXPIRES</b>
-----------------	---

---

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=UNRCHTIM command. The first message in the group is [IST2057I](#). See the explanation of that message for a complete description.



## Routing code

2

## Descriptor code

5

---

**IST2055I**

*vrn\_or\_orig\_name partner\_name unrchtim time*

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=UNRCHTIM command. The first message in the group is [IST2057I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2056I**

**NO MATCHING UNREACHABLE PARTNER INFORMATION EXISTS**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=UNRCHTIM command. The first message in the group is [IST2057I](#). See the explanation of that message for a complete description.

This message can also be issued as a single-line message in response to a MODIFY TOPO,FUNCTION=CLRUNRCH command. It indicates that there is no unreachable partner information that matches the values specified on the ORIG, VRN, and DEST operands on the command, so no information can be cleared.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

### IST2057I

### UNREACHABLE PARTNER INFORMATION:

## Explanation

VTAM issues this message as the first message of a group of messages in response to a DISPLAY TOPO,LIST=UNRCHTIM command. The description of the message group follows:

```
IST2057I UNREACHABLE PARTNER INFORMATION:
[IST924I -----]
[IST2150I VIRTUAL NODE vrn_name - count UNREACHABLE PARTNERS]
[IST2151I PARTNER LIMIT EXCEEDED - UNUSABLE UNTIL COUNT IS BELOW lowerlim]
[IST2052I ORIGIN NODE PARTNER NODE UNRCHTIM EXPIRES]
[IST2055I orig_name partner_name unrchtim time]
:
[IST1315I DISPLAY TRUNCATED AT keyword = number]
[IST924I -----]
[IST2056I NO MATCHING UNREACHABLE PARTNER INFORMATION EXISTS]
IST314I END
```

### IST924I

This message is a separator message.

### IST1315I

- VTAM issues this message when the number of unreachable partner paths to be displayed exceeds the value specified for the MAX operand.
- In the message text:

#### **keyword**

The *keyword* value is always MAX.

#### **number**

The value specified for the MAX operand.

### IST2052I

This message is a header message for unreachable partner information associated with the Enterprise Extender virtual routing node (VRN) named in message IST2150I.

### IST2055I

*orig\_name* is the network-qualified name of the origin node in the path to the unreachable partner node.  
*partner\_name* is the network qualified name of the partner node that is unreachable on the path through an Enterprise Extender virtual routing node (VRN).

*unrchtim* is the time in seconds that a path through the VRN will not be considered as a possible session path to an unreachable partner. The path is identified by origin node, intermediate VRN, and unreachable destination partner node. This is the unreachable time value of UNRCHTIM specified for the Enterprise Extender VRN in the node that detected the path through the VRN to the unreachable partner. See the [UNRCHTIM start option in z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the unreachable time value of the UNRCHTIM start option or the UNRCHTIM operand in the XCA major node.

It is possible for *unrchtim* in the node that detected the problem to be different in other nodes that have learned the unreachable partner information through TDU flows. This happens if topology that includes unreachable partner information is exchanged when a CP-CP session is established between two network nodes or between an end node and its network node server. The time until the unreachable information expires is calculated from the *unrchtim* value, so when a topology exchange is done after the initial detection of the unreachable partner, it is necessary to alter the *unrchtim* value sent in the topology information to

make sure the expiration time is consistent on all nodes. In this case, *unrchtim* is not meaningful in the nodes that learned the unreachable partner information through TDU flows and the *unrchtim* value will display as five asterisks (\*\*\*\*\*).

*time* is the time that the unreachable time will expire. When the time expires, if this path still has the lowest weight of any available path to the partner node, the path over this particular Enterprise Extender VRN will be selected on the next attempt to redial the partner node. The dial attempt will result in failure if the underlying problem with the connection has not been corrected. That dial failure will cause the unreachable time to be set again to prevent selection of the path through this Enterprise Extender VRN to the unreachable partner node for the period of time specified for the VRN. This will continue until the problem with the connection path is corrected.

The time is expressed in 24-hour system format (hh:mm:ss). For example, 1:00 p.m. is displayed as 13:00:00. The expiration time might appear to be earlier than the time the DISPLAY TOPO command was entered if the unreachable time value causes the time to expire the following day (after 24:59:59 on the day the command was entered). For example, if the DISPLAY TOPO command is entered at 23:45:00 and the unreachable time expires at 1:15 a.m., *time* will be 01:15:00.

This message is issued as many times as necessary to display all of the unreachable partner information that matches the values specified on the ORIG, VRN, and DEST operands of the DISPLAY TOPO,LIST=UNRCHTIM command. The unreachable path is from the name specified by the *orig\_name* value to the name specified by the *vrn\_name* value (from message IST2150I) to the name specified by the *partner\_name* value. See [z/OS Communications Server: SNA Network Implementation Guide](#) for more information about this display.

### IST2056I

This message is issued when there is no unreachable partner information that matches the values specified on the ORIG, VRN, and DEST operands of the DISPLAY command.

### IST2150I

- In the message text:

#### ***vrn\_name***

The network-qualified name of the Enterprise Extender virtual routing node (VRN) that is the intermediate node in a path to an unreachable partner.

#### ***count***

The total number of unreachable partner paths that are associated with the named Enterprise Extender VRN in the topology database.

The *count* value might differ from the number of unreachable partner paths displayed for the VRN in message IST2055I messages if the ORIG, VRN, or DEST operand is used on the DISPLAY TOPO,LIST=UNRCHTIM command to limit the scope of unreachable partner paths displayed or if the message display is truncated with message IST1315I.

### IST2151I

- This message is issued when the number of unreachable partner paths associated with the VRN in message IST2150I exceeds the unreachable partner limit.
- A user-specified limit of unreachability records associated with an Enterprise Extender VRN can be set on the UNRCHTIM start option. When the count of unreachable partner paths through an Enterprise Extender VRN exceeds this limit, the VRN is no longer used for session route selection. The VRN remains unusable until enough unreachability records that are associated with the VRN are deleted to make the count less than 80% of the limit set in the UNRCHTIM start option. An unreachability record is deleted when the unreachable time that is associated with that record expires, or when the unreachability records are manually cleared with the MODIFY TOPO,FUNCTION=CLRUNRCH command. See the [UNRCHTIM start option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.
- In the message text:

#### ***lowerlim***

When the number of unreachable partner paths through an EE VRN falls below the number specified by the lowerlim value, the unreachable partner limit is no longer considered to be exceeded.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2058I**

**UNREACHABLE PARTNER LIMIT EXCEEDED FOR VRN *cpname***

---

## Explanation

This message is issued when the addition of an unreachable partner record to the topology database caused the number of unreachable partner paths that are associated with the Enterprise Extender virtual routing node (VRN) to exceed the unreachable partner limit for the VRN.

A user-specified limit of unreachability records associated with an Enterprise Extender VRN can be set on the UNRCHTIM start option. When the count of unreachable partner paths through an Enterprise Extender VRN exceeds this limit, the VRN is no longer used for session route selection. The VRN remains unusable until enough unreachability records that are associated with the VRN are deleted to make the count less than 80% of the limit set in the UNRCHTIM start option. As long as the number of unreachable partner paths remains above or equal to 80% of this limit, the unreachable partner limit is considered to be exceeded. An unreachability record is deleted when the unreachable time that is associated with that record expires, or when the unreachability records are cleared with the MODIFY TOPO,FUNCTION=CLRUNRCH command. See the [UNRCHTIM start option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the unreachable partner limit on the UNRCHTIM start option.

The *cpname* value is the network-qualified name of the Enterprise Extender VRN associated with the unreachable partner information. The VRN is the intermediate node on a path to an unreachable partner node. See [z/OS Communications Server: SNA Network Implementation Guide](#) for more information.

## System action

Processing continues.

### Operator response

Unreachable partner information represents a path through an Enterprise Extender VRN to an unreachable partner. The unreachable partner information is created to enable VTAM to route around a problem with the underlying IP connection between the origin node and the unreachable partner. IST2058I is issued when the limit of unreachable partner paths associated with an Enterprise Extender VRN has been exceeded. This is an indication that multiple nodes are unreachable and the problem is widespread and probably not transient.

Issue the DISPLAY TOPO,LIST=UNRCHTIM command to display the information about unreachable partner paths that are associated with the Enterprise Extender VRN. This information can help you determine where in the network the problem exists. A route through this Enterprise Extender VRN will not be considered for a session path until the unreachable time expires for enough unreachable partner nodes to bring the number of unreachable partner paths that are associated with the Enterprise Extender VRN below 80% of the unreachable partner limit specified or defaulted on the UNRCHTIM start option. Unreachable partner records can also be cleared with the MODIFY TOPO,FUNCTION=CLRUNRCH command. See the information about the [MODIFY TOPO](#) in [z/OS Communications Server: SNA Operation](#) for more information.

### System programmer response

None.

### Source

z/OS Communications Server SNA

### Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

### Routing code

2

### Descriptor code

3

---

IST2059I	NUMBER OF NLPS RECEIVED = <i>count ( estimate )</i>
----------	---

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the explanation of that message for a complete description.

### Routing code

2

### Descriptor code

5

---

IST2061I	NO FORCED TAKEOVER REQUESTS ARE ACCEPTABLE
----------	--

## Explanation

VTAM issues this message in response to a DISPLAY ID command for an application that supports persistent sessions for one of these situations:

- The application is found on the VTAM on which the command is issued, and the application has indicated that neither multinode persistent (MNPS) nor single node persistent (SNPS) forced takeover requests will be accepted for this application.
- An application that supports MNPS is specified, the application is found in the MNPS coupling facility structure, and the application has indicated that neither MNPS nor SNPS forced takeover requests will be accepted for this application.

This message indicates the support level that was last requested by the application. See [z/OS Communications Server: SNA Programming](#) for more information about forced takeover processing.

## System action

Processing continues.

## Operator response

Contact the system programmer.

## System programmer response

If the setting displayed is not correct, modify the application behavior so that when SETLOGON OPTCD=PERSIST is issued by the application, the correct value for the PARMS=(FORCETKO=) operand is specified.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

4

---

**IST2062I**

***type* FORCED TAKEOVER REQUESTS ARE ACCEPTABLE**

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command for an application that supports persistent sessions.

- This message is displayed with type=SNPS when:
  - The application is found on the VTAM on which the command is issued and the application has indicated that single node persistent (SNPS) forced takeover requests will be accepted, but that multinode persistent (MNPS) forced takeover requests will not be accepted.

- An application that supports MNPS is specified, the application is found in the MNPS coupling facility structure, and the application has indicated that SNPS forced takeover requests will be accepted for this application, but that MNPS forced takeover requests will not be accepted.
- This message is displayed with type=MNPS when:
  - The application is found on the VTAM on which the command is issued and the application has indicated that multinode persistent (MNPS) forced takeover requests will be accepted, but that single node persistent (SNPS) forced takeover requests will not be accepted.
  - An application that supports MNPS is specified, the application is found in the MNPS coupling facility structure, and the application has indicated that MNPS forced takeover requests will be accepted for this application, but that SNPS forced takeover requests will not be accepted.

This message indicates the support level that was last requested by the application. An application must still be enabled for persistence before a forced takeover will successfully complete. See [z/OS Communications Server: SNA Programming](#) for more information on enabling an application for persistence, and for information on forced takeover processing in general.

*type* specifies one of the following values:

#### **MNPS**

Indicates that multinode persistent forced takeover requests are permitted, but single node persistent forced takeover requests are not permitted.

#### **SNPS**

Indicates that single node persistent forced takeover requests are permitted, but multinode persistent forced takeover requests are not permitted.

### **System action**

Processing continues

### **Operator response**

Contact the system programmer.

### **System programmer response**

If the setting displayed is not correct, modify the application behavior so that when SETLOGON OPTCD=PERSIST is issued by the application, the correct value for the PARMS=(FORCETKO=) operand is specified.

### **Source**

z/OS Communications Server SNA

### **Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

### **Routing code**

2

### **Descriptor code**

4

---

IST2063I

ALL FORCED TAKEOVER REQUESTS ARE ACCEPTABLE

# Explanation

VTAM issues this message in response to a DISPLAY ID command for an application that supports persistent sessions for one of these situations:

- The application is found on the VTAM on which the command is issued, and the application has indicated that both single node persistent (SNPS) and multinode persistent (MNPS) forced takeover requests will be accepted for this application.
- An application that supports MNPS is specified, the application is found in the MNPS coupling facility structure, and the application has indicated that both MNPS and SNPS forced takeover requests will be accepted for this application.

This message indicates the support level that was last requested by the application. An application must still be enabled for persistence before a forced takeover will successfully complete. See [z/OS Communications Server: SNA Programming](#) for more information about enabling an application for persistence, and for information about forced takeover processing in general.

# System action

Processing continues.

# Operator response

Contact the system programmer.

# System programmer response

If the setting displayed is not correct, modify the application behavior so that when SETLOGON OPTCD=PERSIST is issued by the application, the correct value for the PARMS=(FORCETKO=) operand is specified.

# Source

z/OS Communications Server SNA

# Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

# Routing code

2

# Descriptor code

4

---

IST2064I	PLU TO SLU RU SIZE = <i>plu_to_slu_rusize</i> SLU TO PLU RU SIZE = <i>slu_to_plu_rusize</i>
----------	---

# Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.



## Routing code

2

## Descriptor code

5

---

### IST2065I ENTERPRISE EXTENDER CONNECTION REXMIT INFORMATION

#### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG command for Enterprise Extender connection retransmission information. This message is the first in a group of messages. The display output might consist of multiple Enterprise Extender connections being displayed. Each matching connection will be displayed in a subgroup beginning with message IST1680I. The full description of the message group follows the example.

```
IST2065I ENTERPRISE EXTENDER CONNECTION REXMIT INFORMATION
[IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator]
IST2067I EEDIAG DISPLAY ISSUED ON date AT time
IST924I -----
IST1680I type IP ADDRESS ip_address
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
IST1680I type IP ADDRESS ip_address
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
[IST2023I CONNECTED TO LINE linename]
[IST2024I CONNECTED TO SWITCHED PU puname]
[IST924I -----]
[IST2030I PORT PRIORITY = SIGNAL]
[IST2036I NLPS SENT = nlps_sent ( estimate )]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )]
[IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate]
[IST924I -----]
[IST2031I PORT PRIORITY = NETWORK]
[IST2036I NLPS SENT = nlps_sent ( estimate )]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )]
[IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate]
[IST924I -----]
[IST2032I PORT PRIORITY = HIGH ]
[IST2036I NLPS SENT = nlps_sent ( estimate )]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )]
[IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate]
[IST924I -----]
[IST2033I PORT PRIORITY = MEDIUM]
[IST2036I NLPS SENT = nlps_sent ( estimate )]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )]
[IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate]
[IST924I -----]
[IST2034I PORT PRIORITY = LOW]
[IST2036I NLPS SENT = nlps_sent ( estimate )]
[IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )]
[IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate]
IST924I -----
IST2035I TOTALS FOR ALL PORT PRIORITIES
IST2036I NLPS SENT = nlps_sent ( estimate )
IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate
IST2069I REXMIT COUNTERS LAST CLEARED ON date AT time
[IST2071I ALL DIAGNOSTIC COUNTERS CLEARED FOR count EE CONNECTIONS]
[IST2072I REXMIT COUNTERS CLEARED FOR count EE CONNECTIONS]
[IST2073I SRQRETRY COUNTERS CLEARED FOR count EE CONNECTIONS]
[IST1315I DISPLAY TRUNCATED AT MAX = number]
IST2042I count OF total EE CONNECTIONS DISPLAYED
IST314I END
```

#### IST924I

This message is a line separator between subgroups.

#### IST1315I

This message is issued when the number of EE connections displayed exceeds the value specified for the MAX operand.

*number* is the value specified for the MAX operand.

#### IST1680I

- This is the first message of a message subgroup. For DISPLAY EEDIAG commands that result in multiple EE connections being displayed, this subgroup is displayed for each matching EE connection. When LIST=DETAIL is specified, five optional subgroups, beginning with the IST2030I subgroup and ending with the IST2034I subgroup, are also displayed.
- *type* is either **LOCAL** or **REMOTE**, indicating which IP address is being displayed.
- *ip\_address* is the IP address.
- The complete message subgroup (LIST=SUMMARY) follows:

```
IST1680I type IP ADDRESS ip_address
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
IST1680I type IP ADDRESS ip_address
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
[IST2023I CONNECTED TO LINE linename ]
[IST2024I CONNECTED TO SWITCHED PU puname ]
IST924I -----
IST2035I TOTALS FOR ALL PORT PRIORITIES
IST2036I  NLPS SENT           = nlps_sent           ( estimate )
IST2038I  NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
IST2068I  NLP RETRANSMIT RATE = nlp_retransmit_rate
```

#### IST1909I

*value* is the host name used to acquire the remote IP address associated with this connection to the remote node. If the host name is longer than 44 characters, then the first 44 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

#### IST1910I

*value* is the host name used to acquire the local static VIPA address displayed in message IST1680I. If the host name is longer than 45 characters, then the first 45 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

#### IST1911I

*value* is the continuation of *value* on messages IST1909I and IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

#### IST2023I

This message is issued when the ID operand is specified with a switched PU name that has an active Enterprise Extender connection.

*linename* is the name of the Enterprise Extender line used for this Enterprise Extender connection.

#### IST2024I

This message is not issued in the case where the ID operand is specified with a switched PU name that has an active Enterprise Extender connection. In this case, message IST2023I is issued. For all other cases, this message is issued as part of the DISPLAY EEDIAG connection display.

*puname* is the name of the switched PU used for this Enterprise Extender connection.

#### IST2030I, IST2031I, IST2032I, IST2033I, IST2034I, IST2035I

- Messages IST2030I through IST2034I are header messages for optional message subgroups. One subgroup is displayed for each port priority when LIST=DETAIL is specified. Each header message is followed by messages IST2036I, IST2038I, and IST2068I.
- IST2035I is a header message for a subgroup that displays a summary of all port priorities. This subgroup includes the same messages as listed for each port priority subgroup.
- Each of these subgroups is also associated with a subgroup of messages that begins with message IST1680I.

- A sample of one of the subgroups follows:

```
IST2030I PORT PRIORITY = SIGNAL
IST2036I NLPS SENT = nlps_sent ( estimate )
IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate
```

### IST2036I

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- *nlps\_sent* is the total number of network layer packets (NLP) that have been sent across this EE connection for this specific priority. This value is maintained from the time this connection was activated, or since the last DISPLAY EEDIAG command was issued specifying the CLEAR=ALL|REXMIT parameter.
- *estimate* is an estimate of the displayed *nlps\_sent*. It is in the form *xxxU*, where *xxx* is a numeric value and *U* is the unit of measure for *xxx* as follows:

**K**

Estimate is in units of 1000 NLPs.

**M**

Estimate is in units of 1 000 000 NLPs.

**G**

Estimate is in units of 1 000 000 000 NLPs.

**T**

Estimate is in units of 1 000 000 000 000 NLPs.

**P**

Estimate is in units of 1 000 000 000 000 000 NLPs.

### IST2038I

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- *nlps\_retransmitted* is the total number of network layer packets (NLP) that have been retransmitted across this EE connection for this specific priority. This value is maintained from the time this connection was activated, or since the last DISPLAY EEDIAG command was issued specifying the CLEAR=ALL|REXMIT parameter.
- *estimate* is an estimate of the displayed *nlps\_retransmitted* value. It is in the form *xxxU*, where *xxx* is a numeric value and *U* is the unit of measure for *xxx* as follows:

**K**

Estimate is in units of 1000 NLPs.

**M**

Estimate is in units of 1 000 000 NLPs.

**G**

Estimate is in units of 1 000 000 000 NLPs.

**T**

Estimate is in units of 1 000 000 000 000 NLPs.

**P**

Estimate is in units of 1 000 000 000 000 000 NLPs.

### IST2042I

*count* is the number of matching EE connections displayed in the output.

*total* is the total number of EE connections that match the parameters specified on the DISPLAY EEDIAG command. The total might be larger than the displayed count because the number of EE connections displayed is governed by the MAX parameter.

### IST2065I

This message is the header message for the Enterprise Extender connection retransmission information display output.

#### **IST2067I**

The *date* and *time* values specify when this DISPLAY EEDIAG command was issued. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST2068I**

This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I, or IST2035I.

*nlp\_retransmit\_rate* is the current network layer packet (NLP) retransmission rate for this EE connection. This rate is maintained for each specific priority. Issuing the LIST=DETAIL on the DISPLAY EEDIAG,REXMIT command displays the current retransmission rate for each priority level. The LIST=SUMMARY output displays the average retransmission rate for all priorities associated with this EE connection. This value is maintained from the time this connection was activated, or since the last DISPLAY EEDIAG command was issued specifying the CLEAR= ALL|REXMIT parameter.

It is in the form xxx%, where xxx is the numeric value of the retransmission rate, specified as a percentage.

#### **IST2069I**

The *date* and *time* values specify when the retransmission counters were last cleared for this EE connection. The date and time values displayed in this message, combined with the date and time values displayed in message IST2067I, provide the time interval during which the retransmission metrics were collected. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST2071I**

*count* is the number of EE connections that had both their REXMIT and SRQRETRY counters cleared as a result of the CLEAR=ALL parameter.

#### **IST2072I**

*count* is the number of EE connections that had their retransmission counters cleared as a result of the CLEAR=REXMIT parameter.

#### **IST2073I**

*count* is the number of EE connections that had their SRQRETRY counters cleared as a result of the CLEAR=SRQRETRY parameter.

#### **IST2119I**

This is an optional message that is issued when the DISPLAY EEDIAG command contains HOSTNAME filters. The *correlator* value is a unique display correlator associated with this DISPLAY EEDIAG command, which requires host name resolution. This correlator can be used to locate the various message groups associated with this DISPLAY EEDIAG command.

### **System action**

Processing continues.

### **Operator response**

If the *nlp\_retransmit\_rate* value displayed in message IST2068I is unusually high, the Enterprise Extender network might need to be diagnosed to determine why the packets are being discarded or lost. If the *nlp\_retransmit\_rate* value displayed in message IST2068I is unacceptable, and an alternate non-EE path to the partner exists, the EE connection might need to be deactivated so RTP pipes can pathswitch to the non-EE path.

### **System programmer response**

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2066I****ENTERPRISE EXTENDER CONNECTION SRQRETRY INFORMATION**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG command for Enterprise Extender connection SRQRETRY information. This message is the first in a group of messages. The display output might consist of multiple Enterprise Extender connections being displayed. Each matching connection will be displayed in a subgroup beginning with message IST1680I. The full description of the message group follows the example.

```
IST2066I ENTERPRISE EXTENDER CONNECTION SRQRETRY INFORMATION
[IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator]
IST2067I EEDIAG DISPLAY ISSUED ON date AT time
IST924I -----
IST1680I type IP ADDRESS ip_address
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
IST1680I type IP ADDRESS ip_address
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
[IST2004I LIVTIME = (init_value,max_value) SRQTIME = srqtime SRQRETRY = srqretry]
[IST2023I CONNECTED TO LINE linename]
[IST2024I CONNECTED TO SWITCHED PU puname]
IST2074I SUCCESSFUL SRQRETRY ATTEMPT = attempt OCCURRENCES = occurrences
IST2070I SRQRETRY COUNTERS LAST CLEARED ON date AT time
[IST2071I ALL DIAGNOSTIC COUNTERS CLEARED FOR count EE CONNECTIONS]
[IST2072I REXMIT COUNTERS CLEARED FOR count EE CONNECTIONS ]
[IST2073I SRQRETRY COUNTERS CLEARED FOR count EE CONNECTIONS]
[IST1315I DISPLAY TRUNCATED AT MAX = number]
IST2042I count OF total EE CONNECTIONS DISPLAYED
IST314I END
```

### IST924I

This message is a line separator between subgroups.

### IST1315I

This message is issued when the number of EE connections displayed exceeds the value specified for the MAX operand.

*number* is the value specified for the MAX operand.

### IST1680I

This is the first message of a message subgroup. For DISPLAY EEDIAG commands that result in multiple EE connections being displayed, this subgroup is displayed for each matching EE connection. When LIST=SUMMARY is specified, message IST2074I is repeated for each SRQRETRY attempt that meets or exceeds the specified input value. When LIST=DETAIL is specified, message IST2074I is repeated for all SRQRETRY attempts.

*type* is either **LOCAL** or **REMOTE**, indicating which IP address is being displayed.  
*ip\_address* is the IP address.

#### **IST1909I**

*value* is the host name used to acquire the remote IP address associated with this connection to the remote node. If the host name is longer than 44 characters, then the first 44 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

#### **IST1910I**

*value* is the host name used to acquire the local static VIPA address displayed in message IST1680I. If the host name is longer than 45 characters, then the first 45 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

#### **IST1911I**

*value* is the continuation of *value* on messages IST1909I and IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

#### **IST2004I**

This message displays the LDLC timer operands that are associated with the local static VIPA address displayed in IST1680I. See the [external communication adapter \(XCA\) major node information in z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the LIVTIME operand for Enterprise Extender.

*init\_value* is the initial value, in seconds, of an Enterprise Extender logical data link control (LDLC) liveness timer interval.

*max\_value* is the maximum value, in seconds, of an Enterprise Extender LDLC liveness timer interval.

*srqtime* is the value, in seconds, of the Enterprise Extender LDLC short request timer interval. The short request timer interval represents the amount of time the LDLC layer will wait, without receipt of a response from the connection partner, before sending the LDLC signal again.

*srqretry* is the number of times the short request timer is tried again before the Enterprise Extender port becomes inoperative.

#### **IST2023I**

This message is issued when the ID operand is specified with a switched PU name that has an active Enterprise Extender connection.

*linename* is the name of the Enterprise Extender line that is being used for this Enterprise Extender connection.

#### **IST2024I**

This message is not issued in the case where the ID operand is specified with a switched PU name that has an active Enterprise Extender connection. In this case, message IST2023I is issued. For all other cases, this message is issued as part of the DISPLAY EEDIAG connection display.

*puname* is the name of the switched PU that is being used for this Enterprise Extender connection.

#### **IST2042I**

*count* is the number of matching EE connections displayed in the output.

*total* is the total number of EE connections that match the parameters specified on the DISPLAY EEDIAG command. The total might be larger than the displayed count because the number of EE connections displayed is governed by the MAX parameter.

#### **IST2066I**

This message is the header message for the Enterprise Extender connection SRQRETRY information display output.

#### **IST2067I**

The *date* and *time* values specify when this DISPLAY EEDIAG command was issued. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

## IST2070I

The *date* and *time* values specify when the SRQRETRY counters were last cleared for this EE connection. The date and time values displayed in this message, combined with the date and time values displayed in message IST2067I, provide the time interval during which the SRQRETRY metrics were collected. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

## IST2071I

*count* is the number of EE connections that had both their REXMIT and SRQRETRY counters cleared as a result of the CLEAR=ALL parameter.

## IST2072I

*count* is the number of EE connections that had their retransmission counters cleared as a result of the CLEAR=REXMIT parameter.

## IST2073I

*count* is the number of EE connections that had their SRQRETRY counters cleared as a result of the CLEAR=SRQRETRY parameter.

## IST2074I

*attempt* is the number of times an LDLC TEST command (SRQRETRY attempt) had to be tried again prior to receiving a response from the EE partner.

*occurrences* is the number of times it took *attempt* number of retry attempts to receive a response from the EE partner.

**Rule:** When LIST=DETAIL is specified, the first IST2074I message displays *attempt* as 0. A value of 0 means this is the first time the LDLC TEST command was sent to the partner. If a TEST response is received from the EE partner on this occurrence, this means there were no problems encountered in the network and no retry attempts were necessary.

## IST2119I

This is an optional message that is issued when the DISPLAY EEDIAG command contains HOSTNAME filters. The *correlator* value is a unique display correlator associated with this DISPLAY EEDIAG command, which requires host name resolution. This correlator can be used to locate the various message groups associated with this DISPLAY EEDIAG command.

## System action

Processing continues.

## Operator response

None.

## System programmer response

Use the display results to determine whether Enterprise Extender timer values are coded appropriately for network conditions. See the information about the [DISPLAY EEDIAG](#) in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#).

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text”](#) on page 5 for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2067I****EEDIAG DISPLAY ISSUED ON *date* AT *time***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. The output of the DISPLAY EEDIAG command varies depending on the format of the command. The first message in the groups is either [IST2065I](#), [IST2066I](#), [IST2119I](#), or [IST2119I](#). See the explanations of those messages for complete descriptions.

## Routing code

2

## Descriptor code

5

---

**IST2068I****NLP RETRANSMIT RATE = *nlp\_retransmit\_rate***

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EEDIAG command that specified the REXMIT parameter. The first message in the group is [IST2065I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2069I****REXMIT COUNTERS LAST CLEARED ON *date* AT *time***

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EEDIAG command that specified the REXMIT parameter. The first message in the group is [IST2065I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2070I****SRQRETRY COUNTERS LAST CLEARED ON *date* AT *time***

---



## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EEDIAG command that specified the SRQRETRY parameter. The first message in the group is IST2066I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2071I****ALL DIAGNOSTIC COUNTERS CLEARED FOR *count* EE CONNECTIONS**

## Explanation

VTAM issues this message in response to a DISPLAY EEDIAG command that specified CLEAR=ALL. The output of the DISPLAY EEDIAG command varies depending on the format of the command. If the DISPLAY EEDIAG command specified either the REXMIT or SRQRETRY operands, the first message in those groups is IST2065I and IST2066I respectively. See the explanations of those messages for complete descriptions.

*count* is the number of EE connections that had both their REXMIT and SRQRETRY counters cleared as a result of the CLEAR=ALL parameter.

## System action

For the EE connections affected by the scope of the DISPLAY EEDIAG command, all associated diagnostic counters have been cleared.

## Operator response

None.

## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2072I****REXMIT COUNTERS CLEARED FOR *count* EE CONNECTIONS**

## Explanation

VTAM issues this message in response to a DISPLAY EEDIAG command that specified CLEAR=REXMIT. The output of the DISPLAY EEDIAG command varies depending on the format of the command. If the DISPLAY EEDIAG command specified either the REXMIT or SRQRETRY operands, the first message in those groups is IST2065I and IST2066I respectively. See the explanations of those messages for complete descriptions.

*count* is the number of EE connections that had their retransmission counters cleared as a result of the CLEAR=REXMIT parameter.

## System action

For the EE connections affected by the scope of the DISPLAY EEDIAG command, all associated REXMIT diagnostic counters have been cleared.

## Operator response

None.

## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2073I****SRQRETRY COUNTERS CLEARED FOR *count* EE CONNECTIONS**

## Explanation

VTAM issues this message in response to a DISPLAY EEDIAG command that specified CLEAR=SRQRETRY. The output of the DISPLAY EEDIAG command varies depending on the format of the command. If the DISPLAY EEDIAG command specified either the REXMIT or SRQRETRY operands, the first message in those groups is IST2065I and IST2066I respectively. See the explanations of those messages for complete descriptions.

*count* is the number of EE connections that had their SRQRETRY counters cleared as a result of the CLEAR=SRQRETRY parameter.

## System action

For the EE connections affected by the scope of the DISPLAY EEDIAG command, all associated SRQRETRY diagnostic counters have been cleared.

## Operator response

None.

## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

<b>IST2074I</b>	<b>SUCCESSFUL SRQRETRY ATTEMPT = <i>attempt</i> OCCURRENCES = <i>occurrences</i></b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EEDIAG command that specified the SRQRETRY operands. The first message in the group is IST2066I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2075I</b>	<b>DISPLAY RTPS SUMMARY INFORMATION</b>
-----------------	---

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS,LIST=SUMMARY command. This message is the first in a group of messages. The LIST=SUMMARY format of the DISPLAY RTPS command provides a condensed format of the RTP pipe information that matched the scope of the display command. The full description of the message group follows the example.

```
IST2075I DISPLAY RTPS SUMMARY INFORMATION
IST2076I TOTAL MATCHING PIPES      = num_pipes
IST2077I CPSVCMG PIPES             = num_cpsvcmg
IST2078I RSETUP PIPES              = num_rsetup
IST2079I LU-LU PIPES               = num_lulu
IST2080I PATH SWITCHING PIPES      = num_switching
IST2081I CONGESTED PIPES           = num_congested
IST2082I STALLED PIPES             = num_stalled
IST2083I SESSIONS                 = num_sessions
IST314I END
```

**IST2075I**

This message is the header message for the Enterprise Extender connection retransmission information display output.

**IST2076I**

*num\_pipes* is the total number of pipes that match the scope of the DISPLAY RTPS command.

**IST2077I**

*num\_cpssvcmg* is the total number of CP-CP session (CPSVCMG) RTP pipes that match the scope of the DISPLAY RTPS command.

**IST2078I**

*num\_rsetup* is the total number of route setup (RSETUP) RTP pipes that match the scope of the DISPLAY RTPS command.

**IST2079I**

*num\_lulu* is the total number of LU-LU RTP pipes that match the scope of the DISPLAY RTPS command.

**IST2080I**

*num\_switching* is the total number of RTP pipes that match the scope of the DISPLAY RTPS command, which are currently in path switch state.

**IST2081I**

*num\_congested* is the total number of RTP pipes that match the scope of the DISPLAY RTPS command, which are currently congested.

**IST2082I**

*num\_stalled* is the total number of RTP pipes that match the scope of the DISPLAY RTPS command, which are currently stalled.

**IST2083I**

*num\_sessions* is the total number of sessions associated with the RTP pipes that match the scope of the DISPLAY RTPS command.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2076I** TOTAL MATCHING PIPES = *num\_pipes*

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS,LIST=SUMMARY command. The first message in the group is [IST2075I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2077I** CPSVCMG PIPES = *num\_cpsvcmg*

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS,LIST=SUMMARY command. The first message in the group is [IST2075I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2078I** RSETUP PIPES = *num\_rsetup*

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS,LIST=SUMMARY command. The first message in the group is [IST2075I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2079I** LU-LU PIPES = *num\_lulu*

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS,LIST=SUMMARY command. The first message in the group is [IST2075I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2080I</b>	<b>PATH SWITCHING PIPES = <i>num_switching</i></b>
-----------------	--

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS,LIST=SUMMARY command. The first message in the group is [IST2075I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2081I</b>	<b>CONGESTED PIPES = <i>num_congested</i></b>
-----------------	---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS,LIST=SUMMARY command. The first message in the group is [IST2075I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2082I</b>	<b>STALLED PIPES = <i>num_stalled</i></b>
-----------------	---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS,LIST=SUMMARY command. The first message in the group is [IST2075I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2083I</b>	<b>SESSIONS = <i>num_sessions</i></b>
-----------------	---------------------------------------

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS,LIST=SUMMARY command. The first message in the group is [IST2075I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2084I</b>	<b>count OF total MATCHING RTP PIPES DISPLAYED</b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY RTPS command. The first message in the group is [IST1695I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2085I</b>	<b>NUMBER OF NLPS ON OUTBOUND WORK QUEUE = <i>num_nlps</i></b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a rapid transport protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST2086I</b>	<b>MAXIMUM NUMBER OF NLPS ON OUTBOUND WORK QUEUE = <i>max_num_nlps</i></b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a rapid transport protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST2087I****OUTBOUND WORK QUEUE MAX REACHED ON *date* AT *time***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a rapid transport protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST2088I****CDRSCS DEFINED USING THIS MODEL:**

---

## Explanation

VTAM issues this message as part of a subgroup in response to a DISPLAY ID command when the resource identified by ID is a model CDRSC and clone CDRSCs exist, using this model, that meet the specified SCOPE criteria. A complete description of the message subgroup follows the example.

```
IST2088I CDRSCS DEFINED USING THIS MODEL:
IST1276I cdrsname status CDRM = cdrmname
:
```

### IST1276I

This message lists the resource name, its status, and the name of the controlling CDRM.

VTAM repeats this message as many times as needed to list all the clone CDRSCs associated with this model CDRSC.

*cdrsname* is the name of the resource. The name will be network qualified in the form *netid.name* if the resource is a real CDRSC. The name will not be network qualified if the resource is an alias CDRSC.

*status* is the status of the resource. See [z/OS Communications Server: IP and SNA Codes](#) for a description of *status*.

*cdrmtime* is the name of the controlling CDRM. If the CDRM is not available, *cdrmtime* is **\*\*\*NA\*\*\***.

### IST2088I

IST2088I is the header message for the IST1276I messages.

## System action

Processing continues.

## Operator response

None.



## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2089I**

**NO CDRSCS DEFINED USING THIS MODEL**

## Explanation

VTAM issues this message in response to a DISPLAY ID command when the resource identified by ID is a model CDRSC and no clone CDRSCs exist using this model.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

**Explanation**

VTAM issues this message in response to a MODIFY TRACE command with all of the following:

- The ID operand specified as a model CDRSC
- The SCOPE operand specified as ALL
- The TYPE operand specified as IO or BUF

This MODIFY TRACE command initiates the IO trace or buffer trace on the model CDRSC and all the existing clone CDRSCs associated with the model. If there is at least one clone CDRSC associated with the model, this message will be issued to display the number of clone CDRSCs affected by the command.

*number* is the number of clone CDRSCs whose IO trace or buffer trace is initiated by this MODIFY TRACE command.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

**Explanation**

VTAM issues this message in response to a MODIFY NOTRACE command with all of the following:

- The ID operand specified as a model CDRSC name
- The SCOPE operand specified as ALL
- The TYPE operand specified as IO or BUF

This MODIFY NOTRACE command ends the IO trace or buffer trace on the model CDRSC and all the existing clone CDRSCs associated with the model. If there is at least one clone CDRSC associated with the model, this message will be issued to display the number of clone CDRSCs affected by the command.

*number* is the number of clone CDRSCs whose IO trace or buffer trace is ended by this MODIFY NOTRACE command.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

### **Source**

z/OS Communications Server SNA

### **Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

### **Routing code**

2

### **Descriptor code**

5

---

**IST2092I****NO CLONE CDRSCS EXIST FOR SCOPE *scope***

---

### **Explanation**

VTAM issues this message in response to a DISPLAY ID command when the resource identified by ID is a model CDRSC and no clone CDRSCs exist that meet the specified SCOPE criteria.

*scope* is the SCOPE specified on the command.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2093I** **AUTOLOGON SEARCH INITIATED FOR *number* APPLICATIONS**

---

## Explanation

This message is issued in response to a VARY AUTOLOG operator command. The message contains the number of controlling applications for which autologon searches will be initiated.

*number* is the number of controlling applications.

## System action

None.

## Operator response

None.

## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2094I** **MODEL CDRSC WAS NOT DELETED - CLONE CDRSCS EXIST**

---

## Explanation

A model CDRSC was the subject of a VARY INACT,DELETE=YES command, but it had clone CDRSCs associated with it. The model CDRSC could not be deleted because of the presence of the clone CDRSCs.

## System action

Processing continues.

## Operator response

After the last clone CDRSC associated with the model CDRSC is deleted, re-issue the VARY INACT command against the model CDRSC. If you want the model CDRSC to be deleted immediately, you can add SCOPE=ALL to the VARY INACT command to delete the model CDRSC and all the clone CDRSCs associated with it.

## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2095I****MODEL CDRSC DELETE = *delete\_value***

## Explanation

VTAM issues this message in response to a DISPLAY ID command when the resource identified by ID is a model CDRSC or a clone CDRSC. If the resource is a model CDRSC, the current value of the DELETE parameter on this model CDRSC's definition is displayed. If the resource is a clone CDRSC, the model CDRSC used to build this clone CDRSC is found and the current value of the model CDRSC's DELETE parameter is displayed.

*delete\_value* is the current value of the DELETE keyword on the model CDRSC definition. Its value can be **YES** or **NO**.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2096I** **AUTOLOGON SEARCH COMPLETED FOR APPLICATION *pluname***

## Explanation

This is the first message of a group of messages that VTAM issues when a response is received to a search initiated by a VARY AUTOLOG command. A complete description of the message group follows.

```
IST2096I AUTOLOGON SEARCH COMPLETED FOR APPLICATION pluname
[IST2097I STATUS - CANNOT BE LOCATED]
[IST2098I STATUS - UNABLE TO ACCEPT LOGONS]
[IST2099I STATUS - AUTOLOGON SESSIONS INITIATED FOR number LUS]
IST314I END
```

### IST2096I

This message is always issued upon receiving a response to a search that was initiated by a VARY AUTOLOG command. It will be followed by one of the status messages, IST2097I, IST2098I, or IST2099I.

*pluname* is the name of the controlling application for which a response to a VARY AUTOLOG command-initiated search was received. *pluname* is in the form of *netid.pluname*.

### IST2097I

The search was unable to locate the controlling application named in the preceding IST2096I message. No sessions will be initiated for LUs waiting for automatic logon sessions to this controlling application.

### IST2098I

The search located the controlling application named in the preceding IST2096I message. The status of the controlling application indicated that it was not able to accept sessions at this time. A single session is initiated, which will establish a notification path between the controlling application host and this host. This will allow the controlling application's host to send this VTAM a notification of the application's ability to accept logons. When the notification is received, this VTAM will generate initiation requests for all LUs waiting for automatic logon sessions to that application.

### IST2099I

The search located the controlling application named in the preceding IST2096I message. The status of the controlling application indicated that it is able to accept sessions at this time. VTAM initiates sessions for all LUs waiting for automatic logon sessions to that application.

*number* is the number of session initiation requests that will be generated for the controlling application

**System action**

For message IST2097I processing continues.

For message IST2098I VTAM initiates a single session to the application named in the preceding IST2096I message.

For message IST2099I VTAM initiates sessions for LUs waiting for automatic logon sessions to the application named in the preceeding IST2096I message.

**Operator response**

None.

**System programmer response**

None.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

---

<b>IST2097I</b>	<b>STATUS = CANNOT BE LOCATED</b>
-----------------	-----------------------------------

**Explanation**

This message is part of a group of messages that VTAM issues when a response is received to a search initiated by a VARY AUTOLOG command. The first message of that group is IST2096I. See the explanation of that message for a complete description of the message group.

**Routing code**

2

**Descriptor code**

5

---

<b>IST2098I</b>	<b>STATUS = UNABLE TO ACCEPT LOGONS</b>
-----------------	---

**Explanation**

This message is part of a group of messages that VTAM issues when a response is received to a search initiated by a VARY AUTOLOG command. The first message of that group is IST2096I. See the explanation of that message for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST2099I** **STATUS = AUTOLOGON SESSIONS INITIATED FOR *number* LUS**

---

## Explanation

This message is part of a group of messages that VTAM issues when a response is received to a search initiated by a VARY AUTOLOG command. The first message of that group is IST2096I. See the explanation of that message for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST2100I** ***pluname* - NORMALLY LOGGED OFF LUS**

---

## Explanation

This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2101I** **NO LUS EXIST IN A STATE TO INITIATE AN AUTOLOGON SESSION**

---

## Explanation

This message is issued in response to a VARY AUTOLOG command when there are no LUs that require generation of a session initiation request for one or more controlling applications specified by the ID= operand. An LU would require generation of a session initiation request if it were currently session capable but was not in session with its controlling application.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.



# Routing code

2

# Descriptor code

5

IST2102I

RSCV FROM PLU

## Explanation

This message is part of a subgroup of messages that VTAM issues in response to a session setup failure. This message subgroup is displayed in a message group headed by IST663I.

This message indicates that the messages that follow describe part or all of the session path for this session as it was calculated during session initiation. The session path information describes the portion of the route originating in the direction of the CP (PLU) and extending towards the CP (SLU). This message subgroup will be displayed only if the CP (PLU) is not this node or a subarea node connected to this ICN, session path data was saved during session initiation, and the session initiation failed for either of the following reasons:

- Trial and error routing using an adjacent SSCP table failed. The destination LU was found by an SSCP, but that SSCP rejected the session initiation with a non-reroutable sense code.
- Trial and error routing using an adjacent SSCP table exhausted the table. All adjacent SSCPs were tried, but the destination LU was not known to any of the SSCPs.

A complete description of the message subgroup follows.

```
IST2102I RSCV FROM PLU
IST1460I TGN CPNAME          TG TYPE      HPR
IST1461I tgn  cpname         tgtype      hpr
:
```

## IST1460I

This message is a header message for information displayed in message IST1461I.

## IST1461I

- The route selection control vector (RSCV) is displayed showing a portion of the route towards the CP (SLU). Multiple IST1461I messages might be needed to display the portion of the route known by this node.
- *tgn* is the transmission group number.
- *cpname* is the destination CP name for the transmission group.
- *tgtype* is the transmission group type. The values for *tgtype* can be:
  - APPN**  
Indicates that this TG is an APPN-based TG.
  - INTERCHANGE**  
Indicates that this TG represents a TG from an interchange node to a subarea node.
  - VRTG**  
Indicates that this TG is a virtual-route-based TG.
  - ISL**  
Indicates that this TG is an intersubnet TG.
- *hpr* corresponds with the HPR start option. The values for *hpr* can be:
  - RTP**  
Indicates that this node provides RTP-level HPR support.
  - ANR**  
Indicates that this node provides ANR-level HPR support.

**\*NA\***

Indicates that this node provides no HPR support.

**IST2102I**

This message is a header message for information displayed in messages IST1460I and IST1461I.

**System action**

The session initiation failed.

**Operator response**

Save the system log for problem determination.

**System programmer response**

Use the output to determine the cause of the problem. Work with the system programmers for other networks to determine the cause of failures for resources located in other networks.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

8

**Descriptor code**

4

---

**IST2103I RSCV TOWARDS SLU**

**Explanation**

This message is part of a subgroup of messages that VTAM issues in response to a session setup failure. This message subgroup is displayed in a message group headed by IST663I.

This message indicates that the messages that follow describe part or all of the session path for this session as it was calculated during session initiation. The session path information describes the portion of the route originating at this node, or a subarea node connected to this ICN, and extending towards the CP (SLU). This message subgroup is displayed only if session path data was saved during session initiation and the session initiation fails for either of the following reasons:

- Trial and error routing using an adjacent SSCP table failed. The destination LU was found by an SSCP, but that SSCP rejected the session initiation with a non-reroutable sense code.
- Trial and error routing using an adjacent SSCP table exhausted the table. All adjacent SSCPs were tried, but the destination LU was not known to any of the SSCPs.

A complete description of the message subgroup follows.

IST2103I RSCV TOWARDS SLU		
IST1460I TGN CPNAME	TG TYPE	HPR

```
IST1461I tgn  cpname          tgtype          hpr
:
```

## IST1460I

This message is a header message for information displayed in message IST1461I.

## IST1461I

- The route selection control vector (RSCV) is displayed showing a portion of the route towards the CP (SLU). Multiple IST1461I messages might be needed to display the portion of the route known by this node.
- *tgn* is the transmission group number.
- *cpname* is the destination CP name for the transmission group.
- *tgtype* is the transmission group type. The values for *tgtype* can be:

### APPN

Indicates that this TG is an APPN-based TG.

### INTERCHANGE

Indicates that this TG represents a TG from an interchange node to a subarea node.

### VRTG

Indicates that this TG is a virtual-route-based TG.

### ISL

Indicates that this TG is an intersubnet TG.

- *hpr* corresponds with the HPR start option. The values for *hpr* can be:

### RTP

Indicates that this node provides RTP-level HPR support.

### ANR

Indicates that this node provides ANR-level HPR support.

### \*NA\*

Indicates that this node provides no HPR support.

## IST2103I

This message is a header message for information displayed in messages IST1460I and IST1461I.

## System action

The session initiation failed.

## Operator response

Save the system log for problem determination.

## System programmer response

Use the output to determine the cause of the problem. Work with the system programmers for other networks to determine the cause of failures for resources located in other networks.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

# Routing code

8

# Descriptor code

4

IST2104I

RSCV TOWARDS DLUR

## Explanation

This message is part of a subgroup of messages that VTAM issues in response to a session setup failure. This message subgroup is displayed in a message group headed by IST663I.

This message indicates that the messages that follow describe part or all of the session path for this session as it was calculated during session initiation. The session path information represents a view of the session from the dependent LU requester (DLUR) node which is acting as CP (SLU). This message group is displayed only if the following conditions are true:

- The session involves a DLUR-owned dependent SLU.
- This node is the dependent LU server (DLUS) for the SLU.
- The DLUR node reports the session path information for the session on the SESSST RU.
- The session initiation was rejected after the SLU sent the BIND response.

A complete description of the message subgroup follows.

IST2104I	RSCV	TOWARDS	DLUR		
IST1460I	TGN	CPNAME		TG TYPE	HPR
IST1461I	tn	cpname		tgtype	hpr
:					

## IST1460I

This message is a header message for information displayed in message IST1461I.

## IST1461I

- The route selection control vector (RSCV) is displayed showing a portion of the route towards the CP (SLU). Multiple IST1461I messages might be needed to display the portion of the route known by this node.
- *tn* is the transmission group number.
- *cpname* is the destination CP name for the transmission group.
- *tgtype* is the transmission group type. The values for *tgtype* can be:
  - APPN**  
Indicates that this TG is an APPN-based TG.
  - INTERCHANGE**  
Indicates that this TG represents a TG from an interchange node to a subarea node.
  - VRTG**  
Indicates that this TG is a virtual-route-based TG.
  - ISL**  
Indicates that this TG is an intersubnet TG.
- *hpr* corresponds with the HPR start option. The values for *hpr* can be:
  - RTP**  
Indicates that this node provides RTP-level HPR support.
  - ANR**  
Indicates that this node provides ANR-level HPR support.
  - \*NA\***  
Indicates that this node provides no HPR support.

## IST2104I

This message is a header message for information displayed in messages IST1460I and IST1461I.

### System action

The session initiation failed.

### Operator response

Save the system log for problem determination.

### System programmer response

Use the output to determine the cause of the problem. Work with the system programmers for other networks to determine the cause of failures for resources located in other networks.

### Source

z/OS Communications Server SNA

### Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

### Routing code

8

### Descriptor code

4

---

## IST2105I

*name* ACTIVATION FAILED - HPR/IP XCA NODE ALREADY ACTIVE

### Explanation

VTAM issues this message in response to a VARY ACT command for an XCA major node when there is already an XCA major node active with the PORT statement defining the shared access transport facility (SATF) as MEDIUM=HPRIP (Enterprise Extender). There can be only one active HPR/IP XCA major node in VTAM.

*name* is the name of the major node for which the activation failed.

### System action

The activation of the XCA major node fails. Processing continues.

### Operator response

Issue the DISPLAY NET,MAJNODES command to find the HPR/IP XCA major node that is already active.

### System programmer response

None.

### Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2106I** **MODIFY GR DELETE FAILED FOR *generic\_resource***

---

## Explanation

This message is the first in a group of messages in response to a MODIFY GR DELETE command that cannot complete successfully. A complete description of the message group follows:

```
IST2106I MODIFY GR DELETE FAILED FOR generic_resource
[IST2107I LOCAL GR ACB IS OPEN]
[IST2108I LOCAL APPLICATION OWNED GR AFFINITY EXISTS]
[IST2109I NON-LOCAL GR INSTANCE SELECTABLE]
[IST2110I NON-LOCAL APPLICATION OWNED GR AFFINITY EXISTS]
[IST2111I NON-LOCAL GR SESSION ACTIVE]
IST314I END
```

### IST2106I

*generic\_resource* is the generic resource name. The name will be network qualified in the form *netid.name*

### IST2107

This message indicates that the ACB for at least one instance of the generic resource on this host is still open. The generic resource was not deleted.

### IST2108I

This message indicates that an application-owned affinity exists for a generic resource on this host. The generic resource was not deleted.

### IST2109I

This message indicates that at least one instance of the generic resource is selectable on another host in the sysplex. Processing of the MODIFY GR DELETE command was completed for instances of the generic resource that reside on this host. The information in the generic resource coupling facility structure was not deleted.

### IST2110I

This message indicates that an application-owned affinity exists for a generic resource that resides on another host in the sysplex. Processing of the MODIFY GR DELETE command was completed for instances of the generic resource that reside on this host. The information in the generic resource coupling facility structure was not deleted.

### IST2111I

This message indicates that a session is active to an instance of the generic resource on another host in the sysplex. Processing of the MODIFY GR DELETE command was completed for instances of the generic resource that reside on this host. The information in the generic resource coupling facility structure was not deleted.

# System action

Processing continues.

# Operator response

1. Issue DISPLAY NET,ID=*generic\_resource*,IDTYPE=GENERIC to list all instances of the generic resource.
2. End all sessions with all instances of the generic resource.
3. Issue DISPLAY NET,GRAFFIN,LU=\*,GNAME=*generic\_resource* to display all affinities with the generic resource.
4. Delete all affinities, then close the ACB of all instances of the generic resource. The application is responsible for deleting application-owned affinities after the session is ended. Deleting application-owned affinities might require the application to be active and invocation of an application unique command, or termination of the application. See application-specific documentation to determine how to delete application-owned affinities. VTAM deletes VTAM-owned affinities when sessions end or the application closes its ACB.
5. See the information about [how and why a generic resource should be deleted from a sysplex in z/OS Communications Server: SNA Network Implementation Guide](#) for a complete description of generic resource deletion procedure.

# System programmer response

For message IST2107I, IST2109I and IST2111I, no action is required.

For message IST2108I and IST2110I, ensure that the application deletes the application-owned affinities using the VTAM API CHANGE ENDAFFIN command. See the information about [closing an application program that is a member of a generic resource in z/OS Communications Server: SNA Programming](#) for more information about the VTAM API CHANGE ENDAFFIN command.

# Source

z/OS Communications Server SNA

# Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

# Routing code

8

# Descriptor code

5

---

**IST2107I** **LOCAL GR ACB IS OPEN**

# Explanation

This message is part of a group of messages that VTAM issues when a MODIFY GR DELETE command fails. The first message of that group is IST2106I. See the explanation of that message for a complete description of the message group.

# Routing code

8

## Descriptor code

5

---

**IST2108I****LOCAL APPLICATION OWNED GR AFFINITY EXISTS**

---

## Explanation

This message is part of a group of messages that VTAM issues when a MODIFY GR DELETE command fails. The first message of that group is IST2106I. See the explanation of that message for a complete description of the message group.

## Routing code

8

## Descriptor code

5

---

**IST2109I****NON-LOCAL GR INSTANCE SELECTABLE**

---

## Explanation

This message is part of a group of messages that VTAM issues when a MODIFY GR DELETE command fails. The first message of that group is IST2106I. See the explanation of that message for a complete description of the message group.

## Routing code

8

## Descriptor code

5

---

**IST2110I****NON-LOCAL APPLICATION OWNED GR AFFINITY EXISTS**

---

## Explanation

This message is part of a group of messages that VTAM issues when a MODIFY GR DELETE command fails. The first message of that group is IST2106I. See the explanation of that message for a complete description of the message group.

## Routing code

8

## Descriptor code

5

---

**IST2111I****NON-LOCAL GR SESSION ACTIVE**

---

## Explanation

This message is part of a group of messages that VTAM issues when a MODIFY GR DELETE command fails. The first message of that group is IST2106I. See the explanation of that message for a complete description of the message group.



## Routing code

8

## Descriptor code

5

---

IST2113I

*luname* SESSION DEACTIVATED - EXPFLTRM THRESHOLD EXCEEDED

## Explanation

This message is issued when VTAM detects an LU-LU session that has met or exceeded the threshold defined by the EXPFLTRM start option. The EXPFLTRM start option defines the number of expedited data flow control (DFC) and session control (SC) request units (RU) that a boundary-attached LU can send without receiving a response from the partner LU.

*luname* is the name of the LU whose LU-LU session is deactivated

## System action

The LU-LU session is deactivated.

## Operator response

Contact the system programmer.

## System programmer response

If this message is issued repeatedly for the same LU, the LU should be investigated for possible emulator or hardware problems. Alternatively, if the EXPFLTRM start option value is too small for your environment, you can increase the defined value of the EXPFLTRM threshold in the ATCSTRxx start option file used to initialize VTAM. See the [EXPFLTRM start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

The EXPFLTRM start option value can be modified to a larger value with the MODIFY VTAMOPTS command. See the [MODIFY VTAMOPTS command](#) information in [z/OS Communications Server: SNA Operation](#).

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text”](#) on [page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

IST2114I

LIVTIME: INITIAL = *init\_value* MAXIMUM = *max\_value* CURRENT = *cur\_value*

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a switched PU associated with an Enterprise Extender connection. VTAM also issues this message as part a message group in response to a DISPLAY EE command. This message group begins with message IST2001I. See the explanation of that message for a complete description.

This message displays the initial, maximum and current LIVTIME values for an Enterprise Extender connection. See the information about the [external communication adapter \(XCA\) major node in z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the LIVTIME operand for Enterprise Extender.

*init\_value* is the initial LIVTIME value, in seconds, defined for Enterprise Extender connections.

*max\_value* is the maximum LIVTIME value, in seconds, defined for Enterprise Extender connections.

*cur\_value* is the current LIVTIME value, in seconds, being used by this Enterprise Extender connection.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2116I****STALL DETECTED FOR XCF TRLE *trlename* TO *cpname***

## Explanation

This unsolicited message is issued when VTAM detects that outbound data flow for an XCF connection stalled for more than 180 seconds. The data flow is considered stalled because this node sent a pacing request to the partner node and a response was not received. This might be an indication of an unresponsive partner or an internal software problem.

*trlename* is the name of the XCF TRLE.

*cpname* is the CP name of the partner node for this XCF connection.

## System action

All outbound data flow across this XCF connection is suspended until the stall is alleviated. If the stall persists, message IST2117I is issued every 60 seconds until the stall is alleviated. If the pacing response is received from the partner node, the stall is considered alleviated and message IST2118I is issued.

When more than 15 minutes has elapsed since a pacing request was transmitted to the partner node, the XCF connection will be ended. When the connection is ended, message IST1578I is issued to indicate that an inoperative condition was detected. VTAM automatically attempts to re-establish connectivity to the XCF partner.

## Operator response

If the XCF data flow stall persists, VTAM or CSM storage might increase. To alleviate the storage problem, deactivate all of the users of this XCF connection by performing the following actions:

1. Locate users of the device by issuing the `D NET,ID=trlename` command to obtain a list of the upper-layer protocols (*ulp\_id*) using the XCF facility. Obtain the *ulp\_id* from message IST1717I in the display output.
  - If VTAM is using this XCF TRLE for SNA traffic, the *ulp\_id* represents SNA XCF PU name.
  - If TCP/IP is using the XCF TRLE for IP traffic, the *ulp\_id* represents the TCP/IP job name.
2. Deactivate the device for SNA traffic by issuing the `V NET,INACT,ID=ulp_id,TYPE=FORCE` command.
3. Deactivate the device for IP traffic by performing the following steps on each TCP/IP stack that uses this device:
  - For predefined and dynamic IPv4 XCF connections, issue the `V TCPIP,ulp_id,STOP,cpname` command.
  - For predefined IPv6 XCF connections, issue the `V TCPIP,ulp_id,STOP,intf_name` command where *intf\_name* is the user defined INTERFACE name for the IPv6 XCF connection. If the *intf\_name* is not known, issue the `D TCPIP,ulp_id,NETSTAT,DEVLINKS` command. Locate the "DEVNAME: cpname" line of output. If found, locate the associated "INTFNAME: intf\_name" line in the output, which follows the DEVNAME line.
  - For dynamic IPv6 XCF connections, issue the `V TCPIP,ulp_id,STOP,EZ6XCFnn` command where *nn* is the value of the MVS system symbol (SYSCLONE) of the partner node for this XCF connection.

## System programmer response

First, investigate if the partner node is overloaded or involved in activity that will prevent it from responding. If XCF data flow stalls are prevalent and persistent, take a dump of both nodes at the next occurrence and contact the IBM software support center.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

4

---

**IST2117I****STALL CONTINUES FOR XCF TRLE *trlename* TO *cpname***

## Explanation

This unsolicited message is issued at 60-second intervals as long as data flow continues to be stalled for an XCF connection. The stall was originally reported in an IST2116I message. The data flow is considered stalled because this node sent a pacing request to the partner node and a response has not been received. This might be an indication of an unresponsive partner or an internal software problem.

*trlename* is the name of the XCF TRLE.

*cpname* is the CP name of the partner node for this XCF connection.

## System action

All outbound data flow across this XCF connection is suspended until the stall is alleviated. If the stall persists, this message is issued every 60 seconds until the stall is alleviated. If the pacing response is received from the partner node, the stall is considered alleviated and message IST2118I is issued.

When more than 15 minutes has elapsed since a pacing request was transmitted to the partner node, the XCF connection will be ended. When the connection is ended, message IST1578I is issued to indicate that an inoperative condition was detected. VTAM automatically attempts to re-establish connectivity to the XCF partner.

## Operator response

If the XCF data flow stall persists, VTAM or CSM storage might increase. To alleviate the storage problem, deactivate all of the users of this XCF connection by performing the following actions:

1. Locate users of the device by issuing the `D NET,ID=trlename` command to obtain a list of the upper-layer protocols (*ulp\_id*) using the XCF facility. Obtain the *ulp\_id* from message IST1717I in the display output.
  - If VTAM is using this XCF TRLE for SNA traffic, the *ulp\_id* represents SNA XCF PU name.
  - If TCP/IP is using the XCF TRLE for IP traffic, the *ulp\_id* represents the TCP/IP job name.
2. Deactivate the device for SNA traffic by issuing the `V NET,INACT,ID=ulp_id,TYPE=FORCE` command.
3. Deactivate the device for IP traffic by performing the following steps on each TCP/IP stack that uses this device:
  - For predefined and dynamic IPv4 XCF connections, issue the `V TCPIP,ulp_id,STOP,cpname` command.
  - For predefined IPv6 XCF connections, issue the `V TCPIP,ulp_id,STOP,intf_name` command where *intf\_name* is the user defined INTERFACE name for the IPv6 XCF connection. If the *intf\_name* is not known, issue the `D TCPIP,ulp_id,NETSTAT,DEVLINKS` command. Locate the "DEVNAME: cpname" line of output. If found, locate the associated "INTFNAME: intf\_name" line in the output, which follows the DEVNAME line.
  - For dynamic IPv6 XCF connections, issue the `V TCPIP,ulp_id,STOP,EZ6XCFnn` command where *nn* is the value of the MVS system symbol (SYSCONE) of the partner node for this XCF connection.

## System programmer response

First, investigate if the partner node is overloaded or involved in activity that will prevent it from responding. If XCF data flow stalls are prevalent and persistent, take a dump of both nodes at the next occurrence, then contact the IBM software support center.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

4

---

**IST2118I****STALL ALLEVIATED FOR XCF TRLE *trlename* TO *cpname***

---

## Explanation

This unsolicited message is issued when XCF detects that a data flow stall for an XCF connection has been alleviated. The stall was originally reported in an IST2116I message.

*trlename* is the name of the XCF TRLE.

*cpname* is the CP name of the partner node for this XCF connection.

## System action

Outbound data flow for this XCF connection is resumed.

## Operator response

None.

## System programmer response

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

4

---

**IST2119I****ENTERPRISE EXTENDER DISPLAY CORRELATOR: *correlator***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EE or DISPLAY EEDIAG command that specifies HOSTNAME filters, or in response to a DISPLAY EEDIAG, TEST=YES command. This message is the first in various message groups. This message can also be contained in other message groups headed by message IST2001I, IST2002I, IST2065I, IST2066I, or IST2130I. See the explanation of those messages for a complete description. A complete description of the message groups headed by this message follows.

The following message group is issued when VTAM accepts the DISPLAY EE or DISPLAY EEDIAG command that specifies HOSTNAME filters:

```
IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
[IST2067I EEDIAG DISPLAY ISSUED ON date AT time]
IST2120I HOSTNAME RESOLUTION IN PROGRESS
IST314I END
```

The following message group is issued by VTAM when host name resolution processing successfully completes for a DISPLAY EE command that specifies HOSTNAME filters:

```
IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
IST2121I HOSTNAME RESOLUTION COMPLETE
[IST1680I type IP ADDRESS ip_address]
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
[IST1680I type IP ADDRESS ip_address]
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
IST314I END
```

The following message group is issued by VTAM when host name resolution processing successfully completes for a DISPLAY EEDIAG command that specifies HOSTNAME filters:

```
IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
IST2121I HOSTNAME RESOLUTION COMPLETE
[IST1680I type IP ADDRESS ip_address]
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
[IST1680I type IP ADDRESS ip_address]
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
[IST2023I CONNECTED TO LINE linename]
[IST2126I CONNECTIVITY TEST IN PROGRESS]
IST314I END
```

The following message group is issued by VTAM when host name resolution failure occurs for a DISPLAY EE or DISPLAY EEDIAG command that specifies HOSTNAME filters:

```
IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
IST2121I HOSTNAME RESOLUTION COMPLETE
[IST1893I NAME-TO-ADDRESS RESOLUTION FAILED]
[IST1680I type IP ADDRESS ip_address]
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
[IST1893I NAME-TO-ADDRESS RESOLUTION FAILED]
[IST1680I type IP ADDRESS ip_address]
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
IST314I END
```

The following message group is issued by VTAM when it accepts a DISPLAY EEDIAG,TEST=YES command that did not specify HOSTNAME filters:

```
IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
IST2067I EEDIAG DISPLAY ISSUED ON date AT time
IST1680I type IP ADDRESS ip_address
IST1680I type IP ADDRESS ip_address
IST2023I CONNECTED TO LINE linename
IST2126I CONNECTIVITY TEST IN PROGRESS
IST314I END
```

### **IST1680I**

- This message is displayed for the following reasons:
  - When host name resolution is required to process the display command and the name-to-address function fails for the local host name, this message is issued to display the remote IP address. This IP address might have been specified as input using the IPADDR filter, or it might have been acquired through the host name resolution function.

- When host name resolution is required to process the display command and the name-to-address function fails for the remote host name, this message is issued to display the local IP address. This IP address might have been specified as input using the IPADDR filter, or it might have been acquired through the host name resolution function.
- When a D NET,EEDIAG,TEST=YES command is entered that did not specify host name filters, this message is issued to display the local and remote IP addresses used for the EE connectivity test. In this case, the first occurrence of this message identifies the local IP address and the second occurrence identifies the remote IP address.
- In the message text:

***type***

Indicates which IP address is being displayed. The value is either LOCAL or REMOTE.

***ip\_address***

Indicates the IP address.

### IST1893I

- This message is the first in a group of messages displayed when resolution of a host name into an IP address is attempted but was unsuccessful.
- The following message group is issued by VTAM when host name resolution fails for the local host name:

```
IST1893I NAME-TO-ADDRESS RESOLUTION FAILED
IST1910I LOCAL HOSTNAME value
[IST1911I value]
[IST1680I type IP ADDRESS ip_address]
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
IST314I END
```

**Result:** If host name resolution fails for the local host name, VTAM also displays the information available for the REMOTE filter. This information is presented in the optional messages IST1680I, IST1909I, and IST1911I.

- The following message group is issued by VTAM when host name resolution fails for the remote host name:

```
[IST1680I type IP ADDRESS ip_address]
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
IST1893I NAME-TO-ADDRESS RESOLUTION FAILED
IST1909I REMOTE HOSTNAME value
[IST1911I value]
IST314I END
```

**Result:** If host name resolution fails for the remote host name, VTAM also displays the information available for the LOCAL filter. This information is presented in optional messages IST1680I, IST1910I, and IST1911I.

### IST1909I

- In the message text:

***value***

The host name supplied to the name-to-address function that is used to acquire the remote IP address. The remote IP address is then used to process the display command. If the host name is longer than 44 characters, then the first 44 characters are displayed as the *value* value and the remaining characters are displayed in one or more IST1911I messages.

### IST1910I

- In the message text:

***value***

The host name supplied to the name-to-address function that is used to acquire the local IP address. The local IP address is then used in the processing of the display command. If the host name is longer than 45 characters, then the first 45 characters are displayed as the *value* value and the remaining characters are displayed in one or more IST1911I messages.

### IST1911I

- In the message text:

***value***

The continuation of the *value* value on messages IST1909I and IST1910I. Message IST1911I is repeated as many times as necessary to display the entire character string.

**IST2023I**

- In the message text:

***linename***

The name of the Enterprise Extender line that VTAM is using to perform an Enterprise Extender connectivity test.

**IST2067I**

The *date* and *time* values specify when this DISPLAY EEDIAG command was issued. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

**IST2119I**

- In the message text:

***correlator***

A unique display correlator associated with this DISPLAY EE or DISPLAY EEDIAG command, which requires host name resolution. This correlator can be used to locate the various message groups associated with this display command.

**IST2120I**

This message indicates that name-to-address resolution for the host name filters has been initiated. When the host name resolution completes, another IST2119I message group is issued, which includes message IST2121I.

**IST2121I**

This message indicates that name-to-address resolution for the host name filters has completed.

**IST2126I**

This message is issued when VTAM initiates an Enterprise Extender connectivity test. When the connectivity test completes, a message group headed by IST2130I is issued.

## System action

If message IST1893I is issued to report a host name resolution failure, the DISPLAY EE or DISPLAY EEDIAG command is not performed. Otherwise, the DISPLAY EE or DISPLAY EEDIAG command processing continues.

## Operator response

If message IST1893I is issued to report a host name resolution failure, save the system log for problem determination if the correct host name value is being resolved. If you specified an incorrect host name, specify the correct host name and issue the display command again.

## System programmer response

If message IST1893I is issued to report a host name resolution failure, and the correct host name is being specified on the display command, ensure the following:

- The name-to-address resolution mapping for the host name yields the correct static VIPA address (if on a z/OS host) of the node that owns the host name.
- If network address translation (NAT) is in use, the name-to-address resolution mapping for the host name yields the correct NAT address to ultimately reach the target static VIPA address of the node that owns the host name.



If the resolution is not correct, update the DNS zone files or the appropriate local hosts files with the corrected name-to-address resolution. If the resolution is intended to yield an IPv6 address, ensure that the TCP/IP stack is enabled for IPv6 processing so that the resolver searches for IPv6 addresses. See the information about resolvers in [z/OS Communications Server: IP Configuration Guide](#) for more information about the resolver function.

### User response

Not applicable.

### Problem determination

Not applicable.

### Source

z/OS Communications Server SNA

### Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

### Routing code

2

### Descriptor code

5

### Example

None.

---

<b>IST2120I</b>	<b>HOSTNAME RESOLUTION IN PROGRESS</b>
-----------------	--

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EE or DISPLAY EEDIAG command that specified HOSTNAME filters. This message indicates that name-to-address resolution of the host name filters has been initiated. The first message in this message group is [IST2119I](#). See the explanation of that message for a complete description.

### Source

z/OS Communications Server SNA

### Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

### Routing code

2

## Descriptor code

5

---

**IST2121I****HOSTNAME RESOLUTION COMPLETE**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EE or DISPLAY EEDIAG command that specified HOSTNAME filters. This message indicates that name-to-address resolution of the host name filters has completed. The first message in this message group is [IST2119I](#). See the explanation of that message for a complete description.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2122I****EE DISPLAY REJECTED - MAXHNRES LIMIT EXCEEDED**

---

## Explanation

A DISPLAY EE or DISPLAY EEDIAG command that specified HOSTNAME filters was entered. The number of host name resolutions required to process this display command would cause VTAM to exceed the MAXHNRES start option value.

## System action

The DISPLAY EE or DISPLAY EEDIAG command is not performed.

## Operator response

Wait until some of the previous display commands requiring host name resolution complete, then issue the display command again. The following commands might also be useful:

- The D NET,VTAMOPTS,OPTION=MAXHNRES command displays the current value of this start option. If the value is not defined large enough for your system, contact your system programmer to increase the value defined for the MAXHNRES start option.
- The D NET,EEDIAG,TEST=PENDING command queries the display commands that are pending host name resolution results.

For more information about the MAXHNRES start option, see [z/OS Communications Server: SNA Resource Definition Reference](#).

## System programmer response

If the defined or defaulted value of the MAXHNRES start option is not large enough for your system needs, code your preferred MAXHNRES start option value in the ATCSTRxx start list and restart VTAM. See the [MAXHNRES](#) in the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

None.

---

**IST2123I** **DIAL FAILED FOR EE PU *puname* - EXISTING CONNECTION FOUND**

## Explanation

This message is the first in a group of messages that VTAM issues when a dial fails for an Enterprise Extender connection. The complete description of the message group follows.

```
IST2123I DIAL FAILED FOR EE PU puname - EXISTING CONNECTION FOUND
IST1680I  type IP ADDRESS ip_address
IST1680I  type IP ADDRESS ip_address
IST314I  END
```

### IST1680I

- This message is issued to display the IP addresses of the failing connection. In the message text:

#### ***type***

Indicates which IP address is being displayed. The value is either LOCAL or REMOTE.

#### ***ip\_address***

The IP address.

### IST2123I

- This message is issued when a dial request for a new EE connection fails. An existing connection was found with the same local and remote IP addresses. In the message text:

***puname***

The name of the predefined switch PU that initiated the dial.

**System action**

The EE dial request fails, but the existing EE connection is unaffected.

**Operator response**

Contact the system programmer.

**System programmer response**

Correct the switch major node PU definitions so that multiple connections are not defined to have the same local and remote IP addresses between two EE hosts. See [Rule for multiple EE connections in z/OS Communications Server: SNA Network Implementation Guide](#) for more information about how to correctly define multiple EE connections between two adjacent CPs.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

**Example**

None.

---

**IST2124I****REMOTE IPADDR OR HOSTNAME IS ALSO REQUIRED****Explanation**

VTAM issues this message in response to a DISPLAY EEDIAG,TEST=YES command that specified only a local IPADDR filter or local HOSTNAME filter. To perform an EE connectivity test, the EEDIAG command filters specified on the EE connectivity test must uniquely identify the EE endpoints you want to test.

**System action**

The DISPLAY EEDIAG,TEST=YES command is not performed.

## Operator response

Specify a remote IPADDR filter or remote HOSTNAME filter in addition to the EEDIAG filter already specified on the DISPLAY EEDIAG,TEST=YES command. Optionally, you can specify the ID filter on the DISPLAY EEDIAG,TEST=YES command instead of the IPADDR and HOSTNAME filters. See [z/OS Communications Server: SNA Operation](#) for more information about commands and command syntax.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

None.

---

**IST2125I****LOCAL IPADDR OR HOSTNAME IS ALSO REQUIRED**

## Explanation

VTAM issues this message in response to a DISPLAY EEDIAG,TEST=YES command that specified only a remote IPADDR filter or remote HOSTNAME filter. To perform an EE connectivity test, the EEDIAG command filters specified on the EE connectivity test must uniquely identify the EE endpoints you want to test.

## System action

The DISPLAY EEDIAG,TEST=YES command is not performed.

## Operator response

Specify a local IPADDR filter or local HOSTNAME filter in addition to the EEDIAG filter already specified on the DISPLAY EEDIAG,TEST=YES command. You can specify the ID filter on the DISPLAY EEDIAG,TEST=YES command instead of the IPADDR and HOSTNAME filters. See [z/OS Communications Server: SNA Operation](#) for more information about commands and command syntax.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

None.

---

**IST2126I****CONNECTIVITY TEST IN PROGRESS**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. This message indicates that the EE connectivity test request has been initiated. The first message in this message group is [IST2119I](#). See the explanation of that message for a complete description.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Explanation

A DISPLAY EEDIAG,TEST=YES command was issued to perform an Enterprise Extender connectivity test, but no dial out line was available. At least one EE line associated with the local static VIPA address you are testing must be active and available for use. The EE connectivity test requires an available line to conduct the test even if the connection you are testing has an active EE connection over another EE line.

## System action

The DISPLAY EEDIAG,TEST=YES command is not performed.

## Operator response

To use the EE connectivity test, perform the following actions to activate an Enterprise Extender line:

- If EE lines in the EE XCA major node group associated with the local static VIPA address are defined but not currently active, issue a V NET,ACT,ID=*groupname*,SCOPE=ALL command to activate these lines.
- If lines were activated, issue the DISPLAY EEDIAG,TEST=YES command again.
- If no lines are available to perform the EE connectivity test, contact your system programmer.

## System programmer response

Update the EE XCA major node to define additional lines that you need to use the EE connectivity test.

- If you defined a new group with additional lines, the operator can dynamically activate a new group in the EE XCA major node. Issue the V NET,ACT,ID=*eexcamajornode*,UPDATE=ALL command. See [z/OS Communications Server: SNA Operation](#) for more information about using the VARY command.
- If you defined additional lines to an existing group, activating the new lines might be disruptive to existing EE connections. If this is acceptable, the operator can perform one of the following to activate the newly defined lines:
  - To dynamically update an EE XCA major node group, issue the V NET,INACT,ID=*eegroupname*,F command to deactivate all existing lines in the modified group. When the EE group is inactive, issue the V NET,ACT,ID=*eexcamajornode*,UPDATE=ALL command to dynamically update the group. Issue a V NET,INACT,ID=*eexcamajornode*,F command to deactivate Enterprise Extender. See [z/OS Communications Server: SNA Operation](#) for more information about using the VARY command.
  - Issue a V NET,ACT,ID=*eexcamajornode*,SCOPE=ALL command to activate the modified Enterprise Extender definitions.

When the lines are defined and activated, the operator can issue the DISPLAY EEDIAG,TEST=YES command again.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

None.

---

<b>IST2128I</b>	<b>CONNECTIVITY TEST FAILED - EE NOT AVAILABLE FOR LOCAL IPADDR</b>
-----------------	---

---

## Explanation

A DISPLAY EEDIAG,TEST=YES command was issued to perform an Enterprise Extender connectivity test. VTAM detected that no EE lines associated with the local static VIPA address have been activated. At least one EE line associated with the local static VIPA address you are testing must be active and available for use.

## System action

The DISPLAY EEDIAG,TEST=YES command is not performed.

## Operator response

To use the EE connectivity test, perform the following actions to activate an Enterprise Extender line:

- If a group in the EE XCA major node associated with the local static VIPA address is defined but is not active, issue a V NET,ACT,ID=*groupname*,SCOPE=ALL command to activate these lines.
- If a group was successfully activated, issue the DISPLAY EEDIAG,TEST=YES command again.
- If a group in the EE XCA major node is not defined, contact the system programmer.

## System programmer response

If no group exists in the EE XCA major node that is associated with the local static VIPA address, update the EE XCA major node to define such a group. Then the operator can issue one the following commands to activate the new definitions:

- To dynamically update the EE XCA major node group, issue the V NET,ACT,ID=*eexcamajornode*,UPDATE=ALL command. See [z/OS Communications Server: SNA Operation](#) for more information about using the VARY command.
- This method for activating the new group might be disruptive if existing EE connections are active. Issue a V NET,INACT,ID=*eexcamajornode*,F command to deactivate Enterprise Extender. Issue a V NET,ACT,ID=*eexcamajornode*,SCOPE=ALL command to activate your modified Enterprise Extender definitions.

## User response

Not applicable.

## Problem determination

Not applicable.



## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

None.

---

**IST2129I** **CONNECTIVITY TEST FAILED - MISMATCH OF IP ADDRESS FAMILY**

## Explanation

A DISPLAY EEDIAG,TEST=YES command was issued to perform an Enterprise Extender connectivity test. This message is the first message in a group of messages displayed when the test fails because the remote IP address is not in the same IP address family as the local IP address; for example, the local IP address is an IPv4 address and the remote IP address is an IPv6 address. If the addresses are in different families, the Enterprise Extender connection cannot be established. A complete description of the message group follows.

```
IST2129I CONNECTIVITY TEST FAILED - MISMATCH OF IP ADDRESS FAMILY
IST1680I type IP ADDRESS ip_address
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
IST1680I type IP ADDRESS ip_address
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
IST314I END
```

### IST1680I

- In the message text:

#### **type**

Identifies the IP address that is displayed. The *type* value is either LOCAL or REMOTE..

#### **ip\_address**

Either the remote IP address or the local IP address. The first instance of the IST1680I message displays the local IP address, and the second instance of the IST1680I message displays the remote IP address.

### IST1909I

- In the message text:

#### **value**

The host name, owned by a target remote node, that was used to acquire the remote IP address as part of name-to-address resolution. If the host name is longer than 44 characters, then the first 44 characters are displayed as the *value* value and the remaining characters are displayed in one or more IST1911I messages.

### IST1910I

- In the message text:

**value**

The host name used to acquire the local static VIPA address that is used as part of the attempted route determination. If the host name is longer than 45 characters, then the first 45 characters are displayed as the *value* value and the remaining characters are displayed in one or more IST1911I messages.

**IST1911I**

- In the message text:

**value**

The continuation of the *value* value on message IST1909I or IST1910I. Message IST1911I is repeated as many times as necessary to display the entire character string.

**System action**

The DISPLAY EEDIAG,TEST=YES command is not performed.

**Operator response**

If both a local and remote IP address are supplied as input to the D NET,EEDIAG,TEST=YES command, enter the command again specifying both IPADDR filters from the same IP address family. Otherwise, save the console log for problem determination.

**System programmer response**

The Enterprise Extender connectivity test cannot be performed if the local and remote IP addresses are not in the same address family. If the correct host name is being specified on the display command, verify the following:

- The name-to-address resolution mapping for the host name yields the expected static VIPA address (if on a z/OS host) of the node that owns the host name.
- If network address translation (NAT) is in use, the name-to-address resolution mapping for the host name yields the correct NAT address to ultimately reach the target static VIPA address of the node that owns the host name.

If the resolution is not correct, update the DNS zone files or the appropriate local host files with the corrected name-to-address resolution. If the resolution is intended to yield an IPv6 address, ensure that the TCP/IP stack is enabled for IPv6 processing so that the resolver searches for IPv6 addresses. See the information about resolvers in [z/OS Communications Server: IP Configuration Guide](#) for more information about the resolver function.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

None.

---

### IST2130I ENTERPRISE EXTENDER CONNECTIVITY TEST INFORMATION

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. This message is the first in a group of messages. The full description of the message group follows the example.

```
IST2130I ENTERPRISE EXTENDER CONNECTIVITY TEST INFORMATION
IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
IST2131I EEDIAG DISPLAY COMPLETED ON date AT time
IST2132I LDLC PROBE VERSIONS: VTAM = local_version PARTNER = remote_version
IST1680I type IP ADDRESS ip_address
IST1680I type IP ADDRESS ip_address
[IST2224I ENTERPRISE EXTENDER ROUTING POLICY INFORMATION]
[IST2225I PORT ROUTE TABLE ROUTING RULE]
[IST2205I ----]
[IST2226I portnum route_table routing_rule]
IST924I -----
IST2133I INTFNAME: intfname INTFTYPE: intftype
[IST2134I CONNECTIVITY SUCCESSFUL PORT: portnum]
[IST2135I CONNECTIVITY UNSUCCESSFUL SENSE: sense PORT: portnum]
[IST2136I CONNECTIVITY TEST ENDED - MAXIMUM TIME LIMIT EXCEEDED]
[IST2227I CONNECTIVITY NOT TESTED - ROUTE NOT APPLICABLE PORT: portnum]
[IST2137I hop ipv4address flags RTT: time]
[IST2138I hop ipv6address flags RTT: time]
IST924I -----
IST2139I CONNECTIVITY TEST RESULTS DISPLAYED FOR tested_routes OF total_routes ROUTES
IST314I END
```

### IST924I

This message is a line separator between message IST2133I subgroups.

### IST1680I

- The first occurrence of this message identifies the local IP address used for the Enterprise Extender (EE) connectivity test. The second occurrence identifies the remote IP address used for the EE connectivity test.
- In the message text:

#### **type**

Indicates which IP address is being displayed. The *type* value is either LOCAL or REMOTE.

#### **ip\_address**

The IP address.

### IST2119I

- In the message text:

#### **correlator**

A unique display correlator associated with this DISPLAY EEDIAG command. This correlator can be used to locate the various message groups associated with this DISPLAY EEDIAG command.

### IST2131I

The *date* and *time* values specify when the EE connectivity test completed. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

## IST2132I

- In the message text:

### ***local\_version***

The version of the Logical Data Link Control (LDLC) probe command supported by Communications Server for the EE connectivity test.

### ***remote\_version***

The version of the Logical Data Link Control (LDLC) probe command supported by the partner EE endpoint.

## IST2133I

- This is the first message of a message subgroup. The message subgroup is displayed for each TCP/IP interface that has a valid path to the remote IP address. When LIST=DETAIL is specified, message IST2137I (IPv4) or IST2138I (IPv6) is repeated for each time-to-live (TTL) hop for which an LDLC probe command was sent. When LIST=SUMMARY is specified or is the default value on the DISPLAY EEDIAG command, message IST2137I or IST2138I is displayed only once with the information related to the last hop that sent a reply to the LDLC probe command.
- In the message text:

### ***intfname***

The name of the TCP/IP interface that was used to perform the EE connectivity test.

### ***intftype***

The device type that was configured on the TCP/IP profile DEVICE statement or that was generated based on the INTERFACE statement.

- The IST2133I message subgroup has various formats. The following examples show both IPv4 and IPv6 formats.
- Successful IPv4 IST2133I message subgroup format:

```
IST2133I INTFNAME: intfname          INTFTYPE: intftype
IST2134I CONNECTIVITY SUCCESSFUL      PORT: portnum
IST2137I hop ipv4address             flags RTT: time
```

- Unsuccessful IPv4 IST2133I message subgroup format:

```
IST2133I INTFNAME: intfname          INTFTYPE: intftype
IST2135I CONNECTIVITY UNSUCCESSFUL    SENSE: sense      PORT: portnum
[IST2136I CONNECTIVITY TEST ENDED - MAXIMUM TIME LIMIT EXCEEDED]
IST2137I hop ipv4address             flags RTT: time
```

- Successful IPv6 IST2133I message subgroup format:

```
IST2133I INTFNAME: intfname          INTFTYPE: intftype
IST2134I CONNECTIVITY SUCCESSFUL      PORT: portnum
IST2138I hop ipv6address             flags RTT: time
```

- Unsuccessful IPv6 IST2133I message subgroup format:

```
IST2133I INTFNAME: intfname          INTFTYPE: intftype
IST2135I CONNECTIVITY UNSUCCESSFUL    SENSE: sense      PORT: portnum
[IST2136I CONNECTIVITY TEST ENDED - MAXIMUM TIME LIMIT EXCEEDED]
IST2138I hop ipv6address             flags RTT: time
```

## IST2134I

- This message indicates that the EE connectivity test to the partner EE endpoint was successful for this specific EE port and TCP/IP interface.
- In the message text:

### ***portnum***

The Enterprise Extender User Datagram Protocol (UDP) port that was tested. The default EE port numbers are as follows:

- 12000 - Signal Priority
- 12001 - Network Priority

12002 - High Priority  
12003 - Medium Priority  
12004 - Low Priority

### **IST2135I**

- This message indicates that the EE connectivity test to the partner EE endpoint was unsuccessful for this specific EE port and TCP/IP interface. This message might be issued if the test was unable to contact the partner EE node, or if a TTL hop in the route returned an unexpected Internet Control Message Protocol (ICMP) message in response to the LDLC probe command.
- In the message text:

#### ***sense***

The SNA sense code that was sent in the LDLC probe response from the Enterprise Extender partner. The sense might display as \*\*\*NA\*\*\* if a response to the LDLC probe is not received from the EE partner. If a SNA sense code is displayed, see [valid sense codes in z/OS Communications Server: IP and SNA Codes](#) for more information about this sense code.

#### ***portnum***

The Enterprise Extender User Datagram Protocol (UDP) port that was tested. The default EE port numbers are as follows:

12000 - Signal Priority  
12001 - Network Priority  
12002 - High Priority  
12003 - Medium Priority  
12004 - Low Priority

### **IST2136I**

This is an optional message in the IST2133I message subgroup that is issued when the EE connectivity test is unsuccessful. This message indicates that the EE connectivity test exceeded the amount of time allowed for the test to run. This time limit is specified or is the default value on the MAXTIME operand on the D NET,EEDIAG,TEST=YES command.

### **IST2137I**

- This message displays information gathered during the EE connectivity test over an IPv4 route.
- When LIST=SUMMARY is specified or is the default value on the DISPLAY EEDIAG command, this message is displayed only once with the information related to a reply to the LDLC probe command.
- When LIST=DETAIL is specified on the DISPLAY EEDIAG command, this message is displayed for each TTL hop in the route to the EE partner. To reduce repetitive information in the detailed display, when a TTL hop is unresponsive to the LDLC probe, message IST2137I is displayed only for the first unresponsive hop and the last unresponsive hop. In these cases, all hops in between were also unresponsive to the LDLC probe command.
- In the message text:

#### ***hop***

The TTL hop count used in the LDLC probe command. The TTL hop count is \*NA (not applicable) when LIST=SUMMARY is specified.

#### ***ipv4addr***

The source IPv4 address from the ICMP response. The source IPv4 address might display as an asterisk (\*) if the TTL hop did not respond to the LDLC probes.

#### ***flags***

This is an optional field. The *flags* field has one of two forms:

#### ***t-ccc***

The *t* value is a representative character of the error detected in response to the LDLC probe and the *ccc* value is the specific code associated with an ICMP message type (if the error detected is not associated with an ICMP message then the code value will be 0).

The error message type is displayed as one of the following:

D - Destination unreachable ICMP type 3

P - Parameter problem ICMP type 12

Q - Source quench ICMP type 4

H - Hop limit was exceeded. A maximum of 255 hops can be tested when performing the EE connectivity test. The EE connectivity test will terminate for the route being tested.

L - A route loop condition was detected. This specific hop was already found as a previous hop for this route being tested. Because a route loop condition was detected the EE connectivity test will terminate for the route being tested.

For a list of the ICMP types and codes, go to .

(a)

The *a* value is the number of LDLC probe attempts, if more than one.

***time***

One of the following:

- The round-trip time required for the LDLC probe to be sent to an intermediate hop for which an ICMP response was received
- The round-trip time required for the LDLC probe to be sent to the destination hop for which either an ICMP response or LDLC probe response was received.

This field is displayed in milliseconds (ms). If the *time* field displays as 0, the round-trip time was less than 1 millisecond.

**Result:** The round-trip time for intermediate hops is computed when an ICMP message is received from the intermediate hop. Even though the round-trip time calculated to the Enterprise Extender remote partner is based on the receipt of a UDP datagram responding to the query that was received, intermediate hops might delay the returning of an ICMP message. The remote Enterprise Extender partner should always respond immediately to the query received. Therefore, in some instances the round-trip time to the remote Enterprise Extender node might be less than the value computed to intermediate hops.

## **IST2138I**

- This message displays information gathered during the EE connectivity test over an IPv6 route.
- When LIST=SUMMARY is specified or is the default value on the DISPLAY EEDIAG command, this message is displayed only once. The information displayed is related to the reply from the last hop that received the LDLC probe command.
- When LIST=DETAIL is specified on the DISPLAY EEDIAG command, this message is displayed for each TTL hop in the route to the EE partner. To reduce repetitive information in the detailed display, when a TTL hop is unresponsive to the LDLC probe, message IST2138I is displayed only for the first unresponsive hop and the last unresponsive hop. In these cases, all hops in between were also unresponsive to the LDLC probe command.
- In the message text:

***hop***

The TTL hop count used in the LDLC probe command. The TTL hop count is \*NA when LIST=SUMMARY is specified.

***ipv6addr***

The source IPv6 address from the ICMPv6 response. The source IPv6 address might display as an asterisk (\*) if the TTL hop did not respond to the LDLC probes.

***flags***

This is an optional field. The *flags* field has one of two forms:

***t-ccc***

The *t* value is a representative character of the ICMPv6 message type returned in response to the LDLC probe and the *ccc* value is the specific code associated with the ICMPv6 message type.

The ICMP message type is displayed as one of the following:

- B - Packet too big ICMPv6 Type 2
- D - Destination unreachable ICMPv6 Type 1
- P - Parameter problem ICMPv6 Type 4

For a list of the ICMPv6 types and codes, go to .

(a)

The *a* value is the number of LDLC probe attempts, if more than one.

#### ***time***

One of the following:

- The round-trip time required for the LDLC probe to be sent to an intermediate hop for which an ICMPv6 response was received
- The round-trip time required for the LDLC probe to be sent to the destination hop for which either an ICMPv6 response or LDLC probe response was received.

This field is displayed in milliseconds (ms). If the *time* field displays as 0, the round-trip time was less than 1 millisecond.

**Result:** The round-trip time for intermediate hops is computed when an ICMP message is received from the intermediate hop. Even though the round-trip time calculated to the Enterprise Extender remote partner is based on the receipt of a UDP datagram responding to the query that was received, intermediate hops might delay the returning of an ICMP message. The remote Enterprise Extender partner should always respond immediately to the query received. Therefore, in some instances the round-trip time to the remote Enterprise Extender node might be less than the value computed to intermediate hops.

#### **IST2139I**

- In the message text:

##### ***tested\_routes***

The number of TCP/IP routes that were tested and displayed in the EE connectivity test output.

##### ***total\_routes***

The number of valid TCP/IP routes that were found between the EE endpoints.

#### **IST2205I**

This message is a line separator between various sections of the message group.

#### **IST2224I**

This message is displayed when policy-based routing is being used to determine an IPv4 route between two Enterprise Extender endpoints.

#### **IST2225I**

This message is displayed as a heading for displaying EE UDP port numbers and their associated route tables and policy-based routing rules.

#### **IST2226I**

- In the message text:

##### ***portnum***

The EE UDP port number.

##### ***route\_table***

The route table being used for IPv4 route calculations. If the main routing table is being used, then the value EZBMAIN is displayed. If the value \*NONE\* is displayed, then no route could be calculated between the EE endpoints for this specific EE UDP port and the EE connectivity test was unsuccessful.

##### ***routing\_rule***

The policy-based routing rule associated with this EE UDP port. If no policy-based routing rule is associated with the port, then the value NONE is displayed.

#### **IST2227I**

- This message is an optional message in the IST2133I message subgroup that is issued when the EE connectivity test is not performed because the route is not associated with the specific EE UDP port. This message does not indicate an error. The EE connectivity test is not performed because the policy-based routing rule has indicated that this route is not associated with the EE UDP port that is being tested.
- In the message text:

***portnum***

The Enterprise Extender User Datagram Protocol (UDP) port that was tested.

## **System action**

Processing continues.

## **Operator response**

Review the Enterprise Extender Connectivity Test output for any unsuccessful test results. See the [DISPLAY EEDIAG,TEST=YES command in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information about analyzing the test output.

## **System programmer response**

None.

## **User response**

Not applicable.

## **Problem determination**

Not applicable.

## **Source**

z/OS Communications Server SNA

## **Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## **Routing code**

2

## **Descriptor code**

5

## **Example**

None.

---

**IST2131I****EEDIAG DISPLAY COMPLETED ON *date* AT *time***

## **Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. The output of the DISPLAY EEDIAG command varies depending on the format of the command. The first message



in the group is either [IST2065I](#), [IST2066I](#), or [IST2130I](#). See the explanation of those messages for a complete description.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

---

<b>IST2132I</b>	<b>LDLC PROBE VERSIONS: VTAM = <i>local_version</i> PARTNER = <i>remote_version</i></b>
-----------------	---

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is [IST2130I](#). See the explanation of that message for a complete description.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

---

<b>IST2133I</b>	<b>INTFNAME: <i>intfname</i> INTFTYPE: <i>intftype</i></b>
-----------------	--

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is [IST2130I](#). See the explanation of that message for a complete description.

**Source**

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2134I****CONNECTIVITY SUCCESSFUL PORT: *portnum***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is [IST2130I](#). See the explanation of that message for a complete description.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2135I****CONNECTIVITY UNSUCCESSFUL SENSE: *sense* PORT: *portnum***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is [IST2130I](#). See the explanation of that message for a complete description.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

---

**IST2136I** **CONNECTIVITY TEST ENDED - MAXIMUM TIME LIMIT EXCEEDED**

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is [IST2130I](#). See the explanation of that message for a complete description.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “[Adding the originating module to the message text](#)” on page 5 for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

---

**IST2137I** *hop ipv4address flags RTT: time*

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is [IST2130I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST2138I** *hop ipv6address flags RTT: time*

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is [IST2130I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

IST2139I	CONNECTIVITY TEST RESULTS DISPLAYED FOR <i>tested_routes</i> OF <i>total_routes</i> ROUTES
----------	---

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is [IST2130I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

IST2140I	CONNECTIVITY TEST FAILED - LINE <i>linename</i> IS INACTIVATING
----------	---

---

## Explanation

A DISPLAY EEDIAG,TEST=YES command was previously issued to perform an Enterprise Extender connectivity test. Before the command completed, the line being used to perform this test was deactivated. The EE connectivity test fails as a result. VTAM issues this message as part of a message group headed by [IST2119I](#). Message [IST2119I](#) identifies the display correlator assigned when the EE connectivity test command was entered.

## System action

The DISPLAY EEDIAG,TEST=YES command processing ends.

## Operator response

If this message is unexpectedly issued, perform the following actions:

- Investigate the console log from the time the DISPLAY EEDIAG,TEST=YES command was issued to the time this error message was issued. You can use the display correlator identified in message [IST2119I](#) to locate the relevant message groups associated with this connectivity test.
- Locate any messages or operator commands that list the specified *linename* value to assist in understanding why the line was deactivated. The following are some known reasons for this error message to be issued:
  - The line being used by the EE connectivity test was deactivated by the operator.
  - The VTAM-to-TCP/IP samehost interface (IUTSAMEH) was deactivated while the EE connectivity test was being performed.

## System programmer response

None

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

None.

---

**IST2141I****CONNECTIVITY TEST FAILED - SWITCHED PU IS NOT ENABLED FOR EE**

## Explanation

A DISPLAY EEDIAG,ID=*puname*,TEST=YES command was issued to perform an Enterprise Extender connectivity test. The command specified a switched PU name on the ID operand. The connectivity test was failed because the switched PU definition statements did not have the correct definitions necessary for VTAM to attempt to establish an EE connection.

## System action

The DISPLAY EEDIAG,ID=*puname*,TEST=YES command processing is not performed.

## Operator response

The switched PU name specified on the ID operand of the DISPLAY EEDIAG,TEST=YES command is not correctly coded for VTAM to establish an outbound EE connection. If the incorrect PU name was specified, specify the correct switched PU name and issue the display command again. Alternatively, you can uniquely identify the EE connection to test by specifying any combination of the IPADDR and HOSTNAME filters, which provide both a local and remote input. See [DISPLAY EEDIAG in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information about the DISPLAY EEDIAG,TEST=YES command.

## System programmer response

The switched PU definition statements did not have the correct definitions necessary for VTAM to attempt to establish an EE connection. If the correct switched PU name was specified on the ID operand of the DISPLAY EEDIAG,TEST=YES command, then perform the following actions:

- Verify that the GRPNM operand is specified on the switched PATH definition statement and that the group name defined on the GRPNM definition statement points to an active group in the Enterprise Extender XCA major node.
- Verify that either the IPADDR operand or the HOSTNAME operand is specified on the switched PATH definition statement.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

None.

---

**IST2142I** **CONNECTIVITY TEST REJECTED - SAME TEST ALREADY IN PROGRESS**

## Explanation

VTAM issues this message as the first of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. A DISPLAY EEDIAG,TEST=YES command was previously issued to perform an Enterprise Extender connectivity test to the same EE endpoint you are trying to test. VTAM permits only one EE connectivity test to a specific EE connection at a time. The full description of the message group follows:

```
IST2142I CONNECTIVITY TEST REJECTED - SAME TEST ALREADY IN PROGRESS
IST2143I IN PROGRESS ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
IST314I  END
```

## IST2143I

- In the message text:

### ***correlator***

The unique display correlator associated with a previous DISPLAY EEDIAG,TEST=YES command that is still in progress. This correlator can be used to locate the output associated with the previous DISPLAY EEDIAG,TEST=YES command.

## System action

The DISPLAY EEDIAG,TEST=YES command is rejected.

## Operator response

You can perform the following actions:

- Issue a D NET,EEDIAG,TEST=PENDING command to display all outstanding EE connectivity tests.
- Locate the message IST2147I in the output that contains the same message correlator as the one listed in message IST2143I. Message IST2147I is followed by message IST2148I, which states when the original EE connectivity test is due to expire. See the message [IST2147I](#) for a complete description of this message group.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

None.

---

<b>IST2143I</b>	<b>IN PROGRESS ENTERPRISE EXTENDER DISPLAY CORRELATOR:</b> <i>correlator</i>
-----------------	---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the message group is [IST2142I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

IST2144I

CONNECTIVITY TEST REJECTED - MAXEETST LIMIT EXCEEDED

---

## Explanation

A DISPLAY EEDIAG,TEST=YES command was issued that would have caused VTAM to exceed the MAXEETST start option value.

## System action

The DISPLAY EEDIAG,TEST=YES command is not performed.

## Operator response

Issue a D NET,VTAMOPTS,OPTION=MAXEETST command to display the current value of this start option.

- If the displayed value is defined large enough for your system, or it is defined to the maximum limit, then you must wait until at least one of the previous EE connectivity tests complete. When those commands complete, issue the display command again.
- If the displayed value is not large enough for your system, you can issue the F *procname*,VTAMOPTS,MAXEETST=*max\_ee\_connectivity\_tests* command to increase this limit. When the limit is increased, issue the display command again. To permanently change the value of the MAXEETST start option, contact the system programmer.

Issue a D NET,EEDIAG,TEST=PENDING command to query the outstanding EE connectivity tests.

For more information about commands or command syntax, see [z/OS Communications Server: SNA Operation](#).

See [MAXEETST](#) in [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the MAXEETST start option.

## System programmer response

If the defined or default value of the MAXEETST start option is not large enough for your system needs, code the MAXEETST start option value that you want to use in the ATCSTRxx start list and restart VTAM.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text”](#) on page 5 for more information about the MSGMOD start option.

## Routing code

2



## Descriptor code

5

## Example

None.

### IST2145I

### PENDING ENTERPRISE EXTENDER DISPLAY COMMANDS

## Explanation

VTAM issues this message as the first in a group of messages in response to a DISPLAY EEDIAG,TEST=PENDING command. This message group displays current information about the DISPLAY EE and DISPLAY EEDIAG commands that are pending host name resolution. This message group also displays information about DISPLAY EEDIAG,TEST=YES commands that are in progress. The full description of the message group follows:

```
IST2145I PENDING ENTERPRISE EXTENDER DISPLAY COMMANDS
IST2067I EEDIAG DISPLAY ISSUED ON date AT time
[IST924I -----]
[IST2147I CORRELATOR: correlator LINE: linename STATUS: status]
[IST2067I EEDIAG DISPLAY ISSUED ON date AT time]
[IST2146I EE DISPLAY ISSUED ON date AT time]
[IST2148I EE CONNECTIVITY TEST REACHES MAXTIME ON date AT time]
[IST1680I type IP ADDRESS ip_address]
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
[IST1680I type IP ADDRESS ip_address]
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
[IST924I -----]
[IST1315I DISPLAY TRUNCATED AT MAX = number]
[IST2149I count OF total CORRELATORS DISPLAYED]
[IST1358I NO QUALIFYING MATCHES]
IST314I END
```

### IST924I

This message is a line separator between message IST2147I subgroups.

### IST1315I

- VTAM issues this message when the number of Enterprise Extender correlators to be displayed exceeds the value specified for the MAX operand.
- In the message text:

#### ***number***

The value specified or the default value for the MAX operand.

### IST1358I

VTAM issues this message when there are no pending Enterprise Extender display commands.

### IST1680I

- This message is displayed in the IST2147I message subgroup for the following reasons:
  - When the *status* value in the preceding IST2147I message displays as PGAIN-LOCAL, this message is issued to display the remote IP address that might have been specified as input on the display command, or that it might have acquired through the host name resolution function.
  - When the *status* value in the preceding IST2147I message displays as PGAIN-REMOTE, this message is issued to display the local IP address that might have been specified as input on the display command, or that it might have acquired through the host name resolution function.
  - When the *status* value in the preceding IST2147I message displays as TEST-IN-PROGRESS, this message displays the local and the remote IP addresses being used to conduct the EE connectivity test. The first occurrence of this message displays the local IP address. The second occurrence of this message displays the remote IP address.

- In the message text:

***type***

Indicates which IP address is being displayed. The *type* value is either LOCAL or REMOTE.

***ip\_address***

The IP address.

### **IST1909I**

- This message is displayed in the IST2147I message subgroup when a remote host name filter is specified on the DISPLAY EE or DISPLAY EEDIAG command.
- In the message text:

***value***

The host name supplied to the name-to-address function, which is used to acquire the remote IP address. The remote IP address is then used in the processing of the display command. If the host name is longer than 44 characters, then the first 44 characters are displayed as the *value* value and the remaining characters are displayed in one or more IST1911I messages.

### **IST1910I**

- This message is displayed in the IST2147I message subgroup when a local host name filter is specified on the DISPLAY EE or DISPLAY EEDIAG command.
- In the message text:

***value***

The host name supplied to the name-to-address function, which is used to acquire the local IP address. The local IP address is then used in the processing of the display command. If the host name is longer than 45 characters, then the first 45 characters are displayed as the *value* value and the remaining characters are displayed in one or more IST1911I messages.

### **IST1911I**

- In the message text:

***value***

The continuation of the *value* value on messages IST1909I and IST1910I. Message IST1911I is repeated as many times as necessary to display the entire character string.

### **IST2067I**

The *date* and *time* values specify when the DISPLAY EEDIAG command was issued. The first occurrence of this message in the output is when the DISPLAY EEDIAG,TEST=PENDING command was issued. All subsequent occurrences represent the date and time when the pending DISPLAY EEDIAG commands were issued. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

### **IST2146I**

The *date* and *time* values specify when the pending DISPLAY EE command was issued. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

### **IST2147I**

- This is the first message of various message subgroups. These subgroup are repeated for each Enterprise Extender display command that is pending host name resolution or EE connectivity test results. A complete description of the message groups headed by this message follows.
- The following message group is issued for each DISPLAY EE command pending host name resolution:

```
IST2147I CORRELATOR: correlator LINE: linename STATUS: status
IST2146I EE DISPLAY ISSUED ON date AT time
[IST1680I type IP ADDRESS ip_address]
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
[IST1680I type IP ADDRESS ip_address]
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
```

- The following message group is issued for each DISPLAY EEDIAG command pending host name resolution:

```
IST2147I CORRELATOR: correlator LINE: linename STATUS: status
IST2067I EEDIAG DISPLAY ISSUED ON date AT time
[IST1680I type IP ADDRESS ip_address]
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
[IST1680I type IP ADDRESS ip_address]
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
```

- The following message group is issued for each DISPLAY EEDIAG,TEST=YES command that is pending EE connectivity test results:

```
IST2147I CORRELATOR: correlator LINE: linename STATUS: status
IST2148I EE CONNECTIVITY TEST REACHES MAXTIME ON date AT time
IST1680I type IP ADDRESS ip_address
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
IST1680I type IP ADDRESS ip_address
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
```

- In the message text:

***correlator***

A unique display correlator associated with the pending DISPLAY EE or DISPLAY EEDIAG command. This correlator can be used to locate the various message groups associated with these display commands.

***linename***

The name of the Enterprise Extender line that VTAM is using to perform an Enterprise Extender connectivity test. If the pending EE display command is not associated with an EE connectivity test, or the EE connectivity test has not selected a line, the *linename* value might be displayed as \*\*\*NA\*\*\*.

***status***

The current status of the pending Enterprise Extender display command. Possible values are:

**PGAIN - LOC/REM**

The Enterprise Extender display command that was issued is waiting for host name resolution to complete for both a local and remote HOSTNAME filter.

**PGAIN - LOCAL**

The Enterprise Extender display command that was issued is waiting for host name resolution to complete for a local HOSTNAME filter.

**PGAIN - REMOTE**

The Enterprise Extender display command that was issued is waiting for host name resolution to complete for a remote HOSTNAME filter.

**Result:** The PGAIN states can vary in duration depending on how long it takes for the resolver to resolve the host name, or for the request to fail (timeout using resolver configuration definitions).

**TEST-IN-PROGRESS**

The Enterprise Extender connectivity test command entered is currently testing the specified EE connection. The results of the test are displayed when the test completes, or when the time allowed for the test exceeds the MAXTIME value. See [IST2148I](#) for the date and time the connectivity test expires.

**IST2148I**

This message displays the estimated date and time when the DISPLAY EEDIAG,TEST=YES command is due to expire. The estimated date and time are calculated by adding the MAXTIME value to the time when VTAM invokes the TCP/IP stack to perform the EE connectivity test. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

**IST2149I**

- In the message text:

***count***

The number of pending EE correlators displayed in the output.

**total**

The total number of EE correlators that are pending either host name resolution or EE connectivity test results. The total might be larger than the displayed count because the number of EE correlators displayed is governed by the MAX parameter.

**System action**

Processing continues.

**Operator response**

If there are many Enterprise Extender display requests that are pending for host name resolution results, and they are not completing in a timely manner, investigate the TCP/IP stack providing the name-to-address resolution support to discover why these requests are not completing sooner.

**System programmer response**

None

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

**Example**

None.

---

**IST2146I****EE DISPLAY ISSUED ON *date* AT *time*****Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=PENDING command. The first message in this message group is [IST2145I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2147I****CORRELATOR:** *correlator* **LINE:** *linename* **STATUS:** *status*

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=PENDING command. The first message in this message group is [IST2145I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2148I****EE CONNECTIVITY TEST REACHES MAXTIME ON** *date* **AT** *time*

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=PENDING command. The first message in this message group is [IST2145I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2149I****count OF total CORRELATORS DISPLAYED**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=PENDING command. The first message in this message group is [IST2145I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2150I****VIRTUAL NODE** *vrn\_name* **- count UNREACHABLE PARTNERS**

---

# Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=UNRCHTIM command. The first message in the group is [IST2057I](#). See the explanation of that message for a complete description.

# Routing code

2

# Descriptor code

5

IST2151I	PARTNER LIMIT EXCEEDED - UNUSABLE UNTIL COUNT IS BELOW <i>lowerlim</i>
----------	---

# Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=UNRCHTIM command. The first message in the group is [IST2057I](#). See the description of that message for more information.

# Routing code

2

# Descriptor code

5

IST2152I	MODIFY TOPO COMMAND FAILED
----------	----------------------------

# Explanation

This message is the first in a group of messages that VTAM issues when a MODIFY TOPO command fails. A complete description of the message group follows the example.

```
IST2152I  MODIFY TOPO COMMAND FAILED
[IST2153I  ORIG, VRN, OR DEST OPERAND REQUIRED]
IST314I   END
```

# IST2153I

This message is issued when the MODIFY TOPO,FUNCTION=CLRUNRCH operator command is entered without specifying at least one of the ORIG, VRN, or DEST operands.

# System action

The topology database is not changed. Other processing continues.

# Operator response

Re-enter the command with at least one of the ORIG, VRN, and DEST operands specified. See [z/OS Communications Server: SNA Operation](#) for more information about VTAM commands and their operands.

# System programmer response

None

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

**Example**

None.

---

<b>IST2153I</b>	<b>ORIG, VRN, OR DEST OPERAND REQUIRED</b>
-----------------	--

**Explanation**

VTAM issues this message as part of a group of messages in response to a MODIFY TOPO,FUNCTION=CLRNRCH command failure. The first message in the group is [IST2152I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IST2154I</b>	<b>ROUTE SELECTION TRACE IS ACTIVE - BFRNUM = <i>number_of_buffers</i></b>
-----------------	--

**Explanation**

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TRACES,TYPE=ROUTE
- MODIFY TRACE,TYPE=ROUTE
- MODIFY TRACE,TYPE=ROUTE,BFRNUM=*number\_of\_buffers*

A complete description of the message group follows the example.

```
[IST350I DISPLAY TYPE = TRACES,TYPE=ROUTE]
IST2154I ROUTE SELECTION TRACE IS ACTIVE - BFRNUM = number_of_buffers
```

```
IST2156I STORAGE ALLOCATED TO ROUTE SELECTION TRACE = storage_amount
IST314I  END
```

### IST350I

This message is issued in response to a DISPLAY TRACES,TYPE=ROUTE command. It identifies the type of information in the display and is always TRACES , TYPE=ROUTE for this message group.

### IST2154I

- This message is issued to indicate that the APPN route selection trace is active.
- In the message text:

#### ***number\_of\_buffers***

The maximum number of 40 KB buffers to be allocated for the APPN route selection trace table.

- See the [MODIFY TRACE command information in z/OS Communications Server: SNA Operation](#) and the [APPN route selection trace information in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information about the APPN route selection trace.

### IST2156I

- In the message text:

#### ***storage\_amount***

The total number of bytes that is currently allocated to the APPN route selection trace table. This value is in the form xxxxxK, where K is a unit of measure in units of 1024 bytes. Storage for the APPN route selection trace is not all allocated when the trace is activated, but is allocated in 40 K buffers as it is needed. If all of the storage allowed for the APPN route selection trace is not yet allocated, then the *storage\_amount* value is less than 40 K multiplied by the *number\_of\_buffers* value displayed in message IST2154I. For example, if the *number\_of\_buffers* value in message IST2154I is 100 and only 50 buffers are currently allocated, then the *storage\_amount* value is 2000 K.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.



## Routing code

2

## Descriptor code

5

## Example

```
IST350I DISPLAY TYPE = TRACES,TYPE=ROUTE  
IST2154I ROUTE SELECTION TRACE IS ACTIVE - BFRNUM = 100  
IST2156I STORAGE ALLOCATED TO ROUTE SELECTION TRACE = 2000K  
IST314I END
```

---

**IST2155I****ROUTE SELECTION TRACE IS INACTIVE**

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TRACES,TYPE=ROUTE
- MODIFY NOTRACE,TYPE=ROUTE

A complete description of the message group follows the example.

```
[IST350I DISPLAY TYPE = TRACES,TYPE=ROUTE]  
IST2155I ROUTE SELECTION TRACE IS INACTIVE  
IST2156I STORAGE ALLOCATED TO ROUTE SELECTION TRACE = storage_amount  
IST314I END
```

### IST350I

This message is issued in response to a DISPLAY TRACES,TYPE=ROUTE command. It identifies the type of information in the display and is always TRACES , TYPE=ROUTE for this message group.

### IST2155I

This message is issued to indicate that the APPN route selection trace is inactive.

### IST2156I

- In the message text:

#### ***storage\_amount***

The total number of bytes that is currently allocated to the APPN route selection trace table. This value is in the form xxxxxK, where K is a unit of measure in units of 1024 bytes.

## System action

Processing continues.

## Operator response

The APPN route selection trace is used to diagnose the selection of incorrect routes through the APPN network for LU-LU sessions and for directed searches used to locate resources. If you have captured the documentation needed for diagnosis by dumping VTAM, you can free the APPN route selection trace storage with the MODIFY NOTRACE,TYPE=ROUTE,FREE=YES command.

See the [MODIFY NOTRACE command in z/OS Communications Server: SNA Operation](#) and the [APPN route selection trace in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information about the APPN route selection trace.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

```
IST350I DISPLAY TYPE = TRACES,TYPE=ROUTE
IST2155I ROUTE SELECTION TRACE IS INACTIVE
ST2156I STORAGE ALLOCATED TO ROUTE SELECTION TRACE = 20000K
IST314I  END
```

---

<b>IST2156I</b>	<b>STORAGE ALLOCATED TO ROUTE SELECTION TRACE = <i>storage_amount</i></b>
-----------------	---

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TRACES,TYPE=ROUTE
- MODIFY TRACE,TYPE=ROUTE
- MODIFY NOTRACE,TYPE=ROUTE

See [IST2154I](#) or [IST2155I](#) for a complete description of the message group.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2157I****ALIASRCH = searchoption**

## Explanation

This message is part of a group of messages that VTAM issues in response to the following commands:

- DISPLAY ID=*adjcpname* command; see [IST1100I](#) for a complete description of this message group.
- DISPLAY ADJCP command; see [IST1101I](#) and [IST1197I](#) for a complete description of possible message groups.

## Routing code

2

## Descriptor code

5

---

**IST2158I****VTAM HAS JOINED THE SYSPLEX GROUP *groupname***

## Explanation

This message is issued when VTAM joins a sysplex group. VTAM will communicate with other VTAM nodes in the sysplex that join the same group.

In the message text:

***groupname***

The name of the sysplex group that VTAM joined.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

4

## Example

None.

---

**IST2159I** **XCF GROUP: xcfgroup CFS GROUP: cfsgroup**

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID=VTAM command. It displays the sysplex groups that this VTAM has joined.

In the message text:

### ***xcfgroup***

The name of the sysplex group that VTAM joined for dynamic XCF connectivity.

### ***cfsgroup***

The name of the sysplex group that VTAM joined for Coupling Facility Services (CFS) communication.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

None.

---

**IST2160I** *command FAILED : ULP IS USING TRLE **nodename***

---

## Explanation

This message is issued by VTAM when a VARY INACT command for a TRLE major node is rejected because the resource specified by the *nodename* value is being used by at least one Upper-layer Protocol (ULP). For some TRLEs, more than one ULP might be using the TRLE.

- For TCP/IP ULPs, ULP is a job name.
- For ANNC ULPs, ULP is a SNA PU.
- For EE ULPs, ULP is an XCA major node name.

In the message text:

### **nodename**

A TRLE in the TRL major node. If a network-qualified name was entered on the command line, VTAM issues the *nodename* value in the form netid.name.

### **command**

The VARY INACT,ID=*trl\_major\_node\_name* command. See [Chapter 16, “Command and RU types in VTAM messages,” on page 1683](#) for a description of *command*.

## System action

VTAM rejects the command.

## Operator response

Issue the DISPLAY ID=*nodename* command to display the TRLE identified in the message. This display includes message IST1715I to indicate whether there can be one or more ULPs. See [IST1715I](#) for more information. The display might also include message IST1717I to identify the ULPs. See [IST1717I](#) for more information. After finding and inactivating the ULPs, issue the command again.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2161I****BLOCKED TIME = *btime***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY CONVID command. The first message in the group is [IST1040I](#). See the explanation of that message for a complete description.

## Routing code

8

## Descriptor code

5

---

**IST2162I****INCONSISTENT UNRCHTIM VALUES DEFINED FOR *vrn\_name***

## Explanation

An additional TG was activated to a virtual node that already had active TGs. The UNRCHTIM value associated with the additional TG was different from the UNRCHTIM value associated with the first TG that was activated to the virtual node. When different UNRCHTIM values are defined for TGs to the same virtual node, the UNRCHTIM value of the first TG to be activated is used.

In the message text:

***vrn\_name***

The name of the virtual node.

## System action

The UNRCHTIM value configured for the additional TG to the connection network is ignored. The UNRCHTIM value for the connection network continues to be the value configured for the first TG activated to the connection network.

## Operator response

Contact the system programmer.

## System programmer response

Update all PORT and GROUP statements in the EE XCA major node that are associated with the virtual node specified by the *vrn\_name* value so that they all have the same UNRCHTIM value.

## User response

Not applicable.

## Problem determination

Not applicable.

## Routing code

2

## Descriptor code

5

## Example

None.

---

**IST2163I REBUILD FOR STRUCTURE *structure* STOPPED**

---

## Explanation

VTAM issues this message when it is stopping the rebuild of the coupling facility structure for any of the following reasons:

- Lost connection to new structure
- Lost connection to original structure
- Structure failure

This message is the first of a group of messages. A description of the message group follows.

```
IST2163I REBUILD FOR STRUCTURE structure STOPPED
[IST2164I FAILURE REASON - LOST CONNECTION TO NEW STRUCTURE]
[IST2165I FAILURE REASON - LOST CONNECTION TO ORIGINAL STRUCTURE]
[IST2166I FAILURE REASON - STRUCTURE FAILURE]
IST314I END
```

### IST2163I

- In the message text:

#### ***structure***

The name of the coupling facility structure.

### IST2164I

The rebuild failed because VTAM lost connectivity to the new structure.

### IST2165I

The rebuild failed because VTAM lost connectivity to the original structure.

### IST2166I

The rebuild failed because VTAM received a Structure Failure Event in the Coupling Facility Event Exit. The coupling facility detected a problem.

## System action

### IST2164I

VTAM continues to use the original structure. Processing continues.

### IST2165I

As long as one VTAM in the group is connected to the original structure, rebuild continues from the connected VTAM. Processing continues on the new structure for the VTAM that lost connectivity to the original structure.

### IST2166I

The structure rebuild stops. VTAM might continue with a local repopulation of the new structure or continue processing on the original structure depending on which structure failed.

## Operator response

### IST2164I

Save the system log for problem determination. Use the VARY CFS command to connect VTAM to the new structure when the problem is corrected. See the [VARY CFS command](#) in [z/OS Communications Server: SNA Operation](#) for a description of the VARY CFS command. If you cannot resolve the problem, contact the system programmer.

### IST2165I

Save the system log for problem determination. If you cannot resolve the problem, contact the system programmer.

### IST2166I

Save the system log for problem determination. Make sure that all VTAMs in the sysplex have connectivity to the coupling facility. You can try a rebuild again by issuing the SETXCF START, REBUILD command. See the [SETXCF command](#) in [z/OS MVS System Commands](#) for a description of the SETXCF command.

## System programmer response

Review the system log for problem determination.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text”](#) on page 5 for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

None.

---

### IST2164I

**FAILURE REASON - LOST CONNECTION TO NEW STRUCTURE**

## Explanation

This message is part of a group of messages issued when a coupling facility structure rebuild fails. The first message in the group is [IST2163I](#). See the explanation of that message for a complete description.



## Routing code

2

## Descriptor code

5

---

<b>IST2165I</b>	<b>FAILURE REASON - LOST CONNECTION TO ORIGINAL STRUCTURE</b>
-----------------	---

---

## Explanation

This message is part of a group of messages issued when a coupling facility structure rebuild fails. The first message in the group is [IST2163I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2166I</b>	<b>FAILURE REASON - STRUCTURE FAILURE</b>
-----------------	---

---

## Explanation

This message is part of a group of messages issued when a coupling facility structure rebuild fails. The first message in the group is [IST2163I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2167I</b>	<b>DISCONNECT REASON - OPERATOR COMMAND</b>
-----------------	---

---

## Explanation

This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2168I</b>	<b>DISCONNECT REASON - NORMAL DISCONNECT</b>
-----------------	--

---

## Explanation

This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2169I****FAILURE REASON - SUBTASK ABEND**

---

## Explanation

This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2170I****DISCONNECT REASON - VTAM HALTING**

---

## Explanation

This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2171I****FAILURE REASON - LOST CONNECTIVITY**

---

## Explanation

This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2172I****FAILURE REASON - STRUCTURE TYPE NOT VALID**

---

## Explanation

This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2173I</b>	<b>FAILURE REASON - INTERNAL COUPLING FACILITY STRUCTURE ERROR</b>
-----------------	--

---

## Explanation

This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2174I</b>	<b>FAILURE REASON - CONNECTION NAME NOT VALID</b>
-----------------	---

---

## Explanation

This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2175I</b>	<b>FAILURE REASON - PROCESS TIMED OUT</b>
-----------------	---

---

## Explanation

This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2176I</b>	<b>FAILURE REASON - MVS EVENT</b>
-----------------	-----------------------------------

---

## Explanation

This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2177I****FAILURE REASON - UNSUPPORTED COUPLING FACILITY LEVEL**

---

## Explanation

This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2178I****RPNCB ADDRESS = *rpnch\_addr***

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a PU type 2.1 that represents a rapid transport protocol (RTP) route.

This message identifies the node control block that represents the PU being displayed.

In the message text:

***rpnch\_addr***

The hexadecimal address of the node control block.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2179I NO DIAL-OUT LINE FOUND FOR SWITCHED PU *puname***

---

## Explanation

This message is issued in response to an Enterprise Extender dial failure. A switched connection cannot be established because no Enterprise Extender line is available for the PU name specified by the *puname* value.

## System action

The process that initiated the dial fails.

## Operator response

Issue the D NET,PATHS,ID=*puname* command to examine the EE XCA major node group associated with the local static VIPA address. If any EE lines are defined but currently not active, issue the V NET,ACT,ID=*groupname*,SCOPE=ALL command to activate these lines, then reissue the process that failed. If no lines are available, contact the system programmer.

## System programmer response

Update the EE XCA major node to define additional lines on which to dial out in one of the following ways:

- If you defined a new group with additional lines, you can dynamically activate a new group in the EE XCA major node by issuing the V NET,ACT,ID=*eexcamajornode*,UPDATE=ADD command.
- If you defined additional lines to an existing group, activating the new lines might be disruptive to existing EE connections. If this is acceptable, you can perform one of the following actions to activate the newly defined lines:
  - To dynamically update an EE XCA major node group, deactivate all existing lines in the modified group. Issue the V NET,INACT,ID=*eegroupname*,F command to deactivate these lines. When the EE group is inactive, you can issue the V NET,ACT,ID=*eegroupname*,UPDATE=ADD command to dynamically update the group.
  - Issue a V NET,INACT,ID=*eexcamajornode*,F command to deactivate Enterprise Extender, then issue a V NET,ACT,ID=*eegroupname*,SCOPE=ALL command to activate your modified Enterprise Extender definitions.

When the lines are defined and activated, instruct the operator to reissue the process that generated the dial.

See [z/OS Communications Server: SNA Resource Definition Reference](#) for information about defining EE connections and [z/OS Communications Server: SNA Network Implementation Guide](#) for general information about Enterprise Extender.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2180I**

**DYNLU = *dynlu\_value* FOR *adjacent\_node* SET FROM *source***

---

## Explanation

VTAM issues this message when the DYNLU value associated with an adjacent node is set. DYNLU specifies whether cross-domain resources (CDRSCs) using adjacent link stations (ALS) attached to the adjacent node can be defined dynamically. The DYNLU value for an adjacent node will be set from one of the following:

- The DYNLU keyword on the corresponding ADJCP definition statement in a predefined adjacent control point (ADJCP) major node.
- The CDRSC keyword on the corresponding CDRM definition statement in a cross-domain resource manager (CDRM) major node, when the first connection activated to the adjacent node is a virtual route transmission group (VRTG).
- The DYNLU keyword, if specified, on the first PU used to establish a connection from this node to the adjacent node, when the first connection activated to the adjacent node is not a VRTG.
- The DYNLU start option if the DYNLU value is not obtained elsewhere.

The DYNLU value is associated with an adjacent APPN node when the first link to that adjacent node is activated. When the DYNLU value is associated with the adjacent node, that value will be propagated to all APPN links to the adjacent node as they are activated, regardless of the DYNLU value specified for each link. See the DYNLU Combinations table in the description of the adjacent control point major node DYNLU operand in [z/OS Communications Server: SNA Resource Definition Reference](#) for information about how to determine the source of the DYNLU value assigned to an adjacent CP and attached resources.

In the message text:

### ***dynlu\_value***

The DYNLU value associated with the adjacent node, *adjacent\_node*, which will be propagated to all resources attached to the adjacent node. The *dynlu\_value* value can be one of the following:

#### **YES**

Specifies that dynamic definition of CDRSCs is allowed for sessions to or through this adjacent node. You are not required to predefine resources that use adjacent link stations attached to the node indicated by the *adjacent\_node* value.

#### **NO**

Specifies that dynamic definition of CDRSCs is not allowed for sessions to or through this adjacent node. You must predefine resources that use adjacent link stations attached to the node indicated by the

*adjacent\_node* value. If you do not predefine the resources, session requests for sessions with the node indicated by the *adjacent\_node* value will fail with sense code 08970015 or 08970016.

See [sense code 08970015](#) or [sense code 08970016](#) in *z/OS Communications Server: IP and SNA Codes* for more information.

***adjacent\_node***

The network-qualified CP name of the adjacent node.

***source***

The source of the DYNLU value being associated with the *adjacent\_node*. Possible values are:

**ADJCP**

Specifies that the DYNLU value associated with the adjacent node, which will be propagated to all resources that attach to that adjacent node, was learned from a predefined ADJCP definition statement in an ADJCP major node.

**CDRM**

Specifies that the DYNLU value associated with the adjacent node, which will be propagated to all resources that attach to that adjacent node, was learned from the CDRSC keyword on a predefined CDRM definition statement for that adjacent node in a CDRM major node. The DYNLU value is learned from a CDRM definition statement when the first connection activated to that adjacent node is a VRTG.

***puname***

The name of the first PU that connects to the adjacent node value, when no predefined ADJCP exists for that adjacent node, or a predefined ADJCP without DYNLU specified exists for the adjacent node. If a DYNLU value is specified on the PU definition for the PU specified by the *puname* value, it is the source of the DYNLU value being associated with the adjacent node. Otherwise, the DYNLU start option value is associated with the adjacent node and set in the PU.

**System action**

Processing continues.

**Operator response**

If message IST663I is received following this message indicating that session requests for sessions with *adjacent\_node* fail with sense code 08970015 or 08970016, contact the system programmer. Otherwise, none. See [sense code 08970015](#) or [sense code 08970016](#) in *z/OS Communications Server: IP and SNA Codes* for more information.

**Programmer response**

If the DYNLU value for the adjacent node is not the setting that you want, do the following to reset the value for this adjacent node:

1. If an ADJCP major node exists with an ADJCP definition for the adjacent node, without DYNLU specified or with DYNLU specified with the incorrect value, first deactivate the ADJCP major node.
2. To ensure predictable results, you should code the desired DYNLU value on the ADJCP definition statement for the adjacent node in an ADJCP major node. See the [adjacent control point major node information in z/OS Communications Server: SNA Resource Definition Reference](#) for more information about coding an ADJCP.
3. Deactivate all PU connections, VRTG (CDRM) connections, and the CP-CP sessions to the adjacent node.
4. Enter a `DISPLAY NET,RTPS,CPNAME=adjacent_node` and make sure there are no RTPs active to the adjacent node. If active RTPs to the adjacent node exist, they must be deactivated. See the [DISPLAY RTPS command in z/OS Communications Server: SNA Operation](#) for more information about this command.
5. Activate the ADJCP major node.
6. Reactivate the desired PU connections, VRTG (CDRM) connections, and the CP-CP sessions to *adjacent\_node*.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

6

---

<b>IST2181I</b>	<i>struct_type</i> <b>STRUCTURE NAME IS</b> <i>struct_name</i>
-----------------	--

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY ID=VTAM command. It displays the name of the MNPS or Generic Resource structure that will be accessed by this VTAM node.

In the message text:

### ***struct\_type***

The type of structure to be accessed. The *struct\_type* value is one of the following:

#### **GR**

Indicates that the structure is for Generic Resources

#### **MNPS**

Indicates that the structure is for MultiNode Persistent Sessions

### ***struct\_name***

The name of the structure to be accessed, including the subplex group ID (specified with the XCFGRPID start option).

## System action

Processing Continues

## Operator response

None.

## System programmer response

None.

## User response

None.

## Problem determination

Not applicable.



## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

See the displaying the host (this command works for any host) information in [z/OS Communications Server: SNA Operation](#) for an example. This display shows an interchange node

---

<b>IST2182I</b>	<b>UNRCHTIM = <i>unrchtim</i></b>
-----------------	-----------------------------------

---

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY ID command that is displaying either an Extended Communications Adapter (XCA) major node that defines Enterprise Extender or a GROUP in an Enterprise Extender XCA major node. This message is issued when the UNRCHTIM operand was specified on the PORT or GROUP definition statement that defines a VRN in the XCA major node.

In the message text:

### ***unrchtim***

Indicates what was specified for the UNRCHTIM operand on the PORT or GROUP definition statement that defines the VRN. On a network node, it is the value in seconds specified for the UNRCHTIM operand. On an end node, it is NO when a zero value was specified for the UNRCHTIM operand or YES when a non-zero value was specified for the UNRCHTIM operand. See [UNRCHTIM in z/OS Communications Server: SNA Resource Definition Reference](#) for information about the UNRCHTIM parameter on the PORT and GROUP definition statements.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.



## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is [“IST1230I” on page 691](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2186I THIS PATH WILL NOT BE SELECTED FOR UNRCHTIM SECONDS**

---

## Explanation

VTAM issues this message as part of a group of messages when a dial failure or a connection INOP occurs on an end node for a connection over an Enterprise Extender Virtual Routing Node (VRN) to a specific partner node. The first message in the group is [IST1903I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2187I XCF SEND FAILURE ON TRLE *trlename* MESSAGE TYPE: *type***

---

## Explanation

This message is the first message in a group of messages that VTAM issues when an XCF Message Out (IXCMSGO) operation fails for a specific XCF connection. This message group is issued to provide the return code and reason code set by the MVS cross-system coupling facility (XCF).

A complete description of the message group follows the example.

```
IST2187I XCF SEND FAILURE ON TRLE trlename MESSAGE TYPE: type
IST1684I RETURN CODE = return_value REASON CODE = errno
IST314I END
```

### IST1684I

This message provides the return code and reason code set by the MVS cross-system coupling facility (XCF) in response to an XCF Message Out (IXCMSGO) invocation.

In the message text:

#### ***return\_value***

The hexadecimal return code returned by the MVS cross-system coupling facility (XCF) in response to the IXCMSGO invocation.

#### ***errno***

The hexadecimal reason code returned by the MVS cross-system coupling facility (XCF) in response to the IXCMSGO invocation.

See [z/OS MVS Programming: Sysplex Services Reference](#) for the codes specific to the IXCMSGO invocation.

### IST2187I

In the message text:

**trlename**

The name of the XCF TRLE. This name displays as \*\*\*NA\*\*\* if it is unavailable at the time of the failure.

**type**

The specific XCF message type that VTAM was attempting to send to the partner XCF node when the XCF Message Out operation failed. The message type can be one of the following:

Message type	Activity
DATA	Normal data operation
DISC	Disconnect signal
HELLO	Activation signal
INACT	Inactivation signal
INOP	Inoperative signal
KEEPALIVE	KeepAlive signal
PACING	XCF Pacing signal
XID	XID activation signal

**System action**

VTAM deactivates the XCF connection because of the inoperative condition. VTAM automatically attempts to re-establish connectivity with the XCF partner.

**Operator response**

Save the console log for problem determination. Contact the system programmer.

**System programmer response**

Determine whether the partner node is overloaded or involved in an activity that will prevent the XCF Message Out operation from completing successfully. See [z/OS MVS Programming: Sysplex Services Reference](#) for the codes specific to the IXCMGO invocation failure. If the XCF Message Out operation failures are unexpected and persistent, take a dump of both nodes at the next occurrence, then contact IBM support.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

## Descriptor code

5

## Example

```
IST2187I XCF SEND FAILURE ON TRLE ISTT0201 MESSAGE TYPE: DATA
IST1684I RETURN CODE = 0000000C REASON CODE = 00000004
IST314I END
```

### IST2188I

### LDLC TIMER OPERANDS ON GROUP *groupname2* IGNORED

## Explanation

This is the first message of a message group. VTAM issues this message when the first line of the EE XCA major node GROUP definition statement is activated, and all of the following conditions are true:

- At least one other EE XCA major node GROUP definition statement that specified the same local static VIPA address (IPADDR) or the same domain name (HOSTNAME) keyword was previously activated.
- One or more of the LDLC timer operands (LIVTIME, SRQRETRY, or SRQTIME) associated with this GROUP definition statement differ from those associated with the other GROUP definition statement.

When this error condition occurs, the LDLC timer keyword values for a local static VIPA are set by the first group that is activated. The LDLC timer operands values specified on all other groups with the same local static VIPA address are ignored.

This message is the first message of the following message group:

```
IST2188I LDLC TIMER OPERANDS ON GROUP groupname2 IGNORED
IST2189I LDLC TIMER OPERANDS ALREADY SET BY groupname1
IST1680I type IP ADDRESS ip_address
IST2004I LIVTIME = (init_value,max_value) SRQTIME = srqtime SRQRETRY = srqretry
IST314I END
```

### IST1680I

- This message displays the IP address.
- In the message text:

#### ***type***

The value is always LOCAL for this message group.

#### ***ip\_address***

The IP address associated with the group being activated.

### IST2004I

- This message displays the LDLC timer operands that are associated with the local static VIPA address displayed in message IST1680I. These values differ from those specified on the group being activated. See the [external communication adapter \(XCA\) major node information in z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the LIVTIME operand for Enterprise Extender.
- In the message text:

#### ***init\_value***

The initial duration, in seconds, of an Enterprise Extender logical data link control (LDLC) liveness timer interval.

#### ***max\_value***

The maximum duration, in seconds, of an Enterprise Extender LDLC liveness timer interval.

#### ***srqtime***

The duration, in seconds, of the Enterprise Extender LDLC short request timer interval. The short request timer interval represents the amount of time the LDLC layer waits, without receipt of a response from the connection partner, before sending the LDLC signal again.

***srqretry***

The number of times the short request timer is tried again before the Enterprise Extender port becomes inoperative.

**IST2188I**

- In the message text:

***groupname2***

The group that has a first line that was activated after the first line of another group with the same IP address. The LDLC timer operands specified on this group are ignored.

**IST2189I**

- In the message text:

***groupname1***

The group whose first line that was activated before the other groups with the same IP address. The LDLC timer operands specified on this GROUP definition statement or sifted down from PORT definition statement are set for the group specified by the *groupname2* value in message IST2188I and its associated lines.

**System action**

Processing continues. The LDLC timer operands were set previously and the new values are ignored.

**Operator response**

Save the system log for problem determination and contact the system programmer.

**System programmer response**

To avoid this error, specify the same values on all groups with the same local VIPA address.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

## Example

```
IST2188I LDLC TIMER OPERANDS ON GROUP GP1A2A IGNORED
IST2189I LDLC TIMER OPERANDS ALREADY SET BY GROUP GP1A2A1
IST1680I LOCAL IP ADDRESS 9.1.1.1
IST2004I LIVTIME = (10,20) SRQTIME = 15 SRQRETRY = 3
IST314I END
```

---

**IST2189I** **LDLC TIMER OPERANDS ALREADY SET BY GROUP** *groupname1*

---

## Explanation

VTAM issues this message as a part of a group of messages when it activates the group and it ignores the LDLC timer operands either coded on the GROUP definition statement or sifted down from the PORT definition statement. The first message in this message group is [IST2188I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2190I** **DEVICEID PARAMETER FOR OSAENTA TRACE COMMAND =** *deviceid*

---

## Explanation

VTAM issues this message as part of a message subgroup. The first message in the group is [“IST1221I”](#) on [page 674](#). See the explanation of that message for a complete description of the subgroup.

## Routing code

2

## Descriptor code

5

---

**IST2191I** **HPR PATH SWITCH SUMMARY FROM** *date AT time*

---

## Explanation

VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. This message is the first in a group of messages. The message group displays summary information about path switch events that occurred during the current HPR path switch message reduction interval. The full description of the message group follows the example.

```
IST2191I HPR PATH SWITCH SUMMARY FROM date AT time
IST2192I STARTED = started
IST2193I TGINOP = tginop SRQTIMER = srqtimer PSRETRY = psretry
IST2194I PARTNER = partner MNPS = mnps UNAVAILABLE = unavailable
IST2336I STALLED = stalled
IST2195I NETWORK = network HIGH = high MEDIUM = medium LOW = low
IST924I -----
IST2196I COMPLETED = completed
IST2195I NETWORK = network HIGH = high MEDIUM = medium LOW = low
IST924I -----
IST2197I FAILED = failed
IST2195I NETWORK = network HIGH = high MEDIUM = medium LOW = low
IST924I -----
IST2198I NETID STARTED COMPLETED FAILED
IST2199I CPNAME NET HI MED LOW NET HI MED LOW NET HI MED LOW
```

```

IST2205I -----
IST2200I netid      snn snh snm snl   cnn cnh cnm cnl   fnn fnh fnm fnl
IST2201I cpname     scn sch scm scl   ccn cch ccm ccl   fcn fch fcm fcl
[IST2205I ----- ]
[IST2200I netid      snn snh snm snl   cnn cnh cnm cnl   fnn fnh fnm fnl ]
[IST2201I cpname     scn sch scm scl   ccn cch ccm ccl   fcn fch fcm fcl ]
IST924I -----
IST2206I events PATH SWITCH EVENTS FOR cps CPS in netids NETIDS
IST314I END

```

## IST924I

This message is a line separator between various sections of the HPR path switch summary.

## IST2191I

The *date* and *time* values specify when the HPR path switch event interval was started. The information displayed in this message summary is valid from this date and time. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

## IST2192I

In the message text:

### **started**

The total number of RTP pipes that entered path switch.

This is the first message of a subgroup of messages. The complete message subgroup follows:

```

IST2192I STARTED   = started
IST2193I TGINOP    = tginop  SRQTIMER = srqtimer PSRETRY   = psretry
IST2194I PARTNER   = partner MNPS      = mnps    UNAVAILABLE = unavailable
IST2336I STALLED   = stalled
IST2195I NETWORK   = network HIGH = high  MEDIUM = medium  LOW = low

```

Messages IST2193I, IST2194I and IST2336I identify the various path switch reasons, along with the number of RTP pipes that entered path switch for each of these reasons. Message IST2195I lists the number of RTP pipes that entered path switch by priority.

### **Results:**

- The *started* value is the sum of the path switch reason counts that are listed in messages IST2193I, IST2194I and IST2336I.
- The *started* value is the sum of the RTP pipe priority counts listed in the message IST2195I in this message subgroup.
- Usually, the HPR path switch started count is the sum of the associated HPR path switch completed and failed counts. The associated HPR path switch completed or failed counts might be listed in this same display, or they might be associated with subsequent HPR path switch summary displays because of different HPRPST time values assigned to each priority. If the partner path switch started reason listed in message IST2194I is a nonzero value, it is possible that the associated HPR path switch completed or failed counts might not add up to the path switch started count. When both RTP partners initiate a path switch at approximately the same time, the started count might display higher by the value listed in the partner field of message IST2194I. This can cause two path switch started events in which only one completes successfully or unsuccessfully.

## IST2193I

In the message text:

### **tginop**

The number of RTP pipes that entered path switch because an inoperative condition occurred on the physical TG. See [IST1819I](#) for a complete description of this path switch reason.

### **srqtimer**

The number of RTP pipes that entered path switch because the short request retry limit was exhausted. See [IST1818I](#) for a complete description of this path switch reason.

### **psretry**

The number of RTP pipes that entered path switch because of the PSRETRY function. See [IST1821I](#) for a complete description of this path switch reason.



## IST2194I

In the message text:

### ***partner***

The number of RTP pipes that entered path switch because the partner initiated path switch. See [IST1937I](#) for a complete description of this path switch reason.

### ***mnps***

The number of RTP pipes that entered path switch because of the recovery of an MNPS application. See [IST2239I](#) for a complete description of this path switch reason."

### ***unavailable***

The number of RTP pipes that entered path switch because either the underlying physical connection or the RTP pipe itself is not suitable for RTP traffic. See [IST1817I](#) for a complete description of this path switch reason.

## IST2195I

This message is included in various message subgroups headed by message IST2192I, IST2196I, or IST2197I. See the description of those messages for a complete description.

In the message text:

### ***network***

The number of network priority RTP pipes that started, successfully completed, or failed to path switch.

### ***high***

The number of high priority RTP pipes that started, successfully completed, or failed to path switch.

### ***medium***

The number of medium priority RTP pipes that started, successfully completed, or failed to path switch.

### ***low***

The number of low priority RTP pipes that started, successfully completed, or failed to path switch.

## IST2196I

In the message text:

### ***completed***

The total number of RTP pipes that successfully completed a path switch.

This is the first message of a subgroup of messages. The complete message subgroup follows:

```
IST2196I COMPLETED = completed
IST2195I NETWORK = network HIGH = high MEDIUM = medium LOW = low
```

Message IST2195I lists the number of RTP pipes by priority that successfully completed a path switch.

### **Results:**

- The *completed* value is the sum of the RTP pipe priority counts listed in the message IST2195I in this message subgroup.
- Usually, the HPR path switch started count is the sum of the associated HPR path switch completed and failed counts. The associated HPR path switch completed or failed counts might be listed in this same display, or they might be associated with subsequent HPR path switch summary displays because of different HPRPST time values assigned to each priority. If the partner path switch started reason listed in message IST2194I is a nonzero value, it is possible that the associated HPR path switch completed or failed counts might not add up to the path switch started count. When both RTP partners initiate a path switch at approximately the same time, the started count might display higher by the value listed in the partner field of message IST2194I. This might cause two path switch started events in which only one completes successfully or unsuccessfully.

## IST2197I

In the message text:

### ***failed***

The total number of RTP pipes that failed to path switch.

This is the first message of a subgroup of messages. The complete message subgroup follows:

```
IST2197I FAILED      = failed
IST2195I  NETWORK    = network  HIGH = high  MEDIUM = medium  LOW = low
```

Message IST2195I lists the number of RTP pipes by priority that failed to path switch.

#### Results:

- The *failed* value is the sum of the RTP pipe priority counts listed in message IST2195I in this message subgroup.
- Usually, the HPR path switch started count is the sum of the associated HPR path switch completed and failed counts. The associated HPR path switch completed or failed counts might be listed in this same display, or they might be associated with subsequent HPR path switch summary displays because of different HPRPST time values assigned to each priority. If the partner path switch started reason listed in message IST2194I is a nonzero value, it is possible that the associated HPR path switch completed or failed counts might not add up to the path switch started count. When both RTP partners initiate a path switch at approximately the same time, the started count might display higher by the value listed in the partner field of message IST2194I. This might cause two path switch started events in which only one completes successfully or unsuccessfully.

#### IST2198I

This message is the first of two header messages for the information displayed in messages IST2200I and IST2201I.

#### IST2199I

This message is the second of two header messages for the information displayed in messages IST2200I and IST2201I.

#### IST2200I

This is the first message of a subgroup of messages. One IST2200I message is issued for each partner NETID affected by the reported HPR path switch events. This message subgroup provides HPR path switch information unique to the reported NETID. This message subgroup can be issued for up to 10 partner NETIDs.

The complete message subgroup follows the example.

```
IST2200I netid      snn snh snm snl  cnn cnh cnm cnl  fnn fnh fnm fnl
[IST2201I  cpname   scn sch scm scl  ccn cch ccm ccl  fc n fch fcm fcl]
```

In the message text:

#### **netid**

The name of the partner NETID.

#### Results:

- Usually, the NETID-specific HPR path switch counts are the sum of CP-specific counts reported in the associated IST2201I messages. However, when the HPR path switch events are associated with more than 50 partner CPs, the NETID-specific counts might report higher values than the sum of the CP-specific counts.
- If any of the reported counts display as 999, this indicates that at least 999 RTP pipes started, successfully completed, or failed to path switch.

The following describes the contents of the STARTED, COMPLETED and FAILED columns under message IST2196I:

#### • **STARTED:**

The *snn* value is the total number of network-priority RTP pipes that entered path switch.

The *snh* value is the total number of high-priority RTP pipes that entered path switch.

The *snm* value is the total number of medium-priority RTP pipes that entered path switch.

The *snl* value is the total number of low-priority RTP pipes that entered path switch.

#### • **COMPLETED:**

The *cnn* value is the total number of network-priority RTP pipes that successfully completed path switch.

The *cnh* value is the total number of high-priority RTP pipes that successfully completed path switch.

The *cnm* value is the total number of medium-priority RTP pipes that successfully completed path switch.

The *cnl* value is the total number of low-priority RTP pipes that successfully completed path switch.

- **FAILED:**

The *fnn* value is the total number of network-priority RTP pipes that failed to path switch.

The *fnh* value is the total number of high-priority RTP pipes that failed to path switch.

The *fnm* value is the total number of medium-priority RTP pipes that failed to path switch.

The *fnl* value is the total number of low-priority RTP pipes that failed to path switch.

## **IST2201I**

This message is included in a message group headed by message IST2200I. One IST2201I message is issued for each partner CP affected by the reported HPR path switch events. The IST2200I message preceding this message identifies the NETID of this partner CP. This message provides HPR path switch information unique to this partner CP. This message subgroup can be issued for up to 50 partner CPs in 10 NETIDs.

In the message text:

### ***cpname***

The name of the partner CP.

### **Results:**

- If any of the reported counts display as 999, it indicates that at least 999 RTP pipes started, successfully completed, or failed to path switch.

The following describes the contents of the STARTED, COMPLETED and FAILED columns under message IST2196I:

- **STARTED:**

The *scn* value is the total number of network-priority RTP pipes that entered path switch.

The *sch* value is the total number of high-priority RTP pipes that entered path switch.

The *scm* value is the total number of medium-priority RTP pipes that entered path switch.

The *scl* value is the total number of low-priority RTP pipes that entered path switch.

- **COMPLETED:**

The *ccn* value is the total number of network-priority RTP pipes that successfully completed path switch.

The *cch* value is the total number of high-priority RTP pipes that successfully completed path switch.

The *ccm* value is the total number of medium-priority RTP pipes that successfully completed path switch.

The *ccl* value is the total number of low-priority RTP pipes that successfully completed path switch.

- **FAILED:**

The *fcn* value is the total number of network-priority RTP pipes that failed to path switch.

The *fch* value is the total number of high-priority RTP pipes that failed to path switch.

The *fcu* value is the total number of medium-priority RTP pipes that failed to path switch.

The *fcl* value is the total number of low-priority RTP pipes that failed to path switch.

## **IST2205I**

This message is a line separator between various sections of the HPR path switch summary.

## **IST2206I**

In the message text:

### ***events***

The sum of the values displayed as started, completed, and failed in messages IST2192I, IST2196I and IST2197I, respectively.

### ***cps***

The total number of RTP partner CPs affected by the reported HPR path switch events. If the *cps* value displays > 50, more than 50 partner CPs were associated with the reported HPR path switch events.

***netids***

The total number of partner NETIDs affected by the reported HPR path switch events. If the *netids* value displays > 10, more than 10 partner NETIDs were associated with the reported HPR path switch events.

**IST2336I**

In the message text:

***stalled***

The number of RTP pipes that entered path switch because VTAM entered the transmit (XMIT) stalled state. An XMIT stall condition occurs after VTAM retransmits an NLP for the sixth time and at least 10 seconds has elapsed since the NLP was first retransmitted.

**System action**

Processing continues.

**Operator response**

Save the system log for problem determination and contact the system programmer.

**System programmer response**

Review the system log associated with the HPR path switch events. The IST2191I message group is being issued as part of the HPR path switch message reduction function. Obtain the date and time from message IST2191I to identify the beginning of the current HPR path switch message reduction interval. Review the system log generated near this date and time to locate other relevant information that might identify the reason for the HPR path switch activity (for example, INOPs or ABENDs).

**User response**

Not applicable.

**Problem determination**

See the System Programmer Response.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

**Example**

```
IST2191I HPR PATH SWITCH SUMMARY FROM 03/21/06 AT 09:45:14
IST924I  -----
IST2192I STARTED = 20
```

```

IST2193I  TGINOP = 20 SRQTIMER = 0 PSRETRY = 0
IST2194I  PARTNER = 0 MNPS = 0 UNAVAILABLE = 0
IST2336I  STALLED = 0
IST2195I  NETWORK = 5 HIGH = 5 MEDIUM = 5 LOW = 5
IST924I  -----
IST2196I  COMPLETED = 20
IST2195I  NETWORK = 5 HIGH = 5 MEDIUM = 5 LOW = 5
IST924I  -----
IST2197I  FAILED = 0
IST2195I  NETWORK = 0 HIGH = 0 MEDIUM = 0 LOW = 0
IST924I  -----
IST2198I  NETID STARTED COMPLETED FAILED
IST2199I  CPNAME NET HI MED LOW NET HI MED LOW NET HI MED LOW
IST2205I  -----
IST2200I  NETA 5 5 5 5 5 5 5 5 0 0 0 0
IST2201I  SSCP7A 1 1 1 1 1 1 1 1 0 0 0 0
IST2201I  SSCP3A 1 1 1 1 1 1 1 1 0 0 0 0
IST2201I  SSCP7B 1 1 1 1 1 1 1 1 0 0 0 0
IST2201I  SSCP2AB 1 1 1 1 1 1 1 1 0 0 0 0
IST2201I  SSCP99 1 1 1 1 1 1 1 1 0 0 0 0
IST924I  -----
IST2206I  40 PATH SWITCH EVENTS FOR 5 CPS IN 1 NETIDS
IST314I  END

```

---

**IST2192I** **STARTED = *started***

### Explanation

VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is [IST2191I](#). See the explanation of that message for a complete description.

### Routing code

2

### Descriptor code

5

---

**IST2193I** **TGINOP = *tginop* SRQTIMER = *srqtimer* PSRETRY = *psretry***

### Explanation

VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is [IST2191I](#). See the explanation of that message for a complete description.

### Routing code

2

### Descriptor code

5

---

**IST2194I** **PARTNER = *partner* MNPS = *mnps* UNAVAILABLE = *unavailable***

### Explanation

VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is [IST2191I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2195I**

**NETWORK = *network* HIGH = *high* MEDIUM = *medium* LOW = *low***

---

## Explanation

VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is [IST2191I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2196I**

**COMPLETED = *completed***

---

## Explanation

VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is [IST2191I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2197I**

**FAILED = *failed***

---

## Explanation

VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is [IST2191I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2198I**

**NETID STARTED COMPLETED FAILED**

---

## Explanation

VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is [IST2191I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2199I</b>	<b>CPNAME NET HI MED LOW NET HI MED LOW NET HI MED LOW</b>
-----------------	--

---

## Explanation

VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is [IST2191I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2200I</b>	<b><i>netid snn snh snm snl cnn cnh cnm cnl fnn fnh fnm fnl</i></b>
-----------------	---

---

## Explanation

VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is [IST2191I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2201I</b>	<b><i>cpname scn sch scm scl ccn cch ccm ccl fcn fch fcm fcl</i></b>
-----------------	--

---

## Explanation

VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is [IST2191I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2202I****GREXIT = *grexit* WLM = *wlm* LOCLU = *loclu***

---

## Explanation

This message is part of a subgroup of messages that is issued in the following situations:

- In response to a D NET,ID=*name*,IDTYPE=GENERIC command. The first message in this message group is [IST1359I](#). See the explanation of that message for a complete description.
- In response to a D NET,GRPREFS command. See the explanation of [IST2210I](#) for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST2203I****CHARACTER SET *Char\_Set* - CODE PAGE *Code\_Page***

---

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY TSOUSER command for an application, CDRSC, or LU resource. This message contains the character set and code page values in use for this TSO user. The value \*NA\* indicates that character set and code page values were not available when the session was initiated or CODEPAGE=NO is specified in TSOKEY00. A character set and code page combination is commonly referred to as a coded graphic character set global identifier (CGCSGID) . The CGCSGID values are documented in the *3174 Character Set Reference GA27-3831*.

In the message text:

### ***Char\_Set***

The hexadecimal value of the Character Set.

### ***Code\_Page***

The hexadecimal value of the Code Page.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.



## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on [page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

```
IST097I DISPLAY ACCEPTED
IST075I NAME = USER1, TYPE = TSO USERID
IST486I STATUS= ACTIV, DESIRED STATE= N/A
IST576I TSO TRACE = OFF
IST262I ACBNAME = TS00001, STATUS = ACT/S
IST262I LUNAME = TCPM1011, STATUS = ACT/S----Y
IST1727I DNS NAME: ASDF127.TCP.YOURCITY.YOURNAME.COM
IST1669I IPADDR..PORT 2001:0DB8::1234..1027
IST2203I CHARACTER SET 0065 - CODE PAGE 0025
IST314I END
```

---

**IST2204I****LOCAPPL = *locappl* PASSOLU = *passolu***

## Explanation

This message is part of a subgroup of messages that is issued in the following situations:

- In response to a D NET,ID=*name*,IDTYPE=GENERIC command. The first message in this message group is [IST1359I](#). See the explanation of that message for a complete description.
- In response to a D NET,GRPREFS command. See the explanation of [IST2210I](#) for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST2205I*****dashed\_line***

## Explanation

This message is a line separator and is part of several different message groups. It is used to improve readability or to separate types of information. See the explanation of the first message in the group for an example of how this message is used in each group.

## Routing code

2

## Descriptor code

5

---

**IST2206I** *events* PATH SWITCH EVENTS FOR *cps* CPS in *netids* NETIDS

---

## Explanation

VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is [IST2191I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2207I** *table* TABLE FOR *netid*

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ADJCLUST command. A complete description of the message group follows the example.

```
IST350I  DISPLAY TYPE = ADJACENT CLUSTER TABLE
IST2207I  table TABLE FOR netid
[IST2208I  sc_option = sc_value FROM START OPTION]
[IST2209I  sc_option = sc_value FROM ADJCLUST TABLE]
IST1326I  CP NAME      TYPE      STATE  STATUS  SNVC
IST1327I  cpname      type      state  status  snvc
:
IST314I  END
```

The IST2207I subgroup is repeated for each target network.

### IST350I

This message identifies the type of information shown in the display. The DISPLAY TYPE value is always ADJACENT CLUSTER TABLE for this message group.

### IST2207I

- In the message text:

#### *table*

The type of table being displayed. The *table* values depend on the extent to which you have defined entries for the adjacent cluster table. Possible values are:

#### **DEFINED**

The user defined entries for the specified NETID in the adjacent cluster table.

#### **DEFAULT**

The user did not define any entries for the displayed NETID, but a DEFAULT\_NETID entry was defined.

#### **DYNAMIC**

The user did not define any entries for the displayed NETID, no default table was coded, but dynamics are allowed (BNDYN=FULL or BNDYN=LIMITED).

#### *netid*

The network identifier of the network that the search is targeting. The default is DEFAULT\_NETID. VTAM uses DEFAULT\_NETID if the NETID operand is omitted from the network definition statement. See the [adjacent cluster routing definitions information in z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the network definition statement.

## IST2208I or IST2209I

- In the message text:

### ***sc\_option***

A search control option associated with the search being displayed. Possible values are: BNORD and BNDYN. When VTAM is enabled as a border node, both search control options are displayed. Either message IST2208I or IST2209I is issued for each search control option displayed.

### ***sc\_value***

The value of the search control option associated with the table being displayed. When the option is BNORD, possible values are: PRIORITY and DEFINED. When the option is BNDYN, possible values are: NONE, LIMITED and FULL. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of the values.

## IST1326I and IST1327I

- These messages provide status information about the border nodes that can be used to reach the target network.
- In the message text:

### ***cpname***

The network-qualified name of the border node in the form *netid.name*.

### ***type***

The type of CP being displayed. Possible values are: DEFINED or DYNAMIC.

- If the *table* value in message IST2207I is DEFINED or DEFAULT, then the *type* value is either DEFINED or DYNAMIC.
- If the *table* value in message IST2207I is DYNAMIC, then the *type* value can be only DYNAMIC.

### ***state***

The current state of the border node. Possible values are: ACTIVE, NOT ACTIVE, or OMITTED.

### ***status***

The result of the most recent search for this particular border node. Possible values are: FOUND, NOT FOUND, or NOT SEARCHED.

### ***snvc***

The APPN topology subnetwork visit count. The *snvc* value indicates the maximum number of subnetworks that can be crossed while attempting to locate the target resource. An APPN topology subnetwork is a collection of nodes that share the same topology database.

- Message IST1327I is repeated for each border node that exists in the adjacent cluster table.

## System action

Processing continues.

## Operator response

No action needed.

## System programmer response

No action needed.

## User response

No action needed.

## Problem determination

Not applicable.

# Source

z/OS Communications Server SNA

# Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on [page 5](#) for more information about the MSGMOD start option.

# Routing code

2

# Descriptor code

5

# Example

```
d net,adjclust,netid=neta
IST097I DISPLAY ACCEPTED
IST350I DISPLAY TYPE = ADJACENT CLUSTER TABLE
IST2207I DEFINED TABLE FOR NETA
IST2208I BNDYN = FULL FROM START OPTION
IST2209I BNORD = PRIORITY FROM ADJCLUST TABLE
IST1326I CP NAME          TYPE      STATE      STATUS      SNVC
IST1327I NETA.BN3         DEFINED  ACTIVE      FOUND        003
IST1327I NETA.BN2         DEFINED  NOT ACTIVE  NOT SEARCHED 003
IST1327I NETA.BN1         DYNAMIC ACTIVE    NOT SEARCHED N/A
IST314I END
```

---

**IST2208I** *sc\_option = sc\_value FROM START OPTION*

# Explanation

This message is displayed as part of several message groups. These message groups begin with [IST2207I](#) or [IST663I](#). See the explanations of these messages for a complete description.

# Routing code

2

# Descriptor code

5

---

**IST2209I** *sc\_option = sc\_value FROM ADJCLUST TABLE*

# Explanation

This message is displayed as part of several message groups. These message groups begin with [IST2207I](#) or [IST663I](#). See the explanations of these messages for a complete description.

# Routing code

2

# Descriptor code

5

## Explanation

This message is part of a group of messages that VTAM issues in the following situations:

- In response to a D NET,ID=*name*,IDTYPE=GENERIC command. The first message in this message group is IST1359I. See the explanation of that message for a complete description.
- In response to a D NET,GRPREFS command.

A complete description of the message group follows.

```
D NET,GRPREFS

IST075I NAME = GRPREF03, TYPE = GR PREFERENCES
IST924I -----
IST2210I GR PREFERENCE TABLE ENTRY = **DEFAULT**
IST2202I GREXIT   = NO      WLM       = YES      LOCLU    = YES
IST2204I LOCAPPL  = YES      PASSOLU  = NO
IST924I -----
IST2210I GR PREFERENCE TABLE ENTRY = APPLGR
IST2202I GREXIT   = NO      WLM       = YES      LOCLU    = NO
IST2204I LOCAPPL  = NO      PASSOLU  = YES
IST314I END
```

### IST075I

- This message identifies the type of information in the display. The type is always GR PREFERENCES for this message group.
- In the message text:

#### ***tablename***

The name of the Generic Resources Preferences Table that is displayed. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for more information.

### IST350I

This message identifies the type of information in the display and is always GR PREFERENCES TABLE for this message group.

### IST924I

This message is a line separator between subgroups.

### IST2202I

- This message lists the generic resource preferences for GREXIT, WLM, and LOCLU.
- In the message text:

#### ***grexit***

Indicates whether the Generic Resource exit is called during generic resource resolution. Valid values are:

#### **YES**

The Generic Resource exit is called during generic resource resolution.

#### **NO**

The Generic Resource exit is not called during generic resource resolution.

#### ***wlm***

Indicates whether the MVS Workload Manager is called during generic resource resolution. Valid values are:

#### **YES**

The MVS Workload Manager is called during generic resource resolution.

#### **NO**

The MVS Workload Manager is not called during generic resource resolution.

***loclu***

Indicates whether generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host prefers generic resource instances on this host. Valid values are:

**YES**

Generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host prefers generic resource instances on this host.

**NO**

Generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host does not prefer generic resource instances on this host.

**IST2204I**

- This message lists the generic resource preferences for LOCAPPL and PASSOLU.
- In the message text:

***locappl***

Indicates whether generic resource resolution for sessions initiated from an application on this host prefers generic resource instances on this host. Valid values are:

**YES**

Generic resource resolution for sessions initiated from an application on this host prefers generic resource instances on this host.

**NO**

Generic resource resolution for sessions initiated from an application on this host does not prefer generic resource instances on this host.

***passolu***

Indicates whether generic resource resolution for third-party-initiated (CLSDST PASS) sessions prefers generic resource instances located on the OLU host. Valid values are:

**YES**

Generic resource resolution for third-party-initiated (CLSDST PASS) sessions prefers generic resource instances located on the OLU host.

**NO**

Generic resource resolution for third-party-initiated (CLSDST PASS) sessions does not prefer generic resource instances located on the OLU host.

**IST2210I**

- This message is the first line of a subgroup. This message is a header message for messages IST2202I and IST2204I. One subgroup is issued for either the VTAM or nameless default generic resource preferences and each named entry in the Generic Resource Preferences Table.
- In the message text:

***entryname***

The name of the Generic Resource Preferences Table entry that defines the subsequent GR preferences. Valid values are:

**\*\*DEFAULT\*\***

The VTAM default generic resource preferences.

**\*\*NAMELESS\*\***

The defined nameless Generic Resource Preferences Table entry that identifies the default generic resource preferences.

***entryname***

The defined name of the Generic Resource Preferences Table entry. This name also corresponds to the generic resource to which the generic resource preferences apply.

# System action

Processing continues.

# Operator response

See the [z/OS Communications Server: SNA Operation](#) for more information about the Generic Resource Preference Table.

# System programmer response

None.

# User response

None.

# Problem determination

None.

# Source

z/OS Communications Server SNA

# Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

# Routing code

2

# Descriptor code

5

# Example

```
D NET,GRPREFS
IST075I NAME = GRPREF03, TYPE = GR PREFERENCES
IST924I -----
IST2210I GR PREFERENCE TABLE ENTRY = **DEFAULT**
IST2202I GREXIT   = NO      WLM      = YES      LOCLU    = YES
IST2204I LOCAPPL  = YES      PASSOLU  = NO
IST924I -----
IST2210I GR PREFERENCE TABLE ENTRY = APPLGR
IST2202I GREXIT   = NO      WLM      = YES      LOCLU    = NO
IST2204I LOCAPPL  = NO      PASSOLU  = YES
IST314I END
```

**IST2211I** **ACK QUEUE MAX**

# Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST2212I*****ackqmax***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST2213I****LAST BACKPRESSURE APPLIED ON *date* AT *time***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST2214I****BACKPRESSURE REASON: PATHSWITCH**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST2215I****BACKPRESSURE REASON: SEND QUEUE MAXIMUM REACHED**



## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST2216I</b>	<b>BACKPRESSURE REASON: STORAGE FAILURE</b>
-----------------	---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST2217I</b>	<b>BACKPRESSURE REASON: STALLED PIPE</b>
-----------------	--

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

<b>IST2218I</b>	<b>BACKPRESSURE REASON: WAITING-FOR-ACK QUEUE MAXIMUM REACHED</b>
-----------------	---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

**IST2219I**

***resource* ACTIVATION WAITING FOR MINIMUM NUMBER OF DEVICES**

---

## Explanation

This message is issued during the activation of a Multipath Channel (MPC) group because VTAM could not allocate at least one read device and one write device.

In the message text:

### ***resource***

The name of the TRLE or MPC subarea line that defines the MPC group.

VTAM also issues this message as part of a message group in response to the following:

- A DISPLAY ID command for an MPC line or a transport resource list entry (TRLE).
- A DISPLAY TRL command for an active TRL entry.

See [“IST1221I” on page 674](#) for a description of those displays.

## System action

Activation of the MPC group is suspended until either the minimum required number of devices comes online or the MPC group is deactivated. In the former case, message IST2220I is issued to signal that activation of the MPC group has resumed.

## Operator response

Issue the D NET,ID=*resource*,E command. If message IST2219I does not appear in the display output, no further response is needed. Otherwise, review all of the IST1221I messages that contained in the display that have the *chtyp* value WRITE or READ. For each *chtyp* value that lacks a subchannel with the *system\_state* value ONLINE, make at least one of those subchannels in the offline system state available. See [“IST1221I” on page 674](#) for more information about the *chtyp* value.

Issue the MVS VARY ONLINE command to make a subchannel available. If the result indicates that the channel is already online, then ensure that a valid path to the connecting host exists.

When the minimum required number of subchannels is available, VTAM automatically allocates the devices and resumes activation of the MPC group.

## System programmer response

If you do not want automatic recovery of MPC group activations, modify the MPCACT start option to a value of NOWAIT to enable you to try the activation of MPC groups again manually; this message will no longer appear.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

```
V NET,ACT,ID=MPCLN1,E
IST097I VARY ACCEPTED
IST2219I MPCLN1 ACTIVATION WAITING FOR MINIMUM NUMBER OF DEVICES
:
D NET,ID=MPCLN1,E
IST097I DISPLAY ACCEPTED
IST075I NAME = MPCLN1, TYPE = LINE
:
IST2219I MPCLN1 ACTIVATION WAITING FOR MINIMUM NUMBER OF DEVICES
:
IST314I END
```

---

**IST2220I*****resource* ACTIVATION RESUMING - ONLINE DEVICES DETECTED**

## Explanation

This message is issued during activation of a Multipath Channel (MPC) that had previously been suspended because VTAM could not allocate at least one read device and one write device. When the minimum required number of devices comes online, this message is issued to signal that activation of the MPC group has automatically resumed.

In the message text:

### ***resource***

The name of the TRLE or MPC subarea line that defines the MPC group.

## System action

Activation of the MPC group resumes.

## Operator response

Not applicable.

## System programmer response

If you do not want automatic recovery of MPC group activations, modify the MPCACT start option to a value of NOWAIT to enable you to try activation of MPC groups again manually; this message will no longer appear.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

```
V NET,ACT,ID=MPCLN1,E
IST097I VARY ACCEPTED
IST2219I MPCLN1 ACTIVATION WAITING FOR MINIMUM NUMBER OF DEVICES
:
IST2220I MPCLN1 ACTIVATION RESUMING - ONLINE DEVICES DETECTED
```

---

**IST2221I** **EXPLICITBINDPORTRANGE - START: *begin\_port* END: *end\_port***

## Explanation

This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is [IST1370I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2222I** **QDIOSYNC CAPTURE INITIATED FOR TRLE *trlename***

## Explanation

VTAM issues this message immediately after a capture signal has been sent to an armed OSA-Express2 or later adapter. The OSA-Express2 or later adapter is expected to capture its diagnostic data by creating a console log on the service element (SE).

In the message text:

### ***trlename***

The name of the OSA-Express2 or later adapter, as defined on the TRLE definition statement in the TRL major node.

## System action

Processing continues.

## Operator response

Contact system programmer.

## System programmer response

Use the timestamp of the message to correlate with the OSA-Express2 or later documentation (console logs) on the SE. Collect the diagnostic data from the SE and contact IBM OSA system support services.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

```
IST2222I QDIOSYNC CAPTURE INITIATED FOR TRLE NSQDI011
```

---

<b>IST2223I</b>	<b>QDIOSYNC STATE ARMED FOR TRLE <i>trlename</i> AT TIME OF INOP</b>
-----------------	--

## Explanation

VTAM issues this message when an OSA-Express2 or later adapter enters an inoperative condition and that adapter is armed for QDIOSYNC. IST2223I always follows [IST2222I](#). The OSA-Express2 or later adapter is expected to capture its diagnostic data by creating a console log on the service element (SE).

In the message text:

### ***trlename***

The name of the OSA-Express2 or later adapter, as defined on the TRLE definition statement in the TRL major node.

## System action

Processing continues.

## Operator response

Contact system programmer.

## System programmer response

Use the timestamp of the VTAM INOP messages to correlate with the OSA-Express2 or later documentation (console logs) on the SE. Collect the diagnostic data from the SE and contact IBM OSA system support services.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

```
IST2223I QDIOSYNC STATE ARMED FOR TRLE NSQDI011 AT TIME OF INOP
```

---

**IST2224I****ENTERPRISE EXTENDER ROUTING POLICY INFORMATION**

## Explanation

VTAM issues this message as part of a group in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is [IST2130I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2225I****PORT ROUTE TABLE ROUTING RULE**

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is [IST2130I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST2226I** *port route\_table routing\_rule*

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is [IST2130I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST2227I** **CONNECTIVITY NOT TESTED - ROUTE NOT APPLICABLE PORT:** *port*

**Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is [IST2130I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST2229I** **REFIFO TIMER =** *refifo* **MILLISECONDS**

**Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

**Routing code**

2

**Descriptor code**

5

---

**IST2230I****MAXIMUM NUMBER OF NLPS ON OUT-OF-SEQUENCE QUEUE =**  
*maxoutofsequence***Explanation**

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

**Routing code**

2

**Descriptor code**

5

---

**IST2231I****CURRENT HPR CLOCK RATE =** *current***Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.

**Descriptor code**

2

---

**IST2232I****HPR CLOCK RATE LAST SET TO HIGH ON** *date AT time***Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST2233I****HPR CLOCK RATE LAST EXITED HIGH ON** *date AT time***Explanation**

VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST2234I****MESSAGE TRIGGER: TCPNAME =** *tcpjobname*



## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. See [IST1871I](#) for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST2235I** **REMOTE DUMP FOR XCF LINK INOP: *remote\_dump***

---

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. See [IST1871I](#) for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST2236I** **LAST NLP RETRANSMITTED ON *date* AT *time***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST2237I** ***puname* CURRENTLY REPRESENTS A LIMITED RESOURCE**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. See [IST1476I](#) for a complete description of the message group.

## Routing code

2

## Descriptor code

5

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a switched PU type 2 or 2.1.

In the message text:

### ***discntval***

The DISCNT value coded on the PU statement for the PU being displayed. This operand specifies when VTAM should terminate its SSCP-LU and SSCP-PU sessions and whether to indicate final-use status in the DACTPU request unit when it deactivates a PU.

### ***finalval***

The associated final-use setting:

- If F is coded as part of the DISCNT operand, the *finalval* value is FINAL.
- If NF is coded as part of the DISCNT operand, the *finalval* value is NOT FINAL.
- If the final-use setting is not applicable, the *finalval* value is \*NA\*.

The associated delay time setting, if applicable, is displayed in message [IST1392I](#). See the description of that message for more information.

See the [DISCNT parameter](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

```
IST2238I DISCNT = DELAY - FINAL USE = NOT FINAL
```

---

**IST2239I** **PATH SWITCH REASON: MNPS ENDPOINT RECOVERY**

## Explanation

This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either [IST1494I](#) or [IST1968I](#). See the description of those messages for more information.

## Routing code

2

## Descriptor code

5

---

**IST2240I** **SENSE TRIGGER: TCPNAME = *tcpjobname***

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. See [IST1871I](#) for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IST2241I** **TIME ISL**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tgn command. See [IST1299I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2242I** **SIGMCNTO = *sigmcnto* SIGMCNT = *sigmcnt***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is “IST1230I” on page 691. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2243I****CP-CP SESSION WITH *cp\_name* ENDING DUE TO MAXLOCAT**

---

## Explanation

This unsolicited message is issued when VTAM initiates the inactivation of the CP-CP session with an adjacent control point (CP) because the number of queued requests plus the number of queued replies to the adjacent CP exceeds 200% of the MAXLOCAT value after a minimum time interval elapsed.

Before VTAM issues this message, it issues message [IST1601I](#) to indicate that it suspended routing to the adjacent node because of severe network congestion and that VTAM ceased sending APPN search requests to the adjacent CP. Although VTAM suspends sending APPN search requests to an adjacent CP, it continues to queue APPN search replies to the adjacent CP.

For information about the minimum and maximum congestion thresholds or the minimum time interval, see the [MAXLOCAT start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).

In the message text:

### ***cp\_name***

The name of the adjacent CP.

## System action

VTAM deactivates the CP-CP session to the adjacent CP with sense code 80030004 and tries the CP-CP session again.

## Operator response

Notify the system programmer about the adjacent CP and monitor the adjacent CP to verify that the CP-CP session is recovered. The following sequence of messages related to the adjacent CP indicates that the CP-CP session has recovered:

```
IST2243I CP-CP SESSION WITH cp_name ENDING DUE TO MAXLOCAT
.....
IST1097I CP-CP SESSION WITH cp_name TERMINATED
IST1280I SESSION TYPE = CONWINNER - SENSE = 80030004
IST314I END
IST1097I CP-CP SESSION WITH cp_name TERMINATED
IST1280I SESSION TYPE = CONLOSER - SENSE = 80030004
IST314I END
...
IST1096I CP-CP SESSIONS WITH cp_name ACTIVATED
```

## System programmer response

Determine whether there are network connectivity problems between this node and the adjacent CP and, if possible, correct the problems. If connectivity is not a problem, determine whether the maximum threshold value is appropriate for the network. If the value needs to be adjusted, change the value of the MAXLOCAT start option.

## User response

Not applicable.

## Problem determination

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

4

## Automation

Not applicable.

## Example

```
IST2243I CP-CP SESSION WITH NETA.SSCP2A ENDING DUE TO MAXLOCAT
```

---

**IST2244I****HPRDIAG DISPLAY ISSUED ON *date* AT *time***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command. This message is issued when both HPRDIAG=YES is specified and when the value of the ID parameter is a PU type 2.1 that represents a Rapid Transport Protocol (RTP) pipe.

The *date* and *time* values specify when this DISPLAY ID command was issued. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

None.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2244I HPRDIAG DISPLAY ISSUED ON 03/30/07 AT 10:30:19
```

---

**IST2245I** **XMIT STALL DETECTED FOR RTP *puname* TO *cpname***

---

## Explanation

This unsolicited message is issued when HPR detects a transmission stall for an RTP pipe. A transmission stall occurs when the RTP partner continuously requests transmission of the same network layer packet (NLP). VTAM honors the request each time by transmitting the NLP, but the partner does not receive it. This message is issued after VTAM retransmits the NLP for the sixth time and at least 4-10 seconds has elapsed since the NLP was first retransmitted.

In the message text:

### ***puname***

The name of the HPR PU.

### ***cpname***

The name of the CP at the other end of the pipe.

## System action

When a specific NLP is retransmitted 6 times without being acknowledged by the RTP partner, and at least 10 seconds has elapsed since the NLP was first retransmitted, VTAM notifies the operator with this message. The system actions vary depending on whether the RTP pipe traverses an Enterprise Extender (EE) link.

- If the RTP pipe traverses EE, VTAM provides RTP transmission stall recovery support. If the RTP connection is multiple hops with at least one refifo connection, an HPR path switch is started. If the RTP connection is one

hop over EE or an EE connection network, the RTP endpoint immediately lowers its NLP size to the minimum 768 bytes allowed by the HPR architecture. All outbound data is then re-segmented to this value to resolve the transmission stall. If the stall persists, VTAM issues message IST2246I every 30 seconds until the stall is alleviated. If a path switch was initiated to alleviate the stall and the stall persists, VTAM lowers the NLP size to 768 bytes when message IST2246I is issued. If the stall is alleviated, VTAM issues message IST2247I and normal data flow resumes. After 20 minutes of operating with the reduced NLP size, the original NLP size of the RTP pipe is restored to increase RTP throughput. If the network still does not allow transport of the larger packets, the stall detection and alleviation process repeats.

- If the RTP pipe does not traverse EE, VTAM does not provide RTP transmission stall recovery support. In these configurations, the maximum NLP size is calculated for the path when the RTP pipe is established. The underlying NLP size for the RTP path should not change during the life of the RTP pipe, unless a path switch occurs. VTAM alerts the operator of a transmission stall and continues to honor the retransmission requests sent by the RTP partner. If the stall persists, VTAM issues message IST2246I every 30 seconds until the stall is alleviated. If the stall is alleviated, VTAM issues message IST2247I and normal data flow resumes.

If the stall persists beyond the time limit specified by the HPRSTALL start option, VTAM automatically deactivates the RTP pipe. See the information about the [HPRSTALL start option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

## Operator response

Perform the following steps to alleviate the transmission stall:

1. If the RTP pipe traverses EE and the following conditions are true, verify that the firewalls are configured to allow ICMP errors to flow on all hops of the connection:
  - Path MTU discovery is enabled for either IPv4 or IPv6 EE connections. See the [PMTUD start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).
  - Firewalls are used in the configuration.

If the firewalls are not allowing ICMP errors to flow, this could be the cause of the transmission stall. Disable path MTU discovery for EE connections until the firewalls are configured to allow ICMP errors to flow:

- Issue the `MODIFY procname,VTAMOPTS,PMTUD=NO` command to temporarily disable path MTU discovery.
  - Contact the system programmer to permanently disable path MTU discovery for IPv4 and IPv6 EE connections.
2. If the transmission stall persists, consider ending the stalled sessions by issuing the `VARY net,INACT,ID=rtp_pu_name,TYPE=FORCE` command to deactivate the HPR PU. If you want VTAM to automatically end stalled RTP pipes after a specified amount of time, use the HPRSTALL start option. See the [HPRSTALL start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).

## System programmer response

If you want path MTU discovery for IPv4 and IPv6 Enterprise Extender connections to be permanently disabled, specify `PMTUD=NO` in the appropriate ATCSTRxx VTAM start list. If you want path MTU discovery for IPv4 and IPv6 Enterprise Extender connections to be enabled, ensure that all firewalls in the network path are configured to allow ICMP errors to flow.

## User response

Not applicable.

## Problem determination

If transmission stalls are prevalent and persistent, contact VTAM support for instructions about gathering documentation for problem determination.

- If you have access to IBMLink, search for known problems with similar symptoms.

- If no applicable matches are found, or if you do not have access to IBMLink, obtain a diagnostic dump for this error and report the problem to IBM. If you have access to IBMLink, the problem can be reported to IBM using the Electronic Technical Report (ETR) option on IBMLink.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

4

## Automation

Not applicable.

## Example

```
IST2245I XMIT STALL DETECTED FOR RTP CNR0002F TO NETA.SSCP1A
```

---

**IST2246I** **XMIT STALL CONTINUES FOR RTP puname TO cpname**

---

## Explanation

This unsolicited message is issued at 30 second intervals as long as data flow continues to be stalled for an RTP pipe.

In the message text:

### ***puname***

The name of the HPR PU.

### ***cpname***

The name of the CP at the other end of the pipe.

## System action

HPR continues to wait for the RTP partner to acknowledge receipt of the network layer packets (NLPs) identified as causing the transmission stall. When all of those NLPs are acknowledged, the transmission stall is considered alleviated and message IST2247I is issued.

## Operator response

Perform the following steps to alleviate the transmission stall:

1. If the RTP pipe traverses EE and the following conditions are true, verify that the firewalls are configured to allow ICMP errors to flow on all hops of the connection:
  - Path MTU discovery is enabled for either IPv4 or IPv6 EE connections. See the [PMTUD start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).



- Firewalls are used in the configuration.

If the firewalls are not allowing ICMP errors to flow, this could be the cause of the transmission stall. Disable path MTU discovery for EE connections until the firewalls are configured to allow ICMP errors to flow:

- Issue the `MODIFY procname,VTAMOPTS,PMTUD=NO` command to temporarily disable path MTU discovery.
  - Contact the system programmer to permanently disable path MTU discovery for IPv4 and IPv6 EE connections.
2. If the transmission stall persists, force an RTP path switch by issuing the `MODIFY procname,RTP,ID=rtp_pu_name` command.
  3. If the RTP path switch does not relieve the transmission stall, consider ending the stalled sessions by issuing the `VARY procname,INACT,ID=rtp_pu_name,TYPE=FORCE` command to deactivate the HPR PU. If you want VTAM to automatically end stalled RTP pipes after a specified amount of time, use the HPRSTALL start option. See the [HPRSTALL start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).

## System programmer response

If you want path MTU discovery for IPv4 and IPv6 Enterprise Extender connections permanently disabled, specify `PMTUD=NO` in the appropriate `ATCSTRxx` VTAM start list.

## User response

Not applicable.

## Problem determination

If transmission stalls are prevalent and persistent, contact VTAM support for instructions about gathering documentation for problem determination.

- If you have access to IBMLink, search for known problems with similar symptoms.
- If no applicable matches are found, or if you do not have access to IBMLink, obtain a diagnostic dump for this error and report the problem to IBM. If you have access to IBMLink, the problem can be reported to IBM using the Electronic Technical Report (ETR) option on IBMLink.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the `MSGMOD` start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the `MSGMOD` start option.

## Routing code

2

## Descriptor code

4

## Automation

Not applicable.

## Example

```
IST2246I XMIT STALL CONTINUES FOR RTP CNR0002F TO NETA.SSCP1A
```

---

**IST2247I****XMIT STALL ALLEVIATED FOR RTP *puname* TO *cpname***

---

## Explanation

This unsolicited message is issued when HPR detects that a transmission stall for an RTP pipe has been alleviated. The RTP pipe data flow is back to normal.

In the message text:

### ***puname***

The name of the HPR PU.

### ***cpname***

The name of the CP at the other end of the pipe.

## System action

The system action varies depending on whether the RTP pipe traverses an Enterprise Extender (EE) link.

If the RTP pipe traverses EE, after 20 minutes of normal operation with the reduced MTU size, the original NLP size of this RTP pipe is restored to increase RTP throughput. If the network still does not allow transport of the larger packets, the stall detection and alleviation process repeats.

If the RTP pipe does not traverse EE, processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

4

## Automation

Not applicable.

## Example

```
IST2247I XMIT STALL ALLEVIATED FOR RTP CNR0002F TO NETA.SSCP1A
```

---

### IST2248I

### ALL DIAGNOSTIC COUNTERS CLEARED FOR number RTP PIPES

## Explanation

VTAM issues this message in response to one of the following:

- A DISPLAY ID command for a Rapid Transport Protocol PU that specifies HPRDIAG=YES and CLEAR=ALL
- A DISPLAY RTPS command that specifies CLEAR=ALL

If the DISPLAY ID command was specified, this message is part of a group of messages that begins with message [IST1968I](#). If the DISPLAY RTPS command was specified with the REXMIT operand, this message is part of a group of messages that begins with message [IST1695I](#). See the explanations of those messages for complete descriptions.

If the DISPLAY RTPS command was specified without the REXMIT operand, this message is issued alone.

In the message text:

#### ***number***

The total number of RTP pipes whose diagnostic counters are cleared.

## System action

For the RTP pipes affected by the scope of the DISPLAY command, all associated diagnostic counters are cleared. Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

None.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2248I ALL DIAGNOSTIC COUNTERS CLEARED FOR 4 RTP PIPES
```

---

**IST2249I** **NLP RETRANSMIT RATE = percentage**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command. This message is issued when both HPRDIAG=YES is specified and when the value of the ID parameter is a PU type 2.1 that represents a Rapid Transport Protocol (RTP) pipe. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST2250I** **ALL DIAGNOSTIC COUNTERS CLEARED ON *date* AT *time***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command. This message is issued when both HPRDIAG=YES is specified and when the value of the ID parameter is a PU type 2.1 that represents a Rapid Transport Protocol (RTP) pipe. The first message in the group is [IST1968I](#). See the description of that message for more information.

## Routing code

2

## Descriptor code

5

---

**IST2251I** **AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID=*adjacent\_CP\_major\_node\_name* command or a DISPLAY ADJCP command.

- For a DISPLAY ID=*adjacent\_CP\_major\_node\_name* command, see the explanation of message [IST1100I](#) for a complete description of this message group.
- For a DISPLAY ADJCP command, see the explanation of message [IST1101I](#) and message [IST1197I](#) for a complete description of possible message groups.

## Routing code

2

## Descriptor code

5

---

**IST2252I** *netid [netid] [netid] [netid] [netid] [netid]*

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID=*adjacent\_CP\_major\_node\_name* command or a DISPLAY ADJCP command.

- For a DISPLAY ID=*adjacent\_CP\_major\_node\_name* command, see the explanation of message [IST1100I](#) for a complete description of this message group.
- For a DISPLAY ADJCP command, see the explanation of message [IST1101I](#) and message [IST1197I](#) for a complete description of possible message groups.

## Routing code

2

## Descriptor code

5

---

**IST2253I** **HPRSTALL TIME EXCEEDED FOR RTP *puname* TO *cpname***

## Explanation

This unsolicited message is issued when HPR has determined that an RTP pipe has encountered a stall condition that could not be alleviated in the time period specified by the HPRSTALL start option. The RTP pipe had been stalled for one of the following reasons:

- The partner RTP requested retransmission of at least one network layer packet (NLP), but the request could not be honored. This condition is known as a data flow stall.
- The partner RTP repeatedly requested transmission of the same NLP. This condition is known as a transmission stall.

In the message text:

### ***puname***

The name of the HPR PU.

### ***cpname***

The name of the CP at the other end of the pipe.

See the [HPRSTALL start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).

## System action

HPR deactivates the RTP pipe to end the hung sessions.

## Operator response

For information about why the RTP pipe was stalled and to possibly prevent future stalls, refer to the related messages that were issued for the *puname* and *cpname* combination:

- To check for a data flow stall, find an occurrence of message [IST1955I](#) that is not followed by an associated [IST1957I](#) message to indicate that the stall was alleviated.
- To check for a transmission stall, find an occurrence of message [IST2245I](#) that is not followed by an associated [IST2247I](#) message to indicate that the stall was alleviated.

If both conditions are found, the one that occurs first caused the timeout indicated by this message.

If you no longer want VTAM to automatically deactivate stalled RTP pipes or if you want VTAM to wait longer before doing so, use the MODIFY VTAMOPTS command to change the value of the HPRSTALL start option.

If stalls are prevalent and persistent, save the system log and request a dump for problem determination, then contact the system programmer.

## System programmer response

If you no longer want VTAM to automatically deactivate stalled RTP pipes or if you want VTAM to wait longer before doing so, change the value of HPRSTALL in the appropriate ATCSTRxx start list.

## User response

Not applicable.

## Problem determination

If transmission stalls are prevalent and persistent, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no similar problems are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

4

## Automation

Not applicable.

## Example

```
IST2253I HPRSTALL TIME EXCEEDED FOR RTP CNR0002F TO NETA.SSCP1A
```

**IST2254I**

**TOPOLOGY RESOURCE ERROR FOR NODE: ID = *node\_name***

## Explanation

This unsolicited message is issued when an internal error is detected for a topology resource that represents a node.

In the message text:

***node\_name***

The CP name of the node with the internal error.

## System action

Processing continues.

## Operator response

Save the system log and request a dump for problem determination. Contact the system programmer.

## System programmer response

See problem determination.

## User response

Not applicable.

## Problem determination

Take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no similar problems are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2,10

## Descriptor code

4

## Automation

Not applicable.

## Example

```
IST2254I TOPOLOGY RESOURCE ERROR FOR NODE: ID = NETA.CPS05
```

---

### IST2255I

**TOPOLOGY RESOURCE ERROR FOR TG: TGN = *tg\_number***

## Explanation

This message is the first of a group of messages that is issued when an internal error is detected for a topology resource that represents a transmission group (TG). A complete description of the message group follows the example.

```
IST2255I TOPOLOGY RESOURCE ERROR FOR TG: TGN = tg_number
IST2256I ORIG = origin_node - DEST = dest_node
IST314I END
```

### IST2255I

- This message identifies the TG number of the TG with the internal error.
- In the message text:

***tg\_number***

The TG number of the TG with the internal error.

### IST2256I

- This message identifies the origin and destination of the TG with the internal error.
- In the message text:

***origin\_node***

The CP name of the origin node of the TG with the internal error.

***dest\_node***

The CP name of the destination node of the TG with the internal error.

## System action

Processing continues.

## Operator response

Save the system log and request a dump for problem determination. Contact the system programmer.

## System programmer response

See problem determination.

## User response

Not applicable.

## Problem determination

Take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no similar problems are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.



## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2,10

## Descriptor code

4

## Automation

Not applicable.

## Example

```
IST2255I TOPOLOGY RESOURCE ERROR FOR TG: TGN = 21
IST2256I ORIG = NETA.CPS05 - DEST = NETA.CPS10
```

---

**IST2256I** **ORIG = *origin\_node* - DEST = *dest\_node***

## Explanation

VTAM issues this message as part of a group of messages under the following conditions:

- An internal topology resource error is detected. See [IST2255I](#) for a complete description of this message group.
- A TG reaches the TDUDIAG threshold. See [IST2299I](#) for a complete description of this message group.
- In response to a DISPLAY TOPO,LIST=TDUDIAG,ORIG=*orig\_cp\_name*,DEST=*dest\_cp\_name*,TGN=*tgn* command. See [IST2311I](#) for a complete description of this message group.

## Routing code

2,10

## Descriptor code

4

---

**IST2257I** **CSDUMP MUST BE FOLLOWED BY MESSAGE OR SENSE OPERAND**

## Explanation

VTAM issues this message when the CSDUMP start option was specified and an operand other than the MESSAGE or SENSE operand was specified as the first operand after CSDUMP. The CSDUMP start option is ignored.

## System action

The CSDUMP start option is ignored. VTAM issues message IST1311A to prompt you to enter the CSDUMP start option again with the correct format.

## Operator response

Correct the CSDUMP start option by responding to message IST1311A or ignore the error by entering a blank. If the CSDUMP start option was specified in an ATCSTRxx file, contact the system programmer. See the information about the [CSDUMP start option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

## System programmer response

Modify the VTAM start options in ATCSTRxx to add a MESSAGE operand for the message trigger or a SENSE operand for the sense code trigger to the CSDUMP start option.

## User response

Not applicable.

## Problem determination

See the system programmer response.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2257I CSDUMP MUST BE FOLLOWED BY MESSAGE OR SENSE OPERAND
```

---

**IST2258I*****operand CAN ONLY BE SPECIFIED AFTER CSDUMP OPTION***

## Explanation

VTAM issues this message when a CSDUMP start option operand is specified and it is not preceded by the CSDUMP start option. CSDUMP start option operands can be specified only after the CSDUMP start option.

In the message text:

### ***operand***

The CSDUMP start option operand that was specified incorrectly. Possible values are:

MESSAGE  
SENSE  
MATCHLIM

REMOTE  
RU  
TCPNM

## System action

The operand is ignored. VTAM issues message IST1311A to prompt you for the correct format of the CSDUMP start option.

## Operator response

Correct the CSDUMP start option by responding to message IST1311A or ignore the error by entering a blank. If the CSDUMP start option was specified in an ATCSTRxx file, contact the system programmer. See the information about the [CSDUMP start option in z/OS Communications Server: SNA Resource Definition Reference](#).

## System programmer response

Take one of the following actions to modify the VTAM start options in ATCSTRxx:

- Specify the operand after the CSDUMP start option.
- Remove the failing operand from the start option list.

## User response

Not applicable.

## Problem determination

See the system programmer response.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2258I MATCHLIM CAN ONLY BE SPECIFIED AFTER CSDUMP OPTION
```

---

**IST2259I*****operand1* OPERAND MUST BE SPECIFIED AFTER *operand2***

## Explanation

VTAM issues this message when two operands of the CSDUMP start option are specified out of order.

In the message text:

### ***operand1***

Possible values are:

MATCHLIM  
REMOTE  
RU  
TCPNM

### ***operand2***

Possible values are:

MESSAGE  
SENSE

## System action

The CSDUMP start option is ignored. VTAM issues message IST1311A to prompt you to enter the CSDUMP start option again with the correct format.

## Operator response

Correct the CSDUMP start option by responding to message IST1311A or ignore the error by entering a blank. If the CSDUMP start option was specified in an ATCSTRxx file, contact the system programmer. See the information about the [CSDUMP start option in z/OS Communications Server: SNA Resource Definition Reference](#).

## System programmer response

Modify the VTAM start options in ATCSTRxx; move the operand *operand1* after the operand *operand2* of the CSDUMP start option.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2259I RU OPERAND MUST BE SPECIFIED AFTER SENSE OPERAND
```

---

**IST2260I****CSDUMP *operand* OPERAND VALUE *value* IS NOT VALID**

---

## Explanation

VTAM issues this message when the value specified for the CSDUMP start option operand is not valid.

In the message text:

### ***operand***

Possible values are:

- MESSAGE
- RU
- SENSE

### ***value***

Possible values are:

- An invalid message ID
- A long message variable text
- An invalid RU
- An invalid SENSE code

## System action

The CSDUMP start option is ignored. VTAM issues message IST1311A to prompt you to enter the CSDUMP start option again with the correct format.

## Operator response

Correct the CSDUMP start option by responding to message IST1311A or ignore the error by entering a blank. If the CSDUMP start option was specified in an ATCSTRxx file, contact the system programmer. See the information about the [CSDUMP start option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

## System programmer response

Modify the VTAM start options contained in ATCSTRxx and correct the value of the operand on the CSDUMP start option.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2260I CSDUMP MESSAGE OPERAND VALUE L7201A12345 IS NOT VALID
```

---

**IST2261I****CSDUMP MESSAGE OPERAND HAS TOO MANY VALUES**

## Explanation

VTAM issues this message when more values are specified for the CSDUMP start option MESSAGE operand than there are variable text fields in the message.

## System action

The CSDUMP start option is ignored. VTAM issues message IST1311A to prompt you to enter the CSDUMP start option again with the correct format.

## Operator response

Correct the CSDUMP start option by responding to message IST1311A or ignore the error by entering a blank. If the CSDUMP start option was specified in an ATCSTRxx file, contact the system programmer. See the information about the [CSDUMP start option in z/OS Communications Server: SNA Resource Definition Reference](#).

## System programmer response

Modify the VTAM start options in ATCSTRxx and correct the number of values for the MESSAGE operand of the CSDUMP start option.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2261I CSDUMP MESSAGE OPERAND HAS TOO MANY VALUES
```

---

**IST2262I** **REMOTE OPERAND NOT VALID WITH CSDUMP MESSAGE *msgid***

## Explanation

VTAM issues this message when the REMOTE operand was specified on the CSDUMP start option with a message other than IST1504I.

In the message text:

***msgid***

The VTAM message that was specified.

## System action

The CSDUMP start option is ignored. VTAM issues message IST1311A to prompt you to enter the CSDUMP start option again with the correct format.

## Operator response

Correct the CSDUMP start option by responding to message IST1311A or ignore the error by entering a blank. If the CSDUMP start option was specified in an ATCSTRxx file, contact the system programmer. See the information about the [CSDUMP start option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

## System programmer response

Modify the CSDUMP start option in ATCSTRxx:

- If you want message IST1504I to be the trigger message, change the message ID on the MESSAGE operand to IST1504I.
- If you want the *msgid* value to be the trigger message, remove the REMOTE operand from the MESSAGE operand.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

**Automation**

Not applicable.

**Example**

```
IST2262I  REMOTE  OPERAND NOT VALID WITH CSDUMP MESSAGE IST089I
```

<b>IST2263I</b>	<b>PORTNAME = <i>port_name</i> PORTNUM = <i>port_num</i> OSA CODE LEVEL = <i>code_level</i></b>
-----------------	---

**Explanation**

VTAM issues this message as part of a message subgroup. See [“IST1221I” on page 674](#) for a complete description.

**Routing code**

2

**Descriptor code**

5

<b>IST2264I</b>	<b>CSDUMP OPTION SPECIFIED MULTIPLE TRIGGERS</b>
-----------------	--

**Explanation**

VTAM issues this message when the CSDUMP start option is specified with multiple triggers.



## System action

The CSDUMP start option is ignored. VTAM issues message IST1311A to prompt you to enter the CSDUMP start option again with the correct format.

## Operator response

Correct the CSDUMP start option by responding to message IST1311A or ignore the error by entering a blank. If the CSDUMP start option was specified in an ATCSTRxx file, contact the system programmer. See the information about the [CSDUMP start option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

## System programmer response

Modify the VTAM start options contained in ATCSTRxx to specify the trigger you want. Only one trigger can be specified on the CSDUMP start option. You can specify the CSDUMP start option twice to set both message and sense code triggers.

## User response

Not applicable.

## Problem determination

See the system programmer response.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2264I CSDUMP OPTION SPECIFIED MULTIPLE TRIGGERS
```

---

**IST2265I**

***resource service FAILED FOR device\_address CODE = return\_code  
REASON = reason\_code***

## Explanation

This message is issued during activation of a multipath channel (MPC) when a system service that was invoked for a particular subchannel fails.

In the message text:

**resource**

The name of the TRLE or MPC subarea line that defines the MPC group.

**service**

The name of the system service that failed.

**device\_address**

The hexadecimal subchannel address for which the system service was invoked.

**return\_code**

The return code received from the service.

**reason\_code**

The reason code received from the service.

## System action

If this message is followed by message IST1631I for the address specified by the *device\_address* value, activation of the subchannel fails; otherwise, activation of the subchannel continues.

## Operator response

If message IST1631I is issued for the address specified by the *device\_address* value, see that message for additional instructions; otherwise, no further action is necessary.

## System programmer response

If message IST1631I is issued for the address specified by the *device\_address* value, use the output from this IST2265I message to assist you in correcting the problem. See the z/OS MVS Programming: Authorized Assembler Services Guide for a description of the *service*, *return\_code*, and *reason\_code* values. If you cannot determine the reason for the failure, take the following actions:

- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Example

```
IST2265I TRLE1A IOSPTHV FAILED FOR 050A CODE 04 REASON = 0004
```

---

**IST2266I****STORAGE POOL *poolname* AT PAGE ALLOCATION LIMIT**

---

## Explanation

VTAM issues this message when a storage request fails because the allocation storage limit of x'FFFF' pages was reached for the storage pool.

In the message text:

***poolname***

The name of the storage pool.

## System action

Processing continues. Future storage requests for the specified pool will continue to fail until storage is available.

## Operator response

Issue the DISPLAY STORUSE command to display the storage usage of storage pools. Save the system log and request a dump for problem determination. See the [DISPLAY STORUSE command in z/OS Communications Server: SNA Operation](#).

## System programmer response

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

## User response

Not applicable.

## Problem determination

If you cannot determine the cause of the problem from the output provided, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no similar problems are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

6

## Example

```
IST2266I STORAGE POOL UECB AT PAGE ALLOCATION LIMIT
```

---

**IST2267I****RTP PACING ALGORITHM = ARB PROGRESSIVE MODE**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 that represents a Rapid Transport Protocol (RTP) route. The first message in the group is either IST1476I or IST1968I. See [IST1476I](#) or [IST1968I](#) for more information.

## Routing code

2

## Descriptor code

5

---

**IST2268I****NUMBER OF BYTES ON WAITING-FOR-ACK QUEUE = *waitforackbytes***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 that represents a Rapid Transport Protocol (RTP) route. The first message in the group is IST1968I. See [IST1968I](#) for more information.

## Routing code

2

## Descriptor code

5

---

**IST2269I****MAXIMUM NUMBER OF BYTES ON WAITING-FOR-ACK QUEUE = *maxwaitforack***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 that represents a Rapid Transport Protocol (RTP) route. The first message in the group is IST1968I. See [IST1968I](#) for more information.

## Routing code

2

## Descriptor code

5

---

**IST2270I****debug\_text**

## Explanation

This solicited message is for IBM internal use only. This message has various formats that have meaning only to the IBM personnel that develop and service z/OS Communications Server.

## System action

Processing continues.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IST2271I****PATH SWITCH DELAY = *ps\_delay\_value***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 that represents a Rapid Transport Protocol (RTP) route. The first message in the group is IST1968I. See [IST1968I](#) for more information.

## Routing code

2

## Descriptor code

5

---

**IST2272I****PATH SWITCH DELAYED UNTIL *date* AT *time***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 that represents a Rapid Transport Protocol (RTP) route. The first message in the group is IST1968I. See [IST1968I](#) for more information.

## Routing code

2

## Descriptor code

5

---

**IST2273E****PACKETS DISCARDED FOR *jobname* - READ QUEUE CONGESTION**

---

## Explanation

This unsolicited message is issued when a storage block address list (SBAL) is discarded as the result of congestion on the inbound data staging queue. An SBAL is a read buffer that can contain up to 64 KB of TCP/IP packets. SBALs are discarded to protect against the overuse of system resources, specifically ECSA storage. This message might mean that there is a TCP/IP stack contention or dispatching problem.

This message remains on the screen until congestion is alleviated or until the message is manually deleted.

In the message text:

***jobname***

The 1–8 character TCP/IP job name used to start the TCP/IP address space.

## System action

If congestion subsides for at least 30 seconds, this message is automatically deleted. If congestion persists, message IST2273E is deleted and re-issued every 5 minutes.

## Operator response

You can use the DISPLAY NET,TRL and DISPLAY NET,TRL,TRLE=*trlename* commands to determine which interfaces or devices are experiencing congestion. Message IST2305I provides the number of SBALs that are discarded. These interfaces or devices can be stopped or recycled in an attempt to eliminate the congestion.

## System programmer response

If the condition is persistent, take the following actions:

1. Study and possibly adjust the TCP/IP dispatching priority
2. If the condition continues to persist:
  - If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, take a dump of the TCP/IP address space and the VTAM address space and report the problem to IBM using the Electronic Technical Report (ETR) option on IBMLink.
  - If you do not have access to IBMLink, take a dump of the TCP/IP address space and the VTAM address space and report the problem to the IBM software support center.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

11

## Automation

Automation is recommended because persistent discarding of inbound data can have a significant impact on latency and throughput.

## Example

```
IST2273E PACKETS DISCARDED FOR TCPCS - READ QUEUE CONGESTION
```

---

### IST2274I TDU DIAGNOSTIC SUMMARY:

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=TDUDIAG summary command. Possible message groups follow:

- This message group is issued if you allow the FORMAT command to default or you specify FORMAT=SHORT:

```
IST350I  DISPLAY TYPE = TDU DIAGNOSTICS
IST2274I  TDU DIAGNOSTIC SUMMARY:
IST1780I  TOPOLOGY RESOURCES WITH MOST FREQUENT TDU ACTIVITY
IST2308I   THAT HAVE SAVED TDUDIAG RSN UPDATES
IST2275I  TDU INFORMATION SINCE LAST RESET ON date AT time
IST2290I  TDUDIAG START OPTION = tdudiag_value
[IST2283I NO TDUDIAG RSN UPDATES EXIST]
[IST2276I NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED]
```

```

[IST924I -----]
[IST2277I POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED]
[IST2278I SINCE VTAM START ON start_date AT start_time]
[IST2284I FOR THE FOLLOWING NODES AND TGS]
[IST2279I CP NAME          DESTINATION CP    TGN    TIME DETECTED]
[IST2280I cp_name          destination_cp    tgn    date_detected time_detected]
:
[IST2301I num OF total TOPOLOGY RESOURCES DISPLAYED]
[IST924I -----]
[IST2283I NO TDUDIAG RSN UPDATES EXIST]
[IST2286I TDUS RECEIVED:]
[IST1777I CP NAME          RSN          DESTINATION CP    TGN ACC    REJ]
[IST1778I cp_name          rsn          destination_cp    tgn count1 count2]
:
[IST2301I num OF total TOPOLOGY RESOURCES DISPLAYED]
[IST924I -----]
[IST2287I TDUS SENT:]
[IST2288I CP NAME          RSN          DESTINATION CP    TGN SENT    REC]
[IST1778I cp_name          rsn          destination_cp    tgn count1 count2]
:
[IST2301I num OF total TOPOLOGY RESOURCES DISPLAYED]
[IST924I -----]
[IST2289I RESOURCE SEQUENCE NUMBERS UPDATED BY THIS NODE:]
[IST2292I CP NAME          RSN          DESTINATION CP    TGN    UPDATED]
[IST2293I cp_name          rsn          destination_cp    tgn    updated]
:
[IST2301I num OF total TOPOLOGY RESOURCES DISPLAYED]
IST314I END

```

- If you specify FORMAT=LONG on the DISPLAY TOPO command, the display sections for TDUs received, TDUs sent, and RSNs updated by this node are replaced with the following:

```

[IST924I -----]
[IST2283I NO TDUDIAG RSN UPDATES EXIST]
[IST2286I TDUS RECEIVED:]
[IST2357I CP NAME          RSN          DESTINATION CP    TGN]
[IST2358I cp_name          rsn          destination_cp    tgn]
[IST2353I ACCEPTED = accepted    REJECTED = rejected]
:
[IST2301I num OF total TOPOLOGY RESOURCES DISPLAYED]
[IST924I -----]
[IST2287I TDUS SENT:]
[IST2357I CP NAME          RSN          DESTINATION CP    TGN]
[IST2358I cp_name          rsn          destination_cp    tgn]
[IST2352I SENT      = sent      RECEIVED = received]
:
[IST2301I num OF total TOPOLOGY RESOURCES DISPLAYED]
[IST924I -----]
[IST2289I RESOURCE SEQUENCE NUMBERS UPDATED BY THIS NODE:]
[IST2357I CP NAME          RSN          DESTINATION CP    TGN]
[IST2358I cp_name          rsn          destination_cp    tgn]
[IST2291I UPDATED  = updated]
:
[IST2301I num OF total TOPOLOGY RESOURCES DISPLAYED]
IST314I END

```

## IST350I

This message identifies the type of information in the display and is always TDU DIAGNOSTICS for this message group.

## IST1777I

This is a header message for the information about topology resources in the TDUs that were received most frequently and that have TDUDIAG resource sequence number (RSN) update information saved in the topology database. The topology resources are displayed in the IST1778I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

ACC is the abbreviation for ACCEPTED.

REJ is the abbreviation for REJECTED.

## IST1778I

- One IST1778I is issued for each topology resource that is displayed in a subgroup when the FORMAT=SHORT operand is specified or the default FORMAT value is taken.



- The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the TDU information and TDU counters were last reset is smaller than the number requested on the display command, the number of IST1778I messages that are displayed in the subgroup will be smaller than the NUM value that was specified.
- *cp\_name* is the network-qualified CP name of the node, if the resource that is displayed is a node. If the resource that is displayed is a TG, *cp\_name* is the network-qualified CP name of the TG origin node.
- *rsn* is the resource sequence number (RSN) expressed in decimal.
- *destination\_cp* is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource is a node, \*\*\*NA\*\*\* is displayed.
- *tgn* is the transmission group number that is associated with the TG that is displayed. If the resource is a node, NA is displayed.
- If the subgroup displays the information about topology resources in the TDUs that were received most frequently:
  - *count1* is the total number of inbound TDUs that were accepted for this resource at the time that the displayed TDU was received. Inbound TDUs are accepted when they contain new information that causes the resource record to be updated.
  - *count2* is the total number of inbound TDUs that were rejected for this resource at the time that the displayed TDU was received. Inbound TDUs are rejected when they contain inconsistent information that causes outbound TDUs to be sent as corrections.
- If the subgroup displays the information about topology resources in the TDUs that were sent most frequently:
  - *count1* is the total number of outbound TDUs that were sent for this resource at the time that the displayed TDU was sent.
  - *count2* is the total number of inbound TDUs that were received for this resource at the time that the displayed TDU was sent.

**Tip:** A RSN value of \*\*\*\*\* or TDU counter values of \*\*\*\*\* indicates that the values are greater than the available space for those values to be displayed in message IST1778I. You can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

### **IST1780I, IST2308I**

These messages indicate that the TDU diagnostic information is about topology resources that were included in topology database updates (TDUs) most frequently, and that have saved TDUDIAG resource sequence number (RSN) update information.

### **IST2274I**

This is a header message for TDU diagnostic summary information.

### **IST2275I**

This message contains the date and time when all the TDU information and TDU counters were reset. All TDU information and TDU counters are reset every 24 hours when garbage collection runs, or when a DISPLAY NET,TOPO,LIST=TDUINFO,CLEAR=YES or a DISPLAY NET,TOPO,LIST=TDUDIAG,CLEAR=YES command is entered. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

### **IST2276I**

This message indicates that no corruption of topology control vectors was detected since VTAM was started.

### **IST2277I**

This is a header message for a message subgroup that displays information about topology resources that have control vectors in the topology database that have possibly been corrupted.

Because the topology control vectors contain the resource sequence number (RSN) for a node or TG, which determines the processing of a TDU, it is possible that control vector corruption could cause a TDU war. The most probable cause of control vector corruption is a storage overlay.

### **IST2278I**

This message displays the date and time that VTAM was started. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

Unlike the lists of topology resources in the TDUs that were received or sent most frequently, or with RSNs that were updated by this node, the list of topology resources with possible topology control vector corruption is never cleared and includes any possible corruption detection since the start of VTAM.

#### **IST2279I**

This is a header message for the information about topology resources with possible topology control vector corruption that is displayed in the IST2280I messages that follow.

#### **IST2280I**

One IST2280I is displayed for each topology resource that has control vectors that have possibly been corrupted.

Information about possible corrupted control vectors is maintained from the start of VTAM and is not deleted when TDU information is reset. All topology resources with possible corrupted control vectors are displayed in this subgroup, regardless of the reset of TDU information.

The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the start of VTAM is smaller than the number requested on the display command, the number of IST2280I messages that are displayed in the subgroup will be smaller than the NUM value that was specified.

*cp\_name* is the network-qualified CP name of the node, if the resource that is displayed is a node. If the resource that is displayed is a TG, *cp\_name* is the network-qualified CP name of the TG origin node.

*destination\_cp* is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource that is displayed is a node, **\*\*\*NA\*\*\*** is displayed.

*tgn* is the transmission group number that is associated with the TG that is displayed. If the resource is a node, **NA** is displayed.

Time detected is the date and time possible corruption of control vectors for the topology resource was detected. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

#### **IST2283I**

This message is displayed when no TDUDIAG RSN update information exists for any of the topology resources that have been received, sent, or had RSNs updated since the TDU information and TDU counters were last reset. Message IST2275I displays the date and time of the last reset.

#### **IST2284I**

This message indicates that possible topology control vector corruption was detected for a node or TG.

#### **IST2286I**

This is a header message for message subgroups that display information about topology resources in the TDUs that were received in inbound TDUs most frequently and have TDUDIAG RSN update information saved in the topology database.

The first topology resource that is displayed in the subgroup is the resource with the most frequent TDU activity. The last topology resource that is displayed in the subgroup is the resource with the least frequent TDU activity.

#### **IST2287I**

This is a header message for message subgroups that display information about topology resources in the TDUs that were sent most frequently and have TDUDIAG RSN update information saved in the topology database.

The first topology resource that is displayed in the subgroup is the resource with the most frequent TDU activity. The last topology resource that is displayed in the subgroup is the resource with the least frequent TDU activity.

#### **IST2288I**

This is a header message for the information about topology resources in the TDUs that were sent most frequently and have TDUDIAG RSN update information saved in the topology database. The topology

resources are displayed in the IST1778I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.  
REC is the abbreviation for RECEIVED.

#### IST2289I

This is a header message for information about topology resources with RSNs that were updated by this node and that have TDUDIAG RSN update information saved in the topology database.

The first topology resource that is displayed in the subgroup is the resource with a RSN that was updated most frequently. The last topology resource that is displayed in the subgroup is the resource with a RSN that was updated least frequently.

#### IST2290I

- *tdudiag\_value* is the user-defined TDUDIAG start option value, specified on the START command or in the start list, and specifies when TDU diagnostic information is included with node or TG control vectors within a TDU. See the [TDUDIAG start option information in z/OS Communications Server: SNA Resource Definition Reference](#). Possible values can be one of the following:

##### A decimal value in the range of 1-65535

This is a threshold number of times that this network node has updated the resource sequence number (RSN) for a topology resource since the last time that TDU information was reset. When this threshold value is reached for a node or TG, TDU diagnostic information is included in the outbound TDU if the RSN is updated.

##### ALWAYS

TDU diagnostic information is always appended with the topology control vectors included in a TDU for a topology resource when the RSN for that resource is updated by this network node.

##### NEVER

TDU diagnostic information is never appended with the topology control vectors included in a TDU.

#### IST2291I

This message follows message IST2358I and this message pair displays the information about topology resources that have a RSN that was updated by this node and have TDUDIAG RSN update information saved in the topology database, when the FORMAT=LONG operand is specified.

*updated* is the number of times the topology resource had been updated at the time of the last RSN update.

#### IST2292I

This is a header message for the information about topology resources with RSNs that were updated by this node and that have TDUDIAG RSN update information saved in the topology database. The topology resources are displayed in the IST2293I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

#### IST2293I

One IST2293I is issued for each topology resource that has a RSN that was updated by this node and has TDUDIAG RSN update information saved in the topology database. The first IST2293I message in this message subgroup describes the topology resource whose RSN was updated by this node most frequently. The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the TDU information and TDU counters were last reset is smaller than the number requested on the display command, the number of IST2293I messages that are displayed in the subgroup will be smaller than the NUM value that was specified.

*cp\_name* is the network-qualified CP name of the node, if the resource that is displayed is a node. If the resource that is displayed is a TG, *cp\_name* is the network-qualified CP name of the TG origin node.

*rsn* is the updated RSN expressed in decimal.

*destination\_cp* is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource is a node, **\*\*\*NA\*\*\*** is displayed.

*tgn* is the transmission group number that is associated with the TG that is displayed. If the resource is a node, **NA** is displayed.

*updated* is the number of times that the topology resource has been updated at the time of the last RSN update.

**Tip:** A RSN value of **\*\*\*\*\*** or update counter value of **\*\*\*\*\*** indicates the value is greater than the available space for the value to be displayed in message IST2293I. You can enter the command with the **FORMAT=LONG** operand to display these values in a format that includes two lines of output for each resource.

#### **IST2301I**

This message displays the number of topology resources that are in a message subgroup.

*num* is the total number of topology resources that are displayed.

*total* is the total number of topology resource records that are on the displayed list.

#### **IST2352I**

This message follows message IST2358I when the **FORMAT=LONG** operand is specified. This message pair displays the information about topology resources in the TDUs that were sent most frequently and have TDUDIAG RSN update information saved in the topology database.

*sent* is the total number of TDUs that were sent for this resource at the time that the displayed TDU was sent.

*received* is the total number of TDUs that were received for this resource at the time that the displayed TDU was sent.

#### **IST2353I**

This message follows message IST2358I when the **FORMAT=LONG** operand is specified. The message pair displays the information about topology resources in the TDUs that were received most frequently and have TDUDIAG RSN update information saved in the topology database.

*accepted* is the total number of inbound TDUs that were accepted for this resource at the time that the displayed TDU was received. Inbound TDUs are accepted when they contain new information that causes the resource record to be updated.

*rejected* is the total number of inbound TDUs that were rejected for this resource at the time that the displayed TDU was received. Inbound TDUs are rejected when they contain inconsistent information that causes outbound TDUs to be sent as corrections.

#### **IST2357I**

- This is a header message for the information about topology resources that is displayed in message pairs when **FORMAT=LONG** is specified. The information is displayed in three sections:
  - topology resources in the TDUs that were received most frequently and have TDUDIAG RSN update information saved in the topology database
  - topology resources in the TDUs that were sent most frequently and have TDUDIAG RSN update information saved in the topology database
  - topology resources with RSNs that were updated by this node and have TDUDIAG RSN update information saved in the topology database

#### **IST2358I**

This is the first of two messages that display the information about a topology resource when the **FORMAT=LONG** operand is specified.

The **NUM** operand can be specified on the **DISPLAY** command to limit the number of topology resources that are displayed. The default value is 10 topology resources, or message pairs, and the maximum value is 50. If the number of topology resources on the list since the last TDU count reset is smaller than the number requested on the display command, the number of topology resources that are displayed in the subgroup will be smaller than the **NUM** value that was specified.

*cp\_name* is the network-qualified CP name of the node if the resource that is displayed is a node. If the resource that is displayed is a TG, *cp\_name* is the network-qualified CP name of the TG origin node.

*rsn* is the resource sequence number (RSN) expressed in decimal.

*destination\_cp* is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource is a node, **\*\*\*NA\*\*\*** is displayed .

*tgn* is the transmission group number that is associated with the TG that is displayed. If the resource is a node, **NA** is displayed.

## System action

Processing continues.

## Operator response

If you are displaying TDU diagnostic information because of performance degradation of the APPN network, use the information about [using the DISPLAY TOPO command with LIST=TDUINFO and LIST=TDUDIAG in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#), and do the following:

1. Repeat the display several times to see if there is a pattern of excessive TDU activity for a topology resource.
2. Enter the DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=ACTIVITY command to see the topology resources that have the most frequent TDU activity.
3. If a node or TG is identified that has excessive TDU activity, the following displays might provide information about the network nodes that are causing the performance degradation (TDU war):
  - DISPLAY NET,TOPO,LIST=TDUDIAG provides a summary of nodes and TGs that have saved TDU diagnostic information.
  - DISPLAY NET,TOPO,LIST=TDUDIAG,ID=*cp\_name* provides details about the saved TDU diagnostic information for a node.
  - DISPLAY NET,TOPO,LIST=TDUDIAG,ORIG=*orig\_cp*,DEST=*dest\_cp*,TGN=*tgn* provides details about saved TDU diagnostic information for a TG.
4. If you can identify the network nodes that are involved in the TDU war, bring down the CP-CP sessions from one of the network nodes involved to all other network nodes in the network or subnetwork.
5. If you cannot stop the TDU war, save the system log and request a dump for problem determination. Contact the system programmer.

**Tip:** On the DISPLAY NET,TOPO,LIST=TDUDIAG summary command output, a RSN value of **\*\*\*\*\*** or TDU counter values of **\*\*\*\*\*** indicates that the value is greater than the available space for the value to be displayed in message IST1778I or IST2293I. You can clear the TDU counters, but not the RSN, with the CLEAR=YES operand specified on either the DISPLAY TOPO,LIST=TDUINFO command or the DISPLAY TOPO,LIST=TDUDIAG summary command. Alternately, you can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

## System programmer response

Take the following actions:

- If the operator provides output from the DISPLAY NET,TOPO,LIST=TDUINFO and the DISPLAY NET,TOPO,LIST=TDUDIAG commands, use the information about [using the DISPLAY TOPO command with LIST=TDUINFO and LIST=TDUDIAG in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) to analyze the TDU activity. If possible, identify the topology resource that is in contention and the network nodes that are involved in the TDU war.
- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## User response

Not applicable.

## Problem determination

See the system programmer response.

# Source

z/OS Communications Server SNA

# Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

# Routing code

2

# Descriptor code

5

# Automation

Not recommended.

# Example

The following is an example of the display output from a DISPLAY NET,TOPO,LIST=TDUDIAG,NUM=5,FORMAT=SHORT command:

```
IST350I  DISPLAY TYPE = TDU DIAGNOSTICS
IST2274I  TDU DIAGNOSTIC SUMMARY:
IST1780I  TOPOLOGY RESOURCES WITH MOST FREQUENT TDU ACTIVITY
IST2308I  THAT HAVE SAVED TDUDIAG RSN UPDATES
IST2275I  TDU INFORMATION SINCE LAST RESET ON 01/29/10 AT 11:43:05
IST2290I  TDUDIAG START OPTION = 1000
IST2276I  NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED
IST924I  -----
IST2286I  TDUS RECEIVED:
IST1777I  CP NAME      RSN      DESTINATION CP    TGN ACC  REJ
IST1778I  NETA.SSCP2A    6      NETA.SSCP1A      21  2    0
IST1778I  CNRA.LVRN4A    2      NETA.SSCP2A      21  1    0
IST1778I  NETA.SSCP2A    2      CNRA.LVRN4A      21  1    0
IST1778I  NETA.SSCPAA    4      NETA.SSCP1A      21  1    0
IST1778I  NETA.SSCPAA    2      ***NA***         NA  1    0
IST2301I  5 OF 6 TOPOLOGY RESOURCES DISPLAYED
IST924I  -----
IST2287I  TDUS SENT:
IST2288I  CP NAME      RSN      DESTINATION CP    TGN SENT REC
IST1778I  NETA.SSCP2A    6      NETA.SSCP1A      21  3    3
IST1778I  NETA.SSCP1A    6      NETA.SSCP2A      21  3    1
IST1778I  NETA.SSCP2A    2      ***NA***         NA  2    1
IST1778I  NETA.SSCP1A    2      ***NA***         NA  2    0
IST1778I  CNRA.LVRN4A    2      NETA.SSCP2A      21  1    1
IST2301I  5 OF 11 TOPOLOGY RESOURCES DISPLAYED
IST924I  -----
IST2289I  RESOURCE SEQUENCE NUMBERS UPDATED BY THIS NODE:
IST2292I  CP NAME      RSN      DESTINATION CP    TGN  UPDATED
IST2293I  NETA.SSCP1A    6      NETA.SSCP2A      21    1
IST2293I  CNRA.LVRN4A    2      NETA.SSCP1A      21    1
IST2293I  NETA.SSCP1A    2      CNRA.LVRN4A      21    1
IST2301I  3 OF 3 TOPOLOGY RESOURCES DISPLAYED
IST314I  END
```

**IST2275I** **TDU INFORMATION SINCE LAST RESET ON *date* AT *time***

# Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ID=cp\_name. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tn. See message [IST2311I](#) for a complete description of this message group.
- DISPLAY TOPO,ID=cp\_name,LIST=ALL. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tn. See message [IST1299I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2276I** **NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED**

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2277I** **POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED**

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

- DISPLAY TOPO,LIST=TDUDIAG,ID=cp\_name. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tgn. See message [IST2311I](#) for a complete description of this message group.
- DISPLAY TOPO,ID=cp\_name,LIST=ALL. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tgn. See message [IST1299I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2278I** **SINCE VTAM START ON *start\_date* AT *start\_time***

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2279I** **CP NAME DESTINATION CP TGN TIME DETECTED**

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2



## Descriptor code

5

---

**IST2280I**

*cp\_name destination\_cp tgn date\_detected time\_detected*

---

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2281I**

**LAST TDU SENT - *date time***

---

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=cp\_name. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tgn. See message [IST2311I](#) for a complete description of this message group.
- DISPLAY TOPO,ID=cp\_name,LIST=ALL. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tgn. See message [IST1299I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2282I**

**TDU COUNTS:**

---

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=cp\_name. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tgn. See message [IST2311I](#) for a complete description of this message group.

- DISPLAY TOPO,ID=cp\_name,LIST=ALL. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tgn. See message [IST1299I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2283I** **NO TDUDIAG RSN UPDATES EXIST**

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ID=cp\_name. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tgn. See message [IST2311I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2284I** **FOR THE FOLLOWING NODES AND TGS**

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2285I** **TDUS SENT BETWEEN *first\_tdu\_date first\_tdu\_time* - *last\_tdu\_date last\_tdu\_time***

**Explanation**

VTAM issues this message as part of a group of messages in response to the DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT command. See message [IST1776I](#) for a complete description of this message group.

**Routing code**

2

**Descriptor code**

5

---

**IST2286I** **TDUS RECEIVED:**

**Explanation**

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

**Routing code**

2

**Descriptor code**

5

---

**IST2287I** **TDUS SENT:**

**Explanation**

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

**Routing code**

2

**Descriptor code**

5

---

**IST2288I** **CP NAME RSN DESTINATION CP TGN SENT REC**

**Explanation**

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message [IST1776I](#) for a complete description of this message group.

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) (hotlink) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2289I** **RESOURCE SEQUENCE NUMBERS UPDATED BY THIS NODE:**

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2290I** **TDUDIAG START OPTION = *tdudiag\_value***

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2291I** **UPDATED = *updated***

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY,FORMAT=LONG. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,FORMAT=LONG summary command. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

<b>IST2292I</b>	<b>CP NAME RSN DESTINATION CP TGN UPDATED</b>
-----------------	---

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

<b>IST2293I</b>	<b><i>cp_name rsn destination_cp tgn updated</i></b>
-----------------	--

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

<b>IST2294I</b>	<b>TDUDIAG RSN UPDATES:</b>
-----------------	-----------------------------

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=cp\_name. See message [IST2306I](#) for a complete description of this message group.

- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tgn. See message [IST2311I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

<b>IST2295I</b>	<b>TIME HEX RSN HEX RSN</b>
-----------------	-----------------------------

---

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=cp\_name. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tgn. See message [IST2311I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

<b>IST2296I</b>	<b>CP NAME UPDATED BEFORE AFTER REASON</b>
-----------------	--

---

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=cp\_name. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tgn. See message [IST2311I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

<b>IST2297I</b>	<b>cp_name time before_rsn after_rsn reason</b>
-----------------	---

---

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=cp\_name. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tgn. See message [IST2311I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2298I****TDUDIAG THRESHOLD REACHED FOR NODE: ID = *cp\_name***

---

## Explanation

VTAM issues this unsolicited message when the TDUDIAG threshold is reached for a node. The TDUDIAG threshold is a numeric value specified on the TDUDIAG start option.

Three counters are monitored to determine when the threshold is reached for a node:

- A count of the number of times that the host network node updates the resource sequence number (RSN) for the node.
- A count of TDUs that are received and accepted for the node. A TDU is accepted when it contains new information about the node, and the topology database is updated with the new information.
- A count of TDUs that are received and rejected for the node. A TDU is rejected when it contains outdated information about the node. A new TDU is built from the local topology database and is sent to correct the information.

When the node identified in this message reaches the threshold value, TDU diagnostic information is appended to the node record in the topology database. This action occurs every time the RSN is updated by the host network node or when a TDU that contains TDU diagnostic information is received for that node.

See the [TDUDIAG start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).

In the message text:

### ***cp\_name***

The network-qualified CP name of the node that reached the TDUDIAG threshold.

## System action

Processing continues.

## Operator response

To determine whether this node might be a topology resource that is in contention in a TDU war, use the information about using the DISPLAY TOPO command with LIST=TDUINFO and LIST=TDUDIAG in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#), and do the following:

1. Issue the DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=ACTIVITY command to determine whether the node is one of the topology resources with the most frequent TDU activity.
2. Repeat the display several times to determine whether there is a pattern of excessive TDU activity for the node.
3. Issue the DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=RECENT command to determine whether the node is one of the topology resources with the most recent TDU activity.
4. If the previous displays indicate excessive TDU activity for the node, the following displays might provide information about the network nodes that are causing the performance degradation (TDU war):
  - DISPLAY NET,TOPO,LIST=TDUDIAG provides a summary of nodes and TGs with saved TDU diagnostic information.
  - DISPLAY NET,TOPO,LIST=TDUDIAG,ID=*cp\_name* provides details about saved TDU diagnostic information for the node.

5. If you can identify the network nodes that are involved in the TDU war, end the CP-CP sessions between one of the network nodes involved and all other network nodes in the network or subnetwork.
6. If you cannot stop the TDU war, save the system log and request a dump for problem determination. Contact the system programmer.

**Tip:** On the DISPLAY TOPO,LIST=TDUINFO and DISPLAY TOPO,LIST=TDUDIAG summary command output, a RSN value of \*\*\*\*\* or TDU counter values of \*\*\*\*\* indicates the value is greater than the available space for the value to be displayed in messages IST1778I or IST2293I. You can clear the TDU counters, but not the RSN, with the CLEAR=YES operand specified on either the DISPLAY TOPO,LIST=TDUINFO command or the DISPLAY TOPO,LIST=TDUDIAG summary command. Alternately, you can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

## System programmer response

Take the following actions:

- If the operator provides output from the DISPLAY TOPO,LIST=TDUINFO or DISPLAY TOPO,LIST=TDUDIAG, use the information about [using the DISPLAY TOPO command with LIST=TDUINFO and LIST=TDUDIAG in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) to analyze the TDU activity. If possible, identify the topology resource that is in contention and the network nodes that are involved in the TDU war.
- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## User response

Not applicable.

## Problem determination

See the system programmer response.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2,8

## Descriptor code

4

## Automation

If the TDUDIAG start option is set to the default of 1000 or higher, this message might be an indication of a TDU war and automation is suggested.



## Example

```
IST2298I TDUDIAG THRESHOLD REACHED FOR NODE: ID = NETA.CPS05
```

### IST2299I

**TDUDIAG THRESHOLD REACHED FOR TG: TGN = *tg\_num***

## Explanation

This message is the first of a group of unsolicited messages that VTAM issues when the TDUDIAG threshold is reached for a TG. The TDUDIAG threshold is a numeric value specified on the TDUDIAG start option. If you receive this message, it might be an indication of a TDU war, which is an endless exchange of TDUs in contention over the same topology resource, resulting in continuous performance degradation of the APPN network.

Three counters are monitored to determine when the threshold is reached for a TG:

- A count of the number of times that the host network node updates the resource sequence number (RSN) for the TG.
- A count of TDUs that are received and accepted for the TG. A TDU is accepted when it contains new information about the TG, and the topology database is updated with the new information.
- A count of TDUs that are received and rejected for the TG. A TDU is rejected when it contains outdated information about the TG. A new TDU is built from the local topology database and is sent to correct the information.

When the TG identified in this message reaches the threshold value, TDU diagnostic information is appended to the TG record in the topology database. This action occurs every time the RSN is updated by the host network node or when a TDU that contains TDU diagnostic information is received for that TG.

See the [TDUDIAG start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).

A complete description of the message group follows the example.

```
IST2299I TDUDIAG THRESHOLD REACHED FOR TG: TGN = tg_num
IST2256I ORIG = origin_node - DEST = dest_node
IST314I END
```

### IST2299I

This message identifies the TG number of the TG that reached the TDUDIAG threshold.

The *tg\_num* value is the TG number of the TG that reached the TDUDIAG threshold.

### IST2256I

This message identifies the origin and destination of the TG that reached the TDUDIAG threshold.

The *origin\_node* value is the network-qualified CP name of the origin node of the TG that reached the TDUDIAG threshold.

The *dest\_node* value is the network-qualified CP name of the destination node of the TG that reached the TDUDIAG threshold.

## System action

Processing continues.

## Operator response

To determine whether this TG might be a topology resource that is in contention in a TDU war, use the information about using the [DISPLAY TOPO](#) command with [LIST=TDUINFO](#) and [LIST=TDUDIAG](#) in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) and do the following:

1. Issue the [DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=ACTIVITY](#) command to determine whether the TG is one of the topology resources with the most frequent TDU activity.
2. Repeat the display several times to determine whether there is a pattern of excessive TDU activity for the TG.

3. Issue the `DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=RECENT` command to determine whether the TG is one of the topology resources with the most recent TDU activity.
4. If the previous displays indicate excessive TDU activity for the TG, the following displays might provide information about the network nodes that are causing the performance degradation (TDU war):
  - The `DISPLAY NET,TOPO,LIST=TDUDIAG` command provides a summary of nodes and TGs with saved TDU diagnostic information.
  - The `DISPLAY NET,TOPO,LIST=TDUDIAG,ORIG=origin_node,DEST=dest_node,TGN=tg_num` command provides details about saved TDU diagnostic information for the TG.
5. If you can identify the network nodes that are involved in the TDU war, end the CP-CP sessions between one of the network nodes involved and all other network nodes in the network or subnetwork.
6. If you cannot stop the TDU war, save the system log and request a dump for problem determination. Contact the system programmer.

**Tip:** On the `DISPLAY TOPO,LIST=TDUINFO` and `DISPLAY TOPO,LIST=TDUDIAG` summary command output, a RSN value of `*****` or TDU counter values of `*****` indicates the value is greater than the available space for the value to be displayed in messages `IST1778I` or `IST2293I`. You can clear the TDU counters, but not the RSN, with the `CLEAR=YES` operand specified on either the `DISPLAY TOPO,LIST=TDUINFO` command or the `DISPLAY TOPO,LIST=TDUDIAG` summary command. Alternately, you can enter the command with the `FORMAT=LONG` operand to display these values in a format that includes two lines of output for each resource.

## System programmer response

Take the following actions:

- If the operator provides output from the `DISPLAY TOPO,LIST=TDUINFO` or `DISPLAY TOPO,LIST=TDUDIAG`, use the information about [using the DISPLAY TOPO command with LIST=TDUINFO and LIST=TDUDIAG in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) to analyze the TDU activity. If possible, identify the topology resource that is in contention and the network nodes that are involved in the TDU war.
- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## User response

Not applicable.

## Problem determination

See the system programmer response.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2,8

## Descriptor code

4

## Automation

If the TDUDIAG start option is set to the default value 1000 or higher, this message might be an indication of a TDU war and automation is suggested.

## Example

```
IST2299I TDUDIAG THRESHOLD REACHED FOR TG: TGN = 21
IST2256I ORIG = NETA.CPS05 - DEST = NETA.CPS10
IST314I END
```

---

**IST2300I** **RECEIVED FROM: *adjacent\_node***

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=*cp\_name*. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=*orig\_cp\_name*,DEST=*dest\_cp\_name*,TGN=*tgn*. See message [IST2311I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2301I** ***num* OF total TOPOLOGY RESOURCES DISPLAYED**

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2302I** **MODEL *modelname* IS THE BEST ACTIVE MATCH FOR *applname***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY MODELS,APPL= command. The full description of the message group follows:

```
IST350I DISPLAY TYPE = MODELS
[IST2302I MODEL modelname IS THE BEST ACTIVE MATCH FOR applname]
[IST2303I THERE IS NO ACTIVE MODEL MATCH FOR applname]
[IST2304I rscname ALREADY EXISTS, TYPE=type]
IST314I END
```

### IST350I

This message serves as a header message for the display and identifies the type of information shown in the display.

### IST2302I

This message is issued if an active model application definition is found that is a match for the name specified on the APPL operand. The best active match is displayed.

*modelname* is the name of the model application definition.

*applname* is the name specified on the APPL operand.

### IST2303I

This message is issued when no active model application definition is found that would be a match for the name specified on the APPL operand.

*applname* is the name specified on the APPL operand.

### IST2304I

This message is issued when the name specified on the APPL operand is already defined to VTAM.

*rscname* is the name of the resource using the name specified by the APPL operand. See [Chapter 17, “Node and ID types in VTAM messages,”](#) on page 1699 for a description of *type*.

## System action

Processing continues.

## Operator response

If IST2304I is issued, investigate whether the existence of this resource will cause a conflict when trying to open an application with the same name.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

When the model application definition that will be used by a specific application is displayed, even if the application name is already in use:

```
d net,models,appl=applany
IST097I DISPLAY ACCEPTED
IST350I DISPLAY TYPE = MODELS
IST2302I MODEL APPL* IS THE BEST ACTIVE MATCH FOR APPLANY
IST2304I APPLANY ALREADY EXISTS, TYPE=APPL SEGMENT
IST314I END
```

When the model application definition that will be used by a specific application is displayed, when no model can be found:

```
d net,models,appl=applany
IST097I DISPLAY ACCEPTED
IST350I DISPLAY TYPE = MODELS
IST2303I THERE IS NO ACTIVE MODEL MATCH FOR APPLANY
IST314I END
```

---

<b>IST2303I</b>	<b>THERE IS NO ACTIVE MODEL MATCH FOR <i>applname</i></b>
-----------------	---

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY MODELS,APPL= command. See [IST2302I](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2304I</b>	<b><i>rscname</i> ALREADY EXISTS, TYPE = <i>type</i></b>
-----------------	--

---

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY MODELS,APPL= command. See [IST2302I](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2305I** **NUMBER OF DISCARDED INBOUND READ BUFFERS = *sbalcnt***

---

## Explanation

This message is part of several message groups that VTAM issues in response to a DISPLAY ID or DISPLAY TRL command for a TRLE that is configured with the MPC level QDIO, which represents an OSA-Express adapter, and for HiperSockets. See [“IST1221I” on page 674](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2306I** **TDU DIAGNOSTIC INFORMATION FOR NODE: ID = *cp\_name***

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=TDUDIAG,ID=*cp\_name*. A complete description of the message group follows:

```
IST350I DISPLAY TYPE = TDU DIAGNOSTICS
IST2306I TDU DIAGNOSTIC INFORMATION FOR NODE: ID = cp_name
IST2312I CURRENT RSN = decimal_rsn - HEX RSN = hex_rsn
IST2356I PLATFORM = platfor
[IST2355I TDUDIAG THRESHOLD REACHED ON date AT time]
[IST2307I THIS NODE DOES NOT SUPPORT UNKNOWN TOPOLOGY VECTORS]
[IST2277I POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED]
IST924I -----
IST2275I TDU INFORMATION SINCE LAST RESET ON date AT time
[IST1769I LAST TDU RECEIVED - date time FROM adjacent_cp]
[IST1784I LAST TDU RECEIVED - NONE]
[IST2281I LAST TDU SENT - date time]
[IST2315I LAST TDU SENT - NONE]
IST2282I TDU COUNTS:
IST2352I SENT = sent RECEIVED = received
IST2353I ACCEPTED = accepted REJECTED = rejected
IST2354I IGNORED = ignored
IST2313I TOTAL RSN UPDATES BY LOCAL HOST NODE = rsn_count
[IST2283I NO TDUDIAG RSN UPDATES EXIST]
IST924I -----]
[IST2294I TDUDIAG RSN UPDATES:]
[IST2295I TIME HEX RSN HEX RSN]
[IST2296I CP NAME UPDATED BEFORE AFTER REASON]
[IST2297I cp_name time befor_rsn after_rsn reason]
[IST2300I RECEIVED FROM: adjacent_node]
:
[IST2314I num OF total RSN UPDATES DISPLAYED]
IST314I END
```

### IST350I

This message identifies the type of information in the display and is always TDU DIAGNOSTICS for this message group.

### IST1769I

The *date* and *time* values specify when the last topology database update (TDU) was received for this node. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

*adjacent\_cp* is the network-qualified CP name of the adjacent node that sent the last TDU that was received.

#### **IST1784I**

This message is issued if no TDU about this resource was received.

#### **IST2275I**

- The *date* and *time* values specify when all the TDU information and TDU counters were reset. The TDU information and TDU counters for a node are reset every 24 hours when garbage collection runs, or when one of the following commands is entered:
  - DISPLAY NET,TOPO,LIST=TDUINFO,CLEAR=YES
  - DISPLAY NET,TOPO,LIST=TDUDIAG,CLEAR=YES
  - DISPLAY NET,TOPO,LIST=TDUDIAG,ID=*cpname*,CLEAR=YES

See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST2277I**

This message indicates that possible topology control vector corruption was detected for the node. Because the topology control vectors contain the resource sequence number (RSN) for the node, which determines how a TDU is processed, it is possible that control vector corruption could cause a TDU war. The most probable cause of control vector corruption is a storage overlay.

#### **IST2281I**

The *date* and *time* values specify when the last topology database update (TDU) was sent for this node. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST2282I, IST2352I, IST2353I, IST2354I**

- This message subgroup displays topology database update (TDU) counts for this node. A description of the message subgroup follows:

```
IST2282I TDU COUNTS:
IST2352I SENT      = sent      RECEIVED = received
IST2353I ACCEPTED = accepted  REJECTED = rejected
IST2354I IGNORED  = ignored
```

- **IST2282I**

This is a header message for topology database update (TDU) counts for this node.

- **IST2352I**

This message displays the counts of TDUs that were sent and received for this node.

*sent* is the number of TDUs about the node that were sent since the last time that the TDU counts were reset.

*received* is the number of TDUs about the node that were received since the last time that the TDU counts were reset.

- **IST2353I**

This message displays counts of TDUs that were accepted and rejected for this node.

*accepted* is the number of TDUs about the node that were accepted since the last time that the TDU counts were reset. The TDUs contain new information about the node and the topology database was updated.

*rejected* is the number of TDUs about the node that were rejected since the last time that the TDU counts were reset. The TDUs were rejected because the TDUs contain outdated information about the node. TDUs that are built from the local topology database information for the node were sent as corrections.

- **IST2354I**

This message displays counts of TDUs ignored for this node.

*ignored* is the number of TDUs about the node that were ignored since the last time that TDU counts were reset. The TDUs were discarded because the TDUs contained no new information.

#### **IST2283I**

This message indicates that no resource sequence number (RSN) updates exist for this node.

## **IST2294I, IST2295I, IST2296I, IST2297I, IST2300I, IST2314I**

- This message subgroup displays information about the TDUDIAG resource sequence number (RSN) update information that was saved in the topology database for this node. A description of the message subgroup follows:

```
IST2294I TDUDIAG RSN UPDATES:
IST2295I                                     TIME      HEX RSN  HEX RSN
IST2296I CP NAME                           UPDATED   BEFORE   AFTER    REASON
IST2297I cp_name                          time      befor_rsn after_rsn reason
IST2300I RECEIVED FROM: adjacent_node
IST2314I num OF total RSN UPDATES DISPLAYED
```

### • **IST2294I**

This is a header message for information about the TDUDIAG resource sequence number (RSN) update information that was saved in the topology database for this node.

### • **IST2295I, IST2296I**

These are header messages for the information that is displayed in the IST2297I and IST2300I subgroup messages that follow.

### • **IST2297I**

- One IST2297I message is issued for each TDUDIAG RSN update that was saved in the topology database for this node. The first IST2297I in this message subgroup describes the most recent TDUDIAG RSN update.
- The NUM keyword can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of TDUDIAG RSN updates that are saved for this node is smaller than the number of RSN updates that were requested on the display command, the number of IST2297I messages that are displayed in this subgroup can be smaller than the value that was specified in the NUM keyword.
- *cp\_name* is the network-qualified CP name of the network node that updated the RSN for this node.
- *time* is the time when the TDUDIAG RSN update for this node was saved in the topology database. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.
- *before\_rsn* is the RSN for the node before the RSN update. It is expressed in hexadecimal.
- *after\_rsn* is the RSN for the node after the RSN update. It is expressed in hexadecimal.
- *reason* is the reason that the RSN was updated for this node. Possible values are:

**\*\*\*\*NA\*\*\*\***

RSN update reason is unknown.

#### **BN EXCHANGE**

The RSN was updated for a non-native border node that was sent in a topology exchange.

#### **BN STATUS**

The RSN was updated for the host node when an intersubnet link (ISL) was activated or deactivated, changing the border node (BN) status of the host node.

#### **CHANGE ROLE**

The RSN was updated for an adjacent node when the node type changed from an NN to an EN.

#### **COMMAND**

The RSN was updated for the node as the result of a command other than those specifically listed.

#### **F DELETE**

The RSN was updated when a MODIFY TOPO,FUNCTION=DELETE,SCOPE=NETWORK command was entered to delete the node.

#### **F NORMAL**

The RSN was updated when a MODIFY TOPO,FUNCTION=NORMAL,SCOPE=NETWORK command was entered to change the node status from quiesced to normal.



## **F QUIESCE**

The RSN was updated when a MODIFY TOPO,FUNCTION=QUIESCE,SCOPE=NETWORK command was entered to change the node status to quiesced.

## **NODE UPDATE**

The RSN was updated when one of the following occurred:

- A MODIFY VTAMOPTS,ROUTERES=value command was entered to change the node's route resistance.
- A CDRM-CDRM session was activated, changing the node from a pure APPN node to an interchange node (ICN).

## **GARBAGE**

The RSN was updated during topology garbage collection to inform the rest of the network of the impending node deletion.

## **TDU EQUAL**

The RSN was updated when an input TDU was received for the node with a RSN equal to the RSN in the topology database, but with inconsistent information included.

## **TDU GREATER**

The RSN was updated when an input TDU was received for the host node with a RSN greater than the RSN in the topology database. Because the receiving host node maintains the RSN, this is inconsistent information.

## **TDU VECTOR**

The RSN for the node was updated from an input TDU vector.

## **WEEKLY**

The RSN for the host node was updated during the weekly broadcast of the node and all TGs owned by the node.

### **• IST2300I**

One IST2300I message is issued following each IST2297I message that describes a TDUDIAG RSN update that was made by a node other than the host node.

*adjacent\_node* is the network-qualified CP name of the adjacent node that sent the input TDU that contains the TDUDIAG RSN update information. This might not be the same node that updated the RSN.

**Result:** Only the first copy of a TDUDIAG RSN update that was made by a node other than the host node is displayed. Duplicate RSN updates received from other adjacent nodes are not saved unless the host node must update the RSN in response to the input TDU information.

### **• IST2314I**

This message displays the number of TDUDIAG RSN updates that are displayed in this message subgroup.

*num* is the total number of IST2297I messages that are displayed in the message subgroup.

*total* is the total number of TDUDIAG RSN updates that currently exist for this node.

### **IST2306I**

This is a header message for the topology database update (TDU) diagnostic information for a node.

*cp\_name* is the network-qualified CP name of the node.

### **IST2307I**

This message indicates that the displayed node is an adjacent node that does not support the receipt of unknown topology vectors in TDUs. Network nodes adjacent to the displayed node can send only the originally architected control vectors, X'44', X'45', X'46', and X'47', in TDUs to the displayed node.

### **IST2312I**

This message displays the current resource sequence number (RSN) for this node.

*decimal\_rsn* is the current RSN in decimal format.

*hex\_rsn* is the current RSN in hexadecimal format.

### **IST2313I**

This message displays information about resource sequence number (RSN) updates made for this node. *rsn\_count* is the total number of times that the host node has updated the RSN for this node since the last time that the TDU counts were reset.

#### **IST2315I**

This message is issued if no TDU about this resource was sent.

#### **IST2355I**

This message contains the date and time when the TDUDIAG threshold was reached for this resource. See the TDUDIAG start option information in *z/OS Communications Server: SNA Resource Definition Reference* for more information about the TDUDIAG threshold. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST2356I**

- *platform* is the platform identifier this node. Possible values are:

**\*\*\*\*NA\*\*\*\***

Platform identifier is unknown

**\*\*\*\*NA\*\*\*\***

Platform identifier is unknown

**CS/2**

IBM Communications Server for OS/2

**CS/AIX**

IBM Communications Server for AIX

**CS/LINUX Z**

IBM Communications Server for Linux on z Systems

**CS/LINUX I**

IBM Communications Server for Linux on Intel

**CS/WINDOWS**

IBM Communications Server for Windows

**ISERIES**

IBM iSeries

**SNAPLUS2**

Hewlett-Packard SNAplus2

**Z/OS VTAM**

IBM z/OS Communications Server (VTAM)

**Z/VM VTAM**

IBM z/VM VTAM

**Z/VSE VTAM**

IBM z/VSE VTAM

### **System action**

Processing continues.

### **Operator response**

If you are displaying TDU diagnostic information because of performance degradation of the APPN network, use the information about using the DISPLAY TOPO command with LIST=TDUINFO and LIST=TDUDIAG in *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures*, and do the following:

1. If the DISPLAY TOPO,LIST=TDUINFO commands indicate that this node has excessive TDU activity, and TDUDIAG RSN update information is saved for the node in the topology database, this display might provide information about the network nodes that are causing the performance degradation (TDU war).

2. If you can identify the network nodes that are involved in the TDU war, bring down the CP-CP sessions from one of the network nodes involved to all other network nodes in the network or subnetwork.
3. If you cannot stop the TDU war, save the system log and request a dump for problem determination. Contact the system programmer.

## System programmer response

Take the following actions:

- If the operator provides output from the DISPLAY TOPO,LIST=TDUINFO or DISPLAY TOPO,LIST=TDUDIAG, use the [using the DISPLAY TOPO command with LIST=TDUINFO and LIST=TDUDIAG in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) to learn how to diagnose a TDU war. If possible, identify the topology resource that is in contention and the network nodes that are involved in the TDU war.
- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## User response

Not applicable.

## Problem determination

See the system programmer response.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text”](#) on page 5 for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not recommended.

## Example

The following is an example of the display output from a DISPLAY TOPO,LIST=TDUDIAG,ID=SSCP1A,NUM=6 command:

```
IST350I DISPLAY TYPE = TDU DIAGNOSTICS
IST2306I TDU DIAGNOSTIC INFORMATION FOR NODE: ID = NETA.SSCP1A
IST2312I CURRENT RSN = 1024100 - HEX RSN = 000FA064
IST2356I PLATFORM = Z/OS VTAM
IST2355I TDUDIAG THRESHOLD REACHED ON 01/29/10 AT 15:42:08
IST924I -----
IST2275I TDU INFORMATION SINCE LAST RESET ON 01/29/10 AT 11:43:47
IST1769I LAST TDU RECEIVED - 01/29/10 15:43:25 FROM NETA.SSCP2A
```

```

IST2281I LAST TDU SENT - 01/29/10 15:43:25
IST2282I TDU COUNTS:
IST2352I   SENT      = 496565      RECEIVED = 541498
IST2353I   ACCEPTED = 42795      REJECTED = 450422
IST2354I   IGNORED  = 48281
IST2313I TOTAL RSN UPDATES BY LOCAL HOST NODE = 502059
IST924I -----
IST2294I TDUDIAG RSN UPDATES:
IST2295I
IST2296I CP NAME          TIME      HEX RSN  HEX RSN
IST2297I NETA.SSCP1A      15:43:25 000FA062 000FA064 TDU GREATER
IST2297I NETA.SSCP1A      15:43:25 000FA060 000FA062 TDU GREATER
IST2300I RECEIVED FROM: NETA.SSCP2A
IST2297I NETA.SSCP1A      15:43:19 000FA05E 000FA060 TDU GREATER
IST2297I NETA.SSCP1A      15:43:18 000FA05C 000FA05E TDU GREATER
IST2300I RECEIVED FROM: NETA.SSCPAA
IST2297I NETA.SSCP1A      15:43:02 000FA05A 000FA05C TDU GREATER
IST2297I NETA.SSCP1A      15:43:02 000FA058 000FA05A TDU GREATER
IST2300I RECEIVED FROM: NETA.SSCPAA
IST2314I 6 OF 50 RSN UPDATES DISPLAYED
IST314I END

```

---

## IST2307I THIS NODE DOES NOT SUPPORT UNKNOWN TOPOLOGY VECTORS

### Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=*cp\_name*. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,ID=*cp\_name*,LIST=ALL. See message [IST1295I](#) for a complete description of this message group.

### Routing code

2

### Descriptor code

5

---

## IST2308I THAT HAVE SAVED TDUDIAG RSN UPDATES

### Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=TDUDIAG summary command. See message [IST2274I](#) for a complete description of this message group.

### Routing code

2

### Descriptor code

5

---

## IST2309I ACCELERATED ROUTING ENABLED

### Explanation

This message is part of several message groups that VTAM issues in response to a DISPLAY ID or DISPLAY TRL command. See [“IST1221I” on page 674](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2310I****ACCELERATED ROUTING DISABLED**

## Explanation

This message is part of several message groups that VTAM issues in response to a DISPLAY ID or DISPLAY TRL command. See [“IST1221I” on page 674](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2311I****TDU DIAGNOSTIC INFORMATION FOR TG: TGN = *tg\_number***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=TDUDIAG,ORIG=*origin\_node*,DEST=*dest\_node*,TGN=*tg\_number*. A complete description of the message group follows:

```
IST350I DISPLAY TYPE = TDU DIAGNOSTICS
IST2311I TDU DIAGNOSTIC INFORMATION FOR TG: TGN = tg_number
IST2256I ORIG = origin_node - DEST = dest_node
IST2312I CURRENT RSN = decimal_rsn - HEX RSN = hex_rsn
[IST2355I TDUDIAG THRESHOLD REACHED ON date AT time]
[IST2277I POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED]
IST924I -----
IST2275I TDU INFORMATION SINCE LAST RESET ON date AT time
[IST1769I LAST TDU RECEIVED - date time FROM adjacent_cp]
[IST1784I LAST TDU RECEIVED - NONE]
[IST2281I LAST TDU SENT - date time]
[IST2315I LAST TDU SENT - NONE]
IST2282I TDU COUNTS:
IST2352I SENT = sent RECEIVED = received
IST2353I ACCEPTED = accepted REJECTED = rejected
IST2354I IGNORED = ignored
IST2313I TOTAL RSN UPDATES BY LOCAL HOST NODE = rsn_count
[IST2283I NO TDUDIAG RSN UPDATES EXIST]
[IST924I -----]
[IST2294I TDUDIAG RSN UPDATES:]
[IST2295I TIME HEX RSN HEX RSN]
[IST2296I CP NAME UPDATED BEFORE AFTER REASON]
[IST2297I cp_name time befor_rsn after_rsn reason]
[IST2300I RECEIVED FROM: adjacent_node]
:
[IST2314I num OF total RSN UPDATES DISPLAYED]
IST314I END
```

## IST350I

This message identifies the type of information in the display and is always TDU DIAGNOSTICS for this message group.

## IST1769I

The *date* and *time* values specify when the last topology database update (TDU) was received for this TG. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

*adjacent\_cp* is the network-qualified CP name of the adjacent node that sent the last TDU that was received.

#### **IST1784I**

This message is issued if no TDU about this resource was received.

#### **IST2275I**

- The *date* and *time* values specify when all the TDU information and TDU counters were reset. The TDU information and TDU counters for a TG are reset every 24 hours when garbage collection runs, or when one of the following commands is entered:
  - DISPLAY NET,TOPO,LIST=TDUINFO,CLEAR=YES or a
  - DISPLAY NET,TOPO,LIST=TDUDIAG,CLEAR=YES
  - DISPLAY NET,TOPO,LIST=TDUDIAG,ORIG=*cpname*,DEST=*destcpname*,TGN=*tgn*,CLEAR=YES

See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST2277I**

This message indicates that possible topology control vector corruption was detected for the TG. Because the topology control vectors contain the resource sequence number (RSN) for the node, which determines how a TDU is processed, it is possible that control vector corruption could cause a TDU war. The most probable cause of control vector corruption is a storage overlay.

#### **IST2281I**

The *date* and *time* values specify when the last topology database update (TDU) was sent for this TG. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

#### **IST2282, IST2352I, IST2353I, IST2354I**

- This message subgroup displays topology database update (TDU) counts for this TG. A description of the message subgroup follows:

```
IST2282I TDU COUNTS:
IST2352I SENT      = sent      RECEIVED = received
IST2353I ACCEPTED = accepted  REJECTED = rejected
IST2354I IGNORED  = ignored
```

- **IST2282I**

This is a header message for topology database update (TDU) counts for this TG.

#### **IST2313I**

This message displays information about resource sequence number (RSN) updates made for this TG.

*rsn\_count* is the total number of times that the host node has updated the RSN for this TG since the last time that the TDU counts were reset.

#### **IST2315I**

This message is issued if no TDU about this resource was sent.

- **IST2352I**

This message displays the counts of TDUs that were sent and received for this TG

*sent* is the number of TDUs about the TG that were sent since the last time that the TDU counts were reset.

*received* is the number of TDUs about the TG that were received since the last time that the TDU counts were reset.

- **IST2353I**

This message displays counts of TDUs that were accepted and rejected for this TG.

*accepted* is the number of TDUs about the TG that were accepted since the last time that the TDU counts were reset. The TDUs contain new information about the node and the topology database was updated.

*rejected* is the number of TDUs about the node that were rejected since the last time that the TDU counts were reset. The TDUs were rejected because the TDUs contain outdated information about the node. TDUs that are built from the local topology database information for the node were sent as corrections.

- **IST2354I**

This message displays counts of TDUs ignored for this TG.

*ignored* is the number of TDUs about the TG that were ignored since the last time that TDU counts were reset. The TDUs were discarded because the TDUs contained no new information.

**IST2283I**

This message indicates that no resource sequence number (RSN) updates exist for this TG.

**IST2294I, IST2295I, IST2296I, IST2297I, IST2300I, IST2314I**

- This message subgroup displays information about the TDUDIAG resource sequence number (RSN) update information that was saved in the topology database for this TG. A description of the message subgroup follows:

```
IST2294I TDUDIAG RSN UPDATES:
IST2295I                                     TIME      HEX RSN   HEX RSN
IST2296I CP NAME                           UPDATED   BEFORE    AFTER     REASON
IST2297I cp_name                          time      befor_rsn after_rsn reason
IST2300I   RECEIVED FROM: adjacent_node
IST2314I num OF total RSN UPDATES DISPLAYED
```

- **IST2294I**

This is a header message for information about the TDUDIAG resource sequence number (RSN) update information that was saved in the topology database for this TG.

- **IST2295I, IST2296I**

These are header messages for the information that is displayed in the IST2297I and IST2300I subgroup messages that follow.

- **IST2297I**

- One IST2297I message is issued for each TDUDIAG RSN update that was saved in the topology database for this TG. The first IST2297I in this message subgroup describes the most recent TDUDIAG RSN update.
- The NUM keyword can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of TDUDIAG RSN updates that are saved for this TG is smaller than the number of RSN updates that were requested on the display command, the number of IST2297I messages that are displayed in this subgroup can be smaller than the value that was specified in the NUM keyword.
- *cp\_name* is the network-qualified CP name of the network node that updated the RSN for this TG.
- *time* is the time when the TDUDIAG RSN update for this TG was saved in the topology database. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.
- *before\_rsn* is the RSN for the TG before the RSN update. It is expressed in hexadecimal.
- *after\_rsn* is the RSN for the TG after the RSN update. It is expressed in hexadecimal.
- *reason* is the reason that the RSN was updated for this TG. Possible values are:

**\*\*\*\*NA\*\*\*\***

RSN update reason is unknown.

**COMMAND**

The RSN was updated for the TG as the result of a command other than those specifically listed.

**CW ACTIVE**

The RSN was updated when the contention winner CP-CP session was activated over the TG.

**CW INACTIVE**

The RSN was updated when the contention winner CP-CP session over the TG was deactivated.

**F CLRNRCH**

The RSN was updated when a MODIFY TOPO,FUNCTION=CLRNRCH,SCOPE=NETWORK command was entered to clear unreachable partner records.

**F DELETE**

The RSN was updated when a MODIFY TOPO,FUNCTION=DELETE,SCOPE=NETWORK command was entered to delete the TG.

**F NORMAL**

The RSN was updated when a MODIFY TOPO,FUNCTION=NORMAL,SCOPE=NETWORK command was entered to change the TG status from quiesced to normal.

**F QUIESCE**

The RSN was updated when a MODIFY TOPO,FUNCTION=QUIESCE,SCOPE=NETWORK command was entered to change the TG status to quiesced.

**GARBAGE**

The RSN was updated during topology garbage collection to inform the rest of the network of the impending TG deletion.

**TDU EN TG**

The RSN was updated when an input TDU was received for a TG owned by the receiving host node because the partner node changed from an NN to an EN. The host node sets the TG to an INOP status and broadcasts it to all adjacent nodes to prevent the use of the endpoint TG for intermediate routing.

**TDU EQUAL**

The RSN was updated when an input TDU was received for the TG with a RSN equal to the RSN in the topology database, but with inconsistent information included.

**TDU GREATER**

The RSN was updated when an input TDU was received for the TG owned by the receiving host node with a RSN greater than the RSN in the topology database. Because the TG's owning node maintains the RSN, this is inconsistent information.

**TDU ISL/BEX**

The RSN was updated when an input TDU was received for an intersubnet link (ISL) or branch extender (BEX) TG that is owned by the receiving host node and the input status of the TG was rejected for one of the following reasons:

- The input TDU has the garbage collection indicator (GCI) on, but the TG in the local database is operational and its RSN has an even value.
- The input status of the TG is not quiesced; an ISL or BEX TG is always broadcast to non-owning nodes as quiesced.

The host node broadcasts the correct status of the TG to all adjacent nodes.

**TDU NEW TG**

The RSN was updated when an input TDU was received for a TG that is owned by the receiving host node, but that TG does not exist. The host node broadcasts the TG with an INOP status to all adjacent nodes to prevent the use of the non-existent TG.

**TDU VECTOR**

The RSN for the TG was updated from an input TDU vector.

**TG ACTIVE**

The RSN was updated when the TG was activated.

**TG CREATE**

The RSN was set to the start RSN when the TG record was created at TG activation.

**TG INACTIVE**

The RSN was updated when the TG was deactivated.

**TG LOCAL**

The RSN was updated for a TG that originates in the host node, with a destination partner node that changed its node type from NN to EN.



## TG REVERSE

The RSN was updated for a TG that originates in a partner node that changed its node type from NN to EN. This is the reverse TG of a TG that originates in the host node.

## WEEKLY

The RSN for the TG was updated during the weekly broadcast of the host node and all TGs owned by the host node.

### • IST2300I

One IST2300I message is issued following each IST2297I message that describes a TDUDIAG RSN update for the TG that was made by a node other than the host node.

*adjacent\_node* is the network-qualified CP name of the adjacent node that sent the input TDU that contains the TDUDIAG RSN update information. This might not be the same node that updated the RSN.

**Result:** Only the first copy of a TDUDIAG RSN update that was made by a node other than the host node is displayed. Duplicate RSN updates received from other adjacent nodes are not saved unless the host node must update the RSN in response to the input TDU information.

### • IST2314I

This message displays the number of TDUDIAG RSN updates that are displayed in this message subgroup.

*num* is the total number of IST2297I messages that are displayed in the message subgroup.

*total* is the total number of TDUDIAG RSN updates that currently exist for this node.

## IST2311I, IST2256I

- This is a header message subgroup for the topology database update (TDU) diagnostic information for the TG. A description of the message subgroup follows:

```
IST2311I TDU DIAGNOSTIC INFORMATION FOR TG: TGN = tg_number
IST2256I ORIG = origin_node - DEST = dest_node
```

### • IST2311I

This header message displays the TG number for the TG.

*tg\_number* is the TG number of the TG.

### • IST2256I

This header message displays the origin and destination of the TG.

*origin\_node* is the network-qualified CP name of the origin node of the TG.

*dest\_node* is the network-qualified CP name of the destination node of the TG.

## IST2312I

This message displays the current resource sequence number (RSN) for this TG.

*decimal\_rsn* is the current RSN in decimal format.

*hex\_rsn* is the current RSN in hexadecimal format.

## IST2355I

This message contains the date and time when the TDUDIAG threshold was reached for this TG. See the [TDUDIAG start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the TDUDIAG threshold. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values.

## System action

Processing continues.

## Operator response

If you are displaying TDU diagnostic information because of performance degradation of the APPN network, use the information about [using the DISPLAY TOPO command with LIST=TDUINFO and LIST=TDUDIAG](#) in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) , and do the following:

1. If the DISPLAY TOPO,LIST=TDUINFO commands indicate that this TG has excessive TDU activity, and TDUDIAG RSN update information is saved for the TG in the topology database, this display might provide information about the network nodes that are causing the performance degradation (TDU war).
2. If you can identify the network nodes that are involved in the TDU war, bring down the CP-CP sessions from one of the network nodes involved to all other network nodes in the network or subnetwork.
3. If you cannot stop the TDU war, save the system log and request a dump for problem determination. Contact the system programmer.

## System programmer response

Take the following actions:

- If the operator provides output from the DISPLAY TOPO,LIST=TDUINFO or DISPLAY TOPO,LIST=TDUDIAG, use the using the DISPLAY TOPO command with LIST=TDUINFO and LIST=TDUDIAG in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) to learn how to diagnose a TDU war. If possible, identify the topology resource that is in contention and the network nodes that are involved in the TDU war.
- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

## User response

Not applicable.

## Problem determination

See the system programmer response.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not recommended.

## Example

The following is an example of the display output from a DISPLAY TOPO,LIST=TDUDIAG,ORIG=SSCP1A,DEST=SSCPBA,TGN=2,NUM=3 command:

```
IST350I DISPLAY TYPE = TDU DIAGNOSTICS
IST2311I TDU DIAGNOSTIC INFORMATION FOR TG: TGN = 21
IST2256I ORIG = NETA.SSCP1A - DEST = NETA.SSPCBA
```

```

IST2312I CURRENT RSN = 3128 - HEX RSN = 00000C38
IST2355I TDUDIAG THRESHOLD REACHED ON 02/11/10 AT 13:37:08
IST924I -----
IST2275I TDU INFORMATION SINCE LAST RESET ON 02/11/10 AT 10:48:52
IST1769I LAST TDU RECEIVED - 02/11/10 13:40:14 FROM NETA.SSCP1A
IST2281I LAST TDU SENT - 02/11/10 13:40:20
IST2282I TDU COUNTS:
IST2352I SENT = 3890 RECEIVED = 5101
IST2353I ACCEPTED = 793 REJECTED = 4260
IST2354I IGNORED = 48
IST2313I TOTAL RSN UPDATES BY LOCAL HOST NODE = 4260
IST924I -----
IST2294I TDUDIAG RSN UPDATES:
IST2295I TIME HEX RSN HEX RSN
IST2296I CP NAME UPDATED BEFORE AFTER REASON
IST2297I NETA.SSCP1A 13:40:20 00000C36 00000C38 TDU GREATER
IST2300I RECEIVED FROM: NETA.SSCP1A
IST2297I NETA.SSCP1A 13:40:20 00000C34 00000C36 TDU GREATER
IST2300I RECEIVED FROM: NETA.SSCP2A
IST2297I NETA.SSCP1A 13:40:19 00000C32 00000C34 TDU GREATER
IST2300I RECEIVED FROM: NETA.SSCP1A
IST2314I 3 OF 50 RSN UPDATES DISPLAYED
IST314I END

```

---

**IST2312I** **CURRENT RSN = *decimal\_rsn* - HEX RSN = *hex\_rsn***

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=cp\_name. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tn. See message [IST2311I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2313I** **TOTAL RSN UPDATES BY LOCAL HOST NODE = *rsn\_count***

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=cp\_name. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tn. See message [IST2311I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2314I** ***num* OF total RSN UPDATES DISPLAYED**

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=cp\_name. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tgn. See message [IST2311I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2315I** **LAST TDU SENT - NONE**

## Explanation

VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=cp\_name. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig\_cp\_name,DEST=dest\_cp\_name,TGN=tgn. See message [IST2311I](#) for a complete description of this message group.
- DISPLAY TOPO,ID=cp\_name,LIST=ALL. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig\_cp\_name,DEST=dest\_cp\_name or DISPLAY TOPO,ORIG=orig\_cp\_name,TGN=tgn. See message [IST1299I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2316I** **EARLYINO = *earlyino* EARLYINT = *earlyint***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See [“IST1230I” on page 691](#) for more information.

## Routing code

2

## Descriptor code

5

---

**IST2317I** **ULPRETUO = *ulpretuo* ULPRETU = *ulpretu***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See [“IST1230I” on page 691](#) for more information.

## Routing code

2

## Descriptor code

5

---

**IST2318I** **UNABLE TO OPEN *applname* - NETWORK ADDRESS LIMIT REACHED**

## Explanation

While creating a dynamic APPL RDTE during an OPEN ACB, VTAM attempted to allocate a network address for the resource. However, VTAM had already allocated the maximum number of network addresses in the host subarea. Therefore, VTAM failed to define a new network address for the resource.

## System action

VTAM fails the OPEN ACB. The ACBERFLG field is set to X'14'.

## Operator response

Deactivate any unneeded major nodes in the host subarea to free network addresses, and then have the application OPEN the ACB again. If VTAM continues to issue this message, save the system log for problem determination. See the [VARY INACT command in z/OS Communications Server: SNA Operation](#) for more information.

## System programmer response

Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system.

Because the maximum number of elements that can be assigned by VTAM in the host subarea has been reached, examine the possibility of allocating devices and applications to other subareas.

You can increase the number of available host subarea element addresses by allowing the use of high-order element addresses for some resources. To enable the use of high-order element addresses, specify YES for the ENHADDR start option. Modify the start options file (ATCSTRxx) and restart VTAM to use the start option. See the information about [increasing host subarea element addresses in z/OS Communications Server: SNA Network Implementation Guide](#).

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server TCP/IP: SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2318I UNABLE TO OPEN APPL1 - NETWORK ADDRESS LIMIT REACHED
```

---

**IST2319I** **PHYSICAL CHANNEL ID = *pchid***

## Explanation

This message is part of several message groups that VTAM issues in response to a DISPLAY ID or DISPLAY TRL command. See message [“IST1221I” on page 674](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2320I** **WTOR *msg\_num* FROM CONSOLE *console* DELETED DUE TO VTAM HALT**

## Explanation

VTAM issues this unsolicited message when a HALT or HALT,QUICK command was entered to end VTAM; however, HALT processing detected an outstanding write-to-operator with reply (WTOR) message that is waiting for a reply. The outstanding WTOR message is deleted so that VTAM HALT processing can continue.

In the message text:

***msg\_num***

The message number of the WTOR message that is deleted.

***console***

The console ID of the operating system console that is waiting for the response to the WTOR message. If the console ID is not available, \*\*\*NA\*\*\* is displayed.

## System action

VTAM HALT processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

7,12

## Automation

Not recommended.

## Example

```
IST2320I WTOR IST1660A FROM CONSOLE 01000040 DELETED DUE TO VTAM HALT
```

---

**IST2321I****TDUDIAG VALUE MUST BE NUMERIC, 'ALWAYS', OR 'NEVER'**

## Explanation

VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the value of the TDUDIAG start option is not correct. Valid values for TDUDIAG are ALWAYS, NEVER, or a numeric value.

See the [TDUDIAG start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).

## System action

- If the error occurred during START processing, VTAM issues message IST1311A to prompt you for the correct value of the TDUDIAG start option.
- If the error occurred in response to a MODIFY VTAMOPTS command, VTAM ignores the TDUDIAG start option and processing continues

## Operator response

1. If the error occurred during START processing, enter a valid value for the TDUDIAG start option in response to IST1311A. You can also enter a blank if you want to accept the default value for the TDUDIAG start option.
2. If the error occurred in response to a MODIFY VTAMOPTS command, enter the command again with a valid value for the TDUDIAG start option.

## System programmer response

1. If the error occurred during START processing, correct the value for the TDUDIAG start option if TDUDIAG is coded in an ATCSTRxx file.
2. If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not recommended.

## Example

```
IST2321I TDUDIAG VALUE MUST BE NUMERIC, 'ALWAYS', OR 'NEVER'
```

---

**IST2322I** **WTOR *msg\_num* FROM POA *poa\_name* DELETED DUE TO VTAM HALT**

## Explanation

VTAM issues this unsolicited message when a HALT or HALT,QUICK command was entered to end VTAM; however, HALT processing detected an outstanding write-to-operator with reply (WTOR) message that is waiting for a reply. The outstanding WTOR message is deleted so that VTAM HALT processing can continue.

In the message text:

### ***msg\_num***

The message number of the WTOR message that is deleted.



***poa\_name***

The program operator application (POA) that is waiting for the response to the WTOR message. If the POA name is not available, \*\*\*NA\*\*\* is displayed.

**System action**

VTAM HALT processing continues.

**Operator response**

None.

**System programmer response**

None.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

7,12

**Automation**

Not recommended.

**Example**

```
IST2322I WTOR IST1660A FROM POA A0600PPT DELETED DUE TO VTAM HALT
```

---

**IST2323E****EE HEALTH VERIFICATION FAILED FOR ONE OR MORE CONNECTIONS****Explanation**

VTAM sent a Logical Data Link Control (LDLC) probe to the remote partner on one or more active EE connections to verify the health of the EE connection. VTAM did not receive the response from one or more remote partners of the LDLC probe. This message remains on the system console until all active EE connections receive successful EE health verifications or until the message is manually deleted.

## System action

Processing continues.

## Operator response

Use the DISPLAY NET,EE,LIST=EEVERIFY command to determine which EE connections are experiencing EE health verification failures. Message IST2325I will be displayed for each line or PU that failed health verification on last LDLC probe to their remote partner. Use the DISPLAY NET,ID=*linename* or DISPLAY NET,ID=*puname* command for more information about local and remote IP addresses. If you cannot determine the cause of the problem, contact the system programmer.

## System programmer response

Determine the network connectivity problems between this node and the remote partners. Use the DISPLAY NET,EEDIAG,TEST=YES command to determine the reason for the failure. See the information about the DISPLAY EEDIAG,TEST=YES command in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) and the information about [Troubleshooting EE problems in z/OS Communications Server: SNA Network Implementation Guide](#).

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

11

## Automation

This message is a good candidate for automation.

## Example

```
IST2323E EE HEALTH VERIFICATION FAILED FOR ONE OR MORE CONNECTIONS
```

---

**IST2324I****EE HEALTH VERIFICATION: FAILED CONNECTION INFORMATION**

## Explanation

This message is displayed in response to the D NET,EE,LIST=EEVERIFY command. A complete description of the message group follows.

```
IST2324I EE HEALTH VERIFICATION: FAILED CONNECTION INFORMATION
[IST2325I LINE linename PU puname ON date AT time]
IST2326I EE HEALTH VERIFICATION TOTAL CONNECTION FAILURES = number
```

### IST2324I

This message is displayed in response to a D NET,EE,LIST=EEVERIFY command

### IST2325I

This message is displayed to show each failed EE connection.

In the message text:

#### ***linename***

The name of the line for the EE connection that failed health verification.

#### ***puname***

The name of the PU that is associated with the EE connection that failed health verification

#### ***date and time***

The date and time when the EE health verification failed. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

### IST2326I

This message provides the total number of EE connections that failed health verification

In the message text:

#### ***number***

The number of EE lines that failed verification. A value of 0 indicates that no EE lines failed verification.

## System action

Processing continues

## Operator response

If IST2326I shows that there are failed EE connections then contact the system programmer.

## System programmer response

Issue the DISPLAY NET,EEDIAG,ID=*linename*,TEST=YES command to test the EE connection. See the information about understanding the EE connectivity test output in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#).

## User response

Not applicable.

## Problem determination

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2324I EE HEALTH VERIFICATION FAILED CONNECTION INFORMATION
IST2325I LINE LNEE1000 PU PU1000 ON 04/16/09 AT 14:01:00
IST2325I LINE LNEE2000 PU PU2000 ON 04/16/09 AT 14:02:00
IST2326I EE HEALTH VERIFICATION TOTAL CONNECTION FAILURES = 2
```

---

**IST2325I** **LINE *linename* PU *puname* ON *date* AT *time***

## Explanation

This message is part of a group of messages displayed in response to the D NET,EE,LIST=EEVERIFY command. The first message in the group is IST2324I. See [IST2324I](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2326I** **EE HEALTH VERIFICATION TOTAL CONNECTION FAILURES = *number***

## Explanation

This message is part of a group of messages displayed in response to the D NET,EE,LIST=EEVERIFY command. The first message in the group is IST2324I. See [IST2324I](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2327I** **EE HEALTH VERIFICATION OPTION - EEVERIFY = *nnnn* MINUTES**

## Explanation

VTAM issues this message subgroup to report the results of the last EE health verification on the displayed line or PU that represent an EE connection. This subgroup is a part of the IST2001I message group. This subgroup is issued when a DISPLAY EE command that uses the ID parameter with the line or PU that has an active EE connection, and VTAM is verifying the health of the EE connection periodically. This message group is not issued if VTAM is not verifying the health of the EE connection periodically or the PU/line does not support EE health verification function with an active EE connection.

The following is the subgroup that is issued when the most recent EE health verification indicated a failure:

```
IST2327I EE HEALTH VERIFICATION OPTION - EEVERIFY = number MINUTES
[IST2328I EE HEALTH VERIFICATION FAILED ON date AT time]
[IST2339I EE HEALTH VERIFICATION LAST SUCCESS ON date AT time]
```

The following is the subgroup that is issued when the most recent EE health verification indicated a success and we have had a previous failure:

```
IST2327I EE HEALTH VERIFICATION OPTION - EEVERIFY = number MINUTES
[IST2329I EE HEALTH VERIFICATION SUCCESSFUL ON date AT time]
[IST2340I EE HEALTH VERIFICATION LAST FAILED ON date AT time]
```

The following is the subgroup that is issued when the most recent EE health verification indicated a success and we have never had a previous failure:

```
IST2327I EE HEALTH VERIFICATION OPTION - EEVERIFY = number MINUTES
[IST2329I EE HEALTH VERIFICATION SUCCESSFUL ON date AT time]
[IST2341I EE HEALTH VERIFICATION HAS NEVER FAILED FOR THIS CONNECTION]
```

### IST2327I

This message is displayed if EE health verification is active for the displayed PU or line.

In the message text:

#### ***number***

The *number* value indicates, in minutes, how often VTAM performs a health verification on the EE connection.

### IST2328I

This message is issued to report the date and time that the most recent EE health verification failed.

In the message text:

#### ***date and time***

The date and time when the most recent EE health verification failed. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values.

### IST2329I

This message is issued to report the date and time that the most recent EE health verification was successful.

In the message text:

#### ***date and time***

The date and time that the most recent EE health verification was successful. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values. The *time* value is in the 24 hour format.

### IST2339I

This message is issued to report the date and time that the most recent EE health verification failed.

#### ***date and time***

The date and time that the most recent EE health verification failed. See [“DATE and TIME formats” on page 6](#) for information about the *date* and *time* values. The *time* value is in the 24 hour format.

### IST2340I

This message is issued to report the date and time that the most recent EE health verification attempt failed.

**date and time**

The date and time that the that the most recent EE health verification attempt failed. See [“DATE and TIME formats”](#) on page 6 for information about the *date* and *time* values. The *time* value is in the 24 hour format.

**IST2341I**

This message is issued to report that the EE health verification never failed for this connection.

**System action**

Processing continues.

**Operator response**

If IST2329I is issued, then no action is necessary. If IST2328I is issued, then contact the system programmer.

**System programmer response**

Issue the DISPLAY NET,EEDIAG,ID=*resource\_name*,TEST=YES to test the EE connection. The *resource\_name* is the same value that was used in the DISPLAY NET,ID= command that generated the IST2328I message. See the information about [understanding the EE connectivity test output](#) in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#).

**User response**

Not applicable.

**Problem determination**

None.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text”](#) on page 5 for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

**Automation**

Not applicable.

**Example**

Not applicable.

---

**IST2328I****EE HEALTH VERIFICATION FAILED ON *date* AT *time***

## Explanation

This message is part of a subgroup of messages that is displayed in response to a DISPLAY EE command for a line or PU that has an active EE connection, and VTAM is verifying the health of the EE connection periodically. The first message is IST2327I. See [IST2327I](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2329I</b>	<b>EE HEALTH VERIFICATION SUCCESSFUL ON <i>date</i> AT <i>time</i></b>
-----------------	--

---

## Explanation

This message is part of a subgroup of messages that is displayed in response to a DISPLAY EE command for a line or PU with an active EE connection, and VTAM is verifying the health of the EE connection periodically. The first message is IST2327I. See [IST2327I](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

<b>IST2330I</b>	<b>EE HEALTH VERIFICATION FAILED FOR <i>puname</i> AT <i>time</i></b>
-----------------	---

---

## Explanation

This message is the first in a group of messages that VTAM issues when the activation of an EE connection fails EE health verification. EE health verification is specified with the EEVERIFY start option. See the [EEVERIFY start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).

VTAM sends a Logical Data Link Control (LDLC) probe to the remote partner to determine if all ports are accessible during the activation of the EE connection. EE health verification for this connection activation failed because VTAM did not receive a response, or received an error response, from the remote partner.

A complete description of the message group follows:

```
IST2330I EE HEALTH VERIFICATION FAILED FOR puname AT time
IST1680I type IP ADDRESS ip_address
IST1680I type IP ADDRESS ip_address
IST314I  END
```

### IST2330I

- In the message text:

#### ***puname***

The name of the switched physical unit.

#### ***time***

The time when the EE health verification failed. See [“DATE and TIME formats”](#) on page 6 for information about the *time* value. The *time* value is in the 24 hour format.

### IST1680I

- In the message text:

**type**

The *type* value identifies the IP address that is displayed. Possible values are LOCAL and REMOTE.

**ip\_address**

Either the remote IP address or the local IP address. The first instance of message IST1680I displays the local IP address, and the second instance of message IST1680I displays the remote IP address.

**System action**

The EE connection is not established. An INOP is generated when EE health verification fails and the EE connection is not established.

**Operator response**

Issue the DISPLAY EEDIAG,TEST=YES command using the local and remote IP addresses to determine the Enterprise Extender connectivity. Review the Enterprise Extender Connectivity Test output for any unsuccessful test results. If the reason for the failure could not be determined, contact the system programmer with the DISPLAY EEDIAG,TEST=YES command output.

**System programmer response**

Review the Enterprise Extender Connectivity Test output for any unsuccessful test results further. See [DISPLAY EEDIAG in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information about analyzing the test output.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

**Automation**

The automation tool can issue the DISPLAY EEDIAG,TEST=YES command when it detects the message IST2330I.



## Example

```
IST2330I EE HEALTH VERIFICATION FAILED FOR SWPU0001 AT 10:20:02
IST1680I LOCAL IP ADDRESS 2000::67:1:1
IST1680I REMOTE IP ADDRESS 2000::67:1:2
IST314I END
```

---

**IST2331I**

**QUEUE QUEUE READ QUEUE**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command. See message [“IST1221I” on page 674](#) for a complete description of the message group.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2332I**

**ID TYPE STORAGE STATUS**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command. See message [“IST1221I” on page 674](#) for a complete description of the message group.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2333I**

***qid qtype storage\_amount qstat***

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command. See message [“IST1221I” on page 674](#) for a complete description of the message group.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

---

**IST2334I**

**EEVERIFY MUST BE 'ACTIVATE', 'NEVER', OR A NUMERIC VALUE**

---

## Explanation

VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the value of the EEVERIFY start option is not correct. Valid values for EEVERIFY are ACTIVATE, NEVER or a numeric value.

See the [EEVERIFY start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#).

## System action

One of the following occurred:

- If the error occurred during START processing, VTAM issues message IST1311A to prompt you for the correct value of the EEVERIFY start option.
- If the error occurred in response to a MODIFY VTAMOPTS command, VTAM ignores the EEVERIFY VALUE and processing continues.

## Operator response

Take one of the following actions:

- If the error occurred during START processing, enter a valid value for the EEVERIFY start option in response to IST1311A. You can also enter a blank if you want to accept the default value of ACTIVATE for the EEVERIFY start option or an earlier valid value of the EEVERIFY start option.
- If the error occurred in response to a MODIFY VTAMOPTS command, enter the command again with a valid value for the EEVERIFY start option.

## System programmer response

Take one of the following actions:

- If the error occurred during START processing, correct the value for the EEVERIFY start option if EEVERIFY is coded in an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

**Automation**

Not applicable.

**Example**

```
IST2334I EEVERIFY MUST BE 'ACTIVATE', 'NEVER', OR A NUMERIC VALUE
```

---

**IST2335I** **PATH SWITCH REASON: XMIT STALL RECOVERY**

**Explanation**

This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either [IST1494I](#) or [IST1968I](#). See the description of those messages for more information.

**Routing code**

2

**Descriptor code**

5

---

**IST2336I** **STALLED = *stalled***

**Explanation**

VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is [IST2191I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2337I** **CHPID TYPE = *chpid\_type* CHPID = *chpid\_num* PNETID = *net\_id***

---

## Explanation

This message is part of several message groups that VTAM issues in response to a DISPLAY ID or DISPLAY TRL command. See [“IST1221I” on page 674](#) for a complete description.

VTAM also issues this message as part of a group of messages that the adapter interrupt monitoring function generates. The first message in the group is IST2419I. See [“IST2419I” on page 1504](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2338I** **NACPROBE MUST BE 'DUMP', 'NODUMP', OR A NUMERIC VALUE**

---

## Explanation

VTAM issues this message during START processing or in response to a **MODIFY VTAMOPTS** command when the value of the NACPROBE start option is not correct. Valid values for NACPROBE are DUMP, NODUMP, or a numeric value.

See [NACPROBE start option in z/OS Communications Server: SNA Resource Definition Reference](#).

## System action

One of the following occurred:

- If the error occurred during START processing, VTAM issues message IST1311A to prompt you for the correct value of the NACPROBE start option.
- If the error occurred in response to a **MODIFY VTAMOPTS** command, VTAM ignores the NACPROBE value and processing continues.

## Operator response

Take one of the following actions:

- If the error occurred during START processing, enter a valid value for the NACPROBE start option in response to message IST1311A. You can also enter a blank if you want to accept the default value of NODUMP for the NACPROBE start option or an earlier valid value of the NACPROBE start option.
- If the error occurred in response to a **MODIFY VTAMOPTS** command, enter the command again with a valid value for the NACPROBE start option.

## System programmer response

Take one of the following actions:

- If the error occurred during START processing and NACPROBE is coded in an ATCSTRxx file, correct the value for the NACPROBE start option.
- If the error occurred in response to a **MODIFY VTAMOPTS** command, no further action is required.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

**Routing code**

2

**Descriptor code**

5

**Automation**

Not applicable.

**Example**

```
IST2338I NACPROBE MUST BE 'DUMP', 'NODUMP', OR A NUMERIC VALUE
```

---

**IST2339I** **EE HEALTH VERIFICATION LAST SUCCESS ON *date AT time***

**Explanation**

This message is part of a subgroup of messages that is displayed in response to a DISPLAY EE command for a line or PU that has an active EE connection, and VTAM is verifying the health of the EE connection periodically. See message [IST2327I](#) for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IST2340I** **EE HEALTH VERIFICATION LAST FAILED ON *date AT time***

## Explanation

This message is part of a subgroup of messages that is displayed in response to a DISPLAY EE command for a line or PU with an active EE connection, and VTAM is verifying the health of the EE connection periodically. See message [IST2327I](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2341I** **EE HEALTH VERIFICATION HAS NEVER FAILED FOR THIS CONNECTION**

## Explanation

This message is part of a subgroup of messages that is displayed in response to a DISPLAY EE command for a line or PU that has an active EE connection, and VTAM is verifying the health of the EE connection periodically. See message [IST2327I](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2342I** **EE HEALTH VERIFICATION NOT SUPPORTED BY *puname***

## Explanation

During the activation of the EE connection, VTAM sent Logical Data Link Control (LDLC) probes to the remote partner to determine if all five ports are accessible. VTAM did not receive a response to any of the LDLC probe requests. VTAM continued with the activation of the EE connection between this node and the remote partner. Because VTAM received no replies to its LDLC probe requests, VTAM determined that the remote partner does not support EE health verification.

In the message text:

***puname***

The name of the switched physical unit.

## System action

VTAM continues with the activation of the EE connection.

## Operator response

Contact the system programmer.

## System programmer response

If EE health verification is required for this PU, contact the remote PU owner about upgrading the PU to support EE health verification probes.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA: SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

None

## Example

```
IST2342I EE HEALTH VERIFICATION NOT SUPPORTED BY SWIP1A1
```

---

**IST2343I EE HEALTH VERIFICATION NOT SUPPORTED BY REMOTE EE PARTNER**

## Explanation

This message is part of a group of messages that is issued in response to a DISPLAY EE command for Enterprise Extender connection information. See message [IST2001I](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2344I NODE ROLE CHANGE FROM *from\_role* TO *to\_role* FAILED - SENSE: *sense***

## Explanation

This message is part of a group of unsolicited messages that VTAM issues when an attempt is made to change the role of an APPN node. Valid APPN node roles are network node (NN), end node (EN), virtual routing node (VRN), and global virtual routing node (GVRN). The role of a node can be changed in two ways:

- A link is activated to another node that has changed roles. In this case, it is the role of the destination node of a TG that changes.

- A topology database update (TDU) is received and the role of the node identified in the TDU does not match the role of the node in the topology database.

A complete description of the message group follows:

```
[IST2344I NODE ROLE CHANGE FROM from_type TO to_type FAILED - SENSE: sense]
[IST2345I NODE ROLE CHANGE FROM from_type TO to_type SUCCEEDED]

IST2346I CP NAME = cp_name
[IST2347I TDU RECEIVED FROM ADJACENT NODE adj_cp]
```

#### **IST2344I**

- This message identifies the roles involved in a node role change that failed.
- In the message text:

##### ***from\_role***

The existing role of the node in the topology database. Values can be EN, NN, VRN, or GVRN.

##### ***to\_role***

The role of the node in the input TDU or the new role of the destination node of the TG being activated. Values can be EN, NN, VRN, or GVRN.

##### ***sense\_code***

The sense code set for the node role change failure.

- A node role change is not valid and will fail when the following changes are attempted:
  - The change in roles is for the host node.
  - The change in roles is from a virtual node (VRN or GVRN) to a real node (NN or EN).
  - The change in roles is from a real node to a virtual node.
  - The change in roles is attempted with a TDU, but there is already an active link to that node.
  - The change in roles is attempted with a TDU for a non-adjacent DLUR EN, but the new role is not an EN.
- In addition to the messages, an alert with ID X'A6C6D1D5' is generated for the failed node role change.

#### **IST2345I**

- This message identifies the roles involved in a node role change that succeeded.
- In the message text:

##### ***from\_role***

The existing role of the node in the topology database. Values can be EN or NN.

##### ***to\_role***

The role of the node in the input TDU or the new role of the destination node of the TG that is being activated. Values can be EN or NN.

#### **IST2346I**

- This message identifies the node whose role change succeeded or failed.
- In the message text:

##### ***cp\_name***

The network-qualified CP name of the node.

#### **IST2347I**

- This message is issued when VTAM attempts to change the role of an APPN node because VTAM received a TDU with a node role that differs from the role in the topology database. This TDU contains the control vectors that identify the node for the role change. The message identifies the adjacent node from which the TDU was received.
- In the message text:

##### ***adj\_cp***

The network-qualified CP name of the adjacent node.



## System action

Processing continues.

## Operator response

If these messages are not expected, do the following:

1. Message IST2346I identifies the node of concern. Enter a command to obtain additional information about the node.
2. Save the system log and request a dump for problem determination.
3. Contact the system programmer.

## System programmer response

- If message IST2347I was issued, then VTAM attempted to change the role of the node from an input TDU.
- If message IST2347I was not issued, then VTAM attempted to change the role of the node as the result of activating a link to an adjacent node.
- This problem is often the result of user definitions that are not valid.
- When message IST2344I indicates that the role change is from a real node (EN or NN) to a virtual routing node (VRN or GVRN), the new virtual node name is defined in the XCA major node. Ensure that the VRNNAME operand on the PORT definition statement or the GROUP definition statement (EE XCA major node only) specifies a unique CP name.
- When message IST2344I indicates that the role change is from a virtual routing node to a real node, you must determine the correct role of the node with the CP name in IST2346I.
- When IST2344I is issued indicating that the role change for a node failed and the node is known throughout the network with an incorrect role, or if you cannot resolve the problem, you need to contact IBM for assistance.
- If you have access to IBMLink, contact IBM for assistance by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, contact IBM for assistance through the IBM software support center.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2,8

## Descriptor code

12

## Automation

Automation on these messages can aid in the detection of unauthorized node role changes.

## Example

```
IST2344I NODE ROLE CHANGE FROM EN TO VRN FAILED - SENSE: 08954409
IST2346I CP NAME = NETA.CPAA
IST2347I TDU RECEIVED FROM ADJACENT NODE NETA.CP2A
IST314I  END
```

---

**IST2345I** **NODE ROLE CHANGE FROM *from\_role* TO *to\_role* SUCCEEDED**

## Explanation

This message is part of a group of unsolicited messages that VTAM issues when an attempt is made to change the role of an APPN node. See IST2344I for a complete description.

## System action

Processing continues.

## Operator response

Not applicable.

## System programmer response

Not Applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2,8

## Descriptor code

12

## Automation

Not applicable.

## Example

None.

---

**IST2346I****CP NAME = *cp\_name***

## Explanation

VTAM issues this message as part of a group of unsolicited messages in response to an attempt to change the role of an APPN node during APPN topology update processing. See [IST2344I](#) for a complete description.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EE command. See [IST2001I](#) for a complete description.

## System action

Processing continues.

## Operator response

Not applicable.

## System programmer response

Not Applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text”](#) on page 5 for more information about the MSGMOD start option.

## Routing code

2,8

## Descriptor code

12

## Automation

Not applicable.

## Example

None.

---

**IST2347I****TDU RECEIVED FROM ADJACENT NODE *adj\_cp***

---

## Explanation

This message is part of a group of unsolicited messages that VTAM issues when an attempt is made to change the role of an APPN node. See IST2344I for a complete description.

## System action

Processing continues.

## Operator response

Not applicable.

## System programmer response

Not Applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2,8

## Descriptor code

12

## Automation

Not applicable.

## Example

None.

---

**IST2348I****ACTIVATED BY SHARED ACB *shared\_ACB\_name***

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a subordinate application that was activated by an application program that is using a shared ACB.

In the message text:

### ***shared\_ACB\_name***

The name of the shared ACB that is used by the application program to activate this subordinate application.

For Telnet, the format of shared ACB names is *ypppp-tt* where:

*y* is an internal index that uniquely identifies the Telnet server that opened the ACB.

*pppp* is the Telnet server port number expressed in hexadecimal.

*tt* is a task instance number.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2348I ACTIVATED BY SHARED ACB I0017-01
```

### IST2349I

### SUBORDINATE APPLICATIONS SHARING THIS ACB:

## Explanation

VTAM issues this message as part of a subgroup in response to a DISPLAY ID command for an application program that activates subordinate applications that use a shared ACB. A complete description of the message subgroup follows.

```
[IST2349I SUBORDINATE APPLICATIONS SHARING THIS ACB:]  
[IST080I  nodename status nodename status nodename status]  
:  
[IST2350I count SUBORDINATE APPLICATIONS SHARE THIS ACB]  
[IST2351I MULTIPLE SUBORDINATE APPLICATIONS SHARE THIS ACB]
```

### IST080I

This message lists the subordinate applications that share this ACB and that match the SCOPE operand specified on the D ID command. If there are more than three subordinate applications, this message is repeated as many times as necessary to display all the subordinate applications.

*nodename* is the name of a subordinate application that is activated by this shared ACB.

*status* is the status of the subordinate application that is displayed. See [Resource Status Codes and Modifiers](#) in *z/OS Communications Server: IP and SNA Codes* for a description of these status codes.

### IST2349I

This message is a header for message IST080I. If there are no subordinate applications that share this ACB and match the SCOPE operand specified on the D ID command, this message and message IST080I are not issued.

### IST2350I

This message indicates the number of subordinate applications that share this ACB with the application that opened the ACB. This message is issued whenever there are less than two subordinate applications that share this ACB or when SCOPE=ALL, SCOPE=ACT, SCOPE=ACTONLY, SCOPE=ACTSESS, or SCOPE=PENDING are used on the DISPLAY ID command. Otherwise, message IST2351I is issued.

*count* is the number of subordinate applications that share this ACB.

### IST2351I

This message indicates that two or more subordinate applications share this ACB. This message is issued if SCOPE=ONLY, SCOPE=CONCT, SCOPE=INACT, SCOPE=INACTONLY, SCOPE=RELSA, or SCOPE=RESET are used on the DISPLAY ID. Otherwise, message IST2350I is issued with the count of subordinate applications that share this ACB.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

None.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

When you display an application program that activates subordinate applications using a shared ACB when there are five subordinate applications:

- The status of all five subordinate applications match the SCOPE specified:

```
d net,id=I0017-04,scope=all
```

```
IST2349I SUBORDINATE APPLICATIONS SHARING THIS ACB:  
IST080I TCPM1006 ACTIV      TCPM1005 ACTIV      TCPM1004 ACTIV  
IST080I TCPM1003 ACT/S      TCPM1002 ACT/S  
IST2350I 5 SUBORDINATE APPLICATIONS SHARE THIS ACB
```

- The status of two subordinate applications match the SCOPE specified:

```
d net,id=I0017-04,scope=actsess
```

```
IST2349I SUBORDINATE APPLICATIONS SHARING THIS ACB:  
IST080I TCPM1003 ACT/S      TCPM1002 ACT/S  
IST2350I 5 SUBORDINATE APPLICATIONS SHARE THIS ACB
```

- The status of subordinate applications do not match the SCOPE specified:

```
d net,id=I0017-04,scope=pending
```

```
IST2350I 5 SUBORDINATE APPLICATIONS SHARE THIS ACB
```

- The SCOPE that is specified does not cause the status of the subordinate applications to be checked:

```
d net,id=I0017-04,scope=only
```

```
IST2351I MULTIPLE SUBORDINATE APPLICATIONS SHARE THIS ACB
```

---

**IST2350I****count SUBORDINATE APPLICATIONS SHARE THIS ACB**

## Explanation

VTAM issues this message as part of a subgroup in response to a DISPLAY ID command for an application program that activates subordinate applications using a shared ACB. See message [IST2349I](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2351I** **MULTIPLE SUBORDINATE APPLICATIONS SHARE THIS ACB**

---

## Explanation

VTAM issues this message as part of a subgroup in response to a DISPLAY ID command for an application program that activates subordinate applications using a shared ACB. See message [IST2349I](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

**IST2352I** **SENT = *sent* RECEIVED = *received***

---

## Explanation

VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:

- DISPLAY TOPO,ID=*cp\_name*,LIST=ALL command for a node. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=*origin\_node*,DEST=*dest\_node*,TGN=*tg\_number* command. See message [IST1299I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ID=*cp\_name* command for a node. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=*origin\_node*,DEST=*dest\_node*,TGN=*tg\_number* command for a TG. See message [IST2311I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY,FORMAT=LONG. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT,FORMAT=LONG. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,FORMAT=LONG summary command. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2



## Descriptor code

5

---

**IST2353I****ACCEPTED = accepted REJECTED = rejected**

---

## Explanation

VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:

- DISPLAY TOPO,ID=*cp\_name*,LIST=ALL command for a node. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=*origin\_node*,DEST=*dest\_node*,TGN=*tg\_number* command. See message [IST1299I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ID=*cp\_name* command for a node. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=*origin\_node*,DEST=*dest\_node*,TGN=*tg\_number* command for a TG. See message [IST2311I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY,FORMAT=LONG. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT,FORMAT=LONG. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,FORMAT=LONG summary command. See message [IST2274I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

---

**IST2354I****IGNORED = ignored**

---

## Explanation

VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:

- DISPLAY TOPO,ID=*cp\_name*,LIST=ALL command for a node. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=*origin\_node*,DEST=*dest\_node*,TGN=*tg\_number* command. See message [IST1299I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ID=*cp\_name* command for a node. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=*origin\_node*,DEST=*dest\_node*,TGN=*tg\_number* command for a TG. See message [IST2311I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

## Explanation

VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:

- DISPLAY TOPO,ID=*cp\_name*,LIST=ALL command for a node. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=*origin\_node*,DEST=*dest\_node*,TGN=*tg\_number* command. See message [IST1299I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ID=*cp\_name* command for a node. See message [IST2306I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=*origin\_node*,DEST=*dest\_node*,TGN=*tg\_number* command for a TG. See message [IST2311I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

## Explanation

VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:

- DISPLAY TOPO,ID=*cp\_name*,LIST=ALL command for a node. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ID=*cp\_name* command for a node. See message [IST2306I](#) for a complete description of this message group.

## Routing code

2

## Descriptor code

5

## Explanation

VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY,FORMAT=LONG. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT,FORMAT=LONG. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,FORMAT=LONG summary command. See message [IST2274I](#) for a complete description of this message group.

**Routing code**

2

**Descriptor code**

5

---

**IST2358I** *cp\_name rsn destination\_cp tgn*

**Explanation**

VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY,FORMAT=LONG. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT,FORMAT=LONG. See message [IST1776I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,FORMAT=LONG summary command. See message [IST2274I](#) for a complete description of this message group.

**Routing code**

2

**Descriptor code**

5

---

**IST2359I** **NO TDU INFORMATION EXISTS**

**Explanation**

VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY,FORMAT=LONG. See message [IST1780I](#) for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT,FORMAT=LONG. See message [IST1776I](#) for a complete description of this message group.

**Routing code**

2

**Descriptor code**

5

---

**IST2360I** **ROUTING TREES LAST CLEARED AT *clear\_date clear\_time* BY *clear\_process***

**Explanation**

VTAM issues this message as part of a group messages in response to a DISPLAY TOPO, LIST=SUMMARY command. See IST1306I for a complete description of the message group.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

None.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IST2361I****SMCR PFID = *pfid* PCHID = *pchid* PNETID = *network\_id***

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY ID or DISPLAY TRL command for a TRLE that is associated with a RoCE interface.

VTAM also issues this message as part of a group of messages generated by the adapter interrupt monitoring function. The first message in the group is IST241I. See message [IST2419I](#) for a complete description.

A complete description of the message group follows the example:

```
IST075I NAME = nodename, TYPE = TRLE
IST1954I TRL MAJOR NODE = trl_major_node_name
IST486I STATUS= current_status, DESIRED STATE= desired_state
IST087I TYPE = *NA* , CONTROL = ROCE , HPDT = *NA*
IST2361I SMCR PFID = pfid PCHID = pchid PNETID = network_id
IST2362I PORTNUM = port RNIC CODE LEVEL = code_level
IST2389I PFIP = pci_path GEN = generation SPEED = speed
[IST2417I VFN = virtual_function_number]
IST924I -----
IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface
IST1724I I/O TRACE = iotrc TRACE LENGTH = length
[IST924I -----]
[IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface]
[IST1724I I/O TRACE = iotrc TRACE LENGTH = length]
```

### IST075I

This message displays the resource name and resource type.

#### ***nodename***

The name of the resource that was entered on the DISPLAY command.

#### ***nodetype***

The resource type of the major or minor node. The *nodetype* value is always **TRLE** for this message group.

### IST087I

This message displays line information associated with *nodename*.

#### ***line\_type***

The *line\_type* value is always **\*NA\*** for this message group.

#### ***line\_control***

The *line\_control* value is always **ROCE** (RDMA over Converged Ethernet) for this message group.

#### ***hpdtvalue***

The *hpdtvalue* is always **\*NA\*** for this message group.

### IST486I

This message displays status information for *nodename*.

#### ***current\_status***

The current status of the node. See the [z/OS Communications Server: IP and SNA Codes](#) for status information.

#### ***desired\_state***

The node state that is desired. See the [z/OS Communications Server: IP and SNA Codes](#) for status information. If VTAM cannot determine the desired state, *desiredstate* is **\*\*\*NA\*\*\***.

### IST1717I

This message is displayed for all TRLEs that are currently being used by at least one Upper-layer Protocol (ULP). A separate IST1717I message is displayed for each ULP that is using the *RoCE* TRLE.

#### ***ulp\_id***

The name of a z/OS Communications Server ULP that is using the *RoCE* TRLE. In this message group, the *ulp\_id* value is always the TCP/IP job name.

#### ***ulp\_interface***

The name of the interface associated with the *RoCE* TRLE.

### IST1724I

This message displays trace information for *nodename*.

#### ***iotrc***

Specifies whether I/O Trace is active for this *RoCE* TRLE(ON or OFF).

#### ***length***

Specifies the number of bytes being recorded for I/O Trace for this TRLE.

## IST1954I

This message displays the TRL major node name.

### ***trl\_major\_node\_name***

The name of the TRL major node defining the *RoCE* TRLE.

## IST2361I

This message provides configuration information for the *RoCE* feature associated with *nodename*.

### ***pfid***

The 2-byte hexadecimal Peripheral Component Interconnect Express (PCIe) function ID for the *RoCE* feature associated with *nodename*.

### ***pchid***

The 2-byte hexadecimal physical channel ID (PCHID) for the *RoCE* feature associated with *nodename*.

### ***network\_id***

The physical network identifier for the *RoCE* interface associated with *nodename*.

## IST2362I

This message provides configuration and operational information about the *RoCE* feature associated with *nodename*.

### ***port***

A decimal representation of the *RoCE* port number associated with *nodename*.

### ***code\_level***

The processor code level of the *RoCE* feature. The code level is in the form **xxxxx.yyyyy.zzzzz** if the 10 GbE *RoCE* Express feature is operating in a dedicated *RoCE* environment, or if this is a *RoCE* Express2 or *RoCE* Express3 feature.

#### **xxxxx**

Major version.

#### **yyyyy**

Minor version.

#### **zzzzz**

Subminor version.

The code level is **\*\*NA\*\*** if the 10 GbE *RoCE* Express feature is operating in a shared *RoCE* environment.

## IST2389I

This message displays additional configuration information for the *RoCE* feature associated with *nodename*.

### ***pci\_path***

The PCI-function internal path (PFIP) value for the *RoCE* feature associated with *nodename*.

### ***generation***

The generation level of the *RoCE* feature. Possible values are:

#### **ROCE EXPRESS**

The TRLE represents an IBM 10 GbE *RoCE* Express feature.

#### **ROCE EXPRESS2**

The TRLE represents an IBM 10 GbE *RoCE* Express2 or IBM 25 GbE *RoCE* Express2 feature.

#### **ROCE EXPRESS3**

The TRLE represents an *RoCE* Express3 feature.

#### **NETWORK EXPRESS**

The TRLE represents a Network Express feature.

### ***speed***

The throughput speed of the *RoCE* feature. Possible values are:

#### **10GE**

The *RoCE* feature uses 10 gigabit Ethernet ports.

**25GE**

The RoCE feature uses 25 gigabit Ethernet ports.

**IST2417I**

This message displays the virtual function number (VFN) that is associated with *nodename*. This message is displayed only when the RoCE feature operates in a shared RoCE environment.

***virtual\_function\_number***

The VFN value for the RoCE feature that is associated with *nodename*.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**User response**

None.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

**Routing code**

2

**Descriptor code**

5

**Automation**

This message is not a candidate for automation.

**Example**

```
IST097I DISPLAY ACCEPTED
IST075I NAME = IUT2001D, TYPE = TRLE
IST1954I TRL MAJOR NODE = ISTTRL
IST486I STATUS= ACTIV, DESIRED STATE= ACTIV
IST087I TYPE = *NA*           , CONTROL = ROCE, HPDT = *NA*
```

```
IST2361I SMCR PFID = 001D PCHID = 0138 PNETID = NETWORK1
IST2362I PORTNUM = 2 RNIC CODE LEVEL = *NA*
IST2389I PFIP = 08040101 GEN = ROCE EXPRESS SPEED = 10GE
IST2417I VFN = 0002
IST924I -----
IST1717I ULPID = TCPES ULP INTERFACE = EZARIUT2001D
IST1724I I/O TRACE = OFF TRACE LENGTH = *NA*
IST314I END
```

---

**IST2362I****PORTNUM = *port* RNIC CODE LEVEL = *code\_level***

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY ID or DISPLAY TRL command for a TRLE that is associated with the *RoCE* interface.

See [“IST2361I” on page 1432](#) for an explanation of the message group.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

None.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.



## Example

IST2362I PORTNUM = 1 RNIC CODE LEVEL = 2.8.4822

**IST2364I**

**CLOSE ACB OF *applname* DID NOT COMPLETE IN A TIMELY MANNER**

---

## Explanation

VTAM issues this message when the VTAM application program *applname* issued a CLOSE ACB macro, but CLOSE ACB processing did not complete in a timely manner, and one of the following is true for the NACPROBE start option:

- The value NODUMP was specified.
- The default value of NODUMP was used.
- A numeric value was specified on the NACPROBE start option and the time since the last FFST probe dump for a CLOSE ACB timeout does not exceed the number of minutes specified.

*applname* is the ACBNAME if ACBNAME is coded in the APPL definition. If ACBNAME is not coded, *applname* is the NAME as coded on the APPL definition statement.

The NACPROBE start option controls whether this message or the FFST probe ISTNAC01 dump is produced. For more information about the NACPROBE start option, see [z/OS Communications Server: SNA Resource Definition Reference](#).

## System action

Processing continues and VTAM forces the completion of the CLOSE ACB.

## Operator response

Contact the system programmer. If the system programmer determines that a dump is required, use the **MODIFY VTAMOPTS** command to change the value of the NACPROBE start option.

## System programmer response

If the probe dump is needed, add or modify the value for the NACPROBE start option in the ATCSTRxx file. See [NACPROBE start option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2364I CLOSE ACB OF VTAMAPPL DID NOT COMPLETE IN A TIMELY MANNER
```

**IST2365I**

**MODIFY TRACE COMMAND REJECTED - DSPSIZE NO LONGER  
SUPPORTED**

## Explanation

VTAM issues this message in response to a MODIFY TRACE,TYPE=VTAM,DSPSIZE= command.

## System action

The MODIFY TRACE command is rejected. Processing continues.

## Operator response

Reenter the MODIFY TRACE,TYPE=VTAM command without the DSPSIZE operand. See [z/OS Communications Server: SNA Operation](#) for the correct command syntax.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2365I MODIFY TRACE COMMAND REJECTED - DSPSIZE NO LONGER SUPPORTED
```

### IST2366I

**POLLEQO = polleqo POLLEQ = polleq**

## Explanation

VTAM issues this message as part of a group of messages that display tuning statistics for *RoCE* ports.

A complete description of the message group follows:

```
IST1230I TIME = time  DATE = date ID = trlname
IST1719I PCIREALO = pciREALO  PCIREAL = pciREAL
IST1751I PCIUNPRO = pciunpro  PCIUNPRD = pciunprd
IST2366I POLLEQO = polleqo    POLLEQ = polleq
IST2367I POLLEQEO = polleqeo  POLLEQE = polleqe
IST924I -----
IST2368I ULP_ID = tcpname
IST2369I POLLCO = pollcqo    POLLCO = pollcq
IST2370I POLLCOUO = pollcquo  POLLCOU = pollcqu
IST2371I POLLCOQEO = pollcqeo POLLCOQE = pollcqe
IST2372I SRBSCHDO = srbschdo  SRBSCHD = srbschd
IST2373I SRBRSCO = srbrscho  SRBRSCHD = srbrschd
IST2374I INBBYTLO = bytecntlo INBBYTEL = bytecntl
IST2375I INBBYTMO = bytecntmo INBBYTEM = bytecntm
IST2376I INBBYTNO = bytecntno INBBYTEN = bytecntn
IST2377I DATAREQO = datareqo  DATAREQ = datareq
IST2378I POSTO = posto       POST = post
IST2379I POSTEO = postelemo  POSTELEM = postelem
IST2380I POSTQUEO = postqueo  POSTQUED = postqued
IST2381I OUTBYTLO = bytecntlo OUTBYTEL = bytecntl
IST2382I OUTBYTMO = bytecntmo OUTBYTEM = bytecntm
IST2383I OUTBYTNO = bytecntno OUTBYTEN = bytecntn
```

Message subgroup IST2368I - IST2383I is repeated for each TCP/IP stack that has activated the *RoCE* port.

Many messages in this group contain both a count and an overflow. Both the count and overflow are maintained in unsigned 32-bit variables, unless otherwise indicated. Because an unsigned 32-bit variable can contain only a value up to and including 4294967295 ('FFFFFFFF'X), the variable will wrap through 0 if an increment results in exceeding this value. When such a wrap occurs, the overflow is incremented by 1. Therefore the total count is determined as follows:

```
Total = (overflow * 4294967296) + count
```

### IST1230I

In the message text:

#### **date and time**

The date and time values specify when the record was reported. See [DATE and TIME formats](#) for information about the *date* and *time* values.

#### **trlname**

The name of the internally generated TRLE name that represents the *RoCE* port for which tuning statistics are being recorded. See [Resources automatically activated by VTAM in z/OS Communications Server: SNA Network Implementation Guide](#) for information about the TRLE name.

### IST1719I

In the message text:

#### **pciREALO**

The real program controlled interrupt (PCI) overflow.

### ***pcireal***

The real PCI count. This value represents the accumulated number of real PCI interrupts that are fielded by the device interrupt exit for the *RoCE* port.

A real PCI interrupt is a dispatch of the device interrupt exit as a result of a call from the system interrupt handler.

### **IST1751I**

In the message text:

#### ***pciunpro***

The unproductive RDMA over converged Ethernet (RoCE) polls of the *RoCE* event queue (Poll\_EQ) overflow.

#### ***pciunprd***

The unproductive RoCE Poll\_EQ count. This value represents the accumulated number of unproductive RoCE Poll\_EQ requests for this *RoCE* port.

An unproductive RoCE Poll\_EQ request is a request for which the *RoCE* port did not provide any event notifications. An event notification indicates that data was received on this *RoCE* port and can be processed. An unproductive RoCE Poll\_EQ indicates unnecessary processing by the system interrupt handler.

### **IST2366I**

In the message text:

#### ***polleqo***

The RoCE Poll\_EQ overflow.

#### ***polleq***

The RoCE Poll\_EQ count. This value represents the accumulated number of productive RoCE Poll\_EQ requests for this *RoCE* port.

A productive RoCE Poll\_EQ request is a request for which at least one event notification was returned. A higher ratio of productive RoCE Poll\_EQ requests to real PCIs indicates that VTAM is minimizing unnecessary processing by the system interrupt handler required to service the *RoCE* port, resulting in more efficient CPU utilization.

### **IST2367I**

In the message text:

#### ***polleqo***

The RoCE Poll\_EQ overflow.

#### ***polleqe***

The RoCE Poll\_EQ event notification count. This value represents the accumulated number of event notifications that are returned on all productive RoCE Poll\_EQ requests for this *RoCE* port.

A higher ratio of RoCE Poll\_EQ entries to real PCIs indicates that more data is being processed per real interrupt, which results in more efficient CPU utilization.

### **IST2368I**

In the message text:

#### ***tcpname***

The name of a TCP/IP stack that activated the *RoCE* port for which tuning statistics are being reported.

### **IST2369I**

In the message text:

#### ***pollcqo***

The RoCE Poll of the *RoCE* completion queue (Poll\_CQ) overflow.

### ***pollcq***

The RoCE Poll\_CQ count. This value represents the accumulated number of productive RoCE Poll\_CQ requests by *tcpname* for this *RoCE* port.

A productive RoCE Poll\_CQ request is a request for which at least one completion event was returned. A completion event represents the receipt of TCP connection notification data or Shared Memory Communication (SMC) link control data.

### **IST2370I**

In the message text:

#### ***pollcquo***

The unproductive RoCE Poll\_CQ overflow.

#### ***pollcqu***

The unproductive RoCE Poll\_CQ count. This value represents the accumulated number of unproductive RoCE Poll\_CQ requests by *tcpname* for this *RoCE* port.

An unproductive RoCE Poll\_CQ request is a request for which no completion events were returned. An unproductive RoCE Poll\_CQ indicates that *tcpname* was dispatched to process data when no data was available to be processed.

### **IST2371I**

In the message text:

#### ***pollcqeo***

The RoCE Poll\_CQ operations overflow.

#### ***pollcq***

The RoCE Poll\_CQ operations count. This value represents the accumulated number of completion events returned for all productive RoCE Poll\_CQ requests initiated by *tcpname* for this *RoCE* port.

A higher ratio of RoCE Poll\_CQ operations to service request block (SRB) dispatches indicates that more data is being processed per dispatch of *tcpname*, which results in more efficient CPU utilization.

### **IST2372I**

In the message text:

#### ***srbschdo***

The interrupt handler SRB dispatch overflow.

#### ***srbschd***

The interrupt handler SRB dispatch count. This value represents the accumulated number of times an SRB was scheduled by the interrupt handler for *tcpname* to process inbound data for this *RoCE* port.

### **IST2373I**

In the message text:

#### ***srbrscho***

The additional SRB dispatch overflow.

#### ***srbrschd***

The additional SRB dispatch count. This value represents the accumulated number of times that an additional SRB was scheduled from within an existing SRB on *tcpname*. The additional SRB was scheduled because more inbound data is available to be processed for this *RoCE* port than the existing SRB could efficiently manage.

A high additional SRB dispatch value indicates that multiple processors are required to process all inbound data from this *RoCE* port for *tcpname*.

### **IST2374I**

In the message text:

***bytecntlo***

The inbound RoCE inline data bytes overflow.

***bytecntl***

The inbound RoCE inline data bytes count. This value represents the accumulated number of bytes of SMC link control data that was received by *tcpname* for this *RoCE* port.

**IST2375I**

In the message text:

***bytecntmo***

The inbound RoCE immediate data bytes overflow.

***bytecntm***

The inbound RoCE immediate data bytes count. This value represents the accumulated number of bytes of TCP connection notification data that was received by *tcpname* for this *RoCE* port.

**IST2376I**

In the message text:

***bytecntno***

The inbound RDMA bytes overflow.

***bytecntn***

The inbound RDMA bytes count. This value represents the accumulated number of bytes of TCP connection data that was received by *tcpname* for this *RoCE* port.

**IST2377I**

In the message text:

***datareqo***

The outbound data request overflow.

***datareq***

The outbound data request count. This value represents the accumulated number of data requests received by VTAM from *tcpname* over this *RoCE* port. Data requests are used to send TCP connection data or TCP connection notification data.

**IST2378I**

In the message text:

***posto***

The RoCE Post request overflow.

***post***

The RoCE Post request count. This value represents the accumulated number of RoCE Post requests processed to transfer data sent by *tcpname* for this *RoCE* port.

**IST2379I**

In the message text:

***postelemo***

The RoCE Post operation overflow.

***postelem***

The RoCE Post operation count. This value represents the accumulated number of RoCE Post operations that successfully transferred data provided by *tcpname* for this *RoCE* port.

A RoCE Post operation represents a discreet transfer of TCP connection data, TCP connection notification data, or SMC link control data. A single RoCE Post request might require two or more RoCE Post operations to transfer the data provided by *tcpname* on an outbound data request. A higher ratio of RoCE Post operations to RoCE Post requests indicates more efficient utilization of CPU resources when transferring data.

**IST2380I**

In the message text:

***postqueo***

The queued RoCE Post request overflow.

***postqued***

The queued RoCE Post request count. This value represents the accumulated number of queued RoCE Post requests initiated by *tcpname* for this *RoCE* port.

A queued RoCE Post request is a request that was not transmitted on the first attempt because of hardware resource constraints.

**IST2381I**

In the message text:

***bytecntlo***

The outbound RoCE inline data bytes overflow.

***bytecntl***

The outbound RoCE inline data bytes count. This value represents the accumulated number of bytes of SMC link control data that was sent by *tcpname* for this *RoCE* port.

**IST2382I**

In the message text:

***bytecntmo***

The outbound RoCE immediate data bytes overflow.

***bytecntm***

The outbound RoCE immediate data bytes count. This value represents the accumulated number of bytes of TCP connection notification data that was sent by *tcpname* for this *RoCE* port.

**IST2383I**

In the message text:

***bytecntno***

The outbound RDMA bytes overflow.

***bytecntn***

The outbound RDMA bytes count. This value represents the accumulated number of bytes of TCP connection data that was sent by *tcpname* for this *RoCE* port.

**System action**

Processing continues.

**Operator response**

To discontinue recording of statistics, issue the **MODIFY NOTNSTAT** command.

**System programmer response**

For additional information about tuning and analyzing tuning statistics, see [z/OS Communications Server: SNA Network Implementation Guide](#).

**User response**

Not applicable.

**Problem determination**

None.

# Source

z/OS Communications Server SNA

# Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

# Routing code

2

# Descriptor code

5

# Automation

This message group is not a suitable candidate for automation.

# Example

This message group displays tuning statistics for the RoCE port with Peripheral Component Interconnect Express (PCIe) function ID (PFID) 0018:

IST1230I	TIME	= 18051835	DATE	= 09182	ID	= IUT10018
IST1719I	PCIREALO	= 0	PCIREAL	= 5		
IST1751I	PCIUNPRO	= 0	PCIUNPRD	= 3		
IST2366I	POLLEQO	= 0	POLLEQ	= 15		
IST2367I	POLLEQEO	= 0	POLLEQE	= 25		
IST924I	-----					
IST2368I	ULP_ID	= TCPCS1				
IST2369I	POLLCQO	= 0	POLLCQ	= 250		
IST2370I	POLLCQUO	= 0	POLLCQU	= 50		
IST2371I	POLLCQEO	= 0	POLLCQE	= 1800		
IST2372I	SRBSCHDO	= 0	SRBSCHD	= 15		
IST2373I	SRBRSCO	= 0	SRBRSCHD	= 0		
IST2374I	INBBYTLO	= 0	INBBYTEL	= 176		
IST2375I	INBBYTMO	= 0	INBBYTEM	= 7200		
IST2376I	INBBYTNO	= 1	INBBYTEN	= 305306		
IST2377I	DATAREQO	= 0	DATAREQ	= 60		
IST2378I	POSTO	= 0	POST	= 70		
IST2379I	POSTEO	= 0	POSTELEM	= 178		
IST2380I	POSTQEO	= 0	POSTQUED	= 10		
IST2381I	OUTBYTLO	= 0	OUTBYTEL	= 176		
IST2382I	OUTBYTMO	= 0	OUTBYTEM	= 4000		
IST2383I	OUTBYTNO	= 1	OUTBYTEN	= 58950		

**IST2367I** POLLEQEO = polleqo POLLEQE = polleq

# Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for RoCE resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

# System action

Not applicable.

# Operator response

Not applicable.



## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IST2368I** **ULP\_ID = tcpname**

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for RoCE resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IST2369I****POLLCQO = *pollcqo* POLLCQ = *pollcq***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for *RoCE* resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

**Routing code**

2

**Descriptor code**

5

**Automation**

Not applicable.

**Example**

Not applicable.

---

**IST2370I** **POLLCQUO = pollcquo POLLCQU = pollcqu**

**Explanation**

VTAM issues this message as part of a group of messages that displays tuning statistics for *RoCE* resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

**System action**

Not applicable.

**Operator response**

Not applicable.

**System programmer response**

Not applicable.

**User response**

Not applicable.

**Problem determination**

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IST2371I****POLLCQEO = *pollcqeo* POLLCQE = *pollcqe***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for *RoCE* resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IST2372I**

**SRBSCHDO = *srbschdo* SRBSCHD = *srbschd***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for RoCE resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications](#)

Server: SNA Operation and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IST2373I****SRBRSCO = *srbrscho* SRBRSD = *srbrschd***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for *RoCE* resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IST2374I****INBBYTLO = *bytecntlo* INBBYTEL = *bytecntl***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for *RoCE* resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

<b>IST2375I</b>	<b>INBBYTMO = <i>bytecntmo</i> INBBYTEM = <i>bytecntm</i></b>
-----------------	---

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for *RoCE* resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5



## Automation

Not applicable.

## Example

Not applicable.

---

**IST2376I****INBBYTNO = *bytecntno* INBBYTEN = *bytecntn***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for *RoCE* resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IST2377I****DATAREQO = *datareqo* DATAREQ = *datareq***

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for *RoCE* resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IST2378I****POSTO = *posto* POST = *post***

---

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for *RoCE* resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IST2379I****POSTEO = *postelemo* POSTELEM = *postelem***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for *RoCE* resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IST2380I**

**POSTQUEO = *postqueo* POSTQUED = *postqued***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for *RoCE* resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

## z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

### Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

**IST2381I**

**OUTBYTLO = *bytecntlo* OUTBYTEL = *bytecntl***

### Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for *RoCE* resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IST2382I** **OUTBYTMO = *bytecntmo* OUTBYTEM = *bytecntm***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for *RoCE* resources. The first message in the group is IST1230I. See message [IST2366I](#) for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

## z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

### Descriptor code

5

## Automation

Not applicable.

### Example

Not applicable.

**IST2383I**

**OUTBYTNO = *bytecntno* OUTBYTEN = *bytecntn***

### Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for *RoCE* resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.





## System programmer response

If the condition is persistent, take the following actions:

1. Study and possibly adjust the TCP/IP dispatching priority.
2. If the condition continues to persist, take the following actions:
  - If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, take a dump of the TCP/IP address space and the VTAM address space, and report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
  - If you do not have access to IBMLink, take a dump of the TCP/IP address space and the VTAM address space, and report the problem to the IBM software support center.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=yes (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

11

## Automation

Automation is recommended because persistent discarding of outbound data can have a significant impact on latency and throughput.

## Example

```
IST2384E PACKETS DISCARDED FOR TCPDS - NSQDI011 IS CONGESTED
```

---

**IST2386I****NUMBER OF DISCARDED OUTBOUND WRITE BUFFERS = *wbufcnt***

## Explanation

This message is part of several message groups that VTAM issues in response to a DISPLAY ID or DISPLAY TRL command for a TRLE that is configured with the MPC level QDIO, which represents an OSA-Express adapter, and for HiperSockets. See [IST1221I](#) for a complete description.

## System action

Processing continues.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=yes (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2386I NUMBER OF DISCARDED OUTBOUND WRITE BUFFERS = 5
```

---

### IST2387I

### DIAL FAILED - DUPLICATE IP ADDRESSES ON EXISTING CONNECTION

## Explanation

This message is the first in a group of messages that VTAM issues when a dial fails for an Enterprise Extender (EE) connection across a connection network. The complete description of the message group follows:

```
IST2387I DIAL FAILED - DUPLICATE IP ADDRESSES ON EXISTING CONNECTION
IST2388I EE VRN = vrn_name
IST1680I type IP ADDRESS ip_address
IST1680I type IP ADDRESS ip_address
IST314I END
```

### **IST1680I**

This message displays the IP addresses of the failing connection. In the message text:

***type***

Indicates which IP address is being displayed. The value is either LOCAL or REMOTE.

***ip\_address***

The IP address.

### **IST2387I**

This message is issued when a dial request for an EE connection across a connection network fails. An existing connection network was found with the same local and remote IP addresses. For a connection network, the IP address applies to one of the following conditions:

- Specified on the IPADDR operand on the EE XCA GROUP statement that defines the connection network (VNNAME)
- Inherited from the IPADDR start option
- Resolved from the HOSTNAME value specified on the EE XCA GROUP statement that defines the connection network

### **IST2388I**

This message displays the name of the virtual routing node (VRN) of the existing EE connection network that has the same local and remote IP addresses. In the message text:

***vrn\_name***

The name of the VRN of the existing EE connection network found with the duplicate IP addresses.

### **System action**

The EE dial request fails, but the existing EE connection is unaffected.

### **Operator response**

Contact the system programmer.

### **System programmer response**

Correct the EE XCA major node GROUP definitions so that multiple connection networks do not have the same local and remote IP addresses between two EE hosts. If you are using the TCP/IP resolver to perform name-to-address resolution, ensure that the HOSTNAME value on the GROUP definition for each connection network resolves to a unique IP address. See [Configuring the EE connection network in z/OS Communications Server: SNA Network Implementation Guide](#) for more information about defining multiple EE connection networks between two adjacent CPs. See [z/OS Communications Server: IP Configuration Guide](#) for more information about defining name servers to the resolver.

### **User response**

Not applicable.

### **Problem determination**

Not applicable.

### **Source**

z/OS Communications Server SNA

# Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on [page 5](#) for more information about the MSGMOD start option.

# Routing code

2

# Descriptor code

5

# Automation

Not recommended.

# Example

```
IST2387I DIAL FAILED - DUPLICATE IP ADDRESSES ON EXISTING CONNECTION
IST2388I EE VRN = NET2.VN2
IST1680I LOCAL IP ADDRESS 9.67.1.1
IST1680I REMOTE IP ADDRESS 9.67.1.2
IST314I END

IST590I CONNECTOUT FAILED FOR PU CNV00004 ON LINE LNIPVN1B
IST380I ERROR FOR ID = CNV00004 - REQUEST: CONNOUT, SENSE: FFC80004
IST1903I FAILURE OVER VRN NET1.VN1 TO CP NETA.SSCP2A
IST105I CNV00004 NODE NOW INACTIVE
IST871I RESOURCE CNV00004 DELETED
IST663I AM RESUME REQUEST FAILED, SENSE=08060027
IST664I REAL OLU=NETA.APPL1          REAL DLU=NETA.NETAPPL1
IST889I SID = EAABEEC364101D14
IST2103I RSCV TOWARDS SLU
IST1460I TGN CPNAME          TG TYPE      HPR
IST1461I 21 NET1.VN1          APPN         RTP
IST1461I 21 NETA.SSCP2A       APPN         RTP
IST314I END
```

**IST2388I** **EE VRN = *vrn\_name***

# Explanation

VTAM issues this message when a dial fails for an Enterprise Extender connection request across a connection network. This message group begins with message IST2387I. See the explanation of [IST2387I](#) for a complete description.

# System action

None.

# Operator response

None.

# System programmer response

None.

# User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](#) for more information about the MSGMOD start option.

## Routing code

2

## Descriptor code

5

## Automation

None.

## Example

Not applicable.

---

<b>IST2389I</b>	<b>PFIP = <i>pci_path</i> GEN = <i>generation</i> SPEED = <i>speed</i></b>
-----------------	--

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY ID or DISPLAY TRL command for a TRLE that is associated with an *RoCE*.

See message [IST2361I](#) for an explanation of the message group.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

None.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.

## Example

```
IST2389I PFIP = 08040101 GEN: ROCE EXPRESS2 SPEED: 10GE
```

---

### IST2390I

### IQP1REG PCIE SERVICE FAILURE

## Explanation

This is the first message in a message group that VTAM issues when an attempt to register a Peripheral Component Interconnect Express (PCIe) device fails. VTAM uses PCIe services as part of managing PCIe devices, and part of that management is registering the devices. VTAM uses PCIe services to manage these devices:

- RoCE interfaces
- Internal shared memory (ISM) interfaces

A complete description of the message group follows:

```
IST2390I IQP1REG PCIE SERVICE FAILURE
IST1684I RETURN CODE = return_code REASON CODE = reason_code
IST314I END
```

### IST1684I

This message provides the specific return code and reason code information that the failing PCIe service returns.

In the message text:

#### ***return\_code***

The hexadecimal return code that the PCIe IQP1REG invocation returns.

#### ***reason\_code***

The hexadecimal reason code that the PCIe IQP1REG invocation returns.

### IST2390I

This message is the first message in the message group.

## System action

Processing continues. VTAM will again attempt to register the PCIe devices the next time a TCP/IP stack issues an activation request for a *RoCE* interface or an ISM interface.

## Operator response

Contact the system programmer.

## System programmer response

Collect VTAM internal traces at the VTAM that issued this message and contact IBM service to determine the reason for the registration failure.

## User response

Not applicable.

## Problem determination

None.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes or f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is a candidate for automation to detect errors that occur during activation of PCIe devices.

## Example

```
IST2390I IQP1REG PCIE SERVICE FAILURE
IST1684I RETURN CODE = 18 REASON CODE = 5035
IST314I END
```

---

**IST2391I** *service\_name* PCIE SERVICE FAILURE ON TRLE *trle\_name*

## Explanation

This is the first message in a message group that VTAM issues when an attempt to use a Peripheral Component Interconnect Express (PCIe) service fails. VTAM uses PCIe services to manage these devices:

- *RoCE* interfaces

- Internal shared memory (ISM) interfaces

A complete description of the message group follows:

```
IST2391I service_name PCIE SERVICE FAILURE ON TRLE trlename  
IST1684I RETURN CODE = return_code REASON CODE = reason_code  
IST314I END
```

### **IST1684I**

This message provides the specific return code and reason code information that the failing PCIe service returns.

In the message text:

#### ***return\_code***

The hexadecimal return code that the PCIe *service\_name* invocation returns.

#### ***reason\_code***

The hexadecimal reason code that the PCIe *service\_name* invocation returns.

### **IST2391I**

This message identifies the PCIe service that failed.

In the message text:

#### ***service\_name***

The PCIe service that failed.

#### ***trle\_name***

The name of the associated transport resource list entry (TRLE) that VTAM was managing when the PCIe service failed. The TRLE name represents an individual RoCE port or ISM device. VTAM automatically generates the TRLE name when the TCP/IP stack starts the interface.

## **System action**

Processing continues.

## **Operator response**

Contact the system programmer.

## **System programmer response**

Collect VTAM internal traces at the VTAM that is issuing this message and contact IBM service to determine the reason for the PCIe service failure.

## **User response**

Not applicable.

## **Problem determination**

None.

## **Source**

z/OS Communications Server SNA

## **Module**

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications](#)



Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is a candidate for automation to detect errors that occur during activation of PCIe devices.

## Example

```
IST2391I IQP4ALL PCIE SERVICE FAILURE ON TRLE IUT10018
IST1684I RETURN CODE = 18 REASON CODE = 5035
IST314I END
```

---

**IST2392I** **PFID *pfid\_value* ALLOCATION FAILURE - PFID IS NOT DEFINED**

---

## Explanation

VTAM issues this message when it attempts to activate a Peripheral Component Interconnect Express (PCIe) device, but the PCIe function ID (PFID) value is not defined for this LPAR. VTAM uses PCIe services to manage these devices:

- *RoCE* interfaces
- Internal shared memory (ISM) interfaces

In the message text:

### ***pfid\_value***

The PFID value that VTAM used in the failed activation attempt.

## System action

Processing continues.

## Operator response

Issue the **D PCIE** command and generate a Netstat CONFIG/-f report, and then provide the output to the system programmer.

## System programmer response

1. Determine the correct PFID value for this system.
2. Use the **D PCIE** command output to verify that the PFID value has been correctly defined in the HCD. If the PFID is not defined properly, update the HCD configuration to include the correct PFID value.
3. If the PFID is defined correctly in the HCD and represents a *RoCE* interface, use the Netstat CONFIG/-f report to verify that the correct PFID is defined to TCP/IP. If the PFID is not defined correctly, change the SMCR parameter on the GLOBALCONFIG statement in the TCP/IP profile of the TCP/IP stack that is attempting to activate this *RoCE* interface to specify the correct PFID value.
4. If the PFID is defined correctly in the HCD and represents an ISM interface, then verify that the physical network ID (PNetID) attributes of the PFID and the corresponding OSD or HiperSockets interfaces match in the HCD. If they do not match, correct the definitions so that the proper PNetID is used.

5. Instruct the operator to issue the necessary commands to activate the changes that were made to the HCD or the TCP/IP profile.

## User response

Not applicable.

## Problem determination

None.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is a candidate for automation to detect errors that occur during activation of PCIe devices.

## Example

```
IST2392I PFID 0018 ALLOCATION FAILURE - PFID IS NOT DEFINED
```

---

**IST2393I PFID *pfid\_value* ALLOCATION FAILURE - PFID IS NOT ONLINE**

## Explanation

VTAM issues this message when it attempts to activate a Peripheral Component Interconnect Express (PCIe) device using the correct PCIe function ID (PFID) value, but the device that is associated with that PFID is not online. VTAM uses PCIe services to manage these devices:

- RoCE interfaces
- Internal shared memory (ISM) interfaces

In the message text:

### ***pfid\_value***

The PFID value that VTAM used in the failed activation attempt.

## System action

Processing continues.

## Operator response

1. Issue the **CF PFID** command to bring the PCIe device that is associated with the *pfid\_value* online.
2. Issue the **VARY START** command to start the *RoCE* or ISM interface.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

None.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is a candidate for automation to detect errors that occur during initialization of your system.

## Example

```
IST2393I PFID 0018 ALLOCATION FAILURE - PFID IS NOT ONLINE
```

---

<b>IST2394I</b>	<b>PFID <i>pfid_value</i> IS ALREADY ACTIVE ON <i>stack_name</i> USING TRLE <i>trle_name</i></b>
-----------------	--

---

## Explanation

VTAM issues this message when it attempts to activate an RDMA Network Interface Card (RNIC) adapter, but the interface that this Peripheral Component Interconnect Express (PCIe) function ID (PFID) value represents has been activated by a different TCP/IP stack. Only one stack can activate an individual PFID at a time.

In the message text:

***pfid\_value***

The PFID value that VTAM used in the failed activation attempt.

***stack\_name***

The TCP/IP stack that has previously activated the interface that is associated with this PFID value.

**trle\_name**

The name of the transport resource list entry (TRLE) that is associated with *pfid\_value*. VTAM automatically generates the TRLE name when an RNIC adapter is activated.

**System action**

Processing continues.

**Operator response**

Contact the system programmer.

**System programmer response**

1. Determine which TCP/IP stack is using the incorrect PFID value.
2. Correct the SMCR parameter on the GLOBALCONFIG statement in the TCP/IP profile of the TCP/IP stack that is using the incorrect PFID value.
3. Instruct the operator to first issue the **VARY OBEFYFILE** command to enable the profile changes, and then to issue the **VARY START** command to start the RNIC adapter.

**User response**

Not applicable.

**Problem determination**

None.

**Source**

z/OS Communications Server SNA

**Module**

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

**Routing code**

2

**Descriptor code**

5

**Automation**

This message is a candidate for automation to detect errors that occur during initialization of your system.

**Example**

```
IST2394I PFID 0018 IS ALREADY ACTIVE ON TCPCS1 USING TRLE IUT10018
```

---

**IST2395I****RTP PACING ALGORITHM = ARB BASE MODE**

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 that represents a Rapid Transport Protocol (RTP) route. The first message in the group is IST1476I or IST1968I. See [IST1476I](#) or [IST1968I](#) for more information.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

None.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IST2396I****RNIC STATISTICS FOR *trlenam***

## Explanation

VTAM issues this group of messages in response to a DISPLAY TRL,TRLE=*trlenam*,DEVSTATS command when *trlenam* represents a RoCE interface.

A complete description of the message group follows:

```
IST2396I RNIC STATISTICS FOR trlename
IST2397I DESCRIPTION OVERFLOW COUNT
IST2398I description overflow count
...
IST314I END
```

Many of the statistics reported using message IST2398I have both a count and an overflow. Both the count and overflow are maintained in unsigned 32-bit variables (unless otherwise indicated). Because an unsigned 32-bit variable can contain only a value up to and including 4294967295 ('FFFFFFFF'X), the variable will wrap through 0 if an increment results in exceeding this value. When such a wrap occurs, the overflow is incremented by 1. Therefore, the total count is determined as follows:

$$\text{Total} = (\text{overflow} * 4294967296) + \text{count}$$

### IST2396I

This is the first message in the message group.

#### ***trlename***

The name of the resource that was specified on the DISPLAY TRL command. Use this value to correlate the RoCE statistics in this message group with the message group IST2361I output generated by the DISPLAY TRL,TRLE=*trlename* command.

### IST2397I

This message is a header message for the statistics displayed with message IST2398I.

### IST2398I

This message displays the number of occurrences for the statistic described by *description*. The possible combinations of *overflow*, *count*, and *description* are:

- **INBOUND FRAMES DROPPED** = *overflow count*

Represents the number of inbound frames that were dropped on this RoCE interface.

**Restriction:** This value is always 0 for RoCE Express2 and RoCE Express3 adapters.

- **INBOUND FRAME ERRORS** = *overflow count*

Represents the number of inbound frames that had errors on this RoCE interface.

**Restriction:** This value is always 0 when the 10 GbE RoCE Express adapter operates in a shared RoCE environment.

- **INBOUND RDMA FRAMES** = *overflow count*

Represents the number of RoCE frames received on this RoCE interface.

- **INBOUND RDMA OCTETS** = *overflow count*

Represents the number of RoCE octets received on this RoCE interface.

- **OUTBOUND FRAMES DROPPED** = *overflow count*

Represents the number of outbound frames that were dropped on this RoCE interface.

**Restriction:** This value is always 0 for RoCE Express2 and RoCE Express3 adapters.

- **OUTBOUND FRAME ERRORS** = *overflow count*

Represents the number of outbound frames that had errors on this RoCE interface.

**Restriction:** This value is always 0 when the 10 GbE RoCE Express adapter operates in shared RoCE environment.

- **OUTBOUND RDMA FRAMES** = *overflow count*

Represents the number of RoCE frames sent on this RoCE interface.

- **OUTBOUND RDMA OCTETS** = *overflow count*

Represents the number of RoCE octets sent on this *RoCE* interface.

- **INBOUND ETH BROADCAST FRAMES** = *overflow count*

Represents the number of Ethernet broadcast frames received on this *RoCE* interface.

- **INBOUND ETH UNICAST FRAMES** = *overflow count*

Represents the number of Ethernet unicast frames received on this *RoCE* interface.

- **INBOUND ETH MULTICAST FRAMES** = *overflow count*

Represents the number of Ethernet multicast frames received on this *RoCE* interface.

- **OUTBOUND ETH BROADCAST FRAMES** = *overflow count*

Represents the number of Ethernet broadcast frames sent on this *RoCE* interface.

- **OUTBOUND ETH UNICAST FRAMES** = *overflow count*

Represents the number of Ethernet unicast frames sent on this *RoCE* interface.

- **OUTBOUND ETH MULTICAST FRAMES** = *overflow count*

Represents the number of Ethernet multicast frames sent on this *RoCE* interface.

- **LINK OUTAGE NOTIFICATIONS** = *overflow count*

Represents the number of times that VTAM was notified of lost connectivity to the *RoCE* port.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

None.

## Problem determination

None.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

This message group displays statistics for port 2 of a RoCE Express2 interface and is represented by Peripheral Component Interconnect Express (PCIe) function ID (PFID) 001D:

IST2396I RNIC STATISTICS FOR IUT2001D		
IST2397I	DESCRIPTION	OVERFLOW COUNT
IST924I	-----	
IST2398I	INBOUND RDMA FRAMES	1 65535
IST2398I	INBOUND RDMA OCTETS	65535 4294967295
IST2398I	INBOUND FRAME ERRORS	0 1
IST2398I	INBOUND DROPPED FRAMES	0 3
IST2398I	OUTBOUND RDMA FRAMES	3 4042322160
IST2398I	OUTBOUND RDMA OCTETS	1 1414812756
IST2398I	OUTBOUND FRAME ERRORS	0 2
IST2398I	OUTBOUND DROPPED FRAMES	0 4
IST924I	-----	
IST2398I	INBOUND ETH UNICAST FRAMES	0 1
IST2398I	INBOUND ETH BROADCAST FRAMES	0 131
IST2398I	INBOUND ETH MULTICAST FRAMES	0 0
IST2398I	OUTBOUND ETH UNICAST FRAMES	0 0
IST2398I	OUTBOUND ETH BROADCAST FRAMES	0 0
IST2398I	OUTBOUND ETH MULTICAST FRAMES	0 0
IST924I	-----	
IST2398I	LINK OUTAGE NOTIFICATIONS	0 3
IST314I	END	

IST2397I	DESCRIPTION	OVERFLOW	COUNT
----------	-------------	----------	-------

## Explanation

VTAM issues this message as part of a group of messages that displays statistics for the *RoCE* interfaces in response to a DISPLAY TRL,TRLE=*trlename*,DEVSTATS command. The first message in the group is IST2396I. See message “IST2396I” on [page 1473](#) for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.



**Source**

z/OS Communications Server SNA

**Module**

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

**Routing code**

2

**Descriptor code**

5

**Automation**

Not applicable.

**Example**

IST2397I DESCRIPTION	OVERFLOW	COUNT
IST2398I	Description overflow count	

**Explanation**

VTAM issues this message as part of a group of messages that displays statistics for the *RoCE* interfaces in response to a DISPLAY TRL,TRLE=*trlename*,DEVSTATS command. The first message in the group is IST2396I. See message [“IST2396I” on page 1473](#) for a complete description.

**System action**

Not applicable.

**Operator response**

Not applicable.

**System programmer response**

Not applicable.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

IST2398I INBOUND RDMA FRAMES	1	65535
IST2398I INBOUND RDMA OCTETS	65535	4294967295
IST2398I INBOUND FRAME ERRORS	0	1
IST2398I INBOUND DROPPED FRAMES	0	3
IST2398I OUTBOUND RDMA FRAMES	3	4042322160
IST2398I OUTBOUND RDMA OCTETS	1	1414812756
IST2398I OUTBOUND FRAME ERRORS	0	2
IST2398I OUTBOUND DROPPED FRAMES	0	4
IST924I -----		
IST2398I INBOUND ETH UNICAST FRAMES	0	1
IST2398I INBOUND ETH BROADCAST FRAMES	0	131
IST2398I INBOUND ETH MULTICAST FRAMES	0	0
IST2398I OUTBOUND ETH UNICAST FRAMES	0	0
IST2398I OUTBOUND ETH BROADCAST FRAMES	0	0
IST2398I OUTBOUND ETH MULTICAST FRAMES	0	0
IST924I -----		
IST2398I LINK OUTAGE NOTIFICATIONS	0	3

**IST2399I** MESSAGE TRIGGER: RNICTRLE = *rnic\_trlename*

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. See [“IST1871I” on page 1094](#) for an explanation of the message group.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

None.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.

## Example

```
IST2399I MESSAGE TRIGGER: RNICTRLE = IUT1001D
```

---

**IST2400I****NO ADAPTER DIAGNOSTICS PRODUCED FOR *resource*: *reason***

## Explanation

VTAM issues this message when a CSDUMP was taken but diagnostics for the associated *RoCE* interface could not be taken.

In the message text:

### ***resource***

The value specified as the RNICTRLE trigger for CSDUMP processing.

### ***reason***

The reason the diagnostics could not be taken and can be one of the following:

#### **TRLE NOT FOUND**

*resource* does not exist.

#### **TRLE NOT AN RNIC**

*resource* exists and was found, but the TRLE does not represent a *RoCE* interface. Diagnostics can be produced only when at least one TCP/IP stack has an active connection to the *RoCE* interface.

#### **TRLE NOT ACTIVE**

*resource* represents a *RoCE* TRLE, but the TRLE is not in a state where diagnostics can be produced.

#### **UNSUPPORTED ENVIRONMENT**

The message specified as a trigger for a CSDUMP and a *RoCE* diagnostic dump is issued in an execution environment which prevents VTAM from generating the *RoCE* diagnostic dump.

## System action

Processing continues.

## Operator response

Depending on the value of *reason*, take the following action:

- **TRLE NOT FOUND, TRLE NOT AN RNIC, and UNSUPPORTED ENVIRONMENT**

Contact the system programmer.

- **TRLE NOT ACTIVE**

Ensure that the CSDUMP is requested when at least one stack has connectivity to the *RoCE* interface.

## System programmer response

Depending on the value of *reason*, take the following action:

### **TRLE NOT FOUND and TRLE NOT AN RNIC**

1. Determine the correct TRLE name to use for the *RoCE* interface.
2. Instruct the operator to correct the RNICTRLE trigger value by using the MODIFY CSDUMP command.

### **UNSUPPORTED ENVIRONMENT**

Diagnostics for the *RoCE* interface cannot be produced if the message that triggers a CSDUMP and a *RoCE* diagnostic dump is issued in certain environments.

- If an alternate message can be used as the trigger, instruct the operator to issue a MODIFY CSDUMP,MESSAGE=*alternate\_message*, RNICTRLE=*resource* command to change the message trigger.
- If only this message can be used as the trigger, instruct the operator to issue a MODIFY CSDUMP,RNICTRLE=*resource* command to take an immediate *RoCE* diagnostic dump, or create automation to take the immediate dump, when the message is seen.

## User response

None.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.

## Example

```
IST2400I NO ADAPTER DIAGNOSTICS PRODUCED FOR IUT1001D: TRLE NOT FOUND
```

---

**IST2401I****DEVSTATS REJECTED FOR TRLE *trlename* - DEVICE NOT ACTIVE**

---

## Explanation

VTAM issues this message in response to a DISPLAY TRL,TRLE=*trlename*,DEVSTATS command when *trlename* represents a *RoCE* interface, but the *RoCE* interface is not in use by a z/OS Communications Server upper-layer protocol (ULP).

In the message text:

***trlename***

The name of the resource that was specified on the DISPLAY TRL command.

## System action

Processing continues. No *RoCE* statistics for *trlename* are displayed.

## Operator response

None.

## System programmer response

None.

## User response

None.

## Problem determination

None.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IST2401I DEVSTATS REJECTED FOR TRLE IUT2001D - DEVICE NOT ACTIVE
```

---

**IST2402I****DEVSTATS FAILED FOR TRLE *trlename* - DEVICE NOT OPERATIONAL**

---

## Explanation

VTAM issues this message in response to a DISPLAY TRL,TRLE=*trlename*,DEVSTATS command when *trlename* represents a *RoCE* interface. VTAM attempted to collect *RoCE* statistics for *trlename*, but failed to do so because of timing conditions or because the hardware could not successfully process the request.

In the message text:

### ***trlename***

The name of the resource that was specified on the DISPLAY TRL command.

## System action

Processing continues. No *RoCE* statistics for *trlename* are displayed.

## Operator response

Take the following actions:

1. Save the console log.
2. Review the network activity when the DISPLAY TRL,TRLE=*trlename*,DEVSTATS command was issued.
3. Perform the problem determination steps below.

## System programmer response

None.

## User response

None.

## Problem determination

Review the console log to see whether you can determine the reason for the command failure.

- The problem might be that the last TCP/IP stack that was using the *RoCE* interface issued a VARY TCPIP,,STOP command for the *RoCE* interface. If this is the case, activate the *RoCE* interface and issue the DISPLAY TRL,TRLE=*trlename*,DEVSTATS command again.
- Other command failures might indicate a hardware failure. If this problem is persistent, perform the following steps:
  1. If a VTAM internal trace is not active, start a VTAM internal trace by using the MODIFY TRACE,TYPE=VTAM,OPT=TCPOPTS,MODE=INT command.
  2. Enable a CSDUMP trigger for the next occurrence of message IST2402I by using the MODIFY CSDUMP,MESSAGE=IST2402I command.
  3. Issue the DISPLAY TRL,TRLE=*trlename*,DEVSTATS command to cause message IST2402I to be issued again.
  4. Save the console log and the dump generated by CSDUMP. Contact the IBM support center.

# Source

z/OS Communications Server SNA

# Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

# Routing code

2

# Descriptor code

5

# Automation

Not applicable.

# Example

```
IST2402I DEVSTATS FAILED FOR TRLE IUT2001D - DEVICE NOT OPERATIONAL
```

IST2403I

64-BIT STORAGE TYPE CURRENT MAXIMUM LIMIT

# Explanation

This message is the first message in a message group that VTAM issues in response to a DISPLAY BFRUSE command. This message is a header message for the 64-bit storage usage display of storage above the bar. A complete description of the message follows.

IST924I	-----				
IST2403I	64-BIT	STORAGE TYPE	CURRENT	MAXIMUM	LIMIT
IST2404I		HVCOMMON	curhvvcomm	maxhvvcomm	limhvvcomm
IST2405I		TRACE HVCOMMON	chvcommtr	mhvcommtr	lhvcommtr
IST2413I		PRIVATE	curhvpriv	maxhvpriv	limhvpriv
IST2412I		FIXED HVCOMMON	chvcfixed	mhvcfixed	lhvcfixed
IST2414I		FIXED PRIVATE	cpvtfixed	mpvtfixed	lpvtfixed
IST2415I		TOTAL FIXED	ctotfixed	mtotfixed	**NA**

# IST2403I

This message is a header message for the 64-bit storage information displayed in the messages that follow this message.

# IST2404I

In the message text:

## curhvvcomm

The current amount of 64-bit high virtual common (HVCOMM) storage above the bar allocated by VTAM.

## maxhvvcomm

The maximum amount of 64-bit HVCOMM storage above the bar allocated by VTAM.

## limhvvcomm

The maximum amount of 64-bit HVCOMM storage above the bar that can be allocated by VTAM.

**Tip:** The message IST2404I is not applicable in z/OS V1R13 Communications Server. It will not be displayed if the DISPLAY BFRUSE command is issued on a z/OS V1R13 Communications Server system.

## **IST2405I**

In the message text:

### ***chvcommtr***

The current amount of HVCOMM storage allocated for the VTAM internal trace table.

### ***mhvcommtr***

The maximum amount of HVCOMM storage allocated for the VTAM internal trace table since the last DISPLAY BFRUSE command.

### ***lhvcommtr***

The maximum amount of HVCOMM storage that can be allocated for the VTAM internal trace table.

## **IST2412I**

In the message text:

### ***chvcfixed***

The current amount of 64-bit HVCOMM fixed storage allocated by VTAM.

### ***mhvcfixed***

The maximum amount of 64-bit HVCOMM fixed storage allocated by VTAM.

### ***lhvcfixed***

The maximum amount of 64-bit HVCOMM fixed storage that VTAM can allocate.

## **IST2413I**

In the message text:

### ***curhvpriv***

The current amount of 64-bit high virtual private storage allocated by VTAM.

### ***maxhvpriv***

The maximum amount of 64-bit high virtual private storage allocated by VTAM.

### ***limhvpriv***

The maximum amount of 64-bit high virtual private storage that VTAM can allocate.

## **IST2414I**

In the message text:

### ***cpvtfixed***

The current amount of 64-bit high virtual private fixed storage allocated by VTAM.

### ***mpvtfixed***

The maximum amount of 64-bit high virtual private fixed storage allocated by VTAM.

### ***lpvtfixed***

The maximum amount of 64-bit high virtual private fixed storage that VTAM can allocate.

## **IST2415I**

In the message text:

### ***ctotfixed***

The current total amount of 64-bit high virtual fixed storage allocated by VTAM. *ctotfixed* is the sum of the *chvcfixed* value from the message IST2412I and the *cpvtfixed* value from the message IST2414I.

### ***mtotfixed***

The maximum amount of 64-bit high virtual fixed storage allocated by VTAM.

## **System action**

Processing continues.

## **Operator response**

None.



System programmer response

None.

User response

Not applicable.

Problem determination

Not applicable.

Source

z/OS Communications Server SNA

Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

Routing code

2

Descriptor code

5

Automation

Not applicable.

Example

IST924I -----					
IST2403I	64-BIT	STORAGE TYPE	CURRENT	MAXIMUM	LIMIT
IST2404I		HVCOMMON	1M	2M	NOLIMIT
IST2405I		TRACE HVCOMMON	2M	4M	2048M
IST2413I		PRIVATE	2M	8M	NOLIMIT
IST2412I		FIXED HVCOMMON	1M	1M	NOLIMIT
IST2414I		FIXED PRIVATE	1M	1M	NOLIMIT
IST2415I		TOTAL FIXED	2M	2M	**NA**

**IST2404I****HVCOMMON curhvcomm maxhvcomm limhvcomm**

Explanation

This message is part of a message group that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the group is IST2403I. See message [“IST2403I” on page 1483](#) for a complete description of the message group.

System action

Not applicable.

**Operator response**

Not applicable.

**System programmer response**

Not applicable.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

**Routing code**

2

**Descriptor code**

5

**Automation**

Not applicable.

**Example**

IST2404I	HVCOMMON	1M	1M	NOLIMIT
<b>IST2405I</b> <b>TRACE HVCOMMON</b> <i>chvcommtr mhvcommtr lhvcommtr</i>				

**Explanation**

This message is part of a message group that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the group is IST2403I. See message [“IST2403I” on page 1483](#) for a complete description of the message group.

**System action**

Not applicable.

**Operator response**

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

IST2405I	TRACE HVCOMMON	2M	4M	2048M
----------	----------------	----	----	-------

**IST2406I** **SMC-R LINK FAILURE ON TRLE *trlename* CODE = *rsn\_code***

## Explanation

VTAM issues this group of messages when a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link failure is detected.

A complete description of the message group follows:

```
IST2406I SMC-R LINK FAILURE ON TRLE trlename CODE = rsn_code
IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface
IST2407I LOCAL LINK ID = local_id REMOTE LINK ID = remote_id
IST2408I LOCAL MAC = local_mac REMOTE MAC = remote_mac
[IST2409I type GID = gid_value]
[IST2466I LOCAL IPADDR = ipaddress]
[IST2467I REMOTE IPADDR = ipaddress]
[IST2464I REMOTE HOSTNAME = remote_hostname]
IST2410I LOCAL QP = local_qp_num REMOTE QP = remote_qp_num
[IST2411I VLAN = vlan_id]
[IST2465I SMC VERSION = version]
IST314I END
```

## IST1717I

This message is displayed to identify the Upper-layer Protocol (ULP) associated with the failing SMC-R link.

***ulp\_id***

The name of a z/OS Communications Server ULP. In this message group, the *ulp\_id* value is always the TCP/IP job name.

***ulp\_interface***

The name of the *RoCE* interface that was used by the failing SMC-R link.

**IST2406I**

This is the first message in the message group.

***trlename***

The name of the TRLE that represents the *RoCE* interface that was used by the failing SMC-R link.

***rsn\_code***

The reason code generated by z/OS Communications Server to assist in identifying the reason for the SMC-R link failure.

**IST2407I**

This message displays the SMC-R link identification values assigned to the failing SMC-R link.

***local\_id***

The SMC-R link ID value assigned by this node for the failing SMC-R link.

***remote\_id***

The SMC-R link ID value assigned by the remote SMC-R peer for the failing SMC-R link.

**IST2408I**

This message displays the Media Access Control (MAC) address values for the failing SMC-R link.

***local\_mac***

The MAC value assigned by this node for the *RoCE* interface that was used by the failing SMC-R link.

***remote\_mac***

The MAC value assigned by the remote SMC-R peer for *RoCE* interface that was used by the failing SMC-R link.

**IST2409I**

This optional message displays a group ID (GID) value for the failing SMC-R link when the negotiated SMC protocol version is version 1.

***type***

Indicates which SMC-R link peer generated this GID value. Possible values are:

**LOCAL**

The GID value was assigned by this node.

**REMOTE**

The GID value was assigned by the remote SMC-R peer.

***gid\_value***

The GID value assigned by the SMC-R peer for the failing SMC-R link.

**IST2410I**

This message displays the queue pair (QP) values for the failing SMC-R link.

***local\_qp\_num***

The QP number assigned by this node for the failing SMC-R link.

***remote\_qp\_num***

The QP number assigned by the remote SMC-R peer for the failing SMC-R link.

**IST2411I**

This optional message is displayed when a virtual LAN (VLAN) is associated with the failing SMC-R link.

***vlan\_id***

The VLAN value associated with the failing SMC-R link. For SMC-Rv2, this is the VLAN ID associated with the local LAN.

**IST2464I**

This optional message is displayed when the remote SMC-R peer provides its hostname for the failing SMC-Rv2 link.

***remote\_hostname***

The hostname provided by the remote SMC-R peer for the failing SMC-Rv2 link. This is optionally exchanged during SMC-Rv2 link setup time. The value being displayed is the value passed to this host by the SMC-R peer for the failing SMC-R link.

**IST2465I**

This optional message displays the negotiated SMC protocol version of the failing SMC-R link.

***version***

1 : SMC protocol version 1

2 : SMC protocol version 2

**IST2466I**

This optional message displays the local IP address of the failing SMC-R link when the negotiated SMC protocol version is version 2.

***ipaddress***

The local IP address

**IST2467I**

This optional message displays the remote IP address of the failing SMC-R link when the negotiated SMC protocol version is version 2.

***ipaddress***

The remote IP address

**System action**

Processing continues. The TCP/IP stack attempts to switch the TCP connections that are using the failing SMC-R link to another SMC-R link, if one exists, within the SMC-R link group. This switch occurs automatically and the TCP connections continue over the alternate SMC-R link. If no alternate SMC-R link exists within the link group, the TCP connections end.

**Operator response**

Contact the system programmer.

**System programmer response**

For more information about Data Link Control (DLC) status codes and about the error that the value of *rsn\_code* reports, see [z/OS Communications Server: IP and SNA Codes](#). Perform the necessary corrections, if any. If there are no corrections to make, or the corrections do not fix the condition, take these steps:

1. If the error occurs infrequently and the TCP connections switch successfully to the alternate SMC-R link in the link group, the error might be a transient network condition. These errors can be ignored.
2. If the error occurs repeatedly during SMC-R link activation with *rsn\_code*= X'0830500C', the error might be a configuration issue with the Ethernet switch. For suggestions on how to correct the switch configuration issues, see [Diagnosing problems with Shared Memory Communications](#) in [z/OS Communications Server: IP Diagnosis Guide](#).

3. If the error occurs repeatedly, or the TCP connections do not switch to the alternate SMC-R link in the link group, instruct the operator to issue either of these commands:
- MODIFY CSDUMP,MESSAGE=IST2406I to collect a VTAM dump the next time this message group is displayed.
  - MODIFY CSDUMP,MESSAGE=IST2406I,RNICTRLE=*trlenam*e to collect both a VTAM dump and a *RoCE* diagnostic dump the next time this message group is generated for an SMC-R link associated with *trlenam*e. The diagnostic dump is disruptive to all TCP/IP stacks that activate the *RoCE* interface, so this option should be used only when a VTAM dump provides insufficient information to diagnose the problem. In addition, you should ensure that an alternate SMC-R link is available so that the TCP connections remain active when the diagnostic dump is taken.

When the diagnostic information is collected, contact IBM Service.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a good candidate for automation.

## Example

If SMCv1 is used, this is an example of what you might see:

```
IST2406I SMC-R LINK FAILURE ON TRLE IUT10018 CODE = 8014510B
IST1717I ULPID = TCPCS1 ULP INTERFACE = EZARIUT10018
IST2407I LOCAL LINK ID = 2D8F0100 REMOTE LINK ID = 729D0101
IST2408I LOCAL MAC = 02000012F030 REMOTE MAC = 02000112F030
IST2409I LOCAL GID = FE80::200:1FF:FE12:F030
IST2409I REMOTE GID = FE80::200:FF:FE12:F030
IST2410I LOCAL QP = 40 REMOTE QP = 41
IST2411I VLAN = 100
IST2465I SMC VERSION = 1
IST314I END
```

If SMCv2 is used, this is an example of what you might see:

```
IST2406I SMC-R LINK FAILURE ON TRLE IUT10018 CODE = 8014510B
IST1717I ULPID = TCPCS1 ULP INTERFACE = EZARIUT10018
IST2407I LOCAL LINK ID = 2D8F0100 REMOTE LINK ID = 729D0101
IST2408I LOCAL MAC = 02000012F030 REMOTE MAC = 02000112F030
IST2466I LOCAL IPADDR = 9.101.233.1
IST2467I REMOTE IPADDR = 9.101.99.2
IST2464I REMOTE HOSTNAME = PRDLPAR1
IST2410I LOCAL QP = 40 REMOTE QP = 41
IST2411I VLAN = 100
IST2465I SMC VERSION = 2
IST314I END
```

---

**IST2407I****LOCAL LINK ID = *local\_id* REMOTE LINK ID = *remote\_id***

## Explanation

VTAM issues this message as part of a group of messages when a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link or Shared Memory Communications - Direct Memory Access (SMC-D) link failure is detected. VTAM issues message group IST2406I for SMC-R link failures and message group IST2421I for SMC-D link failures. See message [“IST2406I” on page 1487](#) or [“IST2421I” on page 1507](#) for an explanation of the message group.

## System action

See message group for details.

## Operator response

See message group for details.

## System programmer response

See message group for details.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.

## Example

```
IST2407I LOCAL LINK ID = 2D8F0100 REMOTE LINK ID = 729D0101
```

---

**IST2408I****LOCAL MAC = *local\_mac* REMOTE MAC = *remote\_mac***

## Explanation

VTAM issues this message as part of a group of messages when a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link failure is detected. See message [“IST2406I” on page 1487](#) for an explanation of the message group.

## System action

See message IST2406I for details.

## Operator response

See message IST2406I for details.

## System programmer response

See message IST2406I for details.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5



## Automation

This message is not a candidate for automation.

## Example

```
IST2408I LOCAL MAC = 02000012F030 REMOTE MAC = 02000112F030
```

---

### IST2409I

*type GID = gid\_value*

## Explanation

VTAM issues this message as part of a group of messages when a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link or Shared Memory Communications - Direct Memory Access (SMC-D) link failure is detected. VTAM issues message group IST2406I for SMC-R link failures and message group IST2421I for SMC-D link failures. See message [“IST2406I” on page 1487](#) or [“IST2421I” on page 1507](#) for an explanation of the message group.

## System action

See message group for details.

## Operator response

See message group for details.

## System programmer response

See message group for details.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.

## Example

```
IST2409I LOCAL GID = FE80::200:1FF:FE12:F030
```

---

### IST2410I

**LOCAL QP = *local\_qp\_num* REMOTE QP = *remote\_qp\_num***

## Explanation

VTAM issues this message as part of a group of messages when a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link failure is detected. See message [“IST2406I” on page 1487](#) for an explanation of the message group.

## System action

See message IST2406I for details.

## Operator response

See message IST2406I for details.

## System programmer response

See message IST2406I for details.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.

## Example

```
IST2410I LOCAL QP = 40  REMOTE QP = 41
```

---

**IST2411I****VLAN = *vlan\_id***

## Explanation

VTAM issues this message as part of a group of messages when a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link or Shared Memory Communications - Direct Memory Access (SMC-D) link failure is detected. VTAM issues message group IST2406I for SMC-R link failures and message group IST2421I for SMC-D link failures. See message [“IST2406I” on page 1487](#) or [“IST2421I” on page 1507](#) for an explanation of the message group.

## System action

See message group for details.

## Operator response

See message group for details.

## System programmer response

See message group for details.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.

# Example

```
IST2411I  VLAN = 100
```

**IST2412I** **FIXED HVCOMMON *chvcfixed mhvcfixed lhvcfixed***

## Explanation

This message is the part of a message group that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the subgroup is IST2403I. See message [IST2403I](#) for a complete description of the message group.

## System action

Not Applicable.

## Operator response

Not Applicable.

## System programmer response

Not Applicable.

## User response

Not Applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not Applicable.

## Example

IST2412I	FIXED HVCOMMON	1M	1M	NOLIMIT
----------	----------------	----	----	---------

Explanation

This message is the part of a message group that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the subgroup is IST2403I. See message [IST2403I](#) for a complete description of the message group.

System action

Not Applicable.

Operator response

Not Applicable.

System programmer response

Not Applicable.

User response

Not Applicable.

Problem determination

Not applicable.

Source

z/OS Communications Server SNA

Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

Routing code

2

Descriptor code

5

Automation

Not Applicable.

Example

IST2413I	PRIVATE	1M	1M	NOLIMIT
----------	---------	----	----	---------

**Explanation**

This message is the part of a message group that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the subgroup is IST2403I. See message [IST2403I](#) for a complete description of the message group.

**System action**

Not Applicable.

**Operator response**

Not Applicable.

**System programmer response**

Not Applicable.

**User response**

Not Applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

**Module**

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

**Routing code**

2

**Descriptor code**

5

**Automation**

Not Applicable.

**Example**

IST2414I	FIXED PRIVATE	1M	1M	NOLIMIT
<b>IST2415I</b> TOTAL FIXED <i>ctotfixed mtotfixed</i> **NA**				

### Explanation

This message is the part of a message group that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the subgroup is IST2403I. See message [IST2403I](#) for a complete description of the message group.

### System action

Not Applicable.

### Operator response

Not Applicable.

### System programmer response

Not Applicable.

### User response

Not Applicable.

### Problem determination

Not applicable.

### Source

z/OS Communications Server SNA

### Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

### Routing code

2

### Descriptor code

5

### Automation

Not Applicable.

### Example

IST2415I	TOTAL FIXED	1M	1M	**NA**
IST2416I		count type PROCESSED		

## Explanation

VTAM issues this message to respond to a VARY INACT,TYPE=GIVEBACK command where wildcard values are used for the ID operand. The ID operand specifies the dependent LU requesters (DLURs) that will be deactivated. This message is issued only when the GVBKDLY and VARYWLD start options are both enabled.

### **count**

The number of resources that the command processes.

### **type**

The same type as in the INACT command that is issued. The following value is valid:

#### **GIVEBACKS**

VARY INACT,TYPE=GIVEBACK processing for DLURs was performed.

## System action

Processing continues.

## Operator response

Use the IST2416I message as an indicator that VTAM has finished scheduling the last batch of subcommands for processing. If additional wildcard ID values will be processed, issue another VARY INACT,TYPE=GIVEBACK command and specify the next wildcard pattern on the ID operand.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.



## Example

```
IST2416I 1852 GIVEBACKS PROCESSED
```

---

**IST2417I****VFN = *virtual\_function\_number***

## Explanation

VTAM issues this message as part of several message groups in response to a DISPLAY ID or DISPLAY TRL command.

See message [IST2361I](#) for an explanation of the message group when the TRLE represents a *RoCE* interface, or message [IST2418I](#) when the TRLE represents an internal shared memory (ISM) interface.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

None.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.

## Example

```
IST2417I VFN = 0002
```

### IST2418I

**SMCD PFID = *pfid* VCHID = *vchid* PNETID = *network\_id***

## Explanation

VTAM issues this message as part of a message group in response to a DISPLAY ID or DISPLAY TRL command for a TRLE that is associated with an internal shared memory (ISM) device.

VTAM also issues this message as part of various message groups for the following functions:

### Adapter Interrupt Monitoring (AIMON) function

The first message in the group is IST2419I. See [“IST2419I” on page 1504](#) for a complete description.

### SMC-D link failure detection logic

The first message in the group is IST2421I. See [“IST2421I” on page 1507](#) for a complete description.

A complete description of the message group follows the example:

```
IST075I NAME = nodename, TYPE = nodetype
IST1954I TRL MAJOR NODE = trl_major_node_name
IST486I STATUS= current_status, DESIRED STATE= desired_state
IST087I TYPE = line_type, CONTROL = line_control, HPDT= hpdvalue
IST2418I SMCD PFID = pfid VCHID = vchid PNETID = network_id
IST2417I VFN = virtual_function_number
[IST924I -----]
[IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface]
[IST1724I I/O TRACE = iotrc TRACE LENGTH = length]
```

### IST075I

This message displays the resource name and resource type.

#### ***nodename***

The name of the resource that was entered on the DISPLAY command.

#### ***nodetype***

The resource type of the major or minor node. The *nodetype* value is always **TRLE** for this message group.

### IST087I

This message displays line information associated with *nodename*.

#### ***line\_type***

The *line\_type* value is always **\*NA\*** for this message group.

#### ***line\_control***

The *line\_control* value is always **ISM** (internal shared memory) for this message group.

#### ***hpdvalue***

The *hpdvalue* value is always **\*NA\*** for this message group.

### IST486I

This message displays status information for *nodename*.

#### ***current\_status***

The current status of the node. See the [z/OS Communications Server: IP and SNA Codes](#) for status information.

#### ***desired\_state***

The node state that is desired. See the [z/OS Communications Server: IP and SNA Codes](#) for status information. If VTAM cannot determine the desired state, *desired\_state* is **\*\*\*NA\*\*\***.

### IST1717I

This message is displayed when the ISM TRLE is currently being used by a upper-layer protocol (ULP). Only one ULP can use an ISM TRLE at a time.

***ulp\_id***

The name of a z/OS Communications Server ULP that is using the ISM TRLE. In this message group, the *ulp\_id* value is always the TCP/IP job name.

***ulp\_interface***

The name of the interface associated with the ISM TRLE.

**IST1724I**

This message displays trace information for *nodename*.

***iotrc***

Specifies whether I/O Trace is active for *nodename*. In this message group, the *iotrc* value is always **OFF**.

***length***

Specifies the number of bytes being recorded for I/O Trace for *nodename*. In this message group, the *length* value is always **\*NA\***.

**IST1954I**

This message displays the TRL major node name.

***trl\_major\_node\_name***

The name of the TRL major node defining the ISM TRLE. The *trl\_major\_node\_name* value is always ISTTRL for this message group.

**IST2417I**

This message displays the virtual function number (VFN) associated with *nodename*.

***virtual\_function\_number***

The virtual function number.

**IST2418I**

This message provides configuration information for the ISM device represented by *nodename*.

***pfid***

The 2-byte hexadecimal Peripheral Component Interconnect Express (PCIe) function ID.

***vchid***

The 2-byte hexadecimal virtual channel ID (VCHID).

***network\_id***

The physical network identifier.

**System action**

Processing continues.

**Operator response**

Not applicable.

**System programmer response**

Not applicable.

**User response**

Not applicable.

**Problem determination**

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a good candidate for automation.

## Example

```
IST097I DISPLAY ACCEPTED
IST075I NAME = IUT0001D, TYPE = TRLE
IST1954I TRL MAJOR NODE = ISTTRL
IST486I STATUS= ACTIV, DESIRED STATE= ACTIV
IST087I TYPE = *NA*, CONTROL = ISM, HPDT = *NA*
IST2418I SMCD PFID = 001D VCHID = 0178 PNETID = NETWORK1
IST2417I VFN = 0002
IST924I -----
IST1717I ULPID = TCPCS ULP INTERFACE = EZAISM03
IST1724I I/O TRACE = OFF TRACE LENGTH = *NA*
IST314I END
```

---

### IST2419I

### VIRTUAL INTERRUPT DRIVEN FOR TRLE *trlename*

## Explanation

VTAM issues this message as part of a group of messages generated by the adapter interrupt monitoring function. This message group indicates VTAM detected that no interrupt had been generated for the interface associated with *trlename* even though there was data waiting to be processed, and that VTAM then initiated a virtual interrupt to resume activity on the interface. The adapter interrupt monitoring function is enabled using the AIMON start option.

A complete description of the message group follows the example:

```
IST2419I VIRTUAL INTERRUPT DRIVEN FOR TRLE trlename
[ IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface ]
[ IST2337I CHPID TYPE = chpid_type CHPID = chpid_num PNETID = network_id ]
[ IST2361I SMCD PFID = pfid PCHID = pchid PNETID = network_id ]
[ IST2418I SMCD PFID = pfid VCHID = vchid PNETID = network_id ]
IST314I END
```

### IST1717I

This message is displayed to identify the upper-layer protocol (ULP) associated with the failing QDIO or iQDIO link.

#### *ulp\_id*

The name of a z/OS Communications Server ULP. In this message group, the *ulp\_id* value is always the TCP/IP job name.

## IST2337I

This message provides configuration information for the HiperSockets interface or OSA-Express adapter or EQDIO adapter that is associated with *trlenam*.

### **chpid\_type**

The type of channel path identifier that this TRLE uses:

#### **IQX**

Channel type for a HiperSockets™ interface.

#### **OSD**

Channel type for an OSA-Express CHPID that is configured in QDIO mode.

#### **OSM**

Channel type for an OSA-Express CHPID that is configured for attachment to the intranode management network.

#### **OSX**

Channel type for an OSA-Express CHPID that is configured for attachment to the intraensemble network.

#### **OSH**

Channel type for an OSH device.

### **chpid\_num**

The 2-byte hexadecimal virtual channel path identifier (CHPID) for the HiperSockets interface or OSA-Express adapter or EQDIO adapter.

### **network\_id**

The physical network identifier for the HiperSockets interface or OSA-Express adapter or EQDIO adapter that is associated with *trlenam*.

## IST2361I

This message provides configuration information for the *RoCE* associated with *trlenam*.

### **pfid**

The 2-byte hexadecimal Peripheral Component Interconnect Express (PCIe) function ID for the *RoCE* feature associated with *trlenam*.

### **pchid**

The 2-byte hexadecimal physical channel ID (PCHID) for the *RoCE* feature associated with *trlenam*.

### **network\_id**

The physical network identifier for the *RoCE* interface associated with *trlenam*.

## IST2418I

This message provides configuration information for the device that is associated with *trlenam*.

### **pfid**

The 2-byte hexadecimal Peripheral Component Interconnect Express (PCIe) function ID for the internal shared memory (ISM) device that is associated with *trlenam*.

### **vchid**

The 2-byte hexadecimal virtual channel ID (VCHID) for ISM device that is associated with *trlenam*.

### **network\_id**

The physical network identifier for the ISM interface that is associated with *trlenam*.

## IST2419I

This is the first message in the message group.

### **trlenam**

The name of the resource for which VTAM drove a virtual interrupt.

## System action

Processing continues.

## Operator response

Contact the system programmer.

## System programmer response

If this error occurs repeatedly, instruct the operator to issue this command:

**MODIFY CSDUMP,MESSAGE=IST2419I**

Issue this command to collect a VTAM dump the next time this message group is displayed. When the diagnostic information is collected, contact IBM Service.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a good candidate for automation.

## Example

```
IST2419I VIRTUAL INTERRUPT DRIVEN FOR TRLE IUT10010
IST2361I SMCR PFID = 0010 PCHID = 01A0 PNETID = NETID1
IST314I END
```

---

**IST2420I****ISM NOT SUPPORTED, REQUIRED HARDWARE NOT AVAILABLE**

## Explanation

VTAM issues this message when it detects that internal shared memory (ISM) processing cannot be performed because the necessary hardware is not available. VTAM uses ISM processing as part of Shared Memory Communications - Direct Memory Access (SMC-D) processing.

## System action

Processing continues. Future attempts to activate the ISM device will fail.

## Operator response

Contact the system programmer.

## System programmer response

Ensure that the TCP/IP stack configured to use SMC-D processing is operating on an IBM z13<sup>®</sup> GA2/MR or later processor.

You can configure a TCP/IP stack to use SMC-D by specifying the SMCD parameter on the GLOBALCONFIG statement.

If you cannot operate the TCP/IP stack on an IBM z13 GA2/MR or later processor, make one of the following changes to the GLOBALCONFIG statement for the TCP/IP stack:

- Remove the SMCD operand.
- Specify the NOSMCD operand.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is a candidate for automation to detect errors that occur during activation of PCIe devices.

## Example

```
IST2420I ISM NOT SUPPORTED, REQUIRED HARDWARE NOT AVAILABLE
```

---

**IST2421I****SMC-D LINK FAILURE ON TRLE trlenam CODE = rsn\_code**

## Explanation

VTAM issues this group of messages when a Shared Memory Communications - Direct Memory Access (SMC-D) link failure is detected.

A complete description of the message group follows:

```
IST2421I SMC-D LINK FAILURE ON TRLE trlename CODE = rsn_code
IST2418I SMCD PFID = pfid VCHID = vchid PNETID = network_id
IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface
IST2407I LOCAL LINK ID = local_id REMOTE LINK ID = remote_id
IST2409I type GID = gid_value
[IST2464I REMOTE HOSTNAME = remote_hostname]
[IST2411I VLAN = vlan_id]
[IST2465I SMC VERSION = version]
IST314I END
```

### IST1717I

This message is displayed to identify the upper-layer protocol (ULP) associated with the failing SMC-D link.

#### ***ulp\_id***

The name of a z/OS Communications Server ULP. In this message group, the *ulp\_id* value is always the TCP/IP job name.

#### ***ulp\_interface***

The name of the internal shared memory (ISM) interface that was used by the failing SMC-D link.

### IST2407I

This message displays the SMC-D link identification values assigned to the failing SMC-D link.

#### ***local\_id***

The SMC-D link ID value assigned by this node for the failing SMC-D link.

#### ***remote\_id***

The SMC-D link ID value assigned by the remote SMC-D peer for the failing SMC-D link.

### IST2409I

This message displays a group ID (GID) value for the failing SMC-D link.

#### ***type***

Indicates which SMC-D link peer generated this GID value. Possible values are:

##### **LOCAL**

The GID value was assigned by this node.

##### **REMOTE**

The GID value was assigned by the remote SMC-D peer.

#### ***gid\_value***

The GID value assigned by the SMC-D peer for the failing SMC-D link.

### IST2411I

This optional message is displayed when a virtual LAN (VLAN) is associated with the failing SMC-D link.

#### ***vlan\_id***

The VLAN value associated with the failing SMC-D link.

### IST2418I

This message displays configuration information for the ISM interface represented by *trlename*.

#### ***pfid***

The 2-byte hexadecimal Peripheral Component Interconnect® Express (PCIe) function ID.

#### ***vchid***

The 2-byte hexadecimal virtual channel ID (VCHID).



***network\_id***

The physical network identifier.

**Note:** When a physical network identifier is not configured for the ISM VCHID the value will display as **\*\*NA\*\***.

**IST2421I**

This is the first message in the message group.

***trlename***

The name of the TRLE that represents the ISM interface that was used by the failing SMC-D link.

***rsn\_code***

The reason code generated by z/OS Communications Server to assist in identifying the reason for the SMC-D link failure.

**IST2464I**

This optional message is displayed when the remote SMC-D peer provides its hostname for the failing SMC-Dv2 link.

***remote\_hostname***

The hostname provided by the remote SMC-D peer for the failing SMC-Dv2 link is optionally exchanged during SMC-Dv2 link setup time. The value being displayed is the value passed to this host by the SMC-D peer for the failing SMC-D link.

**IST2465I**

This optional message displays the negotiated SMC protocol version of the failing SMC-D link.

***version***

1 : SMC protocol version 1

2 : SMC protocol version 2

**System action**

Processing continues. The TCP connections that are using the failing SMC-D link end.

**Operator response**

Contact the system programmer.

**System programmer response**

For more information about Data Link Control (DLC) status codes and about the error that the value of *rsn\_code* reports, see [z/OS Communications Server: IP and SNA Codes](#). Perform the necessary corrections, if any.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a good candidate for automation.

## Example

```
IST2421I SMC-D LINK FAILURE ON TRLE IUT00679 CODE = 081058E1
IST2418I SMCD PFID = 0679 VCHID = 02C4 PNETID = **NA**
IST1717I ULPID = TCPIP3 ULP INTERFACE = EZAISMU1
IST2407I LOCAL LINK ID = 0402000E REMOTE LINK ID = 0E020002
IST2409I LOCAL GID = 040012F973A88561
IST2409I REMOTE GID = 0900135373A88561
IST2464I REMOTE HOSTNAME = PRDLPAR1
IST2465I SMC VERSION = 2
IST314I END
```

---

**IST2422I****NO ISM PFIDS DEFINED FOR PNETID *pnetid\_value***

## Explanation

VTAM issues this message when it attempts to activate an internal shared memory (ISM) device associated with a physical network ID (PNetID), but no Peripheral Component Interconnect Express (PCIe) function ID (PFID) values are defined for this PNetID.

In the message text:

### ***pnetid\_value***

The physical network ID that VTAM used in the failed activation attempt.

## System action

ISM interface activation fails.

## Operator response

Issue the D PCIE command and provide the output to the system programmer.

## System programmer response

Determine if *pnetid\_value* is a valid physical network ID for this system, and perform one of the following steps:

- If the *pnetid\_value* is not valid, correct the OSD or HiperSockets definitions in the HCD. VTAM learns the PNetID of the OSD and HiperSockets devices during activation processing. These PNetID values are subsequently used to attempt to activate internal shared memory (ISM) interfaces associated with Shared Memory Communications - Direct Memory Access (SMC-D) capable OSD or HiperSockets devices.
- If the *pnetid\_value* is valid, correct the HCD definitions for the PFID values that should be used for *pnetid\_value* interfaces.

After the corrections have been made, instruct the operator to issue the necessary commands to activate the changes that were made to the HCD configuration.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is a candidate for automation to detect errors that occur during activation of ISM devices.

## Example

```
IST2422I NO ISM PFIDS DEFINED FOR PNETID NETID2
```

---

**IST2423I** **NO ISM PFIDS AVAILABLE FOR PNETID *pnetid\_value***

## Explanation

VTAM issues this message when it attempts to activate an internal shared memory (ISM) interface associated with a physical network ID (PNetID). Peripheral Component Interconnect Express (PCIe) function ID (PFID) values are defined for this PNetID, but none of the PCIe devices associated with the PFID values are available.

In the message text:

### ***pnetid\_value***

The physical network ID that VTAM used in the failed activation attempt.

## System action

ISM interface activation fails.

## Operator response

Take the following steps to correct the problem:

1. Issue the D PCIE command to identify the PFID values that are associated with *pnetid\_value*.

2. If any PCIe devices associated with *pnetid\_value* are offline, take the following steps:
  - Issue the CF PFID command to bring the PCIe devices associated with the PFID values online.
  - Issue the VARY START command to start the internal shared memory (ISM) interface.
3. If all PCIe devices associated with *pnetid\_value* are online, contact the system programmer.

### System programmer response

If all PCIe devices associated with *pnetid\_value* are online and in use, and you want additional TCP/IP stacks to activate ISM interfaces for this *pnetid\_value*, take the following steps:

1. Update the HCD configuration to define additional virtual functions (VF) for the virtual channel ID (VCHID) representing the ISM device used by *pnetid\_value*.
2. After the corrections have been made, instruct the operator to issue the necessary commands to activate the changes that were made to the HCD configuration and to issue the VARY START command to start the ISM interface.

### User response

Not applicable.

### Problem determination

Not applicable.

### Source

z/OS Communications Server SNA

### Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

### Routing code

2

### Descriptor code

5

### Automation

This message is a candidate for automation to detect errors that occur during activation of ISM devices.

### Example

```
IST2423I NO ISM PFIDS AVAILABLE FOR PNETID NETID2
```

---

**IST2424I****3270 DATA STREAM ERROR – netid.pluname netid.sluname**

## Explanation

This is the first of a group of messages that VTAM issues when a 3270 data stream error is found by the 3270 Intrusion Detection Services. A complete description of the message group follows.

```
IST2424I 3270 DATA STREAM ERROR - netid.pluname netid.sluname
IST2425I {PLU|SLU} SUBAREA = X'saHex' INDEX = X'indHex' ELEMENT = X'elHex'
IST2441I JOBNAME = jobname SID = session_id
[IST2426I IPADDR = ipaddress..port]
IST2427I DATE = date TIME = time ID = id
IST2428I ROW = row COLUMN = col
IST2429I OUTBOUND - SEQ = X'seq_num' OFF = offset LEN = len
IST2431I hex_data1 hex_data2 hex_data3 hex_data4 *EBCDIC_data*
IST2430I INBOUND - SEQ = X'seq_num' OFF = offset LEN = len
IST2431I hex_data1 hex_data2 hex_data3 hex_data4 *EBCDIC_data*
IST314I END
```

### IST2424I

#### ***pluname***

The network-qualified primary session partner name.

#### ***sluname***

The network-qualified secondary session partner name.

#### ***netid***

The ID of the network that contains the session partner.

### IST2425I

IST2425I will be displayed once for the PLU resource and once for the SLU resource.

#### ***saHex***

The subarea of the primary or secondary logical unit in hexadecimal.

#### ***indHex***

The element index number of the primary or secondary logical unit in hexadecimal.

#### ***elHex***

The element address of the primary or secondary logical unit in hexadecimal.

### IST2426I

#### ***ipaddress***

The IP address associated with the SLU.

#### ***port***

The port number associated with the SLU.

This message is issued when the control vector CV64 has been provided.

### IST2427I

#### ***date and time***

Specify when the last outbound data was sent.

#### ***id***

The incident token associated with this event.

### IST2428I

#### ***row***

The row number of the 3270 presentation space where the field modification was detected.

#### ***col***

The column number of the 3270 presentation space where the field modification was detected.

### IST2429I

#### ***seq\_num***

The sequence number of the last outbound PIU that set the field in question in hexadecimal.

**offset**

The offset in the outbound PIU of the field that was overlaid.

**len**

The length of the outbound field that was overlaid.

**IST2430I****seq\_num**

The sequence number of the inbound PIU in hexadecimal.

**offset**

The offset in the inbound PIU of the field that was overlaid.

**len**

The length of the inbound field that was overlaid.

**IST2431I****hexdata\_1, hex\_data2, hex\_data3 and hex\_data4**

Show up to 16 bytes of outbound or inbound data around the area of the detected violation (in hex).

**EBCDIC\_data**

Show up to 16 bytes of outbound or inbound data around the area of the detected violation (in EBCDIC).

**IST2441I****jobname**

The 1 to 8 character job name of the VTAM application that was active when the incident occurred. If *jobname* is not available, VTAM issues **\*\*\*NA\*\*\***.

**session\_id**

The session ID that provides a unique identifier for the session. If the session ID is unknown, VTAM displays **\*\*\*NA\*\*\***.

**System action**

Depending on the value of the DSACTION defined on the APPL statement, the connection will be continued or will be terminated. The outbound and inbound PIUs have been written to the Generalized Trace Facility (GTF), if available.

**Operator response**

Notify the security administrator that a possible intrusion has been detected.

**System programmer response**

None.

**User response**

None.

**Problem determination**

Start the Generalized Trace Facility (GTF) to collect trace records of event type 'F90'x. These trace records can be formatted with Interactive Problem Control System (IPCS).

**Source**

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

8, 9

## Descriptor code

4

## Automation

An automation tool can start GTF and buffer trace for the SLU when it detects the message IST2424I.

### Tips:

- When you use DSACTION=SYSLOG, a single IST2424I message is written to the console and the entire message group for IST2424I is written to SYSLOG. This message is displayed twice for the same incident during automation.
- When the application is TSO, the *jobname* in IST2441I is the TSO user ID.

## Example

```
IST2424I 3270 DATA STREAM ERROR - NETA.TS010001 NETA.L7201A 056
IST2425I PLU SUBAREA = X'0001' INDEX = X'0001' ELEMENT = X'0076'
IST2425I SLU SUBAREA = X'0001' INDEX = X'0000' ELEMENT = X'003A'
IST2441I JOBNAME = USER1 SID = EAABEEC33D18556F
IST2426I IPADDR = 10.10.101.4..50208
IST2427I DATE = 2016/04/01 TIME = 14:07:04 ID = 1
IST2428I ROW = 4 COLUMN = 14
IST2429I OUTBOUND - SEQ = X'000A' OFF = 350 LEN = 66
IST2431I 00000000 00000000 00000000 00000000 *.*****
IST2430I INBOUND - SEQ = X'0006' OFF = 6 LEN = 66
IST2431I 92939293 91A28400 00000000 00000000 *KLKLJSD*****
IST314I END
```

---

**IST2425I** {PLU|SLU} SUBAREA = X'saHex' INDEX = X'indHex' ELEMENT = X'elHex'

---

## Explanation

VTAM issues this message as part of a group of messages. The first message of the group is IST2424I. See the explanation of that message for a complete description. IST2424I is issued when a 3270 data stream error is detected.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

8, 9

## Descriptor code

4

---

**IST2426I****IPADDR = ipaddress..port**

---

## Explanation

VTAM issues this message as part of a group of messages. The first message of the group is IST2424I. See the explanation of that message for a complete description. IST2424I is issued when a 3270 data stream error is detected.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

8, 9

## Descriptor code

4

---

**IST2427I****DATE = date TIME = time ID = id**

---

## Explanation

VTAM issues this message as part of a group of messages. The first message of the group is IST2424I. See the explanation of that message for a complete description. IST2424I is issued when a 3270 data stream error is detected.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

8, 9



## Descriptor code

4

---

**IST2428I****ROW = row COLUMN = col**

## Explanation

VTAM issues this message as part of a group of messages. The first message of the group is IST2424I. See the explanation of that message for a complete description. IST2424I is issued when a 3270 data stream error is detected.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

8, 9

## Descriptor code

4

---

**IST2429I****OUTBOUND - SEQ = X'seq\_num' OFF = offset LEN = len**

## Explanation

VTAM issues this message as part of a group of messages. The first message of the group is IST2424I. See the explanation of that message for a complete description. IST2424I is issued when a 3270 data stream error is detected.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

8, 9

## Descriptor code

4

---

**IST2430I****INBOUND - SEQ = X'seq\_num' OFF = offset LEN = len**

## Explanation

VTAM issues this message as part of a group of messages. The first message of the group is IST2424I. See the explanation of that message for a complete description. IST2424I is issued when a 3270 data stream error is detected.

## System action

None.

## Operator response

None.

## System programmer response

None.

## User response

None.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

8, 9

## Descriptor code

4

## Automation

Not applicable for automation.

---

IST2431I	hex_data1 hex_data2 hex_data3 hex_data4 *EBCDIC_data*
----------	---

## Explanation

VTAM issues this message as part of a group of messages. The first message of the group is IST2424I. See the explanation of that message for a complete description. IST2424I is issued when a 3270 data stream error is detected.

# Source

z/OS Communications Server SNA

# Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

# Routing code

8, 9

# Descriptor code

4

IST2432I

3270 ERROR SUMMARY FROM *date* AT *time*

# Explanation

VTAM issues this message as part of a 3270 Intrusion Detection Services summary message group. This message group is issued only if message suppression has been enabled by setting the *error\_msg\_count* DSACTION start option to a nonzero value. VTAM suppresses the logging of the IST2424I message events if the number of message events logged in a 60-second interval exceeds the value of the DSACTION start option. Logging resumes after the 60-second interval ends. Message IST2439I is a column header for IST2440I, which is repeated for each session. The full description of the message group follows the example.

```
IST2432I 3270 ERROR SUMMARY FROM date AT time
IST2438I SESSIONS = sesscnt ERRORS = errcnt
IST924I -----
IST2439I PLU                SLU                SID                ERRORS
[IST2440I pluname          sluname          sessionid          count]
.
.
.
IST314I END
```

# IST2432I

In the message text:

## *date and time*

Specify when the message suppression event interval was started. This summary message group displays information about messages that were suppressed since this date and time.

# IST2438I

In the message text:

## *sesscnt*

The number of sessions recorded in the summary. This does not include sessions that could not be saved in the summary table. If *sesscnt* displays > 50, more than 50 sessions were associated with the IST2424I message groups.

## *errcnt*

The total number of errors that have occurred since message group IST2424I was suppressed. This does include the sessions that could not be saved in the summary table.

# IST924I

VTAM issues this message to improve the readability of the display.

# IST2439I

This message is a message header for the information displayed in message IST2440I.

## **IST2440I**

In the message text:

### ***pluname***

The network-qualified primary session partner name.

### ***sluname***

The network-qualified secondary session partner name.

### ***sessionid***

The session identifier. For additional information on the session, enter a DISPLAY SESSIONS,SID=*sessionid* command.

### ***count***

The number of IST2424I message groups that was suppressed for the session.

If the *pluname* and *sluname* values contain N/A, this is the overflow entry and the *count* value contains the number of incidents that could not be recorded in the summary table.

## **System action**

Processing continues. PIUs that are associated with the event are still written to GTRACE.

## **Operator response**

Notify the security administrator that possible intrusions have been detected.

## **System programmer response**

None.

## **User response**

None.

## **Problem determination**

Start the Generalized Trace Facility (GTF) to collect trace records of event type 'F90'x. These trace records can be formatted with Interactive Problem Control System (IPCS).

## **Source**

z/OS Communications Server SNA

## **Module**

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## **Routing code**

8, 9

## **Descriptor code**

4

## Automation

An automation tool can start GTF and buffer trace for the secondary logical unions when it detects the message IST2432I.

## Example

```
IST2432I 3270 ERROR SUMMARY FROM 2016/01/07 AT 09:19:17 976
IST2438I SESSIONS = 1 ERRORS = 25
IST924I -----
IST2439I PLU          SLU          SID          ERRORS
IST2440I NETA.TS010001 NETA.L7201A EAABEEC32FB66595 25
IST314I END
```

---

**IST2433I** **DSMONITR = YES, DSCOUNT = *count*, DSACTION = *string***

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a VTAM application when the 3270 Intrusion Detection Services is active for this application.

In the message text:

### ***count***

The number of outbound buffers to be saved. *count* is the current value of the DSCOUNT operand specified on the APPL statement or the VTAM DSCOUNT start option.

### ***string***

The current value of the DSACTION operand specified on the APPL statement or the VTAM DSACTION start option.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

```
IST2433I DSMONITR = YES, DSCOUNT = 1, DS ACTION = (SYSLOG,NONE)
```

---

**IST2434I****DSTRUST = *string***

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command for a VTAM application when the 3270 Intrusion Detection Services is active for this application.

In the message text:

### ***string***

The current value of the DSTRUST operand specified on the APPL statement or the VTAM DSTRUST start option.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

```
IST2434I DSTRUST = NONE
```

---

**IST2435I****SESSIONS MONITORED = *count*, ERRORS DETECTED = *errors***

---

## Explanation

VTAM issues this message in response to a DISPLAY ID command for an application program when the 3270 Intrusion Detection Services is monitoring this application.

In the message text:

### ***count***

The number of sessions currently being monitored by the 3270 Intrusion Detection Services. When the 3270 Intrusion Detection Services is no longer actively monitoring sessions, \*\*\*N/A\*\*\* is displayed.

### ***errors***

The number of errors that have been found by the 3270 Intrusion Detection Services for this application.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications](#)

Server: SNA Operation and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

---

**IST2436I****DSMONITR = NO**

## Explanation

VTAM issues this message in response to the following commands:

- DISPLAY ID command for an application program when the 3270 Intrusion Detection Services is not active for the application.
- DISPLAY SESSIONS,SID= command for a session when the 3270 Intrusion Detection Services is not active for the session.

## System action

Processing continues.

## Operator response

None.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

None.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.



## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

```
IST2436I DSMONITR = NO
```

---

**IST2437I****DSMONITR = [YES|NO], ERRORS DETECTED = *errors***

## Explanation

This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

```
IST2437I DSMONITR = YES, ERRORS DETECTED = 0
```

---

**IST2438I****SESSIONS = *sesscnt* ERRORS = *errcnt***

## Explanation

VTAM issues this message as part of a 3270 Intrusion Detection Services summary message group. This message group is issued only if message suppression has been enabled by setting the *error\_msg\_count* DSACTION start option to a nonzero value. The first message in this message group is IST2432I. See the explanation of that message for a complete description.

## System action

Processing continues.

## Operator response

Notify the security administrator that possible intrusions have been detected.

## System programmer response

None.

## User response

None.

## Problem determination

Start the Generalized Trace Facility (GTF) to collect trace records of event type 'F90'x. These trace records can be formatted with Interactive Problem Control System (IPCS).

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

8, 9

## Descriptor code

4

## Automation

An automation tool can start GTF and buffer trace for the SLU when it detects the message IST2424I or IST2432I.

IST2439I	PLU	SLU	SID	ERRORS
----------	-----	-----	-----	--------

## Explanation

VTAM issues this message as part of a 3270 Intrusion Detection Services summary message group. This message group is issued only if message suppression has been enabled by setting the *error\_msg\_count* DSACTION start option to a nonzero value. The first message in this message group is IST2432I. See the explanation of that message for a complete description.

## System action

Processing continues.

## Operator response

Notify the security administrator that possible intrusions have been detected.

## System programmer response

None.

## User response

None.

## Problem determination

Start the Generalized Trace Facility (GTF) to collect trace records of event type 'F90'x. These trace records can be formatted with Interactive Problem Control System (IPCS).

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

8, 9

## Descriptor code

4

## Automation

An automation tool can start GTF and buffer trace for the SLU when it detects the message IST2424I or IST2432I.

---

IST2440I	<i>pluname</i>	<i>sluname</i>	<i>sessionid</i>	<i>count</i>
----------	----------------	----------------	------------------	--------------

---

## Explanation

VTAM issues this message as part of a 3270 Intrusion Detection Services summary message group. This message group is issued only if message suppression has been enabled by setting the *error\_msg\_count* DSACTION start option to a nonzero value. The first message in this message group is IST2432I. See the explanation of that message for a complete description.

## System action

Processing continues.

## Operator response

Notify the security administrator that possible intrusions have been detected.

## System programmer response

None.

## User response

None.

## Problem determination

Start the Generalized Trace Facility (GTF) to collect trace records of event type 'F90'x. These trace records can be formatted with Interactive Problem Control System (IPCS).

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

8, 9

## Descriptor code

4

## Automation

An automation tool can start GTF and buffer trace for the SLU when it detects the message IST2424I or IST2432I.

## Explanation

VTAM issues this message as part of a group of messages. The first message of the group is IST2424I. See the explanation of that message for a complete description. IST2424I is issued when a 3270 data stream error is detected.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

8, 9

## Descriptor code

4

## Explanation

VTAM issues this message when it attempts to activate an RDMA network interface card (RNIC) interface and the port number configured on the TCP/IP GLOBALCONFIG SMCR statement for this PCIe function ID (PFID) does not match the port number value configured for this PFID in the hardware configuration definition (HCD). The port number configured in the HCD is used and the port number configured on the GLOBALCONFIG statement is ignored.

The RoCE Express2/RoCE Express3 feature requires that the port number be defined for a given PFID in the HCD, so the PORTNUM operand on a GLOBALCONFIG SMCR statement that defines a RoCE Express2/RoCE Express3 PFID is not necessary. VTAM learns the port number during RNIC interface activation and provides the real port number to the TCP/IP stack.

In the message text:

### ***port\_value***

The value specified on the GLOBALCONFIG SMCR statement as the PORTNUM value for PFID *pfid\_value*

### ***pfid\_value***

The value specified as the GLOBALCONFIG SMCR PFID operand

## System action

Activation of the RNIC interface continues.

## Operator response

Inform the system programmer of the port number mismatch.

## System programmer response

Modify the TCP/IP GLOBALCONFIG SMCR statement by removing the PORTNUM value specified for *pfid\_value*.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is a candidate for automation to detect errors that occur during activation of RNIC interfaces.

## Example

```
IST2444I PORTNUM 2 IGNORED FOR SMC-R PFID 0051, ACTIVATION CONTINUES
```

---

**IST2445I****VTAM INTERNAL TRACE CONTROL IS IN FULL MODE**

## Explanation

VTAM issues this message when a value of FULL is coded for the [VITCTRL Start Option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#). VTAM® issues this message as part of a group of messages. The first message in the group is IST315I. See the explanation of that message for a complete description.

### System action:

None.

## Operator response

If the VIT options are not what are expected then the operator can choose to issue a MODIFY TRACE command to set the desired values. For additional information refer to the [VITCTRL Start Option](#) in [z/OS Communications Server: SNA Resource Definition Reference](#).

## System programmer response

None.

## User response

None.

## Problem determination

None.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.

---

**IST2446I****DISABLING A VIT OPTION IN STD\_OPTS GROUP WHILE CSDUMP  
ACTIVE**

## Explanation

VTAM issues this message when disabling a VIT option contained in the STD\_OPTS group with both VITCTRL=FULL in effect and an active CSDUMP with either a message or sense code trigger. For this scenario all trace options except for MSG may be disabled by the user. It is recommended that all the VIT options in the STD\_OPTS group remain enabled while an active CSDUMP waiting on a trigger exists for later problem analysis.

## System action

None.

## Operator response

If the VIT options are not what are expected, the operator can choose to issue a MODIFY TRACE command to set the desired values, although VTAM will continue to force the MSG trace option to be active as long as an active CSDUMP trigger exists.

## System programmer response

None.

## User response

None.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.

## Example

```
IST2446I  DISABLING A VIT OPTION IN STDOPTS GROUP WHILE CSDUMP ACTIVE
```

---

**IST2447I** **ZCX DVIPA CREATION FAILURE FOR SERVER *server***

## Explanation

This is the first message in a message group that VTAM issues when an attempt by a network support for z/OS Container Extensions server to connect to VTAM and dynamically define a DVIPA address fails. A complete description of the message group follows:

```
IST2447I ZCX DVIPA CREATION FAILURE FOR SERVER server
IST2448I DVIPA ADDRESS vipa_address
[ IST2449I ZCX SERVER SPECIFIED TCP/IP STACK NAME OF stack_name ]
[ IST2450I ZCX SERVER DID NOT SPECIFY A TCP/IP STACK NAME ]
[ IST2451I ZCX FOUND NO USABLE TCP/IP STACK FOR DVIPA CREATION ]
[ IST2452I ZCX DVIPA CREATION FAILURE - SENSE = status_code ]
[ IST2453I ZCX DVIPA CREATION SOCKET FAILURE - TCP/IP STACK stack_name ]
[ IST2454I SOCKET callname FAILED - RC = rtncode RSN = reason ]
IST314I END
```

### IST2447I

This is the first message in the message group.

#### ***server***

The name of the network support for z/OS Container Extensions server that issued the failing connect request.

### IST2448I

This message provides the DVIPA address that *server* requested to be dynamically defined. This address can be either IPv4 or IPv6 format.



***vipa\_address***

The requested DVIPA address.

**IST2449I**

This message is included in the message group only when *server* provides a TCP/IP stack name on the connect request. A TCP/IP stack name is included when the server wants a specific TCP/IP stack to define *vipa\_address*. Either this message or IST2450I message will be present in the message group.

***stack\_name***

The name of the TCP/IP stack specified by *server* on the connect request.

**IST2450I**

This message is included in the message group only when *server* does not specify a TCP/IP stack name on the connect request. Either this message or IST2449I message will be present in the message group.

**IST2451I**

This message is included in the message group only when no TCP/IP stack was able to dynamically define the *vipa\_address* requested by *server*.

- If IST2449I is also present in the message group, *stack\_name* was unable to define *vipa\_address*.
- If IST2450I is also present in the message group, no TCP/IP stack in the system was able to define *vipa\_address*.

**IST2452I**

This message is included in the message group when an environmental failure prevented *vipa\_address* from being dynamically created.

***status\_code***

The status code set for the failed creation attempt. See [z/OS Communications Server: IP and SNA Codes](#) for a description of *status\_code*.

**IST2453I**

This message is included in the message group when a socket failure occurred during creation of *vipa\_address*. If IST2453I is included in the message group, IST2454I is also included.

- If operating in a CINET environment and *server* did not specify a TCP/IP stack name on the connect request, multiple pairs of IST2453I and IST2454I messages can be included. Each pair of message represents a TCP/IP stack where a socket failure occurred.
- If not operating in a CINET environment, or if the *server* specified a TCP/IP stack name on the connect request, a single pair of IST2453I and IST2454I messages are included.

***stack\_name***

The name of the TCP/IP stack that experienced the socket failure.

**IST2454I**

This message is included in the message group only when a socket failure occurred during creation of *vipa\_address*. This message is paired with IST2453I to identify the socket failure that occurred at *stack\_name*.

***callname***

The name of the UNIX System Services function call that failed. These function calls are listed and described in [z/OS UNIX System Services Programming: Assembler Callable Services Reference](#).

***rtncode***

The return code value, in hexadecimal, returned from the UNIX System Services function call that failed. These return codes are listed and described in [z/OS UNIX System Services Messages and Codes](#).

***reason***

The reason code value, in hexadecimal, returned from the UNIX System Services function call that failed. The format of the 4-byte reason code is explained in the introduction to the Reason Code section of the [z/OS UNIX System Services Messages and Codes](#), where the reason codes are listed.

## System action

VTAM rejects the connection request from the z/OS Container Extensions server.

## Operator response

Contact the system programmer.

## System programmer response

Perform one or more of the following actions:

- If *vipa\_address* is the intended DVIPA address and the *stack\_name* is the correct TCP/IP stack, ensure that the correct VIPARANGE for the DVIPA has ZCX specified and is activated.
- If *vipa\_address* is not the intended DVIPA address, modify the z/OS Container Extensions server to specify the correct DVIPA address on the connect request.
- If *stack\_name* on message IST2449I is not the correct TCP/IP stack to be used to dynamically define the DVIPA address, modify the z/OS Container Extensions server to specify the correct TCP/IP stack name on the connect request.
- If IST2450I is displayed but you expected a specific TCP/IP stack to be used to dynamically define the DVIPA address, modify the z/OS Container Extensions server to specify the desired TCP/IP stack name on the connect request.
- If IST2451I is displayed, start the TCP/IP stack or stacks that need to be active in order to process the connect request successfully.
- If IST2452I is displayed, use *status\_code* to identify and correct the environmental condition preventing completion of the connect request, or collect documentation and contact IBM Service.
- If one or more IST2454I messages are displayed, use the return code and reason code to correct any system issues causing the socket failures to occur, or collect documentation and contact IBM Service.

When all issues with the connect request have been addressed, instruct the operator to cause the z/OS Container Extensions server to issue the connect request again.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

This is an example when a TCP/IP stack cannot be found to dynamically create a DVIPA address:

```
IST2447I ZCX DVIPA CREATION FAILURE FOR SERVER ZCXSERVA
IST2448I DVIPA ADDRESS 9.52.105.1
IST2450I ZCX SERVER DID NOT SPECIFY A TCP/IP STACK NAME
IST2451I ZCX FOUND NO USABLE TCP/IP STACK FOR DVIPA CREATION
IST314I END
```

This is an example when a DVIPA address cannot be defined and there were multiple TCP/IP stacks where the request failed:

```
IST2447I ZCX DVIPA CREATION FAILURE FOR SERVER ZCXSERVA
IST2448I DVIPA ADDRESS 9.52.105.1
IST2450I ZCX SERVER DID NOT SPECIFY A TCP/IP STACK NAME
IST2453I ZCX DVIPA CREATION SOCKET FAILURE - TCP/IP STACK TCPCS1
IST2454I SOCKET BPX1SOC FAILED - RC = 000004BB RSN = 12070288
IST2453I ZCX DVIPA CREATION SOCKET FAILURE - TCP/IP STACK TCPCS2
IST2454I SOCKET BPX1SOC FAILED - RC = 000004BB RSN = 12070288
IST314I END
```

---

**IST2448I****DVIPA ADDRESS *vipa\_address***

## Explanation

This message is part of a group of messages that VTAM issues when an attempt by a network support for z/OS Container Extensions server to connect to VTAM and dynamically define a DVIPA address fails. The first message of the group is IST2447I. See the description of that message for more information about the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

```
IST2448I DVIPA ADDRESS 9.42.105.100
```

---

**IST2449I****ZCX SERVER SPECIFIED TCP/IP STACK NAME OF *stack\_name***

## Explanation

This message is part of a group of messages that VTAM issues when an attempt by a network support for z/OS Container Extensions server to connect to VTAM and dynamically define a DVIPA address fails. The first message of the group is IST2447I. See the description of that message for more information about the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

```
IST2449I ZCX SERVER SPECIFIED TCP/IP STACK NAME OF TCPCS2
```

---

**IST2450I****ZCX SERVER DID NOT SPECIFY A TCP/IP STACK NAME**

## Explanation

This message is part of a group of messages that VTAM issues when an attempt by a network support for z/OS Container Extensions server to connect to VTAM and dynamically define a DVIPA address fails. The first message of the group is IST2447I. See the description of that message for more information about the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

Not applicable.

---

**IST2451I****ZCX FOUND NO USABLE TCP/IP STACK FOR DVIPA CREATION**

## Explanation

This message is part of a group of messages that VTAM issues when an attempt by a network support for z/OS Container Extensions server to connect to VTAM and dynamically define a DVIPA address fails. The first message of the group is IST2447I. See the description of that message for more information about the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications](#)

Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

Not applicable.

---

**IST2452I****ZCX DVIPA CREATION FAILURE – CODE = *status\_code***

## Explanation

This message is part of a group of messages that VTAM issues when an attempt by a network support for z/OS Container Extensions server to connect to VTAM and dynamically define a DVIPA address fails. The first message of the group is IST2447I. See the description of that message for more information about the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

```
IST2452I ZCX DVIPA CREATION FAILURE - CODE = 08100018
```

---

**IST2453I****ZCX DVIPA CREATION SOCKET FAILURE - TCP/IP STACK *stack\_name***

## Explanation

This message is part of a group of messages that VTAM issues when an attempt by a network support for z/OS Container Extensions server to connect to VTAM and dynamically define a DVIPA address fails. The first message of the group is IST2447I. See the description of that message for more information about the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2



## Descriptor code

5

## Automation

Not applicable for automation.

## Example

```
IST2453I ZCX DVIPA CREATION SOCKET FAILURE - TCP/IP STACK TCPCS2
```

---

**IST2454I****SOCKET *callname* FAILED – RC = *rtncode* RSN = *reason***

---

## Explanation

This message is part of a group of messages that VTAM issues when an attempt by a network support for z/OS Container Extensions server to connect to VTAM and dynamically define a DVIPA address fails. The first message of the group is IST2447I. See the description of that message for more information about the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

```
IST2454I SOCKET BPX1IOC FAILED - RC = 00000079 RSN = 766C7303
```

---

**IST2455E** **PACKETS DROPPED FOR *ulp\_id*: INBOUND CONGESTION ON *trlename***

## Explanation

This unsolicited message is issued when a z/OS Container Extensions (zCX) packet is discarded as the result of congestion being detected on the inbound queue of the TCP/IP stack or zCX server identified by *ulp\_id*. This message might mean that there is a dispatching or capacity planning problem in the TCP/IP stack or zCX address space.

This message remains on the screen until congestion is alleviated or until the message is manually deleted.

In the message text:

### ***ulp\_id***

The 1 - 8 character job name for the TCP/IP stack or zCX server whose inbound queue was congested.

### ***trlename***

The 1 - 8 character TRLE name associated with *ulp\_id* and the zCX interface.

## System action

If the congestion levels subside to half of the threshold used to measure congestion, this message is automatically deleted. If congestion persists, message IST2455E stays on the operator console unless deleted by the operator.

## Operator response

You can use the DISPLAY NET,TRL,TRLE= *trlename* command to get more information about *trlename*. Message IST2456I provides the number of packets that are discarded.

## System programmer response

If the condition is persistent, take the following actions:

1. If you have access to the IBM Support Page at <https://www.ibm.com/mysupport>, log in with your IBMid and search for known problems in this area. If no applicable matches are found, take a dump of the TCP/IP address space, the address space of the job represented by *ulp\_id*, and the VTAM address space and report the problem to IBM using the IBM Support Page to open a case.
2. If you do not have access to the IBM Support Page, take a dump of the TCP/IP address space, the address space of the job represented by *ulp\_id*, and the VTAM address space and report the problem to the IBM software support center.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

**Module**

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

ISTTSCWU

**Routing code**

2

**Descriptor code**

11

**Automation**

Not applicable for automation.

**Example**

```
IST2455E PACKETS DROPPED FOR TCPCS4: INBOUND CONGESTION ON IUTZCX42
```

**IST2456I** **NUMBER OF DISCARDED INBOUND PACKETS = *pkt\_cnt***

**Explanation**

This conditionally issued message is part of several message groups that VTAM issues in response to a DISPLAY ID or DISPLAY TRL command for a z/OS Container Extensions (zCX) network support interface. The first message in the group is IST1717I. See message [IST1717I](#) for a complete description.

**System action**

Not applicable.

**Operator response**

See message [IST1717I](#) for details.

**System programmer response**

See message [IST1717I](#) for details.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

IUTLLCUL

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

```
IST2456I NUMBER OF DISCARDED INBOUND PACKETS = 21
```

---

**IST2457I****OSA DETECTED INBOUND ERRORS ON *queue\_name* QUEUE:**

## Explanation

VTAM conditionally issues this message as part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command for a QDIO device when OSA QDIO read errors were detected. See message [“IST1221I”](#) on [page 674](#) for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

ISTNOCD4, ISTNOCDG

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

Not applicable.

---

**IST2458I****TOTAL INVALID INBOUND PACKETS = *num\_packets***

## Explanation

VTAM conditionally issues this message as part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command for a QDIO device when OSA QDIO read errors were detected. See message “IST1221I” on page 674 for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

ISTNOCD4, ISTNOCDG

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

Not applicable.

---

**IST2459I****LAST INVALID INBOUND PACKET AT *time ON date***

## Explanation

VTAM conditionally issues this message as part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command for a QDIO device when OSA QDIO read errors were detected. See message “[IST1221I](#)” on page 674 for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

ISTNOCD4, ISTNOCDG

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

Not applicable.

---

**IST2460I****TOTAL INBOUND SBAL ERRORS = *error\_count***

## Explanation

VTAM conditionally issues this message as part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command for a QDIO device when OSA QDIO read errors were detected. See message “[IST1221I](#)” on page 674 for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

ISTNOCD4, ISTNOCDG

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

Not applicable.

---

**IST2461I****LAST INBOUND SBAL ERROR AT *error\_time* ON *error\_date***

## Explanation

VTAM conditionally issues this message as part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command for a QDIO device when OSA QDIO read errors were detected. See message “IST1221I” on page 674 for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA



## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

ISTNOCD4, ISTNOCDG

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

Not applicable.

---

**IST2462I** **CONSECUTIVE SBAL ERRORS: LAST = *last\_count* MAX = *max\_count***

## Explanation

VTAM conditionally issues this message as part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command for a QDIO device when OSA QDIO read errors were detected. See message “IST1221I” on page 674 for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

ISTNOCD4, ISTNOCDG

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

Not applicable.

---

<b>IST2463I</b>	<b>MAX CONSECUTIVE SBAL ERRORS AT <i>error_time</i> ON <i>error_date</i></b>
-----------------	--

## Explanation

VTAM conditionally issues this message as part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command for a QDIO device when OSA QDIO read errors were detected. See message “[IST1221I](#)” on page 674 for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

ISTNOCD4, ISTNOCDG

## Routing code

2

## Descriptor code

5

## Automation

Not applicable for automation.

## Example

Not applicable.

---

**IST2464I****REMOTE HOSTNAME = *remote\_hostname***

## Explanation

VTAM issues this message as part of a group of messages when a Shared Memory Communications - Direct Memory Access (SMC-D) link failure is detected. VTAM issues message group IST2421I for SMC-D link failures. See message [“IST2421I” on page 1507](#) for an explanation of the message group.

## System action

See message [“IST2421I” on page 1507](#) for details.

## Operator response

See message [“IST2421I” on page 1507](#) for details.

## System programmer response

See message [“IST2421I” on page 1507](#) for details.

## User response

See message [“IST2421I” on page 1507](#) for details.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.

## Example

```
IST2464I  REMOTE  HOSTNAME = PRDLPAR1
```

---

**IST2465I****SMC VERSION = *version***

## Explanation

VTAM issues this message as part of a group of messages when a Shared Memory Communications - Direct Memory Access (SMC-D) link failure is detected. VTAM issues message group IST2421I for SMC-D link failures. See message [“IST2421I” on page 1507](#) for an explanation of the message group.

## System action

See message [“IST2421I” on page 1507](#) for details.

## Operator response

See message [“IST2421I” on page 1507](#) for details.

## System programmer response

See message [“IST2421I” on page 1507](#) for details.

## User response

See message [“IST2421I” on page 1507](#) for details.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.

## Example

```
IST2465I SMC VERSION = 2
```

---

**IST2466I****IST2466I LOCAL IPADDR = *ipaddress***

## Explanation

VTAM issues this message as part of a group of messages when a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link failure is detected. See message [“IST2406I” on page 1487](#) for an explanation of the message group.

## System action

See message [“IST2406I” on page 1487](#) for details.

## Operator response

See message [“IST2406I” on page 1487](#) for details.

## System programmer response

See message [“IST2406I” on page 1487](#) for details.

## User response

See message [“IST2406I” on page 1487](#) for details.

## Problem determination

See message [“IST2406I” on page 1487](#) for details.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.

## Example

```
IST2466I LOCAL IPADDR = 9.101.233.1
```

---

**IST2467I****IST2467I REMOTE IPADDR = *ipaddress***

## Explanation

VTAM issues this message as part of a group of messages when a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link failure is detected. See message [“IST2406I” on page 1487](#) for an explanation of the message group.

## System action

See message [“IST2406I” on page 1487](#) for details.

## Operator response

See message [“IST2406I” on page 1487](#) for details.

## System programmer response

See message [“IST2406I” on page 1487](#) for details.

## User response

See message [“IST2406I” on page 1487](#) for details.

## Problem determination

See message [“IST2406I” on page 1487](#) for details.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message is not a candidate for automation.

## Example

```
IST2467I REMOTE IPADDR = 9.101.99.2
```

---

### IST2468I INBOUND TRANSMISSION INFORMATION

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY TRL command for an OSH TRLE. This message is the first in a group of messages and the full description of the message group follows.

```
IST2468I          INBOUND TRANSMISSION INFORMATION:
IST924I  -----
IST2469I QUEUE/    QUEUE      STORAGE      QUEUE
IST2470I ID        TYPE       CUR    MIN    MAX    STATUS
IST2205I -----
IST2471I CTRL/0    CONTROL    cursto minsto maxsto qstatus
IST2472I READ/qid  qtype      cursto minsto maxsto qstatus
[IST2478I          NUMBER OF DISCARDED INBOUND READ BUFFERS = bufrcnt ]
IST924I  -----
IST2480I CACHED READ STORAGE = cursto
IST2481I TOTAL  READ STORAGE = cursto
```

### IST924I

This message is used as a separator message.

### IST2205I

This message is used as a separator message.

### IST2468I

This message is the header message for the inbound queue information for the OSH TRLE.

### IST2469I

This message is the first of two header messages for the information displayed in messages IST2471I and IST2472I.

### IST2470I

This message is the second of two header messages for the information displayed in messages IST2471I and IST2472I.

### IST2471I

This message displays information for the inbound control queue, which is always queue ID 0 with a queue type of CONTROL.

In the message text:

***cursto***

The current amount of storage used by the inbound control queue.

***minsto***

The minimum amount of storage used by the inbound control queue.

***maxsto***

The maximum amount of storage used by the inbound control queue.

***qstatus***

The current status of the inbound control queue. Possible values are:

**ACTIVE**

The queue type is initialized and currently in use by the TCP/IP stack.

**INIT FAILURE**

The queue type failed to initialize and will not be used by the TCP/IP stack.

**NOT IN USE**

The queue type is not currently in use by the TCP/IP stack.

**IST2472I**

This message displays information for one of the inbound read queues. IST2472I is displayed once for each initialized read queue .

In the message text:

***qid***

The queue identifier of the read queue.

***qtype***

The queue type for this read queue. Possible values are PRIMARY, BULKDATA, EE, IPSEC, SYSDIST, IPROUTER or ZCX.

***cursto***

The current amount of storage used by the inbound control queue.

***minsto***

The minimum amount of storage used by the inbound control queue.

***maxsto***

The maximum amount of storage used by the inbound control queue.

***qstatus***

The status of this read queue. Possible values are:

**ACTIVE**

The queue type is initialized and currently in use by the TCP/IP stack.

**INIT FAILURE**

The queue type failed to initialize and will not be used by the TCP/IP stack.

**NOT IN USE**

The queue type is not currently in use by the TCP/IP stack.

**IST2478I**

This message displays the number of buffers that have been discarded for the read queue in the preceding message IST2472I. IST2478I is only displayed if buffers have been lost for the queue.

In the message text:

***bufrcnt***

The number of buffers that have been discarded since the activation of the queue.

**IST2480I**



This message displays, in Megabytes, the storage used by the read cache that is also called the back pocket table.

In the message text:

***cursto***

The current amount of storage used by the cache. The highest value that can be displayed is 99.0 MB.

**IST2481I**

This message displays, in Megabytes, the total current storage used by the inbound control and read queues and the read cache (back pocket table).

In the message text:

***cursto***

The current amount of storage used by all the read queues and cache. The highest value that can be displayed is 999.0 MB. The *cursto* value may be slightly different than the sum of the values displayed in the display output. This value is the most accurate value as it rounds the total current storage value after summing up all the storage being used by each of the input queues and read cache.

## System action

Processing continues.

## Operator response

If displayed, message IST2478I provides the number of buffers that are discarded. These interfaces can be stopped or recycled to eliminate the congestion.

## System programmer response

- For message IST2471I/IST2472I, use the *max\_sto* value to confirm the system storage use and to tune the performance of a specific data device.
- For message IST2478I, if the issue persists and the buffer discarded count continues to grow, take the following action:
  - Study and possibly adjust the TCP/IP dispatching priority.
  - If the condition continues to persist:
    - If you have access to the “IBM support system”, search for known problems in this area. If no applicable matches are found, take a dump of the TCP/IP address space and the VTAM address space and report the problem to IBM.
    - If you do not have access to the “IBM support system”, take a dump of the TCP/IP address space and the VTAM address space and report the problem to IBM.

## Problem determination

See the System Programmer Response.

## Module

Use the modifiable VTAM start option *MSGMOD=YES* (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

# Descriptor code

5

# Automation

Not applicable.

# Example

INBOUND TRANSMISSION INFORMATION:						
IST2468I						
IST924I						
IST2469I	QUEUE/	QUEUE	STORAGE		QUEUE	
IST2470I	ID	TYPE	CUR	MIN	MAX	STATUS
IST2205I						
IST2471I	CTRL/0	CONTROL	1.0M	1.0M	1.0M	ACTIVE
IST2472I	READ/6	PRIMARY	8.0M	8.0M	8.0M	ACTIVE
IST2472I	READ/7	BULKDATA	8.0M	8.0M	8.0M	ACTIVE
IST2478I	NUMBER OF DISCARDED INBOUND READ BUFFERS = 153					
IST2472I	READ/8	SYSDIST	4.0M	4.0M	4.0M	ACTIVE
IST2472I	READ/9	EE	4.0M	4.0M	4.0M	ACTIVE
IST2472I	READ/10	IPSEC	4.0M	4.0M	4.0M	ACTIVE
IST2472I	READ/11	ZCX	*NA*	*NA*	*NA*	NOT IN USE
IST2472I	READ/12	IPROUTER	4.0M	4.0M	4.0M	ACTIVE
IST924I						
IST2480I	CACHED READ STORAGE = 3.0M					
IST2481I	TOTAL READ STORAGE = 36.0M					

IST2469I	QUEUE/ QUEUE STORAGE QUEUE
----------	----------------------------

# Explanation

VTAM issues this message as a part of a group of messages in response to the DISPLAY TRL command. See message [IST2468I](#) for a complete description of the message group.

# System action

Not applicable.

# Operator response

Not applicable.

# System programmer response

No action is needed.

# Problem determination

Not applicable.

# Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

# Routing code

2

**Descriptor code**

5

**Automation**

Not applicable.

---

<b>IST2470I</b>	<b>ID TYPE CUR MIN MAX STATUS</b>
-----------------	-----------------------------------

**Explanation**

VTAM issues this message as a part of a group of messages in response to the DISPLAY TRL command. See message [IST2468I](#) for a complete description of the message group.

**System action**

Not applicable.

**Operator response**

Not applicable.

**System programmer response**

No action is needed.

**Problem determination**

Not applicable.

**Module**

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

**Routing code**

2

**Descriptor code**

5

**Automation**

Not applicable.

---

<b>IST2471I</b>	<b>CTRL/O CONTROL <i>cursto minsto maxsto qstatus</i></b>
-----------------	---

**Explanation**

VTAM issues this message as a part of a group of messages in response to the DISPLAY TRL command. See message [IST2468I](#) for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## Problem determination

Not applicable.

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

---

**IST2472I**

---

**READ/qid qtype cursto minsto maxsto qstatus**

## Explanation

VTAM issues this message as a part of a group of messages in response to the DISPLAY TRL command. See message [IST2468I](#) for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## Problem determination

Not applicable.

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

---

**IST2473I****OUTBOUND TRANSMISSION INFORMATION**

---

## Explanation

VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an OSH transport resource list entry (TRLE) or a DISPLAY TRL command for an OSH TRLE. This message group displays outbound queue information for the OSH TRLE.

This message is the first in a group of messages and the full description of the message group follows.

```
IST2473I          OUTBOUND TRANSMISSION INFORMATION:
IST924I  -----
IST2474I QUEUE/   QUEUE      UNITS OF WORK   QUEUE
IST2475I ID      TYPE       CUR   AVG   MAX   STATUS
IST2205I -----
IST2476I CTRL/1   CONTROL   cuiwork avgwork maxwork  congstat
IST2477I WRT/qid  qtype     cuiwork avgwork maxwork  congstat
IST2479I          NUMBER OF DISCARDED OUTBOUND WRITE BUFFERS = bufrcnt
```

### IST924I

This message is used as a separator message.

### IST2205I

This message is used as a separator message.

### IST2473I

This message is the header message for the outbound queue information for the OSH TRLE.

### IST2474I

This message is the first of two header messages for the information displayed in messages IST476I and IST2477I.

### IST2475I

This message is the second of two header messages for the information displayed in messages IST476I and IST2477I.

### IST2476I

This message displays information for the inbound control queue, which is always queue ID 1 with a queue type of CONTROL.

In the message text,

Each of the following counts CURRENT, AVERAGE, and MAXIMUM is a 4-digit (nnnn) decimal number with a range of 1 - 9999. When the count exceeds 9999, the number will be expressed as nnnK (thousands - such as 12K). The highest value that can be displayed is 999 K.

**curwork**

The current total number of outbound work units that are being processed by the DLC layer for this queue.

**avgwork**

The average number of outbound work units that have been processed by the DLC layer for this device since activation. Average means how many outbound work units are present at the DLC layer for this queue each time the DLC processes outbound work.

**maxwork**

The maximum number of outbound work elements that accumulated in the DLC layer for this queue since activation.

**congstat**

The congestion state of that priority level. The *congstate* value is CONGESTED when all the writes for the priority level were unavailable at least once, in the last congestion reporting window. Otherwise, *congstate* will be UNCONGESTED

**IST2477I**

This message displays information for one of the outbound write queues. IST2477I is displayed once for each initialized write queue .

In the message text:

**qid**

The queue identifier of the write queue.

**qtype**

The queue type for this write queue. Possible values are PRIORITY1, PRIORITY2, PRIORITY3, and PRIORITY4.

Each of the following counts CURRENT, AVERAGE, and MAXIMUM is a 4-digit (nnnn) decimal number with a range of 1 - 9999. When the count exceeds 9999, the number will be expressed as nnnK (thousands - such as 12K). The highest value that can be displayed is 999 K.

**curwork**

The current total number of outbound work units that are being processed by the DLC layer for this queue.

**avgwork**

The average number of outbound work units that have been processed by the DLC layer for this device since activation. Average means how many outbound work units are present at the DLC layer for this queue each time the DLC processes outbound work.

**maxwork**

The maximum number of outbound work elements that accumulated in the DLC layer for this queue since activation.

**congstat**

The congestion state of that priority level. The *congstate* value is CONGESTED when all the writes for the priority level were unavailable at least once, in the last congestion reporting window. Otherwise, *congstate* will be UNCONGESTED

**IST2479I**

This message displays the number of buffers that have been discarded for the write queue in the preceding message IST2477I. IST2479I is only displayed if buffers have been lost for the queue.

In the message text:

**bufrcnt**

The number of outbound write buffers that have been discarded since the activation of the queue.

## System action

Processing continues.

## Operator response

- If displayed, message IST2479I provides the number of write buffers that are discarded. These interfaces can be stopped or recycled to eliminate the congestion.
- If displayed, messages IST2476 or IST2477I indicate that the queue is congested. Determine whether the congestion is related to a system storage problem.

## System programmer response

- For message IST2479I, if the issue persists and the buffer discarded count continues to grow, take the following action:
  - Study and possibly adjust the TCP/IP dispatching priority.
  - If the condition continues to persists:
    - If you have access to the “IBM support system”, search for known problems in this area. If no applicable matches are found, take a dump of the TCP/IP address space and the VTAM address space and report the problem to IBM.
    - If you do not have access to the “IBM support system”, take a dump of the TCP/IP address space and the VTAM address space and report the problem to IBM.

## Problem determination

See the System Programmer Response.

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

IST2473I	OUTBOUND TRANSMISSION INFORMATION:					
IST924I	-----					
IST2474I	QUEUE/	QUEUE	UNITS OF WORK			QUEUE
IST2475I	ID	TYPE	CUR	AVG	MAX	STATUS
IST2205I	-----					
IST2476I	CTRL/1	CONTROL	999K	999K	999K	UNCONGESTED
IST2477I	WRT/2	PRIORITY1	999K	999K	999K	UNCONGESTED
IST2479I	NUMBER OF DISCARDED OUTBOUND WRITE BUFFERS = 5					
IST2477I	WRT/3	PRIORITY2	999K	999K	999K	UNCONGESTED
IST2477I	WRT/4	PRIORITY3	999K	999K	999K	UNCONGESTED
IST2477I	WRT/5	PRIORITY4	999K	999K	999K	UNCONGESTED

**Explanation**

VTAM issues this message as a part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command. See message [“IST2473I” on page 1561](#) for a complete description of the message group.

**System action**

Not applicable.

**Operator response**

Not applicable.

**System programmer response**

No action is needed.

**Problem determination**

Not applicable.

**Module**

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

**Routing code**

2

**Descriptor code**

5

**Automation**

Not applicable.

**Explanation**

VTAM issues this message as a part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command. See message [“IST2473I” on page 1561](#) for a complete description of the message group.

**System action**

Not applicable.

**Operator response**

Not applicable.



## System programmer response

No action is needed.

## Problem determination

Not applicable.

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

---

**IST2476I****CTRL/1 CONTROL *curwork avgwork maxwork congstat***

## Explanation

VTAM issues this message as a part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command. See message [“IST2473I”](#) on page 1561 for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## Problem determination

Not applicable.

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

---

**IST2477I****WRT/qid qtype curwork avgwork maxwork congstat**

## Explanation

VTAM issues this message as a part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command. See message “[IST2473I](#)” on page 1561 for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## Problem determination

Not applicable.

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

---

**IST2478I****NUMBER OF DISCARDED INBOUND READ BUFFERS = *bufrcnt***

## Explanation

VTAM issues this message as a part of a group of messages in response to the DISPLAY TRL command. See message [IST2468I](#) for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## Problem determination

Not applicable.

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

---

<b>IST2479I</b>	<b>NUMBER OF DISCARDED OUTBOUND WRITE BUFFERS = <i>bufrcnt</i></b>
-----------------	--

## Explanation

VTAM issues this message as a part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command. See message [“IST2473I” on page 1561](#) for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## Problem determination

Not applicable.

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

---

**IST2480I****CACHED READ STORAGE = *cursto***

## Explanation

VTAM issues this message as a part of a group of messages in response to the DISPLAY TRL command for a transport resource list entry (TRLE). See message [IST2468I](#) for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## Problem determination

Not applicable.

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

**Descriptor code**

5

**Automation**

Not applicable.

---

**IST2481I** **TOTAL READ STORAGE = *cursto***

**Explanation**

VTAM issues this message as a part of a group of messages in response to the DISPLAY TRL command for a transport resource list entry (TRLE). See message [IST2468I](#) for a complete description of the message group.

**System action**

Not applicable.

**Operator response**

Not applicable.

**System programmer response**

No action is needed.

**Problem determination**

Not applicable.

**Module**

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

**Routing code**

2

**Descriptor code**

5

**Automation**

Not applicable.

---

**IST2482I** **IST2482I SBPEMAX = 0 SBPEAVG = 0**

**Explanation**

VTAM issues this message as part of a group of messages that displays tuning statistics for Network Express resources. The first message in the group is IST1230I. See message [“IST2488I” on page 1575](#) for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

No action is needed.

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message goes to the console and syslog. This message can be monitored by using automation.

---

**IST2483I****IST2483I SETCNT0 = 0 SETCNT = 0**

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for Network Express resources. The first message in the group is IST1230I. See message [“IST2488I” on page 1575](#) for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

For additional information on tuning and analyzing tuning statistics, see [z/OS Communications Server: SNA Network Implementation Guide](#).

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message goes to the console and syslog. This message can be monitored by using automation.

---

**IST2484I****IST2484I SETICNTO = 0 SETICNT = 0**

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for Network Express resources. The first message in the group is IST1230I. See message [“IST2488I” on page 1575](#) for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

For additional information on tuning and analyzing tuning statistics, see [z/OS Communications Server: SNA Network Implementation Guide](#).

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message goes to the console and syslog. This message can be monitored by using automation.

## Example

Not applicable.

---

**IST2485I****IST2485I SETFCNTO = 0 SETFCNT = 0**

---

## Explanation

VTAM this message as part of a group of messages that displays tuning statistics for Network Express resources. The first message in the group is IST1230I. See message [“IST2488I” on page 1575](#) for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

For additional information on tuning and analyzing tuning statistics, see [z/OS Communications Server: SNA Network Implementation Guide](#).

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.



## Routing code

2

## Descriptor code

5

## Automation

This message goes to the console and syslog. This message can be monitored by using automation.

## Example

Not applicable.

---

**IST2486I****IST2486I SBPECNTO = 0 SBPECNT = 0**

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for Network Express resources. The first message in the group is IST1230I. See message [“IST2488I” on page 1575](#) for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

For additional information on tuning and analyzing tuning statistics, see [z/OS Communications Server: SNA Network Implementation Guide](#).

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message goes to the console and syslog. This message can be monitored by using automation.

## Example

Not applicable.

---

**IST2487I****IST2487I LOWREADO = *lowreado* LOWREAD = *lowread***

## Explanation

VTAM issues this message as part of a group of messages that displays tuning statistics for Network Express resources. The first message in the group is IST1230I. See message [“IST2488I” on page 1575](#) for a complete description of the message group.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

For additional information on tuning and analyzing tuning statistics, see [z/OS Communications Server: SNA Network Implementation Guide](#).

## Problem determination

Not applicable.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message goes to the console and syslog. This message can be monitored by using automation.

## Example

Not applicable.

## Explanation

VTAM issues this message as part of a message group when tuning statistics are enabled by running the command:

```
MODIFY NET,TNSTAT
```

This message group displays the tuning statistics for the Network Express OSA interfaces. The statistics are displayed for the control queues and data queues. The type of the queue and the queue ID is specified in the message.

A complete description of the message group follows:

- Message subgroup from IST2488I to IST1753I is displayed for global information related to the device.
- Message subgroup from IST2488I to IST1236I is displayed for the Control Read queue and Control Write queue.
- Message subgroup from IST2488I to IST1811I is displayed for each Data Write and Data Read queue.

Each subgroup contains different messages based on the *QID/TYPE* field in IST2488I. In this example, a sample of each subgroup is displayed.

```

IST1230I TIME      = time      DATE      = date      ID = trlname
IST2488I DEV       = dev       QID/TYPE = GLOBAL
IST1719I PCIREALO  = pcirealo  PCIREAL  = pcireal
IST1720I PCIVIRTO  = pcivirto  PCIVIRT  = pcivirt
IST1750I PCITHRSO  = pcithrso  PCITHRSH = pcithrsh
IST1751I PCIUNPRO  = pciunpro  PCIUNPRD = pciunprd
IST1752I RPROCDEO  = rprocdeo  RPROCDEF = rprocdef
IST1753I RREPLDEO  = rrepldeo  RREPLDEF = rrepldef
IST924I -----
IST2488I DEV       = dev       QID/TYPE = CTRL/0  (READ)
IST2487I LOWREADO  = lowreado  LOWREAD  = lowread
IST1722I PACKCNTO  = packcnto  PACKCNT  = packcnt
IST1236I BYTECNTO  = bytecnto  BYTECNT  = bytecnt
IST924I -----
IST2488I DEV       = dev       QID/TYPE = CTRL/1  (WRITE)
IST1722I PACKCNTO  = packcnto  PACKCNT  = packcnt
IST1236I BYTECNTO  = bytecnto  BYTECNT  = bytecnt
IST924I -----
IST2488I DEV       = dev       QID/TYPE = WR/x  PRIORITYx
IST2482I SBPEMAX   = sbpemax   SBPEAVG  = sbpeavg
IST1756I QDPTHMAX  = qdpthmax  QDPTHAVG = qdpthavg
IST2483I SETCNTO   = setcnto   SETCNT   = setcnt
IST2484I SETICNTO  = seticnto  SETICNT  = seticnt
IST2485I SETFCNTO  = setfcnto  SETFCNT  = setfcnt
IST2486I SBPECNTO  = sbpecnto  SBPECNT  = sbpecnt
IST1722I PACKCNTO  = packcnto  PACKCNT  = packcnt
IST1236I BYTECNTO  = bytecnto  BYTECNT  = bytecnt
IST1810I PKTIQDO   = pktiqdo   PKTIQD   = pktiqd
IST1811I BYTIQDO   = bytiqdo   BYTIQD    = bytiqd
IST924I -----
IST2488I DEV       = dev       QID/TYPE = RD/xy  (queue_type)
IST2482I SBPEMAX   = sbpemax   SBPEAVG  = sbpeavg
IST2487I LOWREADO  = lowreado  LOWREAD  = lowread
IST2185I FRINVCTO  = frinvcto  FRINVCT   = frinvct
IST2486I SBPECNTO  = sbpecnto  SBPECNT   = sbpecnt
IST1722I PACKCNTO  = packcnto  PACKCNT   = packcnt
IST1236I BYTECNTO  = bytecnto  BYTECNT   = bytecnt
IST1810I PKTIQDO   = pktiqdo   PKTIQD    = pktiqd
IST1811I BYTIQDO   = bytiqdo   BYTIQD    = bytiqd

```

Many of the messages in this group contain both a count and an overflow. Both the count and overflow are maintained in unsigned 32-bit variables (unless otherwise indicated). Since an unsigned 32-bit variable can only contain a value up to and including 4294967295 ('FFFFFFFF'X), the variable will wrap through 0 if an increment results in exceeding this value. When such a wrap occurs, the overflow is incremented by 1. Therefore, the total count is determined as follows:

Total = (overflow \* 4294967296) + count

## IST1230I

In the message text:

### ***date and time***

The date and time values specify when the record was reported. See [DATE and TIME formats](#) for information about the *date* and *time* values.

### ***trlename***

The name of the internally generated TRLE that represents the Network Express port for which tuning statistics are recorded. See [Resources automatically activated by VTAM in z/OS Communications Server: SNA Network Implementation Guide](#) for information about the TRLE name.

## IST1236I

In the message text:

### ***bytecnto***

The PDU byte count overflow.

### ***bytecnt***

The byte count. This value represents the accumulated number of bytes of PDUs transmitted on the **WRITE** subchannel or received on the **READ** subchannel.

A PDU is a protocol data unit. For example, a datagram or TCP packet.

## IST1719I

In the message text:

### ***pcirealo***

The real Program-Controlled Interrupt (PCI) overflow.

### ***pcireal***

The real PCI count. This value represents the accumulated number of real PCI interrupts that are fielded by the EQDIO Program-Controlled Interrupt Exit for the EQDIO device.

A real PCI interrupt is an execution of EQDIO Program-Controlled Interrupt Exit as a result of a call from the system interrupt handler. The higher the ratio of real PCI to virtual PCI, the less successful EQDIO is at avoiding the overhead of the system interrupt handler.

## IST1720I

In the message text:

### ***pcivirto***

The virtual PCI overflow.

### ***pcivirt***

The virtual PCI count. This value represents the accumulated number of virtual PCI interrupts fielded by the EQDIO Program-Controlled Interrupt Exit for the EQDIO device.

A virtual PCI is an execution of the EQDIO Program-Controlled Interrupt Exit as a result of a call from the EQDIO device driver. The higher the ratio of virtual PCI to real PCI, the more successful EQDIO is at avoiding the overhead of the system interrupt handler.

## IST1722I

In the message text:

### ***packcnto***

Packet count overflow.

### ***packcnt***

Packet count. This value represents the accumulated number of packets transmitted on the EQDIO **WRITE** queue or received on the EQDIO **READ** queue.

A packet is a single unit of data as presented to the EQDIO device driver. For example, a datagram or TCP packet.

## IST1750I

In the message text:

***pcithrso***

Threshold PCI overflow.

***pcithrsh***

Threshold PCI count. This value represents the accumulated number of threshold PCI interrupts fielded by the EQDIO Program-Controlled Interrupt Exit for the EQDIO **READ** queue.

A threshold PCI is a real PCI generated by the adapter because one of the threshold conditions which controls the PCI processing is met.

A count of zero indicates that the EQDIO device driver is providing sufficient resources to keep pace with the inbound data stream from the adapter.

**IST1751I**

In the message text:

***pciunpro***

Unproductive PCI overflow.

***pciunprd***

Unproductive PCI count. This value represents the accumulated number of unproductive PCI interrupts fielded by the EQDIO Program-Controlled Interrupt Exit for the EQDIO **READ** queue.

An unproductive PCI is a real PCI where the EQDIO Program-Controlled Interrupt Exit failed to find any completed reads. An unproductive PCI will occur when a virtual PCI causes the processing of read completions for which a real PCI is pending. An unproductive PCI indicates that the system interrupt handler overhead was incurred unnecessarily.

**IST1752I**

In the message text:

***rprocdeo***

Read processing deferral overflow.

***rprocdef***

Read processing deferral count. This value represents the accumulated number of read processing deferrals by the EQDIO Program-Controlled Interrupt Exit for the EQDIO **READ** queue.

A read processing deferral occurs when the EQDIO Program-Controlled Interrupt Exit must defer a read completion because a control block cannot be obtained to represent the inbound data. Read processing deferrals (along with read replenishment deferrals) might cause the LOWREAD count to be nonzero.

**IST1753I**

In the message text:

***rrepldeo***

Read replenishment deferral overflow.

***rrepldef***

Read replenishment deferral count. This value represents the accumulated number of read replenishment deferrals by the EQDIO Program-Controlled Interrupt Exit for the EQDIO **READ** queue.

A read replenishment deferral occurs when the EQDIO Program-Controlled Interrupt Exit does not have enough available read buffers to tack-in a new read. Read replenishment deferrals (along with read processing deferrals) might cause the LOWREAD count to be nonzero.

**IST1756I**

In the message text:

***qdpthmax***

Maximum number of work elements left on the outbound work queue at the completion of the write initiation process for the EQDIO **WRITE** queue.

***qdpthavg***

Average number of work elements left on the outbound work queue at the completion of the write initiation process of the EQDIO **WRITE** queue.

A nonzero value for either of these fields suggests the adapter is not accepting outbound data as fast as the device driver is presenting it.

**IST1810I**

In the message text:

***pktiqdo***

IQDIO packet count overflow.

***pktiqd***

IQDIO packet count. If this message is for an EQDIO or IQDIO DATAPATH read device, the value represents the accumulated number of packets received on the read queue and subsequently routed outbound using IQDIO routing or EQDIO Accelerator. If this message is for an EQDIO or IQDIO DATAPATH write device, the value represents the accumulated number of packets transmitted on the write queue for this device after being received inbound and subsequently routed outbound using IQDIO routing or EQDIO Accelerator.

A packet is a single unit of data as presented to the EQDIO device driver (for example, a datagram or TCP packet).

**IST1811I**

In the message text:

***bytiqdo***

IQDIO byte count overflow.

***bytiqd***

IQDIO byte count. If this message is for an EQDIO or IQDIO DATAPATH read device, the value represents the accumulated number of bytes received on the read queue and subsequently routed outbound using IQDIO routing or EQDIO Accelerator. If this message is for an EQDIO or IQDIO DATAPATH write device, the value represents the accumulated number of bytes transmitted on the write queue for this device after being received inbound and subsequently routed outbound using IQDIO routing or EQDIO Accelerator.

**IST2482I**

In the message text:

***sbpemax***

Maximum number of Storage Block Page Entry (SBPE) buffers processed in a single dispatch for the EQDIO queue.

***sbpeavg***

Average number of SBPE buffers processed in a single dispatch for the EQDIO Queue.

**IST2483I**

In the message text:

***setcnto***

Set CP Queue Controls (SCPQC) overflow.

***setcnt***

SCPQC count. This represents the number of times the software gives the firmware notification that there are packets to send.

**IST2484I**

In the message text:

***seticnto***

Set CP Queue Controls (SCPQC) initiative given overflow.

***seticnt***

SCPQC initiative given count. This represents the number of times the firmware signals VTAM that the hardware is waiting for data.

## IST2485I

In the message text:

### ***setfcnto***

Set CP Queue Controls (SCPQC) force overflow.

### ***setfcnt***

SCPQC force count. This represents the number of times the software forces the firmware to process the packets in the queue. This is done to recover a stalled queue without having to terminate the interface.

## IST2486I

In the message text:

### ***sbpecnto***

Storage Block Page Entry (SBPE) overflow.

### ***sbpecnt***

For outbound traffic, represents the number of SBPEs used for the EQDIO WRITE queue.

For inbound traffic, represents the number of 4k buffers used for the EQDIO READ queue.

## IST2487I

In the message text:

### ***lowreado***

Low reads overflow.

### ***lowread***

Low reads count. This value represents the accumulated number of times read buffers were very low on entry to the EQDIO Program-Controlled Interrupt Exit for the EQDIO **READ** queue.

This value is incremented by 1 each time the EQDIO Program-Controlled Interrupt Exit is started and it detects that all the read buffers are nearly full (the adapter has very few buffers to move additional inbound data). A zero total is preferred because lack of read buffers might result in the adapter discarding inbound data. Examination of the read processing and read replenishment deferral counts might indicate the reason that the EQDIO device driver is not providing sufficient resources to accept the inbound data from the adapter.

## IST2488I

This message displays the device number, queue ID, and the queue type for the tuning statistics record.

In the message text:

### ***dev***

Hexadecimal address of the EQDIO device number.

### ***queue\_description***

Specifies the queue identifier and type. Possible values are:

- GLOBAL
- CTRL/x (*direction*), where x is the queue ID and direction is either READ or WRITE.
- WR/x PRIORITY y, where x is the queue ID and y is the write priority level.
- RD/x (*queue\_type*), where x is the queue ID. *queue\_type* is one of the following: PRIMARY, BULKDATA, EE, IPSEC, SYSDIST, ZCX, IPROUTER or N/A. The N/A value indicates that the queue is initialized but is not currently in use by the TCP/IP stack.

## System action

Processing continues.

## Operator response

No action is needed.

## System programmer response

For additional information on tuning and analyzing tuning statistics, see [z/OS Communications Server: SNA Network Implementation Guide](#).

## Problem determination

See the System Programmer Response.

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

This message goes to the console and syslog. This message can be monitored by using automation.

## Example

Following is an example of a tuning statistics record:

```
IST1230I TIME      = 14362989   DATE      = 24059      ID = IUTE2B71 059
IST2488I DEV       = 2B71      QID/TYPE = GLOBAL
IST1719I PCIREALO  =          0 PCIREAL  =          101
IST1720I PCIVIRTO  =          0 PCIVIRT  =          0
IST1750I PCITHRSO  =          0 PCITHRSH =          0
IST1751I PCIUNPRO  =          0 PCIUNPRD =          0
IST1752I RPROCDEO  =          0 RPROCDEF =          0
IST1753I RREPLDEO  =          0 RREPLDEF =          0
IST924I -----
IST2488I DEV       = 2B71      QID/TYPE = CTRL/0  (READ)
IST2487I LOWREADO  =          0 LOWREAD  =          0
IST1722I PACKCNTO  =          0 PACKCNT  =          0
IST1236I BYTECNTO  =          0 BYTECNT  =          0
IST924I -----
IST2488I DEV       = 2B71      QID/TYPE = CTRL/1  (WRITE)
IST1722I PACKCNTO  =          0 PACKCNT  =          0
IST1236I BYTECNTO  =          0 BYTECNT  =          0
IST924I -----
IST2488I DEV       = 2B71      QID/TYPE = WR/2  PRIORITY1
IST2482I SBPEMAX   =          0 SBPEAVG  =          0
IST1756I QDPTHMAX  =          0 QDPTHAVG =          0
IST2483I SETCNTO   =          0 SETCNT   =          0
IST2484I SETICNTO  =          0 SETICNT  =          0
IST2485I SETFCNTO  =          0 SETFCNT  =          0
IST2486I SBPECNTO  =          0 SBPECNT  =          0
IST1722I PACKCNTO  =          0 PACKCNT  =          0
IST1236I BYTECNTO  =          0 BYTECNT  =          0
IST1810I PKTIQDO   =          0 PKTIQD   =          0
IST1811I BYTIQDO   =          0 BYTIQD   =          0
IST924I -----
IST2488I DEV       = 2B71      QID/TYPE = WR/3  PRIORITY2
IST2482I SBPEMAX   =          0 SBPEAVG  =          0
IST1756I QDPTHMAX  =          0 QDPTHAVG =          0
IST2483I SETCNTO   =          0 SETCNT   =          0
IST2484I SETICNTO  =          0 SETICNT  =          0
IST2485I SETFCNTO  =          0 SETFCNT  =          0
IST2486I SBPECNTO  =          0 SBPECNT  =          0
```



```

IST1722I PACKCNT =      0 PACKCNT =      0
IST1236I BYTECNT =      0 BYTECNT =      0
IST1810I PKTIQD =      0 PKTIQD =      0
IST1811I BYTIQD =      0 BYTIQD =      0
-----
IST924I
IST2488I DEV      = 2B71      QID/TYPE = WR/4 PRIORITY3
IST2482I SBPEMAX =      0 SBPEAVG =      0
IST1756I QDPHMAX =      0 QDPHAVG =      0
IST2483I SETCNT =      0 SETCNT =      0
IST2484I SETICNT =      0 SETICNT =      0
IST2485I SETFCNT =      0 SETFCNT =      0
IST2486I SBPECNT =      0 SBPECNT =      0
IST1722I PACKCNT =      0 PACKCNT =      0
IST1236I BYTECNT =      0 BYTECNT =      0
IST1810I PKTIQD =      0 PKTIQD =      0
IST1811I BYTIQD =      0 BYTIQD =      0
-----
IST924I
IST2488I DEV      = 2B71      QID/TYPE = WR/5 PRIORITY4
IST2482I SBPEMAX =      0 SBPEAVG =      0
IST1756I QDPHMAX =      0 QDPHAVG =      0
IST2483I SETCNT =      0 SETCNT =     101
IST2484I SETICNT =      0 SETICNT =      0
IST2485I SETFCNT =      0 SETFCNT =      0
IST2486I SBPECNT =      0 SBPECNT =     101
IST1722I PACKCNT =      0 PACKCNT =     101
IST1236I BYTECNT =      0 BYTECNT =    30502
IST1810I PKTIQD =      0 PKTIQD =      0
IST1811I BYTIQD =      0 BYTIQD =      0
-----
IST924I
IST2488I DEV      = 2B71      QID/TYPE = RD/6 (PRIMARY)
IST2482I SBPEMAX =      0 SBPEAVG =      0
IST2487I EPCQMAX =      0 EPCQAVG =      0
IST2487I LOWREAD =      0 LOWREAD =      0
IST2185I FRINVCT =      0 FRINVCT =      0
IST2486I SBPECNT =      0 SBPECNT =      0
IST2488I EPCQCNT =      0 EPCQCNT =      0
IST1722I PACKCNT =      0 PACKCNT =      0
IST1236I BYTECNT =      0 BYTECNT =      0
IST1810I PKTIQD =      0 PKTIQD =      0
IST1811I BYTIQD =      0 BYTIQD =      0
-----
IST924I
IST2488I DEV      = 2B71      QID/TYPE = RD/7 (BULKDATA)
IST2482I SBPEMAX =      0 SBPEAVG =      0
IST2487I LOWREAD =      0 LOWREAD =      0
IST2185I FRINVCT =      0 FRINVCT =      0
IST2486I SBPECNT =      0 SBPECNT =      0
IST2488I EPCQCNT =      0 EPCQCNT =      0
IST1722I PACKCNT =      0 PACKCNT =      0
IST1236I BYTECNT =      0 BYTECNT =      0
IST1810I PKTIQD =      0 PKTIQD =      0
IST1811I BYTIQD =      0 BYTIQD =      0
-----
IST924I
IST2488I DEV      = 2B71      QID/TYPE = RD/8 (SYSDIST)
IST2482I SBPEMAX =      0 SBPEAVG =      0
IST2487I LOWREAD =      0 LOWREAD =      0
IST2185I FRINVCT =      0 FRINVCT =      0
IST2486I SBPECNT =      0 SBPECNT =      0
IST1722I PACKCNT =      0 PACKCNT =      0
IST1236I BYTECNT =      0 BYTECNT =      0
IST1810I PKTIQD =      0 PKTIQD =      0
IST1811I BYTIQD =      0 BYTIQD =      0
-----
IST924I
IST2488I DEV      = 2B71      QID/TYPE = RD/12 (IPROUTER)
IST2482I SBPEMAX =      0 SBPEAVG =      0
IST2487I LOWREAD =      0 LOWREAD =      0
IST2185I FRINVCT =      0 FRINVCT =      0
IST2486I SBPECNT =      0 SBPECNT =      0
IST1722I PACKCNT =      0 PACKCNT =      0
IST1236I BYTECNT =      0 BYTECNT =      0
IST1810I PKTIQD =      0 PKTIQD =      0
IST1811I BYTIQD =      0 BYTIQD =      0
IST314I END

```

**IST2489E**

**jobname PACKETS DROPPED: OUTBOUND CONGESTION ON *trlenam***

## Explanation

This message is issued when a read buffer is discarded as the result of congestion being detected on the outbound data staging queue associated with a Network Express OSA interface. A write buffer may represent

one or more TCP/IP packets. Write buffers are discarded to protect against the overuse of system resources, specifically 64-bit fixed HVCOMMON storage. This message might indicate that a TCP/IP stack contention or dispatching problem exists.

This message remains on the screen until congestion is alleviated or until five minutes has elapsed since the message is issued or until the message is manually deleted.

In the message text:

***jobname***

The TCP/IP job name that is used to start the TCP/IP address space.

***trlename***

The name of the TRLE that is experiencing congestion.

## **System action**

If the congestion subsides for at least 30 seconds, this message is automatically deleted. If congestion persists, message IST2489 is deleted and reissued every 5 minutes.

## **Operator response**

You can use the DISPLAY NET,TRL,TRLE=trlename command to determine which interface is experiencing congestion. Message IST2379I provides the number of write buffers that are discarded. If the problem persists, the identified interface can be stopped or recycled in an attempt to eliminate the congestion.

## **System programmer response**

If the condition is persistent, take the following actions:

- Review and adjust the TCP/IP dispatching priority.
- If the identified Network Express OSA is being shared this issue might be a potential capacity planning issue. In this case investigate the usage of this shared feature in an effort to determine if it is being over provisioned.
- Take a dump of the TCP/IP address space identified by , the *jobname* in this message, and the VTAM address space. Report the problem to the IBM Support Center.

## **User response**

None.

## **Problem determination**

See the System Programmer Response.

## **Source**

z/OS Communications Server SNA

## **Module**

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## **Routing code**

2

## Descriptor code

11

## Automation

Automation is recommended because persistent discarding of outbound data can have a significant impact on latency and throughput.

## Example

IST2489E TCPCS PACKETS DROPPED: OUTBOUND CONGESTION ON IUTE2B70

---

**IST2490E** *jobname* **PACKETS DROPPED: INBOUND CONGESTION ON *trlename***

## Explanation

This message is issued when a read buffer is discarded as the result of congestion being detected on the inbound queue associated with a Network Express OSA interface of the TCP/IP stack identified by *jobname*. This message might indicate that there is a dispatching or capacity planning problem in the TCP/IP stack.

This message remains on the screen until congestion is alleviated or until the message is manually deleted.

In the message text:

### *jobname*

The TCP/IP job name that is used to start the TCP/IP address space.

### *trlename*

The name of the TRLE that is experiencing congestion.

## System action

If the congestion levels subside to half of the threshold used to measure the congestion, this message is automatically deleted. If congestion persists, message IST2490E stays on the operator console unless deleted by the operator.

## Operator response

You can use the DISPLAY NET,TRL,TRLE=*trlename* command to determine which interface is experiencing congestion. Message IST2378I provides the number of read buffers that are discarded.

## System programmer response

If the condition is persistent, take a dump of the TCP/IP address space identified by the *jobname* in this message, and the VTAM address space. Report the problem to the IBM software Support Center.

## User response

Not applicable.

## Problem determination

See the System Programmer Response.

## Source

z/OS Communications Server SNA

## Module

Use the modifiable VTAM start option MSGMOD=yes (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

11

## Automation

Automation is recommended because persistent discarding of inbound data can have a significant impact on latency and throughput.

## Example

```
IST2490E TCPCS PACKETS DROPPED: INBOUND CONGESTION ON IUTE2B70
```

---

## Chapter 11. ISTH messages for IBM Health Checker for z/OS

This chapter lists the messages beginning with ISTH. These messages are issued by IBM Health Checker for z/OS.

---

<b>ISTH001I</b>	<b>Communications storage manager (CSM) storage maximums satisfy the <i>deftype</i> specified limits</b>
-----------------	--

---

### Explanation

Check CSVTAM\_CSM\_STG\_LIMIT ran successfully and found no exceptions. The check determined that the value specified for the maximum amount of CSM storage in the CSM Parmlib member IVTPRM00 for FIXED, ECSA and HVCOMM storage is in the limit specified for this check.

In the message text:

#### ***deftype***

One of the following:

##### **owner**

The check parameters for this check have not been overridden.

##### **installation**

The check parameters for this check have been overridden.

### System action

The system continues processing.

### Operator response

Not applicable.

### System programmer response

None.

### User response

Not applicable.

### Problem determination

Not applicable.

### Source

z/OS Communications Server

### Module

ISTHCCK1

### Routing code

Not applicable.

## Descriptor code

Not applicable.

## Example

ISTH001I Communications storage manager (CSM) storage maximums satisfy the owner specified limits

---

**ISTH002I** Communications storage manager (CSM) *stor\_type* storage max *max\_val* is less than the *def\_type* specified value *min\_val*

## Explanation

Check CSVTAM\_CSM\_STG\_LIMIT determined that the value specified for the maximum CSM storage of the type specified as defined in the CSM Parmlib member IVTPRM00 is less than the minimum value specified for the check. If the MAX ECSA value from the CSM PARMLIB member IVTPRM00 is higher than 90% of the system ECSA value, CSM adjusts the MAX ECSA value to 90% of the system ECSA value. This message is followed by message ISTH017E in the message buffer.

In the message text:

### ***stor\_type***

The type of CSM storage. The *stor\_type* value is either FIXED, ECSA or HVCMM.

### ***max\_val***

The current maximum value specified for the CSM storage type in the IVTPRM00 PARMLIB member.

### ***def\_type***

One of the following:

#### **owner**

The check parameters for this check have not been overridden.

#### **installation**

The check parameters for this check have been overridden.

### ***min\_val***

The check parameter value against which the maximum *stor\_type* value is compared.

## System action

The system continues processing.

## Operator response

Contact the system programmer.

## System programmer response

See the System programmer response in message [ISTH017E](#).

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server

## Module

ISTHCCK1

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Example

ISTH002I Communications storage manager (CSM) ECSA storage max 80M is less than the installation specified value 120M

---

<b>ISTH005I</b>	<b>VTAM Internal Trace (VIT) <i>vit_opt</i> option is active. IBM prefers that this option is always active, but if CPU is constrained then you can elect to stop this trace option.</b>
-----------------	--

## Explanation

Check CSVTAM\_VIT\_OPT\_STDOPTS ran successfully and found no exceptions. All of the trace options defined in the *vit\_opt* option are active.

In the message text:

### ***vit\_opt***

Can be one of the following values:

#### **PSS**

VTAM start option VITCTRL has a value of BASE (either specified or defaulted) and the VIT PSS option is currently active.

#### **STDOPTS**

VTAM start option VITCTRL has a current value of FULL and the all of the VIT options in the STDOPTS group are currently active.

## System action

The system continues processing.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server

## Module

ISTHCCK1

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Example

Not applicable.

---

**ISTH006E** VTAM Internal Trace (VIT) option *vit\_opt* is not active

## Explanation

Check CSVTAM\_VIT\_OPT\_STDOPTS determined that the VIT *vit\_opt* option is not active. IBM suggests that this option should always be active for VIT tracing for optimal problem determination.

In the message text:

### ***vit\_opt***

Can be one of the following values:

#### **PSS**

VTAM start option VITCTRL has a value of BASE (either specified or defaulted) and the VIT PSS option is not currently active.

#### **STDOPTS**

VTAM start option VITCTRL has a value of FULL and the VIT options in the STDOPTS group are not all currently active.

## System action

The system continues processing.

## Operator response

Issue a MODIFY TRACE,TYPE=VTAM,MODE=INT,OPTION=PSS command to activate PSS tracing. You should use the MODIFY NOTRACE command to deactivate the PSS option only if requested to do so by IBM support.

See the MODIFY TRACE command information in [z/OS Communications Server: SNA Operation](#) for information about the MODIFY TRACE command.

See the TRACE for MODULE, STATE (with OPTION) or VTAM internal trace information in [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about setting the VIT start option values.

## System programmer response

Not applicable.

## User response

Not applicable.



## Problem determination

To display the VIT trace options that are currently active, issue the D NET,TRACES,TYPE=VTAM command.

## Source

z/OS Communications Server

## Module

ISTHCCK1

## Routing code

Not applicable.

## Descriptor code

12

## Example

Not applicable.

---

### ISTH009I

**Not all VTAM Internal Trace (VIT) options are active. When all VIT options are concurrently active, performance might be less than optimal.**

## Explanation

Check CSVTAM\_VIT\_OPT\_ALL ran successfully and found no exceptions. The check determined that not all VIT options are concurrently active.

## System action

The system continues processing.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server

## Module

ISTHCCK1

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Example

Not applicable.

---

**ISTH010E****All VTAM Internal Trace (VIT) options are active**

---

## Explanation

Check CSVTAM\_VIT\_OPT\_ALL determined that all the VIT options are active. IBM suggests that having all VIT options active is not required for optimal problem analysis, unless it was requested by IBM service, because it might affect system performance.

## System action

The system continues processing.

## Operator response

Use the MODIFY NOTRACE,TYPE=VTAM,MODE=INT,OPTION= command to deactivate unneeded trace options. Only the default trace options (API, CIO, MSG, NMR, PIU, and SSCP) cannot be deactivated.

If all trace options are active when VTAM is started, contact the system programmer. See the [MODIFY TRACE command](#) information in [z/OS Communications Server: SNA Operation](#) for information about the MODIFY TRACE command.

## System programmer response

Change the VTAM start options to not specify OPTION=ALL for the VTAM trace. See the [TRACE for MODULE, STATE \(with OPTION\)](#) or [VTAM internal trace](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about setting the VIT start option values.

## User response

Not applicable.

## Problem determination

To display the currently active VIT options, issue D NET,TRACES,TYPE=VTAM.

## Source

z/OS Communications Server

## Module

ISTHCCK1

**Routing code**

Not applicable.

**Descriptor code**

12

**Example**

Not applicable.

---

**ISTH011I**

**The T1BUF and T2BUF buffer pool allocations are set above their default values, which is recommended for use with Enterprise Extender (EE). When the size of the T1BUF or T2BUF pool is too small, excessive buffer pool expansions and contractions might occur.**

**Explanation**

Check CSVTAM\_T1BUF\_T2BUF\_EE ran successfully and found no exceptions. This check determined that the T1BUF and T2BUF buffer pool allocations are greater than the defaults for those pools. The default values assigned to these pools might cause performance degradation as a result of excessive buffer pool expansions and contractions when Enterprise Extender (EE) is being used.

**System action**

The system continues processing.

**Operator response**

Not applicable.

**System programmer response**

Not applicable.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server

**Module**

ISTHCCK1

**Routing code**

Not applicable.

**Descriptor code**

Not applicable.

## Example

Not applicable.

---

### ISTH012I

***buf\_pool* buffer pool allocation of *buf\_num* might be too low for use with Enterprise Extender**

## Explanation

Check CSVTAM\_T1BUF\_T2BUF\_EE determined that Enterprise Extender (EE) is being used and the allocation for the *buf\_pool* buffer pool specified by the *buf\_num* value is at its default value. This message is followed by message ISTH013E in the message buffer.

The default value might not be optimal for your system when using EE. Such a value assigned to this pool might cause performance degradation because of excessive buffer pool expansions and contractions.

In the message text:

#### ***buf\_pool***

The name of the buffer pool. Possible values are: T1BUF or T2BUF.

#### ***buf\_num***

The buffer allocation value assigned to the buffer pool on the start option for that buffer pool.

## System action

The system continues processing.

## Operator response

Not applicable. .

## System programmer response

See the System programmer response in message ISTH013E.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server

## Module

ISTHCCK1

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Example

Not applicable.

---

### ISTH013E

**T1BUF/T2BUF buffer pool allocation might not be optimal for use with Enterprise Extender**

## Explanation

Check CSVTAM\_T1BUF\_T2BUF\_EE determined that Enterprise Extender (EE) is being used (or is intended to be used) on this system and the T1BUF or T2BUF (or both) buffer pool allocation is at its default value.

The default value might not be optimal for your system when using EE. Such a value assigned to this pool might cause performance degradation as a result of excessive buffer pool expansions and contractions. The default value for the T1BUF buffer pool is 18. The default value for the T2BUF buffer pool is 8.

Message ISTH012I is issued prior to this message for each buffer pool (T1BUF, T2BUF, or both) that has failed this check.

## System action

The system continues processing.

## Operator response

Contact the system programmer.

## System programmer response

IBM suggests that the T1BUF and T2BUF buffer pools be monitored and tuned to minimize the number of expansions. Minimizing buffer pool expansions will decrease internal buffer overhead processing which should increase throughput while reducing CPU consumption. These buffer pools can be monitored using the D NET,BFRUSE,BUF=(T1,T2) command. Once the appropriate allocation values for the T1BUF and T2BUF buffer pools have been determined, you can change the T1BUF and T2BUF Start option allocation values before next starting VTAM. See the [Buffer Pool start option information in z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the T1BUF and T2BUF Start Options. See the [D NET,BFRUSE command information in z/OS Communications Server: SNA Operation](#) for more information on the D NET,BFRUSE command.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server

## Module

ISTHCCK1

## Routing code

Not applicable.

## Descriptor code

12

## Example

Not applicable.

---

<b>ISTH014I</b>	<b>T1BUF and T2BUF buffer pool allocations are sufficient for use without Enterprise Extender</b>
-----------------	---

## Explanation

Check CSVTAM\_T1BUF\_T2BUF\_NOEE ran successfully and found no exceptions. This check determined that the T1BUF and T2BUF buffer pool allocations are set to the default value for those pools, which is considered sufficient when Enterprise Extender is not being used.

## System action

The system continues processing.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server

## Module

ISTHCCK1

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Example

Not applicable.

---

<b>ISTH015I</b>	<b><i>buf_pool</i> buffer pool allocation of <i>buf_num</i> might be too high if Enterprise Extender is not being used</b>
-----------------	--

## Explanation

Check CSVTAM\_T1BUF\_T2BUF\_NOEE determined that Enterprise Extender (EE) might not be in use on this system and the allocation for the *buf\_pool* buffer pool specified by the *buf\_num* value is greater than its default value. This message is followed by message ISTH016E in the message buffer.

A value greater than the default value might not be optimal for your system when not using EE. The T1BUF and T2BUF buffer pools are designed to optimize HPR flows over Enterprise Extender connections. When EE is not being used, the buffer allocation for these pools does not need to be set greater than the default values.

In the message text:

### ***buf\_pool***

The name of the buffer pool. Possible values are: T1BUF or T2BUF.

### ***buf\_num***

The buffer allocation value assigned to the buffer pool on the start option for that buffer pool.

## System action

The system continues processing.

## Operator response

Not applicable.

## System programmer response

See the system programmer response in [ISTH016E](#).

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server

## Module

ISTHCCK1

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Example

Not applicable.

---

<b>ISTH016E</b>	<b>T1BUF/T2BUF buffer pool allocation might not be optimal if Enterprise Extender is not being used</b>
-----------------	---

## Explanation

Check CSVTAM\_T1BUF\_T2BUF\_NOEE determined that Enterprise Extender (EE) might not be in use on this system and the T1BUF or T2BUF (or both) buffer pool allocation is set above its default value.

A value above the default value might not be optimal for your system when not using EE. The T1BUF and T2BUF buffer pools are designed to optimize HPR flows over Enterprise Extender connections. When EE is not being used, the buffer allocation for these pools does not need to be set above the default values. The default value for the T1BUF buffer pool is 18. The default value for the T2BUF buffer pool is 8.

Message ISTH015I is issued prior to this message for each buffer pool (T1BUF, T2BUF, or both) that failed this check.

## System action

The system continues processing.

## Operator response

Contact the system programmer.

## System programmer response

If you intend to use EE on this system, IBM suggests that the T1BUF and T2BUF buffer pools be monitored and tuned to minimize the number of expansions. Minimizing buffer pool expansions will decrease internal buffer overhead processing which should increase throughput while reducing CPU consumption. These buffer pools can be monitored using the D NET,BFRUSE,BUF=(T1,T2) command. Once the appropriate allocation values for the T1BUF and T2BUF buffer pools have been determined, you can change the T1BUF and T2BUF Start option allocation values before next starting VTAM. If you do not intend to use EE on this system, you can change the T1BUF and T2BUF Start option allocation values to the default values before next starting VTAM.

See the Buffer Pool start option information in [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about the T1BUF and T2BUF Start Options. See the D NET,BFRUSE command information in [z/OS Communications Server: SNA Operation](#) for more information on the D NET,BFRUSE command.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server

## Module

ISTHCCK1

## Routing code

Not applicable.

## Descriptor code

12



## Example

Not applicable.

---

### ISTH017E

**Communications storage manager (CSM) storage allocation definitions might not be optimal.**

## Explanation

Check CSVTAM\_CSM\_STG\_LIMIT determined that the value specified for the maximum CSM storage for the FIXED, ECSA, or HVCOMM storage types as defined in the CSM Parmlib member IVTPRM00 is less than the minimum value specified for the check. If the MAX ECSA value from the CSM PARMLIB member IVTPRM00 is higher than 90% of the system ECSA value, CSM adjusts the MAX ECSA value to 90% of the system ECSA value. Change the CSA ECSA subparameter in IEASYSxx to at least 20% more than the ECSA value specified for CSM use in IVTPRM00.

Message ISTH002I is displayed prior to this message for each CSM storage type that failed the check.

## System action

The system continues processing. However, eventual action might need to be taken to prevent a critical depletion of CSM storage resources.

## Operator response

Contact the system programmer.

## System programmer response

The default values for CSM are 512M for FIXED, 100M for ECSA and 2000M for HVCOMM. However, IBM suggests that they be initially coded in IVTPRM00 using the following values: 120M for ECSA, 512M for FIXED and 2000M for HVCOMM. Monitor the system for one week with DISPLAY CSM command to determine peak usage. Adjust IVTPRM00 MAX ECSA, MAX FIXED and HVCOMM values to 1.5 times the highest value indicated in the DISPLAY CSM outputs. You must adjust your IEASYSxx CSA ECSA subparameter to include the additional amounts of ECSA that CSM will be using. It is recommended that the CSA ECSA subparameter in IEASYSxx be at least 20% more than the ECSA value specified for CSM use in IVTPRM00.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server

## Module

ISTHCCK1

## Routing code

Not applicable.

## Descriptor code

12

## Example

Not applicable.

---

### ISTH018I

**This check is not applicable in the current VTAM environment.  
Enterprise Extender (EE) lines have not been activated on this system  
and no VTAM Start Options associated with EE have been specified.**

## Explanation

Check CSVTAM\_T1BUF\_T2BUF\_EE is not applicable in the current VTAM environment. This check compares the T1BUF and T2BUF buffer pool allocation values against the default values for each pool only if EE has been activated on this VTAM or the VTAM start options associated with EE (IPADDR or TCPNAME) have been specified.

## System action

The system continues processing.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server

## Module

ISTHCCK1

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Example

Not applicable.

---

**ISTH019I**

**This check is not applicable in the current VTAM environment. Enterprise Extender (EE) lines have been activated on this system or VTAM Start Options associated with EE have been specified.**

**Explanation**

Check CSVTAM\_T1BUF\_T2BUF\_NOEE is not applicable in the current VTAM environment. This check compares the T1BUF and T2BUF buffer pool allocation values against the default values for each pool only if EE has not been activated on this VTAM and the VTAM start options associated with EE (IPADDR or TCPNAME) have not been specified.

**System action**

The system continues processing.

**Operator response**

Not applicable.

**System programmer response**

Not applicable.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server

**Module**

ISTHCCK1

**Routing code**

Not applicable.

**Descriptor code**

Not applicable.

**Example**

Not applicable.

---

**ISTH020I**

**All active FTP servers correctly prevent anonymous users from submitting jobs.**

**Explanation**

Check CSAPP\_FTPD\_ANONYMOUS\_JES ran successfully and found no exceptions. The check determined that no active FTP servers are configured to allow anonymous users to submit jobs.

IBM suggests that ANONYMOUSLEVEL be set to 3 and ANONYMOUSFILETYPEJES be set to FALSE when ANONYMOUS is configured on the FTP server. Specifying ANONYMOUSLEVEL less than 3 or ANONYMOUSFILETYPEJES TRUE allows anonymous users to submit jobs.

### **System action**

The system continues processing.

### **Operator response**

Not applicable.

### **System programmer response**

Not applicable.

### **User response**

Not applicable.

### **Problem determination**

Not applicable.

### **Source**

z/OS Communications Server Health Checker

### **Module**

ISTHCCK2

### **Routing code**

Not applicable.

### **Descriptor code**

Not applicable.

### **Automation**

Not applicable.

### **Example**

```
ISTH020I All FTP servers correctly prevent anonymous users from
submitting jobs.
```

---

### **ISTH021E**

**One or more FTP servers allow anonymous users to submit jobs.**

### **Explanation**

Check CSAPP\_FTPD\_ANONYMOUS\_JES determined that one or more FTP servers allow anonymous users to submit jobs.

IBM suggests that ANONYMOUSLEVEL be set to 3 and ANONYMOUSFILETYPEJES be set to FALSE when ANONYMOUS is configured on the FTP server. Specifying ANONYMOUSLEVEL less than 3 or ANONYMOUSFILETYPEJES TRUE allows anonymous users to submit jobs.

## System action

The system continues processing.

## Operator response

Contact the system programmer.

## System programmer response

Examine the report that was produced by CSAPP\_FTPD\_ANONYMOUS\_JES health check. To assist in identifying the server instance, the report contains the FTP server jobname in the first column and the ASID value in hexadecimal format in the second column. The FTP server FTP.DATA file includes the ANONYMOUS configuration statement. The ANOYMOUSLEVEL configuration statement is explicitly configured with a value less than 3, or ANONYMOUSLEVEL is configured or allowed to default to the value of 3 and ANONYMOUSFILETYPEJES is configured with a value of TRUE.

To disable the ability for anonymous users to submit jobs on this server, take one of the following actions:

- Disable ANONYMOUS access if it is not required. To do this, remove the ANONYMOUS statement from the server FTP.DATA configuration file.
- Prevent job submission by anonymous users. To do this, set ANONYMOUSLEVEL 3 and ANONYMOUSFILETYPEJES FALSE in the server FTP.DATA configuration file.

**Note:** ANONYMOUSLEVEL 3 enables control of individual filetypes by allowing them to default or explicitly configuring them. If you are setting ANONYMOUSLEVEL 3 as a corrective action, ensure that the default values for all filetypes are appropriate or explicitly configure them. The anonymous filetype configuration statements are listed below with the default value and the allowed values.

ANONYMOUS TYPE	DEFAULT	ALLOWED VALUES
-----	-----	-----
ANONYMOUSFILETYPESEQ	TRUE	FALSE   TRUE
ANONYMOUSFILETYPEJES	FALSE	FALSE   TRUE
ANONYMOUSFILETYPESQL	FALSE	FALSE   TRUE
ANONYMOUSFILEACCESS	HFS	BOTH   MVS   HFS
ANONYMOUSHFSFILEMODE	000	nnn
ANONYMOUSHFSDIRMODE	333	nnn
EMAILADDRCHECK	NO	NO   FAIL   WARNING

## User response

Not applicable.

## Problem determination

See ANONYMOUS (FTP server) statement, ANONYMOUSLEVEL (FTP server) statement, and ANONYMOUSFILETYPEJES (FTP server) statement under File Transfer Protocol in z/OS Communications Server: IP Configuration Reference for more information about the ANONYMOUS, ANONYMOUSLEVEL, and ANONYMOUSFILETYPEJES statements.

## Source

z/OS Communications Server Health Checker

## Module

ISTHCK2

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Automation

Not applicable.

## Example

```
ISTH021E One or more FTP servers allow anonymous users to submit jobs.
```

---

## ISTH029I

## No MVRSHD servers are active

## Explanation

Check CSAPP\_MVRSHD\_RHOSTS\_DATA ran successfully and found no exceptions. The check determined that no MVRSHD servers are active.

IBM suggests avoiding the use of MVRSHD servers. The MVRSHD server supports the RSH and REXEC protocols which transfer user ID and password information in the clear. There is also the potential of weak authentication for RSH clients using RHOSTS.DATA datasets. This authentication method allows remote command execution without requiring the RSH client to supply a password.

## System action

The system continues processing.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS CS Health Checker

## Module

ISTHCCK2

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Automation

Not applicable.

## Example

```
ISTH029I  There are no MVRSHD servers active
```

---

### ISTH030E

### One or more MVRSHD servers are active

---

## Explanation

Check CSAPP\_MVRSHD\_RHOSTS\_DATA determined that one or more MVRSHD servers are active.

IBM suggests avoiding the use of MVRSHD servers. The MVRSHD server supports the RSH and REXEC protocols which transfer user ID and password information in the clear. There is also the potential of weak authentication for RSH clients using RHOSTS.DATA datasets. This authentication method allows remote command execution without requiring the RSH client to supply a password.

## System action

The system continues processing.

## Operator response

Contact the system programmer.

## System programmer response

Examine the report that was produced by check CSAPP\_MVRSHD\_RHOSTS\_DATA.

This report lists all the active MVRSHD server address spaces. To assist in identifying the server instance, the report contains the MVRSHD server job name in the first column, the ASID value in hexadecimal format in the second column, and a data value in hexadecimal format in the third column. The following indicates the meaning of the data value:

0 – This MVRSHD server is active and no attempts to authenticate using RHOSTS.DATA have occurred.

1 – This MVRSHD server is active and there have been one or more attempts to authenticate using RHOSTS.DATA.

To obtain more information regarding future attempts of RSH clients attempting to use RHOSTS.DATA datasets for authentication, take the following action:

Enable internal RHOSTS level MVRSHD server tracing by issuing `MODIFY proc_name,TRACE=(LOG,RHOSTS)`. When a new RSH client using a RHOSTS.DATA dataset for authentication is detected, an EZA4443I message will be recorded in the MVRSHD server joblog. The message will read:

```
EZA4443I Attempt to open USER1.RHOSTS.DATA requested by user2 on sys209.pok.im.com
```

For more information on the EZA4443I message, see [EZA4443I](#) in [z/OS Communications Server: IP Messages Volume 1 \(EZA\)](#).

To disable the RHOSTS level MVRSHD server tracing, issue the `MODIFY proc_name,TRACE=(LOG,NORHOSTS)` command. To disable all tracing in addition to the RHOSTS level MVRSHD server tracing, issue the `MODIFY proc_name,TRACE=(NOLOG,NORHOSTS)` command.

To disable the ability for RSH clients to use RHOSTS.DATA datasets for authentication, take the following action:

Identify and delete all specified *userid*.RHOSTS.DATA datasets.

The EZA4443I message can help identify which datasets are in use.

To disable the support for RSH and REXEC protocols, take the following action:

Stop all active instances of MVRSHD server.

For more information on the RHOSTS.DATA dataset, see [Step 3: Permit remote users to access MVS resources \(optional\)](#) in [z/OS Communications Server: IP Configuration Guide](#).

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS CS Health Checker

**Module**

ISTHCCK2

**Routing code**

Not applicable.

**Descriptor code**

Not applicable.

**Automation**

Not applicable.

**Example**

ISTH030E One or more MVRSHD servers are active

---

<b>ISTH033I</b>	<b>No active SNMP agents are configured with a community name of public</b>
-----------------	---

---

**Explanation**

Check CSAPP\_SNMPAGENT\_PUBLIC\_COMMUNITY ran successfully and found no exceptions. The check determined that no active SNMP agents are configured with a community name of public.

IBM suggests not configuring a community name of public, nor permitting the SNMP agent to use the default community name of public. Because the SNMP community name of public is a well-known name, it should not be used with community-based security due to security considerations.

**System action**

The system continues processing.

**Operator response**

Not applicable.



## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS CS Health Checker

## Module

ISTHCCK2

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Automation

Not applicable.

## Example

```
ISTH033I  No active SNMP agents are configured with a community name of public
```

---

### ISTH034E

**One or more active SNMP agents are configured with a community name of public**

## Explanation

Check CSAPP\_SNMPAGENT\_PUBLIC\_COMMUNITY determined that one or more active SNMP agents are configured with a community name of public.

IBM suggests not configuring a community name of public, nor permitting the SNMP agent to use the default community name of public. Because the SNMP community name of public is a well-known name, it should not be used with community-based security due to security considerations.

## System action

The system continues processing.

## Operator response

Not applicable.

## System programmer response

Examine the report that was produced by check CSAPP\_SNMPAGENT\_PUBLIC\_COMMUNITY. This report lists all the SNMP agent address spaces for which a community name of public is configured. To assist in identifying the server instance, the report contains the SNMP agent job name in the first column and the ASID value in hexadecimal format in the second column.

To remove the community name of public associated with the SNMP agent, take one of the following actions:

- If no SNMP agent configuration files are being used, explicitly define a community name other than public as the value of the -c start parameter.

For more information on the -c start parameter, see [OSNMPD parameters in z/OS Communications Server: IP Configuration Reference](#).

- If you are using a PW.SRC configuration file, rename the community named public to something else by specifying the associated PW.SRC statement.

For more information on defining a community via the PW.SRC configuration file, see [PW.SRC statement syntax in z/OS Communications Server: IP Configuration Reference](#).

- If you are using a SNMPD.CONF configuration file, rename the community named public by specifying the COMMUNITY or SNMP\_COMMUNITY statements.

For more information on the COMMUNITY statement and the SNMP\_Community statement, see [SNMPD.CONF statements in z/OS Communications Server: IP Configuration Reference](#).

You can also migrate your SNMP configuration from community-based security to user-based security using SNMPv3 protocols. SNMPv3 provides a more powerful and flexible framework for message security and access control. SNMPv3 user-based security can be used only when all your SNMP manager and network management applications support it. For an introduction to user-based security using SNMPv3, see [User-based security in z/OS Communications Server: IP Configuration Guide](#).

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS CS Health Checker

## Module

ISTHCCK2

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Automation

Not applicable.

## Example

```
ISTH034E One or more active SNMP agents are configured with a community name of public
```

### ISTH038E

### Ensure sufficient fixed storage is available for IWQ IPsec

## Explanation

IBM Health Checker for z/OS issues this message if the check `CSTCP_IWQ_IPSEC_tcpipstackname` (`tcpipstackname` is the job name of the TCP/IP stack to which this check applies) determines that a TCP/IP stack has IPsec enabled and a QDIO interface with inbound workload queueing (IWQ) enabled, and the OSA adapter supports IWQ for IPsec. A new ancillary input queue (AIQ) is created to support IWQ for IPsec. Each ancillary input queue increases the usage of fixed storage.

This message is issued to make the user aware of the need to ensure that there is sufficient fixed storage. For information on how much storage is needed for IWQ for IPsec, see [IP services: Ensure storage availability for IWQ IPsec traffic in z/OS Upgrade Workflow](#).

## System action

The system continues processing.

## Operator response

Contact the system programmer.

## System programmer response

The additional CSM storage consumed by each OSA interface using WORKLOADQ uses fixed (real) storage. It is recommended that you verify that the additional fixed storage required by enabling WORKLOADQ (per OSA interface) will not approach any of the following limits:

- The CSM FIXED MAXIMUM value used by Communications Server (use the D NET, CSM command and see the CSM FIXED MAXIMUM value defined in IVTPRM00)
- The ECSA MAX value (defined in IVTPRM00)
- The actual real storage available to this z/OS system (see D M=STOR or D M=HIGH)

For more information, see [IP services: Ensure storage availability for IWQ IPsec traffic in z/OS Upgrade Workflow](#).

## User response

Contact the system programmer.

## Problem determination

See the System Programmer Response.

## Source

z/OS Communications Server Health Checker

## Module

Use the modifiable VTAM start option `MSGMOD=yes` (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

EZBHCK1

### Routing code

Not applicable.

### Descriptor code

Not applicable.

### Automation

Not applicable for automation.

### Example

Ensure sufficient fixed storage is available for IWQ IPsec

---

**ISTH039I**

**The ISPF Gateway is not being accessed using non-secured HTTP**

### Explanation

The check ISPF\_GW\_HTTPS ran successfully and found no exceptions. The check determined that the ISPF Gateway has not been accessed on this system using non-secured Hypertext Transfer Protocol (HTTP) during this IPL.

The communication between the client and the ISPF Gateway is not secure when non-secured HTTP is used.

### System action

The system continues processing.

### Operator response

Not applicable.

### System programmer response

Not applicable.

### User response

Not applicable.

### Problem determination

Not applicable.

### Source

z/OS Communications Server Health Checker

### Module

ISTHCK2

### Routing code

Not applicable.

## Descriptor code

Not applicable.

## Automation

Not applicable for automation.

## Example

```
ISTH039I The ISPF Gateway is not being accessed using non-secured HTTP
```

---

### ISTH040E

### The ISPF Gateway is being accessed using non-secured HTTP

## Explanation

The check ISPF\_GW\_HTTPS determined that the ISPF Gateway has been accessed on this system using non-secured Hypertext Transfer Protocol (HTTP) during this IPL.

The communication between the client and the ISPF Gateway is not secure when non-secured HTTP is used.

## System action

The system continues processing.

## Operator response

Not applicable.

## System programmer response

See *Update the configuration to enable SSL for your TSO/ISPF Gateway traffic* in [z/OS ISPF Planning and Customizing](#) for information on modifying your HTTP Server configuration so that the ISPF Gateway is accessed using Hypertext Transfer Protocol Secure (HTTPS).

When the check ISPF\_GW\_HTTPS determines that the ISPF Gateway has been accessed on this system using non-secured HTTP, it will continue to be reported for the duration of this IPL, or as long as this Health Check is active. Message ISTH040E is followed by message ISTH900I, which indicates the date and time that the ISPF Gateway was last accessed using non-secured HTTP. You can use message ISTH900I to determine whether a new non-secured HTTP access of the ISPF Gateway has been detected or this report is related to an earlier access.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server Health Checker

## Module

ISTHCCK2

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Automation

Not applicable for automation.

## Example

```
ISTH040E The ISPF Gateway is being accessed using non-secured HTTP
```

---

**ISTH900I** **Function: *mhc\_function* last *mhc\_usage* on *mhc\_date* at *mhc\_time*.**

## Explanation

A preceding exception message of type ISTHxxxE was generated. See those messages for more information.

In the message text:

### ***mhc\_function***

The name of the function that was being checked.

### ***mhc\_usage***

Possible values are:

#### **started**

This value is displayed when checking applications.

#### **used**

This value is displayed when checking configuration statements or functions.

### ***mhc\_date***

The date that the function was last started or used.

### ***mhc\_time***

The time that the function was last started or used.

## System action

The system continues processing.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

**Source**

z/OS Communications Server Health Checker

**Module**

ISTHCCK2

**Routing code**

Not applicable.

**Descriptor code**

Not applicable.

**Automation**

Not applicable.

**Example**

Not applicable.





---

## Chapter 12. ISTM messages for migration checks for IBM Health Checker for z/OS

This chapter lists the messages beginning with ISTM. These messages are issued by migration checks for IBM Health Checker for z/OS.

---

### ISTM034E

### Ensure sufficient fixed storage is available for IWQ IPsec enabling

#### Explanation

IBM Health Checker for z/OS issues this message when the migration check ZOSMIGV2R4PREV\_CS\_IWQSC\_*tcpipstackname* (*tcpipstackname* is the job name of the TCP/IP stack to which this check applies) determines that a TCP/IP stack has at least one interface with IWQ and IPsec configured, with an OSA that does not support IWQ IPsec. If migrating to an OSA-Express6S or greater, the new OSA adapter will support IWQ for IPsec, and a new ancillary input queue (AIQ) will be created. Each ancillary input queue increases the usage of fixed storage.

This message is issued to make the user aware of the need to ensure that there is sufficient fixed storage before migrating to a new OSA adapter. For information on how much storage is needed for IWQ for IPsec, see [IP services: Ensure storage availability for IWQ IPsec traffic in z/OS Upgrade Workflow](#).

#### System action

The system continues processing.

#### Operator response

Contact the system programmer.

#### System programmer response

If migrating to an OSA-Express6S or above, IWQ for IPsec will be supported by OSA. The additional CSM storage consumed by each OSA interface using WORKLOADQ uses fixed (real) storage. It is recommended that you verify that the additional fixed storage required by enabling WORKLOADQ (per OSA interface) will not approach any of the following limits:

- The CSM FIXED MAXIMUM value used by Communications Server (use the D NET, CSM command and see the CSM FIXED MAXIMUM value defined in IVTPRM00)
- The ECSA MAX value (defined in IVTPRM00)
- The actual real storage available to this z/OS system (see D M=STOR or D M=HIGH)

For more information, see [IP services: Ensure storage availability for IWQ IPsec traffic in z/OS Upgrade Workflow](#).

#### User response

Contact the system programmer.

#### Problem determination

See the System Programmer Response.

#### Source

z/OS Communications Server Health Checker

## Module

Use the modifiable VTAM start option MSGMOD=yes (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

EZBHCK1

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Automation

Not applicable for automation.

## Example

Ensure sufficient fixed storage is available for IWQ IPsec enabling

---

### ISTM039I

**The ISPF Gateway is not being accessed using non-secured HTTP**

## Explanation

The check ZOSMIGV2R3\_Next\_ISPF\_GW\_HTTPS ran successfully and found no exceptions. The check determined that the ISPF Gateway has not been accessed on this system using non-secured Hypertext Transfer Protocol (HTTP) during this IPL.

The communication between the client and the ISPF Gateway is not secure when non-secured HTTP is used. In z/OS V2R4, the ISPF Gateway will require, by default, that it is accessed using Hypertext Transfer Protocol Secure (HTTPS).

## System action

The system continues processing.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server Health Checker

## Module

ISTHCCK2

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Automation

Not applicable for automation.

## Example

```
ISTM039I The ISPF Gateway is not being accessed using non-secured HTTP
```

---

### ISTM040E

**The ISPF Gateway is being accessed using non-secured HTTP**

## Explanation

The check ZOSMIGV2R3\_Next\_ISPF\_GW\_HTTPS determined that the ISPF Gateway has been accessed on this system using non-secured Hypertext Transfer Protocol (HTTP) during this IPL.

The communication between the client and the ISPF Gateway is not secure when non-secured HTTP is used. In z/OS V2R4, the ISPF Gateway will require, by default, that it is accessed using Hypertext Transfer Protocol Secure (HTTPS).

## System action

The system continues processing.

## Operator response

Not applicable.

## System programmer response

See *Update the configuration to enable SSL for your TSO/ISPF Gateway traffic* in [z/OS ISPF Planning and Customizing](#) for information on modifying your HTTP Server configuration so that the ISPF Gateway is accessed using Hypertext Transfer Protocol Secure (HTTPS).

When the check ZOSMIGV2R3\_Next\_ISPF\_GW\_HTTPS determines that the ISPF Gateway has been accessed on this system using non-secured HTTP, it will continue to be reported for the duration of this IPL, or as long as this Migration Health Check is active. Message ISTM040E is followed by message ISTM900I, which indicates the date and time that the ISPF Gateway was last accessed using non-secured HTTP. You can use message ISTM900I to determine whether a new non-secured HTTP access of the ISPF Gateway has been detected or this report is related to an earlier access.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server Health Checker

## Module

ISTHCCK2

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Automation

Not applicable for automation.

## Example

```
ISTM040E The ISPF Gateway is being accessed using non-secured HTTP
```

### ISTM051I

**MEDIUM CSMACD is not in use on this system for an XCA major node PORT statement**

## Explanation

The check ZOSMIGV2R5\_NEXT\_CS\_LSA ran successfully and found no exceptions. The check determined that MEDIUM CSMACD is not in use on this system with an XCA major node PORT statement.

IBM has indicated in statements of direction that support for VTAM Link Station Architecture (LSA) devices will be withdrawn in a future release of the IBM z/OS Communications Server. These devices are configured with MEDIUM CSMACD in the XCA major node PORT statement.

For more information, see the *Statement of direction Withdrawal of support for VTAM Link Station Architecture (LSA) and TCP/IP LAN Channel Station (LCS) devices* in the availability announcement [IBM z/OS V2.5: Enabling innovative development to support hybrid cloud and AI business applications](#).

## System action

The system continues processing.

## Operator response

No action is needed.

## System programmer response

No action is needed.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server

## Module

ISTHCCK2

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Automation

This message was deleted in z/OS 3.1.

## Example

```
ISTM051I MEDIUM CSMACD is not in use on this system for an XCA major node PORT statement
```

## ISTM052E

**MEDIUM CSMACD is in use on this system for an XCA major node PORT statement**

## Explanation

The check ZOSMIGV2R5\_NEXT\_CS\_LSA determined that one or more XCA major node PORT statements with MEDIUM=CSMACD are in use on this system.

IBM has indicated in statements of direction that support for VTAM Link Station Architecture (LSA) devices will be withdrawn in a future release of the IBM z/OS Communications Server. These devices are configured with MEDIUM CSMACD in the XCA major node PORT statement.

For more information, see the *Statement of direction Withdrawal of support for VTAM Link Station Architecture (LSA) and TCP/IP LAN Channel Station (LCS) devices* in the availability announcement [IBM z/OS V2.5: Enabling innovative development to support hybrid cloud and AI business applications](#).

## System action

The system continues processing.

## Operator response

Contact the system programmer.

## System programmer response

Because VTAM Link Station Architecture (LSA) devices will no longer be supported in a future release of z/OS Communications Server, z/OS systems that have workloads that rely on the SNA protocol and use OSE CHPID type channels as the transport should be updated. Depending on your requirements, make plans to switch your connectivity to use FICON® CTC connectivity or SNA over IP technologies, such as Enterprise Extender or TN3270.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server

## Module

ISTHCCK2

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Automation

This message was deleted in z/OS 3.1.

## Example

```
ISTM052E MEDIUM CSMACD is in use on this system for an XCA major node PORT statement
```

## ISTM053I

**DEVICE/LINK/HOME is not in use on this system for OSA-Express connectivity**

## Explanation

The check ZOSMIG\_V2R5\_NEXT\_CS\_OSADLH ran successfully and found no exceptions. The check determined that DEVICE/LINK/HOME is not in use on this system for OSA-Express connectivity.

IBM has indicated in statements of direction that support for VTAM Link Station Architecture (LSA) devices will be withdrawn in a future release of the IBM z/OS Communications Server. For more information, see the *Statement of direction* section *Withdrawal of support for VTAM Link Station Architecture (LSA) and TCP/IP LAN Channel Station (LCS) devices* in the availability announcement [IBM z/OS V2.5: Enabling innovative development to support hybrid cloud and AI business applications](#).

## System action

The system continues processing.

## Operator response

No action is needed.

## System programmer response

No action is needed.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server

## Module

ISTHCCK2

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Automation

This message was deleted in z/OS 3.1.

## Example

```
ISTM053I DEVICE/LINK/HOME is not in use on this system for OSA-Express connectivity
```

## ISTM054E

**DEVICE/LINK/HOME is in use on this system for OSA-Express connectivity**

## Explanation

The check ZOSMIGV2R5\_NEXT\_CS\_OSADLH determined that one or more DEVICE/LINK/HOME statements are in use on this system for OSA-Express connectivity.

IBM has indicated in statements of direction that support for VTAM Link Station Architecture (LSA) devices will be withdrawn in a future release of the IBM z/OS Communications Server. For more information, see the *Statement of direction* section *Withdrawal of support for VTAM Link Station Architecture (LSA) and TCP/IP LAN Channel Station (LCS) devices* in the availability announcement [IBM z/OS V2.5: Enabling innovative development to support hybrid cloud and AI business applications](#).

This exception will continue to be reported for the duration of this IPL, or as long as this Migration Health Check is active. When this exception condition is detected, message ISTM054E is issued and is followed by message ISTM900I which indicates the date and time that DEVICE/LINK/HOME statements were last processed.

## System action

The system continues processing.

## Operator response

Contact the system programmer.

## System programmer response

Because DEVICE/LINK/HOME TCPIP/IP profile statements for OSA connectivity will no longer be supported in a future release of z/OS Communications Server, take the following steps:

- Check your TCP/IP profile for DEVICE, LINK, and HOME statements with a device type of MPCIPA and a link type of IPAQENET. Convert the statements to equivalent IPAQENET INTERFACE statements.

For more information, see [Steps for converting from IPv4 IPAQENET DEVICE, LINK, and HOME definitions to the IPv4 IPAQENET INTERFACE statement in z/OS Communications Server: IP Configuration Guide.](#)

- Check your TCP/IP profile for DEVICE, LINK, and HOME statements that include the device type LCS. Make plans to migrate your legacy LCS definitions to use IPAQENET INTERFACE statements to access your LAN. See [INTERFACE-IPAQENET OSA-Express QDIO interfaces in z/OS Communications Server: IP Configuration Reference.](#)

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server

## Module

ISTHCCK2

## Routing code

Not applicable.

## Descriptor code

Not applicable.

## Automation

This message was deleted in z/OS 3.1.

## Example

```
ISTM054E DEVICE/LINK/HOME is in use on this system for OSA-Express connectivity
```

---

**ISTM900I****Function: *mhc\_function* last *mhc\_usage* on *mhc\_date* at *mhc\_time*.**

## Explanation

A preceding exception message of type ISTMxxxE was generated. See those messages for more information.

In the message text:

### ***mhc\_function***

The name of the function that was being checked.

### ***mhc\_usage***

Possible values are:



**started**

This value is displayed when checking applications.

**used**

This value is displayed when checking configuration statements or functions.

***mhc\_date***

The date that the function was last started or used.

***mhc\_time***

The time that the function was last started or used.

**System action**

The system continues processing.

**Operator response**

Not applicable.

**System programmer response**

Not applicable.

**User response**

Not applicable.

**Problem determination**

Not applicable.

**Source**

z/OS Communications Server

**Module**

ISTHCCK2

**Routing code**

Not applicable.

**Descriptor code**

Not applicable.

**Automation**

Not applicable.

**Example**

Not applicable.



---

## Chapter 13. IUT messages for VTAM network operators

This chapter lists the VTAM messages beginning with IUT that can appear on a network operator's console.

See [Appendix E, "Message text for VTAM operator messages," on page 1785](#) for a list of the text of all VTAM operator messages.

---

### IUT5000I

***trlename* STILL ACTIVE: VTAM TERMINATION WAITING FOR *ulpid***

#### Explanation

VTAM issues this message when VTAM termination processing is waiting for the deactivation of a service access point (SAP).

#### System action

VTAM termination waits until all SAPs have been deactivated. VTAM will periodically reissue this message as long as the *trlename* remains active.

*ulpid* is the SAP owner.

*trlename* is the name of the TRLE being used by the *ulpid*.

#### Operator response

For the VTAM HALT command (without QUICK OR CANCEL), have the *trlename* deactivated by the owning program named in *ulpid*.

#### System programmer response

None.

#### Routing code

2

#### Descriptor code

4

---

### IUT5001I

**VTAM MPC CONNECTION MANAGER PROCESSING TERMINATED**

#### Explanation

VTAM issues this message when VTAM MPC connection manager processing has terminated. This message is issued during VTAM HALT command processing.

#### System action

VTAM MPC connection manager functions are no longer available.

#### Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

6

---

**IUT5002I****TASK FOR ULPID *ulpid* USING TRLE *trlename* TERMINATING**

---

## Explanation

VTAM issues this message when a z/OS Communications Server upper-layer protocol (ULP) task or memory terminates and causes VTAM to deactivate the ULP's service access point (SAP).

*ulpid* is the SAP owner.

*trlename* is the name of the TRLE being used by *ulpid*.

## System action

VTAM deactivates all ULP SAPs associated with the terminating task.

When this is the last or only ULP SAP using this data link control (DLC), VTAM also deactivates the DLC associated with the *trlename* and deallocates the corresponding I/O devices.

## Operator response

To determine the status or progress of SAP termination, issue a DISPLAY TRL command and determine the status of each I/O device.

## System programmer response

None.

## Routing code

2

## Descriptor code

4

---

# Chapter 14. IVT messages for VTAM network operators

This chapter lists the VTAM messages beginning with IVT that can appear on a network operator's console.

See [Appendix E, “Message text for VTAM operator messages,” on page 1785](#) for a list of the text of all VTAM operator messages.

---

**IVT5501I** **CSM PARMLIB MEMBER *membername* NOT FOUND - DEFAULT VALUES USED**

### Explanation

This message is issued during CSM initialization.

*membername* is the name of the CSM parmlib member.

### System action

Processing continues using the following default values:

- Maximum fixed storage – 200M
- Maximum ECSA storage – 100M
- Maximum high virtual common (HVCOMM) storage above the 2 GB bar – 2000M

### Operator response

If the default values for CSM storage limits are not acceptable, issue the **MODIFY CSM** command to update the parameter values.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

**IVT5502I** **READ ERROR ON PARMLIB MEMBER *membername* - DEFAULT VALUES USED**

### Explanation

An I/O error occurred while CSM was trying to read the CSM parmlib member. This message is issued during CSM initialization.

*membername* is the name of the CSM parmlib member.

### System action

Processing continues using the following default values:

- Maximum fixed storage – 200M
- Maximum ECSA storage – 100M
- Maximum high virtual common (HVCOMM) storage above the 2 GB bar – 2000M

## Operator response

If the default values for CSM storage limits are not acceptable, issue the **MODIFY CSM** command to update the parameter values. Save the system log for problem determination.

## System programmer response

See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information.

## Routing code

2

## Descriptor code

5

---

**IVT5503I** **CSM PARMLIB PARAMETER NOT VALID - *parametername***

## Explanation

CSM issues this message as part of a message group. See IVT5507I for a complete description.

## Routing code

2

## Descriptor code

5

---

**IVT5504I** **ABEND *abendcode* OCCURRED IN *modulename* - SDUMP HAS BEEN ISSUED**

## Explanation

An abend occurred while processing a CSM request.

*abendcode* is the abend code. The values for *abendcode* are found in the applicable operating system documentation.

*modulename* is the name of the CSM module.

## System action

The system attempts an SDUMP. CSM takes the dump if the system dump data set is usable. If the dump fails, message IVT5505I is issued with a return code of the dump request.

## Operator response

Save the system log and the dump for problem determination.

## System programmer response

Review the dump to determine the cause of the problem.

## Routing code

2

## Descriptor code

5

---

**IVT5505I** **CSM SDUMP FAILED WITH RETURN CODE *code* REASON X'*reason*'**

---

## Explanation

CSM attempts an SDUMP for an abend and the system could not complete the dump successfully.

*code* indicates the reason for the failure and can be one of the following:

### 04

The system obtained only a partial dump. The dump data set or file is too small.

### 08

The system was unable to take an SDUMP. All dump data sets or files are full, a dump is already in progress, or the dump analysis elimination (DAE) function of MVS has determined that a dump has already been taken for the system string.

*reason* indicates the cause of the SDUMP failure.

For more information about return and reason codes for the SDUMP macro, see [z/OS MVS Programming: Authorized Assembler Services Reference LLA-SDU](#).

## System action

CSM takes no further action to obtain a dump. Other processing continues.

## Operator response

Save the system log for problem determination.

## System programmer response

If *code* is **4**, increase the size of the dump data set.

If *code* is **8**, check the availability of dump data sets and purge any unnecessary dumps.

## Routing code

2

## Descriptor code

5

---

**IVT5506I** ***modulename* STORAGE ALLOCATION FAILED IN CSM**

---

## Explanation

This message is issued when CSM is unable to satisfy a request for storage.

*modulename* is the CSM module name where the request failed.

## System action

CSM might not be able to continue. If this message is issued during CSM initialization, CSM issues abend code 4C4, return code 1001, and issues an FFST dump.

## Operator response

Save the system log for problem determination.

## System programmer response

See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information.

## Routing code

2

## Descriptor code

5

---

**IVT5507I** **CSM PARMLIB INFORMATION FOUND IN MEMBER *membername***

## Explanation

This message is part of a group of messages that is issued either during CSM initialization or as the result of a **MODIFY CSM** command with no parameters specified. A complete description of the message group follows the example.

```
IVT5507I CSM PARMLIB INFORMATION FOUND IN MEMBER membername
[IVT5503I CSM PARMLIB PARAMETER NOT VALID - parametername]
[IVT5599I END]
```

### IVT5507I

*membername* is the name of the CSM parmlib member.

### IVT5503I

CSM issues this message when it finds a CSM storage parameter value in the parmlib that is not valid.

*parametername* is the first 26 characters of the line where the error occurred in the CSM parmlib member.

## System action

If only IVT5507I is displayed, CSM storage limits from *membername* are used.

If IVT5503I is displayed in response to **MODIFY CSM** command with no parameters specified, the storage limits are unchanged.

If IVT5503I is displayed during CSM initialization, then storage limits are determined as follows:

- If the error was generated by the first CSM storage parameter, the following default values are used:
  - Maximum fixed storage – 200M
  - Maximum ECSA storage – 100M
  - Maximum high virtual common (HVCMM) storage above the 2 GB bar – 2000M
- If the error was generated by the second CSM storage parameter, only the second and third parameter values are replaced by the default values.
- If the error was generated by the third CSM storage parameter, only the third parameter value is replaced by the default value.

## Operator response

If IVT5503I is displayed and the default values for CSM storage parameters are not acceptable, issue the **MODIFY CSM** command to update CSM start parameters. Save the system log for problem determination.



### System programmer response

If IVT5503I is displayed, edit the CSM parameter data set and correct the parameter that is in error.

### Routing code

2

### Descriptor code

5

---

IVT5508I	DISPLAY ACCEPTED
----------	------------------

### Explanation

CSM accepted the DISPLAY CSM command for initial processing.

### System action

The syntax of the command is correct and VTAM begins processing the DISPLAY CSM command.

### Operator response

None.

### System programmer response

None.

### Routing code

2

### Descriptor code

5

---

IVT5510I	MODIFY ACCEPTED
----------	-----------------

### Explanation

CSM accepted the MODIFY CSM command for initial processing.

### System action

The syntax of the command is correct and VTAM begins processing the MODIFY CSM command.

### Operator response

None.

### System programmer response

None.

### Routing code

2

## Descriptor code

5

---

**IVT5511I**

***command* CSM COMMAND SYNTAX NOT VALID**

---

## Explanation

The *command* failed because of one or more of the following syntax errors:

- An operand is specified incorrectly
- A operand is specified more than once
- A keyword might be missing

*command* is one of the following CSM command types:

- **DISPLAY**
- **MODIFY**

## System action

VTAM rejects the command. Other processing continues.

## Operator response

Reenter the command with the correct syntax. See [z/OS Communications Server: SNA Operation](#) for correct command syntax.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IVT5512I**

**FIXED PARAMETER VALUE NOT VALID**

---

## Explanation

This message is issued when the FIXED value of a MODIFY CSM command is out of range or not valid.

## System action

Processing continues. CSM fixed storage limits are not changed.

## Operator response

Reenter the command with the correct syntax. See [z/OS Communications Server: SNA Operation](#) for correct command syntax.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IVT5513I**

**ECSA PARAMETER VALUE NOT VALID**

## Explanation

This message is issued when the requested ECSA value of a MODIFY CSM command is out of range or not valid.

## System action

Processing continues. CSM ECSA storage limits are not changed.

## Operator response

Reenter the command with the correct syntax. See [z/OS Communications Server: SNA Operation](#) for correct command syntax.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IVT5516I**

**ERROR OBTAINING CSM PARMLIB INFORMATION - LIMITS  
UNCHANGED**

## Explanation

This message is issued in response to a **MODIFY CSM** command with no operands specified. CSM could not read the storage limits defined in the CSM parmlib member and could not change the limits.

## System action

Processing continues. CSM storage limits are not changed.

## Operator response

To change the current storage limits, reissue the command and specify new storage limits on the FIXED, ECSA, or HVCOMM operands.

## System programmer response

Edit the CSM parmlib member to determine the source of the problem.

## Routing code

2

## Descriptor code

5

---

**IVT5517I****CSM LIMITS PRIOR TO MODIFY CSM PROCESSING:**

---

## Explanation

This message is the first in a group of messages that is issued in response to a **MODIFY CSM** command with at least one operand specified. It displays the CSM storage limits before and after the **MODIFY CSM** command is issued. A complete description of the message group follows the example.

```
IVT5517I CSM LIMITS PRIOR TO MODIFY CSM PROCESSING:
IVT5519I ECSA MAXIMUM = maxecsa, FIXED MAXIMUM = maxfix
IVT5595I HVCOMM MAXIMUM = maxhvcomm
IVT5518I CSM LIMITS AFTER MODIFY CSM PROCESSING:
IVT5519I ECSA MAXIMUM = maxecsa, FIXED MAXIMUM = maxfix
IVT5595I HVCOMM MAXIMUM = maxhvcomm
IVT5599I END
```

## IVT5517I and IVT5518I

These messages are header messages for the information displayed in the message that follow these messages.

### IVT5519I

*maxecsa* is the maximum amount of ECSA storage, in megabytes (M) or kilobytes (K), that can be allocated by CSM.

*maxfix* is the maximum amount of fixed storage, in megabytes (M) or kilobytes (K), that can be allocated by CSM.

### IVT5595I

*maxhvcomm* is the maximum amount of high virtual common (HVCOMM) storage above the 2 GB address bar, in megabytes (M), that can be allocated by CSM.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IVT5518I****CSM LIMITS AFTER MODIFY CSM PROCESSING:**

---

## Explanation

CSM issues this message as part of a message group. See IVT5517I for a complete description.

## Routing code

2

### Descriptor code

5

**IVT5519I** **ECSA MAXIMUM = *maxecsa* FIXED MAXIMUM = *maxfix***

### Explanation

CSM issues this message as part of a message group. See IVT5517I for a complete description.

## Routing code

2

### Descriptor code

5

IVT5520I OWNERID VALUE NOT VALID

### Explanation

This message is issued when a DISPLAY CSM command is issued with an OWNERID that is not a valid address space identifier (ASID).

### System action

VTAM rejects the command. Other processing continues.

## Operator response

Issue a display of all active jobs to obtain a list of valid ASIDs.

## System programmer response

None.

## Routing code

2

### Descriptor code

5

**IVT5521I NO CSM STORAGE IS CURRENTLY ALLOCATED TO OWNERID *asid***

### Explanation

This message is issued for a DISPLAY CSM command with OWNERID specified.

If *asid* is the name of a valid address space, the ASID exists, but does not have any storage allocated from the communications storage manager (CSM).

If *asid* is ALL, there is no CSM storage allocated to any address space.

## System action

Processing continues.

## Operator response

To determine the ASID that has storage allocated in CSM, reissue the `DISPLAY CSM` command and specify `OWNERID=ALL`.

## System programmer response

None.

## Routing code

2

### Descriptor code

5

**IVT5529I                      PROCESSING DISPLAY CSM COMMAND - OWNERID NOT SPECIFIED**

### Explanation

This message is the first in a group of messages that CSM issues in response to a **DISPLAY CSM** command when OWNERID is not specified. A complete description of the message group follows.

PROCESSING DISPLAY CSM COMMAND - OWNERID NOT SPECIFIED										
IVT5530I	BUFFER	BUFFER								
IVT5531I	SIZE	SOURCE					INUSE	FREE	TOTAL	
IVT5532I	-----									
IVT5533I	4K	ECSA					8K	248K	256K	
IVT5533I	16K	ECSA					32K	224K	256K	
IVT5533I	32K	ECSA					64K	448K	512K	
IVT5533I	60K	ECSA					120K	840K	960K	
IVT5533I	180K	ECSA					360K	2520K	2880K	
IVT5535I	TOTAL	ECSA					584K	4280K	4864K	
IVT5532I	-----									
IVT5533I	4K	DATA SPACE	31					8K	248K	256K
IVT5533I	16K	DATA SPACE	31					32K	224K	256K
IVT5533I	32K	DATA SPACE	31					64K	448K	512K
IVT5533I	60K	DATA SPACE	31					120K	840K	960K
IVT5533I	180K	DATA SPACE	31					360K	2520K	2880K
IVT5535I	TOTAL	DATA SPACE	31					584K	4280K	4864K
IVT5532I	-----									
IVT5533I	4K	DATA SPACE	64					8K	248K	256K
IVT5533I	16K	DATA SPACE	64					32K	224K	256K
IVT5533I	32K	DATA SPACE	64					64K	448K	512K
IVT5533I	60K	DATA SPACE	64					120K	840K	960K
IVT5533I	180K	DATA SPACE	64					360K	2520K	2880K
IVT5535I	TOTAL	DATA SPACE	64					584K	4280K	4864K
IVT5532I	-----									
IVT5535I	TOTAL	DATA SPACE					1168K	8560K	9728K	
IVT5532I	-----									
IVT5533I	4K	HVCOMM					8K	1016K	1M	
IVT5533I	16K	HVCOMM					32K	992K	1M	
IVT5533I	32K	HVCOMM					64K	960K	1M	
IVT5533I	60K	HVCOMM					120K	900K	1020K	
IVT5533I	180K	HVCOMM					360K	540K	900K	
IVT5535I	TOTAL	HVCOMM					584K	4408K	4992K	
IVT5532I	-----									
IVT5536I	TOTAL	ALL SOURCES					2336K	17248K	19584K	
IVT5538I	FIXED	MAXIMUM =	2048M	FIXED	CURRENT =	3089K				
IVT5541I	FIXED	MAXIMUM USED =	3089K				SINCE LAST DISPLAY CSM			
IVT5594I	FIXED	MAXIMUM USED =	3089K				SINCE IPL			
IVT5539I	ECSA	MAXIMUM =	100M	ECSA	CURRENT =	5071K				
IVT5541I	ECSA	MAXIMUM USED =	5071K				SINCE LAST DISPLAY CSM			
IVT5594I	ECSA	MAXIMUM USED =	5071K				SINCE IPL			
IVT5604I	HVCOMM	MAXIMUM =	1000M	HVCOMM	CURRENT =	8M				
IVT5541I	HVCOMM	MAXIMUM USED =	8M				SINCE LAST DISPLAY CSM			

```
IVT5594I HVCOMM MAXIMUM USED =      8M SINCE IPL
IVT5559I CSM DATA SPACE 1 NAME: CSM64001
IVT5559I CSM DATA SPACE 2 NAME: CSM31002
IVT5599I END
```

**Note:** To determine the actual number of buffers in use for a pool, divide *curused* by *bufsiz*.

#### **IVT5529I**

The message group that follows this message displays storage information for every possible combination of CSM buffer size and buffer source.

#### **IVT5530I and IVT5531I**

These messages are header messages for the information displayed in the messages that follow these messages.

#### **IVT5533I**

This message displays information about a CSM pool.

*bufsiz* is the size of the buffers in the pool. The values for *bufsiz* are 4K, 16K, 32K, 60K, and 180K.

*bufsource* is the storage source from which buffers are allocated. The values for *bufsource* are:

#### **ECSA**

Buffers are allocated from ECSA storage.

#### **DATA SPACE 31**

Buffers are allocated from 31-bit backed data space storage.

#### **DATA SPACE 64**

Buffers are allocated from 64-bit backed data space storage.

#### **HVCOMM**

Buffers are allocated from 64-bit common storage.

*curused* is the amount of storage in the pool that is currently being used. The value is expressed in either megabytes (M) or kilobytes (K).

**Note:** When a problem with a pool extent is detected, this value might include buffer storage that is not actually allocated to a CSM user. The buffer storage in the extent can not be allocated to a CSM user.

*curfree* is the amount of storage in the pool that is not being used. The value is expressed in either megabytes (M) or kilobytes (K).

*curtotal* is the total amount of storage allocated for the pool. The value is expressed in either megabytes (M) or kilobytes (K).

#### **IVT5534I**

This message is displayed only when the pool represented by *bufsiz* and *bufsource* has not been created.

#### **IVT5535I**

This message displays the total storage allocated for all CSM pools of a particular buffer source.

*bufsource* is the storage source from which buffers are allocated. The values for *bufsource* are **ECSA**, **DATA SPACE 31**, **DATA SPACE 64**, and **HVCOMM**.

*totused* is the total amount of storage that is currently being used for *bufsource*.

*totfree* is the total amount of storage that is not being used for *bufsource*.

*totstor* is the total amount of storage allocated for all of the CSM *bufsource* pools.

#### **IVT5536I**

This message displays information about all storage allocated for the CSM Pools.

*totused* is the total amount of CSM storage that is currently being used.

*totfree* is the total amount of CSM storage that is not being used.

*totstor* is the total amount of storage allocated for the CSM pools.

#### **IVT5538I**

*maxfix* is the maximum amount of fixed storage that can be allocated by CSM.

*curfix* is the current amount of fixed storage allocated by CSM.

#### **IVT5539I**

*maxecsa* is the maximum amount of ECSA storage that can be allocated by CSM.

*curecsa* is the current amount of ECSA storage allocated by CSM.

#### **IVT5604I**

*maxhvcomm* is the maximum amount of 64-bit common storage that can be allocated by CSM.

*curhvcomm* is the current amount of 64-bit common storage that is allocated by CSM.

#### **IVT5541I**

*storage\_type* can be one of the following:

##### **ECSA**

Common Storage Area.

##### **FIXED**

Page Fixed Storage includes ECSA and 31-bit and 64-bit backed Data Space.

##### **HVCOMM**

64-bit common storage.

*storage\_value* is the maximum amount of storage in use since the last time a **Display CSM** command was issued with OWNERID not specified.

#### **IVT5559I**

This message is displayed for each CSM data space that exists. CSM can create up to five data spaces.

*n* is CSM data space number.

*datspname* is CSM data space name.

#### **IVT5594I**

*storage\_type* can be one of the following:

##### **ECSA**

Extended Common Storage Area.

##### **FIXED**

Page Fixed Storage includes ECSA and 31-bit and 64-bit backed Data Space.

##### **HVCOMM**

64-bit common storage.

*max\_storage* is the maximum amount of storage in use since the last IPL.

### **System action**

Processing continues.

### **Operator response**

None.

### **System programmer response**

None.



**Routing code**

2

**Descriptor code**

5

---

<b>IVT5530I</b>	<b>BUFFER BUFFER</b>
-----------------	----------------------

---

**Explanation**

CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IVT5531I</b>	<b>SIZE SOURCE INUSE FREE TOTAL</b>
-----------------	-------------------------------------

---

**Explanation**

CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IVT5532I</b>	-----
-----------------	-------

---

**Explanation**

This message is a line separator and is part of several different message groups. It is used to improve readability or to separate types of information. See the explanation of the first message in the group for an example of how this message is used in each group.

**Routing code**

2

**Descriptor code**

5

---

<b>IVT5533I</b>	<i>bufsiz bufsource curused curfree curttotal</i>
-----------------	---

---

**Explanation**

CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IVT5534I** *bufsiz bufsource* **POOL DOES NOT EXIST**

---

## Explanation

CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IVT5535I** *TOTAL bufsource totused totfree totstor*

---

## Explanation

CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IVT5536I** *TOTAL ALL SOURCES totused totfree totstor*

---

## Explanation

CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IVT5538I** *FIXED MAXIMUM = maxfix* **FIXED CURRENT = curfix**

---

## Explanation

CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IVT5539I** ECSA MAXIMUM = *maxecsa* ECSA CURRENT = *curecsa*

## Explanation

CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IVT5541I** *storage\_type* MAXIMUM USED *max\_storage* SINCE LAST DISPLAY CSM

## Explanation

CSM issues this message as part of a message group in response to a **DISPLAY CSM** command when OWNERID is not specified. The first message in the group is IVT5529I. See the explanation of [IVT5529I](#) for a complete description.

## Routing code

2

## Descriptor code

5

---

**IVT5549I** PROCESSING DISPLAY CSM COMMAND - OWNERID SPECIFIED

## Explanation

This message is the first in a group of messages that CSM issues in response to a **DISPLAY CSM** command when OWNERID is specified. A complete description of the message group follows.

```
IVT5508I DISPLAY ACCEPTED
IVT5549I PROCESSING DISPLAY CSM COMMAND - OWNERID SPECIFIED
IVT5530I BUFFER BUFFER
IVT5551I SIZE      SOURCE                STORAGE ALLOCATED TO OWNER
IVT5532I -----
IVT5553I      4K  ECSA                    256K
IVT5554I TOTAL  ECSA                    256K
IVT5532I -----
IVT5553I      4K  DATA SPACE 64          128K
IVT5554I TOTAL  DATA SPACE 64          128K
IVT5532I -----
IVT5554I TOTAL  DATA SPACE              128K
IVT5532I -----
IVT5556I TOTAL  FOR OWNERID              384K
IVT5557I OWNERID: ASID = 01F6  JOBNAME = VTAMAPPL
IVT5599I END
```

**IVT5549I**

This message group displays information about CSM buffers and storage that belong to the OWNERID.

#### **IVT5530I and IVT5551I**

These messages are header messages for the information displayed in the messages that follow these messages.

#### **IVT5553I**

This message displays information about storage allocated to the OWNERID from a CSM buffer pool.

*bufsiz* is the size of the buffers in the pool. The values for *bufsiz* are 4K, 16K, 32K, 60K, and 180K.

*bufsource* is the storage source from which buffers are allocated. The values for *bufsource* are:

#### **ECSA**

buffers are allocated from ECSA storage.

#### **DATA SPACE 31**

buffers are allocated from 31-bit backed data space storage.

#### **DATA SPACE 64**

buffers are allocated from 64-bit backed data space storage.

#### **HVCOMM**

Buffers are allocated from 64-bit common storage.

*totstor* is the total amount of CSM storage in the pool that has been allocated to the ASID. The value is expressed in either megabytes (M) or kilobytes (K).

#### **IVT5554I**

This message displays information about all the CSM storage allocated to the ASID for *bufsource*.

*bufsource* is the storage source from which buffers are allocated. The values for *bufsource* are **ECSA**, **DATA SPACE 31**, **DATA SPACE 64**, and **HVCOMM**.

*totstor* is the total amount of storage allocated to this ASID for *bufsource*. The value is expressed in either megabytes (M) or kilobytes (K).

#### **IVT5556I**

*totstor* is the total amount of CSM storage allocated to the ASID. The value is expressed in either megabytes (M) or kilobytes (K).

**Note:** The sum of the total of the storage allocated to all users of a pool might be greater than the total amount of storage allocated from the pool. This is due to multiple owners of a buffer resulting from the creation of shared instances using IVTCSM ASSIGN\_BUFFER request. The information by OWNERID indicates the amount of storage that must be freed by the user to enable the storage to be returned to the buffer pool.

#### **IVT5557I**

*asid* is the address space identifier (ASID) of the owner of the CSM storage, as specified on the OWNERID operand of the **DISPLAY CSM** command or on an IVTCSM GET\_BUFFER, ASSIGN\_BUFFER or CHANGE\_OWNER request.

*jobname* is the name of the job associated with the ASID. If *jobname* cannot be determined, this field contains **\*\*\*NA\*\*\***.

### **System action**

Processing continues.

### **Operator response**

None.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

<b>IVT5551I</b>	<b>SIZE SOURCE STORAGE ALLOCATED TO OWNER</b>
-----------------	---

---

**Explanation**

CSM issues this message as part of a message group. The first message in the group is IVT5549I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IVT5553I</b>	<b><i>bufsiz bufsource totstor</i></b>
-----------------	--

---

**Explanation**

CSM issues this message as part of a message group. The first message in the group is IVT5549I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IVT5554I</b>	<b>TOTAL <i>bufsource totstor</i></b>
-----------------	---------------------------------------

---

**Explanation**

CSM issues this message as part of a message group. The first message in the group is IVT5549I. See the explanation of that message for a complete description.

**Routing code**

2

**Descriptor code**

5

---

<b>IVT5556I</b>	<b>TOTAL FOR OWNERID <i>totstor</i></b>
-----------------	---

---

## Explanation

CSM issues this message as part of a message group. The first message in the group is IVT5549I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IVT5557I** **OWNERID: ASID = *asid* JOBNAME = *jobname***

## Explanation

CSM issues this message as part of a message group. The first message in the group is IVT5549I. See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

**IVT5558I** ***bufsiz bufsource* UNABLE TO DETERMINE BUFFER VALUES**

## Explanation

This message is displayed only when CSM detects a problem in a pool which prevents information about the buffer from being determined.

## Routing code

2

## Descriptor code

5

---

**IVT5559I** **CSM DATA SPACE *n* NAME: *datspname***

## Explanation

CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

## System action

None.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IVT5560I****CSM ECSA STORAGE LIMIT EXCEEDED**

---

## Explanation

A CSM request for storage from extended common service area (ECSA) storage could not be satisfied. It would exceed the CSM ECSA storage limit value.

## System action

The action depends on why the requested storage was needed. Other messages might follow identifying the effect this storage condition has on CSM and its applications. Subsequent requests for CSM storage might fail.

## Operator response

Issue the DISPLAY CSM command without the OWNERID operand to determine current storage limits and usage. Issue a DISPLAY CSM command with OWNERID=ALL to determine how much storage is in use by each application. Save the system log and request a dump for problem determination.

## System programmer response

Verify the ECSA storage limit value is correct. Increase storage as required using a MODIFY CSM command.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY CSM and MODIFY CSM commands.

See [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps.

## Routing code

2

## Descriptor code

5

---

**IVT5561I****CSM FIXED STORAGE LIMIT EXCEEDED**

---

## Explanation

A CSM request for storage from the fixed (REAL) storage could not be satisfied. It would exceed the CSM FIXED storage limit value.

## System action

The action depends on how much storage is available for subsequent requests for storage. Other messages might follow identifying the effect this storage condition has on CSM and its applications. Subsequent requests for CSM storage might fail.

## Operator response

Issue the DISPLAY CSM command without the OWNERID operand to determine current storage limits and usage. Issue a DISPLAY CSM command with OWNERID=ALL to determine how much storage is in use by each application. Save the system log and request a dump for problem determination.

## System programmer response

Verify the FIXED storage limit value is correct. Increase storage as required using a MODIFY CSM command.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY CSM and MODIFY CSM commands.

See [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps.

## Routing code

2

## Descriptor code

5

---

IVT5562I	CSM ECSA STORAGE AT CRITICAL LEVEL
----------	------------------------------------

## Explanation

This message is issued when CSM ECSA storage usage is at or higher than the CSM ECSA critical value (90% of CSM ECSA storage limit value).

## System action

Processing continues. Subsequent requests for CSM storage might fail.

## Operator response

Issue the DISPLAY CSM command without the OWNERID operand to determine current storage limits and usage. Issue a DISPLAY CSM command with OWNERID=ALL to determine how much storage is in use by each application. Save the system log for problem determination.

## System programmer response

Verify the ECSA storage limit value is correct. Increase storage as required using a MODIFY CSM command.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY CSM and MODIFY CSM commands.

## Routing code

2

## Descriptor code

5

---

IVT5563I	CSM FIXED STORAGE AT CRITICAL LEVEL
----------	-------------------------------------



## Explanation

This message is issued when CSM fixed storage usage is at or higher than the CSM fixed critical value (90% of CSM fixed storage limit value).

## System action

Processing continues. Subsequent requests for storage might fail.

## Operator response

Issue the DISPLAY CSM command without the OWNERID operand to determine current storage limits and usage. Issue a DISPLAY CSM command with OWNERID=ALL to determine how much storage is in use by each application. Save the system log for problem determination.

## System programmer response

Verify the fixed storage limit value is correct. Increase storage as required using a MODIFY CSM command.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY CSM and MODIFY CSM commands.

## Routing code

2

## Descriptor code

5

---

**IVT5564I****CSM ECSA STORAGE SHORTAGE RELIEVED**

## Explanation

This message is issued when CSM ECSA storage usage has returned back to normal level (at or below 80% of ECSA storage limit value).

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IVT5565I****CSM FIXED STORAGE SHORTAGE RELIEVED**

## Explanation

This message is issued when CSM fixed storage usage has returned to normal level (at or below 80% of fixed storage limit value).

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IVT5566I CSM MONITOR IS ACTIVE**

## Explanation

CSM issues this message in response to the MODIFY CSM,MONITOR=YES and DISPLAY CSM,MONITOR commands.

When the MODIFY CSM,MONITOR command is issued, this message indicates that CSM has successfully started the CSM monitoring of the CSM buffer storage.

When the DISPLAY CSM,MONITOR command is issued, this message indicates that CSM monitoring of the CSM buffer storage is already in progress.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IVT5567I CSM MONITOR IS NOT ACTIVE**

## Explanation

CSM issues this message in response to the MODIFY CSM,MONITOR=NO and DISPLAY CSM,MONITOR commands.

When the MODIFY CSM,MONITOR=NO command is issued, this message indicates that CSM has successfully ended the CSM monitoring of the CSM buffer storage.

When the DISPLAY CSM,MONITOR command is issued, this message indicates that CSM monitoring of the CSM buffer storage is not in progress.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IVT5568I****MONITOR PARAMETER VALUE IS NOT VALID**

## Explanation

This message is issued when the MONITOR value of a MODIFY CSM command is not valid. The correct values for MONITOR are YES, NO or DYNAMIC. CSM MONITOR status is not changed.

## System action

Processing continues.

## Operator response

Reenter the command with the correct value. See [z/OS Communications Server: SNA Operation](#) for the correct command syntax.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IVT5569I****CSM MONITOR IS DYNAMIC AND CURRENTLY ACTIVE**

## Explanation

CSM issues this message in response to the MODIFY CSM,MONITOR=DYNAMIC and DISPLAY CSM,MONITOR commands.

When the MODIFY CSM,MONITOR=DYNAMIC command is issued, this message indicates that CSM has successfully processed the command. The status is dynamic and CSM is monitoring the CSM buffer storage.

When the DISPLAY CSM,MONITOR command is issued, this message indicates that CSM monitoring of the CSM buffer storage is dynamic and CSM is monitoring the CSM buffer storage.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IVT5570I****CSM MONITOR IS DYNAMIC AND CURRENTLY NOT ACTIVE**

## Explanation

CSM issues this message in response to the MODIFY CSM,MONITOR=DYNAMIC and DISPLAY CSM,MONITOR commands.

When the MODIFY CSM,MONITOR=DYNAMIC command is issued, this message indicates that CSM has successfully processed the command. The status is dynamic and CSM is not monitoring the CSM buffer storage.

When the DISPLAY CSM,MONITOR command is issued, it indicates that CSM monitoring of the CSM buffer storage is dynamic and CSM is not monitoring the CSM buffer storage.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## 5

2

## 5

- This message displays summary information about a CSM storage pool. This is the first message of a subgroup of messages issued for each CSM storage pool. The subgroup of messages starting from IVT5575I through IVT5578I are for one CSM storage pool.
- *poolname* is the CSM pool. CSM pool names are as follows:

**4KECSA**

4KB buffer size ECSA storage pool

**16KECSA**

16KB buffer size ECSA storage pool

**32KECSA**

32KB buffer size ECSA storage pool

**60KECSA**

60KB buffer size ECSA storage pool

**180KECSA**

180KB buffer size ECSA storage pool

**4KDS**

4KB buffer size data space storage pool

**16KDS**

16KB buffer size data space storage pool

**32KDS**

32KB buffer size data space storage pool

**60KDS**

60KB buffer size data space storage pool

**180KDS**

180KB buffer size data space storage pool

**4KDS64**

4KB buffer size data space backed by 64-bit real storage pool

**16KDS64**

16KB buffer size data space backed by 64-bit real storage pool

**32KDS64**

32KB buffer size data space backed by 64-bit real storage pool

**60KDS64**

60KB buffer size data space backed by 64-bit real storage pool

**180KDS64**

180KB buffer size data space backed by 64-bit real storage pool

**4KHCOM**

4 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

**16KHCOM**

16 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

**32KHCOM**

32 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

**60KHCOM**

60 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

**180KHCOM**

180 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

- *stoinuse* is the total amount of storage in use in the pool. The value is expressed in either megabytes (M) or kilobytes (K).

**IVT5576I**

This is the header message for the information displayed in the IVT5577I messages that follow.

**IVT5577I**

This message displays the users of CSM storage that have allocated the largest amount of the storage for a pool by monitor ID and OWNERID. The message can be repeated up to four times.

*amount* is the total amount of CSM storage allocated to the monitor ID and OWNERID. The value is expressed in either megabytes (M) or kilobytes (K).

*monitorid* is the identifier of the component of z/OS Communications Server using the CSM buffer storage. It can be used by z/OS Communications Server service to diagnose CSM storage problems. The monitor function of CSM allows the operator to track the CSM buffer storage. If the CSM buffer is used by z/OS Communications Server, it will also have an owning component in z/OS Communications Server. This is the unique identifier of the component. See the [z/OS Communications Server: IP and SNA Codes](#) for the complete description of Monitor IDs.

*ownerid* (OWNERID) is the owning address space identifier (ASID) for this CSM buffer storage and it is a hexadecimal value in the range of 0000 - 7FFF.

*jobname* is the name of the job associated with the OWNERID. If *jobname* cannot be determined, this field contains \*\*\*NA\*\*\*.

**IVT5578I**

This message displays the total amount of storage listed in the IVT5577I messages for one storage pool.

*poolname* is the CSM pool. The CSM pool names are listed under the message IVT5575I.

*number* is the number of users using CSM storage displayed by the IVT5577I messages.

*totamount* is the sum of *amount* displayed in the IVT5577I messages issued with this group.

### System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

### Descriptor code

5

**IVT5573I                      PROCESSING DISPLAY CSMUSE COMMAND - OWNERID SPECIFIED**

### Explanation

This message is the first in a group of messages that CSM issues in response to a **DISPLAY CSMUSE** command when OWNERID is specified. A complete description of the message group follows the example.

```

IVT5573I  PROCESSING DISPLAY CSMUSE COMMAND - OWNERID SPECIFIED
IVT5557I  OWNERID: ASID = 01F6  JOBNAME = TCPCS1
IVT5532I  -----
IVT5575I  USAGE SUMMARY - poolname POOL TOTAL (ALL USERS) = stoinuse
IVT5576I  AMOUNT  MONITOR ID  OWNERID      JOBNAME
IVT5577I  amount  monitorid   ownerid      jobname
:
IVT5589I  DISPLAY TOTAL FOR poolname POOL FOR THIS OWNERID = totamount
IVT5532I  -----
:
IVT5599I  END

```

The messages starting from IVT5575I through IVT5578I are for one CSM storage pool. These messages can repeat up to 19 more times to include all CSM pools.

#### **IVT5532I**

This message is a line separator.

#### **IVT5557I**

*asid* is the address space identifier (ASID) of the owner of the CSM storage, as specified on the OWNERID operand of the **DISPLAY CSMUSE** command. *asid* is a hexadecimal value with a range of 0000 - 7FFF.

*jobname* is the name of the job associated with the OWNERID. If *jobname* cannot be determined, this field contains \*\*\*NA\*\*\*.

#### **IVT5573I**

This message is issued when the display CSMUSE command is issued with the OWNERID operand. The message group that follows this message displays the storage usage summary, by monitor ID and OWNERID, of all buffers in use for one or more CSM storage pools. This message is a header message for a summary of CSM storage usage for one or more storage pools that have buffers in use. The summary information shows storage usage by monitor ID for the OWNERID specified on the **DISPLAY CSMUSE** command.

#### **IVT5575I**

- This message displays summary information about a CSM storage pool. This is the first message of a subgroup of messages issued for each CSM storage pool. The subgroup of messages starting from IVT5575I through IVT5578I are for one CSM storage pool.
- *poolname* is the CSM pool. CSM pool names are as follows:

##### **4KECSA**

4KB buffer size ECSA storage pool

##### **16KECSA**

16KB buffer size ECSA storage pool

##### **32KECSA**

32KB buffer size ECSA storage pool

##### **60KECSA**

60KB buffer size ECSA storage pool

##### **180KECSA**

180KB buffer size ECSA storage pool

##### **4KDS**

4KB buffer size data space storage pool

##### **16KDS**

16KB buffer size data space storage pool

##### **32KDS**

32KB buffer size data space storage pool

##### **60KDS**

60KB buffer size data space storage pool

##### **180KDS**

180KB buffer size data space storage pool

##### **4KDS64**

4KB buffer size data space backed by 64-bit real storage pool

##### **16KDS64**

16KB buffer size data space backed by 64-bit real storage pool

##### **32KDS64**

32KB buffer size data space backed by 64-bit real storage pool

##### **60KDS64**

60KB buffer size data space backed by 64-bit real storage pool



**180KDS64**

180KB buffer size data space backed by 64-bit real storage pool

**4KHCOM**

4 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

**16KHCOM**

16 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

**32KHCOM**

32 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

**60KHCOM**

60 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

**180KHCOM**

180 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

- *stoinuse* is the total amount of storage in use in the pool. The value is expressed in either megabytes (M) or kilobytes (K).

**IVT5576I**

This is the header message for the information displayed in the IVT5577I messages that follow.

**IVT5577I**

This message displays the users of CSM storage that have allocated the largest amount of the storage for a pool by monitor ID and OWNERID. The message can be repeated up to four times.

*amount* is the total amount of CSM storage allocated to the monitor ID and OWNERID. The value is expressed in either megabytes (M) or kilobytes (K).

*monitorid* is the identifier of the component of z/OS Communications Server using the CSM buffer storage.

It can be used by z/OS Communications Server service to diagnose CSM storage problems. The monitor function of CSM allows the operator to track the CSM buffer storage. If the CSM buffer is used by z/OS Communications Server, it will also have an owning component in z/OS Communications Server. This is the unique identifier of the component. See the [z/OS Communications Server: IP and SNA Codes](#) for a complete description of Monitor IDs.

*ownerid* (OWNERID) is the owning address space identifier (ASID) for this CSM buffer storage and it is a hexadecimal value in the range of 0000 - 7FFF.

*jobname* is the name of the job associated with the OWNERID. If *jobname* cannot be determined, this field contains \*\*\*NA\*\*\*.

**IVT5589I**

This message displays the total amount of storage listed in the IVT5577I messages for one storage pool.

*poolname* is the CSM pool. The CSM pool names are listed under the message IVT5575I.

*totamount* is the sum of *amount* displayed in the IVT5577I messages issued with this group.

**System action**

Processing continues.

**Operator response**

None.

**System programmer response**

None.

**Routing code**

2

## Descriptor code

5

---

### IVT5574I PROCESSING DISPLAY CSMUSE COMMAND - POOL SPECIFIED

#### Explanation

This message is the first in a group of messages that CSM issues in response to a **DISPLAY CSMUSE** command when POOL is specified. A complete description of the message group follows.

```
IVT5574I PROCESSING DISPLAY CSMUSE COMMAND - POOL SPECIFIED
IVT5532I -----
IVT5584I USAGE DETAILS - poolname POOL - POOL TOTAL = stoinuse
IVT5532I -----
IVT5576I AMOUNT MONITOR ID OWNERID JOBNAME
IVT5577I amount monitorid ownerid jobname
IVT5579I BUFFER USE FOR mid: USECNT USERDATA MONITOR HISTORY
IVT5580I usecount userdata monitor history
:
IVT5532I -----
:
IVT5585I DETAIL TOTAL FOR poolname POOL = totamount
IVT5599I END
```

The messages starting from IVT5576I through IVT5580I are for one CSM monitor ID. These messages can repeat up to 3 more times to include up to four CSM Monitor IDs.

#### IVT5532I

This message is a line separator.

#### IVT5574I

This message is issued when the **DISPLAY CSMUSE** command is entered with the POOL operand. The message group that follows this message displays storage usage summary of all buffers in use for the user-specified pool with the buffers in use by monitor ID and OWNERID. This message is a header message for a detailed display of CSM storage usage for the CSM storage pool specified by the POOL operand of the **Display CSMUSE** command. It displays the user data value and history of the monitor ID.

#### IVT5576I

This is the header message for the information displayed in the IVT5577I messages that follow.

#### IVT5577I

This message displays the users of CSM storage, by monitor ID and OWNERID, that have allocated the largest amount of storage for a pool. The message can be repeated up to four times.

*amount* is the total amount of CSM storage allocated to the monitor ID and OWNERID. The value is expressed in either megabytes (M) or kilobytes (K).

*monitorid* is the identifier of the component of z/OS Communications Server using the CSM buffer storage. It can be used by z/OS Communications Server service to diagnose CSM storage problems. The monitor function of CSM allows the operator to track the CSM buffer storage. If the CSM buffer is used by z/OS Communications Server, it will also have an owning component in z/OS Communications Server. This is the unique identifier of the component. See the [z/OS Communications Server: IP and SNA Codes](#) for the complete description of Monitor IDs.

*ownerid* (OWNERID) is the owning address space identifier (ASID) for this CSM buffer storage and it is a hexadecimal value in the range of 0000 - 7FFF.

*jobname* is the name of the job associated with the OWNERID. If jobname cannot be determined, this field contains \*\*\*NA\*\*\*.

#### IVT5579I

This is the header message for the detail information displayed in the IVT5580I messages that follow.

*mid* is the current monitor ID of the buffers with the user data fields and monitor history displayed in the messages that follow.

## IVT5580I

This message displays the detailed user information and monitor ID history for a buffer in a CSM storage pool. It can be repeated up to four times.

*usecount* is the number of primary buffers plus the images of buffers associated with the displayed user data field and monitor ID history for the monitor ID specified in the preceding IVT5579I message.

*userdata* is the user data field associated with this buffer by the monitor identified by the monitor ID specified in the preceding IVT5579I message. The user data field allows IBM service to correlate the current usage and history to a specific resource, such as a device, connection, route, and so on. This is a hexadecimal value.

*monitorhistory* is a word containing the monitor ID history for a buffer in CSM storage. The first 3 bytes are the previous monitor IDs and the last byte is the current monitor ID. This is a hexadecimal value.

## IVT5584I

- This message displays detail information about a CSM storage pool.
- *poolname* is the CSM pool. CSM pool names are as follows:

### **4KECSA**

4KB buffer size ECSA storage pool

### **16KECSA**

16KB buffer size ECSA storage pool

### **32KECSA**

32KB buffer size ECSA storage pool

### **60KECSA**

60KB buffer size ECSA storage pool

### **180KECSA**

180KB buffer size ECSA storage pool

### **4KDS**

4KB buffer size data space storage pool

### **16KDS**

16KB buffer size data space storage pool

### **32KDS**

32KB buffer size data space storage pool

### **60KDS**

60KB buffer size data space storage pool

### **180KDS**

180KB buffer size data space storage pool

### **4KDS64**

4KB buffer size data space backed by 64-bit real storage pool

### **16KDS64**

16KB buffer size data space backed by 64-bit real storage pool

### **32KDS64**

32KB buffer size data space backed by 64-bit real storage pool

### **60KDS64**

60KB buffer size data space backed by 64-bit real storage pool

### **180KDS64**

180KB buffer size data space backed by 64-bit real storage pool

### **4KHCOM**

4 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

### **16KHCOM**

16 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

### 32KHCOM

32 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

### 60KHCOM

60 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

### 180KHCOM

180 KB buffer size 64-bit high virtual common (HVCOMM) storage pool

- *stoinuse* is the total amount of storage in use in the pool. The value is expressed in either megabytes (M) or kilobytes (K).

### IVT5585I

This message displays the total amount of storage listed in the IVT5577I messages for the storage pool.  
*poolname* is the CSM pool. The CSM pool names are listed under the message IVT5575I.  
*totamount* is the total of the amount of storage displayed by all IVT5577I messages of the pool.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IVT5575I	USAGE SUMMARY - <i>poolname</i> POOL TOTAL (ALL USERS) = <i>stoinuse</i>
----------	--

## Explanation

CSM issues this message as part of several message groups in response to a DISPLAY CSMUSE command. See IVT5572I or IVT5573I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

IVT5576I	AMOUNT MONITOR ID OWNERID JOBNAME
----------	-----------------------------------

## Explanation

CSM issues this message as part of a message group in response to a DISPLAY CSMUSE command. See IVT5572I, IVT5573I or IVT5574I for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IVT5577I** *amount monitorid ownerid jobname*

**Explanation**

CSM issues this message as part of a message group in response to a DISPLAY CSMUSE command. See IVT5572I, IVT5573I or IVT5574I for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IVT5578I** **DISPLAY TOTAL FOR *poolname* POOL (*number USERS*) = *totamount***

**Explanation**

CSM issues this message as part of a message group in response to a DISPLAY CSMUSE command. See IVT5572I for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IVT5579I** **BUFFER USE FOR *mid* : USECNT USERDATA MONITOR HISTORY**

**Explanation**

CSM issues this message as part of a message group in response to a DISPLAY CSMUSE command. See the explanation of message IVT5574I for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IVT5580I** *usecount userdata monitorhistory*

**Explanation**

CSM issues this message as part of a message group in response to a DISPLAY CSMUSE command. See the explanation of message IVT5574I for a complete description.

**Routing code**

2

**Descriptor code**

5

---

**IVT5581I** **POOL NAME NOT VALID****Explanation**

This message is issued when a DISPLAY CSMUSE command is entered with a poolname on the POOL operand that is not a valid CSM pool name.

**System action**

CSM rejects the command. Other processing continues.

**Operator response**

Reenter the command with a valid pool name. See the [z/OS Communications Server: SNA Operation](#) for valid pool names.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

---

**IVT5582I** **DISPLAY CSMUSE COMMAND SYNTAX NOT VALID****Explanation**

The DISPLAY CSMUSE command failed because one or more of its operands are specified incorrectly.

**System action**

CSM rejects the DISPLAY CSMUSE command. Other processing continues.

**Operator response**

Reenter the command with the correct syntax. See the [z/OS Communications Server: SNA Operation](#) for the correct command syntax.

**System programmer response**

None.

**Routing code**

2

## Descriptor code

5

---

**IVT5583I** NO CSM STORAGE IS CURRENTLY IN USE FOR POOL *poolname*

---

## Explanation

This message is issued for a DISPLAY CSMUSE command with POOL specified.

The specified CSM pool *poolname* does not have any storage allocated to any user.

*poolname* is the CSM storage pool.

## System action

Processing continues.

## Operator response

To determine the storage allocated to all CSM pools, issue the DISPLAY CSMUSE command without the POOL operand.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IVT5584I** USAGE DETAILS - *poolname* POOL - POOL TOTAL = *stoinuse*

---

## Explanation

CSM issues this message as part of a message group in response to a DISPLAY CSMUSE command. See IVT5574I for a complete description of the message group.

## Routing code

2

## Descriptor code

5

---

**IVT5585I** DETAIL TOTAL FOR *poolname* POOL = *totamount*

---

## Explanation

CSM issues this message a part of a message group in response to a DISPLAY CSMUSE command. See IVT5574I for a complete description.

## Routing code

2

## Descriptor code

5

---

IVT5586I

DISPLAY CSMUSE SYNTAX NOT VALID - DUPLICATE OPERAND

---

## Explanation

The DISPLAY CSMUSE command failed because one of the operands is specified twice.

## System action

CSM rejects the DISPLAY CSMUSE command. Other processing continues.

## Operator response

Reenter the command with the correct syntax. See the [z/OS Communications Server: SNA Operation](#) for the correct command syntax.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

IVT5587I

*parameter* NOT VALID ON DISPLAY CSMUSE COMMAND

---

## Explanation

CSM issues this message when *parameter* was specified on the DISPLAY CSMUSE command and it is not valid. *parameter* is the operand specified on the DISPLAY CSMUSE command.

## System action

CSM rejects the DISPLAY CSMUSE command. Other processing continues.

## Operator response

Reenter the command with the correct syntax. See the [z/OS Communications Server: SNA Operation](#) for the correct command syntax.

## System programmer response

None.

## Routing code

2

## Descriptor code

5



**Explanation**

This message is issued for a DISPLAY CSMUSE command without any operands. CSM storage is not used by any users in the system.

**System action**

Processing continues.

**Operator response**

To determine the storage allocated to all CSM pools, issue the DISPLAY CSM command without any operands.

**System programmer response**

None.

**Routing code**

2

**Descriptor code**

5

**Explanation**

CSM issues this message as part of a message group in response to a DISPLAY CSMUSE command when OWNERID is specified. See IVT5573I for a complete description.

**Routing code**

2

**Descriptor code**

5

**Explanation**

This message is issued if the MAX ECSA value from the CSM PARMLIB member IVTPRM00 is higher than 90% of the system ECSA value or the MAX ECSA value specified on the MODIFY CSM command is higher than 90% of the SYSTEM ECSA value during the following:

- CSM initialization.
- MODIFY CSM command processing.
- DISPLAY CSM command processing.

**System action**

Processing continues.

## Operator response

If the adjusted MAX ECSA value is not acceptable, change the system ECSA value. See the CSA system parameter information [z/OS MVS Initialization and Tuning Reference](#) for more information about updating the value of system CSA.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server CSM

## Module

Not applicable.

## Routing code

2

## Descriptor code

6

## Example

Not applicable.

---

**IVT5591I****CSM ECSA STORAGE AT CONSTRAINED LEVEL**

## Explanation

This message is issued when CSM ECSA storage usage is approaching the CSM ECSA constrained level (85% of CSM ECSA storage limit value) and it is above 80% of CSM ECSA storage limit value. CSM ECSA storage usage might reach the critical level.

## System action

Processing continues. Subsequent requests for CSM storage might fail if the current storage growth rate continues.

## Operator response

Issue the DISPLAY CSM command without the OWNERID operand to determine current storage limits and usage. Issue a DISPLAY CSM command with OWNERID=ALL to determine how much storage is in use by each application. See the [DISPLAY CSM command](#) information in [z/OS Communications Server: SNA Operation](#) for more information.

Save the system log for problem determination.

## System programmer response

Verify that the ECSA storage limit value is correct. Increase storage as required using a MODIFY CSM command. See the [MODIFY CSM command](#) information in [z/OS Communications Server: SNA Operation](#) for more information.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

Not applicable.

## Module

Not applicable.

## Routing code

2

## Descriptor code

6

## Example

Not applicable.

---

**IVT5592I****CSM FIXED STORAGE AT CONSTRAINED LEVEL**

## Explanation

This message is issued when CSM fixed storage usage is approaching the CSM FIXED constrained level (85% of CSM FIXED storage limit value) and it is above 80% of the CSM FIXED storage limit value. CSM FIXED storage usage might reach the critical level.

## System action

Processing continues. Subsequent requests for CSM storage might fail if the current storage growth rate continues.

## Operator response

Issue the DISPLAY CSM command without the OWNERID operand to determine current storage limits and usage. Issue a DISPLAY CSM command with OWNERID=ALL to determine how much storage is in use by each application. See the [DISPLAY CSM command](#) information in [z/OS Communications Server: SNA Operation](#) for more information.

Save the system log for problem determination.

## System programmer response

Verify that the fixed storage limit value is correct. Increase storage as required using a MODIFY CSM command. See the [MODIFY CSM command](#) information in [z/OS Communications Server: SNA Operation](#) for more information.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server CSM

## Module

Not applicable.

## Routing code

2

## Descriptor code

6

## Example

Not applicable.

---

**IVT5593I****CSM CREATED AN ADDITIONAL DATA SPACE *dspname***

## Explanation

CSM creates a CSM64001 data space for 64-bit backed fixed data space storage and a CSM31002 data space for 31-bit backed fixed data space storage. There is not enough storage available in the existing data space. CSM creates another data space, *dspname*, and issues this message.

*dspname* is the name of the recently created data space.

## System action

Processing continues.

## Operator response

Issue the **DISPLAY CSM** command without the OWNERID operand to determine current storage limits and usage. Issue a **DISPLAY CSM** command with OWNERID=ALL to determine how much storage is in use by each application. If TCP/IP is available, issue the **D TCPIP,,STOR** command to determine its storage usage. Save the system log and request a dump of VTAM and TCP/IP address spaces and CSM data spaces for problem determination. Contact the system programmer.

**Note:** CSM data spaces are associated with the address space 1 (Master Scheduler).

See [DISPLAY CSM command](#) in [z/OS Communications Server: SNA Operation](#) for more information.

See [DISPLAY TCPIP,,STOR command](#) in [z/OS Communications Server: IP System Administrator's Commands](#) for more information.

## System programmer response

Look at the **Display CSM** command output and determine which application is using excessive data space storage including 64-bit or 31-bit back fixed data space storage. See the APARs II12657 and II12658 for VTAM and TCP/IP maintenance for CSM storage problems.

If external trace is active, see [Analyzing storage](#) in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information about analyzing storage by using the VIT analysis tool.

See [Internal and external trace recording](#) in [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for more information.

If TCP/IP indicates excessive CSM data space storage usage, see [Steps for reviewing a storage problem](#) in [z/OS Communications Server: IP Diagnosis Guide](#) for more information.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server CSM

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

6

## Automation

Automation can be written to complete the following operations when message IVT5593I is detected:

- Issue the **DISPLAY CSM** command without the OWNERID operand
- Issue the **DISPLAY CSM** command with OWNERID=ALL
- Issue the **D TCPIP,,STOR** command
- Request a dump

## Example

```
IVT5593I CSM CREATED AN ADDITIONAL DATA SPACE CSM64003
```

---

**IVT5594I****storage\_type MAXIMUM USED = max\_storage SINCE IPL**

## Explanation

CSM issues this message in response to a **DISPLAY CSM** command without OWNERID specified. The first message in the group is [IVT5529I](#). See the explanation of that message for a complete description.

## Routing code

2

## Descriptor code

5

---

IVT5595I	HVCOMM MAXIMUM = <i>maxhvcomm</i>
----------	-----------------------------------

## Explanation

CSM issues this message as part of a group of messages in response to a **MODIFY CSM** command with at least one operand specified. See [“IVT5517I” on page 1632](#) for a complete description of the message group.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

None.

## Source

z/OS Communications Server CSM

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

Not applicable.

---

**IVT5596I****HVCOMM PARAMETER VALUE NOT VALID**

## Explanation

This message is issued when the HVCOMM value on a **MODIFY CSM** command is not valid.

## System action

CSM rejects the command. CSM fixed, ECSA, and HVCOMM storage limits are not changed.

## Operator response

Reissue the command with the correct syntax. See [z/OS Communications Server: SNA Operation](#) for the correct command syntax.

## System programmer response

None.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server CSM

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IVT5596I HVCOMM PARAMETER VALUE NOT VALID
```

**IVT5598I**

**CSM HVCOMM STORAGE LIMIT EXCEEDED**

## Explanation

A CSM request for storage from the high virtual common (HVCOMM) storage area could not be satisfied because it would exceed the CSM HVCOMM storage limit.

## System action

The storage request failed. Processing continues.

## Operator response

Issue the **DISPLAY CSM** command without the OWNERID operand to determine current storage limits and usage. Issue the **DISPLAY CSM** command with OWNERID=ALL to determine how much storage is in use by each application. Save the system log and request a dump for problem determination.

## System programmer response

Verify that the HVCOMM storage limit value is correct. Increase storage as required by using a **MODIFY CSM** command.

See [z/OS Communications Server: SNA Operation](#) for more information about the **DISPLAY CSM** and **MODIFY CSM** commands.

If external trace is active, see [Analyzing storage in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information about analyzing storage by using the VIT analysis tool.

See [Internal and external trace recording in z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for more information.

## User response

None.

## Problem determination

Not applicable.

## Source

z/OS Communications Server CSM

## Module

Use the modifiable VTAM start option MSGMOD=YES (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2



## Descriptor code

5

## Automation

Not applicable.

## Example

```
IVT5598I CSM HVCOMM STORAGE LIMIT EXCEEDED
```

---

**IVT5599I****END**

## Explanation

This message marks the end of a message group. See previous messages in the group for more information.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## Routing code

2

## Descriptor code

5

---

**IVT5600I****PROBE *probname* ATTEMPTED - FFST NOT AVAILABLE**

## Explanation

CSM encountered an anomaly and attempted to execute the FFST probe. FFST was not active or available to service the probe request. CSM handled the request by furnishing the identification of the probe.

*probname* is the name of the probe.

## System action

CSM processing continues.

## Operator response

Save the System Log for problem determination.

## System programmer response

Determine why FFST was not active or available, then start FFST. See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) to determine the anomaly encountered.

## Routing code

2

## Descriptor code

5

---

IVT5603I

*modulename* HVCOMM STORAGE ALLOCATION FAILED IN CSM

## Explanation

This message is issued when CSM cannot satisfy a request for high virtual common (HVCOMM) storage.

*modulename* is the CSM module name where the request failed.

## System action

Processing continues. Other messages might follow identifying the effect of the HVCOMM storage requesting applications.

## Operator response

Issue the **DISPLAY CSM** command without the OWNERID operand to determine current HVCOMM storage limits and usage. Issue the **DISPLAY CSM** command with OWNERID=ALL to determine how much HVCOMM storage is in use by each application. Save the system log for problem determination.

## System programmer response

See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information.

## User response

None.

## Problem determination

Not applicable.

## Source

z/OS Communications Server CSM

## Module

Use the modifiable VTAM start option MSGMOD=yes (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IVT5603I IVTSMCEX HVCOMM STORAGE ALLOCATION FAILED IN CSM
```

---

### IVT5604I

**HVCOMM MAXIMUM = *maxhvcomm* HVCOMM CURRENT = *curhvcomm***

## Explanation

CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

## System action

Not applicable.

## Operator response

Not applicable.

## System programmer response

Not applicable.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server CSM

## Module

Use the modifiable VTAM start option MSGMOD=yes (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IVT5604I HVCOMM MAXIMUM =      100M  HVCOMM CURRENT =      1M
```

**IVT5605I**

**CSM HVCOMM STORAGE AT CRITICAL LEVEL**

## Explanation

This message is issued when CSM HVCOMM storage usage equals or is higher than the CSM HVCOMM critical threshold. The CSM HVCOMM critical threshold is defined as 90% of the CSM HVCOMM storage limit value.

## System action

Processing continues. Subsequent requests for CSM HVCOMM storage might fail.

## Operator response

Issue the **DISPLAY CSM** command without the OWNERID operand to determine current storage limits and usage. Issue a **DISPLAY CSM** command with OWNERID=ALL to determine how much storage is in use by each application. Take a console dump of the TCP/IP address space and the VTAM address space. Save the system log and dump for problem determination and contact the system programmer.

## System programmer response

Verify that the CSM HVCOMM storage limit value is correct. Increase storage as required by using a **MODIFY CSM** command.

See [z/OS Communications Server: SNA Operation](#) for more information about the DISPLAY CSM and MODIFY CSM commands.

The CSM HVCOMM storage limit value is specified by using the HVCOMM MAX statement in the CSM SYSTEM PARMLIB member IVTPRM00. See the [Statements and parameters for IVTPRM00](#) in [z/OS MVS Initialization and Tuning Reference](#) for more information.

If the CSM HVCOMM storage limit value is correct, there might be a storage problem. Contact the IBM software support center for problem determination.

## User response

None.

## Problem determination

Not applicable.

## Source

z/OS Communications Server CSM

## Module

Use the modifiable VTAM start option MSGMOD=yes (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

6

## Automation

Not applicable.

## Example

```
IVT5605I CSM HVCOMM STORAGE AT CRITICAL LEVEL
```

---

**IVT5606I****CSM HVCOMM STORAGE SHORTAGE RELIEVED**

---

## Explanation

This message is issued when CSM HVCOMM storage usage has returned to a normal threshold.

The CSM HVCOMM normal threshold is defined as 80% of the CSM HVCOMM storage limit value.

## System action

Processing continues.

## Operator response

None.

## System programmer response

None.

## User response

None.

## Problem determination

Not applicable.

## Source

z/OS Communications Server CSM

## Module

Use the modifiable VTAM start option MSGMOD=yes (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

## Routing code

2

## Descriptor code

5

## Automation

Not applicable.

## Example

```
IVT5606I CSM HVCOMM STORAGE SHORTAGE RELIEVED
```

---

### IVT5607I

### CSM HVCOMM STORAGE AT CONSTRAINED LEVEL

## Explanation

This message is issued when CSM HVCOMM storage is above 80% of the CSM HVCOMM storage limit value and is approaching the CSM HVCOMM constrained threshold. CSM HVCOMM storage usage might reach the critical level.

## System action

Processing continues. Subsequent requests for CSM HVCOMM storage might fail if the current storage growth rate continues.

## Operator response

Issue the **DISPLAY CSM** command without the OWNERID operand to determine current storage limits and usage. Issue a **DISPLAY CSM** command with OWNERID=ALL to determine how much storage is in use by each application. See the DISPLAY CSM command information in [z/OS Communications Server: SNA Operation](#) for more information. Take a console dump of the TCP/IP address space and the VTAM address space.

Save the system log and dump for problem determination and contact the system programmer.

## System programmer response

Verify that the CSM HVCOMM storage limit value is correct. Increase storage as required by using a MODIFY CSM command. See the MODIFY CSM command information in [z/OS Communications Server: SNA Operation](#) for more information. The CSM HVCOMM storage limit value is specified by using the HVCOMM MAX statement in the CSM SYSTEM PARMLIB member IVTPRM00. See the [Statements and parameters for IVTPRM00 in z/OS MVS Initialization and Tuning Reference](#) for more information.

If the CSM HVCOMM storage limit value is correct, there might be a storage problem. Contact the IBM software support center for problem determination.

## User response

Not applicable.

## Problem determination

Not applicable.

## Source

z/OS Communications Server CSM

## Module

Use the modifiable VTAM start option MSGMOD=yes (*f procname,vtamopts,msgmod=yes* or *f procname,msgmod=yes*) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

**Routing code**

2

**Descriptor code**

5

**Automation**

Not applicable.

**Example**

```
IVT5607I CSM HVCOMM STORAGE AT CONSTRAINED LEVEL
```





---

# Chapter 15. USS messages

This chapter provides information on unformatted session services(USS) messages that are sent to the VTAM operator or a program operator, and USS messages that are sent to terminal users. For information on translating USS messages, see [“User-selected message changes” on page 4](#).

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for additional information.

---

## USS messages sent to the VTAM operator or a program operator

The operation-level USS table contains definitions for USS messages that are sent to the VTAM operator or a program operator. These USS messages and their VTAM message equivalents are:

USS message number	VTAM operator message
0	IST457I
1	IST450I
2	IST451I
3	IST452I
4	IST453I
6	IST792I
8	IST454I
11	IST455I
12	IST456I
14	IST458I

See Chapter 5, “IST messages for VTAM network operators IST001I - IST399I,” on [page 65](#) for a description of the VTAM operator messages listed in the preceding chart.

---

## USS messages sent to terminal users

The session-level USS table contains definitions for USS messages that are sent to terminal users. These messages consist of USSMSG00 through USSMSG14. VTAM issues these messages in response to commands sent by logical units (for example, a character-coded logon or logoff command).

The USS messages are described in the following section as they are defined in the IBM-supplied session-level USS table, ISTINCDT.

You can also define two messages of your own.

### USSMSG00

The text you define for this message is issued after VTAM has accepted a USS command from a terminal user.

### USSMSG10

The text you define for this message is issued after a logical unit is activated.

**Note:** For a BSC 3275 terminal, the following messages are not printed on the attached terminal. The message only appears on a 3275 display screen.

---

**USSMSG00** (user-defined message)

## Explanation

You can define this message (with the USSMSG macro) to be issued after VTAM has accepted a USS command from a terminal user. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on the USSMSG macro.

## System action

Processing continues.

## Operator response

None.

---

<b>USSMSG01</b>	<b>INVALID <i>command</i> COMMAND SYNTAX</b>
-----------------	--

---

## Explanation

The syntax of the entered command *command* is not valid. If the command cannot be determined, the *command* portion of the message is null.

## System action

The command is not executed.

## Operator response

Reenter the command with corrected syntax.

---

<b>USSMSG02</b>	<b><i>command</i> COMMAND UNRECOGNIZED</b>
-----------------	--

---

## Explanation

Command *command* with parameter *parameter* is not supported.

## System action

The command is not executed.

## Operator response

Issue the desired command correctly.

---

<b>USSMSG03</b>	<b><i>parameter</i> PARAMETER EXTRANEIOUS</b>
-----------------	---

---

## Explanation

An extraneous parameter *parameter* has been specified for a USS command.

### Notes:

1. Parameters on USS commands are not processed in the order they are provided in the command.
2. All positional parameters in a command that occur before the first positional keyword parameter will be labeled **Px**, starting with **P1**.

## System action

The command is not executed.

### Operator response

Correct and reenter the command.

---

**USSMSG04** *parameter* **PARAMETER VALUE value NOT VALID**

### Explanation

The parameter *parameter* has been specified with an invalid value. For example, if *parameter* is a logon mode entry name (LOGMODE), the name might be undefined in the logical unit's logon mode table.

### System action

The command is not executed.

### Operator response

Correct and reenter the command.

---

**USSMSG05** **UNSUPPORTED FUNCTION**

### Explanation

The logical unit sent a command to VTAM improperly. If SSCPFM=USS3270 is specified for a logical unit, the logical unit can enter input using the ENTER key, the CLEAR key, the System Request key, or a magnetic card reader. If SSCPFM=USSSCS is specified for a logical unit, the logical unit must not issue a Clear, Cancel, or Signal request, and it cannot send a zero-length command. All logical units must send the character-coded command as a single-request chain.

### System action

The command is not executed.

### Operator response

Reenter the command. Some of the invalid commands mentioned above are sent when program function (PF) keys are pressed. Terminal users should avoid pressing these keys.

---

**USSMSG06** **SEQUENCE ERROR**

### Explanation

A USS command was entered at the wrong time. Either a USS command was issued before the processing of a prior USS command completed, or a LOGOFF command was issued when a session did not exist.

### System action

None.

### Operator response

None.

---

**USSMSG07** *luname* **UNABLE TO ESTABLISH SESSION — runame FAILED WITH SENSE sense**

### Explanation

This message is issued for one of the following reasons:

- A valid logon request was entered and forwarded to an application program, but one of the following occurred:
  - The application program rejected the logon request (by issuing a CLSDST instead of an OPNDST macro).
  - The logical unit rejected the application program's OPNDST macro (by returning a negative response to the BIND request sent by OPNDST).
- The session initiation request was for a cross-domain session. The required SSCP-SSCP session is not active. This might be due to failure to define, activate, or define and activate the host CDRM statement or the CDRM statement for the external CDRM.
- The session initiation request was for a cross-domain session, and the required CDRSC definitions had not been activated.
- No route was available to support the requested session.
- The COS name requested for the session was not defined in the COS table associated with the PLU's domain. (A COS name is selected from the logon mode used for the session.)
- The SSCP of either the PLU or the SLU detected a logic error that prevented session setup (for example, a duplicate network address has been assigned).
- The interpret table recognized an error involving a logon command. The logon command, as entered, cannot be used to establish a session with the application program.

*luname* is the node (known to VTAM) from which the logon request was entered.

*runame* is the type of initiation RU being processed. *runame* will be **SETUP** when the RU cannot be determined at the time of the failure. If *runame* is **SETUP**, the session could have been terminated during session setup. See [Chapter 16, "Command and RU types in VTAM messages,"](#) on page 1683, for more information on RUs and command types.

*sense* is the 8-digit hexadecimal sense code set at failure time. See [z/OS Communications Server: IP and SNA Codes](#) for more information on sense codes.

## System action

The command is not executed. No session is established between the application program and the logical unit.

## Operator response

It is possible that the application program cannot accept the session parameters specified by the logon mode name in the LOGON command. It is also possible that the logical unit cannot accept the application program's substituted session parameters. In this situation, a LOGON command specifying a different logon mode name might work. It is also possible that the LOGON command is unrecognized because a proper value was not defined in the interpret table.

This message is generally evidence of improper design of either the application program, the USS table, or the logical unit's application program. Provide the *luname*, *runame*, and *sense* values to the system help desk.

---

**USSMSG08**

**INSUFFICIENT STORAGE**

## Explanation

Not enough storage is available for successful processing of a command.

## System action

The command is not executed.

## Operator response

Reenter the command.

---

**USSMSG09**

**MAGNETIC CARD DATA ERROR**

## Explanation

A character-coded command from a logical unit for which SSCPFM=USS3270 is coded contains invalid magnetic card data. Either the card data was entered into a field that was too small, or a parity error occurred.

## System action

The command is not executed.

## Operator response

Reenter the command. If the magnetic card data has been entered into a field that was too small, press the CLEAR key and reenter the command, entering the magnetic card data into a larger field.

---

**USSMSG10** (user-defined message)

## Explanation

You can define this message (with the USSMSG macro) to be issued after a logical unit is activated. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on the USSMSG macro.

If this message is not defined, users must enter Alt+SysRq to enter USS LOGON commands, unless the terminal is defined with SSCPFM=USS3270 or SSCPFM=USS3275.

## System action

The logical unit is activated.

---

**USSMSG11** *parameters* SESSIONS ENDED

## Explanation

VTAM has received a TERM SELF RU (with the NOTIFY option specified) from a logical unit. *parameters* are the network-qualified names specified in the TERM SELF RU for the PLU and SLU. See *SNA Format and Protocol Reference Manual: Architectural Logic* for more information.

For example, if an LU-LU session is terminated by an RU specifying APPL1 and APPL2, the following text is displayed:

```
LU1=NETA.APPC1 LU2=NETA.APPL2 SESSIONS ENDED
```

## System action

The session is ended.

## Operator response

None.

---

**USSMSG12** REQUIRED PARAMETER OMITTED

## Explanation

A USS command was missing a required parameter. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on USS commands for terminal users.

## System action

The command is not executed.

## Operator response

Reenter the command with the required parameters.

---

### USSMSG13

**IBMECHO *data***

## Explanation

This message is issued the specified number of times in response to a IBMTEST USS command. If the number of times to issue the message is not specified, the default of 10 times is used. If no data was entered in the USS command, the value for *data* is A–Z and 0–9.

---

### USSMSG14

**USS MESSAGE *number* NOT DEFINED**

## Explanation

One of the preceding USS messages was to be issued, but VTAM could not find the definition for this message. The value of *number* indicates which USS message was not located; see the description of that USS message to determine what condition occurred.

For example, an unrecognized command condition occurred, but VTAM could not locate USSMSG02 in ISTINCDT, the IBM-supplied session-level USS table. Since the IBM-supplied table defines all USS messages (except for 00 and 10), this message has been deleted. USSMSG14 is evidence that the USS tables have been has improperly defined or installed.

## System action

The command is not executed.

## Operator response

See the user response for USS message *number*.

---

## Chapter 16. Command and RU types in VTAM messages

This chapter lists the command and request/response unit (RU) types that can appear in VTAM messages. See [z/OS Communications Server: SNA Operation](#) for additional information on commands. See *SNA Formats* for additional information on RUs.

There are two RU types that represent internal VTAM RU flows. These internal RU types are not documented in SNA publications and some are not included in *VTAM Data Areas*.

It is not required that users of the product know the meaning of these internal RUs. When required, the product support organization might use them to assist in internal flow diagnosis.

- **Access Method RU (AM type)**

These internal RUs are requests that might be seen in the PIU trace and are a function of physical unit services (PUNS), configuration services, or session services.

- **Interprocess Signals (IPS type)**

These internal signals are issued for APPN functions. They can be seen in APSEND trace entries.

---

### Command and RU type descriptions

The following commands or RU types might appear in VTAM messages.

Command or RU type	Function
ABCONN	Abandon Connection
ABCONNOUT	Abandon Connect Out
ACTCDRM	Activate CDRM
ACTCONNIN	Activate Connect In
ACTIVATE	Activate
ACTLINK	Activate Link
ACTLU	Activate LU
ACTPU	Activate PU
ACTTRACE	Activate Trace
ACTVR	Activate Virtual Route
ADDNR	Add Network Resource
AM ADDLINK	Add Link
AM ADDLSTA	Add Link Station
AM ADRQCMP	Address Request Complete
AM ALLORSC	Allocate Resource
AM CLEANUP	Cleanup
AM CLSACB	Close ACB

<b>Command or RU type</b>	<b>Function</b>
AM CONNECT	Connect
AM CONDLOD	Request Conditional Load
AM CS	Configuration Services
AM DEACTXF	Deactivate Transforms
AM DELETNR	Delete Network Resource
AM DISCNCT	Disconnect
AM FLUSH	Flush Virtual Route
AM FREERSC	Free Resource
AM GAINGWN	Gained Gateway Node
AM GBIND	Generic BIND
AM GENTERM	Generic Terminate
AM GUNBIND	Generic UNBIND
AM INIT_PU	Initialize PU
AM LOSTGWN	Lost Gateway Node
AM NFY SLT	Notify (Schedule LOSTERM Exit)
AM NOTIFY	Notify
AM OPNACB	Open ACB
AM OSA	Override Session Address
AM PCE	Purge Chain Element
AM PWQ	Purge Wait Queue
AM RDTADD	Resource Definition Add
AM REALLOC	Reallocate
AM REQ ERA	Request Explicit Route Activate
AM REQ VRD	Request Virtual Route Deactivate
AM REQDUMP	Request Dump
AM REQLOAD	Resource Load
AM RESETRT	Reset Routable State
AM RESUME	Resume; used to redrive session setup processing.
AM RNAA	Request Network Address Assignment
AM SC AMRU	Switched Connection AMRU
AM SC EXIT	Switched Connection Exit
AM SETRT	Set Routable State
AM SSA	Set Session Address
AM SSADISC	Set Session Address and Disconnect



<b>Command or RU type</b>	<b>Function</b>
AM UNCDLOD	Request Unconditional Load
AM VR INOP	Virtual Route Inoperative
AM VR STAT	Virtual Route Status
ANA	Assign Network Address
ANS	Auto Network Shutdown Started
ANSC	Auto Network Shutdown Complete
API CHEF	API CHANGE(ENDAFFNF)
API CHGEAF	CHANGE(ENDAFFIN) macro
API CLSPAS	CLSDST(PASS) macro
API CLSRLS	CLSDST(RELEASE) macro
API INQAPS	INQUIRE(APPSTAT) macro
API INQCID	INQUIRE(CIDXLATE) macro
API INQCNT	INQUIRE(COUNTS) macro
API INQDPY	INQUIRE(DISPLAY) macro
API INQDVC	INQUIRE(DEVCHAR) macro
API INQLOG	INQUIRE(LOGONMSG) macro
API INQNQN	INQUIRE(NQN) macro
API INQPER	INQUIRE(PERSESS) macro
API INQSKY	INQUIRE(SESSKEY) macro
API INQSNM	INQUIRE(SESSNAME) macro
API INQSPM	INQUIRE(SESSPARMS) macro
API INQSTA	INQUIRE(STATUS)macro
API INQTOP	INQUIRE(TOPLOGON) macro
API INQTRM	INQUIRE(TERMS) macro
API INTERP	INTRPRET macro
API OPNACC	OPNDST(ACCEPT) macro
API OPNACQ	OPNDST(ACQUIRE) macro
API OPNRES	OPNDST(RESTORE) macro
API OPNSEC	OPNSEC macro
API RVCMD	RCVCMD macro
API RECEIV	RECEIVE macro
API REQSES	REQSESS macro
API RSETSR	RESETSR macro
API SEND	SEND macro

<b>Command or RU type</b>	<b>Function</b>
API SESONC	SESSIONC macro
API SETGNA	SETLOGON(GNAMEADD) macro
API SETGND	SETLOGON(GNAMEDEL) macro
API SETLQS	SETLOGON(QUIESCE) macro
API SETLSP	SETLOGON(STOP) macro
API SETLST	SETLOGON(START) macro
API SETNPE	SETLOGON(NPERSIST) macro
API SETPER	SETLOGON(PERSIST) macro
API SIMLOG	SIMLOGON macro
API SNDCMD	SEND CMD macro
API TRMSES	TERMSESS macro
BFCINIT	Boundary Function Control Initiate
BFCLEANUP	Boundary Function Cleanup
BFINIT	Boundary Function Initiate
BFTERM	Boundary Function Terminate
BFSESEND	Boundary Function Session End
BFSESSINFO	Boundary Function Session Information
BFSESSST	Boundary Function Session Start
BID	Bid
BIND	Bind Session
BIND FAIL	Bind Failure
BIS	Bracket Initiation Stopped
CANCEL	Cancel
CD NOTIFY	Cross-Domain Notify
CDCINIT	Cross-Domain Control Initiate
CDINIT OTH	Cross-Domain Initiate (Other)
CDRM CLEAR	Clear CDRM-CDRM Session
CDRM ERP	CDRM ERP Internal Clear
CDSESEND	Cross-Domain Session Ended
CDSESSST	Cross-Domain Session Started
CDSSF	Cross-Domain Session Setup Failure
CDSTF	Cross-Domain Session Takedown Failure
CDTAKEDOWN	Cross-Domain Takedown
CDTD COMP	Cross-Domain Takedown Complete

<b>Command or RU type</b>	<b>Function</b>
CDTERM	Cross-Domain Terminate
CHAR CODED	Unformatted Request Unit
CHASE	Chase
CHG NRSPOL	Change Negative Response to Poll Limit
CHG POLLIM	Change Poll Limit
CHG SESSLM	Change Session Limit
CHG TLIMIT	Change Transmission Limit
CHKPT	Checkpoint Resource Status Function
CINIT	Control Initiate
CKPTN	Checkpoint Node Status Function
CLEANUP	Cleanup
CLEAR	Clear Session
CNM	Communications Network Management Request
CONNOUT	Connect Out
CONTACT	Contact
CONTACTED	Contacted
CPCRYPT	Cryptography Management Function
CPMSG	Internal WTOR Function
CRV	Cryptography Verify
CTERM	Control Terminate
D ADJCP	DISPLAY ADJACENT CONTROL POINT command
D ADJCLUST	DISPLAY ADJACENT CLUSTER TABLE command
D BNCOSMAP	DISPLAY BORDER NODE CLASS-OF-SERVICE MAPPING command
D CNOS	DISPLAY CHANGE NUMBER OF SESSIONS command
D CONVID	DISPLAY CONVERSATION ID command
D DLURS	DISPLAY DLURS command
D DIRECTRY	DISPLAY DIRECTORY command
D DISK	DISPLAY DISK command
D LMTBL	DISPLAY LU-MODE TABLE command
D NCPSTOR	DISPLAY NCP STORAGE command
D NETSRVR	DISPLAY NETWORK NODE SERVER LIST command
D PATHTAB	DISPLAY PATH TABLE command
D SAMAP	DISPLAY SAMAP command
D STORUSE	DISPLAY STORAGE USAGE command

<b>Command or RU type</b>	<b>Function</b>
D TGPS	DISPLAY TRANSMISSION GROUP PROFILES command
D TOPO	DISPLAY TOPOLOGY command
D TRACES	DISPLAY TRACES command
D VTAMOPTS	DISPLAY VTAM START OPTIONS command
DACTCDRM	Deactivate Cross-Domain Resource Manager
DACTCONNIN	Deactivate Connect In
DACTLINK	Deactivate Link
DACTLU	Deactivate LU
DACTPU	Deactivate PU
DACTTRACE	Deactivate Trace
DACTVR	Deactivate Virtual Route
DDDLU RU	Dynamic definition of dependent LUs
DELETE	Delete
DELETENR	Delete Network Resource
DELIVER	Deliver Request
DIAL START	Dial Start Request
DISCONTACT	Discontact RU
DISP STOR	Display Storage
DISPLAY	Display Command
DLR PURGE	Dump/Load/Restart Purge
DSRLST	Cross-Domain Direct Search List
DUMP FINAL	Dump Final
DUMP INIT	Dump Initial
DUMP TEXT	Dump Text
DWACT	Dial when active
ECHO TEST	ECHO Test
ENT SLOWDN	Enter Slowdown
ER ACT	Explicit Route Activate
ER ACT RPY	Explicit Route Activate Reply
ER INOP	Explicit Route Inoperative
ER OP	Explicit Route Operative
ER TEST	Explicit Route Test
ER TESTED	Explicit Route Tested
ER TST RPY	Explicit Route Test Reply

<b>Command or RU type</b>	<b>Function</b>
EXT SLOWDN	Exit Slowdown
F ACT GPT	MODIFY TRACE,TYPE=GPT command
F ACT NCTR	MODIFY TRACE,TYPE=NETCTLR command
F ACT SIT	MODIFY TRACE,TYPE=SIT command
F ACT TG	MODIFY TRACE,TYPE=TG
F ALSLIST	MODIFY ALSLIST command
F ALTRACE	MODIFY TRACE,TYPE=LINE
F CDRM	MODIFY CROSS DOMAIN RESOURCE MANAGER command
F CHKPT	MODIFY CHECKPOINT command
F CHANGE	MODIFY NEG POLL, or POLL, or SESSLIM
F CNOS	MODIFY CHANGE NUMBER OF SESSIONS command
F COMPRESS	MODIFY COMPRESS command
F DACT GPT	MODIFY NOTRACE,TYPE=GPT command
F DACT SIT	MODIFY NOTRACE,TYPE=SIT command
F DACT TG	MODIFY NOTRACE,TYPE=TG command
F DACTNCTR	MODIFY NOTRACE,TYPE=NETCTLR command
F DEFAULTS	MODIFY DEFAULTS command
F DEFINE	MODIFY DEFINE command
F DIR DEL	MODIFY DIRECTRY,FUNCTION=DELETE command
F DIR UPD	MODIFY DIRECTRY,FUNCTION=UPDATE command
F DIRECTRY	MODIFY DIRECTORY command
F DLTRACE	MODIFY NOTRACE,TYPE=LINE command
F DR DEL	MODIFY DR,TYPE=DELETE
F DR MOVE	MODIFY DR,TYPE=MOVE
F DUMP	MODIFY DUMP command
F DUMP CSP	MODIFY DUMP,TYPE=CSP command
F DUMP DYN	MODIFY DUMP,TYPE=NCP,OPTION=DYNA command
F DUMP MOS	MODIFY DUMP,TYPE=MOSS command
F DUMP PGC	MODIFY DUMP,ACTION=PURGE,TYPE=CSP
F DUMP PGM	MODIFY DUMP,ACTION=PURGE,TYPE=MOSS
F DUMP PGN	MODIFY DUMP,ACTION=PURGE,TYPE=NCP
F DUMP STO	MODIFY DUMP, ACTION=STORE
F DUMP TRC	MODIFY DUMP,ACTION=TRANSFER,TYPE=CSP
F DUMP TRH	MODIFY DUMP,ACTION=TRANSFER,TYPE=NCP (header)

<b>Command or RU type</b>	<b>Function</b>
F DUMP TRM	MODIFY DUMP,ACTION=TRANSFER,TYPE=NCP (main storage)
F DUMP TRN	MODIFY DUMP,ACTION=TRANSFER,TYPE=NCP
F ENCR	MODIFY ENCR command
F EXIT	MODIFY EXIT command
F IMR	MODIFY IMR command
F LINEDEF	MODIFY LINEDEF command
F LL2	MODIFY LL2 command
F LOAD ADD	MODIFY LOAD ADD command
F LOAD CAN	MODIFY LOAD CANCEL command
F LOAD PRG	MODIFY LOAD PURGE command
F LOAD REN	MODIFY LOAD RENAME command
F LOAD REP	MODIFY LOAD REPLACE command
F LOAD SET	MODIFY LOAD SET command
F NOTNSTAT	MODIFY NO TUNING STATISTICS command
F PROFILES	MODIFY PROFILES command
F QUERY	MODIFY QUERY command
F RESOURCE	MODIFY RESOURCE command
F RTP	MODIFY RTP command
F TABLE	MODIFY TABLE command
F TGP	MODIFY TRANSMISSION GROUP PROFILE command
F TNSTAT	MODIFY TUNING STATISTICS command
F TOPO	MODIFY TOPOLOGY command
F TOPO ID	MODIFY TOPO,ID= command
F USERVAR	MODIFY USERVAR command
F VTAMOPTS	MODIFY VTAM START OPTIONS command
FNA	Free Network Address
FORCE DEAC	Force Deactivate
FORCE REAC	Force Reactivate
FORWARD	Forward Request
GDS CDINIT	Cross domain initiate generalized data stream (GDS) variable
GDS CP_CAP	Control point capabilities generalized data stream (GDS) variable
GDS DELETE	Delete generalized data stream (GDS) variable
GDS FIND	Find generalized data stream (GDS) variable
GDS FOUND	Found generalized data stream (GDS) variable

<b>Command or RU type</b>	<b>Function</b>
GDS IOCD	Initiate other cross domain generalized data stream (GDS) variable
GDS LOCATE	Locate generalized data stream (GDS) variable
GDS NOTIFY	Notify generalized data stream (GDS) variable
GDS REGISTR	Register generalized data stream (GDS) variable
GDS TDU	Topology database update generalized data stream (GDS) variable
HALT CDLNK	Process Cross-Domain Links During HALT
HARD INOP	Hard INOP
INACT GVBK	VARY INACT,TYPE=GIVEBACK command
INACT SON	Deactivate (session outage notification)
INIT LOAD	Network Services Initialize Load
INIT OTHER	Initiate-Other RU
INIT SELF	Initiate-Self RU Format 0
INIT SELF	Initiate-Self RU Format 1
INOP	Inoperative
INT SYNCH	TPPOST macro
IP DLP	DLUR PATH SWITCH COMP in ISTCPKCB
IPL ABORT	Network Services IPL Abort
IPL FINAL	IPL Final Request
IPL FINAL	Network Control IPL Final
IPL FINAL	Network Services IPL Final
IPL INIT	IPL Initial Request
IPL INIT	Network Control IPL Initial
IPL INIT	Network Services IPL Initial
IPL TEXT	IPL Text Request
IPL TEXT	Network Control IPL Text
IPL TEXT	Network Services IPL Text
IPS ACC	Adjacent control point contacted interprocess signal (IPS)
IPS ACL	Process adjacent cluster interprocess signal (IPS)
IPS ACR	Cross-Domain Response AMRU
IPS ACU	Adjacent control point updated interprocess signal (IPS)
IPS BNP	Border node session reply interprocess signal (IPS)
IPS BNQ	Border node session request interprocess signal (IPS)
IPS BRI	Broadcast interprocess signal (IPS)
IPS CBN	Cache border node information interprocess signal (IPS)

<b>Command or RU type</b>	<b>Function</b>
IPS CDY	Cross-Domain Resource display
IPS CMA	Process COS mapping interprocess signal (IPS)
IPS COS	Define Class of Service interprocess signal (IPS)
IPS CPS	CP status interprocess signal (IPS)
IPS CRQ	CRR request
IPS CSH	Cache search interprocess signal (IPS)
IPS CSR	Cache search reply interprocess signal (IPS)
IPS DIA	Display Adjacent Cluster
IPS DLR	DLUR status
IPS DQE	Dequeue interprocess signal (IPS)
IPS DRV	Data recovered
IPS DSI	DISPLAY SRCHINFO interprocess signal (IPS)
IPS DSN	Directory server notify
IPS ERP	RTP_EXPREC_PURGE
IPS FST	Rapid transport protocol (RTP) free storage
IPS GCR	Generic cache search reply interprocess signal (IPS)
IPS GCS	Generic cache search request interprocess signal (IPS)
IPS GUS	Generic cache search update request interprocess signal (IPS)
IPS INO	Initiate other interprocess signal (IPS)
IPS IOC	Initiate other complete interprocess signal (IPS)
IPS MPI	Multinode persistent session HPR connection information
IPS MSI	Multinode persistent session information
IPS NVP	Nonverify Reply
IPS NVR	Nonverify Request
IPS OTC	Orderly sessions terminate complete interprocess signal (IPS)
IPS OTD	Output topology database update interprocess signal (IPS)
IPS OTR	Orderly sessions terminate request interprocess signal (IPS)
IPS PCQ	PCID query
IPS PCR	PCID query response
IPS PLT	Purge locate timer
IPS PND	Pending session characteristics interprocess signal (IPS)
IPS PNL	Process network node server list interprocess signal (IPS)
IPS PRC	Proceed interprocess signal (IPS)
IPS PRV	Provide session characteristics interprocess signal (IPS)



<b>Command or RU type</b>	<b>Function</b>
IPS QED	Queued interprocess signal (IPS)
IPS RAC	Resource available complete interprocess signal (IPS)
IPS RAL	Rapid transport protocol (RTP) allocation
IPS RAT	Rapid transport protocol (RTP) attach
IPS RAV	Resource available interprocess signal (IPS)
IPS RCS	Rapid transport protocol (RTP) connection setup
IPS RDL	Rapid transport protocol (RTP) deallocation
IPS RDT	Rapid transport protocol (RTP) deattach
IPS RIN	Rapid transport protocol (RTP) inactivation
IPS RIO	Rapid transport protocol (RTP) inoperative
IPS RMR	Request multiple routes interprocess signal (IPS)
IPS RQR	Request route interprocess signal (IPS)
IPS RRC	Release request complete interprocess signal (IPS)
IPS RRQ	Release request interprocess signal (IPS)
IPS RSR	Rapid transport protocol (RTP) route setup request
IPS RST	RTP route setup interprocess signal (IPS)
IPS RSU	Rapid transport protocol (RTP) route setup
IPS RTI	Rapid transport protocol (RTP) TG inoperative
IPS SAC	Subarea cleanup interprocess signal (IPS)
IPS SCR	Search request
IPS SDY	Display sessions
IPS SHR	Request single hop route
IPS SIR	Session initiate information request
IPS SRC	Session request complete interprocess signal (IPS)
IPS SRO	CPSVRMGR session outage
IPS SRP	Protocol violation detected
IPS SRQ	Session request interprocess signal (IPS)
IPS SRT	TDU error detected from the DLUR
IPS STP	Start TP
IPS STR	Start TP reply
IPS TGU	TG update
IPS TPE	TP ended
IPS UPD	Update directory
IPS UMR	Update modes interprocess signal (IPS)

<b>Command or RU type</b>	<b>Function</b>
LCL GAINFO	GetAddrInfo request for local IP address
LINKLVL2	Enter Test Mode (LL2)
LL2	MODIFY LL2 command
LOAD REQ RD	Network Services Load Required
LOAD STAT	Network Services Load Status
LOST CTLPT	Lost Control Point
LOST PATH	Lost Path
LUSTAT	LU Status
MODIFY	MODIFY Command
MODIFY NOTNSTAT	MODIFY NO TUNING STATISTICS command
MODIFY TNSTAT	MODIFY TUNING STATISTICS command
MS SCV	Maintenance Services Set Control Vector
NTNMON RPY	NCPMON reply RU
NCLSA	Network Control Lost Subarea
NMVT	Network Management Vector Transport
NSLSA	Network Services Lost Subarea
NSPE	Network Services Procedure Error
NTFY NS(C)	Notify Session End
NTFY NS(S)	Notify
QC	Quiesce Complete
QEC	Quiesce at End of Chain
RDELETENR	Request Delete Network Resource
REC TEST	Record Test Data
REC TRACE	Record Line Trace Data
RECFMS	Record Formatted Maintenance Statistics
RECMD	Record Measurement Data
RECMS	Record Maintenance Statistics
RECSTOR	Record Storage
RECTR	Record Test Results
REL IMMED	VARY REL, TYPE=IMMED command
REL GVBK	VARY REL, TYPE=GIVEBACK command
RELEASE	VARY REL command
RELQ	Release Quiesce
REQ ECHO	Request Echo Test

<b>Command or RU type</b>	<b>Function</b>
REQ RTTEST	Request Route Test
REQACTCDRM	Request ACTCDRM
REQACTPU	Request Activate PU
REQC	Request Contact
REQCONT	Request Contact
REQDACTPU	Request Deactivate PU
REQDISCONT	Request Discontact
REQDMP CSP	Request CSP Dump
REQDMP MOS	Request MOSS Dump
REQDUMP	Request Dump
REQDUMP DY	Request Dynamic Dump
REQLOAD	Request Load
REQMS	Request Maintenance Statistics
RESET LU	Reset LU
RMPO	Remote Power Off
RMT GAINFO	GetAddrInfo request for remote IP address
RNAA	Request Network Address Assignment
ROUTE_INOP	Network Services Route Inoperative
RQR	Request Recovery
RSHUTD	Request Shutdown
RTR	Ready to Receive
SBI	Stop Bracket Initiation
SCV	Set Control Vector
SDT	Start Data Traffic
SELECT VR	Virtual Route Select
SESS ENDED	Session Ended
SESS START	Session Started
SETCV	Set Control Vector
SETCV(NAU)	Set Control Vector Network Addressable Unit
SETCV(SAR)	Set Control Vector Subarea Routing
SETCV(SSS)	Set Control Vector SDLC Secondary Station ID
SETCV(STD)	Set Control Vector Set Time And Date
SETCV(DPU)	Set Control Vector Dynamic Path Update
SETCV(FRS)	Set Control Vector Frame Relay Switching

<b>Command or RU type</b>	<b>Function</b>
SETTIM CAN	Scheduled Cancel
SETUP	Generic Session Initiation
SHUTC	Shutdown Complete
SHUTDOWN	Shutdown
SIGNAL	Signal
SOFT INOP	Soft INOP
SSCP TKOVR	SSCP Takeover
STSN	Set and Test Sequence Number
SW TO EP	Switch Line to EP Mode
SW TO NCP	Switch Line to NCP Mode
SYNTAX CHK	VARY ACT,SCOPE=SYNTAX
TERM OTHER	Terminate-Other RU
TERM SELF	Terminate-Self Format 0
TIMER REQ	Set Timer Request
TR_INQUIRY	Translate Inquiry
TR_REPLY	Translate Reply
UBIND FAIL	Unbind Failure
UNBIND	Unbind RU
VARY	VARY command
VARY ACQ	VARY ACQ or VARY ACT, ACQ command
VARY ACT	VARY ACT command
VARY ANS	VARY ANS command
VARY AUTOLOG	VARY AUTOLOG command
VARY DIAL	VARY DIAL command
VARY DRDS	VARY DRDS command
VARY HGUP	VARY HANGUP command
VARY INACT	VARY INACT or VARY INACT,TYPE=IMMED command
VARY INOP	VARY INOP command
VARY LOGON	VARY LOGON command
VARY NOLOG	VARY NOLOGON command
VARY PATH	VARY PATH command
VARY REL	VARY REL command
V NOLOGON	VARY NOLOGON command
XID	Exchange ID

Command or RU type	Function
XID3	Exchange ID 3



## Chapter 17. Node and ID types in VTAM messages

This table describes the node and ID types that can appear in VTAM operator messages.

Node/ID type	Description
ADJ CLUSTER TABLE	Adjacent cluster table
ADJCP	Adjacent control point major node
ADJACENT CP	Adjacent control point
ADJCP MAJOR NODE	Adjacent control point major node
ADJSSCP TABLE	Adjacent SSCP table
APPL	Application program
APPL SEGMENT	Application program major node
APPN COS TABLE	APPN Class of Service table
BN COS MAP TABLE	BN Class of Service map table
CA MAJOR NODE	Channel-attachment major node
CDRM	Cross-domain resource manager
CDRM SEGMENT	Cross-domain resource manager major node
CDRSC	Cross-domain resource
CDRSC SEGMENT	Cross-domain resource major node
CLONE CDRSC	Clone cross-domain resource
CP	Control point
DIRECTORY ENTRY	Entry in directory services database
DYNAMIC APPL	Dynamic application program
DYNAMIC FRSESET	Dynamically defined NCP frame relay switching equipment set (FRSESET)
EXIT	Session management exit
GENERIC RESOURCE	Generic resource name
GENERIC USERVAR	Generic resource USERVAR
GR PREFERENCES	Generic resource preferences
HOST CP	Host control point
ILU/CDRSC	Independent LU represented as a CDRSC
LCL SNA MAJ NODE	Channel-attached (local) major node consisting of one or more SNA cluster controllers
LCL 3270 MAJ NODE	Local 3270 major node
LINE	Communication line
LINE GROUP	Line group

<b>Node/ID type</b>	<b>Description</b>
LINK STATION	PU type 4 or 5 representing an NCP or host processor
LOGICAL UNIT	Logical unit
LUGROUP MAJ NODE	LU group major node
MODEL APPL	Model application program
MODEL CDRSC	Model cross-domain resource
MODEL LU	Model LU
MODEL LU GROUP	Model LU group
MODEL MAJOR NODE	Model major node
MODEL SEGMENT	Model major node
NN SERVER LIST	Network node server list
N/A	Indicates that the displayed major node represents an ID type, such as a list or table. Some ID types do not get displayed.
PATH TABLE	PATH table
PU_T1	Physical unit type 1
PU_T2	Physical unit type 2
PU_T2.1	Physical unit type 2.1
PU T4/5	Communication controller or a host with an SSCP
RTP MAJOR NODE	Major node that contains all the RTPs
RESOURCE	Resource that may not yet be defined to VTAM
SSCP	System services control point
STATIC FRSESET	Statically defined NCP frame relay switching equipment set (FRSESET)
SW SNA MAJ NODE	Switched SNA major node
TCP/IP MAJOR NODE	TCP/IP major node
TG PROFILE TABLE	APPN Transmission Group Profile
TRL MAJOR NODE	Transport resource list major node
TRLE	Element in the active transport resource list
TSO USERID	TSO user ID that is being displayed.
XCA MAJOR NODE	External communication adapter (XCA) major node



## Appendix A. Message additions and changes

This appendix contains the following sections:

- “Message additions” on page 1701
- “Message text changes” on page 1701
- “Retired messages” on page 1701

See [z/OS Release Upgrade Reference Summary](#) for a list of all new, changed or deleted z/OS Communications Server messages.

## Message additions

This section includes the text and variable field lengths of the new messages.

**Note:** in the message text, a percent sign (%) represents a character that is reserved for variable information. The maximum length of the variable is indicated by a percent sign and a number (for example, %8). In some messages, if the variable information is shorter than the variable field, the extra blanks might be suppressed, causing the message text to shift to the left.

## New IST VTAM network operator messages

[illegible]

## Message text changes

This section includes the text and variable field lengths of messages with text changes.

```
old:  IST1650I  IDX  INITIALIZATION  FAILED  FOR  %8  DEVICE  %4  CODE  %2
new:  IST1650I  IDX  INITIALIZATION  FAILED  FOR  %8  DEVICE  %4  CODE  %4
```

## Retired messages

This section includes the text and variable field lengths of messages that are no longer in use. Thus the following messages are deleted from the book.

```
IST1293I CMIP SERVICES IS ACTIVE
IST1331I %13 IS INACTIVE
IST1332I CMIP SERVICES LOAD FAILED FOR %8 IN %8
IST1396I DISK I/O INITIALIZATION FAILED FOR CMIP SERVICES
IST1397I INITIALIZATION FAILED FOR CMIP SERVICES
IST1398I ALL ATTEMPTS TO RESTART CMIP SERVICES WERE UNSUCCESSFUL
IST1399I ATTEMPTING TO RESTART CMIP SERVICES
IST1443I ACYDDF LOADED = NO ACCESS AUTHORITY CHECKING
IST1444I %8 NOT LOADED = %35
IST1656I VTAMTOPO = %0/0/0/0/0/0/0/0%, NODE REPORTED - 0/0/0/0/0/0/0/0%
IST1657I MAJOR NODE VTAMTOPO = 0/0/0/0/0/0/0/0%/0/0/0/0/0/0/0/0%
ISTH035I The ISPF Workstation Agent is not in use on this system
ISTH036E The ISPF Workstation Agent is in use on this system
ISTM037I The VTAM topology agent and the CMIP services have not been used on this system during
this IPL
ISTM038E The VTAM topology agent and the CMIP services have been used on this system during
this IPL
ISTM041I Native TLS/SSL support is not in use by any TN3270 serveron this system
ISTM042E One or more active TN3270 servers are using native TLS/SSL support
ISTM043I Native TLS/SSL supportis not in use on this system for DCAS
ISTM044E Native TLS/SSL supportis in use on this system for DCAS
ISTM045I No active FTP servers are using native TLS/SSL support
ISTM046E One or more active FTP servers are using native TLS/SSL support
```

ISTM047I No active FTP servers are configured with TLSMECHANISM ATTLS and TLSRFCLEVEL  
CCCNONOTIFY  
ISTM048E One or more active FTP servers are configured with TLSMECHANISM ATTLS and TLSRFCLEVEL  
CCCNONOTIFY  
ISTM049I No FTP clients configured with TLSMECHANISM ATTLS and TLSRFCLEVEL CCCNONOTIFY  
ISTM050E One or more FTP clients are configured with TLSMECHANISM ATTLS and TLSRFCLEVEL  
CCCNONOTIFY

---

## Appendix B. Message-flooding prevention

Certain messages in VTAM can be issued several times for an event without supplying new information to the operator (for example, IST264I is issued for each attempted logon from multiple terminals to an undefined application program). These repeating messages can overwhelm an operator console or program operator application, and critical messages could be concealed in this volume of information. To alleviate this occurrence, VTAM includes a message-flooding prevention mechanism.

VTAM uses a table containing a list of pre-designated messages that are candidates for flooding suppression. There is default IBM-supplied table, ISTMSFLD, or a user-defined message-flooding table can be defined. For more information on message-flooding prevention, defining your own message-flooding prevention table, and the IBM-supplied message-flooding prevention table, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

The message-flooding prevention table specifies, for each message, the criteria that must be met to prevent the message from being reissued. A message is a candidate for suppression if it is listed in the table and meets the following criteria:

1. Time-span: The message is issued a second time in the specified amount of time (the default is 30 seconds).
2. Suppressible variable-text fields: The specific variable fields listed in the table contain the same information for this issuance of the message as the previous issuance. Only fields listed in the table are checked. The message may have other variable fields which can have different values and still result in suppressing the message.

If the above criteria are met, the message is suppressed. When a message is suppressed it will not be routed to the program operator application or system console to which it was destined. However, the message may be sent to the system hardcopy log if it was destined for the system console, based on the HARDCOPY specification in the message-flooding prevention table (the default in ISTMSFLD is that the message be sent to the system hardcopy log).

**Note:** The message-flooding prevention table prevents specific messages from being issued by VTAM. This may affect network management application command lists and any automated operations facilities at your installation.



# Appendix C. Message routing and suppression

This appendix contains the following sections:

- [“Message formats” on page 1705](#)
- [“Solicited messages” on page 1706](#)
- [“Unsolicited messages” on page 1707](#)
- [“Message rerouting and percolation” on page 1707](#)
- [“Message descriptor codes” on page 1708](#)
- [“Message routing codes” on page 1709](#)
- [“Message suppression levels” on page 1711](#)
- [“Codes and suppression levels” on page 1712](#)
  - [“ELM messages for Logon Manager” on page 1712](#)
  - [“IKT messages for TSO/VTAM” on page 1712](#)
  - [“IST VTAM operator messages” on page 1713](#)

This information may help you diagnose problems in program operator applications, understand the way messages are issued, determine which start options to choose, or how to define VTAM.

## Message formats

The message format of **all** messages is determined by the destination specified in the USS table.

In pre-Version 4 releases, messages sent to the primary program operator log (PPOLOG) or percolated to a primary program operator (PPO) are copies of messages formatted for the system console or secondary program operator (SPO). In the current version, copies of messages are no longer sent. Messages appear in the format defined in the USS table for the message destination.

The impact to automated operation procedures depends on which USS table is specified for your system console and each program operator application (POA), and whether those tables define messages with or without blank suppression.

- For information about message percolation, see [“Message rerouting and percolation” on page 1707](#).
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information about USS message tables.
- See the [z/OS Communications Server: New Function Summary](#) for information about impacts to automated operations.

## Format differences

Message format differences are summarized in the following table:

<i>Table 1. Message format differences</i>		
	<b>IBM-supplied default USS table (ISTINCNO)</b>	<b>Default USS table (ISTCFCMM)</b>
Formats messages for:	System console	PPO
Blank suppression available?	Yes	No
Number of blanks after message ID:	1	2

Table 1. Message format differences (continued)

	IBM-supplied default USS table (ISTINCNO)	Default USS table (ISTCFCMM)
<b>Note:</b> ISTINCNO can be used for the POA if a message is not found in ISTCFCMM. User-defined tables can also be associated with the system console or POAs. For more information about the order of search for a message, see the <a href="#">z/OS Communications Server: SNA Resource Definition Reference</a> .		

- Pre-Version 4 Example

- In releases prior to Version 4, if you are using the default USS tables for your system console and POAs, and issue a MODIFY USERVAR command from the system console, the PPO will receive a percolated copy of message IST825I in the following format:

```
IST825I USERVAR DEFINED - NAME = NAME1, VALUE = APPL1
```

This message is identical to the original message built for the system console according to the IBM-supplied default table, ISTINCNO. It has extra blanks suppressed and has one blank following the message ID (IST825I).

- If the MODIFY USERVAR command had been issued from an SPO, the original message IST825I for the SPO and the percolated copy of the message for the PPO would have been formatted according to the default USS table, ISTCFCMM. It would have two blanks following the message ID. Extra blanks would not be suppressed:

```
IST825I  USERVAR DEFINED - NAME = NAME1  , VALUE = APPL1
```

If the PPO was not available, an exact copy would have been sent to the system console.

- Current Version Example

- In the current version, if you are using the default USS tables for your system console and POAs and issue a MODIFY USERVAR command from the system console, the system console will receive message IST825I formatted according to ISTINCNO. Extra blanks will be suppressed and one blank will follow the message ID:

```
IST825I USERVAR DEFINED - NAME = NAME1, VALUE = APPL1
```

- The PPO will receive the percolated message IST825I formatted according to ISTCFCMM. Two blanks will follow the message ID. Extra blanks will not be suppressed:

```
IST825I  USERVAR DEFINED - NAME = NAME1  , VALUE = APPL1
```

## Solicited messages

Solicited messages are those messages that are normally issued in response to an operator command from the system console or from a program operator application (POA).

- From the system console

If a message is solicited from the system console, it is routed to the system console. A message may be sent to the primary program operator (PPO) for one of the following reasons:

- The message is percolated.
- PPOLOG=YES was specified as a start option or by the MODIFY PPOLOG command.

If a message is percolated **and** PPOLOG=YES, the message is sent to the PPO twice.

For additional information on message percolation and a list of percolated messages, see [“Message rerouting and percolation” on page 1707](#).

For a description of the PPOLOG start option, see the [z/OS Communications Server: SNA Resource Definition Reference](#) . For a description of the MODIFY PPOLOG command, see [z/OS Communications Server: SNA Operation](#) .

- From a program operator application (POA)

If a message is solicited from a POA, it is first routed to the POA. The POA can be a primary program operator (PPO) or a secondary program operator (SPO). If the POA is no longer available and the message requires a reply, the message is redirected to the system console. Messages that do not require a reply are converted to unsolicited messages. For additional information, see [“Message rerouting and percolation” on page 1707](#).

If the original message was solicited from an SPO and is percolated, it is also sent to the PPO. If it cannot be sent to the PPO and has not already been redirected to the system console, it is sent to the system console.

In addition to the normal messages that are solicited as the immediate result of a VTAM operator command, other messages are also considered by VTAM to be solicited:

- When resources are activated at VTAM startup, subsequent messages associated with those resources (other than those directly resulting from another VTAM operator command) will be considered to be solicited and will be returned to the system console or started task where the VTAM START command was issued. This is because VTAM internally saves the console ID of the system console or started task in the control block representing each resource, to be used in later messages. This is also true of resources activated by a VTAM operator command from a POA or system console. These resources can be:
  - Exit routines started at VTAM initialization.
  - Resources started at VTAM initialization via the configuration list.
  - Resources activated by a VTAM operator command from a POA or system console.
- An example is the case of an exit routine activated as a result of VTAM initialization. The IST984I indicating that the user exit is active will return to the system console or started task where the VTAM START command is issued. If the user exit routine goes inactive for some reason, an IST985I message indicating that the user exit failed will also return to the same location, even if VTAM had been started hours or days before the inactivation. The message, from the VTAM perspective, is solicited, not unsolicited.
- Message IST020I VTAM INITIALIZATION COMPLETE is a special case. It is always sent to the master console as a solicited message.

## Unsolicited messages

---

Unsolicited messages are usually those received as a result of an error condition such as an alert. If a message is not solicited, it is first routed to the PPO. If the PPO is not available, the message is redirected to the system console.

Percolated messages can also be received as unsolicited messages. For additional information, see [“Message rerouting and percolation” on page 1707](#).

A solicited message (not a WTOR) that is destined for a program operator application (POA) that is not active will be converted to an unsolicited message and delivered as an unsolicited message. For additional information, see [“Message rerouting and percolation” on page 1707](#). There are also cases in which messages that may be expected to be solicited are changed to unsolicited due to an error condition. For example, INOPs override command processing, so the inactivation messages following an INOP are unsolicited. If a VARY INACT is done for an NCP and a hard INOP is received while it is inactivating, the messages about inactivation processing before the INOP will be solicited, but the messages after the INOP will be unsolicited.

## Message rerouting and percolation

---

The following sections describe message rerouting and percolation.

## Message rerouting

When a write-to-operator-with-reply (WTOR) is destined for a program operator application (POA) and cannot be delivered, it is rerouted to a system console using the routing codes defined in the appropriate USS message table.

When a message (not a WTOR) is destined for a program operator application (POA) and cannot be delivered, it is converted to an unsolicited message and rerouted to the primary program operator (PPO), if it is available. If the PPO is not available, the message is redirected to the system console using the routing codes defined in the appropriate USS message table.

## Message percolation

Message percolation refers to the way that certain VTAM operator messages are routed. Percolation is determined internally by VTAM and cannot be modified by the user.

If the message is in response to a command issued by a secondary program operator (SPO) or a system console operator, it is routed (percolated) to both the originator of the command and the primary program operator (PPO). The PPO receives the message in the form of an unsolicited message.

- If the command was issued by an SPO and an active PPO is not available, the message is routed to the system console as well as to the SPO.
- If a network management application is the PPO, the percolated message may be broadcast to every network management application defined to the application receiving the message.

The following messages are percolated.

IST154I  
IST813I  
IST814I  
IST825I  
IST930I  
IST959I  
IST973I  
IST1030I  
IST1150I  
IST1151I  
IST1153I  
IST1283I

**Note:** IST314I (END) is percolated only if it is part of a percolated message group such as IST1283I.

## Message descriptor codes

---

Descriptor codes describe the kind of message being issued. These codes, with the routing codes, determine how the message is to be printed or displayed and how a message is to be deleted from a display device. Descriptor codes 1–7 are mutually exclusive; only one such code is assigned to a message. Descriptor codes 8–10 can appear with any other descriptor code.

See “Codes and suppression levels” on page 1712 for the list of messages and their codes and suppression levels.

### Code

#### Meaning

#### 1

**System Failure:** This message indicates that an error occurred that could not be corrected. To continue, the operator must restart the system.



- 2 **Immediate Action Required:** This message requires an immediate action by the operator. The action may be required because the message issuer is in a wait state until the action is performed, or because system performance is degraded until the action is taken.
- 3 **Eventual Action Required:** This message requires an eventual action by the operator. The task does not await completion of the action.
- 4 **System Status:** This message indicates the status of a system task or the status of a hardware unit.
- 5 **Immediate Command Response:** This message is issued as an immediate response to a system command. The completion of the response is not dependent upon another system action or task.
- 6 **Job Status:** This message contains status information regarding the job or job step.
- 7 **Application Program/Processor:** This message is issued while a program is in problem mode.
- 8 **Out-of-Line Message:** This message is one of a group of one or more messages to be displayed out of line. If the device support cannot print a message out of line, the code is ignored, and the message is printed in line with other messages.
- 9 **Operator's Request:** This message is written in response to an operator's request for information by DEVSERV, MONITOR, and other operating system commands.
- 10 This message is issued in response to a TRACK command.
- 11 **Critical Eventual Action Required:** This message indicates that a critical event has occurred which must eventually be followed by an action. The message will remain on the screen until the action is taken.
- 12 **Important Information:** This message contains important information that must be displayed at the console, but does not require any action in response.
- 13–16 Reserved.

## Message routing codes

---

Routing codes determine where the message appears. These codes route VTAM and TSO/VTAM messages to selected functional consoles. More than one routing code may be assigned to the message. With multiple-console support, each console operator receives only the messages related to the commands entered at that console or to the functions assigned to that console, regardless of the routing codes assigned to those messages. If a message that is routed to a particular console cannot be issued at that console, that message is issued at the master console.

See [“Codes and suppression levels” on page 1712](#) for the list of messages and their codes and suppression levels.

### Code

#### Meaning

- 1 **Master Console Action:** This message indicates a change in the system status, and demands action by the master console operator.

2

**Master Console Information:** This message indicates a change in the system status. Such a message does not demand action, but alerts the master console operator to a condition that may require action. This routing code is used for any message that indicates job status, and also for processor and problem program messages to the master console operator.

3

**Tape Pool:** This message specifies the status of a tape unit or reel, the disposition of a tape reel, or other tape-oriented information. For example, a message which requests that tapes be mounted.

4

**Direct Access Pool:** This message specifies the status of a direct access unit or pack, the disposition of a disk pack, or other direct-access-oriented information. For example, a message which requests that disks be mounted.

5

**Tape Library:** This message specifies tape library information. For example, a message which requests, by volume serial numbers, that tapes be obtained for system or programmer use.

6

**Disk Library:** This message specifies disk library information. For example, a message which requests, by volume serial numbers, that disk packs be obtained for system or programmer use.

7

**Unit Record Pool:** This message specifies unit-record equipment information. For example, a message which requests that printer trains be mounted.

8

**Teleprocessing Control:** This message specifies the status or the disposition of data communication equipment. For example, a message which indicates line errors.

9

**System Security:** This message is associated with security checking. For example, a message which requires a reply specifying a password.

10

**System Error Maintenance:** This message indicates either a system error, or an input/output error that could not be corrected. It also indicates a message associated with system maintenance.

11

**Programmer Information:** This message is for the problem programmer. This routing code is used only when the program issuing the message has no way of routing the message to the programmer using the system-output data set facility. The message appears in the job's system output message class.

**Note:** Messages assigned routing code 11 will default to the master console if a secondary console, specified during the VTAM definition process to receive these messages, is not active. The messages will not default to the master console, however, if no secondary console was specified to receive these messages.

12

**Emulators:** This message is issued by an emulator program.

13

Reserved for customer use.

14

Reserved for customer use.

15

Reserved for customer use.

16

Reserved for future expansion.

## Message suppression levels

---

The level at which VTAM can suppress a message is designated by either the SUPP start option or the MODIFY SUPP command. If a message is at the designated level or at a lower level, it is not written to the console or to the program operator. Messages at higher levels, as well as messages that cannot be suppressed, continue to go to the console and the program operator.

The following suppression levels are defined by IBM. If you design your own message suppression criteria, it is your responsibility to document any changes to the published message suppression levels. Suppression levels are listed from lowest to highest order.

See [“Codes and suppression levels” on page 1712](#) for the list of messages and their codes and suppression levels.

### **Informational (INFO)**

If VTAM suppression level is set to INFO, only messages defined with SUPP=INFO in the USS table will be suppressed.

Informational-level messages do not indicate error conditions and usually indicate that some VTAM processing has been started. These messages probably have little or no effect if omitted.

### **Warning (WARN)**

If VTAM suppression level is set to WARN, messages defined with SUPP=INFO or with SUPP=WARN will be suppressed.

Warning-level messages indicate error conditions that do not cause commands to fail or to be rejected. These messages tell you that a problem exists, such as use of a command that is not valid or a condition in which a minor node cannot be activated. VTAM can continue to process other parts of the command or procedure.

### **Normal (NORM)**

If VTAM suppression level is set to NORM, messages defined with SUPP=INFO, SUPP=WARN, or SUPP=NORM will be suppressed.

Normal-level messages contain all VTAM completion messages. For example, these messages tell you that commands have completed processing successfully or that a configuration has been activated successfully.

### **Serious (SER)**

If VTAM suppression level is set to SER, messages defined with SUPP=INFO, SUPP=WARN, SUPP=NORM, or SUPP=SER will be suppressed.

Serious-level messages indicate error conditions that cause commands or procedures to fail. These messages tell you that commands must be re-entered or procedures must be re-initiated.

### **Never (NOSUP or NEVER)**

If VTAM suppression level is set to NOSUP, no messages will be suppressed. If a message is defined with SUPP=NEVER, it will not be suppressed at any VTAM suppression level.

Unsuppressible-level messages can never be suppressed. This level includes messages in any of the following categories:

- Messages indicating failure of the VTAM start procedure
- Messages included in a display resulting from the DISPLAY command
- Messages requesting an operator's reply
- Messages indicating situations that cause or result from abnormal termination of VTAM.

**Note:** For message groups, if the first message in a group is suppressed, all messages in the group will be suppressed.

## Codes and suppression levels

The following tables list the descriptor codes, routing codes, and suppression levels for logon manager, TSO/VTAM, and VTAM operator messages.

### ELM messages for Logon Manager

Message identifier	Descriptor code	Routing codes	Suppression level
ALL ELM messages	6	2,8	NEVER

### IKT messages for TSO/VTAM

MVS identifier	Descriptor code	Routing codes	Suppression level
IKT001D	***	1,8	NEVER
IKT002I	***	1,8	NEVER
IKT003D	***	1,8	NEVER
IKT004D	***	1,8	NEVER
IKT005I	***	1,8	NEVER
IKT006I	***	1,8	NEVER
IKT007I	***	1,8	NEVER
IKT008I	***	1,8	NEVER
IKT009I	***	1,8	NEVER
IKT010D	***	1,8	NEVER
IKT011I	***	1,8	NEVER
IKT012D	***	1,8	NEVER
IKT013I	***	1,8	NEVER
IKT014I	***	1,8	NEVER
IKT015I	***	1,8	NEVER
IKT016D	***	1,8	NEVER
IKT017I	***	1,8	NEVER
IKT018I	***	1,8	NEVER
IKT020I	***	1,8	NEVER
IKT026D	***	1,8	NEVER
IKT028I	***	1,8	NEVER
IKT029I	***	1,8	NEVER
IKT030I	***	1,8	NEVER
IKT031I	***	2,8	NEVER
IKT032I	***	1,8	NEVER

<b>MVS identifier</b>	<b>Descriptor code</b>	<b>Routing codes</b>	<b>Suppression level</b>
IKT033I	***	1,8	NEVER
IKT100I	4	2,8	NEVER
IKT103I	4	2,8	NEVER
IKT104I	4	2,8	NEVER
IKT105I	4	1,8	NEVER
IKT106I	4	1,8	NEVER
IKT109I	4	2,8	NEVER
IKT111I	4	2,8	NEVER
IKT112I	4	2,8	NEVER.
IKT115I	4	2,8	NEVER
IKT116I	4	2,8	NEVER
IKT117I	4	2,8	NEVER
IKT118I	4	2,8	NEVER
IKT119I	4	2,8	NEVER
IKT120I	4	2,8	NEVER.
IKT121I	4	2,8	NEVER
IKT122I	4	1,8	NEVER
IKT123I	5	2	NEVER
IKT124I	5	2	NEVER
IKT125I	4	1,8	NEVER

## IST VTAM operator messages

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST001I	5	2	NEVER
IST003I	5	2	SER
IST009I	5	2	NEVER
IST010I	5	2	SER
IST011I	5	2	NORM
IST013I	4	2,10	INFO
IST014I	5	1	WARN
IST015A	2	1	NEVER
IST017I	5	2	WARN
IST018I	5	2	WARN

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST020I	5	2	NORM
IST025I	5	2	WARN
IST033I	5	2	SER
IST037I	5	2	SER
IST038I	5	2	SER
IST039I	5	2	NORM
IST040I	5	2	NEVER
IST043I	5	2	SER
IST046I	5	2	WARN
IST049I	5	2	NEVER
IST050I	5	2	SER
IST051A	2	1	NEVER
IST052I	5	2	WARN
IST054I	5	2	WARN
IST056A	2	1	NEVER
IST057I	5	2	WARN
IST058I	5	2	WARN
IST059I	5	2	WARN
IST061I	5	2	SER
IST066I	5	2	SER
IST072I	5	2	SER
IST073I	5	2	SER
IST074I	5	2	SER
IST075I	5	2	NEVER
IST077I	5	2,8	NEVER
IST080I	5	2	NEVER
IST081I	5	2	NEVER
IST082I	5	2	NEVER
IST084I	5	2	NEVER
IST085I	5	2	SER
IST087I	5	8	NEVER
IST089I	5	2	NEVER
IST092I	5	2	NEVER
IST093I	5	2	NORM

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST095A	2	1	NEVER
IST096I	5	2	SER
IST097I	5	8	NEVER
IST101I	5	2	SER
IST102I	4	2,8	NEVER
IST105I	5	2	NORM
IST107I	5	2	WARN
IST109I	5	2	INFO
IST112I	5	2	NEVER
IST113I	5	2	NEVER
IST115I	5	2	WARN
IST116I	6	2	WARN
IST117I	4	2,10	WARN
IST118I	5	2	WARN
IST120I	5	2	NORM
IST122I	6	2	WARN
IST124I	5	2	SER
IST126I	5	2	WARN
IST127I	6	2	SER
IST128I	6	2	SER
IST129I	5	2,8,10	WARN
IST130I	4	2	SER
IST132I	5	2	SER
IST133I	4	2	INFO
IST134I	5	2	NEVER
IST135I	5	2	NEVER
IST136I	5	2	NEVER
IST137I	5	2	WARN
IST142I	5	2	WARN
IST146I	5	2	NEVER
IST148I	5	2	NEVER
IST149I	5	2	NEVER
IST150I	5	2	NORM
IST153I	6	2	INFO

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST154I	5	2	SER
IST155I	5	2	SER
IST159I	5	2	NEVER
IST165I	5	2	NORM
IST167I	5	2	NEVER
IST168I	5	2	NEVER
IST169I	5	2	INFO
IST170I	5	2	NEVER
IST171I	5	2	NEVER
IST172I	5	2	NEVER
IST176I	5	2	SER
IST180I	5	2	WARN
IST181I	5	2	WARN
IST182I	5	2	WARN
IST183A	2	2	NEVER
IST184I	5	2	WARN
IST185I	5	2	WARN
IST186I	5	2	WARN
IST187I	5	2	SER
IST191I	5	2	SER
IST192I	5	2	WARN
IST193I	5	2	SER
IST194I	5	2	SER
IST195I	5	2	SER
IST198I	5	2	NEVER
IST199I	5	2	NORM
IST206I	5	2	NEVER
IST208I	5	2	WARN
IST211I	4	2	WARN
IST212I	5	8	NEVER
IST213I	5	8	NEVER
IST214I	4	2	WARN
IST219I	4	2	WARN
IST221I	5	2	NORM



<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST223I	5	2	NEVER
IST225I	5	2	SER
IST226I	5	2	INFO
IST228I	5	2	NEVER
IST231I	5	2,8	NEVER
IST232I	5	2,8	NEVER
IST234I	4	2,8,10	WARN
IST238I	4	8	WARN
IST240A	2	2	NEVER
IST241I	5	8	NORM
IST242I	4	8	SER
IST243I	5	8	NORM
IST244I	5	8	NEVER
IST245I	5	8	NEVER
IST246I	4	8	NEVER
IST247I	5	2,8	NEVER
IST252I	5	2	NEVER
IST257I	4	2,8	SER
IST258I	5	2	WARN
IST259I	4	8	WARN
IST260I	5	2	WARN
IST262I	5	2,8	NEVER
IST264I	4	8	SER
IST265I	4	8	SER
IST266I	5	2	INFO
IST270I	5	2	NORM
IST271I	5	2	NEVER
IST272A	2	1	NEVER
IST278A	2	1	NEVER
IST282A	3	1	NEVER
IST284A	2	1	NEVER
IST285I	5	2	SER
IST301I	5	2	WARN
IST302I	5	2	WARN

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST303I	5	2	WARN
IST309I	5	2,4,8	WARN
IST310I	5	2	SER
IST311I	5	2,4,8	WARN
IST314I	5	2	NEVER
IST315I	5	2	NORM
IST316I	5	2	NORM
IST317I	5	2	SER
IST319I	5	2	NORM
IST320I	5	2	WARN
IST321I	5	2	WARN
IST322I	5	2	WARN
IST323I	5	2	WARN
IST324I	5	2	INFO
IST326I	5	2	NORM
IST327I	5	2	NORM
IST328I	5	2	NORM
IST330I	5	2	WARN
IST331I	5	2	WARN
IST333I	5	2	WARN
IST336I	5	2	NEVER
IST339I	5	2	WARN
IST348I	5	2	NORM
IST350I	5	2	NEVER
IST351I	5	2	NEVER
IST352I	5	2	NEVER
IST353I	5	2	NEVER
IST354I	5	2	NEVER
IST355I	5	2	NEVER
IST356I	5	2	NEVER
IST359I	5	2	NEVER
IST360I	5	2	NEVER
IST361A	2	2	NEVER
IST362I	5	2	WARN

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST363I	5	2	WARN
IST366I	5	2	WARN
IST367I	5	2	WARN
IST368I	5	2	WARN
IST380I	5	2	NORM
IST381I	5	2	SER
IST382I	5	2	SER
IST383I	5	2	NORM
IST384I	5	2	SER
IST388I	5	8	NEVER
IST389I	5	8	NEVER
IST391I	5	8	NEVER
IST393I	5	8	NEVER
IST394I	5	8	NEVER
IST395I	5	8	NEVER
IST396I	5	8	NEVER
IST397I	5	8	NEVER
IST398I	5	8	WARN
IST399E	3	2	SER
IST400I	5	2	NORM
IST401I	5	2	NEVER
IST403I	5	2	SER
IST410I	5	1	NEVER
IST411I	5	2	SER
IST412I	5	2	INFO
IST413I	5	2	NEVER
IST414I	5	2	SER
IST416I	4	2,8	NEVER
IST422I	5	2	WARN
IST423I	5	2	WARN
IST424I	5	2	WARN
IST425I	5	2	WARN
IST430I	5	2	WARN
IST433I	5	2	SER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST435I	5	2	WARN
IST436I	5	2	WARN
IST437I	5	2	WARN
IST440I	4	2	NEVER
IST441I	4	2	NEVER
IST442I	4	2	NEVER
IST443I	4	2	NEVER
IST447I	5	2	WARN
IST448I	5	2	NEVER
IST449I	5	8	NEVER
IST450I	5	2	SER
IST451I	5	8	NEVER
IST452I	5	8	SER
IST453I	5	8	NEVER
IST454I	5	8	SER
IST455I	5	2	NORM
IST456I	5	8	SER
IST457I	5	2	NORM
IST458I	5	2	NEVER
IST459I	5	2	SER
IST460I	5	2	SER
IST461I	4	2	NORM
IST462I	5	2	WARN
IST464I	4	2	NORM
IST465I	5	2	SER
IST466I	4	2	WARN
IST467I	5	8	SER
IST473I	4	2,8	WARN
IST474I	5	2	NEVER
IST475I	5	2	NEVER
IST476I	5	2	NEVER
IST477I	5	2	NEVER
IST478I	5	2	NEVER
IST479I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST482I	5	8	NEVER
IST483I	5	8	NEVER
IST484I	5	2	NEVER
IST486I	5	8	NEVER
IST487I	5	2	INFO
IST488I	5	2	SER
IST489I	5	2	WARN
IST490I	5	2	SER
IST493I	5	2	SER
IST494I	5	2	SER
IST495I	4	2	NEVER
IST496E	3	8	WARN
IST499I	5	2	NORM
IST500I	4	2,8	WARN
IST501I	4	2,8	NEVER
IST502A	2	2,8	NEVER
IST503I	4	2,8	NEVER
IST504I	4	2,8	INFO
IST505I	4	2,8	NORM
IST506I	4	2,8	WARN
IST507I	4	2,8	WARN
IST510I	5	8	NEVER
IST511I	5	2	NEVER
IST512I	5	2	NEVER
IST513I	5	2	NEVER
IST516I	5	2	NEVER
IST517I	5	2	NEVER
IST518I	5	2	NEVER
IST520I	4	8	NEVER
IST521I	4	8	SER
IST522I	4	8	SER
IST523I	4	8	INFO
IST524I	4	8	INFO
IST525I	4	8	INFO

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST526I	5	2	WARN
IST528I	4	8	INFO
IST529I	4	8	WARN
IST530I	4	8	INFO
IST531I	4	8	INFO
IST533I	5	8	NEVER
IST534I	5	8	NEVER
IST535I	5	8	NEVER
IST536I	5	8	NEVER
IST537I	5	8	NEVER
IST538I	5	8	NEVER
IST539I	5	8	NEVER
IST540I	5	8	NORM
IST541I	5	8	WARN
IST542I	5	8	WARN
IST543I	5	8	WARN
IST544I	5	8	WARN
IST546I	4	8	NEVER
IST547I	4	8	INFO
IST548I	4	2	SER
IST549I	5	8	NORM
IST561I	5	2	SER
IST562I	5	2	SER
IST563I	5	2	SER
IST564I	5	2	SER
IST565I	5	2	SER
IST566I	5	2	SER
IST567I	5	2	NORM
IST571I	5	2	SER
IST572I	5	8	NEVER
IST574E	3	2	SER
IST576I	5	2,8	NEVER
IST577I	4	2	NEVER
IST578I	4	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST579I	4	2	NEVER
IST580I	4	2	NEVER
IST581I	4	2	NEVER
IST582I	5	8	WARN
IST583I	5	2	SER
IST585E	3	2	SER
IST587I	4	8	WARN
IST588I	5	2,8	NEVER
IST589I	4	8	WARN
IST590I	4	8	INFO
IST591E	3	2	SER
IST592I	5	2	NEVER
IST593I	5	2	WARN
IST594I	5	2	WARN
IST595I	5	8	NEVER
IST596I	5	8	NEVER
IST597I	5	8	NEVER
IST599I	5	8	NEVER
IST602I	5	2	SER
IST605I	5	2	SER
IST607I	5	2	SER
IST608I	5	2	SER
IST610I	5	8	NEVER
IST611I	5	8	NEVER
IST617I	5	2	INFO
IST619I	4	2,8	WARN
IST621I	4	2,8	NORM
IST623I	5	8	NEVER
IST624I	5	8	NEVER
IST627I	5	2	SER
IST632I	5	2	NEVER
IST633I	5	2	NEVER
IST634I	5	8	NEVER
IST635I	5	8	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST636I	5	8	NEVER
IST637I	5	8	NEVER
IST638I	5	8	NEVER
IST639I	5	8	NEVER
IST640I	5	8	NEVER
IST641I	5	8	NEVER
IST642I	5	8	NEVER
IST643I	5	8	NEVER
IST644I	5	8	NEVER
IST645I	5	2	SER
IST650I	5	2	NEVER
IST652I	5	2	NEVER
IST654I	5	2	NEVER
IST655I	5	2	NEVER
IST656I	5	2	INFO
IST658I	5	8	NEVER
IST660I	5	2	WARN
IST663I	4	8	SER
IST664I	4	8	SER
IST670I	4	8	NORM
IST674I	5	2	NORM
IST675I	5	8	NEVER
IST678I	5	2	NEVER
IST679A	2	1	NEVER
IST680I	4	8	SER
IST683I	4	8	SER
IST684I	4	8	WARN
IST688I	5	2	SER
IST690I	4	8	SER
IST693I	4	8	SER
IST700I	5	2	WARN
IST701I	5	2	INFO
IST702I	5	2	WARN
IST703I	5	2	WARN



<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST706I	5	2	WARN
IST707I	5	2	INFO
IST708I	5	2	WARN
IST709I	5	2	SER
IST710I	4	2	WARN
IST712I	5	2	WARN
IST713I	5	2	WARN
IST714I	5	2	WARN
IST715I	5	2	WARN
IST716I	4	8	WARN
IST717I	4	8	WARN
IST718I	5	8	WARN
IST719I	5	8	WARN
IST720I	5	8	INFO
IST721I	4	8	WARN
IST723I	4	8	INFO
IST725I	4	8	INFO
IST726I	4	8	INFO
IST727I	4	8	NORM
IST728I	4	8	INFO
IST732I	4	8	SER
IST734I	4	8	SER
IST735I	4	8	INFO
IST737I	4	8	INFO
IST740I	4	8	WARN
IST742I	4	8	INFO
IST744I	4	8	INFO
IST745I	4	8	INFO
IST746I	4	8	INFO
IST751I	5	2,8	NEVER
IST752I	5	8	NEVER
IST755I	4	8	NORM
IST756E	3	8	SER
IST757E	3	8	SER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST758E	3	8	SER
IST759E	3	8	SER
IST760E	3	8	SER
IST761E	3	8	SER
IST762I	4	8	NORM
IST763I	4	8	NORM
IST764I	4	8	NORM
IST765E	3	8	SER
IST766I	5	2	NORM
IST767E	3	8	SER
IST768E	3	8	SER
IST769E	3	8	SER
IST770E	3	8	SER
IST771E	3	8	SER
IST772I	5	8	SER
IST773I	5	8	SER
IST778I	4	8	INFO
IST784I	5	8	NEVER
IST786I	5	8	NEVER
IST787I	5	8	SER
IST788I	5	8	NEVER
IST789I	5	8	NEVER
IST790I	5	8	NEVER
IST792I	5	2	NEVER
IST793E	3	8	SER
IST794I	5	2	NEVER
IST796I	5	2	WARN
IST797I	5	2	NEVER
IST798I	5	2	NEVER
IST799I	5	8	NEVER
IST803I	5	2	NEVER
IST804I	5	2	INFO
IST805I	5	2	NORM
IST806I	5	2	NORM

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST807I	5	2	SER
IST808I	5	8	NEVER
IST809I	5	8	NEVER
IST812I	5	8	NEVER
IST813I	5	8	NEVER
IST814I	5	8	NEVER
IST815I	5	4,5,9	NEVER
IST816I	5	2	NEVER
IST819I	4	8	NORM
IST820I	4	8	SER
IST822I	4	8	SER
IST824I	4	2	WARN
IST825I	5	8	NEVER
IST826I	5	2	NEVER
IST830I	4	8	SER
IST831I	4	2	WARN
IST832I	4	2	WARN
IST833I	4	2	WARN
IST834I	5	8	NEVER
IST836I	4	2	WARN
IST837I	4	2	WARN
IST838I	7	2	NEVER
IST839I	7	2	NEVER
IST840I	7	2	NEVER
IST841I	5	2	NEVER
IST842I	5	2	NORM
IST844I	5	2	NEVER
IST845I	4	2	WARN
IST846I	5	2	INFO
IST849I	5	2	WARN
IST860I	5	2	WARN
IST861I	5	2	NEVER
IST862I	5	2	NEVER
IST863I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST864I	5	2	NEVER
IST865I	5	2	NEVER
IST866I	5	2	NEVER
IST867I	5	2	INFO
IST869I	5	2	NEVER
IST870I	5	2	NORM
IST871I	5	2	NORM
IST872I	5	2	NORM
IST873I	5	2	NEVER
IST874I	5	2	NEVER
IST875I	5	2	NEVER
IST876I	5	2	NEVER
IST877I	5	2	NEVER
IST878I	5	2	NEVER
IST879I	5	2	NEVER
IST880I	5	2	NEVER
IST881I	5	2	NORM
IST882I	5	2	NORM
IST883I	5	2	NEVER
IST886I	5	2	NORM
IST887I	5	2	NEVER
IST888I	5	2	NEVER
IST889I	4	8	INFO
IST890I	5	2	SER
IST891I	4	8	INFO
IST892I	4	8	INFO
IST893I	4	8	INFO
IST894I	4	8	INFO
IST895I	4	8	INFO
IST896I	5	2	INFO
IST897I	5	2	INFO
IST898I	5	8	NEVER
IST899I	5	2	INFO
IST900I	5	2	INFO

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST901A	5	2	NEVER
IST902A	5	2	NEVER
IST903A	5	2	NEVER
IST904A	5	2	NEVER
IST905A	5	2	NEVER
IST906A	5	2	NEVER
IST907A	5	2	NEVER
IST908A	5	2	NEVER
IST909A	5	2	NEVER
IST910I	5	2	INFO
IST911I	5	2	INFO
IST912I	5	2	INFO
IST913I	5	2	INFO
IST914I	5	2	INFO
IST915I	5	2	INFO
IST916I	5	2	INFO
IST917I	5	2	INFO
IST918A	5	2	NEVER
IST919I	5	2	NORM
IST920I	5	2	NEVER
IST921I	5	2	NEVER
IST922I	5	2	NEVER
IST923I	5	2	NEVER
IST924I	5	2	NEVER
IST925I	5	2	NEVER
IST926I	5	2	NORM
IST927I	5	2	NORM
IST928I	5	2	NORM
IST929I	5	2	NORM
IST930I	5	2	NEVER
IST931I	4	8	NEVER
IST932E	3	2	SER
IST933I	5	2	NEVER
IST934I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST935I	5	2	NEVER
IST936I	5	2	NEVER
IST937A	2	2	NEVER
IST938I	5	2	NEVER
IST939I	5	2	SER
IST940I	4	8	SER
IST946I	5	2	NEVER
IST947I	5	2	NEVER
IST948I	5	2	NEVER
IST949I	5	2	WARN
IST950I	5	2,8	NEVER
IST951I	5	2	NEVER
IST952I	5	2	NEVER
IST953I	5	2	NEVER
IST954I	5	2	NEVER
IST955I	5	2	NEVER
IST956I	5	2	NEVER
IST957I	5	2	NEVER
IST958I	5	2	NEVER
IST959I	5	2	WARN
IST960I	5	2	SER
IST961I	3	2	NEVER
IST962I	4	8	INFO
IST963I	3	2	NEVER
IST965I	3	2	NEVER
IST966I	5	2,8	NEVER
IST967I	4	2	WARN
IST968I	4	2	WARN
IST970I	4	2	WARN
IST971I	5	8	NEVER
IST972I	5	2	SER
IST973I	5	2	INFO
IST974I	5	2	INFO
IST976I	5	2	WARN

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST977I	5	2	NEVER
IST979I	5	2	WARN
IST981I	5	2	NEVER
IST982I	4	8	INFO
IST983E	11	2	NEVER
IST984I	4	8	NEVER
IST985I	4	8	NEVER
IST986I	5	2	NEVER
IST987I	5	2	NEVER
IST988I	5	2	NEVER
IST989I	5	2	NEVER
IST990E	3	2	WARN
IST991I	5	2	WARN
IST996I	5	8	NEVER
IST997I	5	8	NEVER
IST998E	3	2	NEVER
IST999E	3	2	NEVER
IST1000I	5	2	NEVER
IST1001I	5	8	NEVER
IST1002I	5	8	NEVER
IST1003I	5	8	NEVER
IST1004I	5	8	NEVER
IST1005I	5	8	NEVER
IST1006I	5	8	NEVER
IST1007I	5	8	NEVER
IST1008I	5	8	NEVER
IST1009I	5	8	NEVER
IST1010I	5	8	NEVER
IST1011I	5	2	WARN
IST1012I	5	8	NEVER
IST1013I	5	8	NEVER
IST1014I	5	2	SER
IST1015I	4	8	SER
IST1016I	5	2	INFO

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1017I	5	2	NEVER
IST1018I	5	2	NEVER
IST1019I	5	8	NEVER
IST1020I	5	2	SER
IST1021I	8	5	NEVER
IST1022I	4	2	NEVER
IST1023E	3	2	SER
IST1024I	2	4	WARN
IST1025I	5	2	NEVER
IST1026I	5	2	NEVER
IST1027I	5	2	NEVER
IST1028I	4	8	SER
IST1029I	5	8	NEVER
IST1030I	5	8	NEVER
IST1031I	5	8	NEVER
IST1032I	5	8	SER
IST1033I	5	2	NEVER
IST1034I	5	2	NEVER
IST1035I	4	8	WARN
IST1036I	2	2	SER
IST1037I	2	2	SER
IST1038I	5	2	NEVER
IST1039I	5	2	NEVER
IST1040I	5	8	NEVER
IST1041I	5	2	NEVER
IST1042I	5	2	NEVER
IST1043I	5	2	NEVER
IST1044I	5	2	NEVER
IST1045I	5	2	NORM
IST1046I	5	2	NEVER
IST1048I	5	2	NEVER
IST1049I	5	2	NEVER
IST1050I	5	2	NEVER
IST1051I	4	8	INFO



<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1052I	5	2	NEVER
IST1053I	5	2	NEVER
IST1054I	5	2	NEVER
IST1055I	5	2	NEVER
IST1056I	5	2	NEVER
IST1057I	5	2	NEVER
IST1058I	5	2	INFO
IST1059I	5	2	INFO
IST1060I	5	2	INFO
IST1061I	5	2	INFO
IST1062I	4	8	INFO
IST1063I	5	2	WARN
IST1064I	5	2	WARN
IST1065I	5	2	INFO
IST1066I	5	2	INFO
IST1067I	5	2	NEVER
IST1068I	5	2	NEVER
IST1069I	5	2	NEVER
IST1070I	5	2	NEVER
IST1071I	5	2	NEVER
IST1072I	5	2	NEVER
IST1073I	5	2	NEVER
IST1074I	5	2	NEVER
IST1075I	5	2	NEVER
IST1076I	5	2	NEVER
IST1077I	5	2	NEVER
IST1078I	5	2	NEVER
IST1079I	5	2	NEVER
IST1080I	5	2	NEVER
IST1081I	5	2	NEVER
IST1082I	5	2	NORM
IST1083I	5	2	SER
IST1084I	5	2	NEVER
IST1085I	5	2	SER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1086I	5	2	NORM
IST1088I	5	2	NORM
IST1089I	5	2	NEVER
IST1090I	5	2	NORM
IST1091I	5	2	NEVER
IST1092I	5	2	NEVER
IST1093I	5	2	NEVER
IST1094I	5	2	NEVER
IST1095I	5	2	SER
IST1096I	5	2	NORM
IST1097I	5	2	NORM
IST1098I	5	2	NEVER
IST1099I	5	2	NEVER
IST1100I	5	2	NEVER
IST1101I	5	2	NEVER
IST1102I	5	2	NEVER
IST1103I	5	2	NEVER
IST1104I	5	2	NEVER
IST1105I	5	2	NEVER
IST1106I	5	2	NEVER
IST1107I	5	2	NEVER
IST1108I	5	2	NEVER
IST1110I	5	2	SER
IST1111I	5	2	SER
IST1112I	5	2	SER
IST1113I	5	2	SER
IST1114I	5	2	NEVER
IST1115I	6	2	NEVER
IST1116I	6	2	WARN
IST1117I	5	2	WARN
IST1118I	3	2	NEVER
IST1119I	3	2	NEVER
IST1120I	5	2	SER
IST1121I	5	2	WARN

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1122I	5	2	WARN
IST1123I	5	2	NEVER
IST1124I	3	2	WARN
IST1125I	3	2	WARN
IST1126I	3	2	WARN
IST1127I	3	2	WARN
IST1128I	5	2	WARN
IST1129I	5	2	SER
IST1130I	5	2	SER
IST1131I	5	2	NEVER
IST1132I	5	2	NORM
IST1133I	5	2	NORM
IST1134I	5	2	NORM
IST1135I	5	2,8,10	WARN
IST1136I	5	2,8,10	WARN
IST1137I	5	2	SER
IST1138I	4	8	SER
IST1139I	5	2	NORM
IST1140I	5	2	SER
IST1141I	5	2	SER
IST1142I	5	2	SER
IST1143I	5	2	NORM
IST1144I	5	2	NORM
IST1145I	5	2	SER
IST1146I	5	2	WARN
IST1147I	5	2	WARN
IST1148I	5	2	WARN
IST1149I	4	8	NORM
IST1150I	5	8	NEVER
IST1151I	5	8	NEVER
IST1152I	5	2	NORM
IST1153I	5	2	NEVER
IST1154I	5	2	NEVER
IST1155I	5	2	SER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1156I	5	2	NEVER
IST1157I	3	2	WARN
IST1158I	5	2	NEVER
IST1159I	5	2	NEVER
IST1160I	5	2	NEVER
IST1161I	5	2	NEVER
IST1162I	5	2	NEVER
IST1163I	5	2	NEVER
IST1164I	5	2	NEVER
IST1166I	5	2	WARN
IST1167I	5	2	WARN
IST1168I	5	2	NEVER
IST1169E	11	2	NEVER
IST1174I	4	2	NORM
IST1175I	5	2	WARN
IST1176I	5	2	NEVER
IST1177I	5	2	NEVER
IST1183I	5	2	SER
IST1184I	5	2	NEVER
IST1185I	5	2	NEVER
IST1186I	5	2	NEVER
IST1187I	5	2	SER
IST1188I	5	2	NEVER
IST1189I	5	2	NEVER
IST1190I	3	2	NORM
IST1191I	3	2	NORM
IST1192I	3	2	NORM
IST1193I	3	2	SER
IST1194I	3	2	WARN
IST1196I	5	2	NORM
IST1197I	5	2	NORM
IST1198I	5	2	NORM
IST1199I	5	2	WARN
IST1200I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1201I	5	2	SER
IST1202I	5	2	NEVER
IST1203I	5	2	NEVER
IST1204I	5	2	NEVER
IST1205I	5	2	WARN
IST1206I	5	2	WARN
IST1207I	5	2	WARN
IST1208I	5	2	WARN
IST1209I	5	2	WARN
IST1211I	4	2,8,10	WARN
IST1212I	5	2,8	NEVER
IST1213I	5	2	WARN
IST1214I	5	2	WARN
IST1215I	5	2	NEVER
IST1216A	2	1	NEVER
IST1217A	2	1	NEVER
IST1218I	5	2	NEVER
IST1219I	5	2	NEVER
IST1220I	5	8	NEVER
IST1221I	5	2	NEVER
IST1222I	4	2	WARN
IST1223I	5	2	NEVER
IST1224I	5	2	NEVER
IST1225I	5	2	NEVER
IST1226I	5	2	WARN
IST1227I	5	2	NEVER
IST1228I	5	2	WARN
IST1229I	5	2	WARN
IST1230I	4	2	NEVER
IST1231I	4	2	NEVER
IST1232I	4	2	NEVER
IST1233I	4	2	NEVER
IST1234I	4	2	NEVER
IST1235I	4	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1236I	5	2	NEVER
IST1237I	5	2	NEVER
IST1238I	5	2	NEVER
IST1239I	5	2	NEVER
IST1240I	5	2	NEVER
IST1241I	5	2	NEVER
IST1242I	5	2	NEVER
IST1243I	5	2	NEVER
IST1244I	5	2	NEVER
IST1245I	5	2	SER
IST1246I	5	2	SER
IST1247I	5	2	SER
IST1248I	5	2	NEVER
IST1249I	5	2	WARN
IST1250I	5	2	NEVER
IST1251I	5	2	NEVER
IST1252I	5	2	NEVER
IST1253I	5	2	NEVER
IST1254I	5	2	NEVER
IST1255I	5	2	NEVER
IST1256I	5	2	NEVER
IST1257I	5	2	WARN
IST1258I	5	2	WARN
IST1259I	5	2	WARN
IST1260I	5	2	WARN
IST1261I	3	2	NEVER
IST1262I	5	2	NEVER
IST1263I	5	2	WARN
IST1264I	5	2	SER
IST1265I	5	2	SER
IST1266I	5	2	INFO
IST1267I	5	2	SER
IST1268I	5	2	NORM
IST1269I	5	2	SER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1270I	5	2	SER
IST1271I	5	2	INFO
IST1272I	5	2	WARN
IST1273I	5	2	SER
IST1274I	5	2	SER
IST1275I	5	2	NORM
IST1276I	5	8	NEVER
IST1277I	5	2	NORM
IST1278I	4	8	INFO
IST1279I	5	2	WARN
IST1280I	5	2	SER
IST1281I	5	8	SER
IST1282I	4	2	INFO
IST1283I	5	2	NEVER
IST1284I	5	2	NEVER
IST1285I	5	2	NORM
IST1286I	5	2	INFO
IST1287I	5	2	INFO
IST1288I	5	2	WARN
IST1289I	5	2	INFO
IST1290I	5	2	INFO
IST1291I	5	2	NEVER
IST1292I	5	2	NEVER
IST1294I	5	2	INFO
IST1295I	5	2	NEVER
IST1296I	5	2	NEVER
IST1297I	5	2	NEVER
IST1298I	5	2	NEVER
IST1299I	5	2	NEVER
IST1300I	5	2	NEVER
IST1301I	5	2	NEVER
IST1302I	5	2	NEVER
IST1303I	5	2	NEVER
IST1304I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1305I	5	2	NEVER
IST1306I	5	2	NEVER
IST1307I	5	2	NEVER
IST1308I	5	2	NEVER
IST1309I	5	2	NEVER
IST1310I	5	2	NEVER
IST1311A	1	2	NEVER
IST1312I	5	2	NEVER
IST1313I	5	2	NEVER
IST1314I	5	2	NEVER
IST1315I	5	2	NEVER
IST1316I	5	2	NEVER
IST1317I	5	2	NEVER
IST1318I	5	2	NEVER
IST1319I	5	2	NEVER
IST1320I	5	2	SER
IST1321I	5	2	NEVER
IST1322I	5	2	NEVER
IST1323I	5	2	NEVER
IST1324I	5	2	NEVER
IST1326I	5	2	NEVER
IST1327I	5	2	NEVER
IST1328I	5	2	NEVER
IST1329I	5	2	NEVER
IST1330I	5	2	INFO
IST1333I	5	2	NEVER
IST1334I	5	2	WARN
IST1335I	5	2	WARN
IST1336I	5	2	INFO
IST1337I	5	2	INFO
IST1338I	5	2	INFO
IST1342I	5	8	NEVER
IST1343I	5	8	NEVER
IST1345I	5	2	NEVER



<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1346I	5	2	WARN
IST1347I	5	2	NORM
IST1348I	5	2	NEVER
IST1349I	5	2	NEVER
IST1350I	5	2	WARN
IST1351I	5	2	NEVER
IST1352I	5	2	NEVER
IST1353I	5	2	NEVER
IST1354I	5	2	NEVER
IST1355I	5	2	NEVER
IST1356I	5	2	SER
IST1357I	5	2	NEVER
IST1358I	5	2	NEVER
IST1359I	5	2	NEVER
IST1360I	5	2	NEVER
IST1361I	5	2	SER
IST1363I	5	2	NEVER
IST1364I	5	2	NEVER
IST1365I	5	2	WARN
IST1366I	5	2	WARN
IST1367I	5	2	NEVER
IST1368I	5	2	NEVER
IST1369I	5	2	NEVER
IST1370I	5	2	NEVER
IST1372I	5	2	NEVER
IST1373I	5	2	NEVER
IST1374I	5	2	NEVER
IST1375I	5	2	NEVER
IST1376I	5	2	NEVER
IST1377I	5	2	NEVER
IST1378I	5	8	NEVER
IST1380I	5	2	WARN
IST1381I	5	2	WARN
IST1382I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1383I	5	2	NEVER
IST1385I	5	2	INFO
IST1386I	5	2	INFO
IST1391I	5	2	NORM
IST1392I	5	2	NORM
IST1393I	5	2	NEVER
IST1394I	4	8	SER
IST1395I	5	2	NEVER
IST1400I	5	8	NEVER
IST1401I	5	2	NEVER
IST1402I	5	2	NEVER
IST1403I	5	2	NEVER
IST1404I	5	2	NEVER
IST1405I	5	2	NEVER
IST1406I	5	8	NEVER
IST1408I	5	2	NEVER
IST1409I	5	2	NEVER
IST1410I	5	2	NEVER
IST1411I	4	8	WARN
IST1412I	4	8	INFO
IST1413I	5	2	NORM
IST1414I	5	2	NORM
IST1415I	5	2	NEVER
IST1416I	4	2,8	WARN
IST1417I	3	2	NEVER
IST1418I	5	2	NEVER
IST1419I	5	2	INFO
IST1420I	5	2	INFO
IST1421I	5	8	WARN
IST1422I	5	2	NEVER
IST1423I	2	5	SER
IST1424I	5	2	NEVER
IST1425I	5	2	NEVER
IST1426I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1427I	5	2	NEVER
IST1430I	8	4	INFO
IST1431I	5	2	NEVER
IST1432I	5	8	NEVER
IST1433I	2	5	SER
IST1434I	5	2	NEVER
IST1435I	5	2	NEVER
IST1436I	4	8	INFO
IST1437I	5	2	INFO
IST1438I	5	2	NEVER
IST1439I	11	2	NEVER
IST1440I	5	2	INFO
IST1441I	5	2	INFO
IST1442I	5	2	INFO
IST1445I	5	8	NEVER
IST1446I	5	2	WARN
IST1447I	5	2	NEVER
IST1449I	3	2	INFO
IST1450I	5	2	NEVER
IST1451I	5	2	NEVER
IST1452I	3	2	INFO
IST1453I	5	2	NEVER
IST1454I	5	2	NEVER
IST1455I	4	2	INFO
IST1456I	4	2	INFO
IST1457I	5	2	NEVER
IST1458I	5	2	NEVER
IST1459I	5	2	NEVER
IST1460I	5	2	NEVER
IST1461I	5	2	NEVER
IST1462I	5	2	NEVER
IST1463I	5	2	NEVER
IST1464I	5	2	NEVER
IST1465I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1466I	5	2	NEVER
IST1467I	5	2	NEVER
IST1468I	5	2	NEVER
IST1469I	5	2	NEVER
IST1470I	5	2	NEVER
IST1471I	5	2	NEVER
IST1472I	5	2	NEVER
IST1473I	5	2	NEVER
IST1474I	5	2	NEVER
IST1475I	3	2	NEVER
IST1476I	5	2	NEVER
IST1477I	5	2	NEVER
IST1478I	5	2	NEVER
IST1479I	5	2	NEVER
IST1480I	5	2	NEVER
IST1481I	5	2	NEVER
IST1482I	5	2	NEVER
IST1483I	5	2	NEVER
IST1484I	5	2	NEVER
IST1485I	5	2	NEVER
IST1486I	5	2	NEVER
IST1487I	5	2	NEVER
IST1488I	5	2	NEVER
IST1489I	5	2	NEVER
IST1490I	5	2	NEVER
IST1493I	5	2	NEVER
IST1494I	5	2	NEVER
IST1495I	5	2	NEVER
IST1496I	5	2	SER
IST1497I	5	2	NEVER
IST1498I	5	2,8	NEVER
IST1499I	4	2	NEVER
IST1500I	5	8	NEVER
IST1509I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1510I	5	2	NEVER
IST1511I	5	2	NEVER
IST1514I	5	2	NEVER
IST1515I	5	2	NORM
IST1516I	5	2	NEVER
IST1517I	5	2	NEVER
IST1518I	5	2	NEVER
IST1519I	5	2	NEVER
IST1520I	5	2	NEVER
IST1521I	5	2	NEVER
IST1522I	5	2	NEVER
IST1523I	5	2	NEVER
IST1524I	5	2	NEVER
IST1525I	5	2	NEVER
IST1526I	5	2	NEVER
IST1527I	5	2	NEVER
IST1528I	5	2	NEVER
IST1529I	5	2	NEVER
IST1530I	5	2	NEVER
IST1531I	5	2	NEVER
IST1532I	5	2	NEVER
IST1533I	5	2	NEVER
IST1534I	5	2	NEVER
IST1535I	5	2	NEVER
IST1536I	5	2	NEVER
IST1537I	5	2	NEVER
IST1538I	5	2	NEVER
IST1539I	5	2	NEVER
IST1540I	5	2	NEVER
IST1541I	5	2	NEVER
IST1542I	5	2	NEVER
IST1543I	5	2	NEVER
IST1544I	4	8	SER
IST1545I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1546I	5	2	NEVER
IST1547I	5	2	NEVER
IST1548I	5	2	NEVER
IST1549I	5	2	NEVER
IST1550I	5	2	NEVER
IST1551I	5	2	NEVER
IST1552I	5	2	NEVER
IST1553I	5	2	NEVER
IST1554I	5	2	NEVER
IST1555I	5	2	NEVER
IST1556I	5	2	SER
IST1557I	5	2	NEVER
IST1558I	5	2	SER
IST1559I	5	2	NEVER
IST1560I	5	2	NEVER
IST1561I	5	2	NEVER
IST1562I	5	2	SER
IST1563I	5	2	NEVER
IST1564I	5	2	NEVER
IST1565I	5	2	NEVER
IST1566I	5	2	NEVER
IST1567I	5	2	NEVER
IST1568I	4	2	NEVER
IST1569I	4	2	NEVER
IST1570I	4	2	NEVER
IST1571I	5	8	NEVER
IST1572I	5	8	NEVER
IST1573I	5	8	NEVER
IST1574I	5	8	NEVER
IST1575I	5	2	NEVER
IST1576I	5	2	NEVER
IST1577I	5	2	NEVER
IST1578I	5	2	NEVER
IST1579I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1580I	5	8	SER
IST1582I	5	8	SER
IST1583I	5	8	SER
IST1584I	5	8	SER
IST1585I	5	8	SER
IST1586I	5	8	SER
IST1587I	5	2	NEVER
IST1588I	5	2	NEVER
IST1589I	9	8	NEVER
IST1590I	5	2	SER
IST1591I	5	2	SER
IST1592I	5	2	SER
IST1593I	5	2	SER
IST1594I	5	2	SER
IST1595I	5	2	SER
IST1596I	5	2	SER
IST1597I	5	2	SER
IST1598I	5	2	SER
IST1599I	5	2	SER
IST1600I	5	2	SER
IST1601I	3	2	SER
IST1602I	5	2	SER
IST1603I	5	2	SER
IST1604I	5	2	SER
IST1605I	5	2	SER
IST1606I	5	2	SER
IST1607I	5	2	SER
IST1608I	5	2	SER
IST1609I	5	2	SER
IST1610I	5	2	SER
IST1611I	5	2	SER
IST1612I	5	2	SER
IST1613I	4	2	NEVER
IST1614I	4	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1615I	4	2	NEVER
IST1616I	4	2	NEVER
IST1617I	4	2	NEVER
IST1618I	4	2	NEVER
IST1619I	4	2	NEVER
IST1621I	5	2	SER
IST1622I	5	2	NEVER
IST1623I	5	2	NEVER
IST1624I	5	2	NEVER
IST1625I	5	8	NEVER
IST1626I	5	2	INFO
IST1627I	5	2	INFO
IST1628I	5	2	INFO
IST1629I	5	2	NEVER
IST1630I	5	2	SER
IST1631I	5	2	SER
IST1632I	5	2	NEVER
IST1633I	5	2	NEVER
IST1634I	5	2	NEVER
IST1635I	5	2	NEVER
IST1636I	5	2	NEVER
IST1637I	5	2	NEVER
IST1638I	5	2	NEVER
IST1639I	5	2	NEVER
IST1640I	5	2	NEVER
IST1641I	5	2	NEVER
IST1642I	5	2	NEVER
IST1643I	5	2	NEVER
IST1644I	5	2	NEVER
IST1645I	5	2	NEVER
IST1649I	5	2	NEVER
IST1650I	5	8	SER
IST1651I	5	8	SER
IST1652I	5	8	SER



<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1653I	4	2	NEVER
IST1654I	4	2	NEVER
IST1655I	4	2	NEVER
IST1658I	5	8	SER
IST1660I	3	2,9	NEVER
IST1661I	5	2	NEVER
IST1662I	5	2	NEVER
IST1663I	5	2	NEVER
IST1664I	5	2	NEVER
IST1668I	5	2	NEVER
IST1669I	5	2	NEVER
IST1670I	5	2	NEVER
IST1671I	5	2	NEVER
IST1672I	4	2	NEVER
IST1674I	4	2	NEVER
IST1675I	4	2	NEVER
IST1676I	4	2	NEVER
IST1679I	5	2	INFO
IST1680I	5	2	INFO
IST1681I	5	2	INFO
IST1682I	5	2	SER
IST1683I	5	2	SER
IST1684I	5	2	SER
IST1685I	5	2	INFO
IST1686I	5	2	SER
IST1687I	5	2	SER
IST1688I	5	2	WARN
IST1689I	5	2	NEVER
IST1690I	5	2	NEVER
IST1691I	5	2	NEVER
IST1692I	5	8	NEVER
IST1693I	5	8	WARN
IST1694I	4	8	INFO
IST1695I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1696I	5	2	NEVER
IST1697I	5	2	NEVER
IST1698I	5	2	WARN
IST1700I	5	2	WARN
IST1701I	5	2	INFO
IST1702I	5	2	INFO
IST1703I	5	2	INFO
IST1704I	5	2	NEVER
IST1705I	5	2	NEVER
IST1706I	5	2	NEVER
IST1707I	5	2	NEVER
IST1708I	5	2	NEVER
IST1709I	5	2	NEVER
IST1710I	5	2	NEVER
IST1711I	5	2	NEVER
IST1713I	5	2	NEVER
IST1714I	5	2	NEVER
IST1715I	5	8	NEVER
IST1716I	5	8	NEVER
IST1717I	5	2	NEVER
IST1718I	5	2	NEVER
IST1719I	5	2	NEVER
IST1720I	5	2	NEVER
IST1721I	5	2	NEVER
IST1722I	5	2	NEVER
IST1723I	5	2	NEVER
IST1724I	5	8	NEVER
IST1725E	5	2	NEVER
IST1726I	5	2	NEVER
IST1727I	5	2	NEVER
IST1728I	5	2	NEVER
IST1729I	5	2	NORM
IST1730I	5	2	NORM
IST1731I	5	2	SER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1732I	4	2	NEVER
IST1733I	5	2	NORM
IST1734I	4	2	NEVER
IST1736I	5	2	NEVER
IST1737I	5	2	NEVER
IST1738I	5	2	NEVER
IST1739I	5	2	NEVER
IST1740I	5	2	NEVER
IST1743I	5	2	WARN
IST1744I	5	2	WARN
IST1745I	2	5	SER
IST1746I	5	2	NEVER
IST1747I	5	2	NEVER
IST1748I	5	2	NEVER
IST1749I	2	5	SER
IST1750I	5	2	NEVER
IST1751I	5	2	NEVER
IST1752I	5	2	NEVER
IST1753I	5	2	NEVER
IST1754I	5	2	NEVER
IST1755I	5	2	NEVER
IST1756I	5	2	NEVER
IST1757I	5	2	NEVER
IST1758I	5	2	NEVER
IST1759I	5	2	NEVER
IST1760I	5	2	NEVER
IST1761I	5	8	SER
IST1762I	5	2	NEVER
IST1763I	5	2	INFO
IST1764I	5	2	INFO
IST1765I	5	2	INFO
IST1766I	5	2	INFO
IST1767I	5	2	INFO
IST1768I	5	2	INFO

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1769I	5	2	INFO
IST1773I	5	2	NEVER
IST1774I	4	8	WARN
IST1775I	4	8	WARN
IST1776I	5	2	INFO
IST1777I	5	2	INFO
IST1778I	5	2	INFO
IST1779I	5	2	INFO
IST1780I	5	2	INFO
IST1781I	5	2	INFO
IST1782I	5	2	INFO
IST1783I	5	2	INFO
IST1784I	5	2	INFO
IST1785I	5	2	INFO
IST1786I	5	2	NEVER
IST1787I	5	2	NEVER
IST1788I	5	2	NEVER
IST1789I	5	2	NEVER
IST1790I	5	2	NEVER
IST1791I	5	2	NEVER
IST1792I	5	2	NEVER
IST1793I	5	2	NEVER
IST1794I	5	2	NEVER
IST1795I	5	2	NEVER
IST1796I	5	2	NEVER
IST1797I	5	2	NEVER
IST1798I	5	2	INFO
IST1799I	5	2	SER
IST1800I	5	2	NEVER
IST1801I	5	2	NEVER
IST1802I	5	2	NEVER
IST1803I	5	2	INFO
IST1804I	5	2	INFO
IST1805I	5	2	INFO

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1806I	5	2	NEVER
IST1807I	5	2	NEVER
IST1809I	5	2	INFO
IST1810I	5	2	NEVER
IST1811I	5	2	NEVER
IST1816I	5	2	NEVER
IST1817I	5	2	NEVER
IST1818I	5	2	NEVER
IST1819I	5	2	NEVER
IST1820I	5	2	NEVER
IST1821I	5	2	NEVER
IST1822I	5	2	NEVER
IST1823I	5	2	NEVER
IST1824I	5	2	NEVER
IST1825I	5	2	NEVER
IST1826I	5	2	NEVER
IST1827I	5	2	NEVER
IST1828I	5	2	NEVER
IST1829I	5	2	NEVER
IST1830I	5	2	NEVER
IST1831I	5	2	NEVER
IST1832I	3	2	WARNING
IST1833I	3	2	WARNING
IST1834I	5	2	NEVER
IST1835I	5	2	NEVER
IST1836I	5	2	NEVER
IST1837I	5	2	NEVER
IST1838I	5	2	NEVER
IST1839I	5	2	NEVER
IST1841I	5	2	NEVER
IST1842I	5	2	NEVER
IST1843I	5	2	NEVER
IST1844I	5	2	NEVER
IST1845I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1846I	5	2	NEVER
IST1847I	5	2	NEVER
IST1848I	5	2	NEVER
IST1849I	5	2	NEVER
IST1850I	5	2	NEVER
IST1851I	5	2	NEVER
IST1852I	5	2	NEVER
IST1853I	5	2	NEVER
IST1854I	5	2	NEVER
IST1855I	5	2	NEVER
IST1856I	5	2	NEVER
IST1857I	5	2	NEVER
IST1858I	5	2	NEVER
IST1859I	5	2	NEVER
IST1860I	5	2	NEVER
IST1861I	5	2	NEVER
IST1862I	5	2	NEVER
IST1863I	5	2	NEVER
IST1864I	5	2	NEVER
IST1865I	5	2	NEVER
IST1866I	5	2	NEVER
IST1867I	5	2	NEVER
IST1868I	5	2	NEVER
IST1869I	5	2	NEVER
IST1870I	5	2	NEVER
IST1871I	5	2	NORM
IST1872I	5	2	NORM
IST1873I	5	2	NORM
IST1874I	5	2	NORM
IST1875I	5	2	NORM
IST1876I	5	2	NORM
IST1877I	5	2	NORM
IST1878I	5	2	NORM
IST1879I	5	2	NORM

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1880I	5	2	NORM
IST1881I	5	2	NORM
IST1882I	5	2	NORM
IST1883I	4	8	INFO
IST1884I	4	8	INFO
IST1885I	5	2,8	NEVER
IST1886I	5	2	NEVER
IST1887I	5	2	NEVER
IST1888I	5	2	NEVER
IST1889I	3	2	SER
IST1890I	5	2	NEVER
IST1891I	5	2	NEVER
IST1892I	5	2	SER
IST1893I	5	2	WARN
IST1894I	5	2	WARN
IST1895I	5	2	WARN
IST1896I	5	2	NEVER
IST1897I	5	2	NEVER
IST1898I	5	2	NEVER
IST1899I	5	2	NEVER
IST1900I	5	2	NEVER
IST1901I	5	2	NEVER
IST1902I	5	2	NEVER
IST1903I	5	2	NEVER
IST1904I	5	2	NEVER
IST1905I	5	2	NEVER
IST1906I	5	2	NEVER
IST1907I	5	2	NEVER
IST1908I	5	2	NEVER
IST1909I	5	2	NEVER
IST1910I	5	2	NEVER
IST1911I	5	2	NEVER
IST1912I	5	2	NEVER
IST1913I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1914I	5	2	NEVER
IST1915I	5	2	NEVER
IST1916I	5	2	NEVER
IST1917I	5	2	NEVER
IST1919I	5	2	NEVER
IST1920I	5	2	NEVER
IST1921I	5	2	NEVER
IST1922I	5	2	NEVER
IST1923I	5	2	NEVER
IST1924I	5	2	NEVER
IST1925I	5	2	INFO
IST1926I	5	2	WARN
IST1927I	5	2	WARN
IST1928I	5	2	INFO
IST1929I	5	2	INFO
IST1930I	5	2	INFO
IST1931I	5	2	WARN
IST1932I	5	2	WARN
IST1933I	5	2	WARN
IST1940I	5	2	NEVER
IST1941I	5	2	NEVER
IST1942I	4	8	INFO
IST1943I	4	8	INFO
IST1944I	4	8	INFO
IST1945I	4	8	INFO
IST1946I	4	8	INFO
IST1947I	4	8	INFO
IST1948I	4	8	INFO
IST1949I	4	8	INFO
IST1950I	4	8	INFO
IST1951I	4	8	INFO
IST1952I	4	8	INFO
IST1953I	4	8	INFO
IST1954I	5	2	NEVER



<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1955I	4	2	WARN
IST1956I	4	2	WARN
IST1957I	4	2	WARN
IST1958I	5	2	NEVER
IST1959I	5	2	NEVER
IST1960I	5	2	NEVER
IST1961I	5	2	NEVER
IST1962I	5	2	NEVER
IST1963I	5	2	NEVER
IST1964I	5	2	NEVER
IST1965I	5	2	NEVER
IST1966I	5	2	NEVER
IST1967I	5	2	NEVER
IST1968I	5	2	NEVER
IST1969I	5	2	NEVER
IST1970I	5	2	NEVER
IST1971I	5	2	NEVER
IST1972I	5	2	NEVER
IST1973I	5	2	NEVER
IST1974I	5	2	NEVER
IST1975I	5	2	NEVER
IST1976I	5	2	NEVER
IST1977I	5	2	NEVER
IST1978I	5	2	NEVER
IST1979I	5	2	NEVER
IST1980I	5	2	NEVER
IST1981I	5	2	NEVER
IST1982I	5	2	NEVER
IST1983I	5	2	NEVER
IST1984I	5	2	NEVER
IST1985I	5	2	NEVER
IST1986I	5	2	NEVER
IST1987I	5	2	NEVER
IST1988I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST1989I	5	2	NEVER
IST1990I	5	2	NEVER
IST1991I	5	2	NEVER
IST1992I	5	2	NEVER
IST1993I	5	2	NEVER
IST1994I	5	2	NEVER
IST1995I	5	2	NEVER
IST1996I	5	2	NEVER
IST1997I	5	2	NEVER
IST1998I	5	2	NEVER
IST1999I	5	2	NEVER
IST2000I	5	2	NEVER
IST2001I	5	2	NEVER
IST2002I	5	2	NEVER
IST2003I	5	2	NEVER
IST2004I	5	2	NEVER
IST2005I	5	2	NEVER
IST2006I	5	2	NEVER
IST2007I	5	2	NEVER
IST2008I	5	2	NEVER
IST2009I	5	2	NEVER
IST2010I	5	2	NEVER
IST2011I	5	2	NEVER
IST2012I	5	2	NEVER
IST2013I	5	2	NEVER
IST2014I	5	2	NEVER
IST2015I	5	2	NEVER
IST2016I	5	2	NEVER
IST2017I	5	2	NEVER
IST2018I	5	2	NEVER
IST2019I	5	2	NEVER
IST2020I	5	2	NEVER
IST2021I	5	2	NEVER
IST2022I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST2023I	5	2	NEVER
IST2024I	5	2	NEVER
IST2025I	5	2	NEVER
IST2026I	5	2	NEVER
IST2027I	5	2	NEVER
IST2028I	5	2	NEVER
IST2029I	5	2	NEVER
IST2030I	5	2	NEVER
IST2031I	5	2	NEVER
IST2032I	5	2	NEVER
IST2033I	5	2	NEVER
IST2034I	5	2	NEVER
IST2035I	5	2	NEVER
IST2036I	5	2	NEVER
IST2037I	5	2	NEVER
IST2038I	5	2	NEVER
IST2039I	5	2	NEVER
IST2040I	5	2	NEVER
IST2041I	5	2	NEVER
IST2042I	5	2	NEVER
IST2043I	5	2	NEVER
IST2044I	5	2	NEVER
IST2045I	5	2	NEVER
IST2046I	4	2	NEVER
IST2047I	5	2	NEVER
IST2048I	5	2	NEVER
IST2049I	5	2	NEVER
IST2050I	5	2	NEVER
IST2052I	5	2	NEVER
IST2054I	5	2	NEVER
IST2055I	5	2	NEVER
IST2056I	5	2	NEVER
IST2057I	5	2	NEVER
IST2058I	3	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST2059I	5	2	NEVER
IST2061I	4	2	NEVER
IST2062I	4	2	NEVER
IST2063I	4	2	NEVER
IST2064I	5	2	NEVER
IST2065I	5	2	NEVER
IST2066I	5	2	NEVER
IST2067I	5	2	NEVER
IST2068I	5	2	NEVER
IST2069I	5	2	NEVER
IST2070I	5	2	NEVER
IST2071I	5	2	NEVER
IST2072I	5	2	NEVER
IST2073I	5	2	NEVER
IST2074I	5	2	NEVER
IST2075I	5	2	NEVER
IST2076I	5	2	NEVER
IST2077I	5	2	NEVER
IST2078I	5	2	NEVER
IST2079I	5	2	NEVER
IST2080I	5	2	NEVER
IST2081I	5	2	NEVER
IST2082I	5	2	NEVER
IST2083I	5	2	NEVER
IST2084I	5	2	NEVER
IST2085I	5	2	NEVER
IST2086I	5	2	NEVER
IST2087I	5	2	NEVER
IST2088I	5	2	NEVER
IST2089I	5	2	NEVER
IST2090I	5	2	NEVER
IST2091I	5	2	NEVER
IST2092I	5	2	NEVER
IST2093I	5	2	INFO

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST2094I	5	2	NEVER
IST2095I	5	2	NEVER
IST2096I	5	2	INFO
IST2097I	5	2	INFO
IST2098I	5	2	INFO
IST2099I	5	2	INFO
IST2100I	5	2	INFO
IST2101I	5	2	INFO
IST2102I	4	8	INFO
IST2103I	4	8	INFO
IST2104I	4	8	INFO
IST2105I	5	2	SER
IST2106I	5	8	SER
IST2107I	5	8	SER
IST2108I	5	8	SER
IST2109I	5	8	SER
IST2110I	5	8	SER
IST2111I	5	8	SER
IST2113I	5	2	NEVER
IST2114I	5	2	NEVER
IST2116I	4	2	WARN
IST2117I	4	2	WARN
IST2118I	4	2	WARN
IST2119I	5	2	NEVER
IST2120I	5	2	NEVER
IST2121I	5	2	NEVER
IST2122I	5	2	NEVER
IST2123I	5	2	NEVER
IST2124I	5	2	NEVER
IST2125I	5	2	NEVER
IST2126I	5	2	NEVER
IST2127I	5	2	NEVER
IST2128I	5	2	NEVER
IST2129I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST2130I	5	2	NEVER
IST2131I	5	2	NEVER
IST2132I	5	2	NEVER
IST2133I	5	2	NEVER
IST2134I	5	2	NEVER
IST2135I	5	2	NEVER
IST2136I	5	2	NEVER
IST2137I	5	2	NEVER
IST2138I	5	2	NEVER
IST2139I	5	2	NEVER
IST2140I	5	2	NEVER
IST2141I	5	2	NEVER
IST2142I	5	2	NEVER
IST2143I	5	2	NEVER
IST2144I	5	2	NEVER
IST2145I	5	2	NEVER
IST2146I	5	2	NEVER
IST2147I	5	2	NEVER
IST2148I	5	2	NEVER
IST2149I	5	2	NEVER
IST2150I	5	2	NEVER
IST2151I	5	2	NEVER
IST2152I	5	2	NEVER
IST2153I	5	2	NEVER
IST2154I	5	2	NEVER
IST2155I	5	2	NEVER
IST2156I	5	2	NEVER
IST2157I	5	2	NEVER
IST2158I	4	2	INFO
IST2159I	5	2	INFO
IST2160I	5	2	SER
IST2161I	5	8	NEVER
IST2162I	5	2	WARN
IST2163I	5	2	WARN

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST2164I	5	2	WARN
IST2165I	5	2	WARN
IST2166I	5	2	WARN
IST2167I	5	2	WARN
IST2168I	5	2	WARN
IST2169I	5	2	WARN
IST2170I	5	2	WARN
IST2171I	5	2	WARN
IST2172I	5	2	WARN
IST2173I	5	2	WARN
IST2174I	5	2	WARN
IST2175I	5	2	WARN
IST2176I	5	2	WARN
IST2177I	5	2	WARN
IST2178I	5	2	NEVER
IST2179I	4	8	SER
IST2180I	6	2	NORM
IST2181I	5	2	INFO
IST2182I	5	2	NEVER
IST2183I	5	2	NEVER
IST2184I	5	2	NEVER
IST2185I	5	2	NEVER
IST2186I	5	2	NEVER
IST2187I	5	2	NEVER
IST2188I	5	2	NEVER
IST2189I	5	2	NEVER
IST2190I	5	2	NEVER
IST2191I	5	2	NEVER
IST2192I	5	2	NEVER
IST2193I	5	2	NEVER
IST2194I	5	2	NEVER
IST2195I	5	2	NEVER
IST2196I	5	2	NEVER
IST2197I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST2198I	5	2	NEVER
IST2199I	5	2	NEVER
IST2200I	5	2	NEVER
IST2201I	5	2	NEVER
IST2202I	5	2	NEVER
IST2203I	5	2	NEVER
IST2204I	5	2	NEVER
IST2205I	5	2	NEVER
IST2206I	5	2	NEVER
IST2207I	5	2	NEVER
IST2208I	5	2	NEVER
IST2209I	5	2	NEVER
IST2210I	5	2	NEVER
IST2211I	5	2	NEVER
IST2212I	5	2	NEVER
IST2213I	5	2	NEVER
IST2214I	5	2	NEVER
IST2215I	5	2	NEVER
IST2216I	5	2	NEVER
IST2217I	5	2	NEVER
IST2218I	5	2	NEVER
IST2219I	5	2	NEVER
IST2220I	5	2	NEVER
IST2221I	5	2	NEVER
IST2222I	5	2	WARN
IST2223I	5	2	WARN
IST2224I	5	2	NEVER
IST2225I	5	2	NEVER
IST2226I	5	2	NEVER
IST2227I	5	2	NEVER
IST2229I	5	2	NEVER
IST2230I	5	2	NEVER
IST2231I	5	2	NEVER
IST2232I	5	2	NEVER



<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST2233I	5	2	NEVER
IST2234I	5	2	NORM
IST2235I	5	2	NORM
IST2236I	5	2	NEVER
IST2237I	5	2	NEVER
IST2238I	5	2	NEVER
IST2239I	5	2	NEVER
IST2240I	5	2	NORM
IST2241I	5	2	NEVER
IST2242I	5	2	NEVER
IST2243I	4	2	SER
IST2244I	5	2	NEVER
IST2245I	4	2	WARN
IST2246I	4	2	NEVER
IST2247I	4	2	NEVER
IST2248I	5	2	NEVER
IST2249I	5	2	NEVER
IST2250I	5	2	NEVER
IST2251I	5	2	NEVER
IST2252I	5	2	NEVER
IST2253I	4	2	WARN
IST2254I	4	2,10	WARN
IST2255I	4	2,10	WARN
IST2256I	4	2,10	WARN
IST2257I	5	2	NEVER
IST2258I	5	2	NEVER
IST2259I	5	2	NEVER
IST2260I	5	2	NEVER
IST2261I	5	2	NEVER
IST2262I	5	2	NEVER
IST2263I	5	2	NEVER
IST2264I	5	2	NEVER
IST2265I	5	2	INFO
IST2266I	6	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST2267I	5	2	NEVER
IST2268I	5	2	NEVER
IST2269I	5	2	NEVER
IST2270I	5	2	NEVER
IST2271I	5	2	NEVER
IST2272I	5	2	NEVER
IST2273E	11	2	NEVER
IST2274I	5	2	NEVER
IST2275I	5	2	NEVER
IST2276I	5	2	NEVER
IST2277I	5	2	NEVER
IST2278I	5	2	NEVER
IST2279I	5	2	NEVER
IST2280I	5	2	NEVER
IST2281I	5	2	NEVER
IST2282I	5	2	NEVER
IST2283I	5	2	NEVER
IST2284I	5	2	NEVER
IST2285I	5	2	NEVER
IST2286I	5	2	NEVER
IST2287I	5	2	NEVER
IST2288I	5	2	NEVER
IST2289I	5	2	NEVER
IST2290I	5	2	NEVER
IST2291I	5	2	NEVER
IST2292I	5	2	NEVER
IST2293I	5	2	NEVER
IST2294I	5	2	NEVER
IST2295I	5	2	NEVER
IST2296I	5	2	NEVER
IST2298I	4	2,8	NEVER
IST2299I	4	2,8	NEVER
IST2302I	5	2	NEVER
IST2303I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST2304I	5	2	NEVER
IST2305I	5	2	NEVER
IST2309I	5	2	NEVER
IST2310I	5	2	NEVER
IST2316I	5	2	NEVER
IST2317I	5	2	NEVER
IST2319I	5	2	NEVER
IST2320I	7,12	2	NEVER
IST2321I	5	2	NEVER
IST2322I	7,12	2	NEVER
IST2323E	11	2	NEVER
IST2324I	5	2	NEVER
IST2325I	5	2	NEVER
IST2326I	5	2	NEVER
IST2327I	5	2	NEVER
IST2328I	5	2	NEVER
IST2329I	5	2	NEVER
IST2330I	5	2	NEVER
IST2331I	5	2	NEVER
IST2332I	5	2	NEVER
IST2333I	5	2	NEVER
IST2334I	5	2	NEVER
IST2335I	5	2	NEVER
IST2336I	5	2	NEVER
IST2337I	5	2	NEVER
IST2338I	5	2	NEVER
IST2339I	5	2	NEVER
IST2340I	5	2	NEVER
IST2341I	5	2	NEVER
IST2342I	5	2	INFO
IST2343I	5	2	NEVER
IST2344I	12	2,8	NEVER
IST2345I	12	2,8	NEVER
IST2346I	12	2,8	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST2347I	12	2,8	NEVER
IST2348I	5	2	NEVER
IST2349I	5	2	NEVER
IST2350I	5	2	NEVER
IST2351I	5	2	NEVER
IST2352I	5	2	NEVER
IST2353I	5	2	NEVER
IST2354I	5	2	NEVER
IST2355I	5	2	NEVER
IST2356I	5	2	NEVER
IST2357I	5	2	NEVER
IST2358I	5	2	NEVER
IST2359I	5	2	NEVER
IST2360I	5	2	NEVER
IST2361I	5	2	NEVER
IST2362I	5	2	NEVER
IST2364I	5	2	NEVER
IST2365I	5	2	NEVER
IST2366I	5	2	NEVER
IST2367I	5	2	NEVER
IST2368I	5	2	NEVER
IST2369I	5	2	NEVER
IST2370I	5	2	NEVER
IST2371I	5	2	NEVER
IST2372I	5	2	NEVER
IST2373I	5	2	NEVER
IST2374I	5	2	NEVER
IST2375I	5	2	NEVER
IST2376I	5	2	NEVER
IST2377I	5	2	NEVER
IST2378I	5	2	NEVER
IST2379I	5	2	NEVER
IST2380I	5	2	NEVER
IST2381I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST2382I	5	2	NEVER
IST2383I	5	2	NEVER
IST2384E	11	2	NEVER
IST2386I	5	2	NEVER
IST2387I	5	2	NEVER
IST2388I	5	2	NEVER
IST2389I	5	2	NEVER
IST2390I	5	2	NEVER
IST2391I	5	2	NEVER
IST2392I	5	2	NEVER
IST2393I	5	2	NEVER
IST2395I	5	2	NEVER
IST2396I	5	2	NEVER
IST2397I	5	2	NEVER
IST2398I	5	2	NEVER
IST2399I	5	2	NEVER
IST2400I	5	2	NEVER
IST2401I	5	2	NEVER
IST2402I	5	2	NEVER
IST2403I	5	2	NEVER
IST2404I	5	2	NEVER
IST2405I	5	2	NEVER
IST2406I	5	2	NEVER
IST2407I	5	2	NEVER
IST2408I	5	2	NEVER
IST2409I	5	2	NEVER
IST2410I	5	2	NEVER
IST2411I	5	2	NEVER
IST2412I	5	2	NEVER
IST2413I	5	2	NEVER
IST2414I	5	2	NEVER
IST2415I	5	2	NEVER
IST2416I	5	2	NEVER
IST2417I	5	2	NEVER

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST2418I	5	2	NEVER
IST2419I	5	2	NEVER
IST2420I	5	2	NEVER
IST2421I	5	2	NEVER
IST2422I	5	2	NEVER
IST2423I	5	2	NEVER
IST2424I	4	8,9	NEVER
IST2425I	4	8,9	NEVER
IST2426I	4	8,9	NEVER
IST2427I	4	8,9	NEVER
IST2428I	4	8,9	NEVER
IST2429I	4	8,9	NEVER
IST2430I	4	8,9	NEVER
IST2431I	4	8,9	NEVER
IST2432I	4	8,9	NEVER
IST2433I	5	2	NEVER
IST2434I	5	2	NEVER
IST2435I	5	2	NEVER
IST2436I	5	2	NEVER
IST2437I	5	2	NEVER
IST2438I	4	8,9	NEVER
IST2439I	4	8,9	NEVER
IST2440I	4	8,9	NEVER
IST2441I	4	8,9	NEVER
IST2444I	5	2	NEVER
IST2445I	5	2	NEVER
IST2446I	5	2	NEVER
IST2447I	5	2	WARN
IST2448I	5	2	WARN
IST2449I	5	2	WARN
IST2450I	5	2	WARN
IST2451I	5	2	WARN
IST2452I	5	2	WARN
IST2453I	5	2	WARN

<b>Message identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IST2454I	5	2	WARN
IST2455E	11	2	NEVER
IST2456I	5	2	NEVER
IST2457I	5	2	NEVER
IST2458I	5	2	NEVER
IST2459I	5	2	NEVER
IST2460I	5	2	NEVER
IST2461I	5	2	NEVER
IST2462I	5	2	NEVER
IST2463I	5	2	NEVER
IST2464I	5	2	NEVER
IST2465I	5	2	NEVER
IST2466I	5	2	NEVER
IST2467I	5	2	NEVER
IST2468I	5	2	NEVER
IST2469I	5	2	NEVER
IST2470I	5	2	NEVER
IST2471I	5	2	NEVER
IST2472I	5	2	NEVER
IST2473I	5	2	NEVER
IST2474I	5	2	NEVER
IST2475I	5	2	NEVER
IST2476I	5	2	NEVER
IST2477I	5	2	NEVER
IST2478I	5	2	NEVER
IST2479I	5	2	NEVER
IST2480I	5	2	NEVER
IST2481I	5	2	NEVER
IST2482I	5	2	NEVER
IST2483I	5	2	NEVER
IST2484I	5	2	NEVER
IST2485I	5	2	NEVER
IST2486I	5	2	NEVER
IST2487I	5	2	NEVER

Message identifier	Descriptor code	Routing code	Suppression level
IST2488I	5	2	NEVER
IST2489E	5	2	NEVER
IST2490E	5	2	NEVER

## IUT VTAM operator messages

MVS identifier	Descriptor code	Routing code	Suppression level
IUT5000I	4	2	NEVER
IUT5001I	6	2	NEVER
IUT5002I	4	2	NEVER

## IVT VTAM operator messages

MVS identifier	Descriptor code	Routing code	Suppression level
IVT5501I	5	2	NEVER
IVT5502I	5	2	NEVER
IVT5503I	5	2	NEVER
IVT5504I	5	2	NEVER
IVT5505I	5	2	NEVER
IVT5506I	5	2	NEVER
IVT5507I	5	2	NEVER
IVT5508I	5	2	NEVER
IVT5510I	5	2	NEVER
IVT5511I	5	2	NEVER
IVT5512I	5	2	NEVER
IVT5513I	5	2	NEVER
IVT5516I	5	2	NEVER
IVT5517I	5	2	NEVER
IVT5518I	5	2	NEVER
IVT5519I	5	2	NEVER
IVT5520I	5	2	NEVER
IVT5521I	5	2	NEVER
IVT5529I	5	2	NEVER
IVT5530I	5	2	NEVER



<b>MVS identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IVT5531I	5	2	NEVER
IVT5532I	5	2	NEVER
IVT5533I	5	2	NEVER
IVT5534I	5	2	NEVER
IVT5535I	5	2	NEVER
IVT5536I	5	2	NEVER
IVT5538I	5	2	NEVER
IVT5539I	5	2	NEVER
IVT5541I	5	2	NEVER
IVT5549I	5	2	NEVER
IVT5551I	5	2	NEVER
IVT5553I	5	2	NEVER
IVT5554I	5	2	NEVER
IVT5556I	5	2	NEVER
IVT5557I	5	2	NEVER
IVT5558I	5	2	NEVER
IVT5559I	5	2	NEVER
IVT5560I	5	2	NEVER
IVT5561I	5	2	NEVER
IVT5562I	5	2	NEVER
IVT5563I	5	2	NEVER
IVT5564I	5	2	NEVER
IVT5565I	5	2	NEVER
IVT5566I	5	2	NEVER
IVT5567I	5	2	NEVER
IVT5568I	5	2	NEVER
IVT5569I	5	2	NEVER
IVT5570I	5	2	NEVER
IVT5571I	5	2	NEVER
IVT5572I	5	2	NEVER
IVT5573I	5	2	NEVER
IVT5574I	5	2	NEVER
IVT5575I	5	2	NEVER
IVT5576I	5	2	NEVER

<b>MVS identifier</b>	<b>Descriptor code</b>	<b>Routing code</b>	<b>Suppression level</b>
IVT5577I	5	2	NEVER
IVT5578I	5	2	NEVER
IVT5579I	5	2	NEVER
IVT5580I	5	2	NEVER
IVT5581I	5	2	NEVER
IVT5582I	5	2	NEVER
IVT5583I	5	2	NEVER
IVT5584I	5	2	NEVER
IVT5585I	5	2	NEVER
IVT5586I	5	2	NEVER
IVT5587I	5	2	NEVER
IVT5588I	5	2	NEVER
IVT5589I	5	2	NEVER
IVT5590I	6	2	WARN
IVT5591I	6	2	WARN
IVT5592I	6	2	WARN
IVT5593I	6	2	WARN
IVT5594I	5	2	NEVER
IVT5595I	5	2	NEVER
IVT5596I	5	2	NEVER
IVT5598I	5	2	NEVER
IVT5599I	5	2	NEVER
IVT5600I	5	2	NEVER
IVT5603I	5	2	WARN
IVT5604I	5	2	NEVER
IVT5605I	5	2	NEVER
IVT5606I	5	2	NEVER
IVT5607I	5	2	NEVER

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## Appendix D. Messages affected by the MSGLVL option

This appendix contains all messages affected by the MSGLVL Option.

### General description

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The MSGLEVEL start option or the MSGLVL operand on the USSMSG macro allows you to select the version of the message that VTAM issues.

- MSGLVL=BASE is the default and represents the pre-Version 4 message.
- MSGLVL=V4R1, MSGLVL=V4R2, or MSGLVL=V4R3 represents the new message or message group.

This option is valid only for those messages listed in this appendix.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of the MSGLEVEL start option or the MSGLVL operand on the USSMSG macro.

#### Notes:

1. If you want the version 4 messages to be displayed, you must indicate MSGLVL=V4R1, V4R2, or V4R3.
2. If you use program operators that depend on the original BASE messages, you might want VTAM to issue the pre-Version 4 message to the program operators.

### Differences between BASE and Version 4 messages

---

There are several differences between BASE and Version 4 messages:

#### **Version 4 messages can display network-qualified resource names.**

Resource variable fields were increased from 8 to 17 characters in the Version 4 messages to accommodate the display of network-qualified names. VTAM displays network-qualified names in the form *netid.name*.

#### **BASE message might be replaced by more than one Version 4 message.**

To provide more specific error information and to simplify automated operations, BASE messages might be replaced by more than one Version 4 message.

BASE messages IST059I, IST129I, and IST660I were replaced by more than one Version 4 message. See [“Message text for BASE and Version 4 messages” on page 1776](#) for more information.

#### **Node type was added in Version 4.**

To provide more detailed information about the type of resource, a *nodetype* variable field was added to several Version 4 messages and message groups.

#### **Text and variable field wording might not be identical in BASE and Version 4 messages.**

In most cases, increasing the resource variable field to 17 characters caused the Version 4 message to exceed the desired length. Therefore, to prevent truncation of message text on some systems, the text and variable field wording of the new Version 4 message might not be identical to the BASE message it replaces.

In some cases, the BASE message wording has been changed so that the meaning of the text or variable field information is more specific or descriptive.

**Note:** The wording of most of the reasons in message IST225I (BASE) and message IST1137I (Version 4) are not identical. The following table maps *reason* in message IST225I to its Version 4 equivalent in message IST1137I.

<i>Table 2. Reasons in IST225I (BASE) and IST1137I (V4R1)</i>	
<b>IST225I BASE (default)</b>	<b>IST1137I version 4</b>
ALSNAME PARAMETER OMITTED	ALSNAME NOT GIVEN
ALSNAME NOT VALID	ALSNAME NOT VALID
CALL SECURITY ERROR	SECURITY DATA ERROR
CURRENT LEVEL HIGHER	MUST BE MORE SECURE
DYNAMIC CDRSC NOT VALID	CDRSC IS DYNAMIC
INSUFFICIENT STORAGE	STORAGE SHORTAGE
INVALID MODEL LU	MODEL LU NOT VALID
INVALID STATE FOR CDRSC	CDRSC NOT ACTIVE
NODE HAS NO KEY	NODE KEY UNDEFINED
NO SUITABLE RESOURCES FOUND	RESOURCES NOT FOUND
NOT AN APPLICATION PROGRAM	MUST BE APPLICATION
REJECTED BY INSTALLATION EXIT	INSTALL EXIT REJECT
SECURITY MANAGER ERROR	SECURITY ERROR
SECURITY MANAGER NOT AVAILABLE	SUPPORT UNAVAILABLE
SUBORDINATE NODE PENDING INACT	DEACTIVATE PENDING
UNABLE TO ALLOCATE CDRSC	CDRSC NOT ALLOCATED
VTAM ERROR	VTAM ABEND
EXIT IS NOT FOUND	EXIT IS NOT FOUND
FUNCTION NOT SUPPORTED	INSTALL PROGRAM
FUNCTION NOT OPERATIONAL	PROGRAM NOT ACTIVE

## Message text for BASE and Version 4 messages

The message explanation provides a description of the variable information in the message text. See Chapter 5, “IST messages for VTAM network operators IST001I - IST399I,” on page 65 for descriptions of the following messages.

### Notes:

1. If you want the V4R1 messages to be displayed, you must indicate MSGLVL=V4R1 as a start option, even though you are running on a VTAM which is post-V4R1.
2. If MSGLVL=V4R2 is specified as a start option, the base messages that have no replacements will be displayed with the V4R1-level messages and the V4R2-level messages.

## Message text for BASE and V4R2 or higher

### BASE:

IST619I ID = %8 FAILED - RECOVERY IN PROGRESS

### V4R2:

IST1416I ID = %17 FAILED - RECOVERY IN PROGRESS

## Message text for BASE and Version 4

### BASE:

IST059I %28 IGNORED - INSUFFICIENT STORAGE

### Version 4:

IST1064I TRACE IGNORED, %17 - STORAGE SHORTAGE  
IST1045I NODE TYPE = %17  
IST314I END

### BASE:

IST059I %28 IGNORED - INSUFFICIENT STORAGE

### Version 4:

IST1128I PATH %8 IGNORED, %17 - STORAGE SHORTAGE  
IST1045I NODE TYPE = %17  
IST314I END

### BASE:

IST072I %10 FOR ID = %8 FAILED DURING NETWORK DEFINITION

### Version 4:

IST1264I %10 FOR %17 FAILED DURING DEFINITION

### BASE:

IST073I %10 FOR ID = %8 FAILED - MORE POWERFUL REQUEST IN PROGRESS

### Version 4:

IST1129I %10 FAILED, %17 - DEACTIVATE PENDING  
IST1045I NODE TYPE = %17  
IST314I END

### BASE:

IST074I %10 FOR ID = %8 FAILED - INSUFFICIENT STORAGE

### Version 4:

IST1130I %10 FOR %17 FAILED - STORAGE SHORTAGE  
IST1045I NODE TYPE = %17  
IST314I END

### BASE:

IST082I DEVTYPE = %24 %27

**Version 4:**

IST1131I DEVICE = %12 %35  
IST1045I NODE TYPE = %17  
IST314I END

**BASE:**

IST093I %8 ACTIVE

**Version 4:**

IST1132I %17 IS ACTIVE, TYPE = %17

**BASE:**

IST105I %8 NODE NOW INACTIVE

**Version 4:**

IST1133I %17 IS NOW INACTIVE, TYPE= %8 %9

**BASE:**

IST113I %8 IS A USERVAR WITH VALUE %8 IN NETWORK %8

**Version 4:**

IST1156I USERVAR %8 IN %8 HAS VALUE %17

**BASE:**

IST120I NODE %8 NOW HAS CONTROLLING LU %8

**Version 4:**

IST1134I %17 NOW HAS CONTROLLING LU %9 %8

**BASE:**

IST129I UNRECOVERABLE OR FORCED ERROR ON NODE %8 - VARY INACT SCHED

**Version 4:**

IST1135I FORCED VARY INACT SCHEDULED FOR %17

**BASE:**

IST129I UNRECOVERABLE OR FORCED ERROR ON NODE %8 -VARY INACT SCHED

**Version 4:**

IST1136I VARY INACT %17 SCHEDULED - UNRECOVERABLE ERROR

**BASE:**

IST186I %10 FOR ID = %8 CONTINUES COLD - CHECKPOINT DATA SET %15

**Version 4:**

IST1263I %10 FOR %17 FORCED COLD, %15

**BASE:**

IST187I %10 FOR ID = %8 FAILED - CHECKPOINT DATA SET %15

**Version 4:**

IST1265I %10 FOR %17 FAILED - %15

**BASE:**

IST225I %12 FOR ID = %8 FAILED - %30

**Version 4:**

IST1137I %11 FAILED, %17 - %19

**BASE:**

IST226I %10 FOR ID = %8 NOT EFFECTIVE DURING CURRENT OR QUEUED SESSIONS

**Version 4:**

IST1266I %10 FOR %17 AFFECTS NEW SESSIONS ONLY

**BASE:**

IST234I I/O ERROR %23

**Version 4:**

IST1211I I/O ERROR %17 %4 %4 %4

**BASE:**

IST262I %8 = %8, STATUS = %10

**Version 4:**

IST1212I %8 = %17 STATUS = %10

**BASE:**

IST264I REQUIRED %13 %8 %15

**Version 4:**

IST1138I REQUIRED %13 %32

**BASE:**

IST380I ERROR FOR ID = %8 - REQUEST: %10, SENSE: %8

**Version 4:**

IST1139I %10 FOR %17 FAILED - SENSE: %8  
IST1045I NODE TYPE = %17  
IST314I END

**BASE:**

IST381I %10 FOR ID = %8 FAILED - CANNOT DEFINE NODE

**Version 4:**

IST1267I %10 FAILED - CANNOT DEFINE %17

**BASE:**

IST382I %10 FOR ID = %8 FAILED - STATE: %5 NOT VALID FOR REQUEST

**Version 4:**

IST1140I %10 FAILED %17 - STATE %5 NOT VALID  
IST1045I NODE TYPE = %17  
IST314I END

**BASE:**

IST383I DEACTIVATION OF ID = %8 FAILED - REQUEST: %10 SENSE: %8

**Version 4:**

IST1268I %17 DEACTIVATION %10 FAILED: %8

**BASE:**

IST384I %10 FOR ID = %8 FAILED

**Version 4:**

IST1269I %10 FOR %17 FAILED

**BASE:**

IST414I %10 FOR ID = %8 FAILED - PROCESS UNAVAILABLE

**Version 4:**

IST1270I %10 FAILED - %17 NOT ACTIVE

**BASE:**

IST483I %8 %10, CDRM = %8, NETID = %8

**Version 4:**

IST1276I %17 %10 CDRM = %8



**BASE:**

IST487I %10 FOR ID = %8 SCHEDULED BY %10

**Version 4:**

IST1271I %10 FOR %17 SCHEDULED BY %10

**BASE:**

IST489I %10 FOR ID = %8 CONTINUES - CANNOT DEFINE NODE: %8

**Version 4:**

IST1272I %8 %8 CONTINUES - %17 UNDEFINED

**BASE:**

IST490I %10 FOR ID = %8 FAILED - %10 IN PROGRESS

**Version 4:**

IST1273I %10 %17 FAILED: %10 PENDING

**BASE:**

IST493I %10 FOR ID = %8 OVERRIDDEN BY %10

**Version 4:**

IST1141I %10 FOR %17 OVERRIDDEN BY %10

**BASE:**

IST511I TRACE REQUEST FAILED - %8 INVALID

**Version 4:**

IST1142I TRACE REQUEST FAILED - %17 NOT VALID

IST1045I NODE TYPE = %17

IST314I END

**BASE:**

IST512I TRACE TERMINATED FOR NODE = %8 %18

**Version 4:**

IST1143I TRACE TERMINATED FOR %17 %18

IST1045I NODE TYPE = %17

IST314I END

**BASE:**

IST513I TRACE INITIATED FOR NODE %8 %18

**Version 4:**

IST1144I TRACE INITIATED FOR %17 %18  
IST1045I NODE TYPE = %17  
IST314I END

**BASE:**

IST530I %10 PENDING %38

**Version 4:**

IST1436I RU PENDING:  
IST1278I %10 PENDING %21 %26

**BASE:**

IST608I %10 FOR ID = %8 FAILED - HIGHER NODE: %8 NOT ACTIVE

**Version 4:**

IST1274I %10 %17 FAILED: %8 NOT ACTIVE

**BASE:**

IST627I %8 - INSUFFICIENT STORAGE

**Version 4:**

IST1145I TRACE REQUEST FAILED, %17 - STORAGE SHORTAGE  
IST1045I NODE TYPE = %17  
IST314I END

**BASE:**

IST660I %10 FOR ID = %8 FAILED - PARM: %15 NOT VALID

**Version 4:**

IST1146I %17 %10 U = %4 FAILED

**BASE:**

IST660I %10 FOR ID = %8 FAILED - PARM: %15 NOT VALID

**Version 4:**

IST1147I %17 %8 LOGON= %17 FAILED

**BASE:**

IST660I %10 FOR ID = %8 FAILED - PARM: %15 NOT VALID

**Version 4:**

IST1148I %17 %8 RNAME = %8 FAILED

**BASE:**

IST670I VARY %4 PROCESSING FOR ID = %8 COMPLETE

**Version 4:**

IST1149I VARY %4 PROCESSING FOR NODE %17 COMPLETE

**BASE:**

IST674I %10 FOR ID = %8 CONTINUES - PARM: %15 IGNORED

**Version 4:**

IST1275I %15 IGNORED ON %10 %17

**BASE:**

IST813I USERVAR %8 CHANGED FROM %8 TO %8

**Version 4:**

IST1150I %8 CHANGED: %17 TO %17

**BASE:**

IST825I USERVAR DEFINED - NAME = %8, VALUE = %8

**Version 4:**

IST1151I USERVAR %8 DEFINED: VALUE = %17

**BASE:**

IST886I %11 %8 %8 %8 %11 %13 FAILED

**Version 4:**

IST1277I %11 %8 %8 %17 %11 %13 FAILED

**BASE:**

IST919I NODE %8 NO LONGER HAS CONTROLLING LU %8

**Version 4:**

IST1152I %17 CONTROLLING LU %17 REMOVED

**BASE:**

IST930I %16 - %16 SESSION USING %4 OF %2BUF

**Version 4:**

IST1153I %17 %17 SESSION %2BUF USE %4

**BASE:**

IST939I VARY NOLOGON HAD NO EFFECT - %8 NOT FOUND FOR %8

**Version 4:**

IST1155I %17 VARY NOLOGON = %17 FAILED

**BASE:**

IST970I LU-LU VERIFICATION ERROR %2 FOR %26

**Version 4:**

IST1213I %35 LU-LU VERIFY ERROR %2

**BASE:**

IST988I %8 %8 %8 %8 %8 %8

**Version 4:**

IST1154I %17 %17 %17

**BASE:**

IST1082I GENERATED ADDRESS FOR %8 %11 FROM %8

**Version 4:**

IST1285I ADDRESS FOR %17 %11 FROM %8

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## Appendix E. Message text for VTAM operator messages

This appendix lists the text of VTAM operator messages for MVS.

For a description of variable information in the messages, see the individual message explanation.

**Note:** in the message text, a percent sign (%) represents a character that is reserved for variable information. The maximum length of the variable is indicated by a percent sign and a number (for example, %8). In some messages, if the variable information is shorter than the variable field, the extra blanks might be suppressed, causing the message text to shift to the left.

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### Message text for ELM logon manager network operator messages

The following table lists the message text for all ELM Logon Manager Network operator messages issued for MVS.

Message number	Text
ELM001I	REDEFINITION COMPLETE
ELM002I	LOGON MANAGER INITIALIZATION COMPLETED
ELM003I	NO SUBAREAS DETECTED IN CONFIGURATION DEFINITION
ELM004I	REDEFINITION IN PROGRESS —; COMMAND QUEUED
ELM005I	MEMBER REQUEST ACCEPTED
ELM006I	REDEFINITION IN PROGRESS
ELM007I	REDEFINITION UNSUCCESSFUL
ELM008I	REPLY TRUNCATED
ELM009I	STOP REQUEST ACCEPTED
ELM010I	INFO REQUEST ACCEPTED
ELM011I	MINLINK REQUEST ACCEPTED
ELM012I	SELECTED RESOURCE NOT FOUND
ELM013I	MINLINK REQUEST COMPLETED
ELM014I	NAME: TYP: STATUS: CURRENT: CONTROL: REASON: INITS:
ELM015I	NO PENDING RESOURCES FOUND
ELM016I	LOGON MANAGER CLOSEDOWN COMPLETED
ELM017I	REQUIRED STORAGE UNAVAILABLE
ELM018I	SA RECORD CAUSES MAXSUBA PARAMETER TO BE EXCEEDED
ELM019I	LMAPPL RECORD CAUSES MAXAPLC VALUE TO BE EXCEEDED
ELM020I	UNABLE TO ACCESS CONFIGURATION DEFINITION DATA SET MEMBER
ELM021I	ERROR ENCOUNTERED IN READING CONFIGURATION DEFINITION DATA SET MEMBER
ELM022I	HELP REQUEST ACCEPTED
ELM023I	VALID COMMAND PARAMETERS ARE:

Message number	Text
ELM024I	HELP ...GET VALID COMMAND FORMATS
ELM025I	INFO,ID=NNNNNNNN ...GET STATUS FOR RESOURCE NAMED NNNNNNNN
ELM026I	INFO,ID=CLU ...GET STATUS FOR EACH CONTROL LOGICAL UNIT
ELM027I	INFO,ID=CLU,PEND ...GET STATUS FOR EACH PENDING CLU
ELM028I	INFO,ID=APPL ...GET STATUS FOR EACH SUPPORTED APPLICATION
ELM029I	INFO,ID=APPL,PEND ...GET STATUS FOR EACH PENDING APPL
ELM030I	INFO,ID=ALL ...GET STATUS FOR EACH CLU AND APPL
ELM031I	INFO,ID=ALL,PEND ...GET STATUS FOR EACH PENDING CLU AND APPL
ELM032I	MEMBER=MMMMMMMM ...PROCESS DEFINITION MEMBER MMMMMMMM
ELM033I	MINLINK=VVV,ID=ALL...SET MINLINK VALUE TO VVV (1–255)
ELM034I	FOR EACH SUPPORTED APPLICATION
ELM035I	MINLINK=VVV,ID=NNNNNNNN ...SET MINLINK VALUE FOR APPL NNNNNNNN
ELM036I	STOP ...REQUESTS CLOSEDOWN
ELM037I	LMAAPL RECORD IGNORED — WOULD CAUSE MAXAPLC LIMIT TO BE EXCEEDED
ELM040I	<i>name type status curop=curcnt conop=concnt reason inits</i>
ELM050I	SYNTAX ERROR [AFTER <i>keyword</i> ] [AT <i>token</i> ] IN <i>type</i>
ELM051I	INCORRECT VALUE SPECIFIED FOR <i>operand</i> IN <i>type</i>
ELM060I	NO VALID VALUE FOR PARAMETER <i>parameter</i> PROVIDED
ELM061I	CURRENT VALUE OF MEMBER PARAMETER IS <i>membername</i>
ELM062I	CURRENT VALUE OF MAXSUBA PARAMETER IS <i>value</i>
ELM063A	ENTER LOGON MANAGER START PARAMETERS (OR 'END')
ELM070I	<i>macro</i> FAILURE [FOR APPLICATION <i>applname</i> ][,RETURN CODE <i>value</i> ]
ELM075I	SESSION SETUP FOR <i>olu</i> TO <i>dlu</i> FAILED, SENSE = <i>code</i>
ELM080I	ATTACH FAILED FOR SUBTASK <i>taskname</i>
ELM081I	BUFFER STORAGE NOT AVAILABLE FOR RECEIVE FROM CLU <i>cluname</i>
ELM090I	SEND TO CLU <i>cluname</i> FAILED[, RC/FB= <i>value</i> ]
ELM091I	RECEIVE FROM CLU <i>cluname</i> FAILED[, RC/FB= <i>value</i> ]
ELM100I	ACB RELEASE-LEVEL VECTOR INDICATES INCORRECT VTAM LEVEL
ELM101A	ENTER 'CONTINUE' WHEN VTAM IS ACTIVE (OR 'END')
ELM110I	INITIALIZATION UNSUCCESSFUL

## Message text for IKT TSO/VTAM network operator and terminal user messages

The following table lists the message text for all IKT TSO/VTAM Network Operator and Terminal User messages issued for MVS.

Message number	Text
IKT001D	<i>nnnn</i> USER(S) ACTIVE REPLY 'U', 'SIC', OR 'FSTOP'
IKT002I	TCAS IS TERMINATING, REASON CODE= <i>code</i>
IKT003D	TCAS UNABLE TO ACCEPT LOGONS, REASON CODE= <i>code</i> REPLY 'RETRY' OR 'TERM'
IKT004D	INVALID PARAMETERS SPECIFIED, RESPECIFY OR REPLY 'U'
IKT005I	TCAS IS INITIALIZED
IKT006I	TCAS ENDED
IKT007I	TCAS ACCEPTING LOGONS
IKT008I	TCAS NOT ACCEPTING LOGONS
IKT009I	TPEND HAS OCCURRED, TCAS TERMINATION IN PROGRESS
IKT010D	<i>nnnnn</i> USER(S) ACTIVE, REPLY 'SIC' OR 'FSTOP'
IKT011I	TCAS UNABLE TO {ACCEPT QUIESCE} LOGONS, REASON CODE= <i>code</i>
IKT012D	TCAS TERMINATION IN PROGRESS — SPECIFY 'U' OR 'DUMP'
IKT013I	PARAMETER FILE CANNOT BE OPENED - DEFAULT PARAMETERS USED
IKT014I	I/O ERROR READING MEMBER <i>member_name</i> - DEFAULT PARAMETERS USED
IKT015I	MODIFY COMMAND REJECTED, INVALID PARAMETERS SPECIFIED
IKT016D	INVALID REPLY — RESPECIFY
IKT017I	FILE FOR PRINTING TSO/VTAM TIME SHARING PARAMETERS CANNOT BE OPENED
IKT018I	I/O ERROR PRINTING TSO/VTAM TIME SHARING PARAMETERS, PRINTING STOPPED
IKT020I	TCAS CONSOLE COMMUNICATION TASK ABENDED, RECOVERY IN PROGRESS
IKT026D	TCAS ABEND IN PROGRESS — SPECIFY 'U' OR 'DUMP'
IKT028I	RC= <i>aabbcc</i> SENSE= <i>code</i> TERMINAL <i>termid</i> CANNOT BE CONNECTED OR RELEASED BY VTAM
IKT029I	RC= <i>aabbcc</i> SENSE= <i>code</i> TERMINAL <i>termid</i> ABOUT TO BE RELEASED BY VTAM
IKT030I	TCAS LOGON PROCESS FAILURE PLU= <i>pluname</i> SLU= <i>sluname</i> [SENSE= <i>code</i> ]
IKT031I	PARAMETER(S) SPECIFIED IN MEMBER <i>member_name</i> NOT VALID
IKT032I	<i>macro</i> FAILED FOR <i>gname</i> RPLRTNCD <i>aa</i> RPLFDB2 <i>bb</i>
IKT033I	TCAS USERMAX VALUE SET TO <i>count</i>
IKT100I	USERID <i>userid</i> CANCELED DUE TO UNCONDITIONAL LOGOFF
IKT103I	UNKNOWN ENTRY CODE <i>code</i> TO VTAM LOSTERM EXIT
IKT105I	LOGON REJECTED DUE TO INVALID APPLICATION ID
IKT106I	LOGON REJECTED, CANNOT OPEN ACB, ACBERFLG=X' <i>nn</i>
IKT109I	TSO/VTAM LOSTERM FAILED DUE TO VTAM SHORTAGE OF UECB/VRPL
IKT111I	APPLNAME= <i>applname</i> FAILED DUE TO: <i>reason</i>
IKT112I	{SEND RECEIVE} ERROR DURING QUERY PROCESSING FOR <i>applname</i> ,RPLRTNCD= <i>aa</i> ,RPLFDB2= <i>bb</i> ,SENSE= <i>code</i>
IKT115I	TSO UNABLE TO DISCONNECT TERMINAL <i>luname</i>

Message number	Text
IKT116I	<i>userid</i> {SEND RECEIVE} ERROR,RPLRTNCD= <i>aa</i> , RPLFDB2= <i>bb</i> , SENSE= <i>code</i> , WAITING FOR RECONNECTION <i>termid</i>
IKT117I	TSO/VTAM INITIALIZATION FAILED FOR APPLNAME= <i>applname</i> , LUNAME= <i>luname</i>
IKT118I	INVALID QUERY REPLY, TERMINAL ID: <i>termid</i>
IKT119I	<i>langcode</i> MESSAGES NOT AVAILABLE FOR LU <i>luname</i> , USING DEFAULT
IKT120I	CLOSE ACB FOR <i>applname</i> FAILED, CODE= <i>returncode</i> ERROR= <i>acberflag</i>
IKT121I	TCAS SEND/RECEIVE NOT POSTED FOR TERMINAL <i>termid</i>
IKT122I	IPADDR..PORT <i>ipaddr</i> .. <i>portno</i>
IKT123I	DNS NAME: <i>dns_name</i>
IKT124I	<i>dns_name_continued</i>
IKT125I	TSO LOGON REJECTED: QUERY REPLY TOO LARGE - TERMINAL ID: <i>termid</i>
IKT00201I	MAXIMUM USERS LOGGED ON, TRY LATER
IKT00202I	INSUFFICIENT STORAGE AVAILABLE FOR REQUIRED CONTROL BLOCKS
IKT00203I	ADDRESS SPACE CREATION FAILED
IKT00204I	LOGON FAILED, NO USER APPLID AVAILABLE
IKT00300I	LOGON RECONNECT SUCCESSFUL, SESSION ESTABLISHED
IKT00301I	LOGON RECONNECT UNSUCCESSFUL DUE TO SYSTEM ERROR
IKT00400I	INPUT DATA LOST
IKT00401I	OUTPUT DATA LOST
IKT00402I	REENTER DATA BEGINNING WITH <i>text</i>
IKT00403I	ERROR ON OUTPUT, RETRY IN PROGRESS
IKT00405I	SCREEN ERASURE CAUSED BY ERROR RECOVERY PROCEDURE

## Message text for IST VTAM operator messages

The following table lists the message text for all IST VTAM operator messages issued for MVS.

Message number	Text
IST001I	VTAM START REJECTED - %38
IST003I	ABEND OCCURRED DURING NETWORK DEFINITION OF CONFIG %8, CODE = %3
IST009I	VTAM ALREADY ACTIVE - START REJECTED
IST010I	%8 COMMAND INVALID
IST011I	%10 FOR %8 %24
IST013I	I/O ERROR FOR %8 IN %8
IST015A	ERROR PROCESSING LIST IDENTIFIER - ENTER LIST ID OR BLANK
IST018I	CONFIG COULD NOT BE INITIALIZED - VTAM START CONTINUES
IST020I	VTAM INITIALIZATION COMPLETE FOR %6



Message number	Text
IST025I	BLDL FAILED FOR %8 IN %8
IST033I	%8 COMMAND CANCELLED
IST037I	%8 FAILED - SYNTAX ERROR
IST038I	VARY FAILED FOR ID = %8 - HOST CDRM IS NOT ACTIVE
IST039I	%8 FAILED - CANNOT IDENTIFY COMMAND TYPE
IST040I	START OPTION %8 REQUIRED - REENTER WHEN PROMPTED
IST043I	%8 INVALID VALUE FOR KEYWORD %8
IST049I	VTAM START REJECTED - %8 FOR %2 ACB FAILED
IST050I	%8 COMMAND REJECTED - OPEN FOR VTAM DATA SET %12 FAILED
IST051A	ENTER VTAM START PARAMETERS
IST052I	%8 IS AN INVALID START OPTION KEYWORD - IGNORED
IST054I	%8 IN %8 IS EMPTY - START PROCESSING CONTINUES
IST056A	LIST = %3 IS INVALID - ENTER LIST ID OR BLANK
IST057I	KEYWORD MISSING AFTER TRACE/NOTRACE OPTION ON START PARMS
IST058I	%8 AND %8 OPTIONS HAVE DUPLICATE VALUES
IST059I	%28 IGNORED - INSUFFICIENT STORAGE
IST061I	%10 FOR %17 FAILED - NODE UNKNOWN TO VTAM
IST066I	%10 FAILED - CONFLICTING OR INVALID OPTIONS
IST072I	%10 FOR ID = %8 FAILED DURING NETWORK DEFINITION
IST073I	%10 FOR ID = %8 FAILED - MORE POWERFUL REQUEST IN PROGRESS
IST074I	%10 FOR ID = %8 FAILED - INSUFFICIENT STORAGE
IST075I	NAME = %17, TYPE = %17
IST077I	SIO = %5 CUA = %4 %14
IST080I	%8 %10 %8 %10 %8 %10
IST081I	LINE NAME = %8, LINE GROUP = %8, MAJNOD = %8
IST082I	DEVTYPE = %24 %27
IST084I	NETWORK NODES:
IST085I	DISPLAY FAILED - INFORMATION NOT AVAILABLE
IST087I	TYPE = %19, CONTROL = %4
IST089I	%8 TYPE = %17, %10 %14
IST092I	REQUESTED %11 LESS THAN CURRENT ALLOCATION - REQUEST %8
IST093I	%8 ACTIVE
IST095A	OPTION TO DUMP %8 AVAILABLE - REPLY 'YES' OR 'NO' OR 'YES,DUMPSTA=LINKSTANAME'
IST096I	%8 FAILED - DUPLICATE %8 PARAMETERS SPECIFIED
IST097I	%8 ACCEPTED

Message number	Text
IST101I	%8 FAILED - %8 NOT SPECIFIED
IST102I	VTAM IS NOW INACTIVE
IST105I	%8 NODE NOW INACTIVE
IST107I	TIME AND DATE NOT SET IN %8 DUE TO INVALID TIMER IN HOST
IST112I	VTAM INTERNAL TRACE MODIFY FAILED - CONFLICTING MODES
IST113I	%8 IS A USERVAR WITH VALUE %8 IN NETWORK %8
IST115I	INSUFFICIENT STORAGE TO READ %8 MEMBER OF VTAM DEFINITION LIBRARY
IST116I	MEMBER %8 NOT FOUND ON VTAM DEFINITION LIBRARY
IST117I	I/O ERROR READING %8 MEMBER OF VTAM DEFINITION LIBRARY
IST118I	ANOMALY FOUND NEAR RECORD %8 IN MEMBER %8 - CODE = %2
IST120I	NODE %8 NOW HAS CONTROLLING LU %8
IST122I	ATTACH OF VTAM SUBTASK %8 FAILED
IST124I	STOP COMMAND REJECTED - NOT SUPPORTED FOR VTAM
IST126I	%8 MODE NOT SUPPORTED DUE TO LOADING FAILURE
IST127I	%8 STILL ACTIVE - VTAM TERMINATION WAITING FOR %28
IST128I	HALT OF VTAM ALREADY IN PROGRESS
IST129I	UNRECOVERABLE OR FORCED ERROR ON NODE %8 - VARY INACT SCHED
IST130I	VTAM SUBTASK %8 INACTIVE - ABEND THRESHOLD EXCEEDED
IST132I	VTAM SUBTASK %8 NOT REATTACHED - CANNOT BE FOUND
IST133I	VTAM TERMINATION IN PROGRESS
IST134I	GROUP = %8, MAJOR NODE = %8
IST135I	PHYSICAL UNIT = %8 %10
IST136I	%8 SNA MAJOR NODE = %8
IST137I	CONFIG %8 BYPASSED - LOCAL ADDRESS OF LU %8 IS INVALID
IST142I	CONFIG %8 BYPASSED - PATH MACRO %8 ERROR, REASON CODE %
IST146I	LINE NAME = %8, STATUS = %5
IST148I	DIAL OUT PATH INFORMATION FOR PHYSICAL UNIT %8
IST149I	LINE GRP TELEPHONE NUMBER OR LINE NAME PID GID CNT
IST150I	RRT LOAD MODULE %8 DOES NOT CONTAIN RESOURCE SEGMENT %9
IST153I	PENDING DEACTIVATION OF %8 OVERRIDDEN
IST154I	EXPANSION FAILED FOR %4 BUFFER POOL - CODE %2, USERID=%8
IST155I	SUBTASK %8 HAS ABENDED, CODE %3
IST159I	THE FOLLOWING NODES ARE IN A PENDING STATE
IST165I	CDRM %8 HAS AN INVALID ELEMENT VALUE - 1 IS ASSUMED
IST167I	NO DIAL OUT PATH FOR %8
IST168I	%8 %32 %11 %3 %3

Message number	Text
IST169I	DISCONNECTION CAUSED VARY %5 FOR PU = %8
IST170I	LINES:
IST171I	ACTIVE SESSIONS = %10, SESSION REQUESTS = %10
IST172I	NO %21 %9
IST176I	%8 FAILED - %8 AND %8 ARE CONFLICTING OPTIONS
IST180I	OPEN FAILED ON CKPT DS %8 MAJ NODE %8 RTNCD = %2 %2
IST181I	CLOSE FAILED ON CKPT DS %8 MAJ NODE %8 RTNCD = %2 %2
IST182I	UNABLE TO GET STORAGE FOR CKPT %8 MAJOR NODE %8
IST183A	%8 FOUND LOADED WITH %8 - REPLY 'YES' TO REIPL OR 'NO' TO CONTINUE
IST184I	I/O ERROR ON CKPT DS %8 MAJOR NODE %8 RTNCD = %2 %2
IST185I	LOGICAL ERROR ON CHECKPOINT DS %8 MAJOR NODE %8
IST186I	%10 FOR ID = %8 CONTINUES COLD - CHECKPOINT DATA SET %15
IST187I	%10 FOR ID = %8 FAILED - CHECKPOINT DATA SET %15
IST191I	%8 SYNTAX ERROR
IST192I	POA MSG TRANSFER FAILED - INSUFFICIENT STORAGE
IST193I	REPLY %2 IGNORED - REPLY TOO LONG FOR REQUESTOR
IST194I	REPLY %2 NOT OUTSTANDING
IST195I	REPLY %2 IGNORED - NON-DECIMAL ID
IST198I	VTAM INTERNAL TRACE ACTIVATION FAILED - GTF NOT ACTIVE
IST199I	OPTIONS = %51
IST206I	SESSIONS:
IST208I	UNABLE TO TERMINATE SESSIONS FOR ID = %8 - INSUFFICIENT STORAGE
IST211I	NCP SLOWDOWN INITIATED FOR %8
IST212I	ACBNAME = %8
IST213I	ACBNAME FOR ID = %8
IST214I	NCP SLOWDOWN TERMINATED FOR %8
IST219I	I/O ERROR ON READ FOR %8 - BYTECNT MISMATCH
IST223I	MODIFY %8 COMMAND COMPLETED
IST225I	%12 FOR ID = %8 FAILED - %30
IST226I	%10 FOR ID = %8 NOT EFFECTIVE DURING CURRENT OR QUEUED SESSIONS
IST228I	ENCRYPTION = %11 , TYPE = %6
IST231I	%8 MAJOR NODE = %8
IST232I	%8 %10 %13
IST234I	I/O ERROR %23
IST238I	%10 %3 FOR ID = %8 RCVD %60

Message number	Text
IST240A	WAIT STATE IN VTAM DUE TO INSUFFICIENT NUMBER OF I/O BUFFERS SPECIFIED BY USER
IST241I	%10 COMMAND COMPLETE FOR %17
IST242I	%10 COMMAND FAILED FOR ID = %8 SENSE = %8
IST243I	FRAMES SENT = %5, RCVD = %5, RCVD WITHOUT ERRORS = %5
IST244I	NCP %11 STORAGE FOR ID = %8
IST245I	%6 %8 %8 %8 %8
IST247I	LOAD/DUMP PROCEDURE STATUS = %5 %19
IST257I	VTAM SDUMP FAILED WITH RETURN CODE %2 REASON X'%2'
IST258I	STMT IN ERROR = %80
IST259I	INOP RECEIVED FOR %8 CODE = %2 %50
IST260I	%8 - %8 SESSION LOST, SA %10 CODE %2
IST262I	%8 = %8, STATUS = %10
IST264I	REQUIRED %13 %8 %15
IST265I	%10 FOR ID = %8 FAILED - DUP %8 HL %8
IST266I	%8 STARTED
IST270I	LOAD OF %8 COMPLETE - LOAD MODULE = %7
IST271I	JOBNAME = %8, STEPNAME = %8, DSPNAME = %8
IST272A	NO INITIAL TEST FOR %8 - REPLY 'U' TO BYPASS - OR CANCEL
IST278A	INVALID REPLY FOR ID = %8 LOAD - ENTER 'U' - OR CANCEL
IST282A	INVALID REPLY FOR ID = %8 %10 %40
IST284A	OPTION TO RELOAD %8 AVAILABLE - REPLY 'YES' OR 'NO' OR 'YES,LOADSTA=LINKSTANAME'
IST285I	%8 DUMP OF %8 %34
IST302I	INVALID DEFINITION TYPE IN MEMBER %8 IN VTAM DEFINITION LIBRARY
IST303I	INSUFFICIENT STORAGE TO BUILD CONFIGURATION %8
IST309I	UNABLE TO LOAD MODULE %8 FROM LIBRARY %8
IST310I	INVALID SPACE REQUEST FOR CONFIGURATION %8
IST311I	NCP LOAD MODULE LIBRARY %8 - FAILED TO OPEN
IST314I	END
IST315I	VTAM INTERNAL TRACE ACTIVE - MODE = %3, SIZE = %4 %7
IST316I	%13 TRACE USER OPTIONS ARE NOT ACTIVE
IST317I	VTAM INTERNAL TRACE ACTIVATION FAILED - INSUFFICIENT STORAGE
IST319I	CONFIGURATION %8 FIRST SPECIFICATION USED %22
IST320I	CONFIGURATION %8 DEFINITION FAILED - %20
IST321I	CONFIGURATION %8 DEFAULT TAKEN - %22
IST322I	CONFIGURATION %8 ERROR IGNORED - %22

Message number	Text
IST323I	LABEL = %8 - MACRO TYPE = %8 - KEYWORD = %8
IST324I	%8 IN PROGRESS WITH ID = %8 DUE TO %10 REQUEST
IST326I	REQUEST = %10 FAILED FOR %8 ID = %8, SENSE = %8
IST327I	%8 ID = %8 INCOMPLETE, REQUEST = %10, SENSE = %8
IST328I	COMMUNICATION WITH CDRM ID = %8 LOST
IST330I	TABLE TYPE = %8 NAME = %8
IST331I	CONFIG %8 BYPASSED - 'MAXSUBA' VALUES CONFLICT
IST333I	CONFIG %8 USING DUPLICATE RESOURCE NAME %8 - CODE %
IST336I	THIS NCP MAJOR NODE WAS %28
IST339I	CONFIG %8 BYPASSED - %8 UNKNOWN TO THE NCP
IST348I	UNABLE TO PROCESS DISCONNECTION FOR PU = %8 DUE TO LACK OF STORAGE
IST350I	DISPLAY TYPE = %24
IST351I	LOCAL 3270 MAJOR NODE = %8
IST352I	LOCAL SNA MAJOR NODE = %8
IST353I	SWITCHED SNA MAJOR NODE = %8
IST354I	PU T4/5 MAJOR NODE = %8
IST355I	LOGICAL UNITS:
IST356I	%11 %6 %6 %12 %5 %5/%5 %5
IST359I	ATTACHMENT = %8
IST360I	APPLICATIONS:
IST361A	%19 FOUND LOADED WITH %19 REPLY 'YES' TO RELOAD OR 'NO' TO CANCEL ACTIVATION
IST362I	GROUP %8 DEVICES UNAVAILABLE - MISSING SYSCNTRL OPTION
IST363I	CONFIG %8 NODES AND SUBNODES SET UNAVAILABLE - %22
IST366I	CONFIG %8 UNABLE TO DEFINE %8 - MAXIMUM NUMBER OF NETWORK ADDRESSES FOR HOST SUBAREA EXCEEDED
IST367I	NO STORAGE TO DEFINE NODE %8 CONFIG %8
IST368I	FUNCTION GROUP %8 FAILED
IST380I	ERROR FOR ID = %8 - REQUEST: %10, SENSE: %8
IST381I	%10 FOR ID = %8 FAILED - CANNOT DEFINE NODE
IST382I	%10 FOR ID = %8 FAILED - STATE: %5 NOT VALID FOR REQUEST
IST383I	DEACTIVATION OF ID = %8 FAILED - REQUEST: %10 SENSE: %8
IST384I	%10 FOR ID = %8 FAILED
IST388I	DYNAMIC CDRSC DEFINITION SUPPORT = %3
IST389I	PREDEFINITION OF CDRSC = %3
IST391I	ADJ LINK STATION = %8, LINE = %8, NODE = %8
IST393I	PU T4/5 MAJOR NODE %8, SUBAREA = %10

Message number	Text
IST394I	ADJACENT LINK STATIONS NOT OWNED BUT AWAITING ACTIVATION
IST395I	%8 %8 %8 %8 %8 %8
IST396I	LNKSTA STATUS CTG GTG ADJNODE ADJSA NETID ADJLS
IST397I	%8 %10 %3 %3 %8 %5 %8 %7%
IST398I	LOAD OF %8 FAILED - %8 HAS ZERO ENTRY POINT
IST399E	ISTSDCOS IS NOT A CLASS OF SERVICE TABLE - ISTSDCOS DELETED
IST400I	TERMINATION IN PROGRESS FOR APPLID %8
IST401I	%10 INITIATED FOR ID = %8
IST403I	%8 COMMAND FAILED - MULTIPLE OPTIONS FOR %8 NOT ALLOWED
IST410I	%4 BUFFER POOL COULD NOT BE BUILT - CODE %
IST411I	%8 COMMAND REJECTED DUE TO TERMINATION IN PROGRESS
IST412I	VTAM COMMAND PROCESSING TERMINATED
IST413I	VTAM DUMPING FOR %26
IST414I	%10 FOR ID = %8 FAILED - PROCESS UNAVAILABLE
IST416I	SDUMP ISSUED DUE TO ADDRESS SPACE TERMINATION
IST422I	I/O ERROR ON DS %8 RTN CD = %2, %2
IST423I	UNABLE TO GET STORAGE FOR DS %8
IST424I	CLOSE FAILED ON DS %8 RTN CD = %2, %2
IST425I	OPEN FAILED ON DS %8 RTN CD = %2, %2
IST430I	%10 FOR ID = %8 DISCARDED
IST433I	COMMAND REJECTED - TUNING STATISTICS TASK NOT ATTACHED
IST435I	UNABLE TO RECORD ON TUNSTATS FILE, CODE = %10
IST436I	STORAGE NOT AVAILABLE FOR TUNING STATISTICS DATA
IST440I	TIME = %8 DATE = %5 ID = %8
IST441I	DLRMAX = %10 CHWR = %10 CHRDL = %10
IST442I	ATTN = %10 RDATN = %10 IPIU = %10
IST443I	OPIU = %10 RDBUF = %10 SLODN = %10
IST447I	BUFFER SIZE WAS IGNORED FOR ONE OR MORE POOLS
IST448I	%8 OPTION IGNORED - %29
IST449I	%11 = %8, CURRENT = %8, MAXIMUM = %8
IST450I	INVALID %8 COMMAND SYNTAX
IST451I	%8 COMMAND UNRECOGNIZED, PARAMETER=%8
IST452I	%8 PARAMETER EXTRANEIOUS
IST453I	%8 PARAMETER VALUE %17 NOT VALID
IST454I	%8 COMMAND FAILED, INSUFFICIENT STORAGE
IST455I	%43 SESSIONS ENDED

Message number	Text
IST456I	%8 REQUIRED PARAMETER OMITTED
IST457I	POSITIVE %8 COMMAND RESPONSE
IST458I	USS MESSAGE %3 NOT DEFINED
IST459I	%10 FAILED - ID = %8 - ADJ NODE %55
IST460I	%10 FOR U/RNAME ENTRY ID = %8 FAILED: %40
IST461I	%10 FOR U/RNAME ENTRY ID = %8 STARTED
IST462I	ACTIVATION OF LINK STATION %8 IS DEFERRED PENDING HIGHER LEVEL NODE ACTIVATION
IST464I	LINK STATION %8 HAS CONTACTED %8 SA %10
IST465I	%10 FOR ID = %8 FAILED - NO %4 STATION AVAILABLE
IST466I	%10 FOR ID = %8 CONTINUES - UNABLE TO DO %40
IST467I	CONTACTED ERROR TYPE %3 FOR ID = %8
IST473I	CONNECTIVITY TEST TO %8 TERMINATED AFTER %3 ECHOES DUE TO I/O ERROR, SENSE = %8
IST475I	%8 FAILED FOR %8 REQUEST %10 SENSE %8
IST476I	CDRM TYPE = %8 %20
IST477I	CDRMS:
IST478I	CDRSCS:
IST479I	CDRM NAME = %8, VERIFY OWNER = %3
IST482I	%8 %5, SA %10, EL %5, NETID = %8
IST483I	%8 %10, CDRM = %8, NETID = %8
IST484I	SUBAREA = %10 %26
IST486I	CURRENT STATE = %10, DESIRED STATE = %5
IST487I	%10 FOR ID = %8 SCHEDULED BY %10
IST488I	%10 FOR ID = %8 FAILED - DUPLICATE NODE: %8
IST489I	%10 FOR ID = %8 CONTINUES - CANNOT DEFINE NODE: %8
IST490I	%10 FOR ID = %8 FAILED - %10 IN PROGRESS
IST493I	%10 FOR ID = %8 OVERRIDDEN BY %10
IST494I	%10 FOR ID = %8 FAILED - ALREADY IN DESIRED STATE
IST495I	%11 HAS BEEN SET TO %8
IST496E	%22 FUNCTION INOPERATIVE DUE TO ABEND
IST499I	DISK FUNCTIONS FOR %8 NOT PERFORMED
IST507I	%8 NOT ACTIVE, TSO TRACE REQUEST IGNORED
IST510I	ROUTE TEST %3 FAILED - %35
IST511I	TRACE REQUEST FAILED - %8 INVALID
IST512I	TRACE TERMINATED FOR NODE = %8 %18
IST513I	TRACE INITIATED FOR NODE %8 %18

Message number	Text
IST516I	DESTSUB ADJSUB TGN ER ER STATUS VR(S)
IST517I	%7 %7 %3 %2 %6 %24
IST520I	UNABLE TO PROCESS %44
IST521I	GBIND %6 FOR COS %8 %25
IST522I	%2 %2 %5 %8 SA %10 TO SA %10 %7
IST523I	REASON = %53
IST524I	REVERSE ER MASK = %4
IST525I	REJECTING SA %10 USING TG %3 ADJACENT SA %10
IST526I	ROUTE FAILED FROM %10 TO %10 - DSA %10 - NETID %8
IST528I	VIRTUAL ROUTE NUMBER %32
IST529I	VR SELECTION EXIT %24 %19
IST530I	%10 PENDING %38
IST531I	%62
IST533I	ER %2 %9 IN ROUTE TEST %3
IST534I	%10 %3 %10 %10 %3
IST535I	ROUTE DISPLAY %3 FROM SA %10 TO SA %10
IST536I	VR TP STATUS ER ADJSUB TGN STATUS CUR MIN MAX
IST537I	%2 %2 %6 %2 %10 %3 %6 %3 %3 %3
IST538I	ROUTE TEST %3 IN PROGRESS
IST539I	DISPLAY ROUTE COMMAND FAILED, COS CANNOT BE RESOLVED
IST540I	DISPLAY ROUTE COMMAND FAILED, SENSE = %8
IST541I	FOLLOWING PATH DEFINITION IS IGNORED
IST542I	INVALID DESTSA %10 FOR PATH DEFINITION - IGNORED
IST543I	PATH %36 IS REDEFINED AS FOLLOWS
IST544I	PATH %36
IST546I	UNABLE TO PROCESS %41
IST547I	EXPLICIT ROUTE MASK %4
IST548I	%10 FAILED %48
IST549I	LL2 TEST FOR ID = %8 ENDED %24
IST561I	STORAGE UNAVAILABLE: %4 BUFFER POOL
IST562I	STORAGE UNAVAILABLE: %11 REACHED
IST563I	STORAGE UNAVAILABLE: MAXPVT REACHED FOR %8 %8
IST564I	STORAGE UNAVAILABLE: COMMON AREA SUBPOOL %3
IST565I	STORAGE UNAVAILABLE: VTAM PRIVATE AREA SUBPOOL %3
IST566I	STORAGE UNAVAILABLE: %8 %8 SUBPOOL %3
IST567I	%10 OF %8 FOR %8 %13



Message number	Text
IST571I	LOAD FAILED FOR ID = %8 REQ: %10, SENSE: %8
IST572I	REJECTING TG ADJACENT ER MASK
IST574E	START I/O TIMEOUT OCCURRED FOR %8
IST576I	TSO TRACE = %3
IST577I	TIME = %8 DATE = %5 ID = %8
IST578I	CHNRM = %10 CHMAX = %10 RDBUF = %10
IST579I	ATTN = %10 TIMERS = %10 QDPTH = %10
IST580I	BUFCAP = %10 PRI = %10 SLODN = %10
IST581I	IPIU = %10 OPIU = %10 DLRMAX = %10
IST582I	'EVERY' INVALID FOR TRACE OF ID = %8 - OPERAND IGNORED
IST583I	CONFIG %8 NOT PROCESSED - SYSDEF TASK NOT ATTACHED
IST585E	VTAM UNABLE TO CLOSE %8 - RESOURCES MAY BE LOST TO VTAM
IST587I	IRN STORAGE %8 CAUSED BY SLOWDOWN OF NODE %8
IST588I	SIT TRACE STATUS = %5
IST589I	ERROR FOR ID = %8, CODE = %, NET = %8
IST590I	CONNECT%3 %11 FOR PU %8 ON LINE %8
IST591E	VTAM COMMAND CANCELED DUE TO VTAM TASK ABEND - %3 - RETRY COMMAND
IST592I	VTAM MAIN TASK ABEND - CODE %3 - VTAM IS BEING TERMINATED
IST593I	ISTPDCLU %17 SESSION ENDED
IST594I	ISTPDCLU %9 FAILED %3 %3
IST595I	IRNLIMIT = %8, CURRENT = %8, MAXIMUM = %8
IST596I	IRN TRACE = %3
IST597I	CAPABILITY-PLU %9,SLU %9,SESSION LIMIT %8
IST599I	REAL NAME = %17
IST602I	%8 FAILED ID = %8 - HIGHER NODE HAS BECOME INACTIVE
IST605I	ERROR FOR ID = %8 - %8 : %10, DATA INVALID FOR THIS NODE
IST607I	%10 FOR %17 FAILED - INVALID NODE TYPE OR STATE
IST608I	%10 FOR ID = %8 FAILED - HIGHER NODE: %8 NOT ACTIVE
IST610I	LINE %8 - STATUS %10
IST611I	ADJACENT SSCP TABLE FOR %8 %11
IST617I	DEACTIVATION IN PROGRESS FOR %8
IST619I	ID = %8 FAILED - RECOVERY IN PROGRESS
IST621I	%22 FOR NETWORK NODE %8
IST623I	%7 ADJACENT SSCP TABLE %12
IST624I	%8 %8 %5 %7
IST627I	%8 - INSUFFICIENT STORAGE

Message number	Text
IST632I	BUFF BUFF CURR CURR MAX MAX TIMES EXP/CONT EXP
IST633I	ID SIZE TOTAL AVAIL TOTAL USED EXP THRESHOLD INCR
IST634I	NAME STATUS SID SEND RECV VR TP NETID
IST635I	%8 %10 %16 %8 %2 %2 %7%
IST636I	CDRSCS OWNED BY %8 -
IST637I	SUBAREA=%10 ELEMENT=%5
IST638I	ADJNETSA = %10, ADJNETEL = %5
IST639I	GWN = %8, ADJNET = %8
IST640I	%8 ADDR IN ADJNET - SA = %10, EL = %5
IST641I	GATEWAY PATH SELECTION LIST - %15
IST642I	ADJNET GWN SUBAREA ELEM ADJNETSA ADJNETEL
IST643I	%8 %8 %10 %5 %10 %5
IST644I	%8 TG %8 %8
IST645I	%8 DEFINITION FAILED - NO VALID %8 MACRO
IST650I	POLL = %3, NEGPOLL = %3, SESSION(S) = %3
IST652I	%8 IS A DUPLICATE KEYWORD IN THE TRACE/NOTRACE OPTION
IST654I	I/O TRACE = %3, BUFFER TRACE = %3 %18
IST655I	%8 TRACE STATUS = %5
IST656I	ACTIVATE REJECTED FROM UNDEFINED CDRM, SA %10 EL %5
IST658I	%8 COMMAND FAILED - %8 NOT FOUND
IST660I	%10 FOR ID = %8 FAILED - PARM: %15 NOT VALID
IST663I	%10 REQUEST %22, SENSE=%8
IST664I	%5 %3=%17 %5 %3=%17
IST670I	VARY %4 PROCESSING FOR ID = %8 COMPLETE
IST674I	%10 FOR ID = %8 CONTINUES - PARM: %15 IGNORED
IST675I	VR = %2, TP = %2
IST678I	INSUFFICIENT STORAGE TO SCHEDULE TPEND EXIT FOR %8
IST679A	PLEASE DIAL LINE = %8, NUMBER = %32
IST680I	CONNECTION REQUEST DENIED - ID = %8 %20
IST683I	CONNECTION REQUEST DENIED, ID = %8
IST684I	I/O ERR, CSW = %16, SENSE = %4
IST688I	VARY FAILED FOR ID = %8 - INSUFFICIENT STORAGE
IST690I	CONNECTION REQUEST DENIED - INVALID STATION ID = %12
IST693I	UNABLE TO DISCONNECT ID = %8
IST700I	INVALID %5 - SKIPPING TO NEXT NETWORK STMT OR EOF
IST701I	CONFIG %8 LABEL = %8 STMT TYPE = %8

Message number	Text
IST702I	CONFIG %8 - UNEXPECTED %22
IST703I	CONFIG %8 ADJSSCP DEFINITIONS IGNORED - NO ADJCDRM STMT
IST706I	ADJSSCP TABLE FOR %8 IGNORED - INSUFFICIENT STORAGE
IST707I	ADJSSCP TABLE BEING MODIFIED BY ACTIVATION OF %8
IST708I	%16 %18 %15
IST709I	CONFIG %8 FAILED-%38
IST710I	CONFIG = %8 NETWORK = %8 %22
IST712I	CONFIG %8 GWPATH %8 IGNORED - MISSING OPERANDS
IST713I	CONFIG %8 GWPATH %8 - %8 OPERAND IGNORED
IST714I	CONFIG %8 GWPATH %8 IGNORED - INVALID STMT
IST715I	CONFIG %8 CDRM %8 IGNORED - GWPATH STMT MISSING
IST716I	%10 FOR %8 FAILED
IST717I	NETID %8 ID %8 SA %10 %27
IST718I	ADDRESS INVALID FOR NETID=%8 CDRM=%8 CODE=X'%2'
IST719I	%63
IST720I	%8 HAS CONTACTED %8 IN %8, SA %10
IST721I	SESSION SETUP FOR CDRM %8 USING GWN %8 FAILED
IST723I	SSCPID %12 ALREADY IN USE BY CDRM %8
IST725I	GWN %8, SUBAREA %10, CDRM ALIAS ELEMENT %5
IST726I	ADJNET %8, ADJNETSA %10, ADJNETEL %5
IST727I	COMMUNICATION WITH CDRM %8 LOST - REASON = X'%2'
IST728I	GWPATHS FOR GWN %8 ARE NOW %8 FOR THESE CDRMS
IST732I	%10 REJECTED DUE TO %20
IST734I	ACTIVATION OF CDRM %8 USING GWN %8 FAILED
IST735I	NO ADDRESS TRANSFORMS - REQACTCDRM SENT
IST737I	DEFAULT VR LIST USED FOR CDRM %8 USING GWN %8
IST740I	UNABLE TO FREE ALIAS ADDRESSES FOR CDRM %8 GWN %8
IST742I	ACTIVATION OF CDRM %8 %6 - GWN PATH NOT AVAILABLE
IST744I	CROSS-NETWORK SESSION SETUP FAILED, NETWORK = %8
IST745I	ACTCDRM TO CDRM = %8 FAILED, SENSE = %8
IST746I	BIND FAILED FROM %8 TO %8, SENSE = %8
IST751I	SIO = %8, ERROR CT = %8, CUA = %4
IST752I	GPT TRACE STATUS = %11 %18
IST755I	ALERT FROM PU %8 FOLLOWS
IST756E	ALERT FROM PU %8 FOLLOWS
IST757E	MOSS UNAVAILABLE - HARDWARE ERROR

Message number	Text
IST758E	MOSS RELOADED - HARDWARE ERROR
IST759E	MOSS DISKETTE UNUSABLE
IST760E	MOSS DISKETTE HARDWARE ERROR
IST761E	MOSS CONSOLE UNAVAILABLE
IST762I	MOSS IN MAINTENANCE MODE
IST763I	PHYSICAL UNIT RELOADED - HARDWARE ERROR
IST764I	PHYSICAL UNIT RELOADED - PRIOR ABEND CODE WAS %8
IST765E	CHANNEL ADAPTER %8 UNAVAILABLE - HARDWARE ERROR
IST766I	DUMP FAILED - NO %4 DUMP ON %8 DISK(ETTE)
IST767E	SCANNER %8 (%8-%8) UNAVAILABLE - HARDWARE ERROR
IST768E	SCANNER %8 (%8-%8) UNAVAILABLE - HARDWARE ERROR
IST769E	SCANNER %8 (%8-%8) UNAVAILABLE - SOFTWARE ERROR
IST770E	SCANNER %8 (%8-%8) UNAVAILABLE - SOFTWARE ERROR
IST771E	SCANNER %8 LINE %8 UNAVAILABLE - HARDWARE ERROR
IST772I	UAC = %2 %42
IST773I	SESSION WITH %8 IN PROCESS OF BEING TERMINATED
IST778I	%8 %8 %8 %8 %8 %8
IST784I	SESSION(S) EXIST(S) WITH UNKNOWN PARTNER(S)
IST786I	%8 COMMAND REJECTED - %28
IST787I	SSCP TAKEOVER FOR NODE %8 IN PROGRESS
IST789I	%10 FAILED FOR ID = %8, CA / NCP CONFLICT
IST790I	MAXIMUM %5 USED = %7K
IST792I	NO SUCH SESSION EXISTS
IST793E	SESSION MANAGEMENT ERROR, CODE %29
IST796I	HOSTSA VALUE EXCEEDS %8
IST797I	FROM VIA ADJACENT DEST ER LENGTH
IST798I	%8
IST799I	%15 %4 IN PROGRESS
IST803I	VTAM TERMINATION TASK TERMINATED-OPEN FAILED
IST804I	CLOSE IN PROGRESS FOR %8 OPENED BY %8 %8
IST805I	VTAM CLOSE COMPLETE FOR %8
IST807I	%10 FOR ID = %8 FAILED - NODE IS IN TEST MODE
IST808I	ORIGIN PU = %8 DEST PU = %8 %16
IST809I	XRF SESSIONS - PRIMARY = %5 BACKUP = %5
IST812I	%8 COMMAND NOT ACCEPTED
IST813I	USERVAR %8 CHANGED FROM %8 TO %8

Message number	Text
IST814I	USERVAR %8 DELETED
IST815I	AUTOMATIC RECOVERY IS SUPPORTED
IST816I	%10 %3 %10 %4
IST819I	CDRM %8 COMMUNICATION LOST - RECOVERY IN PROGRESS
IST820I	%5 RSP DATA DISCARDED FOR ID = %8 - INSUFF STORAGE
IST822I	CDRM %8 RECOVERY FAILED - INSUFFICIENT STORAGE
IST825I	USERVAR DEFINED - NAME = %8, VALUE = %8
IST826I	VTAM START REJECTED--START COMMAND NOT USED FOR VTAM INITIALIZATION
IST830I	ORIGINATING SSCP NAME = %8, NETID = %8
IST831I	DUPLICATE ADJCDRM NAME %8 IN %8
IST832I	UNLABELED %8 STMT IN %8
IST833I	SKIPPING TO NEXT %37
IST834I	%4 BACKUP SESSION(S) EXIST(S) WITH UNKNOWN PARTNERS
IST838I	TRACE STATUS DISPLAY FOR ID = %8
IST839I	PU NAME LINE NAME
IST840I	%8 %8
IST841I	NO RESOURCES ARE BEING TRACED FOR %8
IST842I	UNABLE TO FIND BUFFERS IN %2 POOL - DUMP IN PROGRESS
IST844I	VTAM START REJECTED - %8 IS DUPLICATE NAME
IST846I	REAL I/O NOT SUPPORTED BECAUSE %32
IST849I	%8 INCONSISTENT WITH USE OF %8 IN %8
IST860I	DEACTIVATION OF %8 INCOMPLETE - INSUFFICIENT STORAGE
IST861I	MODETAB=%8 USSTAB=%8 LOGTAB=%8
IST862I	NETID = %8 COSTABLE = %19
IST863I	MODIFY TABLE COMMAND FAILED-%33
IST864I	NEWTAB=%8, OLDTAB=%8, OPT=%9, TYPE=%7
IST865I	%12 COMMAND COMPLETE-%29
IST866I	%10 HAD NO EFFECT - %40
IST867I	SIT TRACE FOR %8 FAILED TO ACTIVATE
IST869I	USERID = %8
IST870I	NETWORK ADDRESS RECEIVED FOR %8 IN USE BY %8
IST871I	RESOURCE %8 %11
IST872I	DR MOVE MISMATCH DETECTED FOR %8
IST873I	PLU SLU SID STATUS
IST874I	%17 %17 %16 %8

Message number	Text
IST875I	%7 TOWARDS %3 = %8 %28
IST876I	SIGNALS NEEDED TO COMPLETE SESSION %8
IST877I	%14 %14 %14 %14
IST878I	NUMBER OF %7 SESSIONS = %10
IST879I	%7 REAL = %17 ALIAS = %17
IST880I	SETUP STATUS = %8 %26
IST881I	%17 LINK STATION %8
IST882I	WAITING FOR DEVICE END FROM DEVICE
IST883I	%9 OF SAW BUFFERS USED %27
IST886I	%11 %8 %8 %8 %11 %13 FAILED
IST887I	NO COS TABLE FOR %8 - %17 MAY BE USED
IST888I	ADDR + LENGTH VALUES EXCEED STORAGE - LENGTH SET TO %3
IST889I	SID = %16
IST890I	AUTOLOGON SESSION SETUP FAILED
IST891I	%26 GENERATED FAILURE NOTIFICATION
IST892I	%17 ORIGINATED FAILURE NOTIFICATION
IST893I	ORIGINAL FAILING REQUEST IS %10
IST894I	ADJSSCPS TRIED FAILURE SENSE ADJSSCPS TRIED FAILURE SENSE
IST895I	%8 %8 %8 %8
IST896I	AUTOLOGON WILL BE RETRIED WHEN CONTROLLING PLU IS AVAILABLE
IST897I	LOAD OF %8 STARTED
IST898I	GWSELECT = %3
IST899I	RETRY OF AUTOLOGON(S) TO %17 %14
IST919I	NODE %8 NO LONGER HAS CONTROLLING LU %8
IST920I	%4 % % BUFF SIZE %5 EXP INCREMENT %5
IST921I	TIMES EXP %10 EXP/CONT THRESH %5 / %5
IST922I	CURR TOTAL %11 CURR AVAILABLE %11
IST923I	MAX TOTAL %11 MAX USED %11
IST924I	-----
IST925I	DYNAMIC PATH DEFINITION %8 STATUS = %5
IST926I	PATH FOR %8 IGNORED - NODE %8 NOT FOUND/INVALID
IST927I	ERROR FOR %17 DSA %10 %15 CODE %2
IST928I	DELETER KEYWORD FOR %8 IGNORED
IST929I	LOAD OF DYNAMIC PATH DEFINITION %17 COMPLETE
IST930I	%16 - %16 SESSION USING %4 OF %2BUF
IST931I	SYMPTOM STRING = %44

Message number	Text
IST932E	FAILURE OCCURRED DURING TAKEOVER OF %8, SENSE=%8
IST933I	LOGMODE=%8, COS=%8 %10
IST934I	DLOGMOD=%8 USS LANGTAB=%8
IST935I	ORIGIN=%8, NETID=%8, ID=%17
IST936I	ANSWER MODE = %28
IST937A	%8 CORRELATOR MISMATCH %17 %17 REPLY 'RELOAD'
IST938I	OPEN ACB REJECTED, CANNOT LOAD %8
IST939I	VARY NOLOGON COMMAND HAD NO EFFECT - %8 NOT FOUND FOR %8
IST940I	%64
IST946I	BASENO %5 GREATER OR EQUAL TO XPANLIM %10 BUFFERS
IST947I	STATIC BUFFERING ASSUMED FOR %2BUF
IST948I	XPANLIM TOO SMALL FOR %2BUF - CHANGED TO %10 BUFFERS
IST949I	ISTMGC10 IN VTAMLIB %10 - VTAM PROCESSING CONTINUES
IST950I	VCNS = %10
IST951I	DISPLAY DISK INFORMATION FOR %8
IST952I	DUMP NAME DATE TIME
IST953I	%8 %8 %8
IST954I	LOAD MODULE DATE TIME STORE STATUS [ACTIVE]
IST955I	%8 %8 %8 %9 %3
IST956I	%4 SAP=%3 MAC=%12 %13 %12
IST957I	NO NCP LOAD MODULE OR DUMP ON DISK
IST958I	INBND=%5 OUTBND=%5 PENDING=%3 ATTN=%5 CUA=%4
IST959I	INVALID PIU RECEIVED FROM %8 - VARY INACT SCHEDULED
IST960I	DISPLAY TABLE FAILED - %8 NOT FOUND
IST961I	LOAD OF %8 %12 FAILED
IST962I	INOP X'%2' RECEIVED FOR PU UNDER SWITCHED LINE %8
IST963I	LOAD MODULE = %7
IST965I	AUTO DUMP/LOAD: %3
IST966I	USER=VCNS
IST967I	%20 FAILED FOR %8; RC %2 RS%8
IST968I	INTERFACE INITIALIZATION FAILED - REASON %2
IST970I	LU-LU VERIFICATION ERROR %2 FOR %26
IST971I	ADJ LINK STATION %8 USING %8 IN %8
IST972I	SIT TRACE FOR %8 TERMINATED - %8
IST973I	USERVAR %8 %47
IST976I	ENTRY %8 DEFINED BUT NO %6 DEFINED FOR %8

Message number	Text
IST977I	MDLTAB=%8 ASLTAB=%8
IST979I	BUILD FAILED FOR TABLE %8
IST981I	PRIVATE: CURRENT = %8, MAXIMUM USED = %8
IST982I	%10 %10 REQUEST(S) PENDING TO SUBAREA %10
IST983E	%8 MESSAGE QUEUE LIMIT EXCEEDED - FURTHER MESSAGES WILL BE DISCARDED
IST984I	USER EXIT %17 IS %8
IST985I	USER EXIT %17 %14 FAILED-CODE %2
IST986I	TABLE=%8 TYPE=%8 USE COUNT=%8
IST987I	THE RESOURCES THAT USE THE TABLE ARE:
IST988I	%8 %8 %8 %8 %8 %8
IST989I	EXP LIMIT %8 BUFFS REQUESTED %8
IST990E	CORRELATOR MISMATCH FOR %8 IGNORED - ACTIVATION CONTINUES
IST991I	CORRELATOR MISMATCH FOR %8 FOUND-RELOAD SCHEDULED
IST998E	VTAM MESSAGE %5 ISSUED BUT DOES NOT EXIST
IST999E	VTAM MESSAGE LOST - INSUFFICIENT STORAGE
IST1001I	ID= %8 %15 %16
IST1002I	RCPRI=%4 RCSEC=%4
IST1003I	%7 CNOS=%8 DEFINE=%8
IST1004I	%10 FOR %8 FAILED - %28
IST1005I	%17 %17 %17
IST1006I	%8 NAMES DEFINED %23 FOR %8
IST1007I	PARTNER = %17, LOGMODE = %8
IST1008I	CONVID = %8, STATUS = %9, ETIME = %5
IST1009I	SID = %16
IST1010I	NO CONVERSATION(S) FOUND FOR %8
IST1011I	ENTRY %8 NOT FOUND IN %6 %8 FOR %8
IST1012I	NO PARTNER LU(S) DEFINED FOR %8
IST1013I	NO LOGMODE(S) DEFINED IN LU %8 FOR %8
IST1015I	APPLICATION SUPPLIED %21=%16
IST1016I	DYNAMMIC DEFINITION OF %8 FAILED
IST1017I	MODELS:
IST1018I	MODEL MAJOR NODE = %8
IST1019I	USERVAR VALUE CLASS TYPE EXIT APPC
IST1020I	INSUFFICIENT STORAGE-DATA SPACE %8 FULL
IST1021I (deleted in z/OS 3.1)	MEDIUM=%8, ADAPNO=%4, CUA=%4, SNASAP=%4



Message number	Text
IST1022I	WRBUF = %10
IST1023E	START I/O TIMEOUT OCCURRED FOR CUA=%4
IST1024I	I/O ERROR ON READ FOR CUA=%4-BYTE COUNT MISMATCH
IST1028I	%59
IST1029I	%8 %17 %5 %8 %4 %4
IST1030I	USERVAR EXIT IS %8
IST1031I	MODIFY COMMAND FAILED - %8: EXIT FAILURE, CODE %4
IST1032I	%2 BUFFER SIZE TOO SMALL-SIZE MUST BE AT LEAST %8
IST1033I	%8 ALREADY DEFINED FOR APPC SESSIONS OF %8
IST1034I	%8 ALREADY USING %8 FOR APPC SESSIONS
IST1035I	ERROR WHILE %8 NETWORK %8 %4 GWN %8
IST1036I	NODE ABEND-UNUSABLE RESOURCE IS %8
IST1037I	NODE ABEND-INOP REPORTED FOR %8
IST1038I	MODIFY NOTRACE REJECTED-VIT IS NOT WAITING TO TERMINATE
IST1039I	SSCP TKOVR FOR ID = %8 FAILED-INACT GVBK SCHEDULED
IST1040I	CONVERSATION(S) FOUND FOR %8
IST1041I	%17 %17
IST1042I	%8 = %5 %18 %13
IST1043I	CP NAME = %8 - CP NETID = %8 - DYNAMIC LU = %3
IST1044I	ALSLIST = %8 %8 %8 %8
IST1045I	NODE TYPE = %17
IST1046I	%8 %17 ALSO EXISTS
IST1048I	COMPRESSION LEVEL - INPUT = %4, OUTPUT= %4
IST1049I	PERCENT REDUCTION - INPUT = %4, OUTPUT= %4
IST1050I	MAXIMUM COMPRESSION LEVEL - INPUT = %4, OUTPUT = %4
IST1051I	EVENT CODE = %4
IST1052I	SYNTAX ERROR AFTER %8-ALL FURTHER OPTIONS IGNORED
IST1053I	VALUE FOR %8 MUST BE 'YES' OR 'NO'
IST1054I	VALUE FOR %8 MUST BE BETWEEN %8 AND %10
IST1055I	VALUE FOR %8 MUST BE %7
IST1056I	%8 PARAMETER %2 MUST BE BETWEEN %4 AND %10
IST1057I	%17 IS ALSO A REAL RESOURCE
IST1058I	MODEL LU GROUP = %8, LUSEED = %8
IST1059I	MODEL NAME = %8
IST1060I	LUGROUP MAJOR NODE = %8
IST1061I	FAILURE OCCURRED ON %8 AT %4

Message number	Text
IST1062I	EVENT ID = %40
IST1063I	MODELS AFTER THE 255TH MODEL IN LUGROUP %8 IGNORED
IST1064I	TRACE IGNORED, %17 - STORAGE SHORTAGE
IST1065I	LOAD MODULE REQUESTED IPL ESTIMATED IPL
IST1066I	%8 %14 %14
IST1067I	LOGICAL LINES:
IST1068I	PHYSICAL RESOURCE (PHYSRSC) = %8
IST1069I	PARAMETER %2 FOR %8 MUST BE %7
IST1070I	%8 FOR %8 IS NOT VALID-START CONTINUES
IST1071I	SONLIM OPTION PARAMETER 1 MUST BE GREATER THAN PARAMETER 2
IST1072I	%8 HAS TOO MANY PARAMETERS-START OPTION IGNORED
IST1073I	%8 CAN ONLY BE SPECIFIED AFTER OPTION %8
IST1074I	PARAMETERS FOR %8 ARE NOT in THRESHOLD LIMITS
IST1075I	PARAMETER %2 FOR %8 IS NOT VALID
IST1076I	VALUE DEFINED FOR HOSTPU, %8, IS A RESERVED KEYWORD
IST1077I	OPTION %8 AFTER %8 %8 IS NOT VALID
IST1078I	LIST START OPTION CANNOT BE IN START FILE-OPTION IGNORED
IST1079I	%8 ACTIVATION CONTINUES - CANNOT ASSOCIATE %8
IST1080I	%4 STATION NAME = %8
IST1081I	ADJACENT LINK STATION = %8
IST1082I	GENERATED ADDRESS FOR %8 %11 FROM %8
IST1083I	ERROR ACTIVATING ADJCP %17 SENSE = %8
IST1084I	START LIST IGNORED - %13 WILL BE USED
IST1085I	%5 ACTIVATION ERROR %20 SENSE = %8
IST1086I	APPN CONNECTION FOR %17 IS ACTIVE - TGN = %3
IST1088I	ADJCP %17 HAS BEEN DEACTIVATED
IST1089I	MODIFY FAILED-TGP %8 DOES NOT EXIST
IST1090I	TGP FOR %6 %22 IS SET TO %8
IST1091I	MODIFY TGP FAILED - %6 %22 IS UNKNOWN
IST1092I	MODIFY TGP FAILED, INSUFFICIENT STORAGE
IST1093I	%8 IS IGNORED-ONLY VALID WHEN %11 IS SPECIFIED
IST1094I	GWSSCP VALUE FORCED TO NO-NODETYPE IS EN
IST1095I	INITIATION FAILED FOR %17 - NO LINK TO ADJCP
IST1096I	CP-CP SESSIONS WITH %17 ACTIVATED
IST1097I	CP-CP SESSION WITH %17 TERMINATED
IST1098I	%8 DEACTIVATED, DEPLETING IO BUFFER POOL

Message number	Text
IST1099I	SESSION TERMINATED, DEPLETING %4 BUFFER POOL
IST1100I	ADJACENT CONTROL POINTS FROM MAJOR NODE %8
IST1101I	ADJCP DISPLAY SUMMARY FOR %17
IST1102I	NODENAME NODETYPE CONNECTIONS CP CONNECTIONS NATIVE
IST1103I	%17 %4 %3 %3 %4
IST1104I	CONNECTION SUMMARY FOR %17
IST1105I	RESOURCE STATUS TGN CP-CP TG CHARACTERISTICS
IST1106I	%8 %6 %3 %5 %32
IST1107I	TGP NAME TG CHARACTERISTICS
IST1108I	%8 %32
IST1110I	ACTIVATION OF CP-CP SESSION WITH %17 FAILED
IST1111I	ADJACENT NODE DOES NOT SUPPORT UNSOLICITED BINDS
IST1112I	CP ALREADY HAS A CP-CP SESSION WITH A NETWORK NODE
IST1113I	EN-EN SESSION IS NOT VALID
IST1114I	%8 START OPTION IGNORED - NOT VALID FOR %12
IST1115I	CDRM NAME %8 IS DIFFERENT THAN SSCPNAME START OPTION
IST1116I	SSCP NAME %8 IS USED
IST1117I	PHYSICAL RESOURCE (PHYSRSC) %8 %12 INTERFACE = %16
IST1118I	LINK DEFINITION FAILURE, CP = %17 TGN = %3
IST1119I	FAILURE REASON - INSUFFICIENT STORAGE
IST1120I	%8 %8 DEFINITION FAILED-INSUFFICIENT STORAGE
IST1121I	COSAPPN IN %11 %9 - PROCESSING CONTINUES
IST1122I	CHKPT TO DATASET %8 WAS NOT SUCCESSFUL, CODE= %2
IST1123I	MODIFY CHKPT TO DATASET %8 WAS SUCCESSFUL
IST1124I	UNABLE TO REGISTER RESOURCES WITH %17
IST1125I	END NODE IS NOT AUTHORIZED
IST1126I	END NODE NETID REJECTED
IST1127I	UNRECOGNIZED REGISTRATION REQUEST
IST1128I	PATH %8 IGNORED, %17 - STORAGE SHORTAGE
IST1129I	%10 FAILED, %17 - DEACTIVATE PENDING
IST1130I	%10 FOR %17 FAILED - STORAGE SHORTAGE
IST1131I	DEVICE = %12 %35
IST1132I	%17 IS ACTIVE, TYPE = %17
IST1133I	%17 IS NOW INACTIVE, TYPE = %17
IST1134I	%17 NOW HAS CONTROLLING LU %17
IST1135I	FORCED VARY INACT SCHEDULED FOR %17

Message number	Text
IST1136I	VARY INACT %17 SCHEDULED - UNRECOVERABLE ERROR
IST1137I	%11 FAILED, %17 - %19
IST1138I	REQUIRED %13 %32
IST1139I	%10 FOR %17 FAILED - SENSE: %8
IST1140I	%10 FAILED %17 - STATE %5 NOT VALID
IST1141I	%10 FOR %17 OVERRIDDEN BY %10
IST1142I	TRACE REQUEST FAILED - %17 NOT VALID
IST1143I	TRACE TERMINATED FOR %17 %18
IST1144I	TRACE INITIATED FOR %17 %18
IST1145I	TRACE REQUEST FAILED, %17 - STORAGE SHORTAGE
IST1146I	%17 %10 U = %4 FAILED
IST1147I	%17 %8 LOGON= %17 FAILED
IST1148I	%17 %8 RNAME = %8 FAILED
IST1149I	VARY %4 PROCESSING FOR NODE %17 COMPLETE
IST1150I	%8 CHANGED: %17 TO %17
IST1151I	USERVAR %8 DEFINED: VALUE = %17
IST1152I	%17 CONTROLLING LU %17 REMOVED
IST1153I	%17 %17 SESSION %2BUF USE %4
IST1154I	%17 %17 %17
IST1155I	%17 VARY NOLOGON = %17 FAILED
IST1156I	USERVAR %8 IN %8 HAS VALUE %17
IST1157I	DUPLICATE REGISTRATION %17 %17
IST1158I	MODIFY TOPO COMMAND FAILED, ID = %17 %9
IST1159I	HOST NODE DATABASE ENTRY CANNOT BE DELETED
IST1160I	TYPE=FORCE MUST BE SPECIFIED FOR LOCAL TG OR ADJACENT NODE
IST1161I	SSCP SESSIONS
IST1162I	%15 = %10
IST1163I	RSN HPR
IST1164I	%10 %3
IST1166I	VIRTUAL NODE %17 CONNECTION ACTIVATION FAILED
IST1167I	VN %17 CONNECTION DEACTIVATION FAILED
IST1168I	VIRTUAL NODE %17 CONNECTION ACTIVE
IST1169E	%8 REPLY ID FOR MESSAGE %8 NOT AVAILABLE
IST1176I	BASIC FROZEN
IST1177I	% %7 %7 %7
IST1183I	%8 EXIT RETURNED A CODE OF %2 %21 %2

Message number	Text
IST1184I	CPNAME = %17 - NETSRVR = %17
IST1185I	NAME = %17 - DIRECTORY ENTRY = %10 %2
IST1186I	DIRECTORY ENTRY = %10 %2
IST1187I	%10 NOT VALID-APPN NOT SUPPORTED BY %17
IST1188I	VTAM %6 STARTED AT %8 ON %8
IST1189I	%28 %26
IST1190I	OPEN FAILED FOR %8 ABEND = %3 RC = %2
IST1191I	I/O ERROR ON %8 %23
IST1192I	CLOSE FAILED FOR %8 ABEND = %3 RC= %2
IST1193I	%6 SESSION DEACTIVATION FAILURE FOR %17
IST1194I	DUPLICATE RESOURCE IS %17
IST1196I	APPN CONNECTION FOR %17 INACTIVE - TGN = %3
IST1197I	ADJCP MAJOR NODE = %17
IST1198I	%17 DELETED FROM DIRECTORY
IST1199I	%10 FOR %17 FAILED, UNKNOWN RESOURCE
IST1200I	%8 TSO USERID TRACE = %3
IST1201I	COMMAND REJECTED BY ISTCMMND EXIT
IST1202I	VALUE %17 FOR %8 IS NOT A VALID NAME
IST1203I	VALUE %17 FOR %8 IS UNKNOWN RESOURCE
IST1204I	VALUE %17 FOR %8 NOT VALID FOR REQUEST
IST1205I	MANAGEMENT SERVICES TRANSPORT UNAVAILABLE
IST1206I	LOAD FAILED FOR THE PROGRAM-TO-PROGRAM INTERFACE
IST1207I	NETWORK MANAGEMENT IS INACTIVE
IST1208I	PROGRAM-TO-PROGRAM INTERFACE MODULE IS INACTIVE
IST1209I	PROGRAM-TO-PROGRAM INTERFACE MODULE STORAGE SHORTAGE
IST1211I	I/O ERROR %17 %4 %4 %4
IST1212I	%8 = %17 STATUS = %10
IST1213I	%35 LU-LU VERIFY ERROR %2
IST1214I	FFST %38
IST1215I	ERROR IN START LIST %8 - %22
IST1216A	ENTER 1 TO CONTINUE-2 TO REENTER LIST-3 TO TERMINATE VTAM
IST1217A	RESPONSE NOT VALID: REENTER 1, 2, OR 3
IST1218I	ACB ERROR FIELD = %2
IST1219I	RTNCD = %2, FDB2 = %2
IST1220I	SSCPNAME NETID CURRENT STATE ROUTING STATUS
IST1221I	%5 DEV = %4 STATUS = %10 STATE = %12

Message number	Text
IST1222I	%5 DEVICE %4 IS INOPERATIVE, NAME IS %8
IST1223I	BN NATIVE TIME LEFT LOCATE SIZE
IST1224I	%3 %4 %2 %4
IST1225I	VIRTUAL NODE %17 CONNECTION INACTIVE
IST1226I	TOPOLOGY UPDATE FAILED, INSUFFICIENT STORAGE
IST1227I	%5 %10 = %41
IST1228I	%10 FOR %17 FAILED, CODE = %
IST1229I	%10 FAILED, %17 IS NOT A %2
IST1230I	TIME = %8 DATE = %5 ID = %8
IST1231I	IPDU = %10 OPDU = %10
IST1232I	TSWEEP = %7 QSWEEP = %8
IST1233I	DEV = %7 DIR = %8
IST1234I	BSIZE = %7 MAXBYTES = %8
IST1235I	SIO = %7 SLOWDOWN = %8
IST1236I	BYTECNT0 = %10 BYTECNT = %10
IST1237I	%8 = %10 %21
IST1238I	DSPNAME CURRENT MAXIMUM QUEUED
IST1239I	%8 %7 %7 %7
IST1240I	DSPNAME CURRENT MAXIMUM JOBNAME APPL COUNT
IST1241I	%8 %7 %7 %8 %8 %10
IST1242I	POOL CURRENT MAXIMUM %4 %7 %7
IST1243I	%8 %7 %7 %8 %7 %7
IST1244I	TOTAL %8 POOL STORAGE USAGE: %7 %7
IST1245I	NO NETWORK NODE SERVER IS AVAILABLE FOR CP-CP SESSIONS
IST1246I	NO ADJACENT NETWORK NODES ALLOWED BY SERVER LIST
IST1247I	ALL ATTEMPTS TO ESTABLISH A SESSION WERE UNSUCCESSFUL
IST1248I	DEACTIVATE LOCAL LINK BEFORE DELETING
IST1249I	IST1249I SYNTAX ERROR AT RECORD %8 IN MEMBER %8
IST1250I	NAME LEVEL MODULE STATUS
IST1251I	%8 %8 %8 %24
IST1252I	DEFINED NETWORK NODE SERVER LIST, NAME = %8
IST1253I	%17 %13
IST1254I	SERVER LIST PROCESSED ORDER = %5
IST1255I	OTHER NETWORK NODES ALLOWED AS SERVERS
IST1256I	CURRENT NETWORK NODE SERVER
IST1257I	SEQUENCE NOT VALID, STATEMENT IGNORED, SKIPPING TO EOF

Message number	Text
IST1258I	%15 IS NOT VALID FOR %2
IST1259I	VBUILD TYPE = %8 IS ONLY VALID FOR%4
IST1260I	%24 TRUNCATED - INSUFFICIENT STORAGE
IST1261I	ABEND OCCURRED DURING LINK DEFINITION
IST1262I	MODULE %8 LOAD FAILED - %26
IST1263I	%10 FOR %17 FORCED COLD, %12 %2
IST1264I	%10 FOR %17 FAILED DURING DEFINITION
IST1265I	%10 FOR %17 FAILED - %15
IST1266I	%10 FOR %17 AFFECTS NEW SESSIONS ONLY
IST1267I	%10 FAILED - CANNOT DEFINE %17
IST1268I	%17 DEACTIVATION %10 FAILED: %8
IST1269I	%10 FOR %17 FAILED
IST1270I	%10 FAILED - %17 NOT ACTIVE
IST1271I	%10 FOR %17 SCHEDULED BY %10
IST1272I	%8 %8 CONTINUES - %17 UNDEFINED
IST1273I	%10 %17 FAILED: %10 PENDING
IST1274I	%10 %17 FAILED: %8 NOT ACTIVE
IST1275I	%15 IGNORED ON %10 %17
IST1276I	%17 %10 CDRM = %8
IST1277I	%11 %8 %8 %17 %11 %13 FAILED
IST1278I	%10 %47
IST1279I	%17 NOT UPDATED, %8 AND CDRSC CONFLICT
IST1280I	SESSION TYPE = %9 - SENSE = %8
IST1281I	%8 ON %8 MUST BE NETWORK QUALIFIED
IST1283I	MODIFY USERVAR COMMAND COMPLETE
IST1284I	LUALIAS %8 IS %17 FOR APPLICATIONS
IST1285I	ADDRESS FOR %17 %11 FROM %8
IST1286I	SHADOW PROCESSING FAILED, %8 - %17 RESET
IST1287I	FAILURE REASON IS LUALIAS %8 ALREADY IN USE
IST1288I	TOPOLOGY DATASET RETRIEVAL WAS NOT SUCCESSFUL, CODE = %2
IST1289I	FRSESET %8 PHYSICAL UNITS:
IST1290I	FRSESET HAS BEEN SUCCESSFULLY SENT TO NCP %8
IST1291I	FRSESET WILL BE SENT TO THE NCP DURING PU ACTIVATION
IST1292I	FRSESET WILL NOT BE SENT TO THE NCP DUE TO DEFINITION ERROR
IST1293I (deleted in z/OS V2R5)	CMIP SERVICES IS ACTIVE

Message number	Text
IST1294I	FRSESET HAS BEEN SENT TO NCP %8 BUT FAILURE OCCURRED
IST1295I	CP NAME NODETYPE ROUTERES CONGESTED CP-CP WEIGHT
IST1296I	%17 %7 %4 %8 %5
IST1297I	ICN/MDH CDSERVR RSN HPR
IST1298I	%3 %3 %10 %4
IST1299I	TRANSMISSION GROUPS ORIGINATING AT CP %17
IST1300I	DESTINATION CP TGN STATUS TGTYPE VALUE WEIGHT
IST1301I	%17 %3 %5 %10 %3 %5
IST1302I	CAPACITY PDELAY COSTTIME COSTBYTE
IST1303I	%7 %8 %3 %3
IST1304I	SECURITY UPARM1 UPARM2 UPARM3
IST1305I	%8 %3 %3 %3
IST1306I	LAST CHECKPOINT ADJ NN EN SERVED EN CDSERVR ICN BN
IST1307I	%8 %8 %4 %4 %4 %4 %4 %4
IST1308I	RESOURCE WAS NOT FOUND IN THE TOPOLOGY DATABASE
IST1309I	START OPTION CURRENT VALUE ORIGINALVALUE ORIGIN
IST1310I	%8 %17 %17 %8
IST1311A	ENTER START OPTION OVERRIDES OR ENTER HALT TO EXIT VTAM
IST1312I	NO START OPTIONS HAVE BEEN MODIFIED
IST1313I	NO TRACES ACTIVE FOR %17
IST1314I	TRLE = %8 STATUS = %10 CONTROL = %4
IST1315I	DISPLAY TRUNCATED AT %3 = %10
IST1316I	PU NAME = %8 STATUS = %10 TRLE = %8
IST1317I	DLCADDR SUBFIELDS FOR PID: %3 %5
IST1318I	%60
IST1319I	%57
IST1320I	%21 IS ONLY VALID AT %12
IST1321I	TABLE FOR %8 %13
IST1322I	NON-NATIVE NATIVE
IST1323I	%8 %8 %7
IST1324I	VNNAME = %17 VNGROUP = %8
IST1326I	CP NAME TYPE STATE STATUS SNVC
IST1327I	%17 %7 %10 %12 %3
IST1328I	TRLE %8 NOT FOUND
IST1329I	%10 %8 FAILED - VIRTUAL NODE NOT DEFINED
IST1330I	%7 CANNOT BE ACTIVATED FROM %12



Message number	Text
IST1331I (deleted in z/OS V2R5)	%13 IS INACTIVE
IST1332I (deleted in z/OS V2R5)	CMIP SERVICES LOAD FAILED FOR %8 IN %8
IST1333I	ADJLIST = %8
IST1334I	TGN NOT AVAILABLE
IST1335I	%8 HAS NO ADJCDRM STATEMENT FOR ADJLIST %8
IST1336I	%8 ACTIVATION FAILED = CONFLICTING%8 VALUES
IST1337I	%6 ON %8 IGNORED - ONLY VALID FOR BN
IST1338I	%8 VALUE ON %17 IGNORED-VALUES CONFLICT
IST1342I	DNSUFFIX = %50
IST1343I	%50
IST1345I	ID VALUE DESCRIPTION
IST1346I	NCP DOES NOT SUPPORT CONNECTION NETWORK FUNCTION
IST1347I	INSUFFICIENT STORAGE TO DELAY DISCONNECTOF %8
IST1348I	VTAM STARTED AS %19
IST1349I	COMPONENT ID IS %14
IST1350I	DEFINITION ERROR: %42
IST1351I	DLURNAME DIALNUMBER PID GID CNT
IST1352I	DLUR NAME DLUS CONWINNER STATE DLUS CONLOSER STATE
IST1353I	%17 %16 %16
IST1354I	DLUR NAME = %17 MAJNODE =%17
IST1355I	PHYSICAL UNITS SUPPORTED BY DLUR %17
IST1356I	NETWORK NODE DOES NOT PROVIDE REQUIRED SERVER FUNCTION
IST1357I	CPCP
IST1358I	NO QUALIFYING MATCHES %3 %17
IST1359I	MEMBER NAME OWNING CP SELECTABLE APPC
IST1360I	%17 %8 %3 %3
IST1361I	%8 FROM %16 IGNORED -NOT A VALID NAME
IST1363I	GENERIC RESOURCE NAME %8 REPRESENTS %17
IST1364I	%8 IS A GENERIC RESOURCE NAME FOR:
IST1365I	CONNECTION ATTEMPT TO STRUCTURE %16 FAILED
IST1366I	MVS MACRO %8 FAILED - RTN CODE= %2- REASON CODE= %4
IST1367I	COUPLING FACILITY STRUCTURE %16 NOT AVAILABLE
IST1368I	CONNECTION IS PENDING
IST1369I	REBUILD IS IN PROGRESS
IST1370I	%17 IS CONNECTED TO STRUCTURE %16

Message number	Text
IST1372I	STRUCTURE %16 IS BEING DUMPED
IST1373I	STORAGE ELEMENT SIZE = %10
IST1374I	CURRENT MAXIMUM PERCENT
IST1375I	STRUCTURE SIZE %10 %10 %4
IST1376I	STORAGE ELEMENTS %10 %10 %4
IST1377I	LIST ENTRIES %10 %10 %4
IST1378I	%9 FAILED FOR %8 - GENERIC RESOURCE NAME EXISTS
IST1380I	DISCONNECTING FROM STRUCTURE %16
IST1381I	REBUILD STARTED FOR STRUCTURE %16
IST1382I	REBUILD HAS BEEN STOPPED FOR STRUCTURE %16
IST1383I	REBUILD COMPLETE FOR STRUCTURE %16
IST1385I	ADJCLUST INFORMATION WAS IGNORED DUE TO INSUFFICIENT STORAGE
IST1386I	DYNAMIC ALLOCATION FAILED FOR %4 CODE= %2 REASON = %4
IST1391I	DELAYED DISCONNECT OF %8 FAILED DUE TO ABEND
IST1392I	DISCNTIM = %5 DEFINED AT %4 FOR DISCONNECT
IST1393I	GENERIC RESOURCE NAME RESOLUTION EXIT IS%8
IST1394I	CPNAME = %17 STATION ID =%12
IST1395I	FLDTAB = %8 FILTER = %8
IST1396I (deleted in z/OS V2R5)	DISK I/O INITIALIZATION FAILED FOR CMIP SERVICES
IST1397I (deleted in z/OS V2R5)	INITIALIZATION FAILED FOR CMIP SERVICES
IST1398I (deleted in z/OS V2R5)	ALL ATTEMPTS TO RESTART CMIP SERVICES WERE UNSUCCESSFUL
IST1399I (deleted in z/OS V2R5)	ATTEMPTING TO RESTART CMIP SERVICES
IST1400I	DGTIMER = %5 EXTIMER = %5
IST1401I	RESOURCE NOT FOUND-RETRY IN %5 SEC(S)OR %5 REQUEST(S)
IST1402I	SRTIMER = %5 SRCOUNT = %5
IST1403I	MODIFY QUERY REPLY FROM %8
IST1404I	%2 %56
IST1405I	%56
IST1406I	CONTIMER = %5 IATIMER = %5
IST1408I	MODIFY TGP NOT APPLICABLE FOR %6 %22
IST1409I	%17 ASSOC = %17 ETYPE = %8
IST1410I	QUERY %10 %8
IST1411I	INOP GENERATED FOR %8

Message number	Text
IST1412I	%30 %8 - RETURN CODE %4
IST1413I	%19 - REDIAL ATTEMPTED FOR %8
IST1414I	%19 - REDIAL NOT ATTEMPTED FOR %8
IST1415I	%8 CONFLICTS WITH A GENERIC RESOURCE NAME
IST1416I	ID = %17 FAILED - RECOVERYIN PROGRESS
IST1417I	NETID NAME STATUS TYPE MAJNODE
IST1418I	%8 %8 %10 %17 %8
IST1419I	DUPLICATE SESSION INFORMATION REPORTED FOR %17
IST1420I	UNABLE TO ASSOCIATE THE FOLLOWING SESSION(S) WITH %8
IST1421I	%17 %17 HAS DUPLICATE ADDRESS
IST1422I	SAVED TRACE REQUESTS FOR %17
IST1423I	%17 REJECTED BECAUSE DSPLYWLD = %8
IST1424I	APPLICATIONS DEFINED USING THIS MODEL:
IST1425I	DEFINED USING MODEL %17
IST1426I	NO APPLICATIONS DEFINED USING THIS MODEL
IST1427I	NAME = %17 FOUND TYPE = %9
IST1430I	REASON FOR INOP IS %41
IST1432I	DYNLU AND CDRSC VALUES FOR %17 CONFLICT
IST1433I	%17 REJECTED - DSPLYWLD = NO FOR APPL %8
IST1434I	DLUR ANS SUPPORT CONFLICT FOR PU %8 - SET TO ANS=STOP
IST1435I	LEVEL INPUT OUTPUT
IST1436I	RU PENDING:
IST1438I	LOGMODE %8 UNKNOWN IN THIS DOMAIN,DEFAULT IS ISTCOSDF
IST1439I	IST1439I %3 PERCENT OF %8 USED FOR STRUCTURE %16
IST1440I	USE = %42
IST1441I	VARY ACT FOR %8 FAILED, USE=SPARE
IST1442I	MODIFY LINEDEF FAILED, %8 CANNOT BE REDEFINED
IST1443I (deleted in z/OS V2R5)	ACYDDF LOADED = NO ACCESS AUTHORITY CHECKING
IST1444I (deleted in z/OS V2R5)	%8 NOT LOADED = %35
IST1445I	RESOURCE %17 FOR USERVAR %8 NOT FOUND
IST1446I	SYMBOLIC SUBSTITUTION NOT AVAILABLE IN THIS RELEASE OF MVS
IST1447I	REGISTRATION TYPE = %7
IST1449I	DEFAULT(S) WILL BE USED IF NO OVERRIDE IS SPECIFIED
IST1450I	GLOBAL TNSTAT = %8 CNSL = %3 TIME = %4
IST1451I	TRLE = %8 TNSTAT = %8

Message number	Text
IST1452I	%10 MISMATCH IGNORED FOR %8
IST1453I	VARY INACT FOR %17 FAILED - FRSESET PU ACTIVE
IST1454I	%10 %12 DISPLAYED [FOR ID = %24   FOR LU = %24]
IST1455I	ERROR DETECTED BY EXIT SERVICES FOR %8 IN %8
IST1456I	FUNCTION %8 - REASON: %32
IST1457I	VTAM APING VERSION %5 (PARTNER TP VERSION %5)
IST1458I	ORIGIN ADJSUB VR TP ER REVERSE ER
IST1459I	%5 %5 %3 %3 %3 %3
IST1460I	TGN CPNAME TG TYPE HPR
IST1461I	%3 %17 %11 %4
IST1462I	ECHO IS %6
IST1463I	ALLOCATION DURATION: %8 MILLISECONDS
IST1464I	PROGRAM STARTUP AND VERSION EXCHANGE: %8 MILLISECONDS
IST1465I	DURATION DATA SENT DATA RATE DATA RATE
IST1466I	(MILLISECONDS) (BYTES) (KBYTE/SEC) (MBIT/SEC)
IST1467I	%8 %8 %8 %8
IST1468I	TOTALS: %8 %8 %8 %8
IST1469I	DURATION STATISTICS:
IST1470I	MINIMUM = %8 AVERAGE = %8 MAXIMUM = %8
IST1471I	SESSION UNAVAILABLE FOR APING
IST1472I	APING %11 ERROR
IST1473I	SENSE = %8
IST1474I	APINGD TP CONCURRENT INSTANCE LIMIT = %9
IST1475I	EXIT %17 IN USE: REENTER COMMAND TO FORCE
IST1476I	TCID X'%16' - REMOTE TCID X'%15'
IST1477I	ALLOWED DATA FLOW RATE = %6 %9
IST1478I	NUMBER OF UNACKNOWLEDGED BUFFERS = %5
IST1479I	RTP CONNECTION STATE = %15
IST1480I	RTP END TO END ROUTE - RSCV PATH
IST1481I	DESTINATION CP %17 - NCE X
IST1482I	HPR = %3 - OVERRIDE = %3 - CONNECTION = %3
IST1483I	DTEAD = %15 VNREVCHG = %6
IST1484I	%17 %8
IST1485I	DLCADDR SUBFIELDS FOR %8
IST1486I	RTP NAME STATE DESTINATION CP
IST1487I	%8 %15 %17

Message number	Text
IST1488I	%12 FOR RTP %8 AS %7 TO %17
IST1489I	APING SESSION INFORMATION
IST1490I	DLU=%17 SID=%16
IST1493I	RTP SUMMARY FOR %17 COUNT = %5 RTPONLY = %3
IST1494I	PATH SWITCH %9 FOR RTP %8 TO %17
IST1495I	NO ALTERNATE ROUTE AVAILABLE
IST1496I	DISPLAY APING FAILED - PRIOR DISPLAY APING IS EXECUTING
IST1498I	LOADING NCP FROM %13
IST1499I	AHHC SUBCHANNEL %4 %15
IST1500I	STATE TRACE = %19
IST1501I	XCF TOKEN = %16
IST1502I	ADJACENT CP = %17
IST1503I	XCF TOKEN = %16 STATUS = %10
IST1504I	XCF CONNECTION WITH %17 ISINOPERATIVE
IST1505I	TYPE = %4 TOKEN = %16
IST1506I	%8 FAILED FOR %17 - MEMBER LEAVING GROUP
IST1507I	VR-BASED TG NOT SUPPORTED
IST1508I	CP-CP SESSIONS ON VR-BASED TG NOT SUPPORTED
IST1509I	%8 UNKNOWN BUT ACCEPTED -- PREVIOUS VALUE WAS %8
IST1510I	LLERP = %8 - RECEIVED = %8
IST1511I	MAXIMUM NETWORK LAYER PACKET SIZE = %6 BYTES
IST1512I	%27 FAILED - CODE X'%4' - CUA %4
IST1513I	%14 FAILED - %36
IST1514I	SUBAREA COS APPNCOS
IST1515I	%8 TRACE ACTIVE
IST1516I	INITIAL DATA FLOW RATE = %6 %9
IST1517I	LIST HEADERS = %10 - LOCK HEADERS= %10
IST1518I	BASE STRUCTURE IS %16
IST1519I	ALTERNATE STRUCTURES ARE:
IST1520I	SUBAREA SEARCH INFORMATION:
IST1521I	%8 NAME CDINIT DSRLST IOCD INTOTH TOTAL
IST1522I	%8 %5 %5 %5 %5 %6
IST1523I	OLU DLU SID RU
IST1524I	%17 %17 %16 %6
IST1525I	TOTAL NUMBER OF OUTSTANDING SEARCHES =%10
IST1526I	APPN SEARCH INFORMATION:

Message number	Text
IST1527I	%6 NAME TYPE STATUS BROADCAST DIRECTED TOTAL
IST1528I	%17 %2 %4 %5 %5 %6
IST1529I	OLU DLU SID LOCATE
IST1530I	%17 %17 %16 %5
IST1531I	SID = %16 CP(OLU)= %17
IST1532I	OLU = %17 DLU = %17
IST1533I	SEARCH CONCENTRATED = %3 RDS = %3
IST1534I	SSCP/CP IN OLU DIRECTION = %17
IST1535I	REPLY RETURNED TO ORIGINATING CP = %3
IST1536I	CONCENTRATED BEHIND %16 %20
IST1537I	AWAITING REPLY FROM THE FOLLOWING NODE(S):
IST1538I	%17 %34
IST1539I	PCID MODIFIER = %20
IST1540I	SEARCH STATUS = %10 SSCP(OLU) = %8
IST1541I	LOCATES PENDING = %10 CURRENTTASK = %5
IST1542I	NO ADJSSCP ROUTING INFORMATION AVAILABLE
IST1543I	REQUESTS CONCENTRATED BEHIND THIS SEARCH = %5
IST1544I	DIAL OUT PURGE IN PROGRESS - ID = %8
IST1545I	NODE ROLE VECTOR = %7
IST1546I	CDRM STATUS SUBAREA ELEMENT NETIDSSCPID
IST1547I	%8 %5 %10 %5 %8 %5
IST1548I	BROADCAST = %3 DIRECTED = %3
IST1549I	OWNER = %17 MNPS STATE = %21
IST1550I	MNPS STATE = %21
IST1551I	%51
IST1552I	MAC = %11 MACTYPE = %4
IST1553I (deleted in z/OS 3.1)	%47 %4
IST1554I (deleted in z/OS 3.1)	PVCNAME = %8
IST1555I (deleted in z/OS 3.1)	VPCI/VCI = %6
IST1556I (deleted in z/OS 3.1)	ATM %7 FAILURE: ID = %8 STATUS = %8
IST1557I (deleted in z/OS 3.1)	MEDIUM = %3, PORT NAME = %8
IST1558I (deleted in z/OS 3.1)	DIAG = %8 %8 %8 %8 %8 %8

Message number	Text
IST1559I (deleted in z/OS 3.1)	ATM ADDRESS TYPE FORMAT
IST1560I	VARY ACT %8 CHANGE FAILED
IST1561I	PORTNAME ON TRLE NOT VALID
IST1562I (deleted in z/OS 3.1)	CAUSE = %3
IST1563I	CKEYNAME = %8 CKEY = %9
IST1564I	TSO NOT ACTIVE
IST1565I	%7 MODULES = %7K
IST1566I	MODULE %8 IS NOT LOADED INTO CSA/ECSA
IST1567I	%16 %16 %16
IST1568I	INLP = %10 ONLP = %10 BFNLP = %10
IST1569I	INLP = %10 ONLP = %10
IST1570I	NBYTECTO = %10 NBYTECT = %10
IST1571I	%8 ENTRY POINT IS %8 LEVEL IS %7
IST1572I	MODULE %8 CANNOT BE LOCATED
IST1573I	%12 STORAGE DISPLAY BEGINS AT LOCATION %8
IST1574I	%4 %8 %8 %8 %8 %17
IST1575I	DIALNO FOR PID: %3 %5
IST1576I	DYNAMIC SWITCHED MAJOR NODE %8 CREATED
IST1577I	HEADER SIZE = %5 DATA SIZE = %7 STORAGE = %9
IST1578I	%6 INOP DETECTED FOR %8 BY %8 CODE = %3
IST1579I	-----
IST1580I	XID RECEIVED BY VTAM:
IST1582I	CONTROL VECTOR X'22'' ANALYSIS:
IST1583I	BYTE OFFSET OF FIRST BYTE IN ERROR = %7
IST1584I	BIT OFFSET OF FIRST BIT IN ERROR = %5
IST1585I	SENSE CODE = %11
IST1586I	XID SENT BY VTAM:
IST1587I	ORIGIN NCE X'%16'
IST1588I	RTP END TO END ROUTE - COMPUTED SESSION PATH
IST1590I	PU NETID DIFFERENT THAN HOST AND CONTACTED REQUEST
IST1591I	NCP NOT LOADED
IST1592I	NETID IN XID DID NOT MATCH NETID OF PU
IST1593I	RESOURCE TYPE NOT VALID
IST1594I	CPNAME IN CONTACTED REQUEST SAME AS SSCPNAME
IST1595I	LINK STATION NOT ASSOCIATED WITH AN NCP

Message number	Text
IST1596I	SWITCHED LINK STATION STATE PCTD2 NOT VALID FOR LOAD
IST1597I	SWITCHED CALL=IN NCP NOT VALID
IST1598I	LEASED LINK STATION STATE PCTD2 NOT VALID FOR LOAD
IST1599I	NCP INDICATES LOAD REQUIRED BUT LOAD=NO
IST1600I	LOAD MODULE MISMATCH - LOAD=NO
IST1602I	RU ERROR: EXTRA CV X'%2'
IST1603I	RU ERROR: INVALID POSITIVE RESPONSE
IST1604I	RU ERROR: LENGTH, FORMAT, OR TYPE NOT VALID
IST1605I	RU ERROR: MISSING CV X'0B'
IST1606I	DIAL RETRY FAILED
IST1607I	RU ERROR: RESPONSE TOO LONG
IST1608I	RU ERROR: RESPONSE TOO SHORT
IST1609I	CV X'0B'' INDICATES ADJACENT LINK STATION NOT SUPPORTED
IST1610I	CORRELATOR MISMATCH - LOAD=NO
IST1611I	CORRELATOR MISMATCH - NCP ACQUIRED BEFORE ACTIVATION
IST1612I	LOAD MODULE MISMATCH - EXPECTED %8FOUND %8
IST1613I	TYPE = %4 ATTN = %8
IST1614I	RSIO = %8 INPACKET = %8 INBYTE = %8
IST1615I	ARPACKET = %8 ARBYTE = %8 MAXRCVD = %8
IST1616I	WSIO = %8 OTPACKET = %8 OUTBYTE = %8
IST1617I	AWPACKET = %8 AWBYTE = %8 MAXSENT = %8
IST1618I	READCCW = %8 PCICNT = %8
IST1619I	WRITECCW = %8 APPEND = %8
IST1621I	DUPLICATE CP NAME: %17 FORID = %8
IST1622I	DLCADDR SUBFIELD %2 NOT VALID - %28
IST1623I	DUPLICATE DLCADDR SUBFIELD %2 - %28
IST1624I	DLCADDR SUBFIELD %2 NOT SPECIFIED - %23
IST1625I	STORAGE ADDRESS %8 IS UNAVAILABLE
IST1626I	ALL DATA IN %16 FOR %17 REMOVED
IST1627I	MULTI-NODE PERSISTENT SESSION TIMER EXPIRED
IST1628I	DATA WAS IN AN UNRECOVERABLE STATE - %21
IST1649I	ORIGIN = %8 TARGET = %8 STATUS = %10
IST1650I	IDX INITIALIZATION FAILED FOR %8 DEVICE %4 CODE %2
IST1651I	IDX RECEIVED BY VTAM:
IST1652I	IDX SENT BY VTAM:
IST1653I	RWSIO = %8 CHWR = %8 CHRDR = %8



Message number	Text
IST1654I	INPACKET = %8 INBYTE = %8 MAXRCVD = %8
IST1655I	OTPACKET = %8 OTBYTE = %8 MAXSENT = %8
IST1656I (deleted in z/OS V2R5)	VTAMTOP0 = %8, NODE REPORTED - %3
IST1657I (deleted in z/OS V2R5)	MAJOR NODE VTAMTOP0 = %8
IST1658I	XID3 NEGOTIATION ERROR - DEVICE %8 - SENSE = %8
IST1660A	ENTER PASSWORD FOR %8 %8
IST1661I	%8 PARAMETER NOT VALID FROM PROGRAM OPERATOR
IST1662I	%8 PARAMETER VALUE NOT ALLOWED
IST1663I	%8 %8 COMMAND FAILED - %20
IST1664I	PASSWORD MUST BE 1-8 CHARACTERS
IST1668I	LUNAME: IPADDR..PORT
IST1669I	IPADDR..PORT %46
IST1670I	%17 %21
IST1671I	Entry Subarea Exit Subarea
IST1672I	CURRENT NETWORK NODE SERVER NOT FOUND IN ACTIVE NETSRVR LIST
IST1673I	SWITCH TO PREFERRED NETWORK NODE SERVER IS COMPLETE
IST1674I	PREFERRED NETWORK NODE SERVER = %18
IST1675I	ACTIVE NETSRVR LIST AND PREFERRED NN SERVER ARE MERGED
IST1676I	SWITCH TO PREFERRED NETWORK NODE SERVER FAILED - CODE = %2
IST1677I	PREFERRED NETWORK NODE SERVER
IST1679I	MEDIUM = %5
IST1680I	%6 IP ADDRESS %39
IST1681I	LOCAL SAP = %3 REMOTE SAP = %3
IST1682I	HPR/IP %8 FAILURE: ID = %8
IST1683I	HPR/IP %7 FAILURE: ID = %8 STATUS = %8
IST1684I	RETURN CODE = %8 REASON CODE = %8
IST1685I	TCP/IP JOB NAME = %8
IST1686I	NO USABLE TCP/IP JOB AVAILABLE FOR HPR/IP
IST1687I	HPR/IP PORT NOT AVAILABLE
IST1688I	EXCESSIVE TIME %5 DETECTED FOR STRUCTURE %16
IST1689I	%10 FAILED - NOT CONNECTED TO %16
IST1690I	VARY CFS FAILED - ALREADY CONNECTED TO %16
IST1691I	VARY CFS FAILED - %16 IS NOT AVAILABLE
IST1692I	TCB = %2 TCP PORT = %3
IST1693I	NETWORK ADDRESS RECEIVED FOR %17 IN USE

Message number	Text
IST1694I	REASON = SEQUENCE NUMBER ERROR
IST1695I	PU NAME CP NAME COSNAME SWITCH CONGEST STALL SESS
IST1696I	%8 %17 %8 %3 %3 %10
IST1697I	RTP PACING ALGORITHM = ARB RESPONSIVE MODE
IST1698I	PROBE %8 ATTEMPTED - FFST NOT AVAILABLE
IST1700I	%9 CONFLICTS WITH %17 %17
IST1701I	CP NAME LOCATE SIZE
IST1702I	%17 %4
IST1703I	DESIRED LOCATE SIZE = %4 LAST LOCATE SIZE = %4
IST1704I	%8 = %8 FROM ADJACENT SSCP TABLE
IST1705I	%8 = %8 FROM START OPTION
IST1706I	PARTNER NAME GENERIC RESOURCE MEMBER ATTRIBUTES
IST1707I	%17 %17 %8 %8
IST1708I	%10 FAILED - GENERIC RESOURCES NOT AVAILABLE
IST1709I	%10 FAILED - NOT CONNECTED TO %16
IST1710I	RSCV FROM PLU SAVED AT SESSION ACTIVATION
IST1711I	RSCV TOWARDS SLU SAVED AT SESSION ACTIVATION
IST1713I	RTP RSCV IN THE DIRECTION OF THE %3
IST1714I	NO PATH INFORMATION EXISTS
IST1715I	MPCLEVEL = %6 MPCUSAGE = %9
IST1716I	PORTNAME = %8 LINKNUM = %3 OSA CODE LEVEL = 4%
IST1717I	ULPID = %8 ULP INTERFACE = %16
IST1718I	DATAPATH DEVICE %4 NOT FOUND FOR TRLE %8
IST1719I	PCIREALO = %8 PCIREAL = %8
IST1720I	PCIVIRTO = %8 PCIVIRT = %8
IST1721I	SBALCNT0 = %8 SBALCNT = %8
IST1722I	PACKCNT0 = %8 PACKCNT = %8
IST1723I	SIGACNT0 = %8 SIGACNT = %8
IST1724I	I/O TRACE = %3 TRACE LENGTH = %4
IST1725E	STORAGE SHORTAGE IN %16 - UNABLE
IST1726I	ADDRESS FOR %17 DELETED FROM %8
IST1727I	DNS NAME: %50
IST1728I	%60
IST1729I	OPTION %4 MUST BE CODED WHEN SUBTRACE %4 IS SPECIFIED
IST1730I	SUBTRACE %4 ACTIVE UNDER TRACE OPTION %4
IST1731I	%8 ACTIVATION FAILED - HPR=RTP REQUIRED WITH HPR/IP

Message number	Text
IST1732I	VTAM INITIATED SLOWDOWN TERMINATION FOR DEVICE %8
IST1733I	%8 DEVICE HAS BEEN IN SLOWDOWN MORE THAN %3 SECONDS
IST1734I	DEVICE %8 INITIATED SLOWDOWN TERMINATION
IST1736I	PU NAME
IST1737I	%8
IST1738I	ANR LABEL TP ER NUMBER
IST1739I	%16 %8 %
IST1740I	IBMTGPS IN %11 IS EMPTY - PROCESSING CONTINUES
IST1743I	IBMTGPS IN %11 NOT FOUND - PROCESSING CONTINUES
IST1744I	IBMTGPS IN %11 IN ERROR - PROCESSING CONTINUES
IST1745I	%17 REJECTED BECAUSE VARYWLD = %8
IST1746I	%7 COMMAND PROCESSING COMPLETE
IST1747I	SUMMARY OF STATE INFORMATION:
IST1748I	%5 = %10 %5 = %10 %5 = %10
IST1749I	%17 REJECTED - VARYWLD = NO FOR APPL %8
IST1750I	PCITHRSO = %10 PCITHRSH = %10
IST1751I	PCIUNPRO = %10 PCIUNPRD = %10
IST1752I	RPROCDEO = %10 RPROCDEF = %10
IST1753I	RREPLDEO = %10 RREPLDEF = %10
IST1754I	NOREADSO = %10 NOREADS = %10
IST1755I	SBALMAX = %10 SBALAVG = %10
IST1756I	QDPTHMAX = %10 QDPTHAVG = %10
IST1757I	PRIORITY%: %11 PRIORITY%: %11
IST1758I	RSCV TOWARDS DLUR SAVED AT SESSION ACTIVATION
IST1759I	RTP RSCV FROM THE DIRECTION OF THE DLUR
IST1760I	%8 SUBCHANNEL %4 VARY OFFLINE NOT ALLOWED
IST1761I	%8 PARAMETER EXTRANEIOUS FOR DISPLAY ID COMMAND
IST1762I	%8 ACT FAILED - TCPNAME/IPADDR START OPTION REQUIRED
IST1763I	NO ACTIVE CP-CP SESSION-CAPABLE TGS EXIST
IST1764I	NO ACTIVE CP-CP SESSION-CAPABLE TG TO %17
IST1765I	ADJACENT CP WINNER LOSER STATE NODE ANDCB
IST1766I	%17 %6 %6 %9 %2 %8
IST1767I	TRACE INITIATED FOR %8 DYNAMIC APPLICATIONS
IST1768I	TRACE TERMINATED FOR %8 DYNAMIC APPLICATIONS
IST1769I	LAST TDU RECEIVED - %8 %8 FROM %17
IST1773I	TNSTAT RECORDS CANNOT BE SENT TO SMF - SMF NOT IN SYSTEM

Message number	Text
IST1774I	OPTIMAL CNN ROUTE NOT CHOSEN - ENTRY/EXIT SUBAREA MISMATCH
IST1775I	CNN ENTRY SUBAREA = %5 CNN EXIT SUBAREA = %5
IST1776I	TDUS RECEIVED MOST RECENTLY
IST1777I	CP NAME RSN DESTINATION CP TGN ACC REJ
IST1778I	%17 %8 %17 %3 %5 %5
IST1779I	TDUS RECEIVED BETWEEN %8 %8 - %8 %8
IST1780I	TOPOLOGY RESOURCE RECORDS REFERENCED MOST FREQUENTLY
IST1781I	INITDB CHECKPOINT DATASET LAST GARBAGE COLLECTION
IST1782I	ENTRY NAME TABLE NAME ACTIVATION TIME
IST1783I	%8 %8 %8 %8
IST1784I	LAST TDU RECEIVED - NONE
IST1785I	%8 %8 %8 %8
IST1786I	HPR ROUTE TEST INITIATED FOR RTP PU
IST1787I	HPR ROUTE TEST RESULTS FOR RTP PU %8
IST1788I	NODE CP NAME TG NUMBER PARTNER CP NAME INTERNODAL TIME
IST1789I	(MILLISECONDS)
IST1790I	%17 %8 %17 %15
IST1791I	HPR ROUTE TEST PACKET NOT RETURNED BY NODE %17
IST1792I	TOTAL RTP TRAVERSAL TIME %15 MILLISECONDS
IST1793I	HPR ROUTE TEST NOT INITIATED - RTP PU NOT IN PROPER STATE
IST1794I	HPR ROUTE TEST NOT INITIATED - TEST ALREADY IN PROGRESS
IST1795I	HPR ROUTE TEST NOT INITIATED - INSUFFICIENT STORAGE
IST1796I	SYSTEM-MANAGED DUPLEXING REBUILD IS IN PROGRESS
IST1797I	STRUCTURE TYPE = %5
IST1798I	TOPOLOGY DATASET RETRIEVED WAS CREATED ON %8 %8
IST1799I	NO ROUTE AVAILABLE TO DESTINATION IP ADDRESS %15
IST1800I	TRLE = %8 ** CONGESTED **
IST1801I	UNITS OF WORK FOR NCB AT ADDRESS X' '%8''
IST1802I	%2 CURRENT = %4 AVERAGE = %4 MAXIMUM = %4
IST1803I	%8 PARAMETER VALUE NOT VALID - DEFAULT %8 USED
IST1804I	%8 PARAMETER NOT VALID - IGNORED
IST1805I	ONLY LOCAL TOPOLOGY INFORMATION IS AVAILABLE
IST1806I	NO DIAL-IN LINE FOUND FOR HPR/IP SWITCHED CONNECTION
IST1807I	NO DIAL-IN LINE FOR HPR/IP VIRTUAL NODE %17
IST1809I	HPR ROUTE TEST NOT INITIATED - INSUFFICIENT PATH INFORMATION
IST1810I	PKTIQD0 = %10 PKTIQD = %10

Message number	Text
IST1811I	BYTIQD0 = %10 BYTIQD = %10
IST1816I	PARAMETER 1 FOR DISCNTIM MUST BE NUMERIC OR IMMED
IST1817I	PATH SWITCH REASON: RTP CONNECTION UNAVAILABLE
IST1818I	PATH SWITCH REASON: SHORT REQUEST RETRY LIMIT EXHAUSTED
IST1819I	PATH SWITCH REASON: TG INOP
IST1820I	PATH SWITCH REASON: MODIFY RTP COMMAND ISSUED
IST1821I	PATH SWITCH REASON: AUTO PATH SWITCH FOR PSRETRY
IST1822I	PATH SWITCH REASON: UNKNOWN
IST1823I	LIST DVIPA SYSNAME TCPNAME # ASSIGNED PORTS
IST1824I	%4 %39 %5
IST1825I	%8 %8 %5
IST1826I	PORTS: %5 %5 %5 %5 %5 %5
IST1827I	%5 %5 %5 %5 %5 %5
IST1828I	LIST %4 IS UNCLAIMED
IST1829I	NO CLAIMED LISTS FOUND FOR THE SPECIFIED DVIPA
IST1830I	NO CLAIMED LISTS FOUND
IST1831I	%3 OF SYSTEM CSA STORAGE REMAINING = %9
IST1832I	CSALIMIT VALUE %9 MIGHT BE TOO SMALL
IST1833I	CSA STORAGE ALLOCATION EXCEEDS SPECIFIED CSALIMIT VALUE
IST1834I	LIST DVIPA SYSNAME TCPNAME #ENTRIES TGCOUNT SEQNUMBER
IST1835I	%4 %15
IST1836I	%8 %8 %10 %10
IST1837I	%8 %8 %10 %10
IST1838I	LIST ENTRY KEYS:
IST1839I	%32
IST1840I	DLUR = %17
IST1841I	ACTUAL DATA FLOW RATE = %6 %9
IST1842I	NUMBER OF NLPS RETRANSMITTED = %10
IST1843I	NUMBER OF NLPS ON WAITING-TO-SEND QUEUE = %5
IST1844I	ARB MODE = %6
IST1845I	BOUNDARY DIVIDING REGIONS % AND % = %10 MILLISECONDS
IST1846I	%7 RECEIVER THRESHOLD = %9 MICROSECONDS
IST1847I	NUMBER OF NLPS ON WAITING-FOR-ACKNOWLEDGEMENT QUEUE = %5
IST1848I	SEND BYTE COUNT = %10 RECEIVE BYTE COUNT = %10
IST1849I	LARGEST NLP SENT = %10 BYTES
IST1850I	LARGEST NLP RECEIVED = %10 BYTES

Message number	Text
IST1851I	SMOOTHED ROUND TRIP TIME = %10 MILLISECONDS
IST1852I	LIVENESS TIMER = %10 SECONDS
IST1853I	NUMBER OF NLPS ON OUT-OF-SEQUENCE QUEUE = %5
IST1854I	NUMBER OF NLPS ON INBOUND SEGMENTS QUEUE = %5
IST1855I	NUMBER OF SESSIONS USING RTP = %10
IST1856I	LAST PATH SWITCH OCCURRENCE WAS ON %8 AT %8
IST1857I	BACKPRESSURE REASON COUNTS:
IST1858I	PATHSWITCH SEND QUEUE MAX STORAGE FAILURE STALLED PIPE
IST1859I	%3 %3 %3 %3
IST1860I	NUMBER OF NLPS SENT = %10 - OVERFLOW = %10
IST1861I	NUMBER OF NLPS RECEIVED = %10 - OVERFLOW = %10
IST1862I	ARB MAXIMUM SEND RATE = %6 %9
IST1863I	SUBAREA INDEX ELEMENT
IST1864I	X'%4' (%5) X'%4' (%5) X'%4' (%5)
IST1865I	GLOBAL INOPDUMP = %%%%%%%%%%
IST1866I	TRLE = %8 INOPDUMP = %3
IST1867I	INOPDUMP = %%%%%%%%%% FOR ALL TRLE-BASED RESOURCES
IST1868I	DISPLAY APING FAILED - TP INSTANCE LIMIT EXCEEDED
IST1869I	NO %8 SESSIONS EXIST
IST1870I	%8 HAS %9 ACTIVE SESSIONS
IST1871I	MESSAGE TRIGGER: MESSAGE = %8 MATCHLIM = %4
IST1872I	VALUE %1 = %28 %20
IST1873I	SENSE TRIGGER: SENSE = %8 RU = %3 %3 MATCHLIM = %4
IST1874I	MESSAGE TRIGGER: NONE
IST1875I	SENSE TRIGGER: NONE
IST1876I	MESSAGE TRIGGER DELETED
IST1877I	SENSE TRIGGER DELETED
IST1878I	NO MESSAGE TRIGGER EXISTS
IST1879I	VTAM DUMPING FOR CSDUMP TRIGGER MESSAGE %8
IST1880I	VTAM DUMPING FOR CSDUMP TRIGGER SENSE %2 %6 RU %6
IST1881I	VTAM DUMPING FOR CSDUMP - IMMEDIATE DUMP
IST1882I	NO SENSE TRIGGER EXISTS
IST1883I	SESSION ESTABLISHED WITH %8 - DLUR %17
IST1884I	SESSION ENDED WITH %8 - DLUR %5 %12
IST1885I	SIO = %5 SLOWDOWN = %3
IST1886I	SLOWDOWN TIME EXCEEDS MAXSLOW = %3 SECONDS FOR DEVICE %4

Message number	Text
IST1887I	DEVICE %4 EXITED SLOWDOWN MODE
IST1888I	%3 = %17 SID = %10 %6
IST1889I	SSCP-SSCP SESSION TO %17 HELD FOR PACING
IST1890I	%8 ACTIVATION FAILED - NO SOURCE IP ADDRESS AVAILABLE
IST1891I	%8 DIAL FAILED - MISMATCH OF IP ADDRESS FAMILIES
IST1892I	NO ROUTE AVAILABLE TO DESTINATION
IST1893I	NAME-TO-ADDRESS RESOLUTION FAILED
IST1894I	%8 IGNORED - INCOMPATIBLE WITH %3 %5
IST1895I	%8 RESET - INCOMPATIBLE WITH %5 %3
IST1896I	VNNAME %17
IST1897I	%8 ACTIVATION FAILED - TCPNAME START OPTION REQUIRED
IST1898I	%8 ACTIVATION FAILED - IPADDR OR HOSTNAME REQUIRED
IST1899I	%8 ACTIVATION FAILED - VRN INFORMATION MUST BE UNIQUE
IST1900I	ASSIGNED IP ADDRESS %15
IST1901I	LINES UNDER GROUP: %8
IST1902I	GROUP = %8
IST1903I	FAILURE OVER VRN %17 TO CP %17
IST1904I	%8 = %29 %20
IST1905I	START OPTION = %8
IST1906I	CURRENT VALUE = %23 %20
IST1907I	ORIGINAL VALUE = %23 %20
IST1908I	ORIGIN = %8
IST1909I	REMOTE HOSTNAME %24 %20
IST1910I	LOCAL HOSTNAME %25 %20
IST1911I	%40 %20
IST1912I	IP ADDRESS %29 %10
IST1913I	LUNAME PORT
IST1914I	%17 %5
IST1915I	%8 ACTIVATION FAILED - VNNAME ALREADY ACTIVE AS GLOBAL
IST1916I	%8 ACTIVATION FAILED - VNNAME ALREADY ACTIVE AS LOCAL
IST1917I	%8 IN CONFLICT WITH %8 - BOTH OPTIONS IGNORED
IST1919I	INOPCODES FOR MODULE %8:
IST1920I	DUMP ENABLED:
IST1921I	%36 %19
IST1922I	DUMP DISABLED:
IST1923I	MODULE %8 INOPCODE %3 DOES NOT EXIST

Message number	Text
IST1924I	%8 DOES NOT EXIST OR DOES NOT CONTAIN INOPCODES
IST1925I	SOCKET OPENED BY SNAMGMT SERVER SUBTASK
IST1926I	SNAMGMT SERVER IS UNABLE TO ACCEPT CONNECTION REQUESTS
IST1927I	SOCKET %10 CALL FAILED - RC = %8 RSN = %8
IST1928I	SNAMGMT CONNECTION TO %8 IS ACTIVE
IST1929I	SNAMGMT CONNECTION TO %8 HAS ENDED
IST1930I	SOCKET CLOSED BY SNAMGMT SERVER SUBTASK
IST1931I	SNAMGMT CONNECTION REFUSED FOR %8
IST1932I	SNAMGMT SECURITY CHECK FAILED FOR %8
IST1933I	SNAMGMT SERVER CLOSING CONNECTION TO %8
IST1934I	IDBLK = %3 IDNUM = %5
IST1935I	RIF = %36
IST1936I	LOCADDR = %3
IST1937I	PATH SWITCH REASON: INITIATED BY REMOTE PARTNER
IST1938I	APPC = %3
IST1939I	INACT FINAL = %3
IST1940I	MODIFY COMMAND REJECTED - SNAMGMT ALREADY ACTIVE
IST1941I	MODIFY COMMAND REJECTED - SNAMGMT ALREADY SET TO NO
IST1942I	APPN LOCATE SEARCH STEPS ATTEMPTED
IST1943I	DIRECTED SEARCH TO A SERVED END NODE
IST1944I	DIRECTED SEARCH TO A NETWORK NODE
IST1945I	DIRECTED SEARCH TO A BORDER NODE
IST1946I	LOCAL SUBAREA SEARCH
IST1947I	BROADCAST SEARCH TO SERVED END NODES
IST1948I	DIRECTED SEARCHES TO BORDER NODES
IST1949I	DIRECTED SEARCH TO A CENTRAL DIRECTORY SERVER
IST1950I	DIRECTED SEARCHES TO ALTERNATE CENTRAL DIRECTORY SERVERS
IST1951I	BROADCAST SEARCH TO NETWORK NODES
IST1952I	DIRECTED SEARCHES TO INTERCHANGE NODES
IST1953I	%18 - SENSE %8 FROM %17
IST1954I	TRL MAJOR NODE = %8
IST1955I	STALL DETECTED FOR RTP %8 TO %17
IST1956I	STALL CONTINUES FOR RTP %8 TO %17
IST1957I	STALL ALLEVIATED FOR RTP %8 TO %17
IST1958I	NUMBER OF ORPHANED BUFFERS = %10
IST1959I	DATA FLOW STATE = NORMAL



Message number	Text
IST1960I	%8 %17 %8 %3 %3 %3 %4
IST1961I	DATA FLOW STATE = STALLED
IST1962I	APPNCOS = %8 - PRIORITY = NETWORK
IST1963I	APPNCOS = %8 - PRIORITY = HIGH
IST1964I	APPNCOS = %8 - PRIORITY = MEDIUM
IST1965I	APPNCOS = %8 - PRIORITY = LOW
IST1966I	ACTIVATED AS ACTIVE ON %8 AT %8
IST1967I	ACTIVATED AS PASSIVE ON %8 AT %8
IST1968I	ARB INFORMATION:
IST1969I	MAXIMUM ACTUAL DATA FLOW RATE = %6 %9
IST1970I	RATE REDUCTIONS DUE TO RETRANSMISSIONS =%10
IST1971I	TIMER INFORMATION:
IST1972I	SHORT REQUEST TIMER = %10 MILLISECONDS
IST1973I	OUTBOUND TRANSMISSION INFORMATION:
IST1974I	NUMBER OF NLPS SENT = %20 ( %4 )
IST1975I	TOTAL BYTES SENT = %20 ( %4 )
IST1976I	BYTES RETRANSMITTED = %20 ( %4 )
IST1977I	MAXIMUM NUMBER OF NLPS ON WAITING-FOR-ACK QUEUE = %10
IST1978I	WAITING-FOR-ACK QUEUE MAX REACHED ON %8 AT %8
IST1979I	INBOUND TRANSMISSION INFORMATION:
IST1980I	SEQUENCE NUMBER = %10 (X'%8'')
IST1981I	TOTAL BYTES RECEIVED = %20 ( %4 )
IST1982I	NUMBER OF NLPS ON INBOUND WORK QUEUE = %9
IST1983I	MAXIMUM NUMBER OF NLPS ON INBOUND WORK QUEUE = %10
IST1984I	PATH SWITCH INFORMATION:
IST1985I	PATH SWITCHES INITIATED FROM REMOTE RTP = %10
IST1986I	PATH SWITCHES INITIATED FROM LOCAL RTP =%10
IST1987I	PATH SWITCHES DUE TO LOCAL FAILURE = %10
IST1988I	PATH SWITCHES DUE TO LOCAL PSRETRY = %10
IST1989I	NO MATCHING AUTOLOGON REQUESTS
IST1990I	PENDING AUTOLOGON REQUESTS FOR:
IST1991I	%17 - WAITING FOR PLU NOTIFICATION
IST1992I	%17 - WAITING FOR AUTOTI TIMER
IST1993I	%17 - WAITING FOR CDRM ACTIVATION
IST1994I	%17 - WAITING FOR CDRM OR CPCP ACTIVATION
IST1995I	%17 - WAITING FOR AUTOCAP NODE ACTIVATION

Message number	Text
IST1996I	OR AUTOTI TIMER
IST1997I	%17 %17 %17
IST1998I	%17 - WAITING FOR AUTOTI/AUTORTRY START OPTION
IST1999I	MODIFICATION OR SLU REACTIVATION
IST2000I	ENTERPRISE EXTENDER GENERAL INFORMATION
IST2001I	ENTERPRISE EXTENDER CONNECTION INFORMATION
IST2002I	ENTERPRISE EXTENDER AGGREGATE CONNECTION INFORMATION
IST2003I	ENTERPRISE EXTENDER XCA MAJOR NODE NAME = %8
IST2004I	LIVTIME = %5 SRQTIME = %5 SRQRETRY = %5
IST2005I	IPRESOLV = %3
IST2006I	PORT PRIORITY = SIGNAL NETWORK HIGH MEDIUM LOW
IST2007I	IPPORT NUMBER = %5 %5 %5 %5 %5
IST2008I	IPTOS VALUE = %2 %2 %2 %2 %2
IST2009I	RTP PIPES = %10 LU-LU SESSIONS = %10
IST2010I	INOPS DUE TO SRQRETRY EXPIRATION = %10
IST2011I	AVAILABLE LINES FOR THIS EE VRN= %10
IST2012I	ACTIVE CONNECTIONS USING THIS EE VRN = %10
IST2013I	AVAILABLE LINES FOR PREDEFINED EE CONNECTIONS = %10
IST2014I	ACTIVE PREDEFINED EE CONNECTIONS = %10
IST2015I	ACTIVE LOCAL VRN EE CONNECTIONS = %10
IST2016I	ACTIVE GLOBAL VRN EE CONNECTIONS = %10
IST2017I	TOTAL RTP PIPES = %10 LU-LU SESSIONS = %10
IST2018I	TOTAL ACTIVE PREDEFINED EE CONNECTIONS = %10
IST2019I	TOTAL ACTIVE LOCAL VRN EE CONNECTIONS = %10
IST2020I	TOTAL ACTIVE GLOBAL VRN EE CONNECTIONS = %10
IST2021I	TOTAL ACTIVE EE CONNECTIONS = %10
IST2022I	EE CONNECTION ACTIVATED ON %8 AT TIME %8
IST2023I	CONNECTED TO LINE %8
IST2024I	CONNECTED TO SWITCHED PU %8
IST2025I	LDLC SIGNALS RETRANSMITTED AT LEAST ONE TIME = %5
IST2026I	LDLC SIGNALS RETRANSMITTED SRQRETRY TIMES = %5
IST2027I	DWINOP = %3 REDIAL = %7 REDDELAY = %4
IST2028I	KEEPACT = %3
IST2029I	MTU SIZE = %5
IST2030I	PORT PRIORITY = SIGNAL
IST2031I	PORT PRIORITY = NETWORK

Message number	Text
IST2032I	PORT PRIORITY = HIGH
IST2033I	PORT PRIORITY = MEDIUM
IST2034I	PORT PRIORITY = LOW
IST2035I	TOTALS FOR ALL PORT PRIORITIES
IST2036I	NLPS SENT = %20 ( %4 )
IST2037I	BYTES SENT = %20 ( %4 )
IST2038I	NLPS RETRANSMITTED = %20 ( %4 )
IST2039I	BYTES RETRANSMITTED = %20 ( %4 )
IST2040I	NLPS RECEIVED = %20 ( %4 )
IST2041I	BYTES RECEIVED = %20 ( %4 )
IST2042I	%6 OF %6 EE CONNECTIONS DISPLAYED
IST2043I	TOTAL ACTIVE EE CONNECTIONS FOR LOCAL HOSTNAME = %10
IST2044I	TOTAL ACTIVE EE CONNECTIONS FOR LOCAL IPADDR = %10
IST2045I	ENTERPRISE EXTENDER XCA MAJOR NODE NOT ACTIVE
IST2046I	MNPS FORCED TAKEOVER TIMER EXPIRED FOR %8
IST2047I	%8 DOES NOT HAVE AN ACTIVE EE CONNECTION
IST2048I	LOCAL IPADDR IS NOT VALID WITH LOCAL HOSTNAME
IST2049I	REMOTE IPADDR IS NOT VALID WITH REMOTE HOSTNAME
IST2050I	THIS PATH WILL NOT BE SELECTED FOR UNRCHTIM = %5 SECONDS
IST2052I	ORIGIN NODE PARTNER NODE UNRCHTIM EXPIRES
IST2054I	VIRTUAL NODE PARTNER NODE UNRCHTIM EXPIRES
IST2055I	%17 %17 %6 %8
IST2056I	NO MATCHING UNREACHABLE PARTNER INFORMATION EXISTS
IST2057I	UNREACHABLE PARTNER INFORMATION:
IST2058I	UNREACHABLE PARTNERS FOR %3 %17 EXCEED %5
IST2059I	NUMBER OF NLPS RECEIVED = %20 ( %4 )
IST2061I	NO FORCED TAKEOVER REQUESTS ARE ACCEPTABLE
IST2062I	%%%%% FORCED TAKEOVER REQUESTS ARE ACCEPTABLE
IST2063I	ALL FORCED TAKEOVER REQUESTS ARE ACCEPTABLE
IST2064I	PLU TO SLU RU SIZE = %5 SLU TO PLU RU SIZE = %5
IST2065I	ENTERPRISE EXTENDER CONNECTION REXMIT INFORMATION
IST2066I	ENTERPRISE EXTENDER CONNECTION SRQRETRY INFORMATION
IST2067I	EEDIAG DISPLAY ISSUED ON %8 AT %8
IST2068I	NLP RETRANSMIT RATE = %7
IST2069I	REXMIT COUNTERS LAST CLEARED ON %8 AT %8
IST2070I	SRQRETRY COUNTERS LAST CLEARED ON %8 AT %8

Message number	Text
IST2071I	ALL DIAGNOSTIC COUNTERS CLEARED FOR %6 EE CONNECTIONS
IST2072I	REXMIT COUNTERS CLEARED FOR %6 EE CONNECTIONS
IST2073I	SRQRETRY COUNTERS CLEARED FOR %6 EE CONNECTIONS
IST2074I	SUCCESSFUL SRQRETRY ATTEMPT = %2 OCCURRENCES = %9
IST2075I	DISPLAY RTPS SUMMARY INFORMATION
IST2076I	TOTAL MATCHING PIPES = %7
IST2077I	CPSVCMG PIPES = %7
IST2078I	RSETUP PIPES = %7
IST2079I	LU-LU PIPES = %7
IST2080I	PATH SWITCHING PIPES = %7
IST2081I	CONGESTED PIPES = %7
IST2082I	STALLED PIPES = %7
IST2083I	SESSIONS = %7
IST2084I	%7 OF %7 MATCHING RTP PIPES DISPLAYED
IST2085I	NUMBER OF NLPS ON OUTBOUND WORK QUEUE = %7
IST2086I	MAXIMUM NUMBER OF NLPS ON OUTBOUND WORK QUEUE = %7
IST2087I	OUTBOUND WORK QUEUE MAX REACHED ON %8 AT %8
IST2088I	CDRSCS DEFINED USING THIS MODEL:
IST2089I	NO CDRSCS DEFINED USING THIS MODEL
IST2090I	TRACE INITIATED FOR %5 CLONE CDRSCS
IST2091I	TRACE ENDED FOR %5 CLONE CDRSCS
IST2092I	NO CLONE CDRSCS EXIST FOR SCOPE %9
IST2093I	AUTOLOGON SEARCH INITIATED FOR %4 APPLICATIONS
IST2094I	MODEL CDRSC WAS NOT DELETED - CLONE CDRSCS EXIST
IST2095I	MODEL CDRSC DELETE = %3
IST2096I	AUTOLOGON SEARCH COMPLETED FOR APPLICATION %17
IST2097I	STATUS = CANNOT BE LOCATED
IST2098I	STATUS = UNABLE TO ACCEPT LOGONS
IST2099I	STATUS = AUTOLOGON SESSIONS INITIATED FOR %4 LUS
IST2100I	%17 - NORMALLY LOGGED OFF LUS
IST2101I	NO LUS EXIST IN A STATE TO INITIATE AN AUTOLOGON SESSION
IST2102I	RSCV FROM PLU
IST2103I	RSCV TOWARDS SLU
IST2104I	RSCV TOWARDS DLUR
IST2105I	%8 ACTIVATION FAILED - HPR/IP XCA NODE ALREADY ACTIVE
IST2106I	MODIFY GR DELETE FAILED FOR %17

Message number	Text
IST2107I	LOCAL GR ACB IS OPEN
IST2108I	LOCAL APPLICATION OWNED GR AFFINITY EXISTS
IST2109I	NON-LOCAL GR INSTANCE SELECTABLE
IST2110I	NON-LOCAL APPLICATION OWNED GR AFFINITY EXISTS
IST2111I	NON-LOCAL GR SESSION ACTIVE
IST2113I	%8 SESSION DEACTIVATED - EXPFLTRM THRESHOLD EXCEEDED
IST2114I	LIVTIME: INITIAL = %4 MAXIMUM = %4 CURRENT = %4
IST2116I	STALL DETECTED FOR XCF TRLE %8 TO %17
IST2117I	STALL CONTINUES FOR XCF TRLE %8 TO %17
IST2118I	STALL ALLEVIATED FOR XCF TRLE %8 TO %17
IST2119I	ENTERPRISE EXTENDER DISPLAY CORRELATOR: %8
IST2120I	HOSTNAME RESOLUTION IN PROGRESS
IST2121I	HOSTNAME RESOLUTION COMPLETE
IST2122I	EE DISPLAY REJECTED - MAXHNRES LIMIT EXCEEDED
IST2123I	DIAL FAILED FOR EE PU %8 - EXISTING CONNECTION FOUND
IST2124I	REMOTE IPADDR OR HOSTNAME IS ALSO REQUIRED
IST2125I	LOCAL IPADDR OR HOSTNAME IS ALSO REQUIRED
IST2126I	CONNECTIVITY TEST IN PROGRESS
IST2127I	CONNECTIVITY TEST FAILED - NO DIAL OUT LINE AVAILABLE FOR EE
IST2128I	CONNECTIVITY TEST FAILED - EE NOT AVAILABLE FOR LOCAL IPADDR
IST2129I	CONNECTIVITY TEST FAILED - MISMATCH OF IP ADDRESS FAMILY
IST2130I	ENTERPRISE EXTENDER CONNECTIVITY TEST INFORMATION
IST2131I	EEDIAG DISPLAY COMPLETED ON %8 AT %8
IST2132I	LDLC PROBE VERSIONS: VTAM = %5 PARTNER = %7
IST2133I	INTFNAME: %16 INTFTYPE: %16
IST2134I	CONNECTIVITY SUCCESSFUL PORT: %5
IST2135I	CONNECTIVITY UNSUCCESSFUL SENSE: %8 PORT: %5
IST2136I	CONNECTIVITY TEST ENDED - MAXIMUM TIME LIMIT EXCEEDED
IST2137I	%3 %15 %5 RTT: %5
IST2138I	%3 %39 %5 RTT: %5
IST2139I	CONNECTIVITY TEST RESULTS DISPLAYED FOR %2 INTERFACES
IST2140I	CONNECTIVITY TEST FAILED - LINE %8 IS INACTIVATING
IST2141I	CONNECTIVITY TEST FAILED - SWITCHED PU IS NOT ENABLED FOR EE
IST2142I	CONNECTIVITY TEST REJECTED - SAME TEST ALREADY IN PROGRESS
IST2143I	IN PROGRESS ENTERPRISE EXTENDER DISPLAY CORRELATOR: %8
IST2144I	CONNECTIVITY TEST REJECTED - MAXEETST LIMIT EXCEEDED

Message number	Text
IST2145I	PENDING ENTERPRISE EXTENDER DISPLAY COMMANDS
IST2146I	EE DISPLAY ISSUED ON %8 AT %8
IST2147I	CORRELATOR: %8 LINE: %8 STATUS: %16
IST2148I	EE CONNECTIVITY TEST REACHES MAXTIME ON %8 AT %8
IST2149I	%5 OF %5 CORRELATORS DISPLAYED
IST2150I	VIRTUAL NODE %17 - %5 UNREACHABLE PARTNERS
IST2151I	PARTNER LIMIT EXCEEDED - UNUSABLE UNTIL COUNT IS BELOW %5
IST2152I	MODIFY TOPO COMMAND FAILED
IST2153I	ORIG, VRN, OR DEST OPERAND REQUIRED
IST2154I	ROUTE SELECTION TRACE IS ACTIVE - BFRNUM = %3
IST2155I	ROUTE SELECTION TRACE IS INACTIVE
IST2156I	STORAGE ALLOCATED TO ROUTE SELECTION TRACE = %5
IST2157I	ALIASRCH = %3
IST2158I	VTAM HAS JOINED THE SYSPLEX GROUP %8
IST2159I	XCF GROUP: %8 CFS GROUP: %8
IST2160I	%10 FAILED : ULP IS USING TRLE %17
IST2161I	BLOCKED TIME = %5
IST2162I	INCONSISTENT UNRCHTIM VALUES DEFINED FOR %17
IST2163I	REBUILD FOR STRUCTURE %16 STOPPED
IST2164I	FAILURE REASON - LOST CONNECTION TO NEW STRUCTURE
IST2165I	FAILURE REASON - LOST CONNECTION TO ORIGINAL STRUCTURE
IST2166I	FAILURE REASON - STRUCTURE FAILURE
IST2167I	DISCONNECT REASON - OPERATOR COMMAND
IST2168I	DISCONNECT REASON - NORMAL DISCONNECT
IST2169I	FAILURE REASON - SUBTASK ABEND
IST2170I	FAILURE REASON - VTAM HALTING
IST2171I	FAILURE REASON - LOST CONNECTIVITY
IST2172I	FAILURE REASON - STRUCTURE TYPE NOT VALID
IST2173I	FAILURE REASON - INTERNAL COUPLING FACILITY STRUCTURE ERROR
IST2174I	FAILURE REASON - CONNECTION NAME NOT VALID
IST2175I	FAILURE REASON - PROCESS TIMED OUT
IST2176I	FAILURE REASON - MVS EVENT
IST2177I	FAILURE REASON - UNSUPPORTED COUPLING FACILITY LEVEL
IST2178I	RPNCB ADDRESS %8
IST2179I	NO DIAL-OUT LINE FOUND FOR SWITCHED PU %8
IST2180I	DYNLU = %3 FOR %17 SET FROM %8

Message number	Text
IST2181I	%4 STRUCTURE NAME IS %16
IST2182I	UNRCHTIM = %5
IST2183I	QDIOSYNC = %8 - SYNCID = %8 - SAVED = %3
IST2184I	QDIOSYNC = %8 - SYNCID = %8 - SAVED = %3
IST2186I	THIS PATH WILL NOT BE SELECTED FOR UNRCHTIM SECONDS
IST2187I	XCF SEND FAILURE ON TRLE %8 MESSAGE TYPE: %9
IST2188I	LDLC TIMER OPERANDS ON GROUP %8 IGNORED
IST2190I	DEVICEID PARAMETER FOR OSAENTA TRACE COMMAND = %11
IST2191I	HPR PATH SWITCH SUMMARY FROM %8 AT %8
IST2192I	STARTED = %5
IST2193I	TGINOP = %5 SRQTIMER = %5 PSRETRY = %5
IST2194I	PARTNER = %5 MNPS = %5 UNAVAILABLE = %5
IST2195I	NETWORK = %5 HIGH = %5 MEDIUM = %5 LOW = %5
IST2196I	COMPLETED = %5
IST2197I	FAILED = %5
IST2198I	NETID STARTED COMPLETED FAILED
IST2199I	CPNAME NET HI MED LOW NET HI MED LOW NET HI MED LOW
IST2200I	%8 %3 %3 %3 %3 %3 %3 %3 %3 %3 %3 %3 %3 %3
IST2201I	%8 %3 %3 %3 %3 %3 %3 %3 %3 %3 %3 %3 %3 %3
IST2202I	GREXIT = %3 WLM = %3 LOCLU = %3
IST2203I	CHARACTER SET %4 - CODE PAGE %4
IST2204I	LOCAPPL = %3 PASSOLU = %3
IST2205I	%60
IST2206I	%7 PATH SWITCH EVENTS FOR %6 CPS in %4 NETIDS
IST2207I	%7 TABLE FOR %13
IST2208I	%8 = %8 FROM START OPTION
IST2209I	%8 = %8 FROM ADJCLUST TABLE
IST2210I	GR PREFERENCE TABLE ENTRY = %12
IST2211I	ACK QUEUE MAX
IST2212I	%5
IST2213I	LAST BACKPRESSURE APPLIED ON %8 AT %8
IST2214I	BACKPRESSURE REASON: PATHSWITCH
IST2215I	BACKPRESSURE REASON: SEND QUEUE MAXIMUM REACHED
IST2216I	BACKPRESSURE REASON: STORAGE FAILURE
IST2217I	BACKPRESSURE REASON: STALLED PIPE
IST2218I	BACKPRESSURE REASON: WAITING-FOR-ACK QUEUE MAXIMUM REACHED

Message number	Text
IST2219I	%8 ACTIVATION WAITING FOR MINIMUM NUMBER OF DEVICES
IST2220I	%8 ACTIVATION RESUMING - ONLINE DEVICES DETECTED
IST2221I	EXPLICITBINDPORTRANGE - START: %5 END: %5
IST2222I	QDIOSYNC CAPTURE INITIATED FOR TRLE %8
IST2223I	QDIOSYNC STATE ARMED FOR TRLE %8 AT TIME OF INOP
IST2224I	ENTERPRISE EXTENDER ROUTING POLICY INFORMATION
IST2225I	PORT ROUTE TABLE ROUTING RULE
IST2226I	%5 %8 %32
IST2227I	CONNECTIVITY NOT TESTED - ROUTE NOT APPLICABLE PORT: %5
IST2229I	REFIFO TIMER = %10 MILLISECONDS
IST2230I	MAXIMUM NUMBER OF NLPS ON OUT-OF-SEQUENCE QUEUE = %10
IST2231I	CURRENT HPR CLOCK RATE = %8
IST2232I	HPR CLOCK RATE LAST SET TO HIGH ON %8 AT %8
IST2233I	HPR CLOCK RATE LAST EXITED HIGH ON %8 AT %8
IST2234I	MESSAGE TRIGGER: TCPNAME = %8
IST2235I	REMOTE DUMP FOR XCF LINK INOP: %3
IST2236I	LAST NLP RETRANSMITTED ON %8 AT %8
IST2237I	%8 CURRENTLY REPRESENTS A LIMITED RESOURCE
IST2238I	DISCNT = %5 - FINAL USE = %9
IST2239I	PATH SWITCH REASON: MNPS ENDPOINT RECOVERY
IST2240I	SENSE TRIGGER: TCPNAME = %8
IST2241I	TIME ISL
IST2185I	FRINVCTO = %10 FRINVCT = %10
IST2242I	SIGMCNTO = %10 SIGMCNT = %10
IST2243I	CP-CP SESSION WITH %17 ENDING DUE TO MAXLOCAT
IST2244I	HPRDIAG DISPLAY ISSUED ON %8 AT %8
IST2245I	XMIT STALL DETECTED FOR RTP %8 TO %17
IST2246I	XMIT STALL CONTINUES FOR RTP %8 TO %17
IST2247I	XMIT STALL ALLEVIATED FOR RTP %8 TO %17
IST2248I	ALL DIAGNOSTIC COUNTERS CLEARED FOR %7 RTP PIPES
IST2249I	NLP RETRANSMIT RATE = %9
IST2250I	ALL DIAGNOSTIC COUNTERS CLEARED ON %8 AT %8
IST2251I	AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:
IST2252I	%8 %8 %8 %8 %8 %8
IST2253I	HPRSTALL TIME EXCEEDED FOR RTP %8 TO %17
IST2254I	TOPOLOGY RESOURCE ERROR FOR NODE: ID = %17



Message number	Text
IST2255I	TOPOLOGY RESOURCE ERROR FOR TG: TGN = %3
IST2256I	ORIG = %17 - DEST = %17
IST2257I	CSDUMP MUST BE FOLLOWED BY MESSAGE OR SENSE OPERAND
IST2258I	%8 CAN ONLY BE SPECIFIED AFTER CSDUMP OPTION
IST2259I	%8 OPERAND MUST BE SPECIFIED AFTER %13
IST2260I	CSDUMP %8 OPERAND VALUE %17 IS NOT VALID
IST2261I	CSDUMP MESSAGE OPERAND HAS TOO MANY VALUES
IST2262I	REMOTE OPERAND NOT VALID WITH CSDUMP MESSAGE %8
IST2263I	PORTNAME = %8 PORTNUM = %3 OSA CODE LEVEL = %4
IST2264I	CSDUMP OPTION SPECIFIED MULTIPLE TRIGGERS
IST2265I	%8 %8 FAILED FOR %4 CODE = %2 REASON = %4
IST2266I	STORAGE POOL %8 AT PAGE ALLOCATION LIMIT
IST2267I	RTP PACING ALGORITHM = ARB PROGRESSIVE MODE
IST2268I	NUMBER OF BYTES ON WAITING-FOR-ACK QUEUE = %10
IST2269I	MAXIMUM NUMBER OF BYTES ON WAITING-FOR-ACK QUEUE = %9
IST2270I	%60
IST2271I	PATH SWITCH DELAY = %3
IST2272I	PATH SWITCH DELAYED UNTIL %8 AT %8
IST2273E	PACKETS DISCARDED FOR %8 - READ QUEUE CONGESTION
IST2274I	TDU DIAGNOSTIC SUMMARY:
IST2275I	TDU INFORMATION SINCE LAST RESET ON %8 AT %8
IST2276I	NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED
IST2277I	POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED
IST2278I	SINCE VTAM START ON %8 AT %8
IST2279I	CP NAME DESTINATION CP TGN TIME DETECTED
IST2280I	%17 %17 %3 %8 %8
IST2281I	LAST TDU SENT - %8 %8
IST2282I	TDU COUNTS:
IST2283I	NO TDUDIAG RSN UPDATES EX
IST2284I	FOR THE FOLLOWING NODES AND TGS
IST2285I	TDUS SENT BETWEEN %8 %8 - %8 %8
IST2286I	TDUS RECEIVED:
IST2287I	TDUS SENT:
IST2288I	CP NAME RSN DESTINATION CP TGN SENT REC
IST2289I	RESOURCE SEQUENCE NUMBERS UPDATED BY THIS NODE:
IST2290I	TDUDIAG START OPTION = %6

Message number	Text
IST2291I	UPDATED = %10
IST2292I	CP NAME RSN DESTINATION CP TGN UPDATED
IST2293I	%17 %8 %17 %3 %10
IST2294I	TDUDIAG RSN UPDATES:
IST2295I	TIME HEX RSN HEX RSN
IST2296I	CP NAME UPDATED BEFORE AFTER REASON
IST2297I	%17 %8 %8 %8 %11
IST2298I	TDUDIAG THRESHOLD REACHED FOR NODE: ID = %17
IST2299I	TDUDIAG THRESHOLD REACHED FOR TG: TGN = %3
IST2300I	RECEIVED FROM: %17
IST2301I	%3 OF %3 TOPOLOGY RESOURCES DISPLAYED
IST2302I	MODEL %8 IS THE BEST ACTIVE MATCH FOR %8
IST2303I	THERE IS NO ACTIVE MODEL MATCH FOR %8
IST2304I	%8 ALREADY EXISTS, TYPE = %17
IST2305I	NUMBER OF DISCARDED INBOUND READ BUFFERS = %10
IST2306I	TDU DIAGNOSTIC INFORMATION FOR NODE: ID = %17
IST2307I	THIS NODE DOES NOT SUPPORT UNKNOWN TOPOLOGY VECTORS
IST2308I	THAT HAVE SAVED TDUDIAG RSN UPDATES
IST2309I	ACCELERATED ROUTING ENABLED
IST2310I	ACCELERATED ROUTING DISABLED
IST2311I	TDU DIAGNOSTIC INFORMATION FOR TG: TGN = %3
IST2312I	CURRENT RSN = %10 - HEX RSN = %8
IST2313I	TOTAL RSN UPDATES BY LOCAL HOST NODE = %10
IST2314I	%3 OF %3 RSN UPDATES DISPLAYED
IST2315I	LAST TDU SENT - NONE
IST2316I	EARLYINO = %10 EARLYINT = %10
IST2317I	ULPRETU0 = %10 ULPRETU = %10
IST2318I	UNABLE TO OPEN %8 - NETWORK ADDRESS LIMIT REACHED
IST2319I	PHYSICAL CHANNEL ID = %4
IST2320I	WTOR %8 FROM CONSOLE %8 DELETED DUE TO VTAM HALT
IST2321I	TDUDIAG VALUE MUST BE NUMERIC, ''ALWAYS'', OR ''NEVER''
IST2322I	WTOR %8 FROM POA %8 DELETED DUE TO VTAM HALT
IST2323E	EE HEALTH VERIFICATION FAILED FOR ONE OR MORE CONNECTIONS
IST2324I	EE HEALTH VERIFICATION: FAILED CONNECTION INFORMATION
IST2325I	LINE %8 PU %8 ON %8 AT %8
IST2326I	EE HEALTH VERIFICATION TOTAL CONNECTION FAILURES = %4

Message number	Text
IST2327I	EE HEALTH VERIFICATION OPTION - EEVERIFY = %4 MINUTES
IST2328I	EE HEALTH VERIFICATION FAILED ON %8 AT %8
IST2329I	EE HEALTH VERIFICATION SUCCESSFUL ON %8 AT %8
IST2330I	EE HEALTH VERIFICATION FAILED FOR %8 AT %8
IST2331I	QUEUE QUEUE READ QUEUE
IST2332I	ID TYPE STORAGE STATUS
IST2333I	%6 %8 %15 %22
IST2334I	EEVERIFY MUST BE 'ACTIVATE', 'NEVER', OR A NUMERIC VALUE
IST2335I	PATH SWITCH REASON: XMIT STALL RECOVERY
IST2336I	STALLED = %5
IST2337I	CHPID TYPE = chpid_type CHPID = chpid_num PNETID = net_id
IST2338I	NACPROBE MUST BE 'DUMP', 'NODUMP', OR A NUMERIC VALUE
IST2339I	EE HEALTH VERIFICATION LAST SUCCESS ON %8 AT %8
IST2340I	EE HEALTH VERIFICATION LAST FAILED ON %8 AT %8
IST2341I	EE HEALTH VERIFICATION HAS NEVER FAILED FOR THIS CONNECTION
IST2342I	EE HEALTH VERIFICATION NOT SUPPORTED BY %8
IST2343I	EE HEALTH VERIFICATION NOT SUPPORTED BY REMOTE EE PARTNER
IST2344I	NODE ROLE CHANGE FROM %4 TO %4 FAILED - SENSE: %8
IST2345I	NODE ROLE CHANGE FROM %4 TO %4 SUCCEEDED
IST2346I	CP NAME = %17
IST2347I	TDU RECEIVED FROM ADJACENT NODE %17
IST2348I	ACTIVATED BY SHARED ACB %8
IST2349I	SUBORDINATE APPLICATIONS SHARING THIS ACB:
IST2350I	%4 SUBORDINATE APPLICATIONS SHARE THIS ACB
IST2351I	MULTIPLE SUBORDINATE APPLICATIONS SHARE THIS ACB
IST2352I	SENT = %10 RECEIVED = %10
IST2353I	ACCEPTED = %10 REJECTED = %10
IST2354I	IGNORED = %10
IST2355I	TDUDIAG THRESHOLD REACHED ON %8 AT %8
IST2356I	PLATFORM = %10
IST2357I	CP NAME RSN DESTINATION CP TGN
IST2358I	%17 %10 %17 %3
IST2359I	NO TDU INFORMATION EX
IST2360I	ROUTING TREES LAST CLEARED AT %8 %8 BY %6
IST2361I	SMCR PFID = %4 PCHID = %4 PNETID = %16
IST2362I	PORTNUM = %1 RNIC CODE LEVEL = %17

Message number	Text
IST2364I	CLOSE ACB OF %8 DID NOT COMPLETE IN A TIMELY MANNER
IST2365I	MODIFY TRACE COMMAND REJECTED - DSPSIZE NO LONGER SUPPORTED
IST2366I	POLLEQ0 = %10 POLLEQ = %10
IST2367I	POLLEQE0 = %10 POLLEQE = %10
IST2368I	ULP_ID = %8
IST2369I	POLLCQ0 = %10 POLLCQ = %10
IST2370I	POLLCQU0 = %10 POLLCQU = %10
IST2371I	POLLCQE0 = %10 POLLCQE = %10
IST2372I	SRBSCHD0 = %10 SRBSCHD = %10
IST2373I	SRBRSCO0 = %10 SRBRSCHD = %10
IST2374I	INBBYTLO = %10 INBBYTEL = %10
IST2375I	INBBYTM0 = %10 INBBYTEM = %10
IST2376I	INBBYTN0 = %10 INBBYTEN = %10
IST2377I	DATAREQ0 = %10 DATAREQ = %10
IST2378I	POST0 = %10 POST = %10
IST2379I	POSTEO = %10 POSTELEM = %10
IST2380I	POSTQUE0 = %10 POSTQUED = %10
IST2381I	OUTBYTLO = %10 OUTBYTEL = %10
IST2382I	OUTBYTM0 = %10 OUTBYTEM = %10
IST2383I	OUTBYTN0 = %10 OUTBYTEN = %10
IST2384E	PACKETS DISCARDED FOR %8 - %8 IS CONGESTED
IST2386I	NUMBER OF DISCARDED OUTBOUND WRITE BUFFERS = %10
IST2387I	DIAL FAILED - DUPLICATE IP ADDRESSES ON EXISTING CONNECTION
IST2388I	EE VRN = %17
IST2389I	PFIP = %%%%%%%%% GEN = %%%%%%%%% SPEED = %%%%
IST2390I	XXXXREG PCIE SERVICE FAILURE
IST2391I	%8 PCIE SERVICE FAILURE ON TRLE %8
IST2392I	PFID %4 ALLOCATION FAILURE - PFID IS NOT DEFINED
IST2393I	PFID %4 ALLOCATION FAILURE - PFID IS NOT ONLINE
IST2395I	RTP PACING ALGORITHM = ARB BASE MODE
IST2396I	RNIC STATISTICS FOR %8
IST2397I	DESCRIPTION OVERFLOW COUNT
IST2398I	%30 %10 %10
IST2399I	MESSAGE TRIGGER: RNICTRLE = %8
IST2400I	NO ADAPTER DIAGNOSTICS PRODUCED FOR %8: %23
IST2401I	DEVSTATS REJECTED FOR TRLE %8 - DEVICE NOT ACTIVE

Message number	Text
IST2402I	DEVSTATS FAILED FOR TRLE %8 - DEVICE NOT OPERATIONAL
IST2403I	64-BIT STORAGE TYPE CURRENT MAXIMUM LIMIT
IST2404I	HVCOMMON %9 %9 %9
IST2405I	TRACE HVCOMMON %9 %9 %9
IST2406I	SMC-R LINK FAILURE ON TRLE %8 CODE = %8
IST2407I	LOCAL LINK ID = %8 REMOTE LINK ID = %8
IST2408I	LOCAL MAC = %12 REMOTE MAC = %12
IST2409I	%6 GID = %39
IST2410I	LOCAL QP = %4 REMOTE QP = %4
IST2411I	VLAN = %4
IST2412I	FIXED HVCOMMON %9 %9 %9
IST2413I	PRIVATE %9 %9 %9
IST2414I	FIXED PRIVATE %9 %9 %9
IST2415I	TOTAL FIXED %9 %9 %8
IST2416I	%10 %16 PROCESSED
IST2417I	VFN = %4
IST2418I	SMCD PFID = %%%%% VCHID = %%%%% PNETID = %%%%%%%%%%
IST2419I	VIRTUAL INTERRUPT DRIVEN FOR TRLE %8
IST2420I	ISM NOT SUPPORTED, REQUIRED HARDWARE NOT AVAILABLE
IST2421I	SMC-D LINK FAILURE ON TRLE %%%%%%%%% CODE = %%%%%%%%%
IST2422I	NO ISM PFIDS DEFINED FOR PNETID %%%%%%%%%%
IST2423I	NO ISM PFIDS AVAILABLE FOR PNETID %%%%%%%%%%
IST2424I	3270 DATA STREAM ERROR - %%%%%%%%% %%%%%%%%% %%%%%%%%%
IST2425I	%%% SUBAREA = X'%%%%%%%%' INDEX = X'%%%%%%%%' ELEMENT = X'%%%%%%%%'
IST2426I	IPADDR = %%%%%%%%%%
IST2427I	DATE = %%%%%%%%% TIME = %%%%%%%%% ID = %%%%%%%%%
IST2428I	ROW = %%% COLUMN = %%%
IST2429I	OUTBOUND - SEQ = X'%%%%%%%%' OFF = %%%%%%%%% LEN = %%%%%%%%%
IST2430I	INBOUND - SEQ = X'%%%%%%%%' OFF = %%%%%%%%% LEN = %%%%%%%%%
IST2431I	%%%%%%%% %%%%%%%%% %%%%%%%%% %%%%%%%%% ★%%%%%%%%★
IST2432I	3270 ERROR SUMMARY FROM %%%%%%%%% AT %%%%%%%%%
IST2433I	DSMONITR = YES, DSCOUNT = %%%, DSACTION = %%%%%%%%%
IST2434I	DSTRUST = %%%%%%%%%
IST2435I	SESSIONS MONITORED = %%%%%%%%%, ERRORS DETECTED = %%%%%%%%%
IST2436I	DSMONITR = NO
IST2437I	DSMONITR = %%%, ERRORS DETECTED = %%%%%%%%%

## Text

IST2403I	64-BIT STORAGE TYPE	CURRENT	MAXIMUM	LIMIT
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```
IST2404I          HVCCOMMON %9 %9 %9
```

```
IST2405I          TRACE  HVCOMMON  %9  %9  %9
```

IST2406I SMC-R LINK FAILURE ON TRLE %8 CODE = %8

```
IST2407I          LOCAL LINK ID = %8 REMOTE LINK ID = %8
```

IST2408I LOCAL MAC = %12 REMOTE MAC = %12

```
IST2409I          %6  GID  = %39
```

```
IST2410I          LOCAL QP = %4  REMOTE QP = %4
```

IST2411I                    VLAN = %4

```
IST2412I          FIXED  HVCOMMON  %9  %9  %9
```

```
IST2413I          PRIVATE %9 %9 %9
```

IST2414I FIXED PRIVATE %9 %9 %9

IST2415I TOTAL FIXED %9 %9 %8

```
IST2416I          %10 %16 PROCESSED
```

IST2417I                    VFN = %4

IST2418I           SMCD PFID = 0/0/0/0/ VCHID = 0/0/0/0/ PNETID = 0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/

```
IST2419I          VIRTUAL INTERRUPT DRIVEN FOR TRLE %8
```

```
IST2420I      ISM NOT SUPPORTED, REQUIRED HARDWARE NOT AVAILABLE
```

```
IST2421I      SMC-D LINK FAILURE ON TRLE 0/0/0/0/0/0/0/0/0/0 CODE = 0/0/0/0/0/0/0/0/0/0
```

```
IST2422I          NO ISM PFIDS DEFINED FOR PNETID 0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/
```

IST2423I NO ISM PFIDS AVAILABLE FOR PNETID 0/0

[illegible]

```
IST2425I          0/0/0/ SUBAREA = X' '0/0/0/0/ ' ' INDEX = X' '0/0/0/0/ ' ' ELEMENT = X' '0/0/0/0/ ' '
```

[illegible]

IST2427I DATE = 00/00/00 TIME = 00/00/00 ID = 00/00/00

IST2428I ROW = %0/0/%0 COLUMN = %0/0/%0

IST2429I                    OUTBOUND - SEQ = X' '00000000' ' OFF = 00000000 LEN = 00000000

```
IST2430I          INBOUND - SEQ = X' '0/0/0/0/0' ' OFF = 0/0/0/0/0 LEN = 0/0/0/0/0
```

IST2431I                   0/0/0/0/0/0/0/0/   0/0/0/0/0/0/0/0/   0/0/0/0/0/0/0/0/   0/0/0/0/0/0/0/0/   \*0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/\*

IST2432I                3270 ERROR SUMMARY FROM 0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0 AT 0/0/0/0/0/0/0/0/0/0/0/0

[illegible][illegible]

IST2435I SESSIONS MONITORED = 0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0 ERRORS DETECTED = 0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0

IST2436I DSMONITR = NO

IST2437I DSMONTRR = 0/0/0/ ERRORS DETECTED = 0/0/0/0/0/0/0/0/0/

[illegible]

## Message text for ISTH and ISTM messages

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The following table lists the message text for all ISTH and ISTM messages.

Message number	Text
ISTH001I	Communications storage manager (CSM) FIXED and ECSA storage maximums satisfy the <i>deftype</i> specified limits
ISTH002I	Communications storage manager (CSM) <i>stor_type</i> storage max <i>max_val</i> is less than the <i>def_type</i> specified value <i>min_val</i>
ISTH005I	VTAM Internal Trace (VIT) <i>vit_opt</i> option is active. IBM prefers that this option is always active, but if CPU is constrained then you can elect to stop this trace option.
ISTH006E	VTAM Internal Trace (VIT) option <i>vit_opt</i> is not active
ISTH009I	Not all VTAM Internal Trace (VIT) options are active. When all VIT options are concurrently active, performance might be less than optimal.
ISTH010E	All VTAM Internal Trace (VIT) options are active
ISTH011I	The T1BUF and T2BUF buffer pool allocations are set above their default values, which is recommended for use with Enterprise Extender (EE). When the size of the T1BUF or T2BUF pool is too small, excessive buffer pool expansions and contractions might occur.
ISTH012I	<i>buf_pool</i> buffer pool allocation of <i>buf_num</i> might be too low for use with Enterprise Extender
ISTH013E	T1BUF/T2BUF buffer pool allocation might not be optimal for use with Enterprise Extender
ISTH014I	T1BUF and T2BUF buffer pool allocations are sufficient for use without Enterprise Extender
ISTH015I	<i>buf_pool</i> buffer pool allocation of <i>buf_num</i> might be too high if Enterprise Extender is not being used
ISTH016E	T1BUF/T2BUF buffer pool allocation might not be optimal if Enterprise Extender is not being used
ISTH017E	Communications storage manager (CSM) storage allocation definitions might not be optimal.
ISTH018I	This check is not applicable in the current VTAM environment. Enterprise Extender (EE) lines have not been activated on this system and no VTAM Start Options associated with EE have been specified.
ISTH019I	This check is not applicable in the current VTAM environment. Enterprise Extender (EE) lines have been activated on this system or VTAM Start Options associated with EE have been specified.
ISTH020I	All active FTP servers correctly prevent anonymous users from submitting jobs.
ISTH021E	One or more FTP servers allow anonymous users to submit jobs.
ISTH029I	No MVRSHD servers are active
ISTH030E	One or more MVRSHD servers are active

Message number	Text
ISTH031I (deleted in z/OS V2R3)	No active SMTP servers are configured as mail relays
ISTH032E (deleted in z/OS V2R3)	One or more active SMTP servers are configured as mail relays
ISTH033I	No active SNMP agents are configured with a community name of public
ISTH034E	One or more active SNMP agents are configured with a community name of public
ISTH035I (deleted in z/OS V2R5)	The ISPF Workstation Agent is not in use on this system
ISTH036E (deleted in z/OS V2R5)	The ISPF Workstation Agent is in use on this system
ISTH038E	Ensure sufficient fixed storage is available for IWQ IPsec
ISTH039I	The ISPF Gateway is not being accessed using non-secured HTTP
ISTH040E	The ISPF Gateway is being accessed using non-secured HTTP
ISTH900I	Function: <i>mhc_function</i> last <i>mhc_usage</i> on <i>mhc_date</i> at <i>mhc_time</i> .
ISTM013I (deleted in z/OS V2R2)	GATEWAY statement is not in use on this system.
ISTM014E (deleted in z/OS V2R2)	GATEWAY statements are in use on this system during this IPL.
ISTM015I (deleted in z/OS V2R2)	Legacy device statements are not in use on this system
ISTM016E (deleted in z/OS V2R2)	Legacy device statements are in use on this system during this IPL
ISTM017I (deleted in z/OS V2R3)	The sendmail client is not in use on this system
ISTM018E (deleted in z/OS V2R3)	The sendmail client is in use on this system
ISTM019I (deleted in z/OS V2R3)	The sendmail mail transfer agent is not in use on this system
ISTM020E (deleted in z/OS V2R3)	The sendmail mail transfer agent is in use on this system
ISTM021I (deleted in V2R3)	The sendmail MSA function is not in use on this system
ISTM022E (deleted in z/OS V2R3)	The sendmail MSA function is in use on this system
ISTM023I (deleted in z/OS V2R3)	The SMTPD daemon is not in use on this system
ISTM024E (deleted in z/OS V2R3)	The SMTPD daemon is in use on this system
ISTM025I (deleted in z/OS V2R3)	The SMTPD mail transfer agent is not in use on this system



<b>Message number</b>	<b>Text</b>
ISTM026E (deleted in z/OS V2R3)	The SMTPD mail transfer agent is in use on this system
ISTM027I (deleted in z/OS V2R3)	The sendmail daemon is not in use on this system
ISTM028E (deleted in z/OS V2R3)	The sendmail daemon is in use on this system
ISTM029I (deleted in z/OS V2R3)	Legacy device statements are not in use on this system
ISTM030E (deleted in z/OS V2R3)	Legacy device statements are in use on this system during this IPL
ISTM031I (deleted in z/OS V2R3 )	The TFTP daemon is not in use on this system
ISTM032E (deleted in z/OS V2R3)	The TFTP daemon is in use on this system
ISTM034E	Ensure sufficient fixed storage is available for IWQ IPsec enabling
ISTM037I (deleted in z/OS V2R5)	The VTAM topology agent and the CMIP services have not been used on this system during this IPL
ISTM038E (deleted in z/OS V2R5)	The VTAM topology agent and the CMIP services have been used on this system during this IPL
ISTM039I	The ISPF Gateway is not being accessed using non-secured HTTP
ISTM040E	The ISPF Gateway is being accessed using non-secured HTTP
ISTM041I (deleted in z/OS V2R5)	Native TLS/SSL support is not in use by any TN3270 server on this system
ISTM042E (deleted in z/OS V2R5)	One or more TN3270 servers are using native TLS/SSL support
ISTM043I (deleted in z/OS V2R5)	Native TLS/SSL support is not in use on this system for DCAS
ISTM044E (deleted in z/OS V2R5)	Native TLS/SSL support is in use on this system for DCAS
ISTM045I (deleted in z/OS V2R5)	No active FTP servers are using native TLS/SSL support
ISTM046E (deleted in z/OS V2R5)	One or more active FTP servers are using native TLS/SSL support
ISTM047I (deleted in z/OS V2R5)	No active FTP servers are configured with TLSMECHANISM ATTLS and TLSRFCLEVEL CCCNONOTIFY
ISTM048E (deleted in z/OS V2R5)	One or more active FTP servers are configured with TLSMECHANISM ATTLS and TLSRFCLEVEL CCCNONOTIFY
ISTM049I (deleted in z/OS V2R5)	No FTP clients configured with TLSMECHANISM ATTLS and TLSRFCLEVEL CCCNONOTIFY
ISTM050E (deleted in z/OS V2R5)	One or more FTP clients are configured with TLSMECHANISM ATTLS and TLSRFCLEVEL CCCNONOTIFY

Message number	Text
ISTM051I (deleted in z/OS 3.1)	MEDIUM CSMACD is not in use on this system for an XCA major node PORT statement
ISTM052E (deleted in z/OS 3.1)	MEDIUM CSMACD is in use on this system for an XCA major node PORT statement
ISTM053I (deleted in z/OS 3.1)	DEVICE/LINK/HOME is not in use on this system for OSA-Express connectivity
ISTM054E (deleted in z/OS 3.1)	DEVICE/LINK/HOME is in use on this system for OSA-Express connectivity
ISTM900I	Function: mhc_function last mhc_usage on mhc_date at mhc_time.

## Message text for IUT VTAM operator messages

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The following table lists the message text for all IUT VTAM operator messages issued for MVS.

Message number	Text
IUT5000I	%8 STILL ACTIVE: VTAM TERMINATION WAITING FOR %8
IUT5001I	VTAM REGISTRATION MANAGER PROCESSING TERMINATED
IUT5002I	TASK FOR ULPID USING TRLE TERMINATING

## Message text for IVT VTAM operator messages

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The following table lists the message text for all IVT VTAM operator messages issued for MVS.

Message number	Text
IVT5501I	CSM PARMLIB MEMBER %8 NOT FOUND - DEFAULT VALUES USED
IVT5502I	READ ERROR ON PARMLIB MEMBER %8 - DEFAULT VALUES USED
IVT5503I	CSM PARMLIB PARAMETER NOT VALID - %26
IVT5504I	ABEND %3 OCCURRED IN %8 - SDUMP HAS BEEN ISSUED
IVT5505I	CSM SDUMP FAILED WITH RETURN CODE %2 REASON X'%2'
IVT5506I	%8 STORAGE ALLOCATION FAILED IN CSM
IVT5507I	CSM PARMLIB INFORMATION FOUND IN MEMBER %8
IVT5508I	DISPLAY ACCEPTED
IVT5510I	MODIFY ACCEPTED
IVT5511I	%7 CSM COMMAND SYNTAX NOT VALID
IVT5512I	FIXED PARAMETER VALUE NOT VALID
IVT5513I	ECSA PARAMETER VALUE NOT VALID
IVT5516I	ERROR OBTAINING CSM PARMLIB INFORMATION - LIMITS UNCHANGED
IVT5517I	CSM LIMITS PRIOR TO MODIFY CSM PROCESSING:
IVT5518I	CSM LIMITS AFTER MODIFY CSM PROCESSING:

Message number	Text
IVT5519I	ECSA MAXIMUM = %5 - FIXED MAXIMUM = %5
IVT5520I	OWNERID VALUE NOT VALID
IVT5521I	NO CSM STORAGE IS CURRENTLY ALLOCATED TO OWNERID %4
IVT5529I	PROCESSING DISPLAY CSM COMMAND - OWNERID NOT SPECIFIED
IVT5530I	BUFFER BUFFER
IVT5531I	SIZE SOURCE INUSE FREE TOTAL
IVT5532I	-----
IVT5533I	%5 %13 %9 %9 %9
IVT5534I	%5 %13 POOL DOES NOT EXIST
IVT5535I	TOTAL %13 %9 %9 %9
IVT5536I	TOTAL ALL SOURCES %9 %9 %9
IVT5538I	FIXED MAXIMUM = %9 FIXED CURRENT = %9
IVT5539I	ECSA MAXIMUM = %9 ECSA CURRENT = %9
IVT5541I	%5 MAXIMUM USED = %9 SINCE LAST DISPLAY CSM
IVT5549I	PROCESSING DISPLAY CSM COMMAND - OWNERID SPECIFIED
IVT5551I	SIZE SOURCE STORAGE ALLOCATED TO OWNER
IVT5553I	%5 %13 %9
IVT5554I	TOTAL %13 %9
IVT5556I	TOTAL FOR OWNERID %9
IVT5557I	OWNERID: ASID = %4 JOBNAME = %8
IVT5558I	%5 %13 UNABLE TO DETERMINE BUFFER VALUES
IVT5559I	CSM DATA SPACE % NAME: %8
IVT5560I	CSM ECSA STORAGE LIMIT EXCEEDED
IVT5561I	CSM FIXED STORAGE LIMIT EXCEEDED
IVT5562I	CSM ECSA STORAGE AT CRITICAL LEVEL
IVT5563I	CSM FIXED STORAGE AT CRITICAL LEVEL
IVT5564I	CSM ECSA STORAGE SHORTAGE RELIEVED
IVT5565I	CSM FIXED STORAGE SHORTAGE RELIEVED
IVT5566I	CSM MONITOR IS ACTIVE
IVT5567I	CSM MONITOR IS NOT ACTIVE
IVT5568I	MONITOR PARAMETER VALUE IS NOT VALID
IVT5569I	CSM MONITOR IS DYNAMIC AND CURRENTLY ACTIVE
IVT5570I	CSM MONITOR IS DYNAMIC AND CURRENTLY NOT ACTIVE
IVT5571I	MONITOR PARAMETER IS NOT VALID WITH %4 %4
IVT5572I	PROCESSING DISPLAY CSMUSE COMMAND - OWNERID NOT SPECIFIED
IVT5573I	PROCESSING DISPLAY CSMUSE COMMAND - OWNERID SPECIFIED

Message number	Text
IVT5574I	PROCESSING DISPLAY CSMUSE COMMAND - POOLSPECIFIED
IVT5575I	USAGE SUMMARY - %8 POOL TOTAL (ALLUSERS) = %9
IVT5576I	AMOUNT MONITOR ID OWNERID JOBNAME
IVT5577I	%9 %2 %4 %8
IVT5578I	DISPLAY TOTAL FOR %8 POOL (% USERS) = %9
IVT5579I	BUFFER USE FOR %2 : USECNT USERDATA MONITOR HISTORY
IVT5580I	%8 %8 %8
IVT5581I	POOL NAME NOT VALID
IVT5582I	DISPLAY CSMUSE COMMAND SYNTAX NOT VALID
IVT5583I	NO CSM STORAGE IS CURRENTLY IN USE FOR POOL %8
IVT5584I	USAGE DETAILS - %8 POOL - POOL TOTAL = %9
IVT5585I	DETAIL TOTAL FOR %8 POOL = %9
IVT5586I	DISPLAY CSMUSE SYNTAX NOT VALID - DUPLICATE OPERAND
IVT5587I	%8 NOT VALID ON DISPLAY CSMUSE COMMAND
IVT5588I	NO CSM STORAGE IS CURRENTLY IN USE FOR ANY USERS
IVT5589I	DISPLAY TOTAL FOR %8 POOL FOR THIS OWNERID = %9
IVT5590I	MAX ECSA VALUE ADJUSTED TO 90 PERCENT OF SYSTEM ECSA
IVT5591I	CSM ECSA STORAGE AT CONSTRAINED LEVEL
IVT5592I	CSM FIXED STORAGE AT CONSTRAINED LEVEL
IVT5593I	CSM CREATED AN ADDITIONAL DATA SPACE dspname
IVT5594I	%5 MAXIMUM USED = %9 SINCE IPL
IVT5599I	END
IVT5600I	PROBE %8 ATTEMPTED - FFST NOT AVAILABLE

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## Appendix F. Related protocol specifications

This appendix lists the related protocol specifications (RFCs) for TCP/IP. The Internet Protocol suite is still evolving through requests for comments (RFC). New protocols are being designed and implemented by researchers and are brought to the attention of the Internet community in the form of RFCs. Some of these protocols are so useful that they become recommended protocols. That is, all future implementations for TCP/IP are recommended to implement these particular functions or protocols. These become the *de facto* standards, on which the TCP/IP protocol suite is built.

RFCs are available at <http://www.rfc-editor.org/rfc.html>.

Draft RFCs that have been implemented in this and previous Communications Server releases are listed at the end of this topic.

Many features of TCP/IP Services are based on the following RFCs:

### **RFC**

#### **Title and Author**

### **RFC 652**

*Telnet output carriage-return disposition option* D. Crocker

### **RFC 653**

*Telnet output horizontal tabstops option* D. Crocker

### **RFC 654**

*Telnet output horizontal tab disposition option* D. Crocker

### **RFC 655**

*Telnet output formfeed disposition option* D. Crocker

### **RFC 657**

*Telnet output vertical tab disposition option* D. Crocker

### **RFC 658**

*Telnet output linefeed disposition* D. Crocker

### **RFC 698**

*Telnet extended ASCII option* T. Mock

### **RFC 726**

*Remote Controlled Transmission and Echoing Telnet option* J. Postel, D. Crocker

### **RFC 727**

*Telnet logout option* M.R. Crispin

### **RFC 732**

*Telnet Data Entry Terminal option* J.D. Day

### **RFC 733**

*Standard for the format of ARPA network text messages* D. Crocker, J. Vittal, K.T. Pogran, D.A. Henderson

### **RFC 734**

*SUPDUP Protocol* M.R. Crispin

### **RFC 735**

*Revised Telnet byte macro option* D. Crocker, R.H. Gumpertz

### **RFC 736**

*Telnet SUPDUP option* M.R. Crispin

### **RFC 749**

*Telnet SUPDUP—Output option* B. Greenberg

### **RFC 765**

*File Transfer Protocol specification* J. Postel

- RFC 768**  
*User Datagram Protocol* J. Postel
- RFC 779**  
*Telnet send-location option* E. Killian
- RFC 791**  
*Internet Protocol* J. Postel
- RFC 792**  
*Internet Control Message Protocol* J. Postel
- RFC 793**  
*Transmission Control Protocol* J. Postel
- RFC 820**  
*Assigned numbers* J. Postel
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*DARPA Internet gateway* R. Hinden, A. Sheltzer
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*Telnet Protocol Specification* J. Postel, J. Reynolds
- RFC 855**  
*Telnet Option Specification* J. Postel, J. Reynolds
- RFC 856**  
*Telnet Binary Transmission* J. Postel, J. Reynolds
- RFC 857**  
*Telnet Echo Option* J. Postel, J. Reynolds
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*Telnet Suppress Go Ahead Option* J. Postel, J. Reynolds
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*Telnet Status Option* J. Postel, J. Reynolds
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*Telnet Extended Options: List Option* J. Postel, J. Reynolds
- RFC 862**  
*Echo Protocol* J. Postel
- RFC 863**  
*Discard Protocol* J. Postel
- RFC 864**  
*Character Generator Protocol* J. Postel
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*Quote of the Day Protocol* J. Postel
- RFC 868**  
*Time Protocol* J. Postel, K. Harrenstien
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*Domain names: Implementation specification* P.V. Mockapetris
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*Telnet terminal type option* M. Solomon, E. Wimmers

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*Telnet end of record option* J. Postel
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*Standard for the transmission of IP datagrams over Ethernet networks* C. Hornig
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*Congestion control in IP/TCP internetworks* J. Nagle
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## Appendix G. Architectural specifications

This appendix lists documents that provide architectural specifications for the SNA Protocol.

The APPN Implementers' Workshop (AIW) architecture documentation includes the following architectural specifications for SNA APPN and HPR:

- APPN Architecture Reference (SG30-3422-04)
- APPN Branch Extender Architecture Reference Version 1.1
- APPN Dependent LU Requester Architecture Reference Version 1.5
- APPN Extended Border Node Architecture Reference Version 1.0
- APPN High Performance Routing Architecture Reference Version 4.0
- SNA Formats (GA27-3136-20)
- SNA Technical Overview (GC30-3073-04)

The following RFC also contains SNA architectural specifications:

- RFC 2353 *APPN/HPR in IP Networks APPN Implementers' Workshop Closed Pages Document*

RFCs are available at <http://www.rfc-editor.org/rfc.html>.



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## Policy for unsupported hardware

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Various z/OS elements, such as DFSMS, JES2, JES3, and MVS, contain code that supports specific hardware servers or devices. In some cases, this device-related element support remains in the product even after the hardware devices pass their announced End of Service date. z/OS may continue to service element code; however, it will not provide service related to unsupported hardware devices. Software problems related to these devices will not be accepted for service, and current service activity will cease if a problem is determined to be associated with out-of-support devices. In such cases, fixes will not be issued.

## Minimum supported hardware

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The minimum supported hardware for z/OS releases identified in z/OS announcements can subsequently change when service for particular servers or devices is withdrawn. Likewise, the levels of other software products supported on a particular release of z/OS are subject to the service support lifecycle of those products. Therefore, z/OS and its product publications (for example, panels, samples, messages, and product documentation) can include references to hardware and software that is no longer supported.

- For information about software support lifecycle, see: [IBM Lifecycle Support for z/OS \(www.ibm.com/software/support/systemsz/lifecycle\)](http://www.ibm.com/software/support/systemsz/lifecycle)
- For information about currently-supported IBM hardware, contact your IBM representative.

## Policy for unsupported hardware

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# Bibliography

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This bibliography contains descriptions of the documents in the z/OS Communications Server library.

z/OS Communications Server documentation is available online at the z/OS Internet Library web page at <http://www.ibm.com/systems/z/os/zos/library/bkserv/>.

## z/OS Communications Server library updates

Updates to documents are also available on RETAIN and in information APARs (info APARs). Go to <https://www.ibm.com/mysupport> to view information APARs.

- [z/OS Communications Server V2R1 New Function APAR Summary](#)
- [z/OS Communications Server V2R2 New Function APAR Summary](#)
- [z/OS Communications Server V2R3 New Function APAR Summary](#)
- [z/OS Communications Server V2R4 New Function APAR Summary](#)

## z/OS Communications Server information

z/OS Communications Server product information is grouped by task in the following tables.

### Planning

Title	Number	Description
<a href="#">z/OS Communications Server: New Function Summary</a>	GC27-3664	This document is intended to help you plan for new IP or SNA functions, whether you are migrating from a previous version or installing z/OS for the first time. It summarizes what is new in the release and identifies the suggested and required modifications needed to use the enhanced functions.
<a href="#">z/OS Communications Server: IPv6 Network and Appl Design Guide</a>	SC27-3663	This document is a high-level introduction to IPv6. It describes concepts of z/OS Communications Server's support of IPv6, coexistence with IPv4, and migration issues.

### Resource definition, configuration, and tuning

Title	Number	Description
<a href="#">z/OS Communications Server: IP Configuration Guide</a>	SC27-3650	This document describes the major concepts involved in understanding and configuring an IP network. Familiarity with the z/OS operating system, IP protocols, z/OS UNIX System Services, and IBM Time Sharing Option (TSO) is recommended. Use this document with the <a href="#">z/OS Communications Server: IP Configuration Reference</a> .

Title	Number	Description
<a href="#">z/OS Communications Server: IP Configuration Reference</a>	SC27-3651	This document presents information for people who want to administer and maintain IP. Use this document with the <a href="#">z/OS Communications Server: IP Configuration Guide</a> . The information in this document includes: <ul style="list-style-type: none"> <li>• TCP/IP configuration data sets</li> <li>• Configuration statements</li> <li>• Translation tables</li> <li>• Protocol number and port assignments</li> </ul>
<a href="#">z/OS Communications Server: SNA Network Implementation Guide</a>	SC27-3672	This document presents the major concepts involved in implementing an SNA network. Use this document with the <a href="#">z/OS Communications Server: SNA Resource Definition Reference</a> .
<a href="#">z/OS Communications Server: SNA Resource Definition Reference</a>	SC27-3675	This document describes each SNA definition statement, start option, and macroinstruction for user tables. It also describes NCP definition statements that affect SNA. Use this document with the <a href="#">z/OS Communications Server: SNA Network Implementation Guide</a> .
<a href="#">z/OS Communications Server: SNA Resource Definition Samples</a>	SC27-3676	This document contains sample definitions to help you implement SNA functions in your networks, and includes sample major node definitions.
<a href="#">z/OS Communications Server: IP Network Print Facility</a>	SC27-3658	This document is for systems programmers and network administrators who need to prepare their network to route SNA, JES2, or JES3 printer output to remote printers using TCP/IP Services.

## Operation

Title	Number	Description
<a href="#">z/OS Communications Server: IP User's Guide and Commands</a>	SC27-3662	This document describes how to use TCP/IP applications. It contains requests with which a user can log on to a remote host using Telnet, transfer data sets using FTP, send electronic mail, print on remote printers, and authenticate network users.
<a href="#">z/OS Communications Server: IP System Administrator's Commands</a>	SC27-3661	This document describes the functions and commands helpful in configuring or monitoring your system. It contains system administrator's commands, such as TSO NETSTAT, PING, TRACERTE and their UNIX counterparts. It also includes TSO and MVS commands commonly used during the IP configuration process.
<a href="#">z/OS Communications Server: SNA Operation</a>	SC27-3673	This document serves as a reference for programmers and operators requiring detailed information about specific operator commands.
<a href="#">z/OS Communications Server: Quick Reference</a>	SC27-3665	This document contains essential information about SNA and IP commands.

## Customization

Title	Number	Description
<a href="#">z/OS Communications Server: SNA Customization</a>	SC27-3666	<p>This document enables you to customize SNA, and includes the following information:</p> <ul style="list-style-type: none"> <li>• Communication network management (CNM) routing table</li> <li>• Logon-interpret routine requirements</li> <li>• Logon manager installation-wide exit routine for the CLU search exit</li> <li>• TSO/SNA installation-wide exit routines</li> <li>• SNA installation-wide exit routines</li> </ul>

## Writing application programs

Title	Number	Description
<a href="#">z/OS Communications Server: IP Sockets Application Programming Interface Guide and Reference</a>	SC27-3660	This document describes the syntax and semantics of program source code necessary to write your own application programming interface (API) into TCP/IP. You can use this interface as the communication base for writing your own client or server application. You can also use this document to adapt your existing applications to communicate with each other using sockets over TCP/IP.
<a href="#">z/OS Communications Server: IP CICS Sockets Guide</a>	SC27-3649	This document is for programmers who want to set up, write application programs for, and diagnose problems with the socket interface for CICS using z/OS TCP/IP.
<a href="#">z/OS Communications Server: IP IMS Sockets Guide</a>	SC27-3653	This document is for programmers who want application programs that use the IMS TCP/IP application development services provided by the TCP/IP Services of IBM.
<a href="#">z/OS Communications Server: IP Programmer's Guide and Reference</a>	SC27-3659	This document describes the syntax and semantics of a set of high-level application functions that you can use to program your own applications in a TCP/IP environment. These functions provide support for application facilities, such as user authentication, distributed databases, distributed processing, network management, and device sharing. Familiarity with the z/OS operating system, TCP/IP protocols, and IBM Time Sharing Option (TSO) is recommended.
<a href="#">z/OS Communications Server: SNA Programming</a>	SC27-3674	This document describes how to use SNA macroinstructions to send data to and receive data from (1) a terminal in either the same or a different domain, or (2) another application program in either the same or a different domain.
<a href="#">z/OS Communications Server: SNA Programmer's LU 6.2 Guide</a>	SC27-3669	This document describes how to use the SNA LU 6.2 application programming interface for host application programs. This document applies to programs that use only LU 6.2 sessions or that use LU 6.2 sessions along with other session types. (Only LU 6.2 sessions are covered in this document.)
<a href="#">z/OS Communications Server: SNA Programmer's LU 6.2 Reference</a>	SC27-3670	This document provides reference material for the SNA LU 6.2 programming interface for host application programs.

Title	Number	Description
<a href="#">z/OS Communications Server: CSM Guide</a>	SC27-3647	This document describes how applications use the communications storage manager.

## Diagnosis

Title	Number	Description
<a href="#">z/OS Communications Server: IP Diagnosis Guide</a>	GC27-3652	This document explains how to diagnose TCP/IP problems and how to determine whether a specific problem is in the TCP/IP product code. It explains how to gather information for and describe problems to the IBM Software Support Center.
<a href="#">z/OS Communications Server: ACF/TAP Trace Analysis Handbook</a>	GC27-3645	This document explains how to gather the trace data that is collected and stored in the host processor. It also explains how to use the Advanced Communications Function/Trace Analysis Program (ACF/TAP) service aid to produce reports for analyzing the trace data information.
<a href="#">z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures and z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT</a>	GC27-3667 GC27-3668	These documents help you identify an SNA problem, classify it, and collect information about it before you call the IBM Support Center. The information collected includes traces, dumps, and other problem documentation.
<a href="#">z/OS Communications Server: SNA Data Areas Volume 1 and z/OS Communications Server: SNA Data Areas Volume 2</a>	GC31-6852 GC31-6853	These documents describe SNA data areas and can be used to read an SNA dump. They are intended for IBM programming service representatives and customer personnel who are diagnosing problems with SNA.

## Messages and codes

Title	Number	Description
<a href="#">z/OS Communications Server: SNA Messages</a>	SC27-3671	This document describes the ELM, IKT, IST, IUT, IVT, and USS messages. Other information in this document includes: <ul style="list-style-type: none"> <li>• Command and RU types in SNA messages</li> <li>• Node and ID types in SNA messages</li> <li>• Supplemental message-related information</li> </ul>
<a href="#">z/OS Communications Server: IP Messages Volume 1 (EZA)</a>	SC27-3654	This volume contains TCP/IP messages beginning with EZA.
<a href="#">z/OS Communications Server: IP Messages Volume 2 (EZB, EZD)</a>	SC27-3655	This volume contains TCP/IP messages beginning with EZB or EZD.
<a href="#">z/OS Communications Server: IP Messages Volume 3 (EZY)</a>	SC27-3656	This volume contains TCP/IP messages beginning with EZY.
<a href="#">z/OS Communications Server: IP Messages Volume 4 (EZZ, SNM)</a>	SC27-3657	This volume contains TCP/IP messages beginning with EZZ and SNM.
<a href="#">z/OS Communications Server: IP and SNA Codes</a>	SC27-3648	This document describes codes and other information that appear in z/OS Communications Server messages.





Product Number: 5655-ZOS

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