

z/OS
3.2

Release Upgrade Reference Summary



Note

Before using this information and the product it supports, read the information in [“Notices” on page 73.](#)

This edition applies to IBM® z/OS® 3.2 (5655-ZOS) and to all subsequent releases and modifications until otherwise indicated in new editions.

Last updated: 2025-09-30

© **Copyright International Business Machines Corporation 1997, 2025.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

Tables.....	v
How to provide feedback to IBM.....	vii
Summary of changes.....	ix
Summary of changes for z/OS 3.2.....	ix
Summary of changes for z/OS 3.1.....	ix
Part 1. z/OS 3.2 changes.....	1
Chapter 1. Message and code changes for z/OS 3.2.....	3
BCP (MVS) and DFSMS messages and codes changes for z/OS 3.2.....	3
DFSORT message changes for z/OS 3.2.....	5
Hardware Configuration Definition (HCD) message changes for z/OS 3.2.....	5
Device Support Facilities (ICKDSF) message changes for z/OS 3.2.....	5
IBM Tivoli Directory Server (TDS) message changes for z/OS 3.2.....	6
Infoprint Server message changes for z/OS 3.2.....	6
ISPF message changes for z/OS 3.2.....	6
JES2 message changes for z/OS 3.2.....	6
Language Environment message changes for z/OS 3.2.....	7
OpenSSH message changes for z/OS 3.2.....	8
Resource Measurement Facility (RMF) message changes for z/OS 3.2.....	8
Security Server RACF message changes for z/OS 3.2.....	8
SMP/E V3R7 message changes for z/OS 3.2.....	9
System Display and Search Facility (SDSF) message changes for z/OS 3.2.....	9
z/OS Data Gatherer message changes for z/OS 3.2.....	9
z/OS File System (zFS) message and code changes for z/OS 3.2.....	9
z/OS UNIX message changes for z/OS 3.2.....	10
Chapter 2. z/OS Function Registry (FXE) changes for z/OS 3.2.....	11
Chapter 3. New and changed System Management Facilities (SMF) records for z/OS 3.2.....	15
Chapter 4. New and changed members in SYS1.MACLIB for z/OS 3.2.....	17
Chapter 5. New and changed PARMLIB members for z/OS 3.2.....	19
Part 2. z/OS 3.1 changes.....	21
Chapter 6. Message and code changes for z/OS 3.1.....	23
BCP (MVS) and DFSMS messages and codes changes for z/OS 3.1.....	23
Communications Server message changes for z/OS 3.1.....	32
Cryptographic Services ICSF message changes for z/OS 3.1.....	35
Cryptographic Services PKI Services message changes for z/OS 3.1.....	36
Data Set File System message changes for z/OS 3.1.....	36
DFSORT message changes for z/OS 3.1.....	37
Hardware Configuration Definition (HCD) message changes for z/OS 3.1.....	37
Device Support Facilities (ICKDSF) message changes for z/OS 3.1.....	37
IBM Tivoli Directory Server (TDS) message changes for z/OS 3.1.....	38
Infoprint Server message changes for z/OS 3.1.....	38

ISPF message changes for z/OS 3.1.....	38
JES2 message changes for z/OS 3.1.....	39
Language Environment message changes for z/OS 3.1.....	40
Network File System (NFS) message changes for z/OS 3.1.....	42
OpenSSH message changes for z/OS 3.1.....	42
Resource Measurement Facility (RMF) message changes for z/OS 3.1.....	43
Security Server RACF message changes for z/OS 3.1.....	43
SMP/E V3R7 message changes for z/OS 3.1.....	44
System Display and Search Facility (SDSF) message changes for z/OS 3.1.....	45
TSO/E message changes for z/OS 3.1.....	45
z/OS Authorized Code Scanner message changes for z/OS 3.1.....	45
z/OS Data Gatherer message changes for z/OS 3.1.....	45
z/OS File System (zFS) message and code changes for z/OS 3.1.....	45
z/OS UNIX message changes for z/OS 3.1.....	46
 Chapter 7. New and changed System Management Facilities (SMF) records for z/OS 3.1.....	 51
 Chapter 8. New and changed members in SYS1.MACLIB for z/OS 3.1.....	 61
 Chapter 9. New and changed PARMLIB members for z/OS 3.1.....	 65
 Chapter 10. New and changed PROCLIB members for z/OS 3.1.....	 67
 Chapter 11. New and changed SYS1.SAMPLIB members for z/OS 3.1.....	 69
 Appendix A. Accessibility.....	 71
 Notices.....	 73
Terms and conditions for product documentation.....	74
IBM Online Privacy Statement.....	75
Policy for unsupported hardware.....	75
Minimum supported hardware.....	75
Trademarks.....	76
 Index.....	 77

Tables

1. I/O Supervisor..... 11

2. z/OS Consoles.....12

3. SDSF..... 13

4. New and changed System Management Facilities (SMF) records for z/OS 3.2.....15

5. New and changed members in SYS1.MACLIB for z/OS 3.2 17

6. New and changed PARMLIB members for z/OS 3.2.....19

7. New and changed System Management Facilities (SMF) records for z/OS 3.1.....51

8. New and changed members in SYS1.MACLIB for z/OS 3.1 61

9. New and changed PARMLIB members for z/OS 3.1.....65

10. New and changed PROCLIB members for z/OS 3.1.....67

11. New and changed SYS1.SAMPLIB members for z/OS 3.1..... 69

How to provide feedback to IBM

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

Summary of changes

This information includes terminology, maintenance, and editorial changes. 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.

Note: IBM z/OS policy for the integration of service information into the z/OS product documentation library is documented on the z/OS Internet Library under [IBM z/OS Product Documentation Update Policy](http://www.ibm.com/docs/en/zos/latest?topic=zos-product-documentation-update-policy) (www.ibm.com/docs/en/zos/latest?topic=zos-product-documentation-update-policy).

Summary of changes for z/OS 3.2

The following content is new, changed, or no longer included in z/OS 3.2.

New

The following content is new.

September 2025 release

- Content for z/OS 3.2 is added.
- z/OS Function Registry (FXE) function updates are now tracked in the z/OS Release Upgrade Reference Summary for z/OS 3.2. For more information, see [Chapter 2, “z/OS Function Registry \(FXE\) changes for z/OS 3.2,” on page 11](#).

Changed

The following content is changed.

September 2025 release

- None.

Deleted

The following content is deleted.

September 2025 release

- None.

Summary of changes for z/OS 3.1

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

New

The following content is new.

April 2025 refresh

- [“Hardware Configuration Definition \(HCD\) message changes for z/OS 3.1” on page 37](#) is added.

October 2024 refresh

- [“SMP/E V3R7 message changes for z/OS 3.1” on page 44](#) is added.

April 2024 refresh

- [“IBM Tivoli Directory Server \(TDS\) message changes for z/OS 3.1” on page 38](#) is added.
- [“TSO/E message changes for z/OS 3.1” on page 45](#) is added.

March 2024 refresh

- [“z/OS Authorized Code Scanner message changes for z/OS 3.1” on page 45](#) is added.

January 2024 refresh

- [“Device Support Facilities \(ICKDSF\) message changes for z/OS 3.1” on page 37](#) is added.
- [“DFSORT message changes for z/OS 3.1” on page 37](#) is added.

December 2023 refresh

- [Chapter 11, “New and changed SYS1.SAMPLIB members for z/OS 3.1,” on page 69](#) is added, along with an entry for AMDSAD1S.

September 2023 release

- Content for z/OS 3.1 is added.

Changed

The following content is changed.

June 2025 refresh

- [Chapter 7, “New and changed System Management Facilities \(SMF\) records for z/OS 3.1,” on page 51](#) is updated

May 2025 refresh

- [“Language Environment message changes for z/OS 3.1” on page 40](#) is updated.
- [“OpenSSH message changes for z/OS 3.1” on page 42](#) is updated.

April 2025 refresh

- [“BCP \(MVS\) and DFSMS messages and codes changes for z/OS 3.1” on page 23](#) is updated.
- [“JES2 message changes for z/OS 3.1” on page 39](#) is updated.
- [“Network File System \(NFS\) message changes for z/OS 3.1” on page 42](#) is updated.

March 2025 refresh

- An update to the DIAGxx member is added in [Chapter 9, “New and changed PARMLIB members for z/OS 3.1,” on page 65](#).

February 2025 refresh

- [“BCP \(MVS\) and DFSMS messages and codes changes for z/OS 3.1” on page 23](#) is updated.
- Updates to the BPXPRMxx member are added in [Chapter 9, “New and changed PARMLIB members for z/OS 3.1,” on page 65](#).

January 2025 refresh

- [“BCP \(MVS\) and DFSMS messages and codes changes for z/OS 3.1” on page 23](#) is updated.
- [“Communications Server message changes for z/OS 3.1” on page 32](#) is updated.
- [“OpenSSH message changes for z/OS 3.1” on page 42](#) is updated.
- [Chapter 7, “New and changed System Management Facilities \(SMF\) records for z/OS 3.1,” on page 51](#) is updated.

December 2024

- [“BCP \(MVS\) and DFSMS messages and codes changes for z/OS 3.1” on page 23](#) is updated.
- [“Language Environment message changes for z/OS 3.1” on page 40](#) is updated.
- [“Network File System \(NFS\) message changes for z/OS 3.1” on page 42](#) is updated.
- [“Security Server RACF message changes for z/OS 3.1” on page 43](#) is updated.

- Chapter 7, “New and changed System Management Facilities (SMF) records for z/OS 3.1,” on page 51 is updated.
- Chapter 8, “New and changed members in SYS1.MACLIB for z/OS 3.1,” on page 61 is updated.
- Chapter 9, “New and changed PARMLIB members for z/OS 3.1,” on page 65 is updated.

October 2024 refresh

- “BCP (MVS) and DFSMS messages and codes changes for z/OS 3.1” on page 23 is updated.
- “Device Support Facilities (ICKDSF) message changes for z/OS 3.1” on page 37 is updated.
- “JES2 message changes for z/OS 3.1” on page 39 is updated.
- Chapter 9, “New and changed PARMLIB members for z/OS 3.1,” on page 65 is updated.

September 2024 refresh

- “Cryptographic Services ICSF message changes for z/OS 3.1” on page 35 is updated.
- Chapter 7, “New and changed System Management Facilities (SMF) records for z/OS 3.1,” on page 51 is updated.
- Chapter 9, “New and changed PARMLIB members for z/OS 3.1,” on page 65 is updated.

August 2024 refresh

- “BCP (MVS) and DFSMS messages and codes changes for z/OS 3.1” on page 23 is updated.
- “Communications Server message changes for z/OS 3.1” on page 32 is updated.
- “DFSORT message changes for z/OS 3.1” on page 37 is updated.
- “Language Environment message changes for z/OS 3.1” on page 40 is updated.
- “Network File System (NFS) message changes for z/OS 3.1” on page 42 is updated.
- “OpenSSH message changes for z/OS 3.1” on page 42 is updated.

July 2024 refresh

- “BCP (MVS) and DFSMS messages and codes changes for z/OS 3.1” on page 23 is updated.
- “Communications Server message changes for z/OS 3.1” on page 32 is updated.
- “Security Server RACF message changes for z/OS 3.1” on page 43 is updated.

May 2024 refresh

- “BCP (MVS) and DFSMS messages and codes changes for z/OS 3.1” on page 23 is updated.
- “Data Set File System message changes for z/OS 3.1” on page 36 is updated.
- “JES2 message changes for z/OS 3.1” on page 39 is updated.
- “Language Environment message changes for z/OS 3.1” on page 40 is updated.
- “OpenSSH message changes for z/OS 3.1” on page 42 is updated.
- “z/OS UNIX message changes for z/OS 3.1” on page 46 is updated.
- Chapter 7, “New and changed System Management Facilities (SMF) records for z/OS 3.1,” on page 51 is updated.

April 2024 refresh

- “Data Set File System message changes for z/OS 3.1” on page 36 is updated.

March 2024 refresh

- “BCP (MVS) and DFSMS messages and codes changes for z/OS 3.1” on page 23 is updated.
- “Communications Server message changes for z/OS 3.1” on page 32 is updated.
- “Cryptographic Services ICSF message changes for z/OS 3.1” on page 35 is updated.
- “JES2 message changes for z/OS 3.1” on page 39 is updated.
- “Language Environment message changes for z/OS 3.1” on page 40 is updated. (APAR APAR PH58890 (www.ibm.com/support/pages/apar/PH58890), applies to z/OS 2.4 and later)

- “z/OS UNIX message changes for z/OS 3.1” on page 46 is updated.
- Chapter 7, “New and changed System Management Facilities (SMF) records for z/OS 3.1,” on page 51 is updated.
- Chapter 9, “New and changed PARMLIB members for z/OS 3.1,” on page 65 is updated with BPXPRMxx.
- Chapter 11, “New and changed SYS1.SAMPLIB members for z/OS 3.1,” on page 69 is updated with BPXISEC1. (APAR [OA61972](http://www.ibm.com/support/pages/apar/OA61972): NEW FUNCTION - Z/OS UNIX SUPPORT FOR NAMESPACES (www.ibm.com/support/pages/apar/OA61972), applies to z/OS 2.5 and later)

February 2024 refresh

- “z/OS UNIX message changes for z/OS 3.1” on page 46 is updated. (APAR [OA62734](http://www.ibm.com/support/pages/apar/OA62734): NEW FUNCTION - Z/OS UNIX SUPPORT FOR MOUNT NAMESPACES (www.ibm.com/support/pages/apar/OA62734), which applies to z/OS 2.5 and later)

January 2024 refresh

- “BCP (MVS) and DFSMS messages and codes changes for z/OS 3.1” on page 23 is updated.
- “Communications Server message changes for z/OS 3.1” on page 32 is updated.
- “Language Environment message changes for z/OS 3.1” on page 40 is updated.
- “Security Server RACF message changes for z/OS 3.1” on page 43 is updated.

December 2023 refresh

- “BCP (MVS) and DFSMS messages and codes changes for z/OS 3.1” on page 23 is updated.
- “Data Set File System message changes for z/OS 3.1” on page 36 is updated.
- “z/OS File System (zFS) message and code changes for z/OS 3.1” on page 45 is updated.

November 2023 refresh

- “BCP (MVS) and DFSMS messages and codes changes for z/OS 3.1” on page 23 is updated.
- “Data Set File System message changes for z/OS 3.1” on page 36 is updated. (APAR [OA63953](http://www.ibm.com/support/pages/apar/OA63953): EDIT EXCEEDS EXCEED LRECL DATA LOSS OEDIT VI SIGDSIOER ABENDS614 TRUNCATION (www.ibm.com/support/pages/apar/OA63953), which applies to z/OS 2.5 and later)
- “Language Environment message changes for z/OS 3.1” on page 40 is updated.
- Chapter 9, “New and changed PARMLIB members for z/OS 3.1,” on page 65 is updated with IXGCNFxx. (APAR [OA64676](http://www.ibm.com/support/pages/apar/OA64676): NEW FUNCTION - LOCALBUFFERLIMIT SUPPORT (www.ibm.com/support/pages/apar/OA64676), applies to z/OS 2.5 and later)

October 2023

- “BCP (MVS) and DFSMS messages and codes changes for z/OS 3.1” on page 23 is updated.
- “z/OS UNIX message changes for z/OS 3.1” on page 46 is updated.

Deleted

The following content is deleted.

September 2023 release

- Content for z/OS V2R5 is removed.
- Content for z/OS V2R4 is removed.

Part 1. z/OS 3.2 changes

This part describes the new, changed, and removed or no longer issued messages, codes, SMF records, and selected system-level data set (SYS1) interfaces for z/OS 3.2 elements and features.

Chapter 1. Message and code changes for z/OS 3.2

This section contains the message and code changes for z/OS 3.2.

BCP (MVS) and DFSMS messages and codes changes for z/OS 3.2

The following messages and codes are new, changed, or no longer issued for BCP (MVS), DFSMSdftp, DFSMSdss, DFSMSHsm, DFSMSrmm, and DFSMSHsm. All the messages and codes in this section are grouped, without distinction as to element or feature.

The messages for BCP (MVS) and DFSMS are documented in the following publications:

[*z/OS MVS System Messages, Vol 1 \(ABA-AOM\)*](#)
[*z/OS MVS System Messages, Vol 2 \(ARC-ASA\)*](#)
[*z/OS MVS System Messages, Vol 3 \(ASB-BPX\)*](#)
[*z/OS MVS System Messages, Vol 4 \(CBD-DMO\)*](#)
[*z/OS MVS System Messages, Vol 5 \(EDG-GLZ\)*](#)
[*z/OS MVS System Messages, Vol 6 \(GOS-IEA\)*](#)
[*z/OS MVS System Messages, Vol 7 \(IEB-IEE\)*](#)
[*z/OS MVS System Messages, Vol 8 \(IEF-IGD\)*](#)
[*z/OS MVS System Messages, Vol 9 \(IGF-IWM\)*](#)
[*z/OS MVS System Messages, Vol 10 \(IXC-IZP\)*](#)

Dump output messages are documented in [*z/OS MVS Dump Output Messages*](#).

DFSMS Volume Mount Analyzer messages (GFT) and abend codes are documented in [*z/OS DFSMS Using the Volume Mount Analyzer*](#).

MVS system codes are documented in [*z/OS MVS System Codes*](#).

New messages

ARC1298I
 ARC1570I
 ARC1594I
 ARC1595I
 ARC1596I
 ARC1597I
 ARC1598I
 ARC1599I

 BPXH095I
 BPXH096I
 BPXH097I
 BPXH098I
 BPXH099I
 BPXH100I
 BPXH101I
 BPXH102I
 BPXH103I
 BPXH104I
 BPXH104I
 BPXH106E

 EDG3388I

EDG6881I
EDG6882E

HWI056I
HWI057I
HWI058I
HWI059I
HWI060I
HWI061I
HWI062I
IAR080I
IEA803W

IEF387I
IEF388A
IGD418I
IGD419I

IGW293I
IOSHC980I
IOSHC981E
IOSHC982I
IOSHC996I
IOSHC998I
IOSHC999E
IWMH110I
IWMH111I
IWMH112E
IWMH113E

IXC750I

Changed messages

ARC0103I
ARC0340I
ARC0752I
ARC1179I
ARC1208I
ARC1605I

BPXH905E
BPX0043I

EDG3373E

HWI030I
IDC3009I
IEA037I

IEE967I
IEF352I

IGW291I
IGW292I
IOS651I
IGW350I

IXC291I
 IXC347I
 IXC358I
 IXC360I
 IXC522I
 IXL150I
 IXC572I
 IXC584I
 IXC745I

New MVS system codes

System completion codes

None.

Wait state codes

A03

Changed MVS system codes

System completion codes

18F

042

Wait state codes

07B

DFSORT message changes for z/OS 3.2

The following messages and codes are new, changed, or no longer issued for DFSORT.

The messages and codes for DFSORT are documented in [z/OS DFSORT Messages, Codes and Diagnosis Guide](#).

Changed messages

ICE000I

Hardware Configuration Definition (HCD) message changes for z/OS 3.2

The following messages are new, changed, or no longer issued for Hardware Configuration Definition (HCD).

The messages for HCD are documented in [z/OS and z/VM® HCD Messages](#).

Changed

CBDA880I

Device Support Facilities (ICKDSF) message changes for z/OS 3.2

The following messages and codes are new, changed, or no longer issued for ICKDSF.

The messages and codes for ICKDSF are documented in [Device Support Facilities \(ICKDSF\) User's Guide and Reference](#).

New messages

ICK31339I

Changed messages

ICK31025I

IBM Tivoli Directory Server (TDS) message changes for z/OS 3.2

The messages for IBM Tivoli® Directory Server for z/OS are documented in [*z/OS IBM Tivoli Directory Server Messages and Codes for z/OS*](#).

Changed messages

GLDI1001I

Infoprint Server message changes for z/OS 3.2

The messages and system completion codes for Infoprint Server are documented in [*z/OS Infoprint Server Messages and Diagnosis*](#). For new, changed, and no longer issued Infoprint Server messages and system completion codes, see the [Summary of changes for z/OS 3.2](#) in [*z/OS Infoprint Server Messages and Diagnosis*](#).

ISPF message changes for z/OS 3.2

The following messages and codes are new, changed, or no longer issued for ISPF.

The messages for ISPF are documented in [*z/OS ISPF Messages and Codes*](#).

New messages

ISRE469D
ISRE469E
ISRE469F
ISRM086
ISRM087
ISREV014
ISRLS106
ISRLS107
ISRLS107
ISRLS115
ISRLS116
ISRLS117
ISRLS118
ISRLS119

JES2 message changes for z/OS 3.2

The following messages are new, changed, or no longer issued for JES2.

The messages for JES2 are documented in [*z/OS JES2 Messages*](#).

New messages

\$HASP1440 (Variant 1)
\$HASP1440 (Variant 2)

\$HASP1441
\$HASP1442
\$HASP1443
\$HASP1444
\$HASP1445
\$HASP1446
\$HASP1447
\$HASP1448
\$HASP1449
\$HASP1450
\$HASP1451
\$HASP1452
\$HASP1453
\$HASP1454
\$HASP1455
\$HASP1456
\$HASP1457
\$HASP1458
\$HASP1459
\$HASP1460
\$HASP1461
\$HASP1462
\$HASP1463
\$HASP1464
\$HASP1465
\$HASP1668
\$HASP1669
\$HASP1670
\$HASP1804
\$HASP1805
\$HASP1811
\$HASP1812
\$HASP1813
\$HASP4451
\$HASP9185
\$HASP9186

Changed messages

\$HASP445
\$HASP604
\$HASP1660
\$HASP1661

Language Environment message changes for z/OS 3.2

The following messages are new, changed, or no longer issued for Language Environment.

The messages for Language Environment are documented in [z/OS Language Environment Runtime Messages](#).

Changed messages

CEE3512S
CEE3539S
CEE3540S

OpenSSH message changes for z/OS 3.2

The following messages are new, changed, or no longer issued for OpenSSH.

The messages for z/OS OpenSSH are documented in [z/OS OpenSSH User's Guide](#).

New messages

FOTS4173
FOTS4281
FOTS4282
FOTS4283
FOTS4284
FOTS4286
FOTS4287
FOTS4288
FOTS4289
FOTS4291
FOTS4292
FOTS4323

Resource Measurement Facility (RMF) message changes for z/OS 3.2

The messages for RMF are documented in *z/OS Resource Measurement Facility Messages and Codes*. For new, changed, and deleted RMF messages for z/OS 3.2, see the [Summary of changes for 3.2 in z/OS Resource Measurement Facility Messages and Codes](#).

Security Server RACF message changes for z/OS 3.2

The following messages are new, changed, or no longer issued for RACF.

The messages for RACF are documented in [z/OS Security Server RACF Messages and Codes](#).

New messages

ICH01026I
ICH01027I
ICH01029I
ICH15033I
ICH21024I
ICH21025I
ICH21026I
IRR423I
IRRS009I
IRRV023I
IRRY306I

Changed messages

ICH408I
ICH21005I

SMP/E V3R7 message changes for z/OS 3.2

This topic lists new, changed, and no longer issued non-operator messages for SMP/E.

The messages for SMP/E are documented in *z/OS SMP/E Messages, Codes, and Diagnosis*.

Changed

GIM40101E
GIM69222S

System Display and Search Facility (SDSF) message changes for z/OS 3.2

The messages for SDSF are documented in *z/OS SDSF Operation and Customization*. For new, changed, and deleted SDSF messages for z/OS 3.2, see the [Summary of changes for z/OS 3.2](#) in *z/OS SDSF Operation and Customization*.

z/OS Data Gatherer message changes for z/OS 3.2

Messages that start with "ERB" that are issued by z/OS Data Gatherer are documented in *z/OS Resource Measurement Facility Messages and Codes*. (These are often shared messages between RMF and z/OS Data Gatherer.) For these new, changed, and deleted messages, see [Summary of changes for 3.2](#) in *z/OS Resource Measurement Facility Messages and Codes*.

Messages that start with "GRB" that are issued by z/OS Data Gatherer are documented in *z/OS MVS System Messages, Vol 6 (GOS-IEA)*. For these new, changed, and deleted messages, see ["BCP \(MVS\) and DFSMS messages and codes changes for z/OS 3.2" on page 3](#) in this publication or [Summary of changes for z/OS 3.2](#) in *z/OS MVS System Messages, Vol 6 (GOS-IEA)*.

z/OS File System (zFS) message and code changes for z/OS 3.2

The following messages are new, changed, or longer issued for z/OS File System (zFS).

The messages for z/OS File System are documented in [z/OS File System Messages and Codes](#).

New messages

IOEZ01040A
IOEZ01042E
IOEZ01060E
IOEZ01061E
IOEZ01076E
IOEZ01077I
IOEZ01078E
IOEZ01079E
IOEZ01080I
IOEZ01081I
IOEZ01082I
IOEZ01083I
IOEZ01084I

IOEZ01085E
IOEZ01086E
IOEZ01087I
IOEZ01088I
IOEZ01089E

Changed messages

IOEZH0083I
IOEZH0084I

z/OS UNIX message changes for z/OS 3.2

The following messages, reason codes, and return codes are new, changed, or no longer issued for z/OS UNIX.

The messages, reason codes, and return codes are documented in [*z/OS UNIX System Services Messages and Codes*](#).

New messages

BPXWMG030I
BPXWMG031I
BPXWMG032I
BPXWMG033I
FSUMF430
FSUMF547
FSUMF548
FSUMF549
FSUMF550
FSUMF551
FSUMF552
FSUMF553

New reason codes

JRMigRenTgtTooLong.

Changed reason codes

JREpollCreateInvalidOp

Chapter 2. z/OS Function Registry (FXE) changes for z/OS 3.2

The following z/OS Function Registry (FXE) functions are new, changed, and removed.

For more information about FXE, how to use it, and registering your own functions, see [Using and registering functions with the IBM Function Registry for z/OS](#) in *z/OS MVS Programming: Authorized Assembler Services Guide*.

New functions

Table 1. I/O Supervisor	
Function name	New changes
HyperSwap® configuration loaded	Function definition HyperSwap configuration from either GDPS® or CSM
z/OS HyperSwap via Copy Services Manager	Function definition CSM managed z/OS HyperSwap storage protection

Table 1. I/O Supervisor (continued)

Function name	New changes
IOS Configuration-Related Data	<p>Function definition I/O Supervisor Configuration Data</p> <p>Function attributes</p> <ul style="list-style-type: none"> • Captured UCB Protection • Storage Blocks • Parallel Access Volume Mode • zHyperWrite Mode • RECOVERY Mode • High Performance FICON® Mode • zHyperLink Mode • MIDAW Mode • Detected DASD Control Units • Detected DASD Control Units High Performance FICON Capable • Detected DASD Control Units zHyperLink Read Capable • Detected DASD Control Units zHyperLink Read Enabled • Detected DASD Control Units zHyperLink Write Capable • Detected DASD Control Units zHyperLink Write Enabled • Detected DASD Control Units zHyperLink Global Mirror Capable • Detected DASD Control Units MIDAW Capable • Detected DASD Control Units HyperPAV Capable • Detected DASD Control Units SuperPAV Capable • 3390S Devices Defined • 3390D Devices Defined • Fixed Block Architecture Devices Defined

Table 2. z/OS Consoles

Function name	New changes
Message Flood Automation	<p>Function definition Message Flood Automation (MFA) allows z/OS to identify runaway WTO conditions that can cause severe disruptions to z/OS operation.</p>

Table 3. SDSF

Function name	New changes
SDSF Client Interface Summary	<p>Function definition The SDSF client interface summary tracks information about how SDSF was invoked. The statistics are updated periodically on an interval basis.</p> <p>Function attributes</p> <ul style="list-style-type: none"> • Number of ISPF invocations • Number of TSO invocations • Number of REXX invocations • Number of batch invocations • Number of AFD invocations • Number of Java™ invocations • Number of external invocations • Number of Python invocations • Number of sessions using FILESYS profile
SDSF Event Log (ELOG)	<p>Function definition The SDSF event log captures important information from multiple components and produces a central table that can be used to fastpath into the OPERLOG.</p> <p>Function attributes</p> <ul style="list-style-type: none"> • Datestamp of last event log start • Datestamp of last event log stop • Number of ELOG feature starts since IPL
SDSF Module Fetch Monitor (MFM)	<p>Function definition The SDSF module fetch monitor captures statistics and activity of VLF and program fetch from both data sets and z/OS UNIX paths.</p> <p>Function attributes</p> <ul style="list-style-type: none"> • Datestamp of last module fetch monitor start • Datestamp of last module fetch monitor stop • Number of MFM feature starts since IPL

Table 3. SDSF (continued)	
Function name	New changes
SDSF Server	<p>Function definition</p> <p>The SDSF servers provide data collection, configuration and security functions for its users</p> <p>Function attributes</p> <ul style="list-style-type: none">• Datestamp of last SDSF server start• Datestamp of last SDSF server stop• Last ISFPRMxx data set name• Last ISFPRMxx member name• Datestamp of last SDSF ISFPRMxx activation• Number of SDSF ISFPRMxx activations• Number of SDSF server starts since IPL

Chapter 3. New and changed System Management Facilities (SMF) records for z/OS 3.2

The following System Management Facilities (SMF) records for z/OS elements and features are new and changed.

Table 4 on page 15 provides a list of SMF records that are new or changed for z/OS 3.2. Detailed information about these SMF records can be found in one of the following documents, as indicated by the "Documented in" column in Table 4 on page 15.

Communications Server

- [Type 119 SMF records](#) in *z/OS Communications Server: IP Programmer's Guide and Reference*
- [Type 1154 SMF records](#) in *z/OS Communications Server: IP Programmer's Guide and Reference*
- [Tuning input/output \(I/O\) operations for RoCE connections](#) in *z/OS Communications Server: SNA Network Implementation Guide*

MVS

z/OS MVS System Management Facilities (SMF)

OAM

[OAM System Management Facility records](#) in *z/OS DFSMS OAM Planning, Installation, and Storage Administration Guide for Object Support*

RACF

[SMF records](#) in *z/OS Security Server RACF Macros and Interfaces*

Table 4. New and changed System Management Facilities (SMF) records for z/OS 3.2			
SMF record	z/OS element or feature	Description	Documented in
Type 30	MVS	<ul style="list-style-type: none"> • Bit 6 in the SMF30_RAXFLAGS field is now defined in the Storage and Paging section. • The SMF30_HWMMemlimitMb field is added in the Storage and paging section. The record level in SMF30RLN is changed to X'1E0'. 	MVS
Type 72 subtype 3	MVS	<ul style="list-style-type: none"> • The R723RST2G field is added at offset 816 in the Service/report class period data section. The subtype 3 record level indicator in the SMF72SRL field changes to X'90'. 	MVS
Type 74 subtype 5	MVS	<ul style="list-style-type: none"> • The R7451CT7 field is added at offset 84 (formerly reserved space) in the RAID Rank/Extend Pool Data section. 	MVS
Type 74 subtype 8	MVS	<ul style="list-style-type: none"> • Three new fields are added starting at offset 104 in the Synchronous I/O Link Statistics section. The subtype 8 record level changes to X'90'. 	MVS

Table 4. New and changed System Management Facilities (SMF) records for z/OS 3.2 (continued)			
SMF record	z/OS element or feature	Description	Documented in
Type 88 subtype 1	MVS	<ul style="list-style-type: none"> The descriptions of the SMF88LIB and SMF88LAB fields are updated in the Log stream section. The SMF88LTDE field is added in the Log stream section. 	MVS
Type 88 subtype 11	MVS	<ul style="list-style-type: none"> The SMF88ATKE field is added in the Structure alter section. 	MVS
Type 1157–1161	z/OS Data Gatherer	<ul style="list-style-type: none"> New record types to support the z/OS OpenTelemetry Emitter. (APAR OA66345 (www.ibm.com/support/pages/apar/OA66345), which also applies to z/OS 3.1) 	MVS

Chapter 4. New and changed members in SYS1.MACLIB for z/OS 3.2

The following members of SYS1.MACLIB is new and changed.

[Table 5 on page 17](#) lists the new and changed members of SYS1.MACLIB for z/OS 3.2.

<i>Table 5. New and changed members in SYS1.MACLIB for z/OS 3.2</i>			
Member name	z/OS element or feature	Description	Reason for change
IARRAX64	MVS	The Rax64_MemlimitMbHWM field is added at offset 560 (X'230').	Release update.

Chapter 5. New and changed PARMLIB members for z/OS 3.2

The following PARMLIB members are new and changed.

For more information about these members, see [z/OS MVS Initialization and Tuning Reference](#). Members owned by z/OS elements other than MVS may be documented in a publication specific to that element.

Table 6 on page 19 lists the new and changed members of PARMLIB for z/OS 3.2. Sometimes, IBM might provide these updates in SYS1.IBM.PARMLIB and a customer might install them into SYS1.PARMLIB.

Table 6. New and changed PARMLIB members for z/OS 3.2		
Member name	z/OS element or feature	Description
BPXPRMxx	z/OS UNIX System Services	<ul style="list-style-type: none"> New parameter: With the REXXPARSE statement, you can select the criteria to be used when determining whether an executed file is a REXX program. Information about the BUFFERMONITOR, FIXED, RNODEWAIT, SYNCDEFAULT, WAITABEND, and VIRTUAL parameters are deleted because they are associated with the HFS file system, which is deprecated.
CEEPRMxx	Language Environment	<ul style="list-style-type: none"> Release updates.
DIAGxx	MVS	<ul style="list-style-type: none"> New parameter: ASCBV31 specifies whether the ASCB is in 31-bit addressable storage when requested by a subsequent START command or subsequent use of the ASCRE macro.
IARPRMxx	MVS	<ul style="list-style-type: none"> New parameter: RESTRICTPFTCADS specifies whether applications and the operating system can access PTFCADS, or only the operating system. New parameter: ARR2V_REQAUTH specifies whether authorization is required for unauthorized applications that do not have access to real storage.
IEAOPTxx	MVS	<ul style="list-style-type: none"> The description of the CPENABLE parameter is updated, and the default setting is changed to CPENABLE=SYSTEM.

Part 2. z/OS 3.1 changes

This part describes the new, changed, and removed or no longer issued messages, codes, SMF records, and selected system-level data set (SYS1) interfaces for z/OS 3.1 elements and features.

Chapter 6. Message and code changes for z/OS 3.1

This section contains the message and code changes for z/OS 3.1.

BCP (MVS) and DFSMS messages and codes changes for z/OS 3.1

The following messages and codes are new, changed, or no longer issued for BCP (MVS), DFSMSdftp, DFSMSdss, DFSMSHsm, DFSMSrmm, and DFSMSHsm. All the messages and codes in this section are grouped, without distinction as to element or feature.

The messages for BCP (MVS) and DFSMS are documented in the following publications:

[*z/OS MVS System Messages, Vol 1 \(ABA-AOM\)*](#)
[*z/OS MVS System Messages, Vol 2 \(ARC-ASA\)*](#)
[*z/OS MVS System Messages, Vol 3 \(ASB-BPX\)*](#)
[*z/OS MVS System Messages, Vol 4 \(CBD-DMO\)*](#)
[*z/OS MVS System Messages, Vol 5 \(EDG-GLZ\)*](#)
[*z/OS MVS System Messages, Vol 6 \(GOS-IEA\)*](#)
[*z/OS MVS System Messages, Vol 7 \(IEB-IEE\)*](#)
[*z/OS MVS System Messages, Vol 8 \(IEF-IGD\)*](#)
[*z/OS MVS System Messages, Vol 9 \(IGF-IWM\)*](#)
[*z/OS MVS System Messages, Vol 10 \(IXC-IZP\)*](#)

Dump output messages are documented in [*z/OS MVS Dump Output Messages*](#).

DFSMS Volume Mount Analyzer messages (GFT) and abend codes are documented in [*z/OS DFSMS Using the Volume Mount Analyzer*](#).

MVS system codes are documented in [*z/OS MVS System Codes*](#).

New messages

ADR584I
AIB0016I
AIB0017I
AIB0019I
AIB0020I
AIB0021I
AIB0022I
AIB0023I
AIB0024E
AIB0099I
AIB0101I
AIB0102I
AIB0102I
AIB0104I
AIB0105I
AIB0106I
AIB0109E
AIB0110I
AIB0117I
AIB0120I
AIB1215E
AIBH0002I

AIBH0100I
AIBH0300I
AIBH0301I
AIR064I
ADR617E
ADR618I
ANTB8075I
ANTB8076I
ANTF0421I
ANTP7140E
ANTP7141E
ANTP7142E
System data mover return and reason codes, return code 4202
ARC0572I
ARC1902I
ARC1590
ARC1591I
ARC1592I
ARC1593I
ATR177I
BPXW0007I
AZDD0013E
AZDD0014E
AZDD0015E
AZDD0016E
AZDD0017E
AZDD0018E
AZDD0019E
AZDN0001E
AZDN0002E
AZDN0007E
BPXF290E
BPXF288I
BPXF289I
CBR0069I
EDG0184I
EDG0246W
EDG2415I
EDG2470I
EDG2471I
EDG4068I
EDG4069I
GDKU0017W
GDKU0018E
GDKU0019E
GDKU0020I
GDKU0021I
GDKU0022I
GDKU0023E
GDKU0024W

GDKU0025E
GDKU0026E
GDKU0027E
GDKU0028E
GDKU0029E
GDKU0030I
GDKU0031E
GDKU0032E
GDKU0033E
GDKU0034E
GDKU0035W
GDKU0106I
GDKU0107W
GDKU0108E
GDKU0109E
GDKU0110I
GDKU0111I
GDKU0112E
GDKU0113I
GDKU0114I
GDKU0115I
GDKU0116I
GDKU0150W
GDKU0151W
GDKU0152E
GLZB012I
GLZB013I
GLZB018I
GLZB019I
GLZB029I
GLZB030I
GLZB032I
GLZB033I

GRB214I
HWI024I
HWI025I
HWI026I
HWI027I
HWI028I
HWI029I
HWI030I
HZR0204I
IAR060I
IAR061I
IAR062I
IAR063I
IAR064I
IAR065I
IAR066I
IAR067I
IAR068I

IAR069I
IAR070I
IAR071I
IAR072I
IAR073I
IAR074I
IAR075I
IAR076I
IAR077A
IAR078I
IAR079W
IARH112E
IARH112I
IARH113E
IARH113I
IARH114E
IARH115E
IDC0006I
IDC0039I
IDC5001I
IDC5002I
IDC5003I
IDC5004I
IDC5005I
IDC5006I
IDC5007I
IDC5008I
IDC5009I
IDC5010I
IDC5011I
IEA399I
IEA983I
IEAVEH120I
IEAVEH121E

IEAC161 (return code 50)
IEAC161 (return code 51)
IEE174I (form 36 of 37)
IEE174I (form 37 of 37)
IEE262I
IEE459I (form 4 of 5)
IEE459I (form 5 of 5)

IEF864I
IEFA182I
IEW2577E
IFA740E
IGD420I
IGD17297I

IGW01207E
IGW467I (three new variants)
IGWRH0401I

IGWRH0402I
IGWRH0403I
IGWRH0405I
ILR041I
ILR042I
ILR043I
IOS065I
IOS066I
IOSHM0446I
IOSHM0447I
IOSHM0448I
IOSHM0449I
IOSHM0450I
IOSHM0453I
IOSHS0024I
IWMH103I
IWMH104I

IXGH015I
IXGH016E
IXGH021I

Changed messages

ADR369D6
ADR380E
ADR610E
ADR615E
ADR971E
ADRY501I
AMA761E
ANTB5010E
ANTX8061E
ANTX8994E
AOM496I

ARC0103I
ARC0151I
ARC0274I
ARC0466I
ARC0625I
ARC0752I
ARC1158I
ARC1179I
ARC1245I
ARC1384I
ARC1583I

BPXP018I
AXR0203I
BPXF243E
BPXF245I
BPXM056E
BPXM057E

ATRH002E
BPXI029I
BCM023I
BCF007I
BPXP005I
BPX0043I
BPX0051I

CBR0099I
CBR8562I
CPO1150E
CPO1151E
CPO1152E
CPO1153E
CPO1166E
CPO1168E
CPO1184E
CPO1185E
CPO2136W
CPO3021W
CPO4104I
CPO4105I
DMO0013E

EDG0244I
EDG2120W
EDG2410I
GLZB014I
GLZB027I
GLZB030I
GLZC003I
GLZM011I
GLZV006I

IEA499E
HIS037I
HZR0203I
IAR063I
IAR064I
IAR065I
IDC3009I
IDC3022I
IDC4999I
IEA037I
IEA075I
IEA195I
IEA386I
IEA494I
IEA499E
IEA687I

IEB1163E
IEC036I
IEC143I

IEC150I
IEC161I
IEC217I
IEC353I
IEC357I
IEC380I
IEE459I (form 3 of 5)
IEC501E
IEC502E
IEC817I
IEE148I
IEE174I (form 17 of 37)
IEE174I (form 21 of 37)
IEE174I (form 29 of 37)
IEE174I (form 30 of 37)
IEE195I
IEE196I
IEE251I
IEE254I
IEE258I
IEE459I (form 1 of 5)
IEE459I (form 1 of 5)
IEE459I (form 2 of 5)
IEE459I (form 3 of 5)
IEE576I
IEE587I
IEE735I
IEE836D
IGWRH401I
IGWRH402E
IGWRH403I
IGWRH405I

IEF043I
IEF233A
IEF233D
IEF234E
IEF238D
IEF356I
IEF455D
IEW2456E
IFA705I
IFA707I
IFA742I
IFA900I
IGD402I
IGD999I
IGD01001I
IGD01010I
IGD01013I
IGD17157I
IGD17169I

IGD17245I
IGD17269I
IGD17274I
IGD17279I
IGD412I
IGD416I

IGGN307I
IGW829I
IGW10074I
IGWRH0301I
IOS061I
IOS085I
IOS500I
IOS577I
IOS579E
IOS634I
IOSHM0200I
IOSHM0201I
IOSHM0303I
IOSHM0304I
IOSHM0401I
IOSHM0414I
IOSHM0415I
IOSHS0024I
IQP022I
IQP024I

IXC255I
IXC534I
IXC360I
IXG273I
IXL150I
IXG607I
IXL150I

No longer issued messages

ANTB8000I
ANTB8001I

IEA609I
IEF117I

IGWRH0302I
IWM070I
IWM076I
IWM077E
IWM078E
IWM079E
IWM080E
IWM081E
IWM082E
IWM083E

IWM084E

New dump output messages

BLS01010I
 BLS18010I
 BLS18556I
 BLS18557I
 BLS18558I
 BLS18559I
 IAR81605I

Changed dump output messages

BLS18460I

New MVS system codes**System completion codes**

System completion code 042 has new reason codes.

291

2C1

System completion code B78 has new reason code 80. (APAR OA65242, which also applies to z/OS 2.5)

Changed MVS system codes**System completion codes**

System completion code 00C is updated.

System completion code 068 is updated. (APAR OA66209)

System completion code 0C4 is updated.

System completion code 0F7 is updated.

System completion code 106 is updated.

System completion code 202 is updated.

System completion code 206 is updated.

System completion code 378 is updated.

System completion code 722 is updated.

System completion code 913 is updated.

System completion code B78 is updated.

System completion code C78 is updated.

System completion code DC2 is updated.

System completion code EC6 is updated with new code 04DE. (APAR OA66479, which also applies to z/OS 2.4 and 2.5)

System completion code EC6 is updated with new code 04DE. (APAR OA66479, which also applies to z/OS 2.4 and 2.5)

System completion code EC6 is updated. (APAR OA66160, which also applies to z/OS 2.4 and 2.5)

System completion code EC6 is updated with new code C045.

Wait state codes

Wait state code 07B is updated.

Communications Server message changes for z/OS 3.1

The following messages and codes are new, changed, or no longer issued for Communications Server.

The messages for Communications Server are documented in the following publications:

[*z/OS Communications Server: IP Messages Volume 1 \(EZA\)*](#)

[*z/OS Communications Server: IP Messages Volume 2 \(EZB, EZD\)*](#)

[*z/OS Communications Server: IP Messages Volume 3 \(EZY\)*](#)

[*z/OS Communications Server: IP Messages Volume 4 \(EZZ, SNM\)*](#)

[*z/OS Communications Server: SNA Messages*](#)

The codes for Communications Server are documented in the following publication:

[*z/OS Communications Server: IP and SNA Codes*](#)

New messages

EZD2066I

EZD2067I

EZD2068I

EZD2069I

EZD2070I

EZD2076I

EZD1734I

EZD2059I

EZD2060I

EZD2061I

EZD2062I

EZD2063I

EZD2064I

EZD2065I

EZD2071E

EZD2072I

EZD2073I

EZD2074I

EZD2075I

EZZ0851I

EZZ0852I

EZZ0853I

EZZ0854I

EZZ0857I

EZZ2361I

EZZ2396I

EZZ8478I

IST2468I

IST2469I

IST2470I

IST2471I

IST2472I

IST2473I

IST2474I

IST2475I

IST2476I
IST2477I
IST2478I
IST2479I
IST2480I
IST2481I
IST2482I
IST2483I
IST2484I
IST2485I
IST2486I
IST2487I
IST2488I
IST2489E
IST2490E

Changed messages

EZD2057I
EZD2028I
EZD1315E
EZD1820E

EZZ0795I

EZYTE49I
EZYTE67I
EZYTE74W
EZYTE82E
EZYTS14I
EZYTU16I
EZYTU22I
EZYTY05I
EZYTY12I
EZYTY14E

EZZ4336I
EZZ9097I
EZZ9098I
EZZ9099I
EZZ9101I
EZZ9176I
EZZ9177I
EZZ9178I
EZZ9179I
EZZ9180I
EZZ9181I
EZZ9182I
EZZ9183I
EZZ9184I
EZZ9185I
EZZ9186I
EZZ9187I
EZZ9188I

EZZ9353I
EZZ9354I
EZZ9360I
EZZ9361I
EZZ9362I
EZZ9510I
EZZ9516I
EZZ9517I
EZZ9586I
EZZ9590I
EZZ9595I
EZZ9682I
EZZ9683I
EZZ9684I
EZZ9704I
EZZ9706I
EZZ9714I
EZZ9717I

IST1230I
IST1236I
IST1578I
IST1631I
IST1650I
IST1715I
IST1720I
IST1722I
IST1750I
IST1752I
IST1753I
IST1756I
IST1810I
IST1811I
IST2361I

No longer issued messages

EZA1535I
EZA5125I - EZA5574I
EZA5593I - EZA5708I

EZB8801I
EZD0024I
EZD0036I
EZD1303I
EZD1305I
EZD1306I
EZD1307I
EZD1309I
EZD1311I
EZD1926I
EZD1927I
EZD1971I

EZZ0348I
 EZZ0721I
 EZZ0782I
 EZZ0783I
 EZZ0784I
 EZZ0785I
 EZZ0809I
 EZZ0823I
 EZZ0824I
 EZZ4326I
 EZZ4327I
 EZZ4328I
 EZZ4349I
 EZZ7000I - EZZ7050E
 EZZ7080I - EZZ7083E
 EZZ7450I
 EZZ7452I
 EZZ7500I - EZZ7599I
 EZZ7700I - EZZ7739I
 EZZ8475I
 EZZ8476I
 EZZ8477I
 EZZ8825I
 EZZ8844I
 EZZ8906I
 EZZ8907I
 EZZ8968I - EZZ8979I
 EZZ8992I
 EZZ8995I
 EZZ9004I
 EZZ9007I
 EZZ9055I
 EZZ9787I
 EZZ9891I - EZZ9993I

Cryptographic Services ICSF message changes for z/OS 3.1

The following messages and codes are new, changed, and no longer issued for Cryptographic Services Integrated Cryptographic Service Facility (ICSF).

The messages and codes for Cryptographic Services Integrated Cryptographic Service Facility (ICSF) are documented in [z/OS Cryptographic Services ICSF Messages](#).

New messages

CSFH0049I
 CSFH0050I
 CSFH0051I
 CSFH0052E
 CSFH0053I
 CSFH0054I
 CSFH0055I
 CSFH0056E

CSFM732I
CSFM736I
CSFM737E
CSFM738I
CSFM739I

Changed messages

CSFM126I

Cryptographic Services PKI Services message changes for z/OS 3.1

The following messages and codes are new, changed, or no longer issued for Cryptographic Services PKI Services.

The messages for PKI Services are documented in the [z/OS Cryptographic Services PKI Services Guide and Reference](#).

New messages

IKYC100I
IKYP057I

Changed messages

IKYC037I

Data Set File System message changes for z/OS 3.1

The following messages and reason codes are new, changed, or no longer issued for the Data Set File System.

The messages and reason codes for the Data Set File System are documented in [z/OS Data Set File System Messages and Codes](#).

New messages

IDFS00370I
IDFS00371I
IDFS00372E
IDFS00373E

Changed messages

IDFS00339E
IDFS00340E
IDFS00341E
IDFS00342E
IDFS00343E
IDFS00344E
IDFS00345E
IDFS00346E
IDFS00370I

No longer issued messages

IDFS00338

Changed reason codes

6221

DFSORT message changes for z/OS 3.1

The following messages and codes are new, changed, or no longer issued for DFSORT.

The messages and codes for DFSORT are documented in the [z/OS DFSORT Messages, Codes and Diagnosis Guide](#).

Changed messages

ICE085A

ICE267I

Hardware Configuration Definition (HCD) message changes for z/OS 3.1

The following messages are new, changed, or no longer issued for Hardware Configuration Definition (HCD).

The messages for HCD are documented in [z/OS and z/VM HCD Messages](#).

New

CBDA348I

CBDA349I

CBDA361I

CBDA362I

CBDA363I

CBDA364I

CBDA365I

CBDA366I

CBDA367I

CBDG575I

CBDG688I

Changed

CBDG690I

CBDA492I

CBDA583I

CBDA805I

CBDG529I

CBDG539I

CBDG687I

CBDG690I

Device Support Facilities (ICKDSF) message changes for z/OS 3.1

The following messages and codes are new, changed, or no longer issued for ICKDSF.

The messages and codes for ICKDSF are documented in [Device Support Facilities \(ICKDSF\) User's Guide and Reference](#).

Changed messages

ICK10710I
ICK31024I
ICK31509I

IBM Tivoli Directory Server (TDS) message changes for z/OS 3.1

The messages for IBM Tivoli Directory Server for z/OS are documented in [*z/OS IBM Tivoli Directory Server Messages and Codes for z/OS*](#).

Changed messages

GLD1001I

Infoprint Server message changes for z/OS 3.1

The messages and system completion codes for Infoprint Server are documented in [*z/OS Infoprint Server Messages and Diagnosis*](#) and [*IBM Print Transforms from AFP for Infoprint Server for z/OS*](#). For new, changed, and no longer issued Infoprint Server messages and system completion codes, see the [*Summary of changes for z/OS 3.1*](#) in [*z/OS Infoprint Server Messages and Diagnosis*](#) and the [*Summary of changes for z/OS 3.1*](#) in [*IBM Print Transforms from AFP for Infoprint Server for z/OS*](#).

ISPF message changes for z/OS 3.1

The following messages and codes are new, changed, or no longer issued for ISPF.

The messages for ISPF are documented in [*z/OS ISPF Messages and Codes*](#).

New messages

FLM39231
ISPP952
ISRB517
ISRB518
ISRF056
ISRF057
ISRF058
ISRF059
ISRM083
ISRM084
ISRM085
ISRP017
ISRP018
ISRP019
ISRP027
ISRP028
ISRP029
ISRP157
ISRU816
ISRU844
ISRU845
ISRU846
ISRU847
ISRU848

ISRU849

Changed messages

ISPP328
 ISRB513
 ISRB513B
 ISRE352
 ISRE469
 ISRE469B
 ISRE760
 ISRU030

JES2 message changes for z/OS 3.1

The following messages are new, changed, or no longer issued for JES2.

The messages for JES2 are documented in [z/OS JES2 Messages](#).

New messages

\$HASP176
 \$HASP1177
 \$HASP1662
 \$HASP1663
 \$HASP1664
 \$HASP1665
 \$HASP1666
 \$HASP1667
 \$HASP1801
 \$HASP1802
 \$HASP1803
 \$HASP1804
 \$HASP1805
 \$HASP1806
 \$HASP1807
 \$HASP1808
 \$HASP1809
 \$HASP1810
 \$HASP1811
 \$HASP4404
 \$HASP9183
 \$HASP9184

Changed messages

\$HASP003
 \$HASP148
 \$HASP305
 \$HASP604
 \$HASP1648
 \$HASP1653
 \$HASP1660
 \$HASP1661

Language Environment message changes for z/OS 3.1

The following messages are new, changed, or no longer issued for Language Environment.

The messages for Language Environment are documented in [z/OS Language Environment Runtime Messages](#).

New messages

IGZ0403W
IGZ0401W
IGZ0402W
BIJ0102E
BIJ0104E
BIJ0201E
BIJ0202E
BIJ0203E
BIJ0204E
BIJ0205E
BIJ0206I
BIJ0207I
BIJ0208I
BIJ0209I
BIJ0210E
BIJ0211E
BIJ0212E
BIJ0214I
BIJ0215I
BIJ0216E
BIJ0217I
BIJ0218I
BIJ0219I
BIJ0220I
BIJ0225I
BIJ0226I
BIJ0227I
BIJ0228E
BIJ0229E
BIJ0230I
BIJ0231I
BIJ0232I
BIJ0233E
BIJ0238I
BIJ0239I
BIJ0240I
BIJ0242I
BIJ0244I
BIJ0245E
BIJ0246E
BIJ0247E
BIJ0248E
BIJ0249I
BIJ0250I

BIJ0252E
BIJ0256E
BIJ0257I
BIJ0258I
BIJ0259I
BIJ0260I
BIJ0261I
BIJ0262I
BIJ0263I
BIJ0401E
BIJ0402E
BIJ0403E
BIJ0404E
BIJ0405E
BIJ0406I
BIJ0407I
BIJ0408I
BIJ0409I
BIJ0410I
BIJ0411I
BIJ0412I
BIJ0414E
BIJ0415E
BIJ0416E
EDC7029E
EDC7030E
IBM0423S
IBM0424S
IBM0487S
IBM0488S
IBM0489S
IBM0741S
IBM0742S
IBM0743S
IBM0744S
IGZ0344W
IGZ0383S
IGZ0384S
IGZ0385S
IGZ0386S
IGZ0387S
IGZ0388S
IGZ0389S

Changed messages

IGZ9900I
IGZ9901I
IGZ9910W
IGZ9911W
IGZ9920E
IGZ9921E

IGZ9930S
IGZ9931S
IGZ9940C
IGZ9941C
CEE3512S
IBM0210S
CEE3648S
IGZ0335W

Network File System (NFS) message changes for z/OS 3.1

The following messages are new, changed, or no longer issued for Network File System (NFS).

The messages for NFS are documented in the [*z/OS Network File System Guide and Reference*](#).

New messages

GFSA581I
GFSA580I
GFSA910I
GFSA993I
GFSA994E
GFSA995E
GFSA1051A
GFSA1052E
GFSA1053E
GFSA1054I
GFSA1055E
GFSA1056E

Changed

GFSA910I
GFSA954I
GFSA910I
GFSA916I
GFSA917I
GFSA954I
GFSA956I
GFSA966E
GFSA969E
GFSA320E

OpenSSH message changes for z/OS 3.1

The following messages are new, changed, or no longer issued for OpenSSH.

The messages for z/OS OpenSSH are documented in the [*z/OS OpenSSH User's Guide*](#).

New messages

FOTS4291
FOTS4292
FOTS0723
FOTS4322

Changed messages

FOTS4291
 FOTS4292
 FOTS2048
 FOTS1555
 FOTS2241
 FOTS2914
 FOTS4126

Resource Measurement Facility (RMF) message changes for z/OS 3.1

The messages for RMF are documented in *z/OS Resource Measurement Facility Messages and Codes*. For new, changed, and deleted RMF messages for z/OS 3.1, see the [Summary of changes for z/OS 3.1 in z/OS Resource Measurement Facility Messages and Codes](#).

Security Server RACF message changes for z/OS 3.1

The following messages and codes are new, changed, or no longer issued for RACF.

The messages for RACF are documented in [z/OS Security Server RACF Messages and Codes](#).

New messages

ICH01028I
 IRRD306I
 IRRR022I
 IRRR023I
 IRRR024I
 IRRR025I
 IRRR026I
 IRRR027I
 IRRR028I
 IRRR029I
 IRRR030I

Changed messages

ICH408I (explanation revised)
 IRRB080I
 IRRC013I
 IRRC014I
 IRRC015I
 IRRC017I
 IRRC018I
 IRRC019I
 IRRC020I
 IRRC021I
 IRRC035I
 IRRC036I
 IRRC093I
 IRRC094I
 IRRC095I

IRRC313I
IRRC318I
IRRC320I
IRRM093I
IRRM100I
IRRR001I
IRRR002I
IRRR003I
IRRR004I
IRRR005I
IRRR006I
IRRR007I
IRRR008I
IRRR009I
IRRR010I
IRRR011I
IRRR012I
IRRR013I
IRRR014I
IRRR016I
IRRR017I
IRRR018I
IRRR020I
IRRR021I
IRRR111I
IRRR112I
IRRR116I
IRRR117I
IRRR118I
IRRT003I
IRRT004I
IRRT005I
IRRT006I
IRRT013I
IRRT016I
IRRV001I
IRRV006I
IRRV080I
IRR52216I

No longer issued messages

ICH432I

SMP/E V3R7 message changes for z/OS 3.1

The following messages are new, changed, or no longer issued for SMP/E.

The messages for SMP/E are documented in [z/OS SMP/E Messages, Codes, and Diagnosis](#).

Changed

GIM44276I

System Display and Search Facility (SDSF) message changes for z/OS 3.1

The messages for SDSF are documented in *z/OS SDSF Operation and Customization*. For new, changed, and deleted SDSF messages for z/OS 3.1, see the [Summary of changes for z/OS 3.1](#) in *z/OS SDSF Operation and Customization*.

TSO/E message changes for z/OS 3.1

The following messages are new, changed, or no longer issued for TSO/E.

The messages for TSO/E are documented in [z/OS TSO/E Messages](#).

New messages

IKJ58438I

IKJ56499I

z/OS Authorized Code Scanner message changes for z/OS 3.1

The following messages are new, changed, or longer issued for z/OS Authorized Code Scanner (zACS).

The messages for z/OS Authorized Code Scanner are documented in [z/OS Authorized Code Scanner Guide](#).

New

BPNU070E

BPNU071E

BPNU072E

z/OS Data Gatherer message changes for z/OS 3.1

The following messages are new, changed, or longer issued for z/OS Data Gatherer.

Messages that start with "ERB" that are issued by z/OS Data Gatherer are documented in *z/OS Resource Measurement Facility Messages and Codes*. (These are often shared messages between RMF and z/OS Data Gatherer.) For these new, changed, and deleted messages, see [Summary of changes for z/OS 3.1](#) in *z/OS Resource Measurement Facility Messages and Codes*.

Messages that start with "GRB" that are issued by z/OS Data Gatherer are documented in *z/OS MVS System Messages, Vol 6 (GOS-IEA)*. For these new, changed, and deleted messages, see "BCP (MVS) and DFSMS messages and codes changes for z/OS 3.1" on page 23 in this publication or [Summary of changes for z/OS 3.1](#) in *z/OS MVS System Messages, Vol 6 (GOS-IEA)*.

z/OS File System (zFS) message and code changes for z/OS 3.1

The following messages are new, changed, or longer issued for z/OS File System (zFS).

The messages for z/OS File System are documented in [z/OS File System Messages and Codes](#).

New messages

IOEZH0076I

IOEZH0077I

IOEZH0078I

IOEZH0079I

IOEZH0080I

IOEZH0083I

IOEZH0084I
IOEZH0088I
IOEZ01061I

Deleted messages

IOEN000I–IOEN00515I
IOEP00001A–IOEP12403I
IOEX18000A–IOEX18234K

z/OS UNIX message changes for z/OS 3.1

The following messages, reason codes, and return codes are new, changed, or no longer issued for z/OS UNIX.

The messages, reason codes, and return codes are documented in [*z/OS UNIX System Services Messages and Codes*](#).

New messages

FSUM1303
FSUM9545
FSUM9546
FSUZ0001 - FSUZ0077
FSUZ0079
FSUZ0081 - FSUZ0187
FSUZ0189 - FSUZ0190
FSUZ0192 - FSUZ0215
FSUMF500
FSUMF501
FSUMF505
FSUMF506
FSUMF508
FSUMF511
FSUMF514
FSUMF515
FSUMF524
FSUMF526
FSUMF527
FSUMF528
FSUMF529
FSUMF530
FSUMF531
FSUMF533
FSUMF534
FSUMF536
FSUMF538
FSUMF539
FSUMF540
FSUMF541
FSUMF542

Changed messages

FOMR0313
FOMR0322
FOMR0323
FOMR0326
FOMR0327
FOMR0328
FSUM2081I
FSUM2107I
FSUM2149I
FSUM2151I
FSUM2155I
FSUM2157I
FSUM2163I
FSUM2170I
FSUM2368
FSUM2370

New reason codes

JRSubMntPathTooLong
JrDevNsTerm
JrUFSNoRedirect
JrQuiesceNewNs
JrQuiesceBind
JrCntrMntNoNsInitial
JrProcFSNameNotFound
JrProcNoAccess
JrProcNoSuchProcess
JrProcMagicLinkDenied
JrProcNoSuchDescriptor
JrProcNoSuchNamespace
JrProcNotPermitted
JrProcCannotCreate
JrProcNotFSProgram
JrProcNotInNamespace
JrProcNoWrite
JRFSUnbindable
JrMntSrcBuff
JRMptRemount
JRMptRemountRoot
JRMptProp
JRMptPropRoot
JRMoveSrcMpt
JrFileIsBound
JRMtNsDownLevel
JRMtNsLocal
JrFilesystemCovered
JrFSNameProhibited
JrFsInUseNS
JrNsNotAllowed

JrNsInitialNotAllowed
JrTdNotSet
JrNotDescendentNs
JrNsInitProcTerm
JrCSNotAvailable
JrNsInitProcNoHandler
JrPidNsMaxProc
JRMutuallyExclFlag
JRMaxNamespace
JRMaxNamespaceNesting
JRNotAuthNameSp
JrNewPidNotAllowed
JrMultiPidUnshares
JrSetnsMismatch
JrSetnsFdNotNsLink
JRUnsupportedFlag
JRUnsupportedSignal
JrCalledFromInitProc
JRCLNPNNotValid
JREpollWatchSelf
JREpollCtlInvalidOp
JREpollCtlADDAlreadyRegistered
JREpollCtlMODNotRegistered
JREpollCtlIDELNotRegistered
JREpollCreateInvalidOp
JREpollCtlADDInvalidExclFile
JREpollCtlInvalidExclEvent
JREpollCtlInvalidEventArea
JREpollCtlMODEExclusive
JREpollCtlEvLen
JREpollMaxUserInstance
JREpollCtlUnsupportedEvent
JREpollCtlNoEvents
JRNotEpollFD
JRNoNewPrivs
JrNamespaceNotFound
JrNotContainerIDAuth
JrAuthBadMsgBuffSubpool
JrAuthIdtInvalid
JrAuthUserIdtMismatch
JrAuthCredTypeInvalid
JrIncompatOptnFlags
JrIDTUnsigned
JrIDTApplMismatch
JrNoIDTGenerated
JrUserNotAuthAppl
JrNotPermittedtoPid
JROFlagNotSupported
JROModeNotSupported
JRPathNotCached
JRLookupAcrossMpt

JRMagicLink
 JRBeneath
 JrOpenHowSize
 JrAtNotDirFD
 JRBeneathAbsPath
 JRBeneathAbsSym
 JRBeneathDotDot
 JRPathCacheNotSupported
 JRTooLongNotCached
 JRSymLinkNotAllowed
 JRMagicLinkNotAllowed
 JRInvAttxVal
 JRInvArgLenAttx
 JRInvMinArgLenAttx
 JRResolveNotSupported
 JRSetAttxNameSpc
 JrSecurityContextSizeErr
 JrXAttrNoTrusted
 JRAttxName (APAR OA62733)
 JrMntSrcPath

Changed reason codes

JrCntrMntNoNsInitial
 JrICSFNotActive
 JrICSFUnknownErr
 339 is now JRptySubsidiaryOpened.
 015B is now JRptySubsidiaryNotInit.
 01A6 is now JrptyNotSubsidiary.
 0335 is now JRptyChgFromSubsidiary
 03F1 is now JRptySubsidiaryLocked.
 03F2 is now JRptySubsidiaryLocked.
 0158 is now JRptyManagerClosed.
 03BC is now JRptyNotManager.
 JRBadRUsageAddr
 JRBadSiginfoAddr
 JRBadExitStatusAddr
 JRBadRUsageAddr

Chapter 7. New and changed System Management Facilities (SMF) records for z/OS 3.1

The following System Management Facilities (SMF) records for z/OS elements and features are new and changed.

Table 7 on page 51 provides a list of SMF records that are new or changed for z/OS 3.1. Detailed information about these SMF records can be found in one of the following documents, as indicated by the "Documented in" column in Table 7 on page 51.

Communications Server

- [Type 119 SMF records](#) in *z/OS Communications Server: IP Programmer's Guide and Reference*
- [Type 1154 SMF records](#) in *z/OS Communications Server: IP Programmer's Guide and Reference*
- [Tuning input/output \(I/O\) operations for RoCE connections](#) in *z/OS Communications Server: SNA Network Implementation Guide*

MVS

z/OS MVS System Management Facilities (SMF)

OAM

OAM System Management Facility records in z/OS DFSMS OAM Planning, Installation, and Storage Administration Guide for Object Support

RACF

SMF records in z/OS Security Server RACF Macros and Interfaces

Table 7. New and changed System Management Facilities (SMF) records for z/OS 3.1			
SMF record	z/OS element or feature	Description	Documented in
Type 2 subtype 1	MVS	The SMF2GRTPX field is added. Updates are also made to the descriptions of various other fields in this topic.	MVS
Type 2 subtype 2	MVS	The SMF2IRTPX field is added. Updates are also made to the descriptions of various other fields in this topic.	MVS
Type 7	MVS	<ul style="list-style-type: none"> • The SMF7DTYPX field is added. 	MVS
Type 14 (and 15)	MVS	<ul style="list-style-type: none"> • The description of the bits that comprise the SMF14FLG1 field is updated in the "Additional data set characteristics section (Type 5)." (APAR OA66122/OA66336, which also apply to z/OS 2.5) 	MVS
Type 26	MVS	<ul style="list-style-type: none"> • The AI-Infused Selection section and Miscellaneous section are added. (APAR OA64643) 	MVS

Table 7. New and changed System Management Facilities (SMF) records for z/OS 3.1 (continued)

SMF record	z/OS element or feature	Description	Documented in
Type 30	MVS	<ul style="list-style-type: none"> • New bits are defined in the SMF30SLM flag field in the Storage and Paging section. (APAR OA66028) • The units of measurement are added to the descriptions of several time-related fields in the Processor accounting section. • The description of the SMF30ZNF field is updated in the Performance section. • In the Processor accounting section, new bits are defined in SMF30T32 and SMF30T33, and new fields are added starting at offset 192 in support of instrumentation of Java usage. (APAR OA65055, which also applies to z/OS 2.5.) • New fields are added in the Storage and Paging section in support of dedicated memory. • The descriptions of several existing fields are updated in the Storage and Paging section. • New fields and version information are added in the Identification section. (APAR OA64643) 	MVS
Type 42 subtype 6	DFSMS	<ul style="list-style-type: none"> • New fields are added at offsets 39 and 61. • The fields at offsets 31, 38, and 60 are updated. 	MVS
Type 70	z/OS Data Gatherer	The record level identifier for subtype 1 in the SMF70SRL field is updated in the RMF Product Section. (APARs OA64781 and OA65494, which also apply to z/OS 2.5)	MVS

Table 7. New and changed System Management Facilities (SMF) records for z/OS 3.1 (continued)			
SMF record	z/OS element or feature	Description	Documented in
Type 70 subtype 1	z/OS Data Gatherer	<ul style="list-style-type: none"> New fields are added starting at offset 344 in the CPU Control Section. (APAR OA64781, which also applies to z/OS 2.5) New fields are added starting at offset 368 in the CPU Control Section. (APAR OA65494, which also applies to z/OS 2.5) New fields are added starting at offset 404 in the CPU Control Section. The subtype 1 record level in SMF70SRL is incremented to X'92'. (APAR OA66402, which also applies to z/OS 2.5 and 2.4) New (previously reserved) bits are defined in the SMF70INB field, and new fields containing power usage information are added starting at offset 432 in the CPU Control Section. The subtype 1 record level in SMF70SRL is incremented to X'93'. (APAR OA66018) The workload classification data section is added. (APAR OA66812, which also applies to z/OS 2.5) 	MVS
Type 71	z/OS Data Gatherer	<ul style="list-style-type: none"> New fields are added in the Paging data section in support of dedicated memory. The bit descriptions in the SMF71RFL field are updated in the Paging data section. 	MVS
Type 72 subtype 3	z/OS Data Gatherer	Bit 7 of R723MFLG is now defined in the Workload Manager Control section, and the description of the R723CRS1 field is updated in the Service/Report Class Period Data section.	MVS
Type 73	z/OS Data Gatherer	Information about new channel management groups 4 and 5 are added in the Channel Path Data section and the Extended Channel Path Data section. The SMF record level in SMF73SRL changes to X'8F'. (APAR OA66014, which also applies to z/OS 2.5; APAR OA67808 applies to z/OS 2.4)	MVS
Type 74 subtype 4	z/OS Data Gatherer	Support for channel path type CL6 (Coupling Express 25Gb LR) is added in the Local coupling facility data section, Remote facility data section, and Channel path data section. (APAR OA64478, which also applies to z/OS 2.5 and 2.4)	MVS

Table 7. New and changed System Management Facilities (SMF) records for z/OS 3.1 (continued)			
SMF record	z/OS element or feature	Description	Documented in
Type 74 subtype 8	z/OS Data Gatherer	<p>For record type 74 subtype 8, the following additions are made via APAR OA66017 (which also applies to z/OS 2.5):</p> <ul style="list-style-type: none"> • The record level for subtype 8 changes to X'8F'. • New bits are defined in the R748CFLG field in the Control Data Section. • New bits are defined in the R748XPTQ field and new fields are added starting at offset 40 in the Extent Pool Statistics Section. • A new bit is defined in the R748RTQ field in the Rank Statistics Section. • A new bit is defined in the R748AAST field in the Rank Array Data Section. 	MVS
Type 79 subtype 1	z/OS Data Gatherer	The descriptions of the R791FLG2 and R791FLG3 fields are updated in the ASD and ASDJ data section.	MVS
Type 79 subtype 2	z/OS Data Gatherer	The descriptions of the R792FLG2 and R792FLG3 fields are updated in the ARD and ARDJ data section.	MVS
Type 88 subtype 1	MVS	The SMF88LBL field is added in the Events section. (APAR OA64676, which also applies to z/OS 2.5)	MVS
Type 89	MVS	The SMF89SI_RPB_Duration field is added in the System ID section. (APAR OA66837)	MVS
Type 90 subtype 40	MVS	New fields are added starting at offset 80 in Subtype 40 — Boost information. (APAR OA66837)	MVS
Type 92 subtype 7	MVS	For record type 92, the offsets for the fields following SMF92VIW (offset 124) are corrected in "Subtype 7 — File system move."	MVS
Type 92 subtype 17	MVS	The SMF92FAFT field is added. (APAR OA65077, which also applies to z/OS 2.5 and 2.4)	MVS

Table 7. New and changed System Management Facilities (SMF) records for z/OS 3.1 (continued)

SMF record	z/OS element or feature	Description	Documented in
Type 98	MVS	<ul style="list-style-type: none"> The following new subtypes are added (APAR OA66676, which also applies to z/OS 2.5): <ul style="list-style-type: none"> – Subtype 5 — DFSMS enhanced data set read activity – Subtype 6 — DFSMS basic data set read activity – Subtype 7 — DFSMS enhanced data set write activity – Subtype 8 — DFSMS basic data set write activity The fields at offset 4 are updated in the "Aggregate bucket sections" and "Exceptional bucket sections" topics. (APAR OA65219, which also applies to z/OS 2.5) 	MVS
Type 99 subtype 1	MVS	New fields are added starting at offset 184 in the Software Licensing Information section. (APAR OA65426, which also applies to z/OS 2.5)	MVS
Type 99 subtype 2	MVS	<ul style="list-style-type: none"> Three new fields are added starting at decimal offset 116 in the Queue Server Data Entry Section. (APAR OA65652) New fields are added at the end of the Period data section, and a new AI diagnose section is added. 	MVS
Type 119, TCP/IP profile record (subtype 4)	Communications Server	<ul style="list-style-type: none"> New flag NMTP_DDVSPause <p>Reason for change: Persistent QUIESCE/RESUME support for Sysplex Distributor targets</p>	Communications Server
Type 119, TCP/IP profile record (subtype 4)	Communications Server	<p>New flag NMTP_DDVSEXTTARG indicates that the DVIPA is used to distribute requests to non-z/OS (external) targets.</p> <p>Reason for change: Sysplex Distributor support for IBM z/OS Control Plane Appliances</p>	Communications Server

Table 7. New and changed System Management Facilities (SMF) records for z/OS 3.1 (continued)			
SMF record	z/OS element or feature	Description	Documented in
Type 119, TCP/IP profile record (subtype 4)	Communications Server	<p>Dynamic VIPA (DVIPA) address section, field NMTP_DVCFFlags:</p> <p>The following new values are added to the 4(X'4') NMTP_DVCFFlags field.</p> <ul style="list-style-type: none"> X'0010', NMTP_DVCFZCONTSet indicates the setting of the ZCONTainer parameter on the VIPARANGE statement. <p>Reason for change: Network support for IBM z/OS Container Platform</p>	Communications Server
Type 119, DVIPA status change record (subtype 32)	Communications Server	<p>DVIPA status change section:</p> <p>The following new values are added to the 17(X'11') SMF119DV_SCORigin field. It indicates the origin of this DVIPA and how it was configured to the stack:</p> <ul style="list-style-type: none"> X'07', SMF119DV_Orig_RangeZCX <p>Reason for change: Network support for IBM z/OS Container Extensions</p> <ul style="list-style-type: none"> X'08', SMF119DV_Orig_RangeZCONT <p>Reason for change: Network support for IBM z/OS Container Platform</p>	Communications Server
Type 119, DVIPA removed record (subtype 33)	Communications Server	<p>DVIPA removed section:</p> <p>The following new values are added to the 17(X'11') SMF119DV_SCORigin field. It indicates the origin of this DVIPA and how it was configured to the stack:</p> <ul style="list-style-type: none"> X'07', SMF119DV_Orig_RangeZCX <p>Reason for change: Network support for IBM z/OS Container Extensions</p> <ul style="list-style-type: none"> X'08', SMF119DV_Orig_RangeZCONT <p>Reason for change: Network support for IBM z/OS Container Platform</p>	Communications Server
Type 119, CONFIG (subtype 48)	Communications Server	<p>New flag defined:</p> <ul style="list-style-type: none"> SMF119ML_CF_RplcSubjectAtSign <p>Reason for change: ReplaceSubjectAtSign configuration option for CSSMTP</p>	Communications Server

Table 7. New and changed System Management Facilities (SMF) records for z/OS 3.1 (continued)			
SMF record	z/OS element or feature	Description	Documented in
Type 119, CSSMTP CONFIG (subtype 48)	Communications Server	<p>New fields defined:</p> <ul style="list-style-type: none"> • SMF119ML_CF_RptSysoutCls • SMF119ML_CF_MailbxCmptblty <p>New data added to configuration data section:</p> <ul style="list-style-type: none"> • ReportMailFrom setting • AuthEntity setting for each target server <p>Reason for change: SMTP AUTH support for CSSMTP</p>	Communications Server
Type 119, FTP daemon configuration record (subtype 71)	Communications Server	<p>New flags defined:</p> <ul style="list-style-type: none"> • SMF119FT_FDCFCtrlTLSSTckts • SMF119FT_FDCFCtrlTLSSTckts_Valid <p>Reason for change: New FTP CTRL_TLS_SESSTCKTS parameter</p>	Communications Server
Type 119, zERT connection detail record (subtype 11)	Communications Server	<ul style="list-style-type: none"> • New flags in SMF119SC_SAFlags • New value for SMF119SC_TLS_Handshake_Type • New value for SMF119SC_TLS_Neg_Cipher • New value for SMF119SC_SSH_Prot_Ver • New field - SMF119SC_SSH_Flags <p>Reason for change: zERT monitoring enhancements (APAR PH63197, which also applies to z/OS 2.5)</p>	Communications Server

Table 7. New and changed System Management Facilities (SMF) records for z/OS 3.1 (continued)

SMF record	z/OS element or feature	Description	Documented in
Type 119, zERT summary record (subtype 12)	Communications Server	<p>New failed handshake counts:</p> <ul style="list-style-type: none"> • SMF119SS_SAIInitFailedHsConnCnt • SMF119SS_SAEEndFailedHsConnCnt <p>TLS certificate serial number and expiration:</p> <ul style="list-style-type: none"> • SMF119SS_TLS_SCert_Serial_Len • SMF119SS_TLS_SCert_Serial • SMF119SS_TLS_SCert_Time_Type • SMF119SS_TLS_SCert_Time • SMF119SS_TLS_CCert_Serial_Len • SMF119SS_TLS_CCert_Serial • SMF119SS_TLS_CCert_Time_Type • SMF119SS_TLS_CCert_Time <p>IPSec certificate serial number and expiration:</p> <ul style="list-style-type: none"> • SMF119SS_IPSec_LclCert_Serial_Len • SMF119SS_IPSec_LclCert_Serial • SMF119SS_IPSec_LclCert_Time_Type • SMF119SS_IPSec_LclCert_Time • SMF119SS_IPSec_RmtCert_Serial_Len • SMF119SS_IPSec_RmtCert_Serial • SMF119SS_IPSec_RmtCert_Time_Type • SMF119SS_IPSec_RmtCert_Time <p>Reason for change: zERT monitoring enhancements (APAR PH63197, which also applies to z/OS 2.5)</p>	Communications Server
Type 121	JZOS Batch Launcher and Toolkit	The JES job information section is added, and new triplets pointing to this section are added in the Header/self-defining section.	MVS
Type 1154	MVS	<ul style="list-style-type: none"> • New subtype 113 is added. 	MVS

Table 7. New and changed System Management Facilities (SMF) records for z/OS 3.1 (continued)			
SMF record	z/OS element or feature	Description	Documented in
Type 1154, subtypes 1-4	Communications Server	<p>New SMF 1154 records:</p> <ul style="list-style-type: none"> • New subtype 1 for TCP/IP stack compliance evidence record • New subtype 2 for FTP daemon compliance evidence record • New subtype 3 for TN3270E Telnet server compliance evidence record • New subtype 4 for CSSMTP client compliance evidence record <p>Reason for change: Support for SMF compliance evidence</p>	Communications Server
Type 1154, CSSMTP client compliance evidence record (subtype 4)	Communications Server	<p>New field defined:</p> <ul style="list-style-type: none"> • SMF1154_4_MLTS_Auth <p>Reason for change: SMTP AUTH support for CSSMTP</p>	Communications Server
Type 1154 subtype 114	MVS	<p>New subtype 114 for JES2 compliance evidence</p> <p>Reason for change: z/OS compliance support</p>	MVS
Type 1156	MVS	<p>New SMF record.</p> <p>Reason for change: Workload classification support (APAR OA65240, which also applies to z/OS 2.5)</p>	MVS
Type 1156 subtype 1	MVS	<p>New SMF subtype record.</p> <p>Reason for change: Workload classification support (APAR OA65240, which also applies to z/OS 2.5)</p>	MVS

Chapter 8. New and changed members in SYS1.MACLIB for z/OS 3.1

The following members of SYS1.MACLIB is new and changed.

Table 8 on page 61 lists the new and changed members of SYS1.MACLIB for z/OS 3.1.

Table 8. New and changed members in SYS1.MACLIB for z/OS 3.1			
Member name	z/OS element or feature	Description	Reason for change
ACBRFLG	VSAM RLS	154(X'9A') reason code is added to ACBRFLG.	APAR OA64291
CSVFTCHX	MVS	New fields are added at the end of the FTCHX structure.	APAR OA66032 (which also applies to z/OS 2.5)
CSVMODI	MVS	The MODI_HEADER, MODI_1, and MODI_6 structures are updated.	APAR OA66032 (which also applies to z/OS 2.5)
CVT	MVS	New bit X'02' is defined in CVTOLSV8.	APAR OA66032 (which also applies to z/OS 2.5)
ECVT	MVS	The ECVT_zIIPBoostCoresAddr field is added, and a new constant is added to the list of recovery process boost requestors.	APAR OA66837
EDGACTSY	DFSMSrmm	The log section of the EDGACTSY macro layout is updated.	z/OS 3.1 release change
EDGEXTSY	DFSMSrmm	The log section of the EDGEXTSY macro layout is updated.	z/OS 3.1 release change
EDGRVEXT	DFSMSrmm	In the Structure RVEXT table, the description of the RVRBYSET field is updated.	z/OS 3.1 release change
EDGXSf	DFSMSrmm	Enhancements made.	APAR OA64283
EZASM482	Communications Server	New mapping for the SMF 1154, subtype 1 – 4 records	Support for SMF compliance evidence
EZASM482	Communications Server	Updated mapping for the SMF 1154, subtype 4 record	SMTP AUTH support for CSSMTP
EZASMF77	Communications Server	Updates to SMF 119 records.	z/OS 3.1 release change
EZASMF77	Communications Server	Updates to SMF 119 records, subtype 48 record	SMTP AUTH support for CSSMTP
FOTSMF77	OpenSSH	New constants to support new OpenSSH 8.4 algorithms.	OpenSSH update to OpenSSH 8.4p1
GRBSMFP	z/OS Data Gatherer	SMF record producer service.	New function

Table 8. New and changed members in SYS1.MACLIB for z/OS 3.1 (continued)			
Member name	z/OS element or feature	Description	Reason for change
IARQUAA	MVS	A new usage type of "DAT table extension" is added to the answer area returned by the IARQUERY service.	APAR OA65242
IEFJMR	MVS	The job management record (JMR) size is updated and new fields are added to the JMRE structure.	APAR OA64643 for z/OS 3.1; APAR OA66003 for z/OS 2.5
IEWPMAR	MVS	The workload classification indicator is added at offset 99 in the PMARL structure.	APAR OA66596, which also applies to z/OS 2.5
IFAQUAA	MVS	New sections and fields are added to the answer area returned by the IFAQUERY service.	IFAQUERY enhancement
IGDACERO	DFSMS	ACEROHFS variable is updated because HFS is no longer supported.	z/OS 3.1 release change
IGVVSMD	MVS	The VSM descriptors (VSMD) data area is updated.	APAR OA64875
IHAASSB	MVS	New fields ASSB_Time_Java_On_zIIP and ASSB_Time_Java_On_CP are added to the Address Space Secondary Block (ASSB).	APAR OA65055
IHAENF84	MVS	The ENF84 structure is updated to support new function provided by the APAR.	APAR OA66837
IHAGDA	MVS	The Global Data Area (GDA) block is updated.	APAR OA64875
IHASCCB	MVS	Updates are made to the Service Call Control Block (SCCB) in support of workload-level sustainability / power consumption reporting on IBM z17 [®] CPCs.	APAR OA66018
IHASVT	MVS	The Supervisor Vector Table (SVT) has a new indicator, SVTWorkInst, in SVTMFLGS to distinguish whether the system is collecting workload instrumentation data.	APAR OA65240
IOSDDEVI	MVS	The DEVIAMAX field is added at offset 10.	APAR OA66431 (which also applies to z/OS 2.5)
IRACPMB	MVS	WLM support for EQDIO.	APAR OA66054 (which also applies to z/OS 2.5)
IRALPDAT	MVS	WLM support for replacement capacity records.	APAR OA66054 (which also applies to z/OS 2.5)
IRAMEMRY	MVS	Parameter list for SYSEVENT MEMORY.	New SYSEVENT MEMORY mnemonic

Table 8. New and changed members in SYS1.MACLIB for z/OS 3.1 (continued)			
Member name	z/OS element or feature	Description	Reason for change
IRARASD	MVS	New fields are added to the Request Address Space Data Parameter List (IRARASD) starting at offset 240. When evaluating IRARASD after invoking SYSEVENT REQASD or REQFASD, if the length of RASD in field RASDLEN is at least 272 (RASDSIZE_VERSION8), the new fields are available.	APAR OA65426
IRARMCTZ	MVS	New fields are added to the Resources Manager Control Table Extension 3 (IRARMCTZ) starting at offset 64. The version number in RMCTZ_VERSION changes to 8 (RMCTZ_VERSION8).	APAR OA65426
IRASRMST	MVS	The SRMSTCNT bit is defined in the SRMSTFF3 flag byte.	APAR OA66793
IWMRENF2	MVS	ENF event code 56 has a new WLMENF56_QUAL_QUEUE_REG qualifier.	AI-infused WLM
IXLYAMDA	MVS	New constants are defined in support of the CL6 CHPID type on IBM z17 CPCs.	APAR OA64362 (which also applies to z/OS 2.5 and 2.4)
SJKEY	MVS	New constants are defined in support of the ABDISPCC parameter on the JCL EXEC statement and in support of IBM z/OS Container Platform (zOSCP).	APARs OA63081 and OA62355

Chapter 9. New and changed PARMLIB members for z/OS 3.1

The following PARMLIB members are new and changed.

For more information about these members, see the *z/OS MVS Initialization and Tuning Reference*. Members owned by z/OS elements other than MVS may be documented in a publication specific to that element.

Table 9 on page 65 lists the new and changed members of PARMLIB for z/OS 3.1. Sometimes, IBM might provide these updates in SYS1.IBM.PARMLIB and a customer might install them into SYS1.PARMLIB.

Table 9. New and changed PARMLIB members for z/OS 3.1		
Member name	z/OS element or feature	Description
ARCCMDxx	z/OS DFSMSHsm	Enhancements to the ONLYIF PARMLIB keyword include: <ul style="list-style-type: none"> • Enable the recovery site to be a copy of the primary host environment. • Support for user-defined system symbols provide the ability to combine separate ARCCMDxx PARMLIB members into one, while keeping different processing options for different systems, such as production, test, or recovery With the PTFs for APARs OA63678 and OA63701 (ONLYIF support), this support is available on z/OS V2.4 and later.
BPXPRMxx	z/OS UNIX System Services	Changes to the BPXPRMxx parmlib member include the following updates. <ul style="list-style-type: none"> • The PROC file system is added to the list of file systems supported by the FILESYSTYPE statement. See Statements and parameters for BPXPRMxx in z/OS MVS Initialization and Tuning Reference. • The default for KERNELSTACK is ABOVE. • The default for IPCSHMNSEGS is 500. It was incorrect in the documentation.
CTIAIB00	MVS	New member: Component trace parameters for AI Base Component for IBM z/OS.
DEVSUPxx	MVS	Added the new SMF98_DATASET_ACTIVITY keyword.
DIAGxx	MVS	The IEARTM2NOSNAPTRC trap is added to the TRAP NAME parameter.
EDGPARMxx	z/OS DFSMSrmm	Two new keyword updates to the EDGPARMxx syntax.
ERBRMF05	z/OS Data Gatherer	New member: Default parmlib member for the Monitor P data gatherer session.
IARPRMxx	MVS	New member: Controls the Dedicated Memory function.
IEAOPTxx	MVS	<ul style="list-style-type: none"> • The AIMANAGEMENT parameter is added. • The CCImp and CCImpBoost parameters are added. • The SYSTEM option is added to the CPENABLE parameter.

Table 9. New and changed PARMLIB members for z/OS 3.1 (continued)

Member name	z/OS element or feature	Description
IECIOSxx	MVS	The ZHYPERLINK statement is updated. (APAR OA66431 (www.ibm.com/support/pages/apar/OA66431), which also applies to z/OS V2R5)
IEASYSxx	MVS	<ul style="list-style-type: none"> • New parameter: WORKINST specifies the processing state for workload instrumentation. (APAR OA65240) • New parameter: RSM identifies the IARPRMxx parmlib members that specify Real Storage Manager options. • RSU parameter value OFFLINE is updated. • OSPROTECT's default parameter SYSTEM now has the functions of OSPROTECT=1. OSPROTECT=MIN is added to opt-out of this updated default and retain prior release functions.
IGGCATxx	DFSMS	Added the new SMF16BYTETIMESTAMP keyword.
IXGCNFxx	MVS	<ul style="list-style-type: none"> • New parameter: LOCALBUFFERLIMIT specifies whether the system will initiate offloads before local buffers become full.
SMFLIMxx	MVS	<ul style="list-style-type: none"> • The CONTINUEMATCHING, REGIONLIMITABOVE, and REGIONLIMIT below attributes are added, and the MEMLIMIT attribute and REQMEMLIMIT filter are updated. (APAR OA66028) • New attribute: DEDICATEDMEMORY specifies target values and minimum values for Dedicated Memory. • The syntax format is updated with DEDICATEDMEMORY.
SMFPRMxx	MVS	The list of Dilithium versions that SMF supports is updated in the description of the ARECSIGN TOKENNAME parameter.

Chapter 10. New and changed PROCLIB members for z/OS 3.1

The following PROCLIB members are new and changed.

[Table 10](#) on page 67 lists the new and changed members of PROCLIB for z/OS 3.1. Sometimes, IBM might provide these updates in SYS1.IBM.PROCLIB and a customer might install them into SYS1.PROCLIB.

Table 10. New and changed PROCLIB members for z/OS 3.1		
Member name	z/OS Element or feature	Description
AIBPROC	MVS	Procedure to start and stop AI Base Component for IBM z/OS.

Chapter 11. New and changed SYS1.SAMPLIB members for z/OS 3.1

The following SYS1.SAMPLIB members are new and changed.

[Table 11 on page 69](#) lists the new and changed members of SYS1.SAMPLIB for z/OS 3.1.

<i>Table 11. New and changed SYS1.SAMPLIB members for z/OS 3.1</i>		
Member	Element or feature	Description
AMDSAD1S	z/OS MVS	Sample of SADMP one-stage JCL (APAR OA64566)
BPXISEC1	z/OS UNIX System Services	BPXISEC1 is changed in the 3.1 base (APAR OA61972 and OA62734)

Appendix A. Accessibility

Accessible publications for this product are offered through [IBM Documentation for z/OS \(www.ibm.com/docs/en/zos\)](http://www.ibm.com/docs/en/zos).

If you experience difficulty with the accessibility of any z/OS documentation see [How to Send Feedback to IBM](#) to leave documentation feedback.

Notices

This information was developed for products and services that are offered in the USA or elsewhere.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

*IBM Director of Licensing
IBM Corporation
North Castle Drive, MD-NC119
Armonk, NY 10504-1785
United States of America*

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

*Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan Ltd.
19-21, Nihonbashi-Hakozakicho, Chuo-ku
Tokyo 103-8510, Japan*

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

This information could include missing, incorrect, or broken hyperlinks. Hyperlinks are maintained in only the HTML plug-in output for IBM Documentation. Use of hyperlinks in other output formats of this information is at your own risk.

Any references in this information to non-IBM websites are provided for convenience only and do not in any manner serve as an endorsement of those websites. The materials at those websites are not part of the materials for this IBM product and use of those websites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

*IBM Corporation
Site Counsel
2455 South Road*

Poughkeepsie, NY 12601-5400
USA

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

Terms and conditions for product documentation

Permissions for the use of these publications are granted subject to the following terms and conditions.

Applicability

These terms and conditions are in addition to any terms of use for the IBM website.

Personal use

You may reproduce these publications for your personal, noncommercial use provided that all proprietary notices are preserved. You may not distribute, display or make derivative work of these publications, or any portion thereof, without the express consent of IBM.

Commercial use

You may reproduce, distribute and display these publications solely within your enterprise provided that all proprietary notices are preserved. You may not make derivative works of these publications, or

reproduce, distribute or display these publications or any portion thereof outside your enterprise, without the express consent of IBM.

Rights

Except as expressly granted in this permission, no other permissions, licenses or rights are granted, either express or implied, to the publications or any information, data, software or other intellectual property contained therein.

IBM reserves the right to withdraw the permissions granted herein whenever, in its discretion, the use of the publications is detrimental to its interest or, as determined by IBM, the above instructions are not being properly followed.

You may not download, export or re-export this information except in full compliance with all applicable laws and regulations, including all United States export laws and regulations.

IBM MAKES NO GUARANTEE ABOUT THE CONTENT OF THESE PUBLICATIONS. THE PUBLICATIONS ARE PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT, AND FITNESS FOR A PARTICULAR PURPOSE.

IBM Online Privacy Statement

IBM Software products, including software as a service solutions, ("Software Offerings") may use cookies or other technologies to collect product usage information, to help improve the end user experience, to tailor interactions with the end user, or for other purposes. In many cases no personally identifiable information is collected by the Software Offerings. Some of our Software Offerings can help enable you to collect personally identifiable information. If this Software Offering uses cookies to collect personally identifiable information, specific information about this offering's use of cookies is set forth below.

Depending upon the configurations deployed, this Software Offering may use session cookies that collect each user's name, email address, phone number, or other personally identifiable information for purposes of enhanced user usability and single sign-on configuration. These cookies can be disabled, but disabling them will also eliminate the functionality they enable.

If the configurations deployed for this Software Offering provide you as customer the ability to collect personally identifiable information from end users via cookies and other technologies, you should seek your own legal advice about any laws applicable to such data collection, including any requirements for notice and consent.

For more information about the use of various technologies, including cookies, for these purposes, see IBM's Privacy Policy at ibm.com/privacy and IBM's Online Privacy Statement at ibm.com/privacy/details in the section entitled "Cookies, Web Beacons and Other Technologies," and the "IBM Software Products and Software-as-a-Service Privacy Statement" at ibm.com/software/info/product-privacy.

Policy for unsupported hardware

Various z/OS elements, such as DFSMSdfp, JES2, 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

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.

Trademarks

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at [Copyright and Trademark information \(www.ibm.com/legal/copytrade.shtml\)](http://www.ibm.com/legal/copytrade.shtml).

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

The registered trademark Linux[®] is used pursuant to a sublicense from the Linux Foundation, the exclusive licensee of Linus Torvalds, owner of the mark on a worldwide basis.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Index

Numerics

- 3.1 new and changed
 - PARMLIB [19](#), [65](#)
 - SYS1.SAMPLIB [69](#)
- 3.2 new and changed
 - PARMLIB [19](#), [65](#)

A

- accessibility
 - contact IBM [71](#)
- assistive technologies [71](#)

B

- BCP
 - message changes
 - for z/OS 3.1 [23](#)
 - for z/OS 3.2 [3](#)

C

- Communications Server
 - message changes
 - for z/OS 3.1 [32](#)
- contact
 - z/OS [71](#)
- Cryptographic Services Integrated Cryptographic Service Facility (ICSF)
 - message changes
 - for z/OS 3.1 [35](#)
- Cryptographic Services PKI Services
 - message changes
 - for z/OS 3.1 [36](#)

D

- Device Support Facilities (ICKDSF)
 - message changes
 - for z/OS 3.1 [37](#)
 - for z/OS 3.2 [5](#)
- DFSMS
 - message changes
 - for z/OS 3.1 [23](#)
 - for z/OS 3.2 [3](#)
- DFSORT
 - message changes
 - for z/OS 3.1 [37](#)
 - for z/OS 3.2 [5](#)

F

- Function Registry (FXE) functions
 - z/OS 3.2 new and changed [11](#)

H

- Hardware Configuration Definition (HCD)
 - message changes
 - for z/OS 3.1 [37](#)
 - for z/OS 3.2 [5](#)

I

- IBM Tivoli Directory Server (TDS)
 - message changes
 - for z/OS 3.1 [38](#)
 - for z/OS 3.2 [6](#)
- Infoprint Server
 - message changes
 - for z/OS 3.1 [38](#)
 - for z/OS 3.2 [6](#)
- interfaces
 - new, changed, and deleted
 - for z/OS 3.1 [21](#)
 - for z/OS 3.2 [1](#)
- ISPF
 - message changes
 - for z/OS 3.1 [38](#)
 - for z/OS 3.2 [6](#)

J

- JES2
 - message changes
 - for z/OS 3.1 [39](#)
 - for z/OS 3.2 [6](#)

K

- keyboard
 - navigation [71](#)
 - PF keys [71](#)
 - shortcut keys [71](#)

L

- Language Environment
 - message changes
 - for z/OS 3.1 [40](#)
 - for z/OS 3.2 [7](#)

M

- MVS
 - dump output message changes
 - for z/OS 3.1 [31](#)
 - for z/OS 3.2 [5](#)
 - message changes
 - for z/OS 3.1 [23](#)
 - for z/OS 3.2 [3](#)

N

navigation
 keyboard [71](#)
Network File System (NFS)
 message changes
 for z/OS 3.1 [42](#)

O

OpenSSH
 message changes
 for z/OS 3.1 [42](#)
 for z/OS 3.2 [8](#)

P

PROCLIB
 3.1 new and changed [67](#)

R

RACF
 message changes
 for z/OS 3.1 [43](#)
 for z/OS 3.2 [8](#)
Resource Measurement Facility (RMF)
 message changes
 for z/OS 3.1 [43](#)
 for z/OS 3.2 [8](#)

S

Security Server
 message changes
 for z/OS 3.1 [43](#)
 for z/OS 3.2 [8](#)
shortcut keys [71](#)
SMP/E
 message changes
 for SMP/E V3R7 [9](#), [44](#)
 for z/OS 3.1 [44](#)
summary of changes [ix](#)
SYS1.MACLIB
 3.1 new and changed [61](#)
 3.2 new and changed [17](#)
System Display and Search Facility (SDSF)
 message changes
 for z/OS 3.1 [45](#)
 for z/OS 3.2 [9](#)
System Management Facilities (SMF) records
 z/OS 3.1 new and changed [51](#)
 z/OS 3.2 new and changed [15](#)

T

Tivoli Directory Server (TDS)
 message changes
 for z/OS 3.1 [38](#)
 for z/OS 3.2 [6](#)
trademarks [76](#)
TSO/E
 message changes

TSO/E (*continued*)
 message changes (*continued*)
 for z/OS 3.1 [45](#)

U

user interface
 ISPF [71](#)
 TSO/E [71](#)

Z

z/OS 3.1
 interfaces
 new, changed, and deleted [21](#)
z/OS 3.2
 interfaces
 new, changed, and deleted [1](#)
z/OS Authorized Code
 Scanner
 message changes
 for z/OS 3.1 [45](#)
z/OS Data Gatherer
 message changes
 for z/OS 3.1 [45](#)
 for z/OS 3.2 [9](#)
z/OS Data Set File System
 message changes
 for z/OS 3.1 [36](#)
z/OS File System
 message changes
 for z/OS 3.1 [45](#)
 for z/OS 3.2 [9](#)
z/OS Release Upgrade Reference
 Summary
 content, changed [x](#)
 content, new [ix](#)
 content, no longer included [xii](#)
z/OS UNIX
 message changes
 for z/OS 3.1 [46](#)
 for z/OS 3.2 [10](#)



Product Number: 5655-ZOS

SA23-2300-70

