

# CA OPS/MVS® Event Management and Automation

## Release Notes

Release 12.1



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## CA Technologies Product References

This document references the following CA Technologies products:

- CA Automation Point (CA Automation Point)
- CA ACF2 (CA ACF2)
- CA OPS/MVS® Event Management and Automation (CA OPS/MVS)
- CA Top Secret® CA Top Secret

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# Chapter 1: New Features

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This section contains the following topics:

[HiSrv 2.0 Requirement](#) (see page 7)

[CA OPS/MVS WebCenter](#) (see page 7)

[High Availability](#) (see page 9)

[SYSPLEX Variables](#) (see page 9)

[SYSPLEXSCOPE Parameter](#) (see page 10)

[Health Checks for Your Product](#) (see page 10)

## HiSrv 2.0 Requirement

All CA OPS/MVS Release 12.1 HWS features (specifically the address HWS host command environment) require HiSrv 2.0.

## CA OPS/MVS WebCenter

The WebCenter component provides an infrastructure for monitoring z/OS alerts and resource statuses. The interface is hosted completely.

The component provides two user interfaces (UIs):

- A web UI for monitoring

**Note:** The uniform resource locator (URL) of the web UI is made available in a CA OPS/MVS global variable named GLOBALW.OPS#.WEBCENTERURL. You display these variables using the CA OPS/MVS OPSVIEW Control option, Global Variables (Option 4.8).

- A 3270 UI for administering the component, and customizing monitor filters and formats

You access the 3270 UI using the CA OPS/MVS OPSVIEW Control option, WebCenter Control (Option 4.14).

For more information, see the *CA OPS/MVS WebCenter Installation Guide*.

## WebCenter Features

WebCenter is a web browser interface that lets you access operations functions such as monitoring and history.

When enabled, your systems administrator can get you the URL of WebCenter. The URL is also displayed on the 3270 interface to the corresponding region.

WebCenter is hosted. The WebCenter web server runs in the region.

The problem resolution time is decreased and ease-of-use is increased. Users who are not comfortable accessing mainframe products can diagnose problems with their standard web browser.

Each WebCenter page has a help link in the upper-right corner that you can click for context-sensitive online help.

## Status Monitor

The status monitor (or resource monitor) enables you to monitor at the resource level in your environment in real time. The monitor displays resources line by line, and uses color and highlighting to notify you of changes in their states.

From the monitor, you can enter commands against resources.

Authorized users can define filters that enable the viewing of information about specific resources.

## Alert Monitor

The Alert Monitor provides an integrated, correlated event notification system that indicates to operators that a problem has occurred and that some action is required.

The monitor refreshes your screen each time an alert arrives. The clock in the title line indicates when the screen was refreshed last.

The monitor includes a total indicator, which shows the total number of alerts and the total number of alerts of each severity level. Each severity level appears in a different color.

By default, alerts are sorted in the order of severity, then time. The most severe alerts are listed first, then, in each category of severity, the most recent of the alerts are listed first.



## User Profiles

The user profiles set user preferences and tailoring options. The profiles set the working environment for a user.

- At one level, user profiles contain default settings for the operational environment. Users can update their own profiles, and the system administrator can update any user profile.

At the next level, the defaults that are set in the user profile record determine the specific environments that a user sees. A user can, however, change those defaults for a work session.

## High Availability

This High Availability Option provides the capability to display and configure Peer to Peer Remote Copy (PPRC) paths and mirror volumes.

The High Availability Option benefits you in the following ways:

- Allows your primary DASD volumes to be copied to your secondary volumes.
- Allows your applications to run from secondary DASD without loss of data.
- Facilitates Disaster Recovery or Planned Outages scenarios, which you could implement through CA OPS/MVS functions.

The High Availability Option is available through the OPSVIEW panels (under option 3.6) and through the extension of the ADDRESS SOF host environment REXX commands.

## SYSPLEX Variables

The CA Variable Data service of CCS (CA Common Services) provides named variables whose scope spans a sysplex. These variables exist locally on each system with the current values automatically synchronized through XCF communications between the systems. CA OPS/MVS has been enhanced to take advantage of this feature.

The OPSVASRV command processor has been added to CA OPS/MVS to manage variables from TSO, a TSO/REXX, OPS/REXX, or CLIST program.

For more information about the OPSVASRV command processor, see the *CA OPS/MVS Command And Function Reference Guide* and the *CA OPS/MVS AOF Rules User Guide*.

## SYSPLEXSCOPE Parameter

The SYSPLEXSCOPE parameter controls the action of SYSTEM(ALL) and SYSTEM(EXT) for addressing environments and command processors at sites with multiple sysplexes within an MSF plex. For more information, see the CA OPS/MVS Parameter Reference.

## Health Checks for Your Product

Your product is now integrated with the IBM Health Checker for z/OS through the CA Health Checker Common Service, and automatically checks for the following potential problems:

- OPSMVS\_ALLOC\_OPSLOG (Checks if data sets are allocated for OPSLOG use.)
- OPSMVS\_ALLOC\_SYSCHK1 (Checks if data set are allocated.)
- OPSMVS\_PARM\_AOFHLQ (Checks if the high level qualifier for the rule data set name is 'SYS1'.)
- OPSMVS\_PARM\_AOFMAX (Measures the REXX external data queue's (EDQ) use of the AOF rules against a threshold percentage.)
- OPSMVS\_PARM\_CMDMAX (Samples the rate of operator commands that are issued per second by any automation application.)
- OPSMVS\_PARM\_MSGMAX (Samples the rate of messages that are issued per second.)
- OPSMVS\_PARM\_PROCBLK (Ensures that enough process blocks are available for CA OPS/MVS events or requests.)
- OPSMVS\_TSOMAXQUSG (Measures the maximum OSF TSO queue utilization.)
- OPSMVS\_TSPMAXQUSG (Measures the maximum OSF TSP queue utilization.)
- OPSMVS\_TSLMAXQUSG (Measures the maximum OSF TSL queue utilization.)
- OPSMVS\_USSMAXQUSG (Measures the maximum USS queue utilization.)
- OPSMVS\_OPJ2CB (Checks whether your product JES2 offset table corresponds to JES2 on this system.)

**Notes:**

- For more information, see the appendix "CA OPS/MVS Health Checks" in the *CA OPS/MVS User Guide*.
- Additionally if you run the WebCenter component its Health Checks (prefixed OPMVS\_WEB) are documented in the *CA OPS/MVS WebCenter Reference Guide*.

# Chapter 2: Enhancements to Existing Features

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This section contains the following topics:

[CA CSM](#) (see page 11)

[Available Sample AOF Rules and OPS/REXX Programs](#) (see page 12)

[ACTION TABLE enhancement](#) (see page 13)

[Address HWS](#) (see page 14)

[Address MQ Enhancements](#) (see page 14)

[Address OPSCTL COF Enhancements](#) (see page 14)

[Address OPSCTL OSF Enhancements](#) (see page 15)

[ADDRESS SQL Enhancement](#) (see page 16)

[EasyRule Support for Extend MLWTO Processing](#) (see page 16)

[Enhancement to External Security](#) (see page 16)

[Enhancement to OPSHMC REXX Program](#) (see page 16)

[Enhancement To Processing SQL Queries on the Requested Subsystem](#) (see page 17)

[SYSCHK1 Restore from Backup](#) (see page 17)

[Switch Operations Enhancements](#) (see page 17)

[SOF Switch Operations](#) (see page 18)

[SSMGA enhancements](#) (see page 19)

[Documentation](#) (see page 19)

## CA CSM

CA Mainframe Software Manager™ (CA MSM) is renamed to CA Chorus™ Software Manager (CA CSM) and adopts the CA Chorus look-and-feel.

CA CSM Release 5.1 lets you manage and organize tasks with policies. Use task management policies to copy, delete, and move task output. Select tasks that are based on criteria including their age and their type. Create task policies using the Task Policy wizard.

**Note:** For more information, see the *CA Chorus Software Manager User Guide*.

## Available Sample AOF Rules and OPS/REXX Programs

CA OPS/MVS distributes sample AOF rules and OPS/REXX programs that demonstrate various aspects of automating operations in a mainframe environment. These procedures adhere to the specific environment where they have been created and tested, and depending on the desired outcome, the provided automation can be modified from site to site.

The primary purpose of these rules and programs are:

- Outline and demonstrate automated techniques that are needed across all data centers.
- Illustrate the effective usage of the automation tools that CA OPS/MVS provides, such as the OPS/REXX host environments, OPS/REXX functions, global variables, local variables, and much more.
- Provide the syntax of these applications that you can use as references and templates or starting points when you implement site-specific automation.

**Note:** For more information on the sample rules and programs that are provided with CA OPS/MVS, see the appendixes in the *CA OPS/MVS User Guide*.

## Samples Added for CA OPS/MVS Components

### OSF Component

#### RESETOSF

End-User OPS/REXX program to stop or force CA OPS/MVS servers and reset (delete) all server requests in the specified server queue.

### SSM Component

#### SSM2XCEL

Insert SSM resource and action table data into a sequential DSN so that it can be FTP'd and viewed as a Xcel document.

### CA Sysview

#### SYSVCTDQ

Invoke the CA Sysview CICS CTDATA GLOBAL command to obtain transient data queues for all active CICS regions and generate an alert for any TDQ that has a current QCount greater than a defined threshold.

## Samples Added for Other Vendor Products

### DB2

#### DSNT376I and DSNT501I

Process DB2 Thread time out events.

## Applications Added for z/OS Activities

### Information Utilities

#### CMDALL

Create a focal point of view for the command output of z/OS commands issued across many CA OPS/MVS MSF connected systems within the OPSLOG.

#### EMAILMSG

Create a focal application that can be called by any AOF rule or OPS/REXX program when a mult-line informational automated SMTP email needs to be generated.

### Processing Problem ASIDs

#### IEA611I and IEA794I

Process IEA611I dump messages and generate an alert with the captured dump dsn for abends monitored from the IEA794I sample rule.

## ACTION TABLE enhancement

ACTION\_TEXT column in ACTION TABLE provides the functionality for extracting substring from the action text variable.

**Note:** For more information, see the *CA OPS/MVS User Guide*.

## Address HWS

The hardware management capabilities of CA OPS/MVS have been expanded by providing a hardware services host command environment, address HWS. With this environment, users can automate targeted commands to hardware entities such as LPARs or capacity records.

Hardware Interface Service (HiSrv) provides the underlying support for a hardware interaction when using the IBM's Base Control Program internal interface (BCPii). The HWS components of CA OPS/MVS do not communicate directly with BCPii.

All CA OPS/MVS Release 12.1 HWS features (specifically the address HWS host command environment) require HiSrv 2.0.

**Note:** For more information about how to install and configure the Hardware Interface Service (HiSrv), see the *CA Common Services for z/OS Installation Guide*.

## Address MQ Enhancements

The enhanced Address MQ host command environment provides option FORMAT and PRIORITY for a PUT operation and option CONVERT for a GET operation. The current Address MQ functionality continues unchanged.

For more information, see *ADDRESS MQ COMMANDS* in the: *Host Environment Commands* section in the *CA OPS/MVS Command and Function Reference Guide*.

## Address OPSCTL COF Enhancements

The keyword, INDIRECT(YES|NO), has been added to COF commands DEFINE, ACTIVATE, and DEACTIVATE. Setting INDIRECT(YES) causes the COF XTDOU exit to process indirect TD messages in CICS that are not defined in the DESTIDS list. This keyword removes the need to define explicitly every indirect TD queue name in the DESTIDS list.

For more information, see *ADDRESS OPSCTL COF* in the *Host Environment Commands* section in the *CA OPS/MVS Command and Function Reference Guide*.

## Address OPSTL OSF Enhancements

The following list describes the OSF enhancements:

### **Enhancement to OSFDORM Parameter**

The OSFDORM parameter determines, in seconds, how long OSF TSO servers can remain dormant before they are automatically terminated. This parameter takes effect only if the number of active OSF TSO servers is greater than the value of the OSFMIN parameter. This parameter then decrements the servers one per OSFDORM dormant period. For more information, see OSFMIN Parameter (see page 182).

### **Enhancement to OSFQADD Parameter**

The OSFQADD parameter sets the threshold CA OPS/MVS uses to determine whether more OSF TSO servers are started. The algorithm that is used to add servers depends on the OSFQADDPROCESS parameter. If OSFQADDPROCESS=AVAIL a new server is added, when the number of commands in the OSF TSO execution queue is higher than OSFQADD and OSFMIN but lower than OSFMAX. When OSFQADDPROCESS= QADD a new server is added and the queue depth equals  $OSFQADD+1 + (n * OSFQADD)$  until OSFMAX is reached.

### **Enhancement to OSFTSLDORM Parameter**

The OSFTSLDORM parameter determines, in seconds, how long OSF TSL servers can remain dormant before they are automatically terminated. This parameter takes effect only if the number of active OSF TSL servers is greater than the value of the OSFTSLMIN parameter. This parameter then decrements the servers one per OSFTSLDORM dormant period. For more information, see OSFTSLMIN Parameter (see page 196).

### **Enhancement to OSFTSPDORM Parameter**

The OSFTSPDORM parameter determines, in seconds, how long OSF TSP servers can remain dormant before they are automatically terminated. This parameter takes effect only if the number of active OSF TSP servers is greater than the value of the OSFTSPMIN parameter. This parameter then decrements the servers one per OSFTSPDORM dormant period. For more information, see OSFTSPMIN Parameter (see page 203).

### **Enhancement to OSFTSPQADD Parameter**

The OSFTSPQADD parameter sets the threshold CA OPS/MVS uses to determine whether more OSF TSP servers are started. The algorithm that is used to add servers depends on the OSFQADDPROCESS parameter. If OSFQADDPROCESS=AVAIL a new server is added, when the number of commands in the OSF TSP execution queue is higher than OSFQADD and OSFMIN but lower than OSFMAX. When OSFQADDPROCESS= QADD a new server is added and the queue depth equals  $OSFTSPQADD+1 + (n * OSFTSPQADD)$  until OSFTSPMAX is reached.

### **Enhancement to OSFTSLQADD Parameter**

The OSFTSLQADD parameter sets the threshold CA OPS/MVS uses to determine whether more OSF TSL servers are starting. The algorithm that is used to add servers depends on the OSFQADDPROCESS parameter. If OSFQADDPROCESS=AVAIL a new server is added when, the number of commands in the OSF TSL execution queue is higher than OSFQADD and OSFMIN but lower than OSFMAX. If OSFQADDPROCESS= QADD a new server is added when the queue depth equals  $OSFTSLQADD+1 + (n * OSFTSLQADD)$  until OSFTSLMAX is reached.

## ADDRESS SQL Enhancement

ADDRESS SQL host environment can redirect the SQL queue to a subsystem other than the current queue by using SUBSYS() keyword in ADDRESS SQL host command.

## EasyRule Support for Extend MLWTO Processing

EasyRule (OPSVIEW 2.3 option) enhancement for MLWTO logic.

Added new MLWTO rule specification keywords and the indexed msg.xxx.n variables in AOF variables usage conditional and process logic of the rule (Message Text and Message Environmental variables). Also extended original curly bracket logic from {WORD} to {LINE,WORD} if MLWTO logic enabled in an MSG ID specification.

## Enhancement to External Security

A new parameter, EXTSECSQLSUFFIX, was added to allow further customization of the resource name for SQL security events. For more information, see EXTSECSQLSUFFIX.in the New Parameters section.

## Enhancement to OPSHMC REXX Program

The OPSHMC REXX program is a *Hardware Management Console (HMC)* application.

OPSHMC provides a wrapper around the HMC API so that CA OPS/MVS users can more easily automate their processors. The latest available API header from IBM was integrated into OPSHMC to allow for usage with the most recent processors and processor types. The HMC API header version currently supports HMC v2.12.0. For more information, see OPHMC in the *CA OPS/MVS Administration Guide*.



## Enhancement To Processing SQL Queries on the Requested Subsystem

The SUBSYS keyword is available on the ADDRESS SQL host command. This keyword addresses the SQL statement to a specified CA OPS/MVS subsystem that is in communication with the current subsystem. For example:

```
ADDRESS SQL "SELECT NAME FROM TABLE SYSTEM(*) SUBSYS(OPSA)"
```

When processing an ADDRESS SQL host command, this keyword causes the SQL query to execute on the specified CA OPS/MVS subsystem. OPSA in this example.

For more information, see *Relational Data Framework Reference* in the *CA OPS/MVS Command and Function Reference Guide*.

## SYSCHK1 Restore from Backup

The OPSVIEW interface has had some new panels added to allocate an existing SYSCHK1 backup which can be used to restore either an RDF table or a GLOBAL variable from the backup SYSCHK1 to the currently used SYSCHK1.

## Switch Operations Enhancements

The following enhancements have been made to the Switch Operations Facility:

- Added support for cascaded switches.
- Added automatic detection of changes to managed switches by other host software or external management consoles.
- Added support for enabling user alerts at the external management consoles.

## SOF Switch Operations

The following external interface updates have been made to the Switch Operations Facility in relation to support of cascaded switches.

- Panel OP353000 for viewing ports of a switch
  - The DEVTYPE field values updated to show the switch and port number for cascaded switches. The format is ssss-pp where ssss is the connected cascaded switch and pp is the port.
- Panel OP356002 for viewing paths to a device.
  - Panel was redesigned to organize fields by CHPID and CU.
  - Sort was simplified to only Chp and CUnm fields.
  - New CU SWnm field added for the CU switch number.
  - Help panel was updated to reflect sort changes.
- ADDRESS SOF QUERY DEVICES LOCAL DEVICE and QUERY DEVICES LOCAL SYSNAME.
  - Two additional values are returned as part of the output stem variable; CU switch array and CU switch devid array.

**Note:** OPSVIEW 12.1 is not compatible with prior versions of SOF. Attempts to use the OPSVIEW SOF panels to communicate with a prior release SOF server results in error. Message 'OPA4693I Incorrect SOF Server version' is issued and the requested function is not performed.

## SSMGA enhancements

### **SSMGA moveable resource AUTOHOME support:**

AUTOHOME is the new option for moveable resource to go back to their home system once this system becomes active again.

- Enable/Disable option for AUTOHOME by new SSMAUTOHOME parameter.
- Predefinition of the AUTOHOME resource by using new AUTOHOME column (Y/N).
- Notification message, that the resource has been moved successfully.

### **Check whether prerequisites are satisfied on an alternate system:**

SSMGA has been enhanced with new prerequisite checking to prevent moving resources to the system where the prerequisites are not satisfied yet. The check was implemented for SSMGA system recovery and resource movement commands (SSMGAOPR).

- Enable the prerequisite check by parameter SSMGAPREREQCHK
- Use the keyword PRECHK for movement commands to explicitly prevent the move when missing prerequisites found.

## Documentation

This section contains topics that are related to documentation enhancements.

### Installation Guide

The Installation Guide has been restructured and describes the following methods of installing your product:

- CA CSM
- Pax-Enhanced Electronic Software Delivery (Pax ESD)



# Chapter 3: Migration Information

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This section contains the following topics:

[Migration from r12 to r12.1](#) (see page 21)

[Address OPSCTL COF Enhancements](#) (see page 21)

[Migration from r11.9 to r12](#) (see page 22)

## Migration from r12 to r12.1

Review the following sections if you currently have r12 installed and are upgrading to r12.1.

### SMP/E Installation Changes

The job names in the SAMPJCL data set used to install the product through a manual batch JCL have changed. One new job named CLX1HOLD has been added to download ERROR and FIXCAT HOLDDATA from <http://support.ca.com>.

For more information, see the *CA OPS/MVS Installation Guide* for complete details.

**Important!** Do not use install JCL from old releases to install this release of CA OPS/MVS.

### Address OPSCTL COF Enhancements

The keyword, INDIRECT(YES|NO), has been added to COF commands DEFINE, ACTIVATE, and DEACTIVATE. Setting INDIRECT(YES) causes the COF XTDOU exit to process indirect TD messages in CICS that are not defined in the DESTIDS list. This keyword removes the need to define explicitly every indirect TD queue name in the DESTIDS list. No changes to existing COF implementations are required if the INDIRECT keyword is not used.

For more information, see ADDRESS OPSCTL COF in the Host Environment Commands section in the *CA OPS/MVS Command and Function Reference Guide*.

## SOF Changes

The SOF servers running SOF 12.1 can exist in the same SOFplex with SOF servers running supported prior SOF versions. However, support for cascaded switches are not fully functional until all SOF servers in the SOFplex are running SOF version 12.1.

OPSVIEW 12.1 is not compatible with prior versions of SOF. Attempts to use the OPSVIEW SOF panels to communicate with a prior release SOF server results in error. Message 'OPS4693I Incorrect SOF Server version' is issued and the requested function is not performed. To use OPSVIEW 12.1 with SOF, you must have at least one SOF 12.1 server available for OPSVIEW.

ADDRESS SOF QUERY DEVICES LOCAL DEVICE and QUERY DEVICES LOCAL SYSNAME include two additional values in the returned stem variable. They are the CU switch array and the CU switch devid array. These values have been added as new words at the end of the stem variable to maintain backward compatibility.

## Migration from r11.9 to r12

Review the following sections if you currently have r11.9 installed and are upgrading to r12.

## SMP/E Installation Changes

The SMP/E installation process has changed. Some highlights include:

- New installed FMIDs
- New installed SMP/E Types
- New installed data set names
- New SAMPJCL installation job names
- Installation of CA OPS/MVS OPSLOG WebView function allocates and mounts a zFS.

For more information, see the *CA OPS/MVS Installation Guide* for complete details.

**Important!** Do not use install JCL from old releases to install this release of CA OPS/MVS. Do not use sample or production JCL or PROCs from old releases to configure or execute this release of CA OPS/MVS. Data set names and job names have changed. Old JCL and PROCs do not work properly with this release of CA PS/MVS.

**Important!** Beware of CA OPS/MVS data set names that can be embedded in REXX programs or CLIST procedures. Change these data set names.

The following table of old and new SMP/E Target data set names can help you with the migration process.

Old SMP/E Target DSNAME	New SMP/E Target DSNAME	Contents
CAI.ASM	CAI.CCLXASM	Assembler source and macros
CAI.FBCLIST	CAI.CCLXCLS0	TSO CLISTS
CAI.CNTL	CAI.CCLXCNTL	Sample JCL PROCs, REXX, data, scripts
CAI.REXX	CAI.CCLXEXEC	OPS/REXX (not compiled)
N/A	CAI.CCLXHFS.ZFS	Mounted zFS
N/A	/usr/lpp/CAI/CCLXHFS	Mountpoint of zFS; contains OPSLOG WebView USS components
CAI.LOAD	CAI.CCLXLOAD	Executable load library (can be PDS).
CAI.OPSM LIB	CAI.CCLXMEN U	ISPF messages
CAI.MIBLIB	CAI.CCLXMIB	SNMP MIBs

Old SMP/E Target DSNAME	New SMP/E Target DSNAME	Contents
CAI.OPSEXEC	CAI.CCLXOPEX	OPS/REXX (compiled)
CAI.OP SPLIB	CAI.CCLXPENU	ISPF panels
CAI.USSLOAD	CAI.CCLXPLD	Executable load library (must be PDS/E).
CAI.BASE.RULES	CAI.CCLXRULB	BASE AOF rules
CAI.STATEMAN.RULES	CAI.CCLXRULM	STATEMAN AOF rules
CAI.SAMPLE.RULES	CAI.CCLXRULS	SAMPLE AOF rules
CAI.SAMPLE.REXX	CAI.CCLXSAMP	Sample REXX
CAI.OPSSLIB	CAI.CCLXSENU	ISPF skeletons
N/A	CAI.CCLXSIDE	LE sidedeck files
CAI.OPSTLIB	CAI.CCLXTENU	ISPF tables
CAI.CCLXXML	CAI.CCLXXML	MSM/SDS and MSM/SCS XML metadata

## Support Removed in r12.0

This section gives notification on support that has been removed in this release.

### WLM Enclave Support

This feature attempted to improve rule throughput time and process block availability by using a z/OS Work Load Management (WLM) dependent enclave. This feature raised temporarily the dispatching priority of tasks that generate automation events. Short-term enclave usage proved to be of minor benefit and prone to unexpected side effects. Hence, the WLM enclave feature has been deactivated in this release. The controlling parameters, INITWME and DEBUGWME, have been designated as obsolete and will be removed in the next release.

## Support Dropped in r12.0

The following parameters will be removed in the next release:

### INITWME

This parameter determines whether the WLM-dependent enclave feature is active for automation events. Any attempt to set this parameter is ignored.



**DEBUGWME**

This parameter turns on diagnostic messages for WLM-dependent enclave processing. Any attempt to set this parameter is ignored.



# Appendix A: Known Issues

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## Published Fixes for Release 12.1

All published fixes are available at Published Solutions on <http://ca.com/support>.

## Demand Analysis Requests

The following demand analysis requests (DARs) were incorporated:

### **19287819:01**

The built-in variables, EOJ.JOBID and EOS.JOBID , have been added to the EOJ and EOS AOF rule events. The values of these variables are copied from the SMF Type 30 record ID section.

### **19367299:01**

A built-in variable, EOM.ABNORMAL, has been added to EOM AOF rule events. The value is true (1) or false (0) as indicated in the EOM SSOB extension. Not all abend types are considered abnormal termination.

### **19539776:01**

Add access to sysplex variables by using the new OPSVASRV command processor described in the CA OPS/MVS Command & Function Reference Guide.

### **20133013:01**

Enhanced OPS1364S message to include originating AOF rulename if applicable.

### **20186322:01**

Address MQ functionality has been enhanced with the FORMAT option on a PUT operation and the CONVERT option on a GET operation.

### **20442933:01**

Created a function to return UTC value. Similar: X = OPSINFO('UTC') or TIME('U')  
Returns UTC value like "D T" in MVS.

### **20853435:01**

Restore one GLOBAL VARIABLE or one RDF table from a backup SYSCHK1 through enhanced OPSVIEW interface option 7.6 panels..

### **20961334:02**

Address MQ functionality has been enhanced with the PRIORITY option on a PUT operation.

### **20968695:01**

The OSFQADD (and the QADD for all other server types)was updated to provide the ability to add servers based on the controlling parameters. Also updated the OSFDORM (and the DORM for all other server types) to stop the server when the dorm time for that particular server is met.

### **20943143:01**

The OPSCOLOR OPS/REXX function has been enhanced to convert a hex or integer color code argument to the corresponding color name. This simplifies writing REXX code to determine the meaning of color code values used in AOF rules.

# Appendix B: Messages

---

This appendix contains the new and updated messages in Release 12.1.

**Note:** For information about each message, see the *Message Reference Guide*.

## New Messages

This section contains new messages.

### OPS5686I

**Attr:** Chan:devnum CSS:devtyp Type: status

Modifiable: No

**Reason:**

This is part of the response to a DISPLAY CHPID command, included when DETAIL=DEV is in effect. It identifies a device with a path through this CHPID.

**Action:**

None.

The variable fields of the message text are:

**devnum**

Device number for the switch

**devtyp**

Device type

**status**

Last known status, either Online or Offline

**volume**

Last known mounted volume for DASD, N/A for all other types

## OPS5778I

**option**

Modifiable: No

**Reason:**

This is part of the response to the DISPLAY SWITCH command, included when a switch option has been set.

**Action:**

None.

The variable fields of the message text are:

**option**

Feature or option that is enabled on the switch.

## OPS5779I

LSN: list

Modifiable: No

**Reason:**

This is part of the response to the DISPLAY SWITCH command, included when the switch is associated with logical switch numbers that differ from the IOCP device number for the switch.

**Action:**

None.

The variable fields of the message text are:

**list**

Lost of logical switch numbers.

list of logical switch numbers

**OPS5860E**

FORCE required to modify E-PORT/ISL - NOEXEC forced

Modifiable: Yes

**Reason:**

This message is issued when a PROHIBIT or ALLOW command would affect the connectivity mask for a port that is connected to another switch. Since IBM recommends that connectivity to such ports not be limited, SOF requires the FORCE option to be specified. The command proceeds, but with NOEXEC forced.

**Action:**

No action is required. However, you can reissue the command with the FORCE option to perform the requested action.

**OPS5862I**

All links from switch switch1 to switch swich2 are blocked

Modifiable: Yes

**Reason:**

This warning message is when a BLOCK command would block the last remaining link between two switches.

**Action:**

None. This message is for informational purposes only.

The variable fields of the message text are:

**switch1**

Device number of the switch that is specified in the BLOCK command.

**swich2**

Device number of the switch that is connected to the port to be blocked.

## OPS6100I

### PPRC environment discovery complete

Modifiable: No

#### Reason:

The SOF server has completed discovery of the PPRC environment.

#### Action:

None.

## OPS6105I

### PPRC path established: from pssid to ssid

Modifiable: No

#### Reason:

The PPRC path has been successfully established between two subsystems of primary and secondary storage control.

#### Action:

None.

The variable fields of the message text are:

#### **pssid**

Primary subsystem ID

#### **ssid**

Secondary subsystem ID



## OPS6106I

### **PPRC path removed: from pssid to sssid**

Modifiable: No

#### **Reason:**

The existing PPRC path has been successfully removed between two subsystems of primary and secondary storage control.

#### **Action:**

None.

The variable fields of the message text are:

#### **pssid**

Primary subsystem ID

#### **sssid**

Secondary subsystem ID

## OPS6107I

**PPRC request request failed: from pssid to sssid,RC=rc,RSN=rsn**

Modifiable: No

**Reason:**

The PPRC request of the ANTRQST macro has ended with non-zero return code.

**Action:**

Check values of an appropriate ADDRESS SOF command. The stem variable that is specified in ADDRESS SOF command can contain more details about error.

The variable fields of the message text are:

**request**

Request type

**pssid**

Primary subsystem ID

**sssid**

Secondary subsystem ID

**rc**

Return code

**rsn**

Reason code

**OPS6108I**

**request request issued: from pssid to sssid**

Modifiable: No

**Reason:**

The PPRC request has been issued between two subsystems of primary and secondary storage control.

**Action:**

None.

The variable fields of the message text are:

**request**

Request type

**pssid**

Primary subsystem ID

**sssid**

Secondary subsystem ID

**OPS8010E**

**NAME value must begin with GLVPLTx. where x=A-Z,0-9**

Modifiable: Yes

**Reason:**

In order to ensure naming consistency with other CA OPS/MVS global variable names, sysplex variable names that are created by an OPSVASRV command must begin with the prefix GLVPLXT, plus one of the OPSVALUE standard suffix characters. Only sysplex variables with alphabetic suffixes are eligible to fire GLV rules for the notification of value changes.

**Action:**

Correct the sysplex variable name to conform to the required naming convention and retry the OPSVASRV command.

## OPS8011E

**NAME value must begin with GLVPLTx where x=? or \***

Modifiable: Yes

**Reason:**

For the OPSVASRV GETLIKE or DELLIKE commands, a sysplex variable name must begin with the prefix GLVPLXT, plus either wildcard character ? (one character match) or \* (string of characters match).

**Action:**

Correct the sysplex variable name to conform to the required naming convention and retry the OPSVASRV command.

## OPS8012E

**Invalid variable name token value: var1**

Modifiable: Yes

**Reason:**

The OPSVASRV command input token value must be exactly 32 bytes of printable hex characters 0-9 and A-F. The token is typically returned by the OPSVASRV CREATE, UPDATE, and GET commands for use in subsequent OPSVASRV commands such as GETNEXT.

**Action:**

Insure that a valid token from a prior OPSVASRV command is used as input to this OPSVASRV command.

The variable fields of the message text are:

**var1**

TOKEN value entered

## OPS8013I

**desc desc val**

Modifiable: Yes

**Reason:**

Data returned by OPSVASRV commands that is typically returned in REXX or CLIST variables can be returned in messages that are routed to the terminal or EDQ by use of the CMDRESP keyword of the command. All of the messages consist of a data description that ends with a colon delimiter followed by the data value.

**Action:**

No action is required. The messages are informational only.

The variable fields of the message text are:

**desc**

Description of data element part 1

**desc**

Description of data element part 2

**val**

Value of data element

## OPS8014E

**Invalid variable name: varname**

Modifiable: Yes

**Reason:**

An invalid variable name was specified as the value of a command keyword. Variable names must conform to the rules for a REXX variable as stated in the appropriate REXX language specifications. Variable names cannot start with a number or a period..

**Action:**

Correct the variable name and retry the command.

The variable fields of the message text are:

**varname**

Variable name specified

## OPS8015E

### **Conversion of a value to data type: datatype failed**

Modifiable: Yes

#### **Reason:**

Conversion of an input or output value to another data type failed.

#### **Action:**

An invalid number or character for a specific variable data type such as a signed integer is the most common cause of this failure. Correct the value or change the data type to a less restrictive type such as a text string.

The variable fields of the message text are:

#### **datatype**

Target data type for the value

## OPS8016I

### **func returned RC=rc RSN=reas**

Modifiable: Yes

#### **Reason:**

The OPSVASRV function has completed with the indicated return and reason code.

#### **Action:**

For the meaning of the OPSVASRV return and reason codes, see the CCS Variable Service documentation. Return code 4 is generally for warning messages while return code 8 or higher indicates an error condition. Correct the problem indicated by the non-zero return code.

The variable fields of the message text are:

#### **func**

CCS Variable Service function name

#### **rc**

Return code from CCS Variable Service

#### **reas**

Reason code from CCS Variable Service

## OPS8202T

**var1 - var2 FAILED, RC=rc, var4**

Modifiable: Yes

**Reason:**

This is a generic error message that is used to describe a wide variety of EasyRule internal errors. The message text allows CA Customer Support to determine the location of the failure.

**Action:**

Record all the information in the message text and contact CA Customer Support for assistance.

The variable fields of the message text are:

**var1**

Routine name/panel name

**var2**

Variable name

**rc**

Return code

**var4**

Variable text

## Updated Messages

This section contains updated messages.

## OPS1364S

### **OPS1364S sysv return code = rc ruleName**

Modifiable: Yes

#### **Reason:**

Some type of error occurred in the system management routines of the product or by invoking a system service directly. See the actual text of the message for an explanation. The error was probably caused by a failure in an operating system service.

#### **Action:**

Check if any other error messages were generated with this error message. If the combined error messages are sufficient to explain the problem, take whatever corrective action is appropriate. Otherwise, contact CA Customer Support for assistance with this problem.

The variable fields of the message text are:

#### **sysv**

System service. For example: STIMERM, STAX, and so on

#### **rc**

Return code

#### **RuleName**

(Optional) Name of the originating AOF rule.



## OPS1572E

### Variable access failed - RC=rc, (var2), VAR=var3var4

Modifiable: Yes

#### Reason:

The ADDRESS NETMASTR/ALERTMON command attempted to access a REXX variable but encountered an unexpected error.

#### Action:

Take note of the return code and contact CA Customer Support for assistance. The variable fields of the message text are:

#### rc

Return code

#### var2

Description

#### var3

Variable prefix

#### var4

Variable suffix

## OPS1573E

### Invalid APPLID specified var1

Modifiable: Yes

#### Reason:

The value that is specified on the APPLID keyword of the ADDRESS NETMASTR/ALERTMON command is invalid. It must be exactly four characters long. It must start with the character string OPS and end with an uppercase alphabetic character.

#### Reason:

Correct the command syntax and retry the command. The variable fields of the message text are:

#### var1

Invalid APPLID

## OPS3948E

### **PDS directory for DDNAME ddn is full**

Modifiable: Yes

#### **Reason:**

An attempt to STOW a new member in the PDS directory for the ddname in the message failed because there was no room in the directory for a new member.

#### **Action:**

Expand the directory of the PDS in question. The variable fields of the message text are:

**ddn**

## OPS4206E

### **USSCMD: Unexpected SHELL termination**

Modifiable: No

#### **Reason:**

This message is issued when the USS shell created by the USS server for processing UNIX commands unexpectedly terminates.

#### **Action:**

The USS server that detected the error shuts down. The most likely cause of this error is the improper use of UNIX special characters in the USSCMD being processed by the server. The UNIX meta characters (`$ . * + ? - ( ) ' ` " |`) are interpreted as command operators unless they are preceded by the escape character, backslash (`/`). Check other UNIX response messages for error conditions. Check the syntax of the submitted command for errors. Resubmit the corrected command.

## OPS4704E

### **STORAGE SHORTAGE FOR VARIABLE ACCESS TO varname**

Modifiable: Yes

**Reason:**

An ADDRESS AP command attempted to acquire the host variable value, but encountered inadequate storage to access the variable.

**Action:**

Check the number of nested calls for your program and ensure that only required recursion is done. If proper programming techniques were verified, contact CA Customer Support for assistance. The variable fields of the message text are:

**varname**

Variable name

## OPS4705E

### **ADDRESS AP PPQ WRITE variable varname exceeds 30000 bytes**

Modifiable: Yes

**Reason:**

The ADDRESS AP PPQ write variable value exceeds the maximum length of 30000 bytes.

**Action:**

Check the length of the variable value and ensure that the length does not exceed the maximum allowable length.

The variable fields of the message text are:

**varname**

Variable name

## OPS5674I

**PATH: status CH=(chpid,chpidsw,chport) CU=(cunum,culsn,cuport)**

Modifiable: No

**Reason:**

This is part of the response to a DISPLAY DEVICE command, included when DETAIL=PATH is in effect.

**Action:**

None.

The variable fields of the message text are:

**status**

Last known status of the path, either On or Off.

**chpid**

Channel Path Identifier

**chport**

Entry link address

**cunum**

Logical control unit number

**cuport**

Exit link address

**chpidsw**

Device number for the switch/director or 'None'

**culsn**

Device number for the switch/director or 'None'

## OPS5680I

### CHPID Display for System name

Modifiable: No

#### Reason:

This is the first line of the response to a DISPLAY CHPID command for a specific system. It is followed by OPS5681 and OPS5682, and optionally by OPS5683, OPS5684, and OPS5685 and OPS5686.

#### Action:

None.

The variable fields of the message text are:

#### name

Name of the system

## OPS5770I

### Switch Display for System sysname:

Modifiable: No

#### Reason:

This is the first line of the response to the DISPLAY SWITCH command for a single system. It is followed by OPS5771-5779.

#### Action:

None.

The variable fields of the message text are:

#### sysname

Name of the system

## OPS5771I

**Dev# Inst Impl Chp CU ISL Name**

Modifiable: No

**Reason:**

This is part of the response to the DISPLAY SWITCH command. It provides a heading for the remainder of the display.

**Action:**

None

**OPS5772I**

**devnumflag #inst #impl #chp #cu #ifl name**

Modifiable: No

**Reason:**

This is part of the response to the DISPLAY SWITCH GLOBAL command. It provides summary information for a single switch.

**Action:**

None.

The variable fields of the message text are:

**devnum**

Device number for the switch

**#inst**

Number of installed ports

**#impl**

Number of implemented ports

**#chp**

Number of ports that are connected to CHPIDs

**#cu**

Number of ports that are connected to control units name Switch name

**name**

Switch name

**flag**

Flag that indicates status of the switch:

**a**

Switch is allocated on the local system

**n**

Switch is not allocated on the local system, but is allocated on at least one other system

**N**

switch is not allocated on any system

**v**

No UCB found for the switch

**#ifl**

Number of ports that are connected to interswitch links



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- javaee\_5.xsd
- javaee\_web\_services\_1\_2.xsd
- javaee\_web\_services\_client\_1\_2.xsd
- javaee\_6.xsd
- javaee\_web\_services\_1\_3.xsd
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- web-app\_3\_0.xsd
- web-common\_3\_0.xsd
- web-fragment\_3\_0.xsd

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