

APAR OA56200

DFSMSdfp OAM

Publication Update Document

The z/OS MVS System Messages, Vol 4 (CBD-DMO) (Publication numbers: SA38-0671-30) to be updated as follows...

- Note:**
1. Red text with strikethrough should be removed.
 2. Blue text is new text that should be added.
 3. Black text is existing text for reference.
 4. '...' means the content here doesn't contain any new changes and will not be shown.
-

CBR Messages Section...

===== Add the following new messages =====

CBR8030I Installation **exit** *exit-name* **has been loaded.**

Explanation:

The installation exit has been loaded as requested with the F OTIS,LOAD,*exit-name* command, during OTIS initialization or adding a new subsystem to an empty subsystem configuration when security exit dynamic load is enabled.

exit-name the installation exit name.

System Action:

OTIS processing continues.

Source:

Object Access Method (OAM)

Routing Code:

2

Descriptor Code:

4,5

CBR8031D Installation **exit** *exit-name* **reload has been issued.**
Reply 'U' to continue, 'C' to cancel.

Explanation:

The operator has entered a command of F OTIS,LOAD,*exit-name*.

This message is issued to confirm that the specified installation exit is to be reloaded. Before confirming the reload of the specified installation exit, verify that a new

version of the installation exit has been located in the link list concatenation (SYS1.LINKLIB, etc.) and the library has been refreshed.

exit-name the installation exit name.

System Action:

OTIS waits for a response from the operator.

Operator Response: Reply 'U' to confirm the installation exit reload or 'C' to cancel the reload.

Source:

Object Access Method (OAM)

Routing Code:

2

Descriptor Code:

2

CBR8032I Installation exit *exit-name* reload has been canceled.

Explanation:

The operator has entered a command of F OTIS,LOAD,*exit-name*.

Message CBR8031D has been issued. The operator responded 'C' to the message, thereby installation exit *exit-name* will not be reloaded.

exit-name the installation exit name.

System Action:

The Modify OTIS command is canceled.

Source:

Object Access Method (OAM)

Routing Code:

2

Descriptor Code:

5

CBR8033I Installation exit *exit-name* cannot be loaded by OTIS. The dynamic LPA service (CSVDYLPA) return code=*return-code* reason code= *reason-code*.

Explanation:

During OTIS initialization or adding new subsystem to an empty subsystem configuration or the operator has issued F OTIS,LOAD,*exit-name* command when security exit dynamic load is enabled, the dynamic LPA service (CSVDYLPA) is failed and

returns with a return code *return-code* and reason code *reason-code*.
If the CSVDYLPA service fails on the initial load (during OTIS initialization), OAM will revert back to the original load mechanism which can be on every OSREQ request.

exit-name the installation exit name.

System Action:

Installation exit reloading stops.

Operator Response: Inform your system programmer.

System Programmer Response: Refer to dynamic LPA service manual for additional return code and reason code information. F OTIS,LOAD command can be used to re-initiate the load after resolving the issue.

Source:

Object Access Method (OAM)

Routing Code:

2

Descriptor Code:

4,5

CBR8552I *operand-name* operand for verb command not recognized by *subsystem-id* subsystem.

Explanation:

The *operand-name* operand for verb command was not recognized by the *subsystem-id* subsystem.

System Action:

Processing continues.

Operator Response: Enter a valid *subsystem-id* subsystem operand. See z/OS DFSMS OAM Planning, Installation, and Storage Administration Guide for Object for valid *subsystem-id* subsystem operands.

Source:

Object Access Method (OAM)

Routing Code:

2

Descriptor Code:

5

CBR8561I Security exit CBRUXSAE dynamic load has not been enabled. To enable, specify SL parameter in subsystem definition.

Explanation:

The operator has entered a command of F OTIS,LOAD,exit-name. However security exit CBRUXSAE dynamic load feature has not been enabled.

System Action:

Processing continues.

Operator Response: Inform your system programmer.

System Programmer Response: Specify SL parameter in subsystem definition. See *z/OS DFSMS OAM Planning, Installation, and Storage Administration Guide for Object* for more information.

Source:

Object Access Method (OAM)

Routing Code:

2

Descriptor Code:

5

**CBR8562I Security exit CBRUXSAE dynamic load stays enabled.
Re-IPL is needed to disable dynamic load.**

Explanation:

This message will be issued under the circumstance that CBRUXSAE dynamic load is enabled (SL=Y) and all subsystems have been deleted and has become an empty configuration, a new subsystem is being added to the configuration with parameter SL=N. A dynamic change of SL=Y to SL=N is not supported and SL=Y will remain in effect for the duration of this IPL.

System Action:

Processing continues.

Operator Response: Inform your system programmer.

System Programmer Response: To switch from SL=Y to SL=N, update subsystem definition in IEFSSNxx PARMLIB member and re-IPL. See *z/OS DFSMS OAM Planning, Installation, and Storage Administration Guide for Object* for more information.

Source:

Object Access Method (OAM)

Routing Code:

2

Descriptor Code:

5

=====
===== Change the following message =====

CBR1100I OAM status:

Explanation

The OAM status is:

Table 1. OAM status													
OAM PROCNAME:	procname				OAM TASKID: taskid								
OPT.	TOT	USE	TOT	USE	AVL	TOT	USE	AVL	TOT	USE	AVL	SCR	REQ
	LIB	LIB	DRV	DRV	DRV	LDR	LDR	LDR	SDR	SDR	SDR	VOL	CT
	aaa	bbb	ccc	ddd	eee	fff	ggg	hhh	iii	jjj	kkk	lll	mmm
TAPE	TOT	ONL	TOT	TOT	TOT	TOT	TOT	ONL	AVL	TOTAL			
	LIB	LIB	AL	VL	VCL	ML	DRV	DRV	DRV	SCRATCH			
	nnn	ooo	ppp	qqq	rrr	sss	tttt	uuuu	vvvv	wwwwwww			
Category count scratch transition {ENABLED OPERATOR DISABLED}													
exit-name processing {ENABLED DISABLED BYPASSED OPERATOR DISABLED}.													
CBRUXSAE processing {ENABLED BYPASSED BYPASSED_RS}for STORE.													
CBRUXSAE processing {ENABLED BYPASSED} for RETRIEVE.													
CBRUXSAE processing {ENABLED BYPASSED} for QUERY.													
CBRUXSAE processing {ENABLED BYPASSED} for CHANGE.													
CBRUXSAE processing {ENABLED BYPASSED} for DELETE.													
Access Backup {ACTIVE INACTIVE}for reason, using {1st 2nd no} backup copy.													
Diagnostic messages {ACTIVE INACTIVE} for OSREQFS. Limit=nnnn.													
DB2 ID: db2-id													
XCF GROUP NAME: group-name													
XCF MEMBER NAME: member-name													
CBROAM: cbroam-parmlib-suffix													
OAMx Parms: TIME=xxx MSG=xx OTIS=x SL=x													
UPD=x QB=x MOS=xxxx LOB=x DP=x													

...

When no SETTLIB statement has been specified:

```
OAM PROCNAME: procname      OAM TASKID: taskid
TAPE TOT  ONL  TOT  TOT  TOT  TOT  TOT  ONL  AVL  TOTAL
      LIB  LIB  AL  VL  VCL  ML  DRV  DRV  DRV  SCRATCH
      nnn  ooo  ppp  qqg  rrr  sss  tttt  uuuu  vvvv  wwwwww

TOTAL
SCRATCH
wwwwww

Category count scratch transition {ENABLED|OPERATOR DISABLED}
exit-name processing
{ENABLED|DISABLED|BYPASSED|OPERATOR DISABLED}.
DB2 ID: NONE
OAMx Parms: TIME=xxx  MSG=xx  OTIS=x  SL=x
```

When SETTLIB statement has been specified:

```
OAM PROCNAME: procname      OAM TASKID: taskid
TAPE TOT  ONL  TOT  TOT  TOT  TOT  TOT  ONL  AVL  TOTAL
      LIB  LIB  AL   VL   VCL  ML   DRV  DRV  DRV  SCRTCH
      nnn  ooo  ppp  qqq  rrr  sss  tttt  uuuu  vvvv  wwwwww
```

TOTAL
SCRTCH
wwwwww

```
Category count scratch transition {ENABLED|OPERATOR DISABLED}
exit-name processing
{ENABLED|DISABLED|BYPASSED|OPERATOR DISABLED}.
DB2 ID: NONE
CBROAM: cbroam-parmlib-suffix
OAMx Params: TIME=xxx  MSG=xx  OTIS=x  SL=x
```

Actual TAPELIB Address Space with SETTLIB:

```
16.36.34 SYSTEM1          d sms,oam
CBR1100I OAM status:
OAM PROCNAME: OAMXT      OAM TASKID: OAMXT
TAPE TOT  ONL  TOT  TOT  TOT  TOT  TOT  ONL  AVL  TOTAL
      LIB  LIB  AL   VL   VCL  ML   DRV  DRV  DRV  SCRTCH
      4   1   0   0   1   1   16   2   2   38
```

There are also 1 VTS distributed libraries defined.

```
Category count scratch transition ENABLED.
CBRUXCUA processing ENABLED.
CBRUXEJC processing ENABLED.
CBRUXENT processing ENABLED.
CBRUXVNL processing ENABLED.
DB2 ID: NONE
CBROAM: XT
OAXT Params: TIME=LOC  MSG=EM  OTIS=Y  SL=x
```

Note: The values displayed for TIME=, MSG=, and OTIS= and SL= will be the specified or default value for the first OAM subsystem to be started following the last IPL. The values for these parameters

...

Note: See [z/OS DFSMS OAM Planning, Installation, and Storage Administration Guide for Object Support](#) for more information on these parameters.

TIME=xxx specifies whether the timestamp value in the object directory in DB2 is to be based on GMT. If this option is omitted, or if any value other than GMT is specified, the object directory time stamp in DB2 is based on local time.

- TIME=GMT indicates that the timestamp value is based on GMT.
- TIME=LOC indicates that the timestamp value is based on local time.

...

MOS=xxxx specifies the maximum object size limit in MB. Valid values are 50-2000. If this keyword is omitted, the maximum supported object size remains at 50MB. The maximum object

size is checked when objects are initially stored through the OSREQ programming interface and is not checked on subsequent retrievals. ~~OTIS=x specifies whether OTIS should wait for JES to completely initialize before OTIS is started:~~

OTIS=x specifies whether OTIS should wait for JES to completely initialize before OTIS is started:

- OTIS=Y indicates that OTIS does not start until JES is completely initialized.
- OTIS=N indicates that OTIS starts independently from JES. This is the default.

...

DP=x specifies the scope at which deletion-protection is enabled or disabled. If a given object storage group has deletion-protection enabled, no objects can be deleted from that object storage group before the expiration date of the object.

- DP=A indicates that deletion-protection is enabled for all object storage groups.
- DP=P indicates that deletion-protection is partially enabled. Specifically, deletion-protection is enabled only for object storage groups that have the OAM Deletion Protection setting defined as ENABLED in ISMF for the object storage group SMS construct.
- DP=N indicates that deletion-protection is enabled for no object storage groups. This is the default.

SL=x specifies whether security exit CBRUXSAE dynamic load is enabled:

- SL=N specifies that LOAD macro is in use to load the exit on every OSREQ invocation. The dynamic load into common storage for the security exit is not enabled. This is the default.
- SL=Y specifies that dynamic load into common storage for the security exit is enabled.

System action

None.

Source

Object Access Method (OAM)

Routing Code

-

Descriptor Code

5,8,9

The z/OS DFSMS OAM Planning, Installation, and Storage Administration Guide for Object Support (Publication numbers: SC23-6866-30) to be updated as follows...

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-

Chapter 3 "Migrating, installing, and customizing OAM" -> Section 5 "Changing system libraries" -> Part b "Updating the IEFSSNxx PARMLIB member"

...

3. In a classic OAM configuration, a single OAMx subsystem definition must be defined in the IEFSSNxx member of PARMLIB. The format of the subsystem definition is as follows:

```
SUBSYS SUBNAME (OAMx) INITRTN (CBRINIT)
INITPARM (' [TIME=x] [,MSG=x] [,OTIS=x] [,UPD=x] [,MOS=nnnn] [,LOB=x] [,QB=x] [,DP=x] [
,SL=x]')
```

In a multiple OAM configuration, one or more OAM subsystem definitions can be defined in the IEFSSNxx member of PARMLIB. An OAM subsystem definition must exist for each OAM instance in the multiple OAM configuration. The format of the subsystem definition is as follows:

```
SUBSYS SUBNAME (OAMx) INITRTN (CBRINIT)
INITPARM ('D=xxxx[,TIME=x] [,T=x] [,MSG=x] [,OTIS=x] [,UPD=x] [,MOS=nnnn] [,LOB=x] [,
QB=x] [,DP=x] [,SL=x]')
```

where:

[TIME=x | T=x]

Specifies upon which time zone the timestamp value in the object directory in DB2 is to be based:

- TIME=GMT specifies that the timestamp value in the object directory in DB2 is to be based on GMT.
- TIME=LOC specifies that the timestamp value in the object directory in DB2 is to be based on local time. This is the default.

Note: This keyword is only processed for the first OAM subsystem to initialize and that value is used for all OAM subsystems. If specified on any OAM subsystem other than the first one to initialize, it is ignored. [There is a short name T= for this keyword to be used in both classic and multiple OAM configurations for the purpose of fully utilizing the space of subsystem definition statement line which has a limited length.](#)

...

OTIS=x

Specifies whether OTIS should wait for JES to completely initialize before OTIS is started:

- OTIS=Y specifies that OTIS will not start until JES is initialized.
- OTIS=N specifies that OTIS starts independently from JES. This is the default.

Note: This keyword is only processed for the first OAM subsystem to initialize and that value is used for all OAM subsystems. If specified on any OAM subsystem other than the first one to initialize, it is ignored.

SL=x

Specifies whether Dynamic load for security exit CBRUXSAE is enabled:

- SL=N specifies that LOAD macro is in use to load the exit on every OSREQ invocation. The dynamic load into common storage for the security exit is not enabled. This is the default.
- SL=Y specifies that dynamic load into common storage for the security exit is enabled.

Note: This keyword is only processed for the first OAM subsystem to initialize and that value is used for all OAM subsystems. If specified on any OAM subsystem other than the first one to initialize, it is ignored.

UPD=x

Specifies whether DB2 updates for the pending action date (ODPENDDT) and the last reference date (ODLREFDT) fields should be performed:

- UPD=Y specifies that the ODPENDDT and ODLREFDT fields should be updated on all OSREQ retrieves

...

Note: Each DB2 subsystem can only be associated with one OAM subsystem on each system. If either the SSID or Group Attachment Name for a DB2 subsystem is specified with D= on one OAM subsystem definition, no other OAM subsystem definitions on the same system should specify either the SSID or Group Attachment Name for that same DB2 subsystem.

- The TIME=, MSG=, ~~and~~ OTIS= ~~and~~ SL= keywords are only processed for the first OAM subsystem (Tape Library or Object) to initialize. Those values are used for all OAM subsystems until the next IPL. Any specification of TIME=, MSG=, ~~or~~ OTIS= ~~or~~ SL= on any other OAM subsystem definitions is ignored. Note that OAM subsystem definitions after the BEGINPARALLEL statement in the IEFSSNxx member can be processed in any order. To ensure that a particular OAM subsystem is initialized first, make it the first OAM subsystem definition and place it before any BEGINPARALLEL statement.
- An OAM Tape Library subsystem definition in a multiple OAM configuration utilizes only the D=, TIME=, MSG=, ~~and~~ OTIS=, ~~and~~ SL= parameters. All other parameters are ignored.

...

Chapter 5 “Operating OAM and OTIS address space and OSMC functions” -> Page 426 at the end of the page after the "Refreshing OTIS DB2 Tasks" section, add two new sections of "Dynamically loading Security exit CBRUXSAE" and “Reloading security exit CBRUXSAE for dynamic load enabled configurations” as below:

Dynamically loading Security exit CBRUXSAE

When SL= keyword is specified to 'Y' in a subsystem definition in IEFSSNxx PARMLIB member, CBRUXSAE security exit dynamic load is enabled in the OAM configuration. This is intended to provide an alternative to doing a LOAD of the exit at every OSREQ request. With the Dynamic load enabled, security exit CBRUXSAE will be loaded at OTIS initialization at IPL time or when adding a new subsystem to an empty OAM configuration. Then all OSREQ request will utilize that one loaded exit until operator issue an F OTIS,LOAD,CBRUXSAE command to reload a new version of the exit. Then all following OSREQ requests will start using the new version.

Note: In the same duration of an IPL, users can change SL=N to SL=Y dynamically by deleting all subsystems in a system configuration that has CBRUXSAE dynamic load disable (SL=N) and adding a new system with the SL=Y. However, changing from SL=Y to SL=N dynamically is not currently supported. Updating SL= keyword in subsystem definition in IEFSSNxx PARMLIB member and re-IPL is needed to switch back from SL=Y to SL=N.

Under the following circumstances, Loading CBRUXSAE security exit at every OSREQ request with LOAD macro will be used rather than CBRUXSAE dynamic load:

1. SL= keyword is not specified or is specified to 'N' in subsystem definition in IEFSSNxx PARMLIB member.
2. SL= keyword is specified to 'Y', but the initial load at IPL time fails.

Reloading security exit CBRUXSAE for dynamic load enabled configurations

Support is added to the MODIFY OTIS command to allow a reload of the CBRUXSAE security exit. This is intended to provide support for allowing changes to CBRUXSAE security exit within a dynamic load enabled environment and loading those changes into OAM without the need for re-IPLing. After a reload has been performed successfully, subsequent OSREQ requests will now use the latest version of CBRUXSAE that was just loaded.

Use the MODIFY OTIS,LOAD,*exit-name* command to dynamically load the latest CBRUXSAE security exit available within the linklist concatenation.

MODIFY OTIS,LOAD,*exit-name*

exit-name

Specifies the security exit name to be dynamically reloaded by OTIS. As of APAR OA56200, available security exits supported for reload are: CBRUXSAE.

Note: SL=Y OAM subsystem parameter must be specified and enabled within the OAM configuration in order for the new MODIFY OTIS command to be accepted. After changes are made to CBRUXSAE and before a reload is issued, the latest version of CBRUXSAE must be refreshed within the linklist concatenation in order for the reload to recognize the new version.

After a reload, LIBRARY RESET command is recommended to issue for CBRUXSAE to reset all CBRUXSAE processing flags.

Chapter 5 “Operating OAM and OTIS address space and OSMC functions” -> Start from page 353 in the middle of the page:

CBR1100I OAM status:

TOT	USE	TOT	USE	AVL	TOT	USE	AVL	TOT	USE	AVL	SCR	REQ
LIB	LIB	DRV	DRV	DRV	LDR	LDR	LDR	SDR	SDR	SDR	VOL	CT
aaa	bbb	ccc	ddd	eee	fff	ggg	hhh	iii	jjj	kkk	lll	mmm

Category count scratch transition {ENABLED|OPERATOR DISABLED}.

exitname processing {ENABLED|DISABLED|BYPASSED|BYPASSED_RS|OPERATOR-DISABLED}.

Access Backup status for xxx reasons, using yyy backup copy.

Diagnostic messages {ACTIVE|INACTIVE} for OSREQFS. Limit=nnnn.

DB2 SSID: ssid

XCF GROUP NAME: group-name

XCF MEMBER NAME: member-name

CBROAM: parmlib-suffix

OAMn Parms: TIME=xxx MSG=xx OTIS=x **SL=x**

UPD=x QB=x MOS=xxxx LOB=x DP=x

... ..

DP=x

Specifies that scope at which deletion-protection is enabled or disabled. If a given object storage group has deletion-protection enabled, then no objects can be deleted from that object storage group prior to the object's expiration date.

- DP=A Indicates that deletion-protection is enabled for all object storage groups.
- DP=P Indicates that deletion-protection is partially enabled. Specifically, deletion-protection is enabled only for object storage groups that have the OAM Deletion Protection setting defined as ENABLED in ISMF for the object storage group SMS construct.
- DP=N Indicates that deletion-protection is not enabled for any object storage group. This is the default.

SL=x

specifies whether security exit CBRUXSAE dynamic load is enabled:

- SL=N specifies that LOAD macro is in use to load the exit on every OSREQ invocation. The dynamic load into common storage for the security exit is not enabled. This is the default.
- SL=Y specifies that dynamic load into common storage for the security exit is enabled.

The following is a sample of DISPLAY SMS,OAM status:

CBR1100I OAM status: 418

OPT.	TOT	USE	TOT	USE	AVL	TOT	USE	AVL	TOT	USE	AVL	SCR	REQ
LIB	LIB	DRV	DRV	DRV	LDR	LDR	LDR	SDR	SDR	SDR	VOL	CT	
	4	0	10	0	0	8	0	0	2	0	0	4	0
TAPE	TOT	ONL	TOT	TOT	TOT	TOT	TOT	ONL	AVL	TOTAL			

LIB	LIB	AL	VL	VCL	ML	DRV	DRV	DRV	SCRATCH
6	0	0	0	0	1	0	0	0	107

There are also 0 VTS distributed libraries defined.

Category count scratch transition ENABLED.

CBRUXCUA processing ENABLED.

CBRUXEJC processing ENABLED.

CBRUXENT processing ENABLED.

CBRUXVNL processing ENABLED.

CBRUXSAE processing ENABLED.

CBRUXSAE processing ENABLED for STORE.

CBRUXSAE processing ENABLED for RETRIEVE.

CBRUXSAE processing ENABLED for QUERY.

CBRUXSAE processing ENABLED for CHANGE.

CBRUXSAE processing ENABLED for DELETE.

EDGTVEXT processing ENABLED.

Access Backup processing ACTIVE for UNREADABLE VOLUMES, using 1st backup copy.

Access Backup processing ACTIVE for OFFLINE LIBRARIES, using 1st backup copy.

Access Backup processing ACTIVE for NOT OPERATIONAL LIBRARIES, using 1st backup copy.

Access Backup processing ACTIVE for DB2 OBJECT TABLE ERRORS, using 1st backup copy.

Access Backup processing ACTIVE for LOST VOLUMES, using 1st backup copy.

Access Backup processing ACTIVE for FILE SYSTEM ERRORS, using 1st backup copy.

Diagnostic messages ACTIVE for OSREQFS. Limit= 10.

DB2 SSID: DB2

XCF GROUP NAME: -N/A-

XCF MEMBER NAME: -N/A-

CBROAM: 19

~~OAMn Params: TIME=LOC MSG=EM UPD=C QB=Y
MOS=2000 OTIS=N LOB=P DP=P~~

OAMx Params: TIME=LOC MSG=EM OTIS=N SL=N
UPD=C QB=Y MOS=2000 LOB=P DP=P