

APAR OA57838

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...

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

CBR1100I OAM status:

Explanation

The OAM status is:

Table 1. OAM status													
OAM PROCNAME: <i>procname</i>							OAM TASKID: <i>taskid</i>						
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	ONL	AVL	TOTAL				
LIB	LIB	AL	VL	VCL	ML	DRV	DRV	DRV	SCR	TCH			
nnn	ooo	ppp	qqq	rrr	sss	ttttt	uuuuu	vvvvv	wwwwwww				
Category count scratch transition {ENABLED OPERATOR DISABLED}													
<i>exit-name</i> 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 <i>reason</i> , using {1st 2nd no} backup copy.													
Diagnostic messages {ACTIVE INACTIVE} for OSREQFS. Limit= <i>nnnn</i> .													
DB2 ID: <i>db2-id</i>													
XCF GROUP NAME: <i>group-name</i>													
XCF MEMBER NAME: <i>member-name</i>													
CBROAM: <i>cbroam-parmlib-suffix</i>													
OAMx Params: TIME= <i>xxx</i> MSG= <i>xx</i> OTIS= <i>x</i> SL= <i>x</i>													
UPD= <i>x</i> QB= <i>x</i> MOS= <i>xxxx</i> LOB= <i>x</i> DP= <i>x</i> LR=<i>x</i>													

...

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

- UPD=Y indicates that the ODPENDDT and ODLREFDT fields should be updated on all OSREQ RETRIEVE requests.

Note: The ODLREFDT field is not updated for OSREQ CHANGE requests.

This is the default.

- UPD=N indicates that the ODPENDDT and ODLREFDT fields should not be updated for any OSREQ RETRIEVE requests.

Note: The ODLREFDT field is not updated for OSREQ CHANGE requests.

If you use UPD=N, you cannot base transition criteria on the time since last use parameter in the ISMF management class definition.

- UPD=C indicates that the ODPENDDT and ODLREFDT fields should be updated on all OSREQ RETRIEVE and on all OSREQ CHANGE requests.

Note: Regardless of the setting for UPD= and if LR=N, the ODLREFDT field is not updated when:

- OSREQ RETRIEVE results in RECALL being scheduled.
- OSREQ RETRIEVE of object currently in RECALL mode.

...

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.

LR=x Specifies whether an object last reference date is updated during a retrieve for an object currently in a recalled state:

- LR=N specifies that the last reference date in object directory table will not be updated when an object is retrieved under a recalled state. This is the default.
- LR=Y specifies that the last reference date in object directory table will be updated when an object is retrieved under a recalled state.

Note:

- LR=Y will only be honored if UPD=Y (default) or UPD=C. If UPD=N, then LR=Y is ignored and the default behavior (LR=N) is taken.

- If LR=Y, note that object expiration behavior may be different for objects assigned to a management class that has 'expire non-usage' specified. Since an object can now have its last reference date updated while in the recall state, an object that could have otherwise expired may now persist for a longer period of time.

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...

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.**

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

...

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 | T=x] [,MSG=x] [,OTIS=x | O=x] [,UPD=x | U=x] [,MOS=nnnn] [,LOB=x] [,QB=x] [,DP=x] [,SL=x] [,LR=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 | O=x] [,UPD=x | U=x] [,MOS=nnnn] [,LOB=x] [,QB=x] [,DP=x] [,SL=x] [,LR=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 | O=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. [There is a short name O= 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.](#)

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 | U=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: The ODLREFDT field is not updated for OSREQ CHANGE requests.

This is the default.

- UPD=N specifies that the ODPENDDT and ODLREFDT fields should not be updated for any OSREQ RETRIEVE requests.

Note: The ODLREFDT field is not updated for OSREQ CHANGE requests.

Restriction: If you use UPD=N, you cannot base transition criteria on the time since last use parameter in the ISMF management class definition.

- UPD=C specifies that the ODPENDDT and ODLREFDT fields should be updated on all OSREQ RETRIEVE and on all OSREQ CHANGE requests.

Note: Regardless of the setting for UPD= and if LR=N, the ODLREFDT field is not updated when:

- OSREQ RETRIEVE results in RECALL being scheduled.
- OSREQ RETRIEVE of object currently in RECALL mode.

There is a short name U= 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.

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.

LR=x

Specifies whether an object last reference date is updated during a retrieve for an object currently in a recalled state:

- LR=N specifies that the last reference date in object directory table will not be updated when an object is retrieved under a recalled state. This is the default.
- LR=Y specifies that the last reference date in object directory table will be updated when an object is retrieved under a recalled state.

Note:

- LR=Y will only be honored if UPD=Y (default) or UPD=C. If UPD=N, then LR=Y is ignored and the default behavior (LR=N) is taken.

- If LR=Y, note that object expiration behavior may be different for objects assigned to a management class that has 'expire non-usage' specified. Since an object can now have its last reference date updated while in the recall state, an object that could have otherwise expired may now persist for a longer period of time.

...

Chapter 3 “Migrating, installing, and customizing OAM” -> Section 5 “Changing system libraries” -> “SETOSMC statements for use in the OSMC environment” -> “SETOSMC statement syntax: OAM global level parameters” diagram at the end of Page 159, add a new row at the end of the diagram and add the following optional keyword to the row:

MAXOSMCFAIL(*nnn*)

On page 161, add new keyword explanation as below:

...

MAXRECALLTASKS(*nnn*)

Specifies the maximum number of RECALL tasks that can be run concurrently. Valid values are 0–255. The default is 0. A value of 0 indicates that no RECALL operations are to be run. This applies to both implicit (recalls through SETOSMC enablement) and explicit (recalls through OSREQ macro requests with the RECALL keyword) recalls.

MAXOSMCFAIL (*nnn*)

Specifies the OSMC error threshold parameter which indicates the maximum number of the same type of OSMC errors that are allowed before OSMC failure. Valid values are 0-255. The default is 3. During OSMC processing, if less than or equal to *nnn* number of the same type of processing errors occur, OSMC keeps processing. If more than *nnn* number of the same type of processing errors occur, OSMC terminates processing.

RECALLDISKSUBLEVEL(n)

Specifies the disk sublevel where objects residing on optical or tape devices will be placed when they have been recalled. This keyword can be specified at

...

Chapter 4 “Administering OAM” -> “Recalling objects to disk” -> Page 242 the paragraph before “Tuning the storage management cycle”:

Note: Regardless of the setting for UPD= and if LR=N, the ODLREFDT is not updated when:

- OSREQ RETRIEVE results in RECALL being scheduled, ~~or 2~~.
- OSREQ RETRIEVE of object currently in RECALL mode.

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=nxxx.

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=xxxxx LOB=x DP=x LR=x

... ..

OAMn Parms

Displays settings that resulted from the parameters specified for the OAMn subsystem definition (in the IEFSSNxx PARMLIB member or on the SETSSI ADD command). Refer to Changing system libraries for detailed information on the meaning of these settings.

Note: Refer to z/OS DFSMS OAM Planning, Installation, and Storage Administration Guide for Object Support for more information on these

...

UPD=x

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

...

- UPD=C Indicates that the ODPENDDT and ODLREFDT fields should be updated on all OSREQ RETRIEVE and on all OSREQ CHANGE requests.

Note: Regardless of the setting for UPD= and if LR=N, the ODLREFDT is not updated when:

- OSREQ RETRIEVE results in RECALL being scheduled, or 2.
- OSREQ RETRIEVE of object currently in RECALL mode.

...

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.

LR=x

Specifies whether an object last reference date is updated during a retrieve for an object currently in a recalled state:

- LR=N specifies that the last reference date in object directory table will not be updated when an object is retrieved under a recalled state. This is the default.
- LR=Y specifies that the last reference date in object directory table will be updated when an object is retrieved under a recalled state.

Note:

- LR=Y will only be honored if UPD=Y (default) or UPD=C. If UPD=N, then LR=Y is ignored and the default behavior (LR=N) is taken.

- If LR=Y, note that object expiration behavior may be different for objects assigned to a management class that has 'expire non-usage' specified. Since an object can now have its last reference date updated while in the recall state, an object that could have otherwise expired may now persist for a longer period of time.

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 SCRTCH
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

OAMx Parms: TIME=LOC MSG=EM OTIS=N SL=N

UPD=C QB=Y MOS=2000 LOB=P DP=P LR=N

Chapter 5 “Operating OAM and OTIS address space and OSMC functions” -> “Using the UPDATE command to set SETOAM, SETOSMC, and SETOPT values” section -> “Updating SETOSMC value” subsection on Page 418-> :

Add the new keyword below into Table 45. Valid SETOSMC keywords on the UPDATE command.

UPDATE keyword	Associated SETOSMC keyword	Associated value	Value range
MAXOSMCF	MAXOSMCFAIL	number	0-255

Add following at the end of Page 420:

...

```
F OAM,UPDATE,SETOSMC,ALL,MAXRECAL,8
```

This instructs OAM process a maximum of 8 recalls to disk of tape or optical objects being retrieved from any storage group. This can only be issued at the global level.

When this command executes successfully, OAM issues the following message:

```
CBR1074I Update successful for SETOSMC parameter MAXRECAL, 8  
scope ALL. The previous value was MAXRECAL=27.
```

```
F OAM, UPDATE, SETOSMC, ALL, MAXOSMCF, 6
```

This instructs the OSMC error threshold is 6. A maximum of 6 same type of error is allowed before failing OSMC processing. This can only be issued at the global level.

When this command executes successfully, OAM issues the following message:

```
CBR1074I Update successful for SETOSMC parameter MAXOSMCF, new  
value 6, scope ALL. The previous value was 3.
```