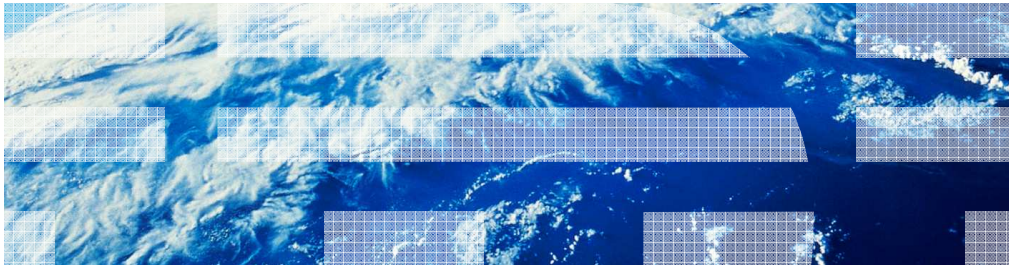


z/OS V1R13

SDSF: Remove MQSeries requirement



Session objectives

- The purpose of this line item
- How to install this line item
- How to invoke this line item
- How to find information in the publications

Overview

- Problem Statement / Need Addressed
 - SDSF should not require MQSeries for sysplex support
- Solution
 - Replace MQSeries with XCF based solution for CK, PS, ENC, and RM panels
- Benefit / Value
 - Simplified configuration and no dependency on MQSeries

Usage and invocation (1 of 2)

- SDSF provides sysplex view of panels:
 - CK (health checks)
 - PS (processes)
 - ENC (enclaves)
 - RM (JES2 resources)
- Data gathered on each system using the SDSF server
- Consolidated on client for display
 - User can see data from all systems
- Other JES related panels (LI, RDR, PUN, SO, NO) addressed separately by line item 2118

This line item addresses the found panels shown: CK, PS, ENC, and RM.

The other SDSF panels were either re-implemented in prior releases (such as INIT and PR), or in this release (LI, RDR, PUN, SO, NO).

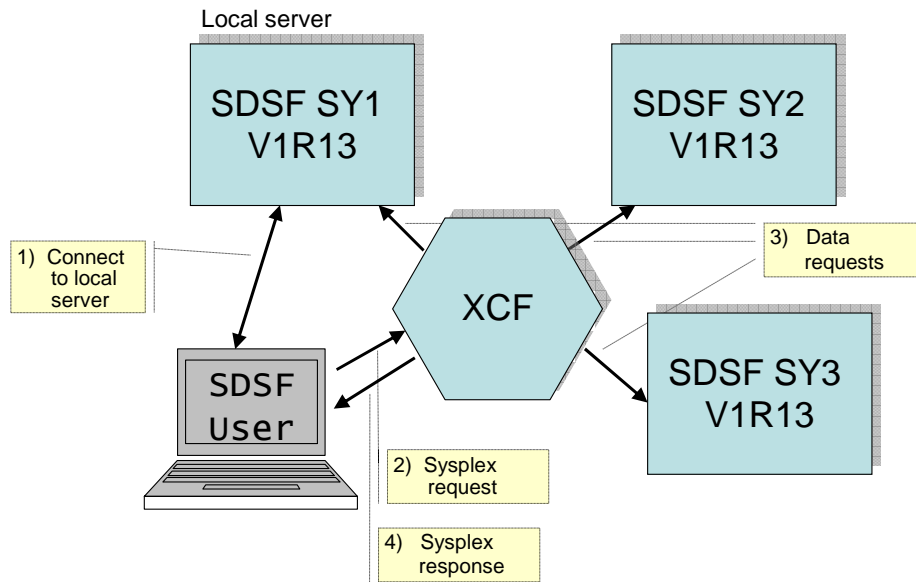
Check the SDSF manual for restrictions on what downlevel systems are supported.

Usage and invocation (2 of 2)

- Before V1R13, MQSeries was used to send requests to SDSF servers on other members and receive responses
- With V1R13, XCF will be used
 - Uses new XCF application server support
 - All target systems must be at least V1R13 level
 - SDSF server must be started on each system
- In mixed environment (V1R13 and downlevels)
 - Use SET CMODE command or ISFPRMxx custom property to control behavior:
 - Revert to MQSeries -or-
 - Use XCF and ignore downlevel systems

SDSF does not merge data from the XCF and MQSeries protocols. Thus all target systems must be accessible through XCF (i.e., must be at the V1R13 level), or MQSeries will be used.

SDSF communication with XCF



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SDSF: Remove MQSeries requirement

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Diagram showing interaction of SDSF user with SDSF servers and XCF to send and receive requests

Sysplex panel

```

SDSF HEALTH CHECKER DISPLAY (ALL) LINE 1 35 (41)
COMMAND INPUT > SCROLL > CSR
PREFIX=* DEST=(ALL) OWNER=* SORT=Interval/A SYSNAME=*
NP NAME CheckOwner SysName NextSch-Int
VSM_CSA_THRESHOLD IBMVSM SY1 0:00:13
VSM_CSA_THRESHOLD IBMVSM SY3 0:01:28
VSM_CSA_THRESHOLD IBMVSM SY4 0:03:59
CNZ_TASK_TABLE IBMCNZ SY1 0:05:06
RSM_HVSHARE IBMRSM SY1 0:05:06
RSM_MAXCADS IBMRSM SY1 0:05:06
VSM_SQA_THRESHOLD IBMVSM SY1 0:05:06
CNZ_TASK_TABLE IBMCNZ SY3 0:11:28
RSM_HVSHARE IBMRSM SY3 0:11:28
RSM_MAXCADS IBMRSM SY3 0:11:28
VSM_SQA_THRESHOLD IBMVSM SY3 0:11:28
CNZ_TASK_TABLE IBMCNZ SY4 0:13:59

```

All systems shown

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SDSF: Remove MQSeries requirement

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This is an example of a sysplex wide CK panel. Note the sysname column is showing checks from the different members.

You can interact with the check (browse, issue action characters, or overwrite columns) regardless of which system it is running on.

Configuration

- Use of XCF is configured by default
 - MQSeries requires a SERVERGROUP be configured in ISFPRMxx
 - Use CONNECT and PROPERTY statements in ISFPRMxx to customize
- All members in the sysplex are included
 - Must be at V1R13 level or higher
- Use SYSNAME command to specify system name pattern
 - SYSNAME * to display data from all systems
 - SYSNAME (blank) to display only local system

For those accounts not running MQSeries, use of XCF is transparent and allows you to obtain a sysplex view of the data.

ISFPRMxx configuration

- CONNECT statement
 - New XCFSRVNM keyword
 - Used to derive XCF application server name
 - Application server name links SDSF servers with clients
 - Name will be of the form ISFSRVR.*name*
 - XCFSRVNM(SAME | NONE | *server-name*)
 - » SAME – use SDSF server name as last qualifier (default)
 - » NONE – disable use of XCF
 - » *server-name* – use *server-name* as last qualifier

By default, XCF will be configured since XCFSRVNM(SAME) is the default.

SDSF uses the new XCF application server support. This allows clients and servers to communicate using XCF. The application server name links the clients with their servers.

The application name used by SDSF consists of a fixed part, and a variable part specified by the XCFSRVNM keyword.

SET CMODE command and custom property

- New SET CMODE command to control fallback to MQSeries
 - SET CMODE (blank) | Z12 | Z13
 - Blank (default for the release) (Z13)
 - Z12 – MQSeries should be used if no all targets are V1R13 level
 - Z13 – XCF should be used (downlevel targets will be ignored)
- New Comm.Release.Mode custom property in ISFPRMxx
 - Used to assign default CMODE
 - SET CMODE command overrides this property

When not all target systems are at the V1R13 level, SDSF can fallback to MQSeries.

Fallback is controlled by the SET CMODE command. You might prefer to just show the V1R13 systems using XCF than to show all systems using MQSeries.

Use the PROPERTY statement to define the custom property. Use the CUSTOM keyword of GROUP to reference the PROPLIST that contains the PROPERTY.

WHO command response

- WHO command response changed
 - COMMX= keyword added to show XCF status

```
USERID=KJONAS, PROC=SDSF31EJ, TERMINAL=Z046LC11,  
GRPINDEX=1, GRPNAME=ISFSPROG,  
MVS=z/OS 01.13.00, JES=z/OS1.13, SDSF=HGX7780,  
ISPF=6.3, RMF/DA=NOTACC, SERVER=YES,  
SERVERNAME=SDSF, JESNAME=JES2, MEMBER=SY1,  
JESTYPE=JES2, SYSNAME=SY1,  
SYSPLEX=PLEX1, COMM=NOTAVAIL, COMMX=ENABLED
```

This is a sample WHO command response.

Note the new COMMX= keyword which indicates that XCF is being used.

Values are ENABLED, DISABLED, SUSPENDED, and NOTAVAIL.

Server commands

- Display server status

```
SY1          f sdsf,d
SY1 S0000006 ISF304I Modify DISPLAY command accepted.
SY1 S0000006 ISF312I SDSF Display
Server status: Active          Default: Yes
Communications: Active
Parms: ISFPRM02 / SYS2.PARMLIB
XCF Communications: Configured
```

SDSF server commands have been updated to show XCF status.

Server commands

- Display server communications status

```
SY1          f sdsf,d,c
SY1 S0000006 ISF304I Modify DISPLAY command accepted.
SY1 S0000006 ISF310I SDSF Communications
  Id Server   Status      System   JESN Member ReqsProc
  01 SDSF     Active/L    SY1     JES2 SY1      4
  02 SDSF     Defined     SY2     JES2 SY2      1
SY1 S0000006 ISF315I SDSF XCF Communications
Application server name: ISFSRVR SDSF
Tasks Active: 000 Idle: 010
Sends: 000000027  Receives: 000000038
```

In this example, the XCF communications status is being shown.

Note the XCF application server name that the server is using.

New messages

- ISF160E IXCSEND to server failed
- ISF161E IXCRECV from server failed
- ISF162E Start server failed
- ISF163E Stop server failed
- ISF433I Server SDSF XCF connection established
- ISF434I Server connection stopping
- ISF435I Server connection stopped
- ISF436E No systems satisfy SYSNAME
- ISF437I Data not available
- ISF439I Server connection already established
- ISF440I Server cannot be undefined
- ISF442I Server SDSF XCF communications ready

Interactions and dependencies

- Software Dependencies
 - None
 - MQSeries no longer needed when all systems at V1R13 level
- Hardware Dependencies
 - None
- Exploiters
 - None

Migration and coexistence considerations

- Migration considerations
 - Use SET CMODE command to view downlevel systems using MQSeries
- Coexistence considerations
 - Downlevel systems can communicate with V1R13 as long as MQSeries is configured on both systems

Installation

- XCF is used as the default
- ISFPRMxx changes needed only if XCF is to be disabled or you are using different server names on the participating systems

Session summary

- Discussed use of XCF as alternative to MQSeries for SDSF sysplex requests
- Discussed ISFPRMxx customization
 - CONNECT statement
 - Custom property to define CMODE default
- Use of SET CMODE command to control fallback to MQSeries
- Server commands to display status

Appendix - References

- SDSF Operator and Customization, SA22-7670-15
- SDSF REXXHELP command
 - Contains SDSF/REXX usage, syntax, and examples
- SDSF SEARCH command
 - Searches SDSF help system for word or phrase



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