

z/OS V2R3 – z/OSMF

October 2017

Agenda

- Trademarks
- Overview
- Usage & Invocation
- Interactions & Dependencies
- Migration & Coexistence Considerations
- Installation
- Session Summary
- Appendix

Trademarks

- See url <http://www.ibm.com/legal/copytrade.shtml> for a list of trademarks.
- Additional Trademarks:
 - None.

z/OSMF V2R3 welcome page before logon

**IBM z/OS Management Facility**[LEARN MORE](#) [NEED HELP?](#)

Welcome to z/OSMF SHARE host image! Please log on z/OSMF using your SHARE user ID and password.

Welcome to z/OS

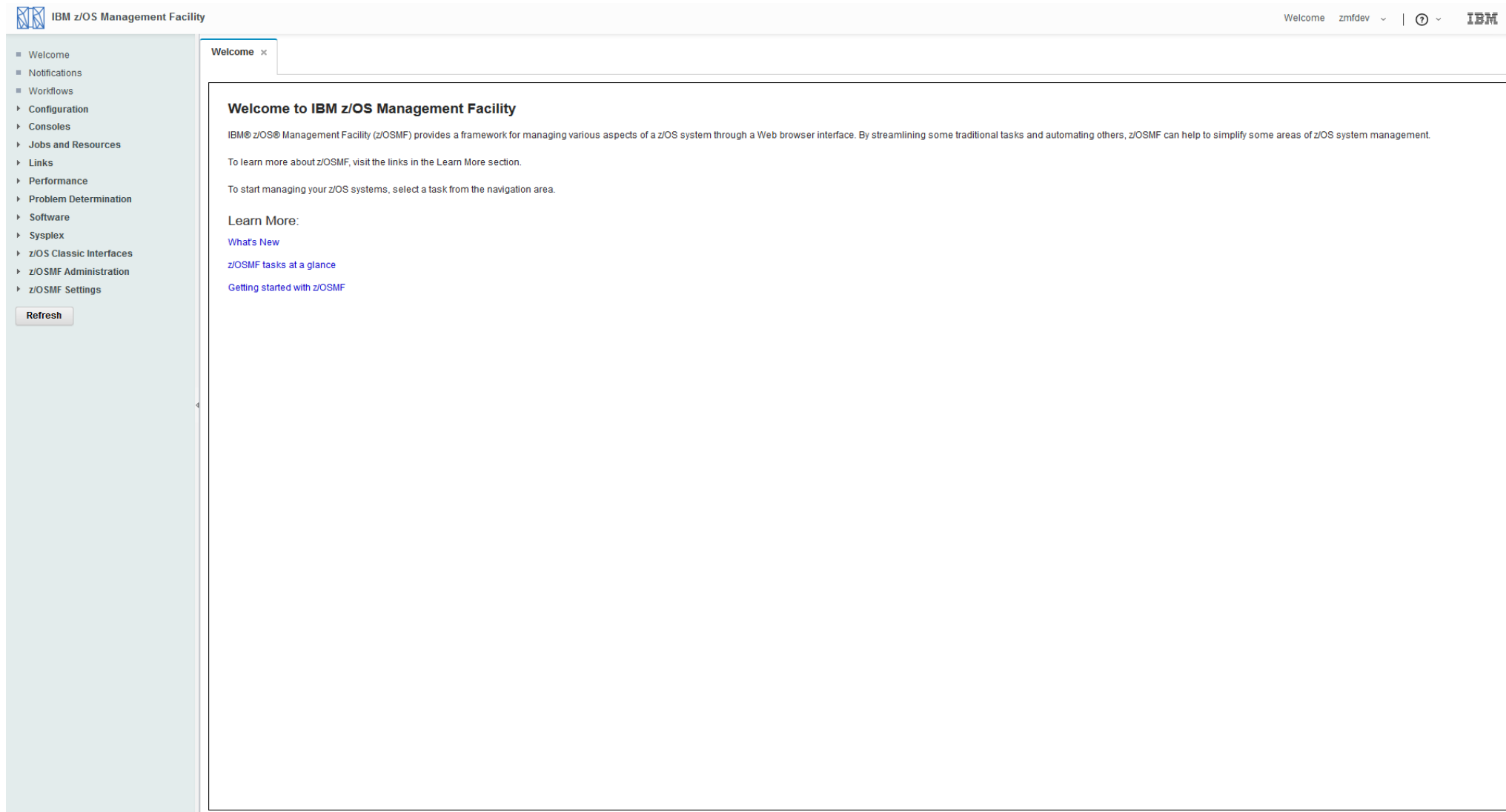
The highly secure, scalable and resilient enterprise operating system for the IBM z Systems mainframe.

z/OS USER ID**z/OS PASSWORD****LOG IN**[Shopz](#)[IBM Support](#)[z Systems Redbooks](#)[z/OSMF home Page](#)[WCS Flashes and Techdocs](#)[z/OS home Page](#)[z/OS Knowledge Center](#)[SHARE](#)

Customized for SHARE Providence 2017.

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z/OSMF V2R3 welcome page after logon



The screenshot displays the IBM z/OS Management Facility (z/OSMF) interface. The top navigation bar includes the title "IBM z/OS Management Facility", a "Welcome" link, a "zmfdev" dropdown menu, a help icon, and the IBM logo. A left-hand navigation pane lists various management tasks such as Welcome, Notifications, Workflows, Configuration, Consoles, Jobs and Resources, Links, Performance, Problem Determination, Software, Sysplex, z/OS Classic Interfaces, z/OSMF Administration, and z/OSMF Settings, with a "Refresh" button at the bottom. The main content area, titled "Welcome to IBM z/OS Management Facility", provides an overview of the z/OSMF framework and includes links for "Learn More", "What's New", "z/OSMF tasks at a glance", and "Getting started with z/OSMF".

IBM z/OS Management Facility

Welcome zmfdev | ? IBM

Welcome x

Welcome to IBM z/OS Management Facility

IBM® z/OS® Management Facility (z/OSMF) provides a framework for managing various aspects of a z/OS system through a Web browser interface. By streamlining some traditional tasks and automating others, z/OSMF can help to simplify some areas of z/OS system management.

To learn more about z/OSMF, visit the links in the Learn More section.

To start managing your z/OS systems, select a task from the navigation area.

Learn More:

- [What's New](#)
- [z/OSMF tasks at a glance](#)
- [Getting started with z/OSMF](#)

Refresh

Console Services and Application

- Problem Statement / Need Addressed:
 - Users can use REST API to issue system command and get command response
 - Users can work with z/OS Operator console from z/OSMF window in browser
- z/OSMF V2R3 provides a new task named “z/OS Operator Consoles” which provides:
 - REST APIs allow user to issue z/OS system command, get command response and monitor unsolicited messages *
 - Modernized UI allows user to work with z/OS operator console from browser

* This function was also available on V2R2 through PI67211

Console Services and Application

- REST API – Issue command (1/3)

- API definition

- URL

PUT /zosmf/restconsoles/consoles/consolename OR PUT /zosmf/restconsoles/consoles/defcn

- Request body

Field name	Required or Optional	Description
cmd	Required	Specifies the command to issue.
sol-key	Optional	Specifies a keyword that you want to detect in solicited messages, that is, the command response. Case is not significant.
unsol-key	Optional	Specifies a keyword that you want to detect in unsolicited messages. Case is not significant.
detect-time	Optional	Indicates how long the console attempts to detect the value of unsol-key in the unsolicited messages. The unit is seconds. For example, if the value of detect-time is 10, the console checks the unsolicited messages for 10 seconds. The default is 30 seconds.
async	Optional	Indicates the method of issuing the command: Y Asynchronously N Synchronously. This is the default.
system	Optional	Name of the system in the same sysplex that the command is routed to. The default is the local system.
unsol-detect-sync	Optional	Indicates how to detect the keyword that is specified with the unsol-key field from unsolicited messages: Y Synchronously detect the keyword from unsolicited messages. The request is not returned until the unsol-detect-timeout value has elapsed or the detection result is complete. N Asynchronously detect the keyword from unsolicited messages. The request is returned immediately with the detection-url. The client application must invoke the value of detection-url to poll the result of the detection asynchronously. This is the default if the field is not specified.
unsol-detect-timeout	Optional	Indicates how long, in seconds, the request is blocked when the value for unsol-detect-sync is Y and the detection result has not been completed. The default value, 20 seconds, is used when this field is not specified and the value for unsol-detect-sync is Y.

Console Services and Application

- REST API – Issue command (2/3)
 - API example
 - Issue the system command “d a,PEGASUS” synchronously, and attempt to detect PEGASUS in the command response

Http request:

```
PUT https://pev076.pok.ibm.com/zosmf/restconsoles/consoles/ibmusecn
```

```
{"cmd": "d a,PEGASUS", "sol-key": "PEGASUS"}
```

Http response:

```
{"cmd-response": "IEE115I 07.30.59 2016.011 ACTIVITY 070\r JOBS MVS TS USERS SYSAS INITS ACTIVEVMAX  
VTAM OAS\r 00003 00013 00002 00032 00011 00001\V00020 00015\r PEGASUS NOT FOUND",  
"sol-key-detected": true, "cmd-response-uri": "\/zosmf\/restconsoles\/consoles\/ibmusecn\/solmsgs\/C005291",  
"cmd-response-url": "https:\/\/pev076.pok.ibm.com:443\/zosmf\/restconsoles\/consoles\/ibmusecn\/solmsgs\/C005291",  
"cmd-response-key": "C005291"}
```


Console Services and Application

- REST API – Issue command (3/3)
 - API example
 - Issue an “s PEGASUS” command synchronously, using the default console, and detect keyword “PEGASUS” in the unsolicited messages synchronously.

Http request:

```
PUT https://pev061.pok.ibm.com/zosmf/restconsoles/consoles/defcn
```

```
{"cmd":"s PEGASUS","unsol-key":"PEGASUS","unsol-detect-sync":"Y"}
```

Http response:

```
{"status":"detected","cmd-response":"BPXM023I (ZOSMFAD) CFZ02300I: Configuration property  
httpAuthType is not supported. Setting ignored.", "msg":"$HASP100 PEGASUS ON STCINRDR"}
```

Console Services and Application

- REST API – Get command response (1/2)

- API usage

Use this operation to get the response to a command that was issued asynchronously with the Issue Command service.

- API definition

- URL

GET /zosmf/restconsoles/consoles/console-name/solmsgs/Ckey-number

GET /zosmf/restconsoles/consoles/defcn/solmsgs/Ckey-number

Console Services and Application

- REST API – Get command response (2/2)

- API example

HTTP request:

```
GET https://pev061.pok.ibm.com:443/zosmf/restconsoles/consoles/ibmusecn/solmsgs/C508135
```

Http response:

```
{"cmd-response":"IEE215I 07.36.34 2016.011 PARMLIB DISPLAY 513\R PARMLIB DATA SETS SPECIFIED\R AT IPL\R ENTRY FLAGS  
VOLUME DATA SET\R 1 S PEVTS3 CIMSSRE.R22ONLY.PARMLIB\r 2 S PEVTS3  
CIMSSRE.R14ONLY.PARMLIB\r 3 S PEVTS3 CIMSSRE.R13ONLY.PARMLIB\r 4 S PEVTS3  
CIMSSRE.R12ONLY.PARMLIB\r 5 S PEVTS3 CIMSSRE.PARMLIB\r 6 S PEVTST HDENNIS..ZOS17.PARMLIB\r  
7 S CTPAK XESCT.PARMLIB\r 8 S CTPAK SYS1.PARMLIB\r 9 S SDR22 SYS1.PARMLIB.POK\r  
S SDR22 SYS1.PARMLIB.INSTALL")
```

Console Services and Application

- REST API – Get the detect result for unsolicited messages (1/2)

- API usage

Use this operation to get the result for detecting a keyword in unsolicited messages after an Issue Command request. The command must have been issued with the unsol-key field.

- API definition

- URL

- GET /zosmf/restconsoles/consoles/consolename/detections/Dkey-number

- GET /zosmf/restconsoles/consoles/defcn/detections/Dkey-number

Console Services and Application

- REST API – Get the detect result for unsolicited messages (1/2)

- API example

HTTP request:

```
GET https://pev076.pok.ibm.com/zosmf/restconsole/consoles/defcn/detections/D122033
```

Http response:

If the specified keyword has not been detected from unsolicited messages:

```
{"status": "waiting", "msg": ""}
```

If the specified keyword has been detected from unsolicited messages:

```
{"status": "detected", "msg": "BPXM023I (ZOSMFAD)\r CFZ12584W: CIM Runtime Environment Userid currently only has READ\r access to BPX.SERVER. It is recommended to have either UPDATE access\r to BPX.SERVER or has to be UID 0."}
```

Console Services and Application

- Browser based “z/OS Operator Consoles” task provides
 - Console overview of local sysplex
 - Console summary view and Console view
 - Issue command and get command response
 - Search
 - Filter
 - Automatically retrieve message help
 - Retrieve historic messages from OPERLOG or SYSLOG
 -

Console Services and Application

- Console overview of local sysplex

IBM z/OS Management Facility

Welcome zmfdev | ? IBM

■ Welcome
■ Notifications
■ Workflows
▶ Configuration
▼ Consoles
 ■ **z/OS Operator Consoles**
▶ Jobs and Resources
▶ Links
▶ Performance
▶ Problem Determination
▶ Software
▶ Sysplex
▶ z/OS Classic Interfaces
▶ z/OSMF Administration
▶ z/OSMF Settings

Refresh

Welcome x z/OS Operator Co... x

z/OS Operator Consoles

Overview

Actions ▼

No filter applied

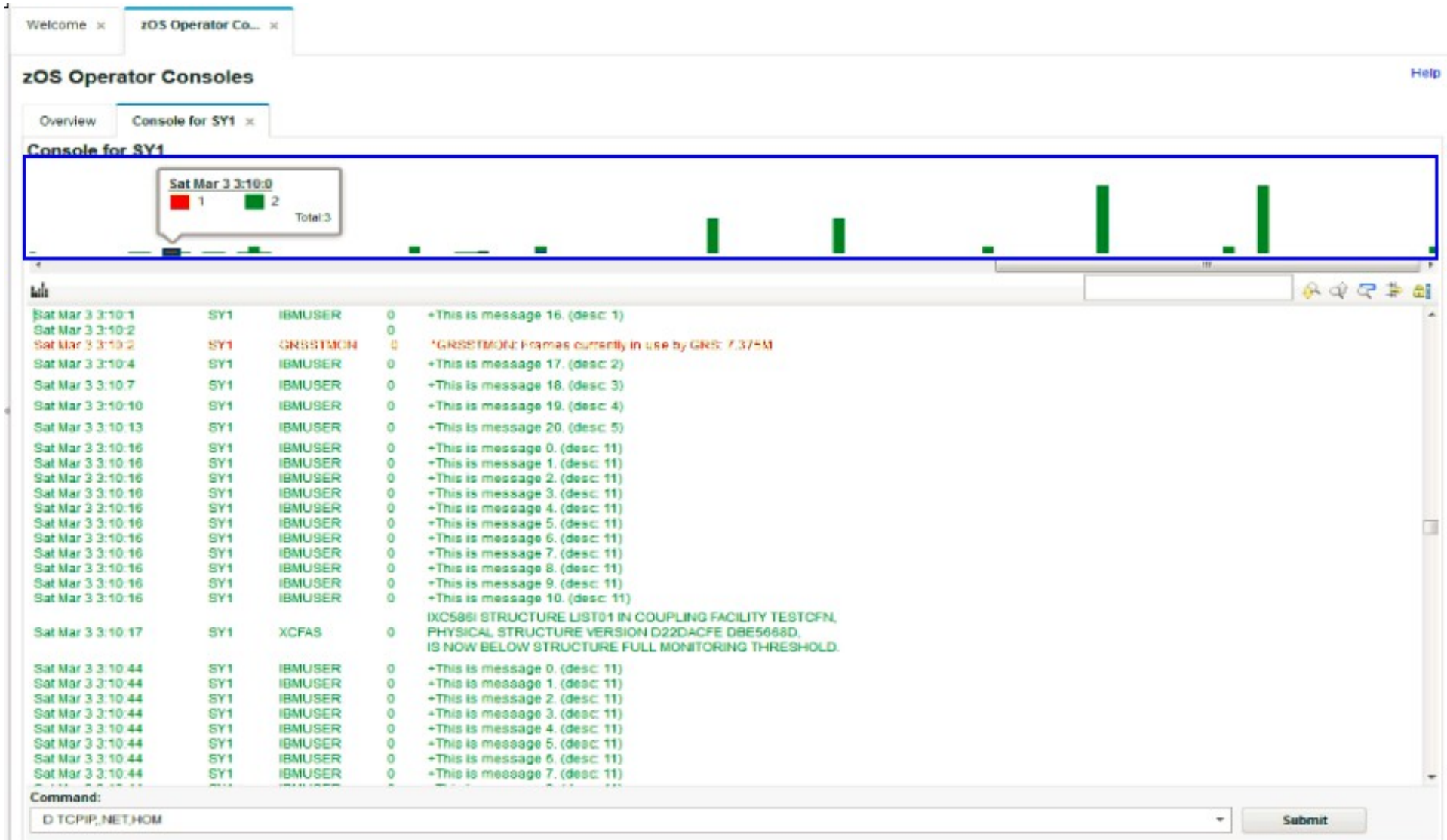
<input type="checkbox"/> Sysplex or System Filter	Status Filter	Console summary view
<input type="checkbox"/> SYPLEX6 (Local Plex)	Setup Required	
<input type="checkbox"/> P03	Setup Required	
<input type="checkbox"/> P02	Setup Required	
<input type="checkbox"/> P01	Setup Required	
<input type="checkbox"/> P00	Setup Complete	

Total: 5 Selected: 0

Refresh Last refresh: Aug 8, 2017, 2:01:12 PM local time (Aug 8, 2017, 6:01:12 AM GMT)

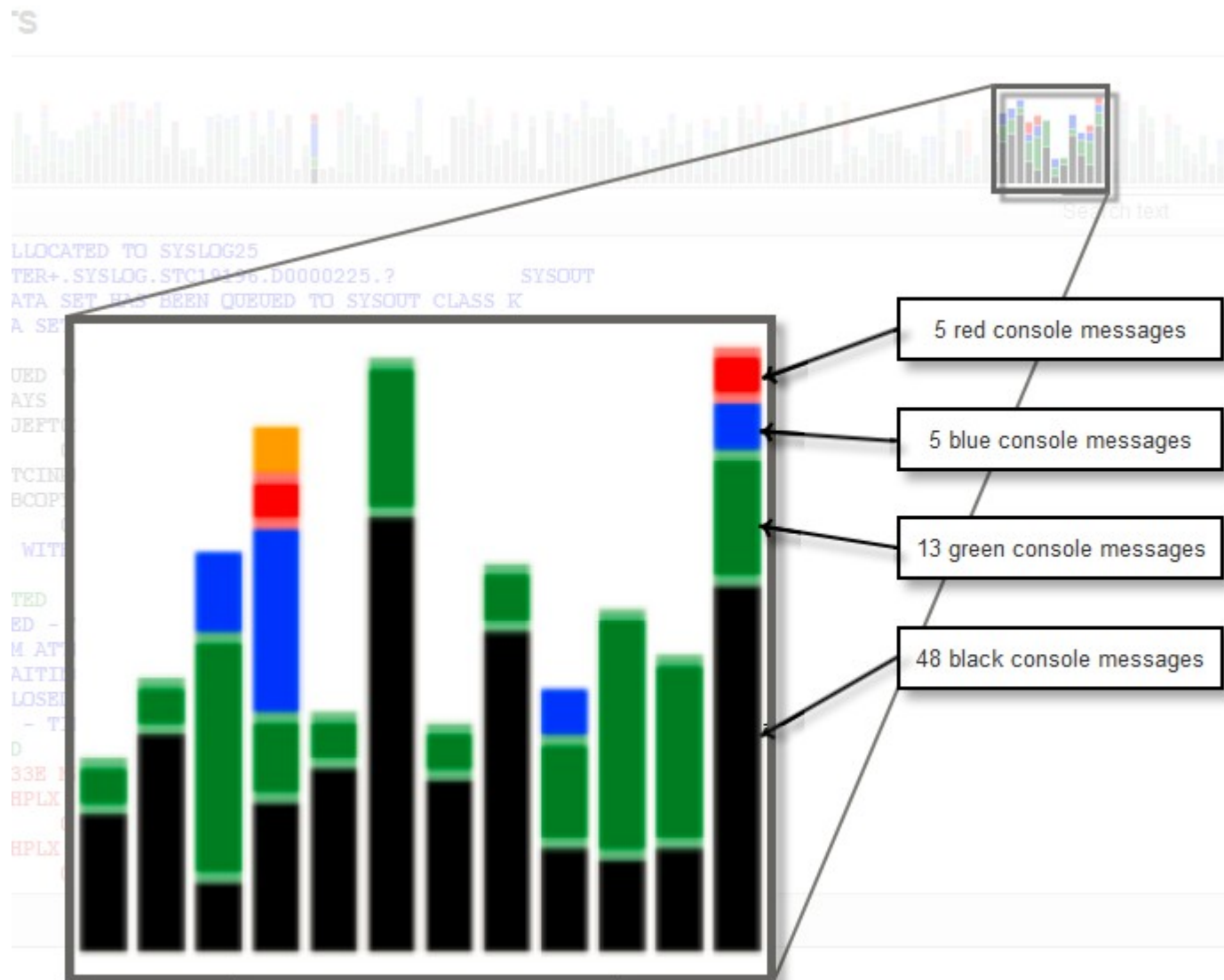
Console Services and Application

- Console summary view (1/2)



Console Services and Application

- Console summary view (2/2)



Console Services and Application

- Console view

The screenshot displays the 'zOS Operator Consoles' interface. At the top, there are tabs for 'Welcome' and 'zOS Operator Co...'. Below this, the 'zOS Operator Consoles' section is active, showing a 'Console for SY1' view. A status bar at the top of the console area indicates 'Sat Mar 3 3:10:0' with a red bar for '1' and a green bar for '2', totaling 'Total:3'. The main area shows a list of messages with columns for time, console name, user, and message text. The messages are scrollable, as indicated by the vertical scrollbar on the right. At the bottom, there is a 'Command:' input field with the text 'D TCP/IP,NET,HOM' and a 'Submit' button.

Time	Console	User	Message
Sat Mar 3 3:10:1	SY1	IBMUSER	+This is message 16. (desc: 1)
Sat Mar 3 3:10:2	SY1	GRSSTMON	*GRSSTMON: Frames currently in use by GRS: 7.375M
Sat Mar 3 3:10:4	SY1	IBMUSER	+This is message 17. (desc: 2)
Sat Mar 3 3:10:7	SY1	IBMUSER	+This is message 18. (desc: 3)
Sat Mar 3 3:10:10	SY1	IBMUSER	+This is message 19. (desc: 4)
Sat Mar 3 3:10:13	SY1	IBMUSER	+This is message 20. (desc: 5)
Sat Mar 3 3:10:16	SY1	IBMUSER	+This is message 0. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	+This is message 1. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	+This is message 2. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	+This is message 3. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	+This is message 4. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	+This is message 5. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	+This is message 6. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	+This is message 7. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	+This is message 8. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	+This is message 9. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	+This is message 10. (desc: 11)
Sat Mar 3 3:10:17	SY1	XCFAS	IXC586I STRUCTURE LIST01 IN COUPLING FACILITY TESTCFN1, PHYSICAL STRUCTURE VERSION D22DACFE DBE5668D, IS NOW BELOW STRUCTURE FULL MONITORING THRESHOLD.
Sat Mar 3 3:10:44	SY1	IBMUSER	+This is message 0. (desc: 11)
Sat Mar 3 3:10:44	SY1	IBMUSER	+This is message 1. (desc: 11)
Sat Mar 3 3:10:44	SY1	IBMUSER	+This is message 2. (desc: 11)
Sat Mar 3 3:10:44	SY1	IBMUSER	+This is message 3. (desc: 11)
Sat Mar 3 3:10:44	SY1	IBMUSER	+This is message 4. (desc: 11)
Sat Mar 3 3:10:44	SY1	IBMUSER	+This is message 5. (desc: 11)
Sat Mar 3 3:10:44	SY1	IBMUSER	+This is message 6. (desc: 11)
Sat Mar 3 3:10:44	SY1	IBMUSER	+This is message 7. (desc: 11)

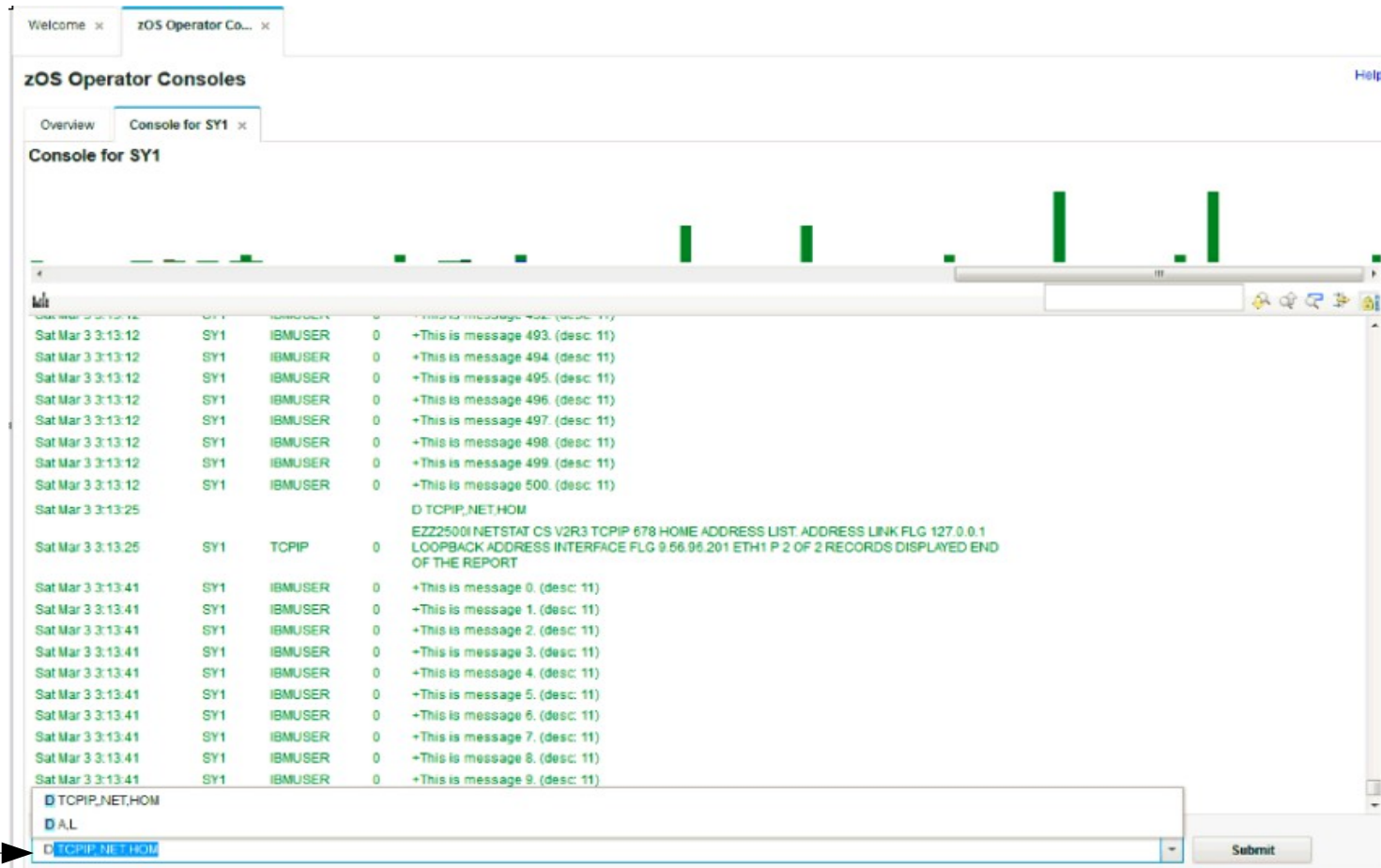
Command: D TCP/IP,NET,HOM

Submit

Console view supports scrolling

Console Services and Application

- Issue command and get command response



- Max 100 history commands per user could be saved
- Type association is supported

Console Services and Application

- Search

The screenshot shows the zOSMF Console View with a search filter 'logwtr' applied. The top bar indicates '2 of 142 matches'. The search results are displayed as a list of messages, with the term 'LOGWTR' highlighted in blue in several entries. The messages include system logs, job status updates, and task assignments. At the bottom, there is a 'Command:' input field and a 'Submit' button.

Actions ▾ 2 of 142 matches logwtr

```

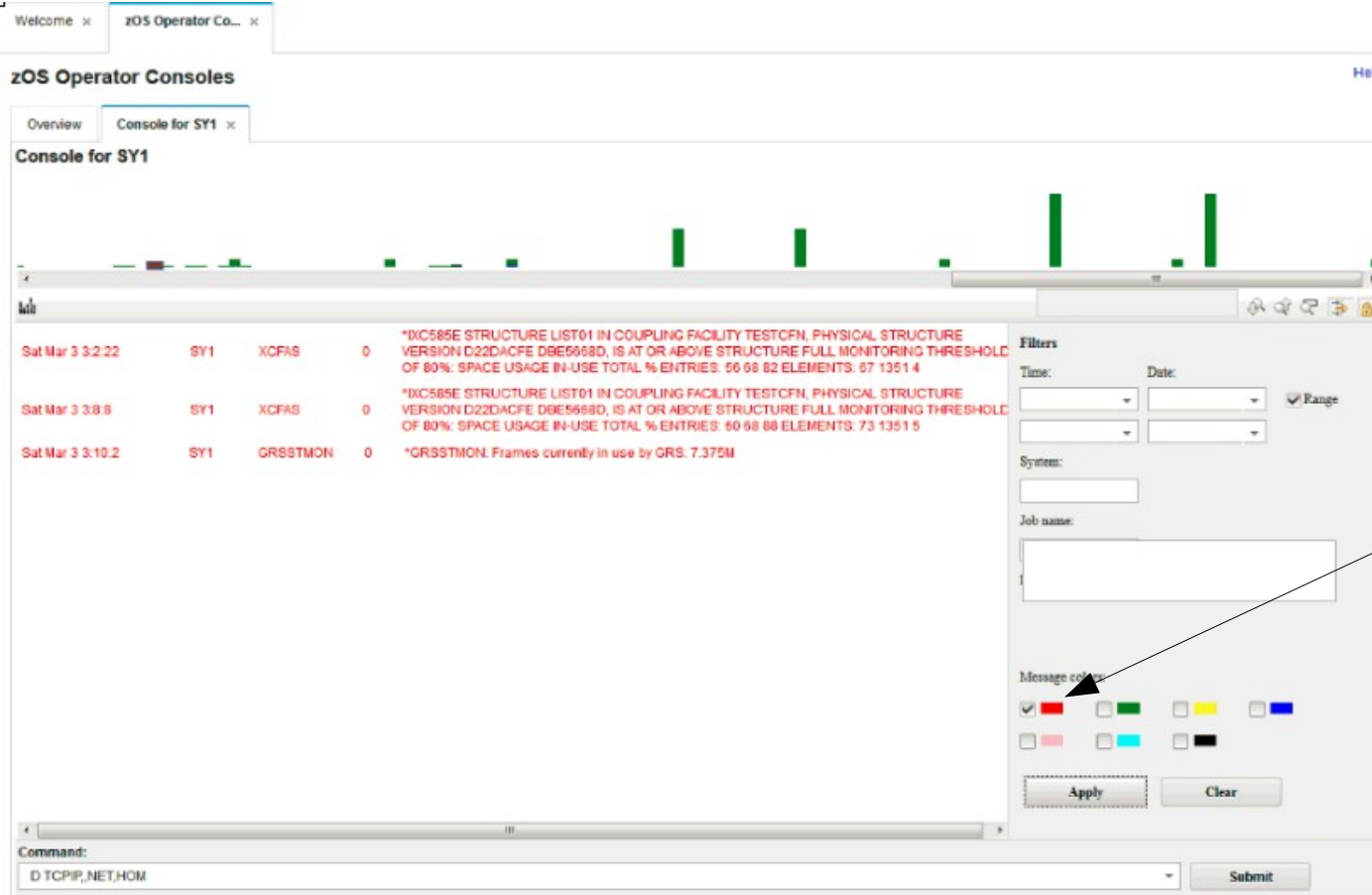
14:08:39.17 STC19459 AOF570I 14:08:39 : ISSUED "MVS S LOGWTR.SYSLOG" FOR MVSESA SYSLOG 230
                230 - MSGTYPE IS ALWAYS
14:08:39.18 JOB31143 - TRANSTST IKJEFT01 01 72K 0:00:00.01 0:00:00.08
                31 587 0 0 0 0
14:08:39.20 STC31148 $HASP100 LOGWTR ON STCINRDR
14:08:39.20 JOB31143 - COPY IEBCOPY 00 1164K 0:00:00.00 0:00:00.02
                17 207 0 0 0 0
14:08:39.22 STC31148 IEF695I START LOGWTR WITH JOBNAME LOGWTR IS ASSIGNED TO USER STASKID
                , GROUP TASKS
14:08:39.22 STC31148 $HASP373 LOGWTR STARTED
14:08:39.22 STC31148 IEF403I LOGWTR - STARTED - TIME=14.08.39
14:08:39.25 STC31148 IEF188I PROBLEM PROGRAM ATTRIBUTES ASSIGNED
14:08:39.37 STC31148 IEF176I WTR SYSLOG WAITING FOR WORK, CLASS=K, DEST=LOCAL
14:08:39.37 STC31148 IEF301I SYSLOG WTR CLOSED
14:08:39.43 STC31148 IEF404I LOGWTR - ENDED - TIME=14.08.39
14:08:39.43 STC31148 $HASP395 LOGWTR ENDED
14:08:39.43 IEA989I SLIP TRAP ID=X33E MATCHED. JOBNAME=*UNAVAIL, ASID=010B.
14:08:40.97 JOB31118 - ISFHPARS PLX AKHPLX 00 1144K 0:00:01.12 0:00:01.91
                3459 57255 0 0 0 0
14:08:43.56 JOB31118 - ISFHPPGEN PLX AKHPLX 00 1144K 0:00:01.78 0:00:02.58
                3284 89751 0 0 0 0
14:08:43.75 INSTREAM LOGON
14:08:43.97 TSU14148 $CJ(29693)
14:08:44.64 JOB29693 $HASP890 JOB(CLR1ASSM) 247
                247 $HASP890 JOB(CLR1ASSM) STATUS=(AWAITING OUTPUT),CLASS=A,
                247 $HASP890 PRIORITY=7,SYSAFF=(ANY),HOLD=(NONE),
                247 $HASP890 CANCEL=YES
14:08:44.65 JOB31149 $HASP100 SRV11ENI ON INTRDR FROM JOB31143
                SRV11ENH
14:08:44.66 JOB31118 - ISFHQFIF PLX AKHPLX 00 1144K 0:00:00.52 0:00:01.10
                1672 26873 0 0 0 0
  
```

Command: Submit

- When search is used, the Console View will automatically stop updating messages
- User could highlight all occurrences

Console Services and Application

- Filter



The screenshot shows the 'zOS Operator Consoles' application interface. At the top, there are tabs for 'Welcome', 'zOS Operator Co...', and 'Console for SY1'. Below this, a bar chart displays various metrics. The main area shows a list of messages with columns for time, system name, job name, and message content. The messages are as follows:

Time	System	Job	Message
Sat Mar 3 3:2:22	SY1	XCFAS	0 *IXC585E STRUCTURE LIST01 IN COUPLING FACILITY TESTCFN, PHYSICAL STRUCTURE VERSION D22DACFE DBE5668D, IS AT OR ABOVE STRUCTURE FULL MONITORING THRESHOLD OF 80%: SPACE USAGE IN-USE TOTAL % ENTRIES: 50 68 82 ELEMENTS: 07 1351 4
Sat Mar 3 3:8:8	SY1	XCFAS	0 *IXC585E STRUCTURE LIST01 IN COUPLING FACILITY TESTCFN, PHYSICAL STRUCTURE VERSION D22DACFE DBE5668D, IS AT OR ABOVE STRUCTURE FULL MONITORING THRESHOLD OF 80%: SPACE USAGE IN-USE TOTAL % ENTRIES: 60 68 88 ELEMENTS: 73 1351 5
Sat Mar 3 3:10:2	SY1	GRSSTMON	0 *GRSSTMON: Frames currently in use by GRS: 7.375M

On the right side, there is a 'Filters' panel with the following options:

- Time: [dropdown]
- Date: [dropdown]
- System: [dropdown]
- Job name: [text input]
- Message color: [checkboxes for red, green, yellow, blue, pink, cyan, black]
- Buttons: Apply, Clear

At the bottom, there is a 'Command:' field with the text 'D TCP/IP,NET,COM' and a 'Submit' button.

Supports below kinds of filters:

- Time
- System name
- Job name
- Message content
- Message color

- Automatically retrieve message help (depends on KC4z LookAt function)

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Console Services and Application

- Retrieve historic messages from OPERLOG or SYSLOG

z/OS Operator Consoles

Overview Console for SY1 x

Console for SY1

Retrieve earlier messages from OPERLOG.

Fri Jul 14 04:23:58		D C,HARDCOPY
Fri Jul 14 04:23:59	SY1	CNZ41001 04.23.59 CONSOLE DISPLAY 405 CONSOLES MATCHING COMMAND: D C,HARDCOPY MSG.CURR=0 LIM=3000 RPLY.CURR=0 LIM=1500 SYS=SY1 PFK=NONE HARDCOPY LOG=(SYSLOG,OPERLOG) CMDLEVEL=CMDS ROUT=(ALL) LOG BUFFERS IN USE: 0 LOG BUFFER LIMIT: 1500
Fri Jul 14 04:24:01		s pegasus
Fri Jul 14 04:24:03	SY1	\$HASP100 PEGASUS ON STOINRDR
Fri Jul 14 04:24:03	SY1	\$HASP373 PEGASUS STARTED
Fri Jul 14 04:24:04	SY1	BPXM0231 (ZOSMFAD) CFZ023001: Configuration property httpAuthType is not supported. Setting ignored.
Fri Jul 14 04:24:04	SY1	BPXM0231 (ZOSMFAD) CFZ12512E: Security Profile CIMSERV in CLASS WBEM must be defined. Stopping CIMServer startup.
Fri Jul 14 04:24:04	SY1	BPXM0231 (ZOSMFAD) CFZ12584W: CIM Runtime Environment Userid currently only has READ access to BPX.SERVER. It is recommended to have either UPDATE access to BPX.SERVER or has to be UID 0.
Fri Jul 14 04:24:05	SY1	\$HASP395 PEGASUS ENDED - RC=0001

Command:

Select or type

z/OS Operator Consoles

Overview Console for SY1 x

Console for SY1

Fri Jul 14 00:12:48	SY1	IZUSVR1	+CWWKZ00011: Application IzuManagementFacilityHelpApp started in 28.376 seconds.
Fri Jul 14 00:12:49	SY1	IZUSVR1	+CWWKZ00011: Application IzuConfigurationAssistant started in 30.148 seconds.
Fri Jul 14 00:12:50	SY1	IZUSVR1	+CWWKF00111: The server zosmfServer is ready to run a smarter planet.
Fri Jul 14 00:12:52	SY1	IZUSVR1	+CWWKZ00011: Application IzuManagementFacilitySoftwareDeployment started in 32.695 seconds.
Fri Jul 14 00:13:34	SY1	IBMUER	IEF450I IBMUSER OMVS0808 OMVS0808 - ABEND=S622 U0000 REASON=00000000
Fri Jul 14 00:13:36	SY1	IBMUER	\$HASP395 IBMUSER ENDED - ABEND=S622
Fri Jul 14 00:13:53	SY1	IZUSVR1	LOGON
Fri Jul 14 00:13:55	SY1	ZOSMFAD	\$HASP100 ZOSMFAD ON TSOINRDR
Fri Jul 14 00:13:56	SY1	ZOSMFAD	\$HASP373 ZOSMFAD STARTED
Fri Jul 14 00:13:57	SY1	ZOSMFAD	IEA630I OPERATOR MFADSY1 NOW ACTIVE, SYSTEM=SY1, LU=IZUTSOAP
Fri Jul 14 00:13:58	SY1	ZOSMFAD	D T
Fri Jul 14 04:14:43	SY1	RESOLVER	*EZZ9308E UNRESPONSIVE NAME SERVER DETECTED AT IP ADDRESS 9.0.2.1
Fri Jul 14 04:14:43	SY1	RESOLVER	EZZ9310I NAME SERVER 9.0.2.1 TOTAL NUMBER OF QUERIES SENT 8 TOTAL NUMBER OF FAILURES 2 PERCENTAGE 25%
Fri Jul 14 04:14:43	SY1	RESOLVER	*EZZ9308E UNRESPONSIVE NAME SERVER DETECTED AT IP ADDRESS 9.0.3.1
Fri Jul 14 04:14:43	SY1	RESOLVER	EZZ9310I NAME SERVER 9.0.3.1 TOTAL NUMBER OF QUERIES SENT 2 TOTAL NUMBER OF FAILURES 2 PERCENTAGE 100%

Command:

Select or type

Submit

Interactions & Dependencies

- Software Dependencies
 - CEA
- Hardware Dependencies
 - NONE
- Exploiters
 - IBM Cloud Provisioning and Management for z/OS

Migration & Coexistence Considerations

- Migration: N/A because V2R3 is the first release introduce “z/OS Operator Consoles” task
- Coexistence: N/A

Installation

“z/OS Operator Consoles” is started together with z/OSMF Core FMID HSMA230.

- To be able to see “z/OS Operator Consoles”, user must have READ access to SAF profile <SAF_PREFIX>.ZOSMF.CONSOLES.ZOSCONSOLES in class “ZMFAPLA”.

<SAF_PREFIX> should be replaced by the value of zOSMF parmlib option “SAF_PREFIX”. By default, it's “IZUDFLT”

- Start of “z/OS Operator Consoles” doesn't start any EMCS console in the back end. Instead, user has to execute a few SAF commands in order to be able to start console view for specific system.

Please refer to “SYS1.SAMPLIB(IZUGCSEC)” about what needs to be setup in backend for a specific system.

Sysplex Management

- Problem Statement / Need Addressed
 - Users need to manage physical configurations and logical resources of a sysplex.
 - Users need to manage sysplexes in the whole enterprise.
 - User need a modern, task oriented and web GUI to simplify their daily work for current Command Line way is hard to use..
 - Users need to query sysplex resources more quickly and easily on z/OS for current management method is time consuming.
- Solution
 - A new z/OSMF Sysplex Management task is provided in z/OSMF V2R3, providing query functions for physical and logical resources of sysplexes in the enterprise scope.
- Benefit / Value
 - z/OSMF Sysplex Management application provides attractive graphic view of Sysplex infrastructure, and best practices to simplify Sysplex resource management greatly.

Sysplex Management – Topology View

IBM z/OS Management Facility

Welcome debug21 | ?

■ Welcome
■ Notifications
■ Workflows
▶ Configuration
▶ Consoles
▶ Jobs and Resources
▶ Links
▶ Performance
▶ Problem Determination
▶ Software
▼ Sysplex
 ■ Sysplex Management
▶ z/OS Classic Interfaces
▶ z/OSMF Administration
▶ z/OSMF Settings

Refresh

Welcome x Sysplex Management x

Sysplex Management

Graphic View Highlighter Zoom Level: 100% Export

The topology view displays two sysplexes: SVPLEX6 and SVPLEX6A. SVPLEX6 contains partitions SVT6CF4, P02, P00, P03, and P01. SVPLEX6A contains partitions SVT6ACF2, P05, and P04. A third sysplex, PLEX1, is shown with a red 'x' icon, indicating it is failed.

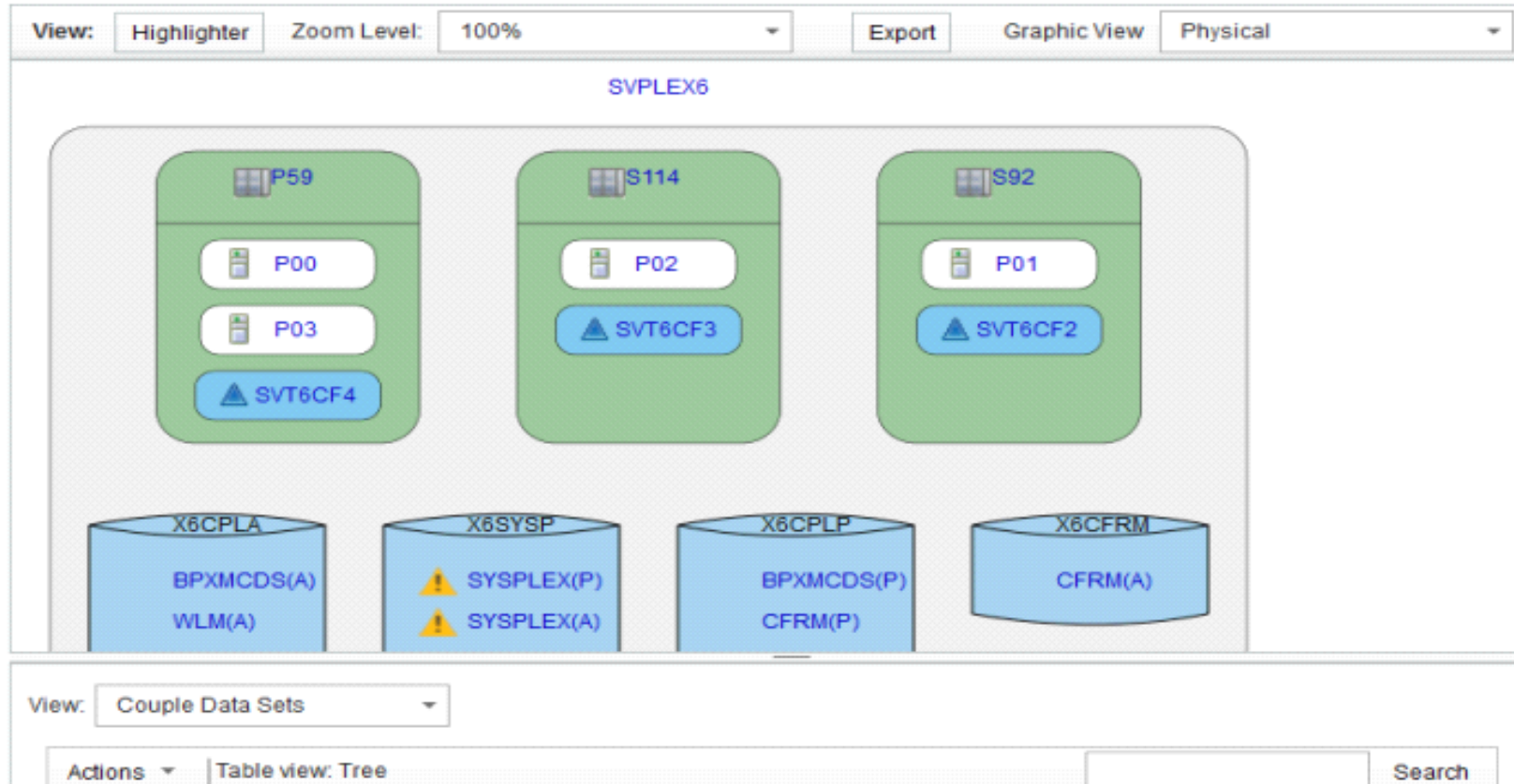
Actions Table view: Tree

No filter applied

	Sysplex/CF Name or System Name Filter	Message Filter	Partition Filter	CPCID Filter	Volatile Filter	CF Level Filter	CFCC Release Filter	Service Level Filter	Total Space Filter	Free Space Filter	System Status Filter	Timing Filter
<input type="radio"/>	SVPLEX6											
<input type="radio"/>	▲ SVT6CF4		24	00	Yes	19	19.00	02.20	9764M	8187M		
<input type="radio"/>	📄 P02										Active	STP timing mode
<input type="radio"/>	📄 P00										Active	STP timing mode
<input type="radio"/>	📄 P03										Active	STP timing mode
<input type="radio"/>	📄 P01										Active	STP timing mode

Sysplex Management - Physical View

Sysplex Management > SVPLEX6

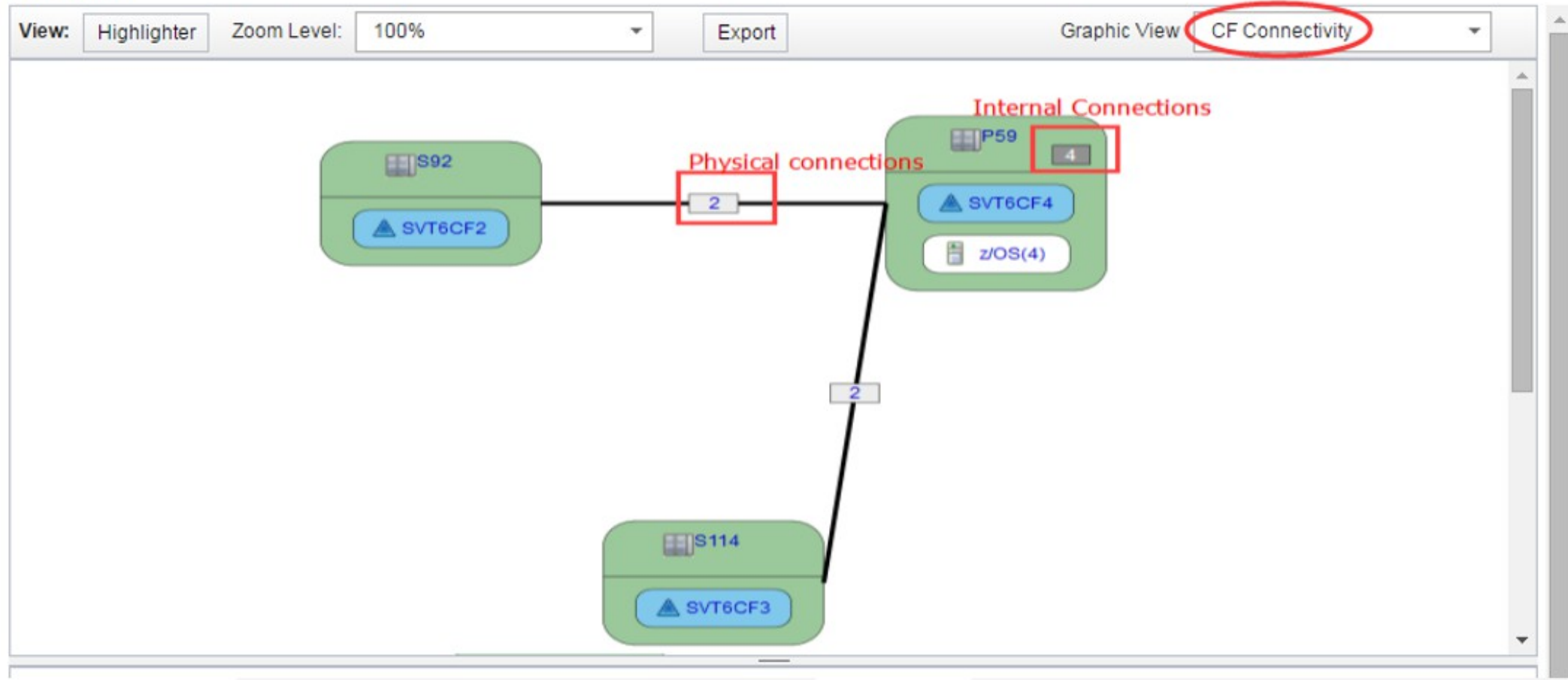
SVPLEX6

Sysplex Management – Connectivity View

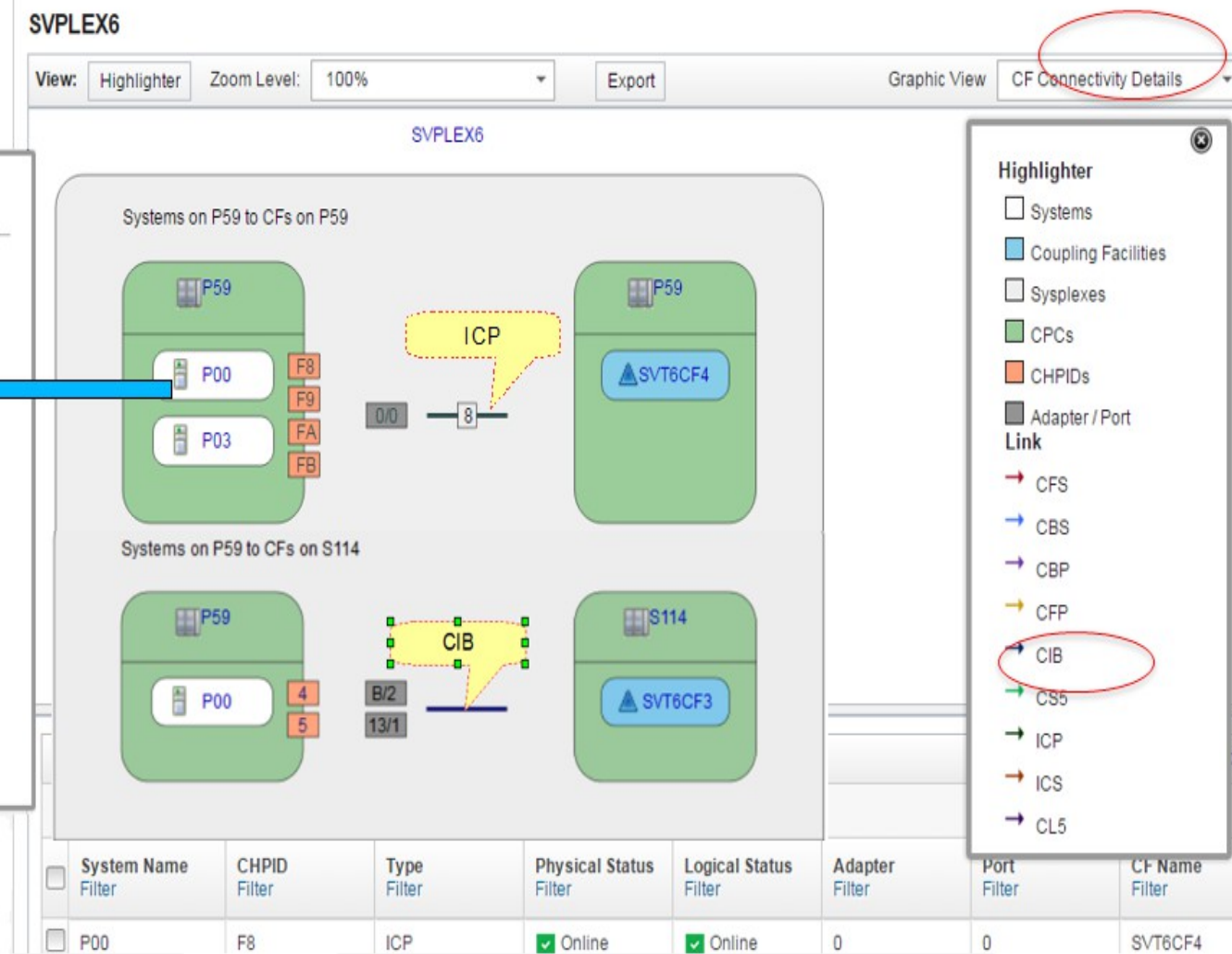
Sysplex Management ► SVPLEX6

Help

SVPLEX6



Sysplex Management – Connectivity Details View



Sysplex Management – Structures View

Sysplex Management > PLEX1 > Coupling Facility Structures for PLEX1

Coupling Facility Structures for PLEX1

View: Highlighter Zoom Level: 100% Export View by Type

SLIST

LIST32

LIST

LIST02

LIST01

IXCTL_SIG...

<Unallocated>

PREF1

LIST12

DUPENABLE...

CACHE01

LT02

IXCTL_SIG...

DUPENABLE...

BIGONE

LT01

IXCTL_SIG...

DUPENABLE...

LOCK8

IXCTL_SIG...

DUPALLOWE...

LOCK64

IXC3

DUPALLOWE...

LOCK32

IXC2

DUPALLOWE...

LOCK256

IXC1

DUPALLOWE...

LOCK16

ISTGENERI...

CACHE8

Actions | Table view: Tree

No filter applied

Type/Structure Filter	CF Name Filter	Status Filter	Type Filter	Allocation Time Filter
<input type="radio"/> SLIST				

Sysplex Management – Structure Connectors

Sysplex Management > PLEX1 > Coupling Facility Structures for PLEX1 > CF Structure LIST32

CF Structure LIST32

View: Highlighter Zoom Level: 100% Export

TESTCFN

SLIST

LIST32

SY1

JES2_SY1-15

SY2

JES2_SY2-15

Actions | Table view: Tree Search

No filter applied

	System/Connector Filter	Connector ID Filter	Connector Version Filter	Connector System Filter	Job Name Filter	ASID Filter	State Filter
<input type="radio"/>	SY1						
<input type="radio"/>	SY2						

Sysplex Management – Sysplex Properties

[Sysplex Management](#) ▶ [SVPLEX6](#) ▶ [View Sysplex](#)

View Sysplex SVPLEX6

Sysplex name:
SVPLEX6

Initialization time(UTC):
05/22/2017 03:23:35.819743

Active Policies

	Name	Type	Date Activated(UTC)
	IXCPOLX6	CFRM	06/06/2017 07:09:24
	IXCSFMX6	SFM	10/21/2008 22:02:50

Total: 2

Systems

	Name
	P02
	P00
	P03
	P01

Couple Data Sets

	Name	Type	Usage	Volume Serial
	UTCXCF.SVPLEX6.F	SYSplex	Primary	X6SYSP
	UTCXCF.SVPLEX6.F	SYSplex	Alternate	X6SYSP
	UTCXCF.SVPLEX6.O	BPXMCDS	Primary	X6CPLP
	UTCXCF.SVPLEX6.O	BPXMCDS	Alternate	X6CPLA
	UTCXCF.SVPLEX6.C	CFRM	Primary	X6CPLP
	UTCXCF.SVPLEX6.C	CFRM	Alternate	X6CFRM
	UTCXCF.SVPLEX6.W	WLM	Primary	X6CPLP

Total: 14

Coupling Facilities

	Name	Partition	CPC
	SVT6CF3	29	00
	SVT6CF4	24	00

Sysplex Management – CF Properties

[Sysplex Management](#) ▶ [SVPLEX6](#) ▶ [View Coupling Facility](#)

View Coupling Facility SVT6CF4

Coupling facility name:
SVT6CF4

CPC ID:
00

CF level:
19

CFCC release:
19.00

Built on(UTC):
08/15/2016 08:59:00

Storage increment size:
1024K

Shared processors:
0

Coupling thin interrupts:
Not Enabled

Sequence Number:
0000000D7406

Partition:
24

Standalone:
No

Service level:
02.20

Volatile:
Yes

Storage-class memory increment size:
1024K

Dedicated processors:
1

Dynamic CF dispatching:
Off

▼ Coupling Facility Space Utilization

Name	Space
Structures	1332M
Dump Space	6144K
Free Space	8426M
Total	9764M

Name	Space
Structures dump tables	0
Max requested dump Spaces	0
Free dump Space	6144K
Total	6144K

▼ Storage Configuration

Name	Control Space	Non-control Space	Storage-class memory
Allocated	1338M	0	0
Free Space	8426M	0	0
Total	9764M	0	0

Sysplex Management – System Properties

[Sysplex Management](#) ▶ [SVPLEX6](#) ▶ [View System](#)

View System P00

System name:
P00


Sysplex:
SVPLEX6

Status time(UTC):
06/13/2017 07:38:00

Timing:
STP timing mode

Serial:
7406

Lpar Number:
2A

System status:
 Active

CPC CPUID:
74062827

Type:
2827

Close

Sysplex Management – CDS Properties

[Sysplex Management](#) ▶ [SVPLEX6](#) ▶ View Properties for SYSPLEX Couple Data Sets

Help

View Properties for SYSPLEX Couple Data Sets

Sysplex: SVPLEX6

Primary

Alternate

Couple data set name:
UTCXCF.SVPLEX6.FCTVERIFY.COUPLE.TER

Type:
SYSPLEX

Volume serial:
X6SYSP

Device number:
3014

Format TOD(UTC):
03/24/2008 15:03:46

Maximum systems:
32

Maximum groups(peak):
320(64)

Maximum
members(peak):
2047(18)


Additional information:
ALL TYPES OF COUPLE DATA SETS ARE SUPPORTED GRS STAR MODE IS SUPPORTED CLUSTER
RESOURCE MANAGEMENT IS SUPPORTED

Sysplex Management – Structure Properties

[Sysplex Management](#) ▶ [PLEX1](#) ▶ [Coupling Facility Structures for PLEX1](#) ▶ [View Properties for CF Structure LIST01](#)

[Help](#)

View Properties for CF Structure LIST01

General	Structure	Connectors
<div>Structure name: LIST01</div> <div>Type:  LIST</div> <div>Is duplexed: No</div> <div>Status: Allocated</div> <div>Event management: POLICY-BASED</div> <div>▼ Policy Information</div> <div><div>Policy size(K): 1000K</div><div>Policy minsize(K): 500K</div><div>Allowautoalt: No</div><div>Duplex: Disabled</div><div>Enforceorder: No</div><div>Policy initsize(K): 0</div><div>Full threshold: 80</div><div>Rebuild Percent: NA</div><div>Allowreallocate: Yes</div></div>		

Interactions & Dependencies

- Software Dependencies
 - z/OS Sysplex component
 - CEA
 - BCPii (better to have)
- Hardware Dependencies
 - NONE
- Exploiters
 - z/OS Sysplex users

Migration & Coexistence Considerations

- Migration: z/OSMF Core Systems table should be migrated.
- Coexistence: None.

Installation

z/OSMF Sysplex Management is an optional component of z/OSMF Core HSMA230.

- Customer has Sysplex environment setup.
- z/OS CEA need be setup and running

z/OSMF Autostart

- **Problem Statement / Need Addressed:**
 - Vendors or customers can not build their own application based on z/OSMF REST APIs because they don't know if z/OSMF is there.
 - Users complained that it's difficult for them to find where to start when they open z/OSMF welcome page
 - Administrators have to setup z/OSMF header, footer and company logo outside of z/OSMF UI
 - Administrators have to go to backend to collect z/OSMF diagnostic data
 - z/OSMF provides sample jobs which contain sample RACF commands needed by z/OSMF. Administrators who use other security products than RACF complained that they can not refer to those sample jobs because only RACF commands are included.
- **Solutions**
 - z/OSMF V2R3 will be automatically started during IPL such that vendor or customers' application can find z/OSMF
 - z/OSMF REST Notification API will be enhanced to allow email address as the target.
 - z/OSMF welcome page will be updated to allow users easily know where to start
 - z/OSMF V2R3 will provide UI allows administrator to customize header, footer and company logo.
 - z/OSMF V2R3 will provide UI allows administrator to collect diagnostic data for z/OSMF
 - z/OSMF V2R3 will provide a stand alone utility which is able to translate general security definition needed by z/OSMF to security commands which adapt the exact security product used by customer. As the input to the utility, z/OSMF will also provide sample "general security definition".

z/OSMF Autostart

- **Benefit / Value:**
 - Vendors or customers can build their own application based on z/OSMF REST APIs without manually starting z/OSMF.
 - Users can easily know where to start on z/OSMF welcome page.
 - Administrators can setup z/OSMF header, footer and company logo in z/OSMF UI.
 - Administrators can collect z/OSMF diagnostic data in z/OSMF UI.
 - z/OSMF provides stand alone utility and sample general security definition to support for RACF and other security products used by customers.

z/OSMF Autostart

- z/OSMF V2R3 will be automatically started during IPL - Terms
 - AUTOSTART z/OSMF
 - “AUTOSTART z/OSMF” is the z/OSMF which exploiters of z/OSMF should be connected to. When it's UP and DOWN, it will issue ENF83 signal with QUAL(80000000) such that exploiters know primary z/OSMF is UP or DOWN. Please refer to SYS1.MACLIB(IZUENF83) for the content of this signal. The status and URI of “primary z/OSMF” will also be written into memory (mapped by SYS1.MACLIB(IZUENF83) which is referenced by ECVTIZUGSP in ECVT)
 - It is specified during start of z/OSMF, such as
start IZUSVR1,server=AUTOSTART
“AUTOSTART” is the default value if “server” is not specified
 - Each system can only have one active AUTOSTART z/OSMF.
 - User can have multiple active AUTOSTART z/OSMF in a sysplex.
 - The z/OSMF started during IPL is always AUTOSTART z/OSMF
 - STANDALONE z/OSMF
 - “STANDALONE z/OSMF” could be started for any reason. It does not require AUTOSTART z/OSMF exist or not.
 - It is specified during start of z/OSMF, such as
start IZUSVR1,server=STANDALONE
 - There is no limitation in terms of how many STANDALONE z/OSMF you can have in one system or one sysplex

z/OSMF Autostart

- z/OSMF V2R3 will be automatically started during IPL – parmlib
 - New parmlib options for AUTOSTART z/OSMF
 - AUTOSTART(LOCAL|CONNECT)
User could determine how to start AUTOSTART z/OSMF by specifying the value of “AUTOSTART” option in zOSMF parmlib IZUPRMxx
 - LOCAL means the AUTOSTART z/OSMF will be started during IPL.
 - CONNECT means the system will use a remote AUTOSTART z/OSMF as its primary z/OSMF. Hence, there will be no “AUTOSTART z/OSMF” started on the system which specifies “AUTOSTART(CONNECT)” in z/OSMF parmlib
LOCAL will be the default value if “AUTOSTART” is not specified in parmlib.
 - AUTOSTART_GROUP(IZUDFLT|*name*)
 - AUTOSTART_GROUP is used to uniquely identify a AUTOSTART z/OSMF in sysplex scope.
 - When AUTOSTART(LOCAL) is specified, the AUTOSTART z/OSMF which will be started during IPL will be identified by the value of “AUTOSTART_GROUP”.
 - When AUTOSTART(CONNECT) is specified, the CONNECT z/OSMF this system is going to use will be identified by the value of “AUTOSTART_GROUP”
 - The default value of AUTOSTART_GROUP is DEFAULT.
 - Change of value of AUTOSTART_GROUP requires IPL:
E.g. if AUTOSTART z/OSMF was started during IPL with AUTOSTART_GROUP(ZOSMF_1), when ZOSMF_1 was down, you can restart AUTOSTART z/OSMF but you can not change the value of AUTOSTART_GROUP
 - It's not allowed to have two AUTOSTART z/OSMF using same value of “AUTOSTART_GROUP” in the sysplex scope. Therefore, if multiple systems didn't specify “AUTOSTART” (leads to “LOCAL”) and “AUTOSTART_GROUP” (leads to “IZUDFLT”), there will only be one system gets AUTOSTART z/OSMF with identifier “IZUDFLT” started. The rest of systems will be transit to “CONNECT” mode.

z/OSMF Autostart

- z/OSMF V2R3 will be automatically started during IPL - parmlib
 - New parmlib options for both AUTOSTART z/OSMF and STANDALONE z/OSMF
 - USER_DIR(*directorypath*)
 - Previously, this is specified as “USERDIR” in z/OSMF server proc “IZUSVR1” or passed in the command line of start IZUSVR1 (E.g. start IZUSVR1,USERDIR='/var/zosmf'). From V2R3, user should specify USER_DIR in zOSMF parmlib. The default value is “/var/zosmf”.
 - USER_DIR is ignored during IPL when AUTOSTART(CONNECT) is specified.

z/OSMF Autostart

- z/OSMF V2R3 will be automatically started during IPL - parmlib
 - Specify z/OSMF parmlib member for AUTOSTART z/OSMF to start during IPL:
 - User needs to specify “IZU” in IEASYSxx. E.g.
IZU=01
means AUTOSTART z/OSMF will be started with parmlib member IZUPRM01
 - If user does not specify value for “IZU” in IEASYSxx, the default value of zOSMF parmlib will be used.

z/OSMF Autostart

- z/OSMF V2R3 will be automatically started during IPL - Exploiters
 - Consideration for exploiters:
 - When exploiters are started, they could go to IZUGSP area (mapped by SYS1.MACLIB(IZUGSP) which is referenced by ECVTIZUGSP) to find out if primary z/OSMF which exploiter should connect to is valid or invalid. If it's valid, the URI is also saved in IZUGSP for exploiter's use.
 - Exploiters should listen for ENF83 QUAL('80000000'x) (mapped by SYS1.MACLIB(IZUENF83)) which is the signal of AUTOSTART z/OSMF UP and DOWN.
 - If AUTOSTART z/OSMF is DOWN, exploiters will receive the event ENF83 QUAL('80000000'x) which tells zOSMF is invalid.
 - If AUTOSTART z/OSMF is UP, exploiters will receive the event ENF83 QUAL('80000000'x) which tells zOSMF is valid.

z/OSMF Autostart

- z/OSMF V2R3 provides new welcome page



IBM z/OS Management Facility

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Welcome to z/OSMF SHARE host image! Please log on z/OSMF using your SHARE user ID and password.

Welcome to z/OS

The highly secure, scalable and resilient enterprise operating system for the IBM z Systems mainframe.

z/OS USER ID

z/OS PASSWORD

LOG IN

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[z Systems Redbooks](#)

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[WCS Flashes and Techdocs](#)

[z/OS home Page](#)

[z/OS Knowledge Center](#)

SHARE

Customized for SHARE Providence 2017.

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z/OSMF Autostart

- REST Notification API supports email address as target
 - “Assignee” in request body previously supported user id and user group. Now, it also supports email address
 - API example:

POST https://{host}:{port}/zosmf/notifications/new

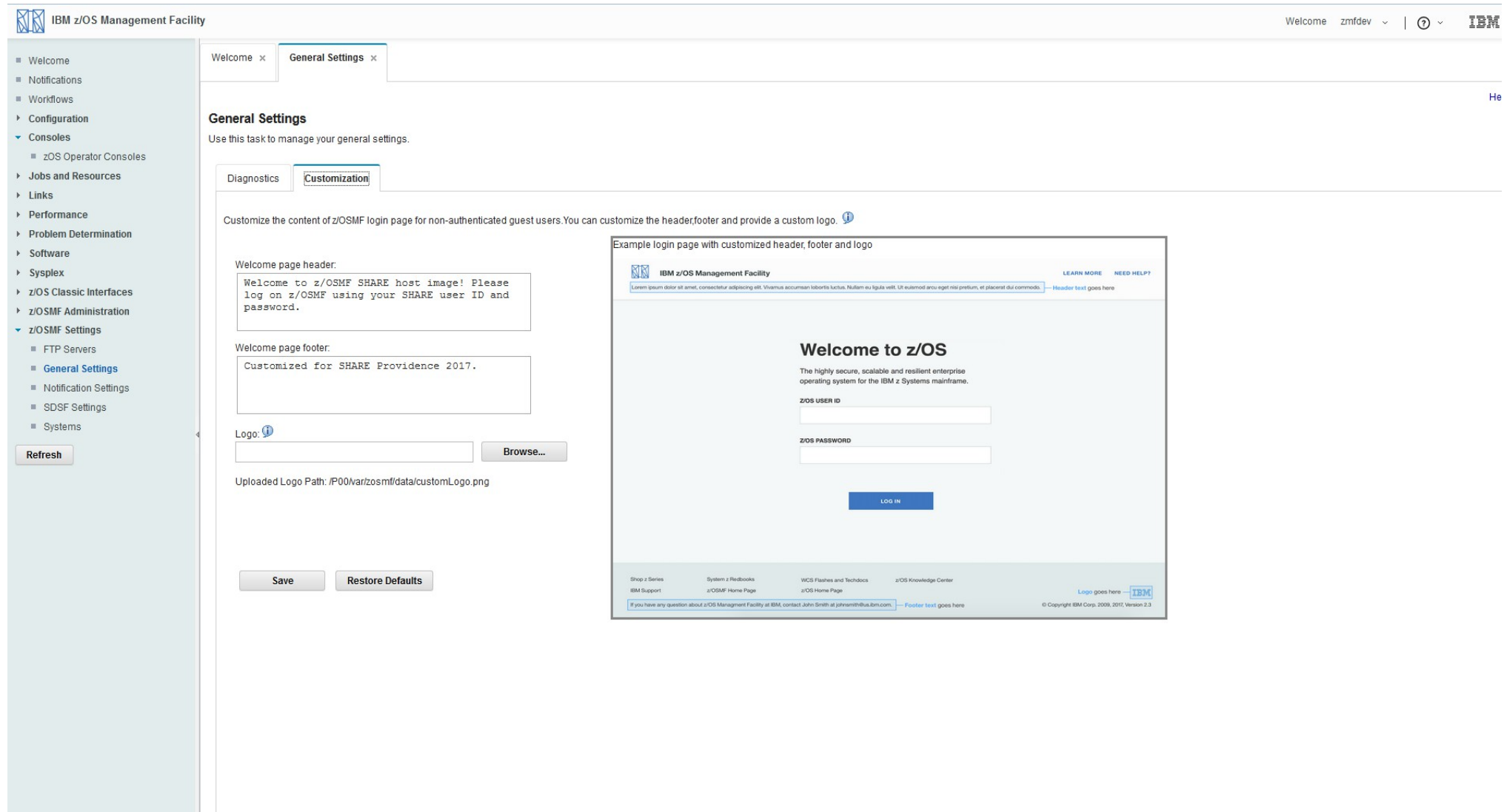
```
{"subject": "Test Notification Framework",  
  "content": "This is a test.",  
  "assignees": "user1@abc.com, zosmfad, user2@abc.com",  
  "sendTo": "mail"}
```

Response

```
{"result": {"mail": {"rc": "Ok", "messages":  
{} }}, "apiVersion": "1.0"}
```

z/OSMF Autostart

- UI for customizing header, footer and company logo



IBM z/OS Management Facility

Welcome | zmfdev | ? | IBM

General Settings

Use this task to manage your general settings.

Customization

Customize the content of z/OSMF login page for non-authenticated guest users. You can customize the header, footer and provide a custom logo. ⓘ

Welcome page header:

Welcome to z/OSMF SHARE host image! Please log on z/OSMF using your SHARE user ID and password.

Welcome page footer:

Customized for SHARE Providence 2017.

Logo: ⓘ

Uploaded Logo Path: /P00/var/zosmf/data/customLogo.png

Save **Restore Defaults**

Example login page with customized header, footer and logo

IBM z/OS Management Facility

Learn More | Need Help?

Header text goes here

Welcome to z/OS

The highly secure, scalable and resilient enterprise operating system for the IBM z Systems mainframe.

Z/OS USER ID

Z/OS PASSWORD

LOG IN

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IBM Support | z/OSMF Home Page | z/OS Home Page

Logo goes here — IBM

If you have any question about z/OS Management Facility at IBM, contact John Smith at johnsmith@us.ibm.com. — Footer text goes here

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z/OSMF Autostart

- Security configuration utility

- z/OSMF V2R3 will provide a stand alone utility named “IZUGUTSE” which will reside in SYS1. SIEALNKE. It could translate general security definition to specific security product's commands and even execute the generated commands.
- A sample JCL like below could be used to invoke IZUGUTSE

```
//IZUGUTSE JOB MSGLEVEL=1,MSGCLASS=A,REGION=0M,NOTIFY=&SYSUID
//IZUGUTSE EXEC PGM=IZUGUTSE,
//      PARM='opt=0001,in=/usr/lpp/zosmf/samples/IZUSEC.xml,out=/tmp/output.xml'
```
- Input of IZUXSEC is a xml format of general security definition. z/OSMF V2R3 will provide two samples reside in <z/OSMF code root>/samples. <z/OSMF code root> is “/usr/lpp/zosmf” by default. Those two samples are:
 - IZUSEC.xml contains general security definitions needed by z/OSMF Core
 - IZUAUTH.xml contains general security definitions needed for authorize new user to z/OSMF.
- Output of IZUGUTSE is also in XML format. The content of output xml depends on the value of input parameter “opt”. E.g. “opt=0001” means generate the security commands and execute them. So the output xml will contain the generated commands as well as execution result. Thus, user has the chance to validate the generated commands. For detailed value “opt” supports, please refer to <z/OS Management Facility Configuration Guide>

Interactions & Dependencies

- Software Dependencies

In order for z/OSMF to be started during IPL, below components should be available:

- USS
 - TCP/IP
 - CEA
- Hardware Dependencies
 - NONE
- Exploiters
 - NONE

Migration & Coexistence Considerations

- Migration:
 - Security change: there are two new profiles added for the function.

The resource 'CEA.SIGNAL.ENF83' is used to allow z/OSMF server to signal ENF83 event via CEA.

```
RDEFINE SERVAUTH CEA.SIGNAL.* UACC(NONE)
PERMIT CEA.SIGNAL.* CLASS(SERVAUTH) ID(IZUSVR) ACCESS(READ)
SETROPTS RACLIST(SERVAUTH) REFRESH
```

The procedure IZUINSTP is used to detect if USS and TCPIP are woken up during IPL if z/OSMF is selected to be automatically started in IPL.

```
RDEFINE STARTED IZUINSTP.* UACC(NONE) STDATA(USER(IZUSVR) GROUP(IZUADMIN) PRIVILEGED(NO)
TRUSTED(NO) TRACE(YES))
```

- Change of PROC IZUSVR1:

The default value of IZUPRM is changed to 'PREV' which indicates the z/OSMF PARMLIB suffixes of previous z/OSMF instance will be used to start z/OSMF server. With the change, if customer ever customize the parameter with specific z/OSMF PARMLIB suffixes, customer could either specify the customized z/OSMF PARMLIB suffixes on IZU in IEASYSxx or replace 'PREV' with specify the customized z/OSMF PARMLIB suffixes.

Migration & Coexistence Considerations

A new parameter SERVER is added to specify the attribute of z/OSMF server. Customer can specify 'AUTOSTART' or 'STANDALONE' to the parameter.

```
//IZUSVR1 PROC PARMS='zosmfServer', /* Server parms */  
//      IZUPRM='PREV', /* Parmlib suffixes or NONE */  
//      SERVER='AUTOSTART', /* Server attribute */
```

- Coexistence:
- z/OSMF V2R3 could be coexist with N-2 older version of z/OSMF

Installation

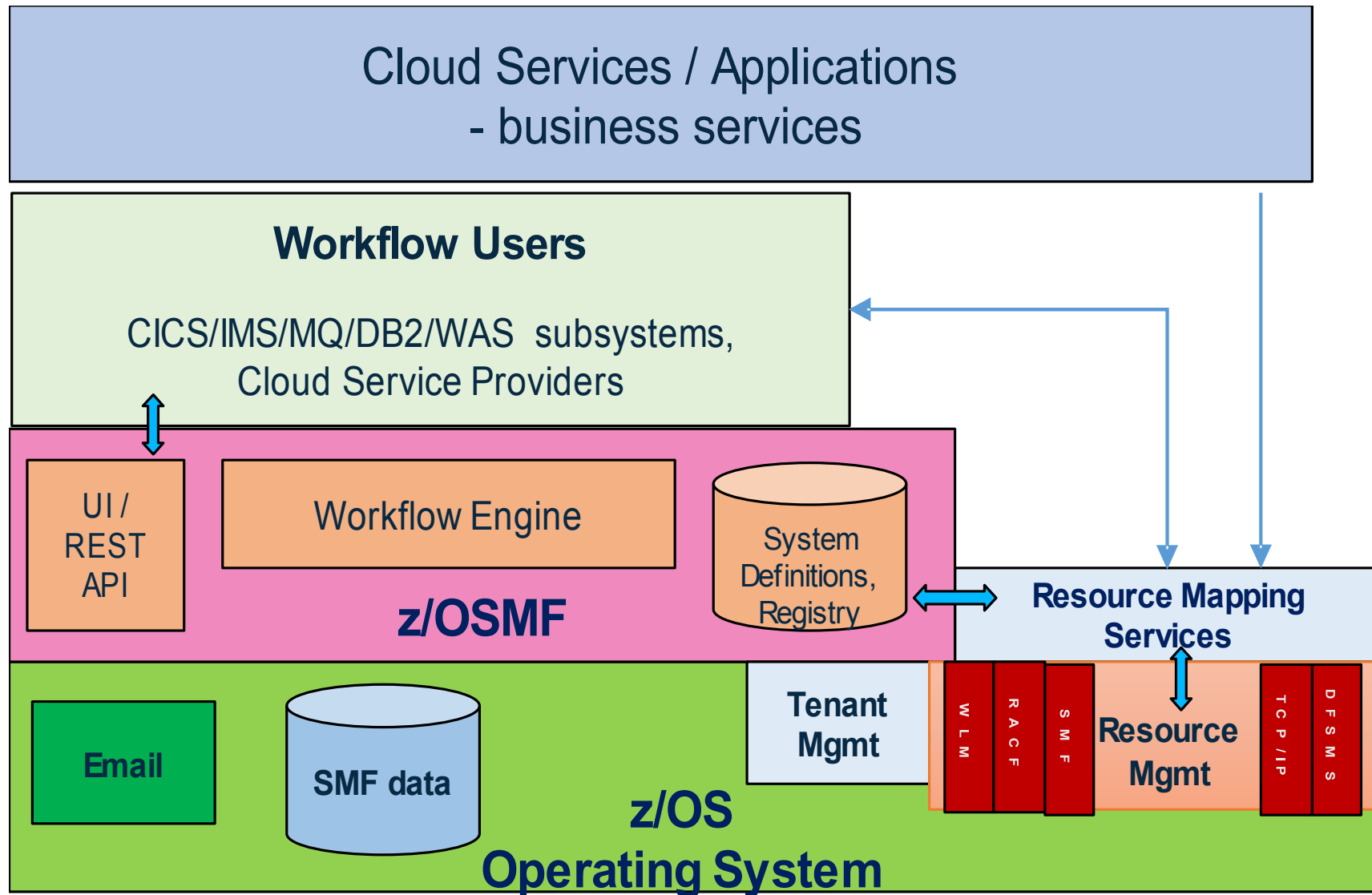
- LOAD MODULEs:

IZUINSTR is the mainline program to start pair of address spaces of z/OSMF. The load module is shipped at SYS1.LINKLIB(IZUINSTR).

IZUINST0 is to detect if USS and TCPIP are woken up. The load module is shipped at SYS1.LINKLIB(IZUINST0)

IZUENFEP is ENF83 event process program which is shipped at SYS1.LPALIB(IZUENFEP)

z/OS Cloud Provisioning and Management



Workflow enhancements

- Enhance workflow security control
- Provide the support to execute the script file (TSO-REXX, TSO-Unix-REXX and TSO-Unix-shell) immediately.
- Allow workflow author to get the feedback of the workflow template from different workflow users.
- Allow workflow author to predefine JOB name of each step.
- Allow workflow user to archive workflow instance and manage the archived instances.
- Multiple sysplex support - Provide the support to perform workflow steps in remote sysplex.

Workflow multiple sysplex support

- Problem Statements / Need Addressed:

Nowadays, the workflow users can only create workflow instance and execute JCL or immediate REXX/shell script on the systems of local sysplex.

- Solution:

z/OSMF V2R3 will provide the support that workflow user can create workflow instance and execute JCL or immediate REXX/shell script on the systems of remote sysplex.

- Benefit / Value:

- Users can create and perform workflows across multiple sysplexes from one single z/OSMF host.

Workflow multiple sysplex support

Systems

View systems by: Sysplex ▼

Actions ▼ Table view: Tree									
↔ No filter applied									
<input type="checkbox"/>	Sysplex/System Name Filter	Nickname Filter	Description Filter	z/OSMF Host Name Filter	URL Filter	JES Member Name Filter	JES Type Filter	Single Sign-on Status Filter	
<input type="checkbox"/>	[-] PLEX1								
<input type="checkbox"/>	S12	S12		S11		S12	JES2		
<input type="checkbox"/>	S11	S11			https://pev218.pok.ibm.com:443/zosmf	S11	JES2		
<input type="checkbox"/>	[-] PLEX2								
<input type="checkbox"/>	S21	S21			https://pev179.pok.ibm.com:443/zosmf/	S21	JES2	Single sign-on enabled	
<input type="checkbox"/>	S22	S22		S21		S22	JES2		

- Step1: If the target system does not have z/OSMF running, set the z/OSMF Host System so that it can be managed by z/OSMF host properly.
- Step2: Enable single sign-on with the z/OSMF host system in remote sysplex.

Workflow multiple sysplex support

Create Workflow

Type or select a workflow definition file to use for creating a new workflow.
For a z/OS data set, specify a fully qualified name, with no quotes.

* Workflow definition file:
/usr/lpp/zosmf/samples/workflow_sample_wizards.xml

Type or select a variable input file to populate the new workflow. For a z/OS data set, specify a fully qualified name, with no quotes.

Workflow variable input file:
Select or type

* System:
Select or type
PLEX1.S11 - Local
PLEX1.S12
PLEX2.S21 - Host
PLEX2.S22

OK Cancel Help

- Step3: When creating a workflow, the target system can be set to any system in both local and remote sysplex.
 - The z/OSMF host system in local sysplex is followed by “- Local”
 - The z/OSMF host system in remote sysplex is followed by “- Host”

Workflow multiple sysplex support

- Step4: Once a workflow is created on the target system, all the steps are performed on the target system, including JCL submission, TSO-REXX, TSO-Unix-REXX, TSO-Unix-shell and Restful API calls.

(* The TSO-REXX, TSO-Unix-REXX and TSO-Unix-shell can only be performed on z/OSMF host system on either local or remote sysplex)

Interactions & Dependencies

- Software Dependencies
 - None.
- Hardware Dependencies
 - None.
- Exploiters
 - z/OSMF Configuration Workflow, z/OS Migration Workflow, z/OS Provisioning Toolkit, DB2, CICS, WAS, MQ and etc.

Migration & Coexistence Considerations

- None.

Installation

- None.

Software Management enhancements

- Support for non-SMP/e Software Instances
 - Support software instance without global zone.
- Support for exporting and importing Software Instance
 - Software Management is extended to create a portable form for a software instance, including the SMPCSI data sets, all associated SMP/E managed target and distribution libraries, non-SMP/E managed data sets, and meta-data required to describe the software instance. The portable form of a software instance is called a “portable software instance”.
 - Deployment operations is extended to support deploying a portable software instance.

Incident Log enhancements

- Support to attach PDS(E) and PDS(E) members in Incident Log.
- Support to search for matching APARs in Incident Log
- Manually Created Incident
 - Allow Incident Log user to manually create incident with or without an existing dump file.
 - The attachments of the manually created incident can be persisted.

New Actions

Incident Log

Actions ▾

- Set Tracking ID...
- Set Problem Number...
- Add Notes...
- Delete Incident...
- Send Diagnostic Data...
- View Diagnostic Details
- FTP Job Status
- Allow Next Dump...
- Search for Matching Service
- Search for Service
- FTP Servers
- FTP Profiles
- ☒ Select All
- ☐ Deselect All
- Configure Columns...
- Hide Filter Row
- Clear Sorts

		Date and Time (GMT) past "3000 days"	Sysplex Filter	System Filter	Problem Number Filter	Tracking ID Filter	Notes Filter
	PX,COMPID=SCPX1,ISSUER=BPXMIPCE,MODUL	Apr 13, 2016, 1:57:00 AM	PLEX1	SY1	kkk	www	aaaaa
	PX,COMPID=SCPX1,ISSUER=BPXMIPCE,MODUL	Apr 7, 2016, 2:09:29 AM	PLEX1	SY1			
	PX,COMPID=SCPX1,ISSUER=BPXMIPCE,MODUL	Mar 31, 2016, 3:28:53 AM	PLEX1	SY1			
	PX,COMPID=SCPX1,ISSUER=BPXMIPCE,MODUL	Mar 30, 2016, 2:16:10 AM	PLEX1	SY1			
	XR,COMPID=SCAXR,ISSUER=AXRMIREC,MODUL	Mar 29, 2016, 5:15:33 AM	PLEX1	SY1			
	115,CSECT=IGWBIX1+10F8,DATE=02/27 = NONE RC=00000020,RSN=150A001E	Mar 29, 2016, 5:15:31 AM	PLEX1	SY1			
	PX,COMPID=SCPX1,ISSUER=BPXMIPCE,MODUL	Mar 29, 2016, 5:15:18 AM	PLEX1	SY1			
		Jan 22, 2016, 3:04:35 AM	PLEX1	SY1	123456		
	stalled BPXAS server (Alex Savas)	Jan 20, 2016, 6:55:07 AM	SVPLEX6	P02			
<input type="checkbox"/>	ABEND S0A78	COMPON=BPX,COMPID=SCPX1,ISSUER=BPXMIPCE,MODUL	Jan 19, 2016, 9:11:16 AM	SVPLEX6	P02		
<input type="checkbox"/>	ABEND S0A78	COMPON=VSM,COMPID=SC1CH,ISSUER=IGVQSPET,ABEND	Jan 19, 2016, 7:39:06 AM	SVPLEX6	P02		
<input type="checkbox"/>	ABEND S008B	COMPON=PROGRAM MANAGER LIBRARY- LOOKASIDE,COMPID=SC1CJ,ISSUER=CSVLLTCH	Jan 19, 2016, 7:38:59 AM	SVPLEX6	P02	11111,111,111	111

Total: 26 Selected: 1

Refresh

Last refresh: Jun 30, 2016, 4:03:40 PM local time (Jun 30, 2016, 8:03:40 AM GMT)

Search for Matching Service – Quick Searches

The screenshot shows the 'Incident Log' tab with a 'Search for Matching Service' section. It includes a 'Quick Searches' sidebar and a main search area with filters and a results list. Annotations explain the search options and URL construction.

Welcome **Incident Log**

Incident Log ▶ Search for Matching Service

Search for Matching Service

*Default Search provider URL:
<http://www-01.ibm.com/support/search.wss?q=&tc=SG004FV+SWG90&dc=DB550&dtm>

Results to display per page(20/50/100):
20

Three values can be selected here, 20,50, or 100.

Sorts:
Relevance
Relevance
Newest First

Two sort types can be select: relevance or newest first.

Quick Searches Search Builder

Search Component ID
<http://www-01.ibm.com/support/search.wss?q=5752SCPX1&tc=SG004FV+SWG90&dc=DB550&dtm&sortby=&hpp=20>

Search Release and Product IDs
<http://www-01.ibm.com/support/search.wss?q=V2R2+USS&tc=SG004FV+SWG90&dc=DB550&dtm&sortby=&hpp=20>

Search Program in Error
Incident does not contain Load Module.

No error data for this specific incident instance, no URL and link will be displayed.

Results to display value and sort type will be substituted here, when click the link above the URL, these values will be passed to the dBlue servlet.

Search for Matching Service – Search Builder

Welcome x Incident Log x

Incident Log > Search for Matching Service

Search for Matching Service

*Default Search provider URL:

<http://www-01.ibm.com/support/search.wss?q=&tc=SG004FV+SWG90&dc=DB550&dtm>

Results to display per page(20/50/100):

20

Sorts:

Relevance

Quick Searches

Search Builder

Search terms:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Component name:USS KERNEL | <input checked="" type="checkbox"/> Abend code:S0EC6 |
| <input type="checkbox"/> Component ID:5752SCPX1 | <input type="checkbox"/> Reason code: |
| <input type="checkbox"/> z/OS release:V2R2 | <input type="checkbox"/> CSECT: |
| <input type="checkbox"/> Product:USS | <input type="checkbox"/> Load module: |
| <input type="checkbox"/> Symptom string: | |

Only nine terms are displayed here, if the term has no value, the checkbox before the term will be disabled, or user can select it.

Additional terms:

2015

User can also add some additional terms in this checkbox, separate each terms by comma.

Clear Additional terms

Generated Search for Service

Open Search in New Browser Window or Tab


<http://www-01.ibm.com/support/search.wss?q=USS KERNEL+ABEND S0EC6+2015&tc=SG004FV+SWG90&dc=DB550&dtm&sortby=&hpp=20>

It is a link to open the below URL.

All user selected and added terms' value will be substituted here, then when user click the link above, all these values will be passed to the dBlue servlet.

Search for Matching Service – dBlue Page

IBM Support

 Check here to start a new keyword search.

USS KERNEL ABEND SOEC6 2015



Search results

1-2 of 2 results

[OA43873: ABEND3C4 RSN1B MMAP BPXFVNL2 BPXFVBLK ASAABENDRSNSTACKUSEDUP FOLLOWED BY ABENDEC6 RSN0B010407 BADKERNELBLOCKS BPXPRIT](#)

An mmap() call was performed against a target file which resides in a file system that is quiesced/superquiesced. The flow

Search result URL: <http://www.ibm.com/support/docview.wss?uid=isg1OA43873>

[OA44899: BPXF029E ROOT FILE SYSTEM WAS NOT MOUNTED. REASON 5B220117 \(HFS\)OR EFF3605E / EFF2605E \(ZFS\) DURING LPAR RESTART](#)

Client performed a shutdown / restart of one member (MVS1) of their shared file system environment.

Search result URL: <http://www.ibm.com/support/docview.wss?uid=isg1OA44899>

Search for Service

Welcome x Incident Log x

Incident Log > Search for Service

Search for Service

*Default Search provider URL:
<http://www-01.ibm.com/support/search.wss?q=&tc=SG004FV+SWG90&dc=DB550&dtm>

Results to display per page(20/50/100):
20

Sorts:
Relevance

*Search terms:
zos,unix

Clear Search Terms

Generated search:
[Open Search in New Browser Window or Tab](http://www-01.ibm.com/support/search.wss?q=zos+unix&tc=SG004FV+SWG90&dc=DB550&dtm&sortby=&hpp=20)
<http://www-01.ibm.com/support/search.wss?q=zos+unix&tc=SG004FV+SWG90&dc=DB550&dtm&sortby=&hpp=20>

Close

These two bombo box is the same as the previous.

User can only add terms by themselves in this panel, all these terms will be substituted in the search URL after q=.

Click on this link to open the URL below.

Search for Service – dBlue Page

The screenshot shows a web browser window with the address bar displaying the URL: `www-01.ibm.com/support/search.wss?q=zos unix&tc=SG004FV+SWG90&dc=DB550&dtm=undefined&sortby=&hpp=20`. The page header features the "IBM Support" logo and a "What's New?" link. Below the header, a search bar contains the text "zos unix" and a magnifying glass icon. A button labeled "Check here to start a new keyword search." is positioned above the search bar. The search results section is titled "Search results" and displays "1-20 of 104 results" with a "Next" button. The first result is titled "PM20603: WHEN CREATING A FILE TRANSFER BETWEEN ZOS AND UNIX FTE AGENTS, THE FTECREATETRANSFER COMMAND FAILS WITH BFGCL0252E." and includes a description: "The fteCreateTransfer command used to create a transfer between zOS and Unix agents fails with 'BFGCL0252E: The request has". The second result is titled "OA34359: ABEND=S00C4,REASON=00000004" and includes a description: "ABEND=S00C4,REASON=00000004". Both results include a "Search result URL" link.

IBM Search results - United... x +

www-01.ibm.com/support/search.wss?q=zos unix&tc=SG004FV+SWG90&dc=DB550&dtm=undefined&sortby=&hpp=20 Search

IBM Most Visited 日本 0号多大_百度搜索

IBM Support [What's New?](#)

Check here to start a new keyword search.

zos unix

Search results

1-20 of 104 results Next >

PM20603: WHEN CREATING A FILE TRANSFER BETWEEN ZOS AND UNIX FTE AGENTS, THE FTECREATETRANSFER COMMAND FAILS WITH BFGCL0252E.

The fteCreateTransfer command used to create a transfer between zOS and Unix agents fails with "BFGCL0252E: The request has

Search result URL: <http://www.ibm.com/support/docview.wss?uid=swg1PM20603>

OA34359: ABEND=S00C4,REASON=00000004

ABEND=S00C4,REASON=00000004

Search result URL: <http://www.ibm.com/support/docview.wss?uid=isg1OA34359>

OA34359: ABEND=S00C4,REASON=00000004

Interactions & Dependencies

- Software Dependencies
 - IBM dBlue search service.
- Hardware Dependencies
 - None.
- Exploiters
 - z/OSMF users.

Migration & Coexistence Considerations

- None.

Installation

- None.

Create incident without dump dataset

[Incident Log](#) > Create Incident

Create Incident

* Description:

Manually created incident test

Only description is required

System name(sysplex.system):

PLEX1.SY1

Date and Time(GMT):

11/15/2016

1:00 AM

Dump data set name:

Create incident without
dump data set, the
incident type will be
Manual Created

z/OS release:

V2R2

Tracking ID:

123

PMR number:

12345



Identify the problem number as an IBM PMR

and verify the syntax.

Abend code:

U0123

Component ID:

CSECT:

Load module:

LOAD

Notes:

Created by manual for test

Create incident with dump dataset

[Incident Log](#) > Create Incident

Create Incident

* Description:

Test manual create incident with dump dataset

System name(sysplex.system):

PLEX1.SY1

Date and Time(GMT):

11/15/2016

2:30 AM

Dump data set name:

ZOSMF.PDW.TEST.CREATE

This field is filled with valid value, so this incident will be persisted in SDDIR.

z/OS release:

V2R1

Tracking ID:

321

PMR number:

12345

☒ Identify the problem number as an IBM PMR and verify the syntax.

Abend code:

U0111

Component ID:

321

CSECT:

test

Load module:

test

Notes:

test the incident creation with dump dataset

Create

Cancel

Interactions & Dependencies

- Software Dependencies
 - CIM and CEA, these two dependencies exist in z/OS V2R2 and V2R3.
- Hardware Dependencies
 - None.
- Exploiters
 - z/OSMF users.

Migration & Coexistence Considerations

- None.

Installation

- None.

File and Dataset API enhancements

- **Problem Statement / Need Addressed**

- Being able to display and manipulate files and data sets is a fundamental function for managing a system, plugins within z/OSMF are starting to require this function, and we imagine that vendors and customers will need these functions as well.
- Today z/OS supports an interface to transfer dataset/file via FTP. Unfortunately it is considered by many to be insecure for use on modern production servers, and thus not widely used. For example the VISA security standards require that no FTP interfaces could be opened on servers that are storing credit card numbers.
- Most of z/OS services are locked up in assembler interfaces where most application developers may only know C/C++ or Java APIs of a non-z/OS platforms.

- **Solution**

- In V2R2 1Q2016 D-APAR, we delivered the Create/Delete and Mount/Unmount functions. In V2R2 4Q2016 D-APAR, we continue to deliver the Copy/Move/Rename functions; Plus, the enhancements of List/Edit/Browse, and operations for zFS file system.

All of these services are provided with REST way with which it is much easier to build out applications on top of z/OS and z/OSMF comparing with traditional interfaces.

- **Benefit/Value**

- This work is intended to make z/OS more approachable.
- The ability to drive remote requests similar to FTP from HTTP(s) to provide a secure and functionally rich interface to retrieve or manipulate dataset/file information and contents.

File and Dataset API enhancements

Operation	Method
List data sets on a z/OS system according to specified pattern	GET
List the members of a PDS or PDSE according to specified pattern	GET
List the files and directories in a UNIX file path on a z/OS system.	GET
Retrieve the contents of a sequential data set, or a member of a PDS or PDSE or an Unix file	GET
Write data to a sequential data set or a member of a PDS or PDSE or an Unix file	PUT
Allocate sequential and partitioned data set	POST
Delete sequential and partitioned data set or member	DELETE
Mount/ Unmount Unix file system	PUT
Create Unix file or directory	POST
Delete Unix file or directory	DELETE
z/OS UNIX file Utilities	PUT
z/OS Data set and PDS Member Utilities	PUT
List z/OS UNIX Filesystem	GET
Create z/OS UNIX zFS Filesystem	POST
Delete z/OS UNIX zFS Filesystem	DELETE
IDCAMS Access Methods Services	PUT

Interactions & Dependencies

- Software Dependencies
 - Common Event Adapter
 - ISPF Service
 - z/OS Language Environment
- Hardware Dependencies
 - None.
- Exploiters
 - z/OSMF users.

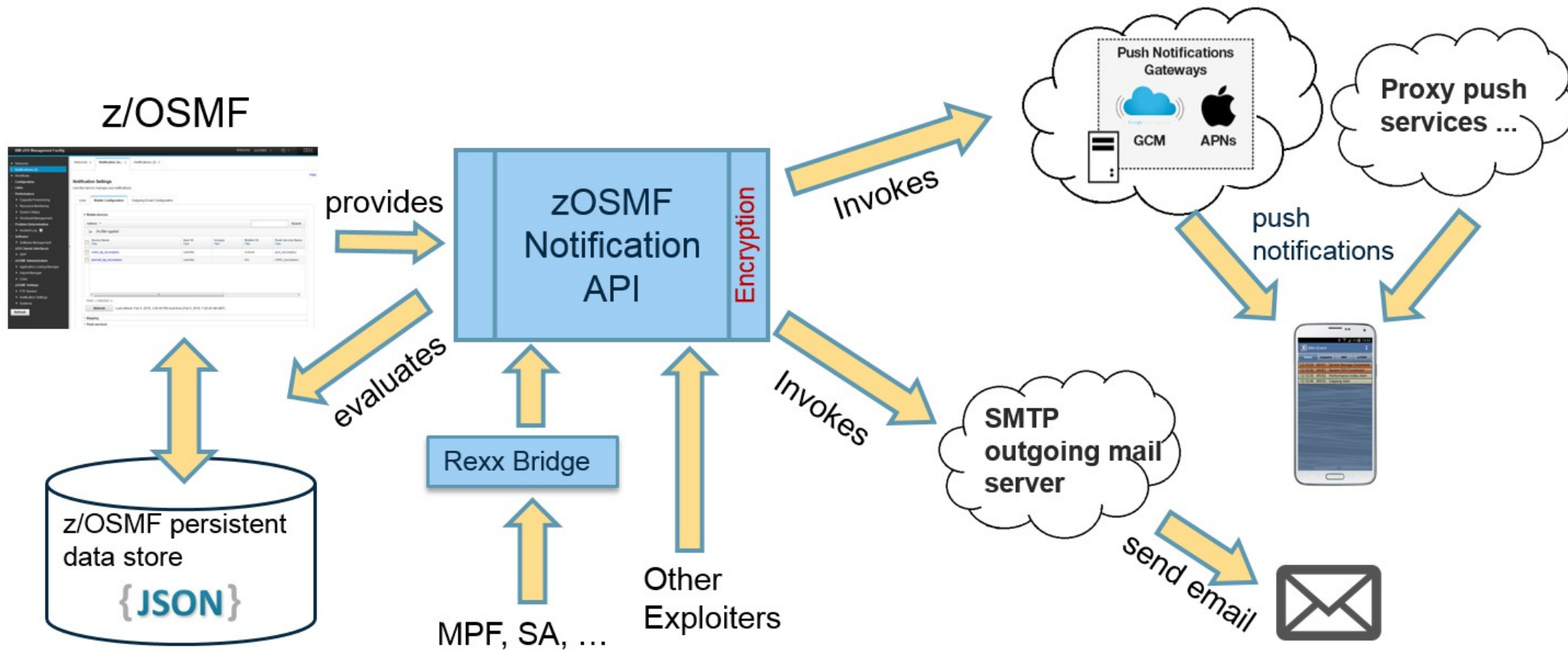
Migration & Coexistence Considerations

- None.

Installation

- None.

Mobile and Email Notification Support



Support new browser levels

- The below browsers and platforms are formally tested and supported in V2R3.

	Windows 7	Windows 8 Pro, Desktop	Windows 10 Pro, Desktop
Internet Explorer 11	Yes	Yes	No
Edge	No	No	Yes
Firefox ESR 52	Yes	Yes	Yes

Capacity Provisioning enhancements

- Stay current with the changes of z/OS CP V2.3 which includes functional enhancement and message update.
- Extend policy and domain configuration editing capabilities by listing CPCs, Records.

WLM enhancements

- Support for shorter response time goal.
- Enhancements for mobile pricing.
- Allow WLM elements to be utilized in the z/OS Cloud context. This feature will provides user some REST API interfaces to provision/deprovision WLM elements, dynamically construct a new service definition and install. One new resource element WLM Resource Pooling (WRP) is introduced which will associate cloud information with WLM elements(report classes, classification rules).
- Introduce z/OSMF WLM Specialty Engines Containment also known as HonorPriority by service class and Memory capping by resource group in support of SPARK and zCloud work.

RMF enhancements

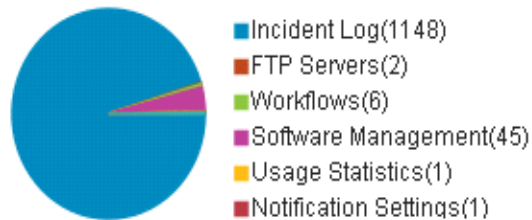
- Makes z/OSMF RMF automatically supports z/OS RMF future enhancements.
- Support for sharing systems resources across users.

UI for who is using the server

Usage Statistics

View usage for: Tasks

Summary of the task usage by requests:



Total 1205

Start of Data Collection (GMT):

Sep 27, 2016 02:29:53 AM

Current Active Users (1 of 33):

3%

Actions Table view: Tree

Search

No filter applied

<input type="checkbox"/>	User ID Filter	Login Status Filter	Authentication Type Filter	LTPA2 Token Expiration (GMT) Filter	Last Access (GMT) Filter	Number of Requests Filter	% of Total Requests Filter	
<input type="checkbox"/>	- debug12	Inactive	LTPA2 token	n/a	Sep 27, 2016 07:58:50 AM	34	2.70%	
<input type="checkbox"/>	Incident Log					34	2.70%	
<input type="checkbox"/>	+ debug13	Inactive	LTPA2 token	n/a	Sep 27, 2016 08:00:04 AM	35	2.78%	
<input type="checkbox"/>	+ debug14	Inactive	LTPA2 token	n/a	Sep 27, 2016 07:58:43 AM	34	2.70%	
<input type="checkbox"/>								

Total: 78 Selected: 0

Refresh

Last refresh: Oct 12, 2016, 12:38:06 AM local time (Oct 11, 2016, 4:38:06 PM GMT)

Session Summary

- z/OSMF V2R3 delivers a modernized UI and a set of Restful APIs for console operations.
- z/OSMF V2R3 introduces a new Sysplex Management task to support for querying sysplex resources in graphic view.
- z/OSMF V2R3 can be automatically started during IPL.
- A new z/OS Cloud Provisioning and Resource Management task is provided for middleware provisioning.
- A few z/OSMF tasks and Restful services are enhanced to provide more functionality.

Appendix – publications

- IBM z/OS Management Facility Configuration Guide Version 2 Release 3
 - SC27-8419-30
- IBM z/OS Management Facility Programming Guide Version 2 Release 3
 - SC27-8420-30