

What's New in z/OSMF?

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Marna WALLE, mwalle@us.ibm.com
Member of the IBM Academy of Technology
z/OS System Installation
IBM Z Systems, Poughkeepsie, NY, USA 



October 2018

Thanks to *Xiao Zhen Zhu (Joey)*
for contributions to this presentation.

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Agenda



- What is the z/OS Management Facility (z/OSMF) 
- z/OSMF V2R3 and PTFs
- Recent z/OSMF V2R2 SPE updates
- Notable z/OSMF enhancements



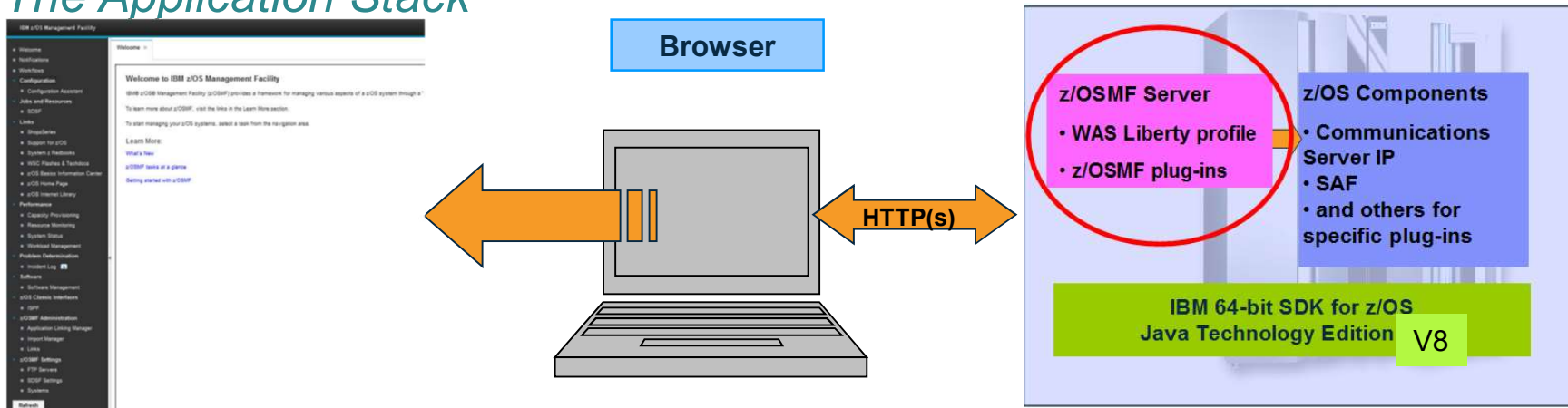
IBM z/OS Management Facility

- The IBM z/OS Management Facility is a base element of z/OS V2.2 that provides support for a modern, Web-browser based management console for z/OS.
- It helps system programmers more easily manage and administer a mainframe system by simplifying day to day operations and administration of a z/OS system.
- More than just a graphical user interface, the z/OS Management Facility is intelligent, addressing the needs of a diversified skilled workforce and maximizing their productivity.
 - Automated tasks can help reduce the learning curve and improve productivity.
 - Embedded active user assistance (such as wizards) guide you through tasks and helps provide simplified operations.

The screenshot shows the IBM z/OS Management Facility web console. The page title is "IBM z/OS Management Facility". The left sidebar contains a navigation menu with the following items: Welcome, Notifications, Workflows, Configuration (with sub-items: Configuration Assistant), Jobs and Resources (with sub-item: SDSF), Links, Performance (with sub-items: Capacity Provisioning, Resource Monitoring, System Status, Workload Management), Problem Determination (with sub-item: Incident Log), Software (with sub-item: Software Management), Sysplex (with sub-item: Sysplex Management), z/OS Classic Interfaces (with sub-item: ISPF), z/OSMF Administration, z/OSMF Settings, Consoles (with sub-item: z/OS Operator Consoles), and a Refresh button at the bottom. The main content area has two tabs: "Welcome" (active) and "General Settings". The "Welcome" tab displays the following text: "Welcome to IBM z/OS Management Facility", "IBM® z/OS® Management Facility (z/OSMF) provides a framework for managing var traditional tasks and automating others, z/OSMF can help to simplify some areas of z", "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.", and "Learn More:" followed by links for "What's New", "z/OSMF tasks at a glance", and "Getting started with z/OSMF".


IBM z/OS Management Facility

The Application Stack



- The z/OS Management Facility applications run on the z/OS enabling you to manage z/OS from z/OS
 - Information is presented on a PC using a browser
- The z/OS Management Facility (incorporated into z/OS V2.3) requires:
 - **z/OS Communications Server**
 - **Security definitions (SAF)**
 - **Other components are required for specific z/OSMF plug-ins**
 - **IBM 64-bit SDK for z/OS Java Technology Edition V8**

Agenda

- What is the z/OS Management Facility (z/OSMF)
- z/OSMF V2R3 and PTFs 
- Recent z/OSMF V2R2 SPE updates
- Notable z/OSMF enhancements

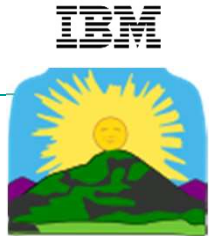
z/OSMF V2R3



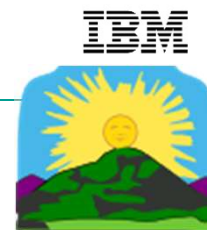
- z/OSMF will be automatically started during IPL
 - with Named Angel
- **NEW** z/OSMF Sysplex Management plug-in
- **NEW** z/OS Operator Console base function
- **NEW** Welcome page, with easy customization capability
- **NEW** Export Workflow in a printable format (PH00582)
- **NEW** Desktop interface for new user interface (PHI96462)



z/OSMF will be automatically started during IPL



- In V2R3, z/OSMF will be automatically started during IPL
 - z/OSMF parmlib can be used to control whether or not z/OSMF is autostarted during IPL.
 - By default, z/OSMF will be automatically started.
 - You can choose instead to use your automation.
 - IEASYSxx will be used to determine which z/OSMF parms to be used during IPL
- **JES2 Email Delivery Service** function in V2.3 has an execution dependency on z/OSMF server availability. That z/OSMF server must have been started with a proc that has the parm SERVER='AUTOSTART'.
 - Do not confuse this proc parm, with IZUPRMxx's AUTOSTART statement!



z/OSMF autostart overview

- **IEASYSxx IZU=** points to the IZUPRMxx members to use.
- IZUPRMxx contains new statements for:
 - Whether to start z/OSMF server on this system, or connect to another system with the z/OSMF server (**AUTOSTART**). Default is to start (LOCAL).
 - The group name of the z/OSMF server and its connected systems (**AUTOSTART_GROUP**).
 - The names of the server and angel procs to start (**ANGEL_PROC**, **SERVER_PROC**).
 - These new IZUPRMxx statements cannot be shared with pre-V2.3 system until PTFs for PI82068 are installed (coexistence FIXCAT'd).
- Updated IZUSVR1 and IZUANG1 procs must be used
- A couple of new security profiles are required, beyond V2.2.
 - No “throwaway” work, if you get z/OSMF started prior to z/OS V2.3!

```
Use:  F <server-name>,DISPLAY IZU
```

z/OSMF autostart migration considerations...



- **Plan now for how you will or will not use autostart z/OSMF!**
- 1. **Strong recommendation:** start z/OSMF before your z/OS V2.3 first IPL, so that you have less work to do for z/OS V2.3.
 - Do not underestimate the importance of all the correct security definitions.
 - Using default security names provided is recommended, if possible.
- 2. Understand the new IZUPRMxx statements, and what values you will put for them.
 - Understand what environments you have, and how you want z/OSMF to start in those environments – autostart or automation?
- 3. Following z/OS V2.3 Migration Workflow (or book), make sure you are running with the z/OSMF V2.3 procs for angel and server.
- 4. Can prevent autostarting of z/OSMF, if you prefer to use your existing automation to start and stop it (with **AUTOSTART** of **CONNECT**).

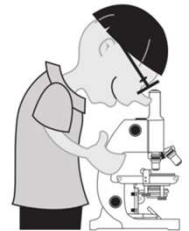
z/OSMF V2.3 Named Angel



- z/OSMF V2.3 will start a Named Angel, which allows multiple angels processes to be running on one system.
 - This allows Liberty embedders to uniquely use their own angel.
 - Liberty has supported Named Angels since 16.0.0.4.
- z/OSMF default angel name is **IZUANG1**.
 - Initially, it wasn't easily possible to override that name.
 - New Function APAR PI91120 available Jan 2018 allows that name to be more easily customized.
 - Still, though, the default name is recommended.

NEW z/OSMF Sysplex Management plug-in

- Need Addressed:
 - Simplify and modernize sysplex management
- In V2R3, z/OSMF Sysplex Management plug-in plans to display Sysplex resources by **views**:
 - Sysplex Topology View
 - Sysplex Physical View
 - Sysplex Logical View
 - Sysplex Connectivity View
 - Sysplex Connectivity Details View
- Security setup is required.



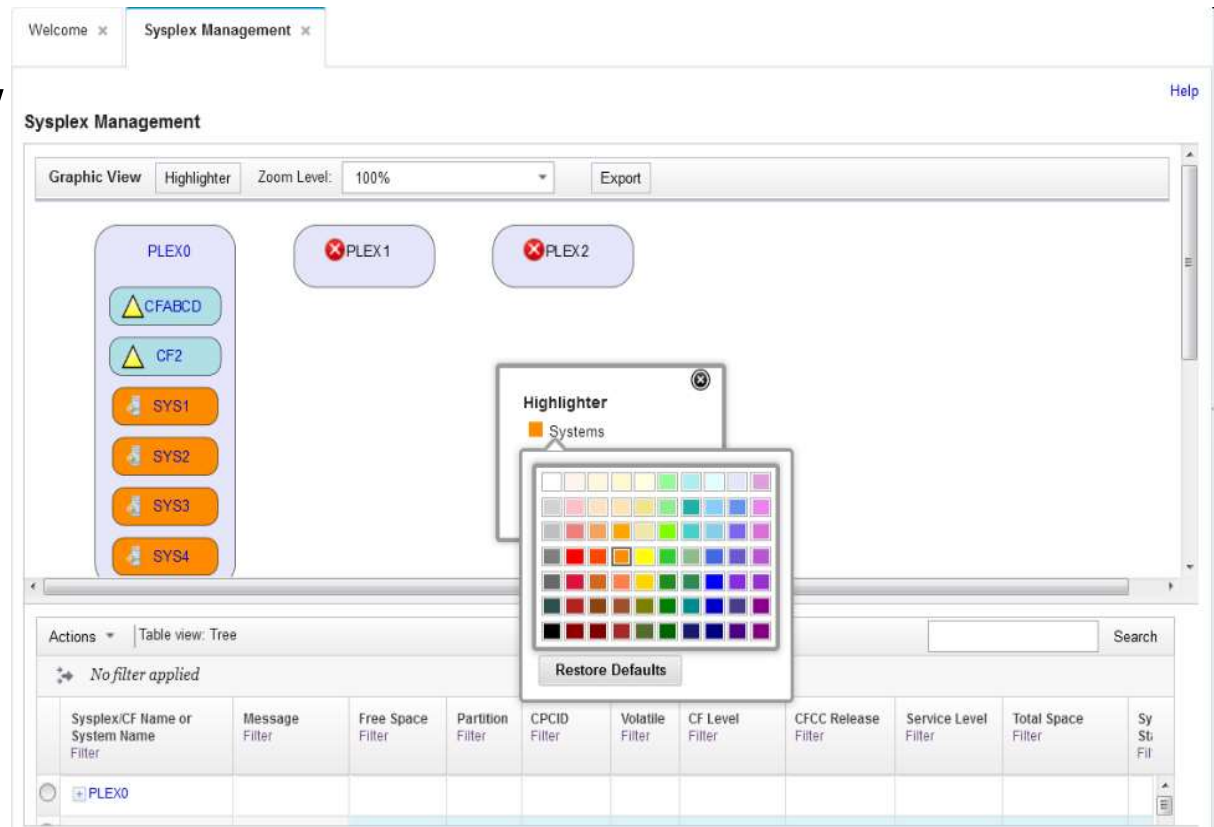
```

/* PLUGINS( INCIDENT_LOG,
             COMMSERVER_CFG,
             WORKLOAD_MGMT,
             RESOURCE_MON,
             CAPACITY_PROV,
             SOFTWARE_MGMT,
             SYSPLEX_MGMT,
             ISPF)
*/

```

NEW z/OSMF Sysplex Management plug-in

- Sysplex Topology View



NEW z/OSMF Sysplex Management plug-in

- Sysplex Topology View – View Sysplex details

Sysplex Management

Graphic View | Highlighter | Zoom Level: 100%

View Sysplex PLEX7

Sysplex name: PLEX7

Active Policies

Name	Type	Date Activated (GMT)
CLASS1	CFRM	Apr 2, 2015, 7:18:28 PM
SYSPOL1	SYSPLEX	Apr 2, 2015, 7:18:28 PM
ARMPOL7	ARM	Apr 7, 2015, 8:03:44 PM
SFMPOL1	SFM	Apr 8, 2015, 9:17:22 PM
WLMPOL	WLM	Apr 3, 2015, 3:03:08 PM

Couple Data Sets

Name	Type	Usage	Volume Serial
SYS1.CZUK.PCOUPLE	SYSPLEX	Primary	FDSPKP1
SYS1.CZUK.ACOUPLE	SYSPLEX	Alternate	FDSPKP2
SYS7.PFUNCT.CTTEST	CFRM	Primary	CIMPK1
SYS7.AFUNCT.CTTEST	CFRM	Alternate	CIMPK2
UTCXCF.SVPLEX8.LOGRR13	LOGR	Primary	SK1234

Systems

Name	Nickname	Description
J0A	J0A	
J01	J01	
J02	J02	
J03	J03	
J04	J04	
J05	J05	
J06	J06	

Coupling Facilities

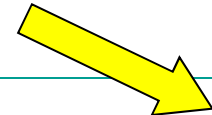
Name	Partition	CPC
CF1	00	CPC2
CF2	00	CPC4
CF3	00	CPC3

NEW z/OSMF Sysplex Management plug-in

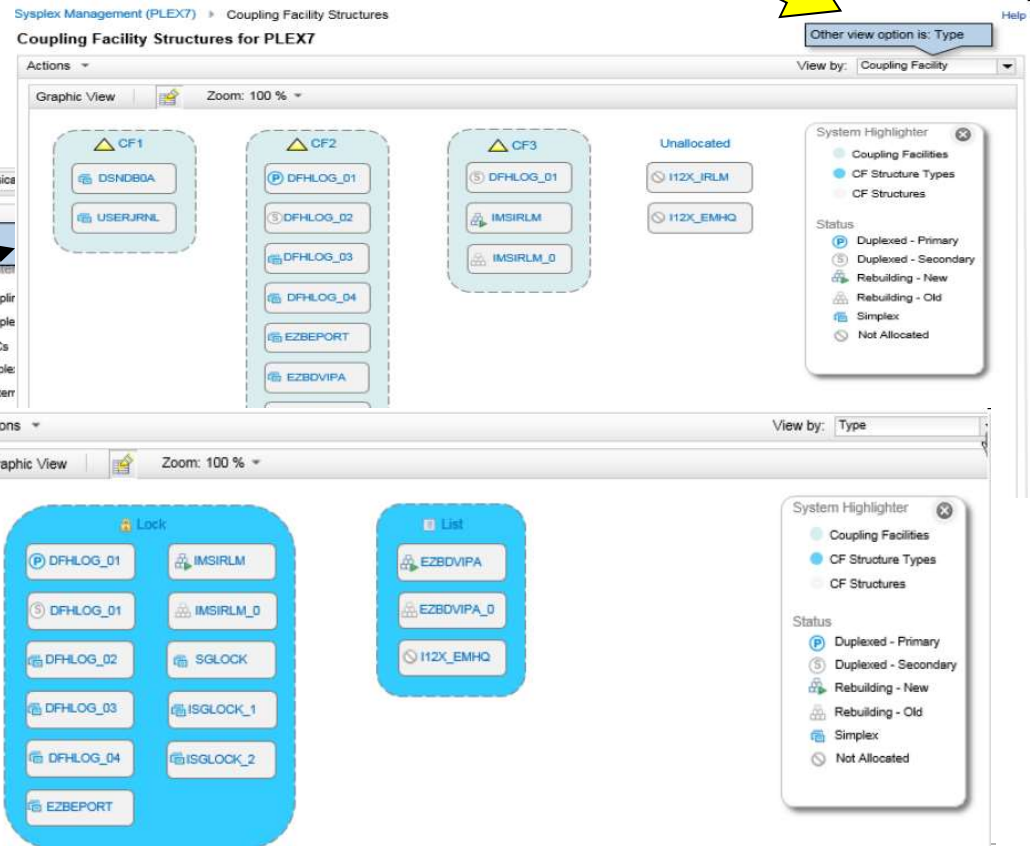
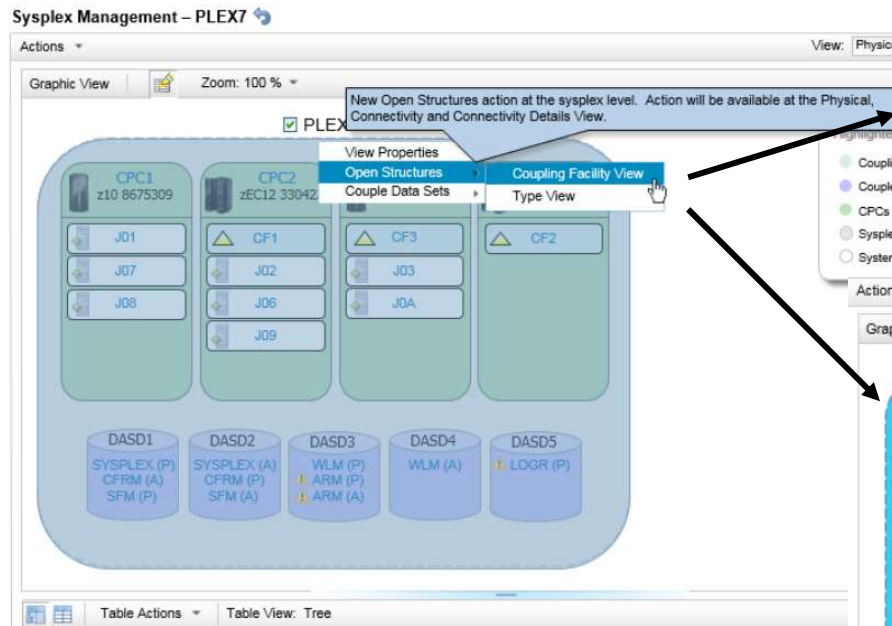
- Sysplex Physical View



NEW z/OSMF Sysplex Management plug-in

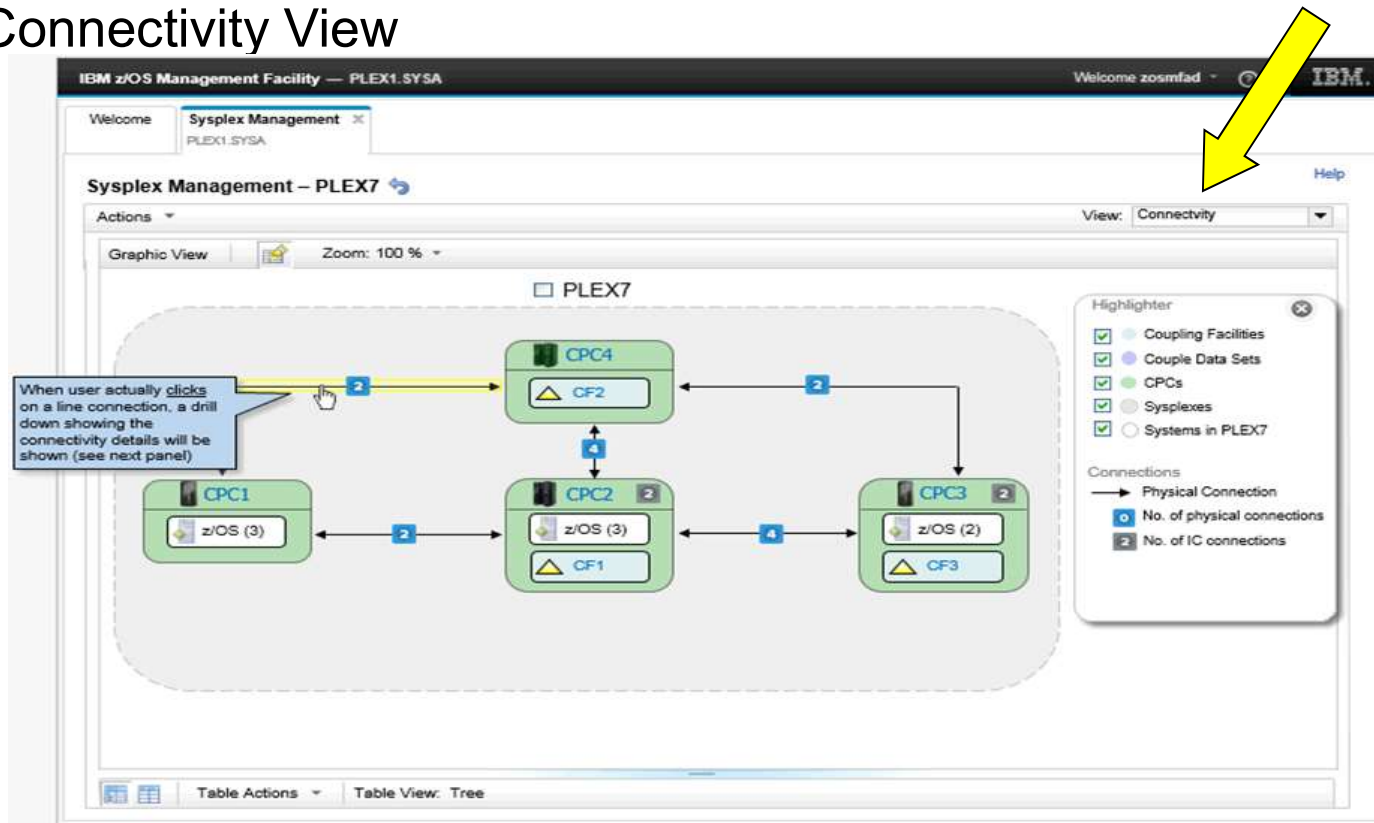


- Sysplex Logical View



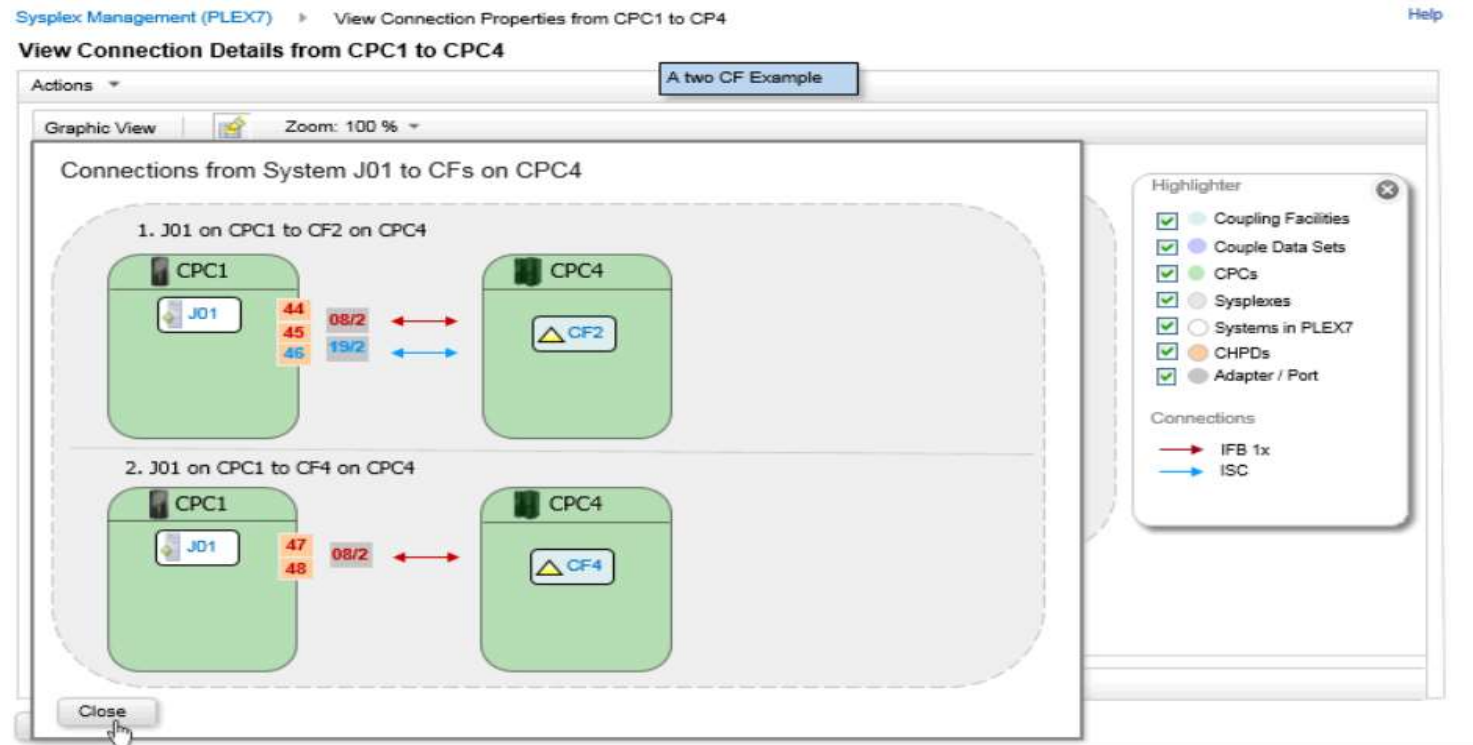
NEW z/OSMF Sysplex Management plug-in

- Sysplex Connectivity View



NEW z/OSMF Sysplex Management plug-in

- Sysplex Connectivity Details View



NEW zOS Operator Consoles base function

- zOS Operator Consoles provides web-browser based interface to work with z/OS console (using EMCS):
 - Summary view of console messages
 - Receive console messages
 - Issue system command and get command response
 - Search keyword from the console messages
 - Filter messages
 - Retrieve historic messages from OPERLOG or SYSLOG (with APAR PI79822)
- Security set up is required, use sample IZUGCSEC, and review settings carefully.
 - Think about what you want:
 - `ADDUSER consolename OPERPARM(AUTH(master) ROUTCODE(all) MSCOPE(sysname))`
 - Defaults with (*ALL, **NOMONITOR**), define more or different attributes if you want.
 - When starting the EMCS console, the user will identify which consolename to use.
- [Rollback to z/OSMF V2.2 with APAR PI91121 available Jan 2018.](#)





NEW zOS Operator Consoles base function

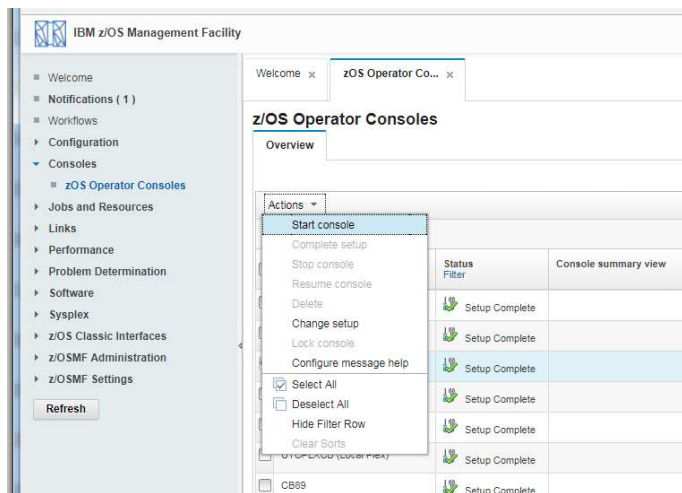
- Set up the EMCS console name:
- Start the EMCS console:

The z/OS Operator Consoles task uses EMCS consoles to support console operations. Some setup is required for each console. For a sample job that provides the required setup, see SYS1.SAMPLIB(IZUGCSEC).

In doing console setup, you identify an EMCS console by the EMCS console name. If you change the EMCS console name for a system or sysplex, please also perform the required setup for the new EMCS console name.

For more information about performing the setup for the z/OS Operator Consoles task, click **Help**.

Sysplex/System	EMCS console name
CB8D:	<input type="text" value="marnacon"/>



NEW zOS Operator Consoles base function



The screenshot displays the IBM z/OS Management Facility interface. The left sidebar contains a navigation menu with the following items: Welcome, Notifications, Workflow Editor, Workflows, Configuration, Consoles (highlighted with a red box), z/OS Operator Consoles (highlighted with a red box), Jobs and Resources, Links, Performance, Problem Determination, Software, z/OS Classic Interfaces, z/OSMF Administration, and z/OSMF Settings. The main content area is titled 'z/OS Operator Consoles' and shows a table of systems. The table has columns for 'Sysplex / System Name', 'Console Status', and 'Summary View'. The systems listed are SYS1, SYS2, SYS3, SYS4, SYS5, and SYS6. SYS3 is highlighted in blue, and an orange callout box points to it with the text 'View Console Summary by Sysplex/System'. The table also includes a 'Filter' option for each column. At the bottom of the table, there is a 'Refresh' button and a status indicator 'Total: 4 Selected: 1'.

Sysplex / System Name	Console Status	Summary View
SYS1	Connected	[Summary View]
SYS2	Connected	[Summary View]
SYS3	Unavailable	[Summary View]
SYS4	Error	[Summary View]
SYS5	Setup Complete	[Summary View]
SYS6	Setup Required	[Summary View]



NEW zOS Operator Consoles base function

- Message summary view and Console window

The screenshot displays the IBM z/OS Management Facility interface for zOS Operator Consoles. The main window shows a console for SY1 with a message summary table. A tooltip for 'Sat Mar 3 3:10:0' shows a red bar for 1 and a green bar for 2, with a total of 3. The message summary table is as follows:

Timestamp	System	User	Priority	Description
Sat Mar 3 3:10:1	SY1	IBMUSER	0	+This is message 16. (desc: 1)
Sat Mar 3 3:10:2	SY1	IBMUSER	0	+This is message 1. (desc: 11)
Sat Mar 3 3:10:2	SY1	GRS81MGIN	0	*GRS81MGIN: Frames currently in use by GR5: 7.375M
Sat Mar 3 3:10:4	SY1	IBMUSER	0	+This is message 17. (desc: 2)
Sat Mar 3 3:10:7	SY1	IBMUSER	0	+This is message 18. (desc: 3)
Sat Mar 3 3:10:10	SY1	IBMUSER	0	+This is message 19. (desc: 4)
Sat Mar 3 3:10:13	SY1	IBMUSER	0	+This is message 20. (desc: 5)
Sat Mar 3 3:10:16	SY1	IBMUSER	0	+This is message 0. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	0	+This is message 1. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	0	+This is message 2. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	0	+This is message 3. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	0	+This is message 4. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	0	+This is message 5. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	0	+This is message 6. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	0	+This is message 7. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	0	+This is message 8. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	0	+This is message 9. (desc: 11)
Sat Mar 3 3:10:16	SY1	IBMUSER	0	+This is message 10. (desc: 11)
Sat Mar 3 3:10:17	SY1	XCFAS	0	IXCS86I STRUCTURE LIST01 IN COUPLING FACILITY TESTCFN, PHYSICAL STRUCTURE VERSION D22DACFE DBE5668D, IS NOW BELOW STRUCTURE FULL MONITORING THRESHOLD.
Sat Mar 3 3:10:44	SY1	IBMUSER	0	+This is message 0. (desc: 11)
Sat Mar 3 3:10:44	SY1	IBMUSER	0	+This is message 1. (desc: 11)
Sat Mar 3 3:10:44	SY1	IBMUSER	0	+This is message 2. (desc: 11)
Sat Mar 3 3:10:44	SY1	IBMUSER	0	+This is message 3. (desc: 11)
Sat Mar 3 3:10:44	SY1	IBMUSER	0	+This is message 4. (desc: 11)
Sat Mar 3 3:10:44	SY1	IBMUSER	0	+This is message 5. (desc: 11)
Sat Mar 3 3:10:44	SY1	IBMUSER	0	+This is message 6. (desc: 11)
Sat Mar 3 3:10:44	SY1	IBMUSER	0	+This is message 7. (desc: 11)



NEW zOS Operator Consoles base function

- Issue command

The screenshot displays the IBM z/OS Management Facility (zOSMF) console interface. The left sidebar contains a navigation menu with categories such as Welcome, Notifications, Sysplex Management, Workflow Editor, Workflows, Configuration, Links, Performance, Problem Determination, Software, z/OS Classic Interfaces, z/OSMF Administration, z/OSMF Settings (including FTP Servers and Systems), and Consoles (with z/OS Operator Consoles selected). A 'Refresh' button is located below the menu. The main content area shows the 'z/OS Operator Consoles' page with a 'Console for SY1' tab. The console output displays a list of messages with columns for date, time, system, user, and message text. The messages include system messages 493 through 500 and a TCP/IP command output. At the bottom, there is a command input field with 'TCP/IP,NET,HOM' entered and a 'Submit' button.

Date	Time	System	User	Message
Sat Mar 3 3:13:12		SY1	IBMUSER	-This is message 493. (desc: 11)
Sat Mar 3 3:13:12		SY1	IBMUSER	-This is message 494. (desc: 11)
Sat Mar 3 3:13:12		SY1	IBMUSER	-This is message 495. (desc: 11)
Sat Mar 3 3:13:12		SY1	IBMUSER	-This is message 496. (desc: 11)
Sat Mar 3 3:13:12		SY1	IBMUSER	-This is message 497. (desc: 11)
Sat Mar 3 3:13:12		SY1	IBMUSER	-This is message 498. (desc: 11)
Sat Mar 3 3:13:12		SY1	IBMUSER	-This is message 499. (desc: 11)
Sat Mar 3 3:13:12		SY1	IBMUSER	-This is message 500. (desc: 11)
Sat Mar 3 3:13:25				D TCP/IP,NET,HOM
Sat Mar 3 3:13:25		SY1	TCPIP	EZZ2500I NETSTAT CS V2R3 TCPIP 578 HOME ADDRESS LIST. ADDRESS LINK FLG 127.0.0.1 LOOPBACK ADDRESS INTERFACE FLG 9.56.95.201 ETH1 P 2 OF 2 RECORDS DISPLAYED END OF THE REPORT
Sat Mar 3 3:13:41		SY1	IBMUSER	-This is message 0. (desc: 11)
Sat Mar 3 3:13:41		SY1	IBMUSER	-This is message 1. (desc: 11)
Sat Mar 3 3:13:41		SY1	IBMUSER	-This is message 2. (desc: 11)
Sat Mar 3 3:13:41		SY1	IBMUSER	-This is message 3. (desc: 11)
Sat Mar 3 3:13:41		SY1	IBMUSER	-This is message 4. (desc: 11)
Sat Mar 3 3:13:41		SY1	IBMUSER	-This is message 5. (desc: 11)
Sat Mar 3 3:13:41		SY1	IBMUSER	-This is message 6. (desc: 11)
Sat Mar 3 3:13:41		SY1	IBMUSER	-This is message 7. (desc: 11)
Sat Mar 3 3:13:41		SY1	IBMUSER	-This is message 8. (desc: 11)
Sat Mar 3 3:13:41		SY1	IBMUSER	-This is message 9. (desc: 11)



NEW zOS Operator Consoles base function

- Filter messages

The screenshot displays the IBM z/OS Management Facility interface for zOS Operator Consoles. The left sidebar contains a navigation menu with options like Welcome, Notifications, Sysplex Management, Workflow Editor, Workflows, Configuration, Links, Performance, Problem Determination, Software, z/OS Classic Interfaces, z/OSMF Administration, z/OSMF Settings, FTP Servers, Systems, and Consoles. The 'zOS Operator Consoles' option is selected. The main area shows a 'Console for SY1' with a bar chart at the top and a table of messages below. The messages table has columns for time, system, job name, and message text. A 'Filters' panel on the right allows filtering by time, date, system, and job name, and includes a 'Message colors' section with checkboxes for red, green, yellow, blue, pink, cyan, and black. An 'Apply' button is at the bottom of the filters. A 'Command:' field at the bottom left shows 'D TCPIP,NET,HOM' and a 'Submit' button is at the bottom right.

Time	System	Job name	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: 56 08 82 ELEMENTS: 67 13514
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 13515
Sat Mar 3 3:10:2	SY1	GRSSTMON	0 *GRSSTMON: Frames currently in use by GRS: 7.375M



NEW Welcome page with customization



IBM z/OS Management Facility

[LEARN MORE](#) [NEED HELP?](#)

Welcome to our z/OSMF system! Enjoy using all the fabulous new features.

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/OSMF home Page](#)

[WCS Flashes and Techdocs](#)
[z/OS home Page](#)

[z/OS Knowledge Center](#)

For any problems, contact XYZ at xyz@xyz.com



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NEW Welcome page with customization

The screenshot shows the z/OSMF web interface. On the left is a navigation menu with categories like Welcome, Notifications, Workflows, Configuration, Jobs and Resources, Links, Performance, Problem Determination, Software, Sysplex, z/OS Classic Interfaces, z/OSMF Administration, z/OSMF Settings (with 'General Settings' highlighted), and Consoles. The main content area is titled 'General Settings' and includes a breadcrumb trail: Welcome > Sysplex Management > Systems > z/OS Operator Co... > General Settings. Below the title is a description: 'Use this task to manage your general settings.' There are two tabs: 'Diagnostics' and 'Customizations' (which is active). Under 'Customizations', there are two text input fields: 'Welcome page header:' containing 'Welcome to our z/OSMF system! Enjoy using all the fabulous new features.' and 'Welcome page footer:' containing 'For any problems, contact XYZ at xyz@xyz.com'. Below these is a 'Logo:' field with an information icon, an empty input box, and a 'Browse...' button. The 'Uploaded Logo Path' is shown as '/CB8D/var/zosmf/data/customLogo.jpg'. At the bottom are 'Save' and 'Restore Defaults' buttons.

Rolled back to z/OSMF V2.2 with APAR PI91120



NEW Workflow Multiple Sysplex Support

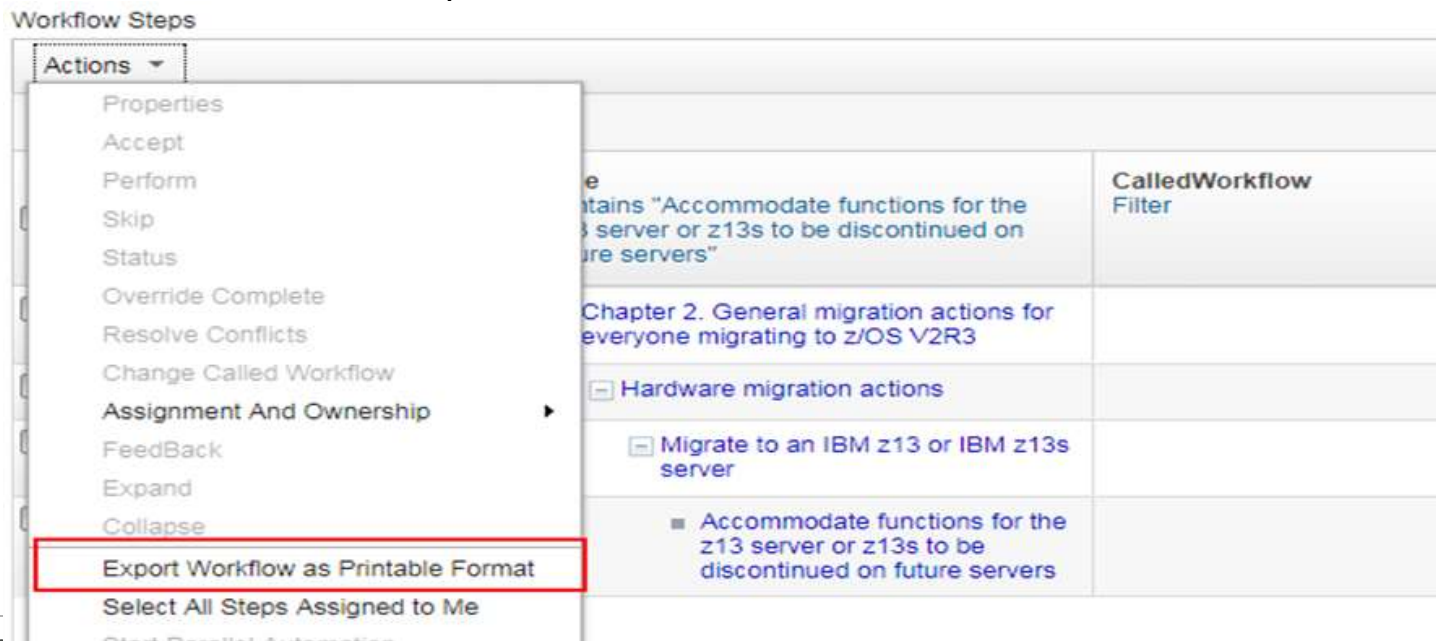
- **Problem Statements / Need Addressed:** Nowadays, the workflow users can only create workflow instance and execute JCL or immediate REXX/shell script on the systems of local sysplex.
- **Solution:** z/OSMF V2R3 will provide the support that workflow user can create workflow instance and execute JCL or immediate REXX/shell script on the systems of remote sysplex.
- **Benefit / Value:** z/OSMF User can create and perform workflows across multiple sysplexes from one single z/OSMF host.
- Workflow Multiple Sysplex Support requires Systems setup in z/OSMF Administration, for sysplex definitions
- On Workflow “Create” option, select the on the SYSTEM dropdown, the desired system where this Workflow instance’s steps will run.
 - TSO-REXX, TSO-Unix-REXX and TSO-Unix-shell type of steps can only run on z/OSMF host system at V2R3 GA
 - TSO-REXX, TSO-Unix-REXX and TSO-Unix-shell type of steps can run on both z/OSMF host system and managed system in post-2.3

Rolled back to z/OSMF V2.2 with APAR PI91188



NEW Export Workflow in printable format Support

- **Problem Statements / Need Addressed:** Want to see the contents of a workflow in a more traditional method (flat file, or printable file). You have to have a z/OSMF userid and access to the workflow to read it.
- **Solution:** Workflow -> Actions -> Export Workflow as Printable



00582

NEW Desktop option for new user interface



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

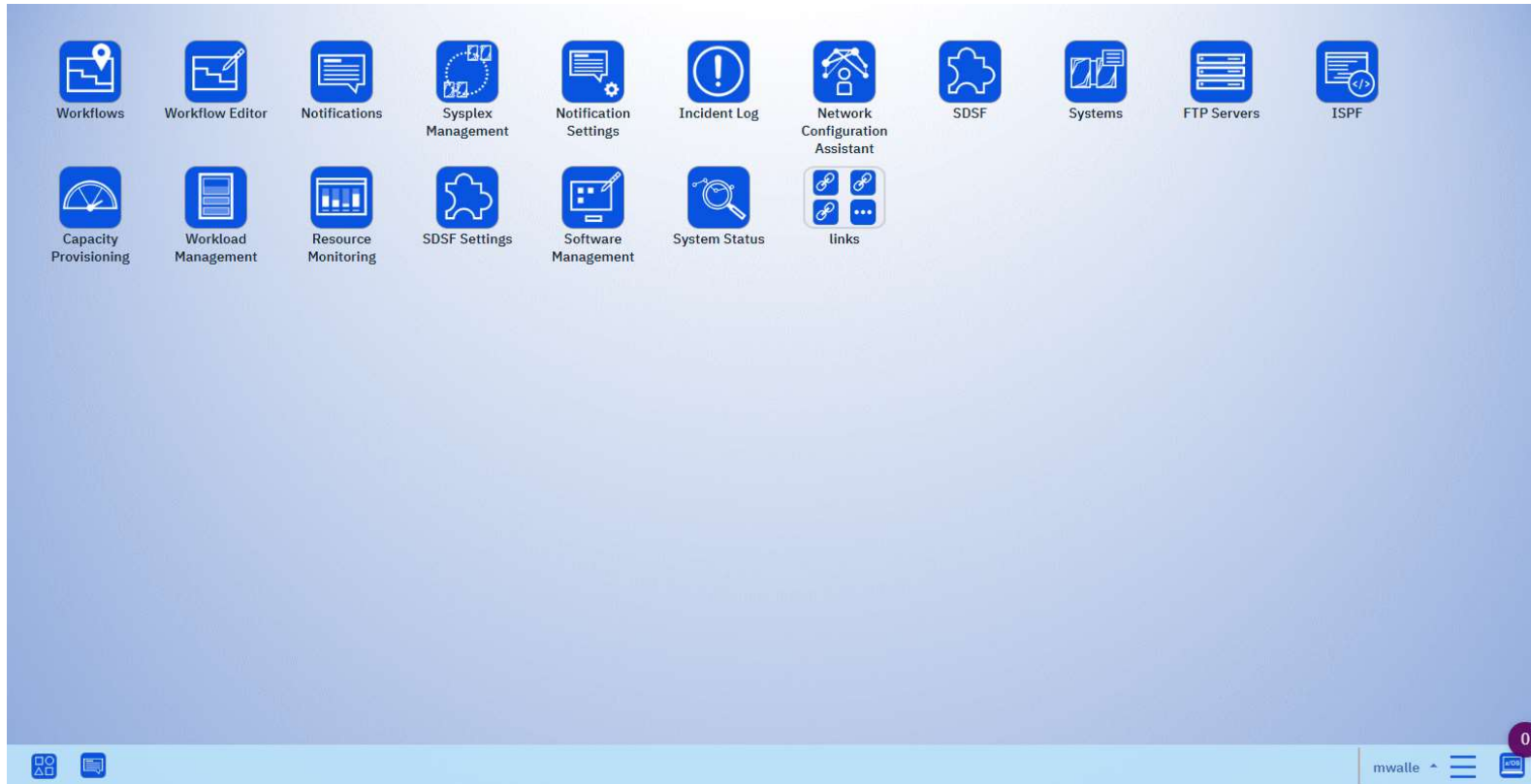
Use desktop interface [?](#)

LOG IN

Rolled back to z/OSMF V2.2 with APAR PI96462

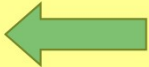


NEW Desktop option for new user interface



Rolled back to z/OSMF V2.3 with APAR PI96462

Agenda

- What is the z/OS Management Facility (z/OSMF)
- z/OSMF V2R3
- Recent z/OS V2R2 SPE updates 
- Notable z/OSMF enhancements

Recent V2R2 SPEs in 2018



In addition to the rollbacks already mentioned previously.

APAR PI92305: Z/OSMF Parallel Workflow Steps, March 2018

- Independent automated steps with type JCL, TSO-REXX-JCL or shell-JCL can be executed in parallel.

APAR PI91188: Z/OSMF WORKFLOW ROLLBACK, January 2018

- Workflow provides the support for:
 - User can create and execute workflow instance which includes immediate REXX/shell script steps on the system of remote sysplex where z/OSMF is up and running.
 - Execute JCL steps in the remote sysplex.
 - Execute REST steps in the send workflow remote sysplex.
- Workflow Editor provides support for, copy step, copy variable, modify step type, modify variable type, move leaf step, modify step name, modify variable name, modify variable scope and creation of multiple variables at once.

Recent V2R2 SPEs in 2017



APAR PI89935 and PI89361: Support for Solution Billing Groups in WLM and RMF December 2017

- Support for Container Pricing for IBM Z and IBM Cloud Provisioning and Management for z/OS enhancements
- Create Tenant Resource Groups and Tenant Report Classes in the WLM service definition.

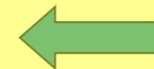
APAR PI73398: Z/OSMF RMF Enhancements, March 2017

- The System Status task has been enhanced to allow sharing sysplex definitions across all z/OSMF RM users.
- All RM users are allowed to add, modify or remove shared system resource definitions.



Agenda

- What is the z/OS Management Facility (z/OSMF)
- z/OSMF V2R3
- Recent z/OS V2R2 SPE updates
- Notable z/OSMF enhancements



Workflow enhancements, 2H 2016



- z/OSMF Workflows task provides a framework supports user (Workflow provider) to define a guided flow (workflow) through steps to accomplish a task.
 - First delivered in V2R1 Sep 2013
- Enhancements to Workflow:
 - Each step of workflow could have its own job name
 - REST type step
 - Supports feedback collection and export feedback
 - Supports archive workflow
 - Execute REXX and Shell scripts directly (previously through JCL)
 - Workflow Editor (Create or edit workflow through UI)

Workflow enhancements

- Workflow feedback, APAR PI69103 – October 2016
 - Step owner could answer, save and submit step based survey

Please provide feedback for this workflow step by answering the question below.

*1. Please choose your favorite color **required question**

- white
- red
- black
- other:

Please input text, the maxLength is 500 characters.

2. Please fill in your hobbies **not required question**

Please input text, the maxLength is 500 characters.

step owner can save questions and answers in file

*3. Please fill in your satisfaction

- satisfied
- general

after complete all required feedback items, step owner can submit feedback items to save. Note that once submit, can not edit the content again

Workflow enhancements

- Workflow feedback
 - Workflow owner could remind step owners to complete feedback

Generate Feedback Summary

Steps with user feedback not completed: **Notify Step Owners**

Results:

If all required step feedback are not completed, workflow owner can notify step owners to remind them to complete step feedback

Notify Step Owners

This table lists step owners and steps with feedback, workflow owner can select any one to send notification

The user listed below are owners of steps which have feedback sections that have not been completed. Select the users to send a notification requesting that they complete the feedback for the steps they own. Do you want to continue?

Select Users to Notify

Actions Search

No filter applied

Step Owner	Step Titles
Filter	Filter
<input type="checkbox"/> zosmfad	1.step with feedback one,3.step with feedback three
<input type="checkbox"/> zmfuser	4.step with feedback four

Total: 2 Selected: 0

This popup dialog lists all steps without step owner

Note that there are 2 steps without a step owner with no feedback submitted

Steps without owners

5.step with feedback Five
6.step with feedback Six

Close Export Help

Workflow enhancements

- Workflow feedback
 - Workflow owner could export the completed feedback

Generate Feedback Summary

Steps with user feedback not completed:

Results:

```
Feedback Summary for Workflow : Default Workflow Name test
Date generated(GMT): Wed Jul 06 16:56:02 CST 2016
Workflow description: A simple workflow with only one step
Workflow Owner: zosmfad

BEGINNING OF SPECIFIC FEEDBACK FOR z/OS V2R1 step_1(step with feedback one)
-----
Question: 1. Please choose your favorite color?
Answer: Did not complete this answer.
Question: 2. Please fill in your satisfaction?
Answer: Did not complete this answer.
Question: 3. Please fill in your hobbies?
Answer: Did not complete this answer.
Question: 4. Please choose your favorite color?
Answer: Did not complete this answer.
Question: 5. Please fill in your satisfaction?
Answer: Did not complete this answer.
Question: 6. Please fill in your hobbies?
Answer: Did not complete this answer.
END OF SPECIFIC FEEDBACK FOR z/OS V2R1 step_1(step with feedback one)
-----
BEGINNING OF SPECIFIC FEEDBACK FOR z/OS V2R1 step_2(step with feedback two)
-----
Question: 1. Please choose your favorite color?
Answer: white
Question: 2. Please fill in your hobbies?
Answer: Did not complete this answer.
Question: 3. Please fill in your satisfaction?
Answer: satisfied
Question: 4. Please fill in your hobbies?
Answer: Did not complete this answer.
```

workflow feedback summary

If there are some step feedback that has been completed, workflow owner can Export the content to local

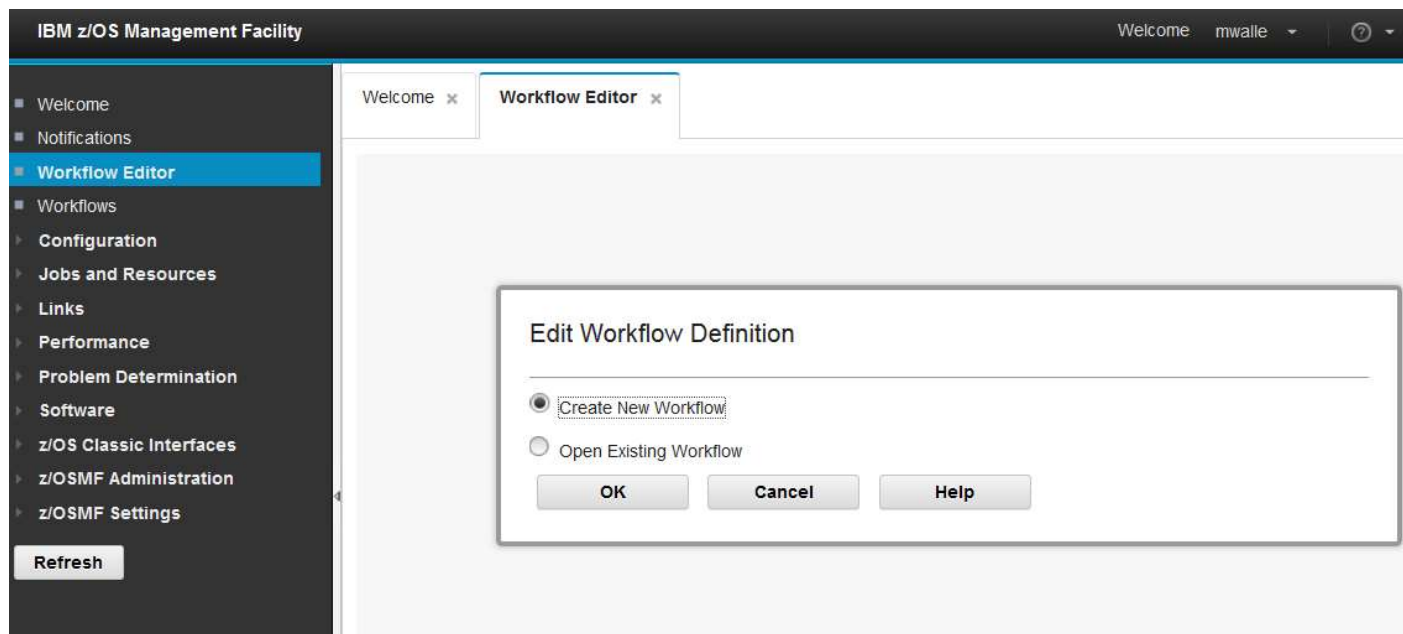
IBM System



Workflow enhancements PI70526 / PI71068 – Dec 2016



- Workflow Editor – Create or Edit workflow through UI
 - Open Workflow Editor



Workflow enhancements

- Workflow editor – Create or Edit workflow through UI
 - Edit workflow metadata

The screenshot displays the IBM z/OS Management Facility Workflow Editor interface. The title bar reads "IBM z/OS Management Facility" and includes a "Welcome" button and a user profile "mwalle". The main window has a tab labeled "Workflow Editor". Below the tab, the "Workflow Editor" section is visible, with a "File Path:" label. The "Metadata" tab is selected, showing a description of metadata and several input fields: "Workflow ID" (containing "MWALLE Workflow Editor Lab"), "Category" (a dropdown menu set to "General"), "Scope" (a dropdown menu set to "System"), "Range" (a dropdown menu set to "System"), and "Description" (containing the text "This is my first z/OSMF Workflow using the z/OSMF Workflow Editor. This Workflow is very simple."). There are also checkboxes for "Callable Workflow" and "Default Name:". At the bottom, there are "Save", "Save As...", and "Cancel" buttons.

Workflow enhancements

- Workflow editor – Create or Edit workflow through UI
 - Create/Edit workflow steps (1/2)

The screenshot displays the IBM Workflow Editor interface. At the top, there are tabs for 'Welcome', 'Incident Log', and 'Workflow Editor'. Below the tabs, the 'Workflow Editor' section is active, showing a 'File Path:' field and several tabs: 'Metadata', 'Steps', 'Variables', and 'Input Properties'. A descriptive text states: 'A workflow is composed of one or more units of work called steps. A workflow definition file must contain at least one step; each step can contain substeps. On this tab, you can launch actions to view or modify the steps in the selected workflow definition.'

The 'Steps' tab is selected, and a context menu is open over a step. The menu includes options like 'Copy', 'Create Step', 'Move Step', 'Delete', 'Export to Step Library...', 'Import from Step Library...', 'Expand', 'Collapse', 'Configure Columns...', 'Clear Search', 'Expand All', and 'Collapse All'. The 'Create Step' option is highlighted, and its sub-menu is visible, containing 'Create a Step Above...', 'Create a Step Below...', and 'Create a New Substep...'. A tooltip for the selected step reads: 'Temporary step to get you started. Every workflow definition requires at least one step.'

On the right side, the 'Variable Details' panel is visible, with the 'Step Details' section expanded. It shows the 'Step Overview' tab, which includes fields for 'Name' (Starter-Step), 'Title' (A temporary step to get you started. Every workflow definition requires at least one step.), 'Description' (Because every workflow definition requires at least one step, here is a basic step to get you started. You can delete this one after you add more steps.), and 'Weight (1-1000)' (1). A 'Help' button is located at the bottom right of the interface.

At the bottom left of the screenshot, the text 'IBM System' is partially visible. At the bottom right, the text 'materials may be provided by IBM.' is partially visible.

Workflow enhancements

- Workflow editor – Create or Edit workflow through UI
 - Create/Edit workflow steps (2/2)

Create a New Step

Leaf Step Parent Step

* Name:

* Title:

Description:

* Weight (1-1000):

Skills:

* Step Type:

- Instructions Only
- File Template
- Inline Template
- REST API
- Calling Step

Optional Step
 Auto-Enable
 Allow manual marking of step failure



Variable Details

Step Details

Overview Prerequisites Instructions **Type** Conditions Security

Step Type

The step type indicates the type of processing that the step performs. On this tab, you can modify the related details.

Step Type:

Submit Template As:

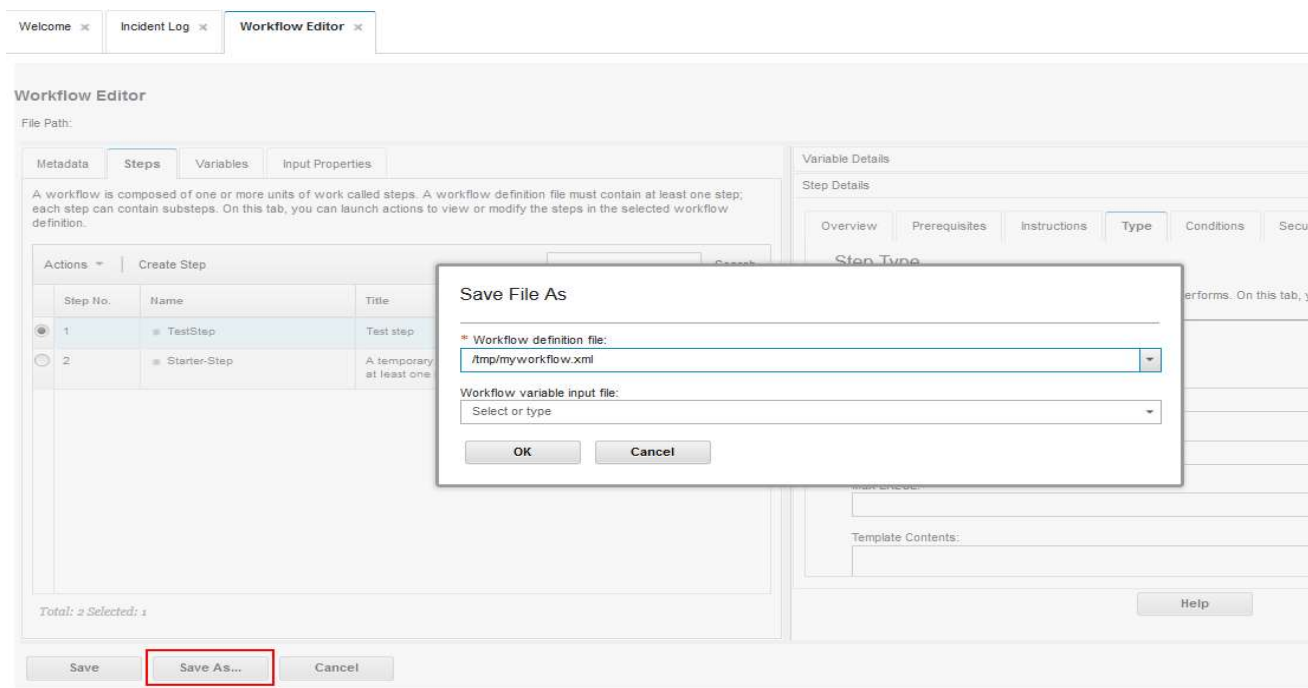
Max RC:

Max LRECL:

Template Contents:

Workflow enhancements

- Workflow editor – Create or Edit workflow through UI
 - Save workflow definition file





Incident Log Enhancements

- APAR search – select an incident, APAR PI69173 – October 2016

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

		1 ▲	Date and Time (GMT) past "2000 days" 2 ▲	Sysf Filtre	Sysf Filtre	Problem Number Filter	Tracking ID Filter	Notes Filter	Rel Filtre	Pro Filtre	Component Name Filter	Component ID Filter
<input type="checkbox"/>			Oct 8, 2014, 8:35:33 PM	SHAR	S1				V2R1			
<input type="checkbox"/>			Oct 8, 2014, 8:35:57 PM	SHAR	S1				V2R1			
<input type="checkbox"/>			Oct 8, 2014, 8:36:19 PM	SHAR	S1				V2R1			
<input type="checkbox"/>			Oct 8, 2014, 8:36:39 PM	SHAR	S1	12346,123,123	trk	test zosmf	V2R1			
<input type="checkbox"/>			Oct 8, 2014, 8:36:56 PM	SHAR	S1	12345,123,123	IRS12345	Test incident.	V2R1			
<input type="checkbox"/>			Oct 8, 2014, 10:29:51 PM	SHAR	S1	12345,123,123	TRKabc	Update the problem number and Tracking ID. ok	V2R1			
<input type="checkbox"/>			Nov 25, 2014, 2:26:34 PM	SHAR	S1				V2R1	SDSF	SDSF	566548801
<input type="checkbox"/>			ESTAE,COMPID=5650- ZOS.ISSUER=ISFSSTAE,SDSF ABEND ROUTINE									
<input type="checkbox"/>	ABEND S0EC6		CICS DUMP: SYSTEM=SHRCMAS1 CODE=KERNDUMP ID=0/0000	Jul 25, 2013, 5:40:26 PM	SHAR	S1			V1R1			
<input type="checkbox"/>	ABEND S01D0		COMPON=CEA,COMPID=SCCEA,ISSUER=CEAMIRE	May 9, 2013, 4:41:18 PM	SHAR	S1			V1R1	BCP	COM EVNT ADP	5752SCCEA
<input type="checkbox"/>	ABEND S01D0		COMPON=CEA,COMPID=SCCEA,ISSUER=CEAMIRE	Oct 9, 2014, 9:05:32 PM	SHAR	S1			V2R1	BCP	COM EVNT ADP	5752SCCEA
<input checked="" type="checkbox"/>	ABEND S0430		COMPON=WEBSPPHERE Z/OS, COMPID=5665N0200,ISSUER=BBORLEXT,ABEND IN (MODULE NAME NOT KNOWN)	May 8, 2013, 6:11:35 PM	SHAR	S1			V1R1			5665N0200
<input type="checkbox"/>	Not Initiated		SIB DUMP ID=SMN1	Oct 12, 2014, 2:10:08 PM	SHAR	S1	12345	TRKabc	V2R1			

IBM

its may
f IBM.



Incident Log Enhancements

- APAR search – Quick search or build your own search

The screenshot displays the IBM Incident Log search interface. On the left, the main page shows a search for 'Matching Service' with a 'Quick Searches' tab selected. Two search options are highlighted with red boxes: 'Search Component ID' and 'Search Release and Product IDs'. A black arrow points from the 'Search Builder' tab in the 'Quick Searches' section to the 'Search Builder' modal on the right. The modal is titled 'Search for Matching Service' and contains search criteria: 'Component name' (checked), 'Component ID: 5655N0200' (checked), 'z/OS release: V1R13' (checked), and 'Product' (unchecked). On the right side of the modal, 'Abend code: S0430' is checked, while 'Reason code', 'CSECT', and 'Load module' are unchecked. Below the criteria is an 'Additional terms' text area and a 'Clear Additional terms' button. At the bottom of the modal, there is a 'Generated Search for Service' section with a link to 'Open Search in New Browser Window or Tab' and a 'Close' button.



Incident Log Enhancements

- APAR search – result

The screenshot shows a web browser window displaying the IBM Support search results page. The browser's address bar shows the URL: `www-01.ibm.com/support/search.wss?q=ABEND_S0430%2B5655N0200%2BV1R13&tc=SG004FV+SWG90&dc=DB550&dtm&sortby=asc&hpp=20`. The search bar contains the text "ABEND S0430+5655N0200+V1R13". Below the search bar, the page displays "Search results" and "No results found for ABEND S0430+5655N0200+V1R13". A filter for "Site availability" is checked. The footer includes links for "Contact", "Privacy", "Terms of use", "Accessibility", and "Feedback", along with a language dropdown set to "United States - English".

IBM Support

My support Downloads Documents Tickets Communities Training Other

IBM Support What's new?

Check here to start a new keyword search.

ABEND S0430+5655N0200+V1R13

Search results

No results found for **ABEND S0430+5655N0200+V1R13**

Site availability

Contact Privacy Terms of use Accessibility Feedback

United States - English

Contact and feedback

Incident Log Enhancements - PI70511 Dec 2016

- Manual incidents (with or without dump data sets)

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
- Create Incident...**
- Search for Service
- FTP Servers
- FTP Profiles
- Select All
- Deselect All
- Configure Columns...
- Hide Filter Row
- Clear Sorts

Date and Time (GMT)	S	F
past "3 days"		
Nov 16, 2016, 3:36:46 AM		

Create Incident

Incident Log > Create Incident

Create Incident

* Description: Only description is required

Manually created incident test

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:

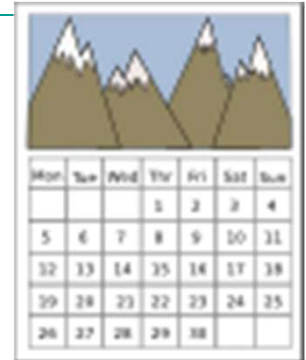
CSECT: Load module: LOAD

Notes:
Created by manual for test

Older selected V2R2 updates up to 2H 2016



- z/OSMF usage statistics
- NEW REST z/OS Console services
- REST z/OS data set and file services enhancements
- Software Management supports non-SMP/E software
- Software Management supports export/import software
- Workflow enhancements
- Incident Log supports searching APAR and manual incidents



z/OSMF usage statistics PI69100 – Dec 2016



- Need Addressed:
- As an administrator, I would like to:
 - Know which users are currently logged on
 - Send notification to currently logged on users
 - See the usage of z/OSMF tasks or REST services



Mon	Tue	Wed	Thu	Fri	Sat	Sun
			5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

z/OSMF usage statistics



IBM z/OS Management Facility

Welcome zosmfad

Usage Statistics

View usage for: Tasks

Summary of the task usage by requests:

Total 7

Start of Data Collection (GMT): Jun 30, 2016 01:45:49 AM

Current Active Users (1 of 1): 100%

Usage since server was started

User ID	Login Status	Authentication Type	LTPA2 Token Expiration (GMT)	Last Access (GMT)	Number of Requests	% of Total Requests
zosmfad	Active	LTPA2 token	Jun 30, 2016 14:43:00 PM	Jun 30, 2016 06:39:41 AM	7	100.00%
Usage Statistics					1	14.29%
Workflows					2	28.57%
Incident Log					1	14.29%
Import Manager					1	14.29%

z/OSMF usage statistics



IBM z/OS Management Facility

Welcome zosmfad

Welcome x Usage Statistics x Import Manager x Application Lin... x Incident Log x Systems x Workflows x Notifications x

REST services usage

Usage Statistics

View usage for: REST Services

Summary of the task usage by requests:

Service Type	Count
MultiSystem Routing Services	1
Topology Services	3
Notification Services	1
Total	5

Start of Data Collection (GMT): Jun 30, 2016 01:45:49 AM

Current Active Users (1 of 1): 100%

Actions Table view: Tree Search

No filter applied

User ID	Login Status	Authentication Type	LTPA2 Token Expiration (GMT)	Last Access (GMT)	Number of Requests	% of Total Requests
zosmfad	Active	LTPA2 token	Jun 30, 2016 14:43:00 PM	Jun 30, 2016 06:44:15 AM	12	100.00%

Refresh



z/OSMF usage statistics

The screenshot displays the IBM z/OS Management Facility interface. The main window shows the 'Usage Statistics' page, which includes a pie chart and a table of task usage. A callout bubble points to the 'New Notification' option in the 'Actions' menu, with the text 'Send notification to users'. A secondary window shows the 'New Notification' dialog, which has fields for 'To:' (containing 'zosmfad,') and 'Subject:', and an 'Add' button for attachments. The interface also features a left-hand navigation menu and a top breadcrumb trail.

Usage Statistics

View usage for: **Tasks**

Summary of the task usage by requests:

- Import Manager(1)
- Incident Log(1)

Total 7

Actions | Table view: Tree

- New Notification
 - All Selected Users
 - All Logged in Users
- Expand
- Collapse
- Select All
- Deselect All
- Hide Filter Row
- Clear Sorts
- Clear Search
- Expand All
- Collapse All
- Switch to Non-Tree View

IBM z/OS Management Facility

Welcome x Usage Statistics x Import Manager x Application Lin... x

Notifications > New

New Notification

* To: zosmfad,

* Subject:

Body:

Attachments (Only delivered to email addresses): **Add**

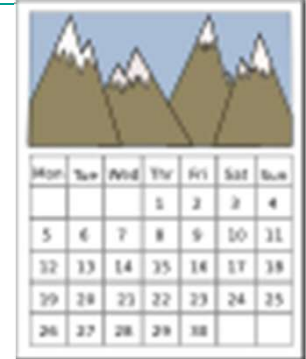
OK **Cancel**

Refresh

REST z/OS Console services PI69146 – Dec 2016



- Need Addressed – Use REST API to:
 - Issue system command
 - Get command response
 - Monitor console messages for specified keyword





REST z/OS Console services

- Issue system command – API definition

- URL:

- PUT /zosmf/restconsoles/consoles/*consolename* OR

- PUT /zosmf/restconsoles/consoles/defcn

- Request body:

- cmd: specifies the system command to issue
 - sol-key: specifies the keyword that you want to detect in the command response
 - async: indicates the method of issuing the command (Asynchronously or Synchronously)
 - system: name of the system in the same sysplex that the command is routed to

- unsol-key: Specifies a keyword that you want to detect in unsolicited messages.
 - unsol-detect-sync: Indicates how to detect the keyword that is specified with the unsol-key field from unsolicited messages (Asynchronously or Synchronously)
 - detect-time: Indicates how long the console attempts to detect the value of unsol-key in the unsolicited messages. The unit is seconds

REST z/OS Console services

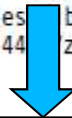
- Issue system command – API example
 - Issue command “D A,PEGASUS” synchronously

Http request:

```
PUT https://pev061.pok.ibm.com/zosmf/restconsoles/consoles/ibmusecn
{"cmd": "d a,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",
"cmd-response-uri": "\/zosmf\/restconsoles\/consoles\/ibmusecn\/solmsgs\/C005291",
"cmd-response-url": "https:\/\/pev061.pok.ibm.com:44 zosmf\/restconsoles\/consoles\/ibmusecn\/solmsgs\/C005291",
"cmd-response-key": "C005291"}
```



```
IEE115I 07.30.59 2016.011 ACTIVITY 070
JOBS MVS TS USERS SYSAS INITS ACTIVEVMAX VTAM OAS
00003 00013 00002 00032 00011 00001 00020 00015
PEGASUS NOT FOUND
```



REST z/OS Console services

- Issue system command – API example
 - Issue command “S PEGASUS” asynchronously

Http request:

```
PUT https://pev076.pok.ibm.com/zosmf/restconsoles/consoles/defcn  
{ "cmd": "s PEGASUS", "unsol-key": "PEGASUS", "async": "Y" }
```

Http response:

```
{ "cmd-response-uri": "\/zosmf\/restconsoles\/consoles\/ibmusecn\/solmsgs\/C005291",  
  "detection-uri": "https:\\\/pev076.pok.ibm.com:443\/zosmf\/restconsoles\/consoles\/ibmusecn\/detections\/dec6800",  
  "detection-uri": "\/zosmf\/restconsoles\/consoles\/ibmusecn\/detections\/dec6800",  
  "detection-key": "dec6800",  
  "cmd-response-uri": "https:\\\/pev076.pok.ibm.com:443\/zosmf\/restconsoles\/consoles\/ibmusecn\/solmsgs\/C005291",  
  "cmd-response-key": "C005291" }
```


REST z/OS Console services



- Monitor console messages for keyword
 - Need Addressed:
 - The result of some commands (such as some “Start” command) can not be determined by “command response”.
 - Usually, people determine the result based on the following console messages triggered by the command
 - Solution:
 - Specify “unsol-key” field when issue command through REST z/OS Console services.
 - REST z/OS Console services starts to monitor console messages to see if your specified keyword could be detected from console messages.
 - The detection result could be returned asynchronously or synchronously.



NEW REST z/OS Console services

- Monitor console messages for keyword – API example

```
PUT https://pev076.pok.ibm.com/zosmf/restconsoles/consoles/defcn  
{ "cmd": "s PEGASUS", "unsol-key": "BPXM023I", "async": "Y" }
```

```
{ "cmd-response-uri": "\Vzosmf/restconsoles\consoles\ibmusecn\solmsgs\C005291",  
  "detection-uri": "https://pev076.pok.ibm.com:443/zosmf/restconsoles/consoles/ibmusecn/detections/dec6800",  
  "detection-uri": "\Vzosmf/restconsoles\consoles\ibmusecn\detections\dec6800",  
  "detection-key": "dec6800",  
  "cmd-response-url": "https://pev076.pok.ibm.com:443/zosmf/restconsoles/consoles/ibmusecn/solmsgs/C005291",  
  "cmd-response-key": "C005291" }
```

```
GET https://pev076.pok.ibm.com:443/zosmf/restconsoles/consoles/ibmusecn/detections/dec6800
```

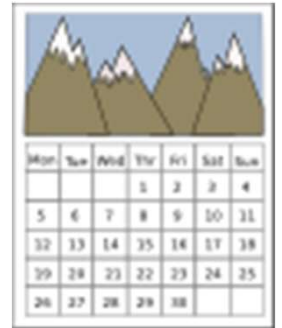
```
{ "status": "waiting", "msg": "" }
```

```
{ "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." }
```



REST z/OS data set and file services enhancements

- REST z/OS data set and file services allows user to manipulate data sets and unix files/directories through REST APIs.
 - Easy to call
 - Platform/Language independent
 - More secure
- Enhancements on Mar 2016 and Dec 2016:
 - Provide full functionality of manipulating data sets and z/OS UNIX files through REST API





REST z/OS data set and file services enhancements

Operations	HTTP 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 (Supports search, return subset of records, recall control, ENQ)	GET
Write data to a sequential data set or a member of a PDS or PDSE or an Unix file (Supports recall control, ENQ)	PUT
Allocate sequential and partitioned data set	POST
Delete sequential and partitioned data set or member	DELETE
Mount/Unmount Unix file system	PUT
Create/Delete Unix file or directory	POST/DELETE
z/OS UNIX file Utilities	PUT
z/OS Data set and PDS Member Utilities	PUT
List z/OS UNIX Filesystem	GET
Create/Delete z/OS UNIX zFS Filesystem	POST/DELETE
IDCAMS Access Methods Services	PUT



REST z/OS data set and file services enhancements

- z/OS Data set and PDS member utilities – API Examples

- Rename “MY.OLD.DSN” to “MY.NEW.DSN”

```
PUT https://zosmf1.yourco.com/zosmf/restfiles/ds/MY.NEW.DSN HTTP/1.1
```

```
{ "request": "rename", "from-dataset": { "dsn": "MY.OLD.DSN" } }
```

- Copy “MY.OLD.DSN(MYMEM1)” to “MY.NEW.DSN(MYMEM2)”

```
PUT https://zosmf1.yourco.com/zosmf/restfiles/ds/MY.NEW.DSN(MYMEM2) HTTP/1.1
```

```
{ "request": "copy", "from-dataset": { "dsn": "MY.OLD.DSN", "member": "MYMEM1" }, "replace": true }
```



REST z/OS data set and file services enhancements

- z/OS UNIX file utilities

- chmod
- chown
- chtag
- copy
- getfacl
- move
- extattr
- setfacl

Example: Rename `/etc/inetd.conf` to `/etc/inetd.conf.back`

```
PUT https://zosmf1.yourco.com/zosmf/restfiles/fs/etc/inetd.conf.bak  
{  
  "request": "move",  
  "from": "/etc/inetd.conf"  
}
```



REST z/OS data set and file services enhancements

- IDCAMS Access Method Services – API Example

```
PUT https://zosmf1.yourco.com/zosmf/restfiles/ams HTTP/1.1
{
  "input":[
    "DEFINE CLUSTER(NAME (EXAMPL1.KSDS) VOLUMES(VSER05)) -",
    "DATA (KILOBYTES (50 5))"
  ],
  "JSONversion":1
}
```

Software Management Overview



- z/OSMF Software Management task supports:
 - Deploy software to local or remote system through a checklist
 - Manage software through several reports:
 - End of Service report
 - Missing critical service
 - Missing FIXCAT SYSMODs
 - SYSMOD search
 - Software Instance Comparison
- Before Sep 2016, every software instance managed by Software Management task must have a global zone CSI data set.
- But, what if we also want to deploy a group of non-SMP/E managed data sets?



Software Management – non-SMP/E software PI66832 –

Sept 2016

- Solution:
 - Software Management task also supports creating a software instance **without** global zone CSI data set.
 - Deployment checklist could also be used to for a **non-SMP/E** software instance



Software Management – non-SMP/E software PI66832



- Examples – Create a non-SMP/E software instance

Software Management > Software Instances > Add Software Instance Help

Add Software Instance

System and Global Zone

Select the system and the global zone CSI associated with the product set. If the software instance being defined is not managed by SMP/E select **No Global Zone**.

* System:

* Global Zone CSI (Learn more...):
No Global Zone CSI
No Global Zone CSI
SMPMSTR.VICOMCSI.GLOBAL.CSI

Software Management > Software Instances > Add Software Instance > Add Data Set Help

Add Data Set

To identify the data sets to be added to the software instance, specify a data set name qualifier, volume, or both, and click Search. Then, select the data sets you want to add. For valid data set name qualifiers, select [Learn more...](#)

Data set name qualifier: Volume: *Maximum data sets:

Select Data Sets to Add

Actions ▾

↔ No filter applied

<input type="checkbox"/> Data Set Name Filter	Volume Filter
<input type="checkbox"/> IBMUSER.ISPF.MPROFILE	VSMPOV
<input type="checkbox"/> IBMUSER.ISPF.WEB.EXEC	PEVTS2
<input type="checkbox"/> IBMUSER.ISPF.WEB.LOAD	PEVTS2
<input checked="" type="checkbox"/> IBMUSER.ISPF.WEB.LOAD.OLD	PEVTS2
<input checked="" type="checkbox"/> IBMUSER.ISPF.WEB.LOAD.OLD2	PEVTS2
<input checked="" type="checkbox"/> IBMUSER.ISPF.WEB.LOAD.OLD3	PEVTS2
<input type="checkbox"/> IBMUSER.ISPF.WEB.MSGTYPES.LOAD	PEVTS2

Total: 15 Selected: 3

< Back Next > Finish Cancel



Software Management – non-SMP/E software PI66832

- Examples – Use deployment checklist to deploy the non-SMP/E software instance

[Software Management](#) › [Deployments](#) › [Deployment Checklist](#)

[Help](#)

Deployment Checklist

To deploy software, complete the checklist.

Checklist

Progress	Step
☑	Specify the properties for this deployment.
☑	Select the software to deploy.
☑	Select the objective for this deployment.
➔	Configure this deployment
	Define the job settings. z/OSMF creates the deployment summary and jobs. <ul style="list-style-type: none">• View the deployment summary.
	Submit deployment jobs.
	Specify the properties for the target software instance.

Close

Software Management – Export/Import SW instance

PI66832



- Software Management task is also enhanced to support export/import SW instance (SMP/E or non-SMP/E managed).
- User scenario
 - A **software producer** uses z/OSMF Software Management task to define a Software Instance (SWI) to describe the collection of data sets containing the installed software.
 - The **producer** uses the new **Export** action for a Software Instance(SWI) to create portable archive files for each of the data sets defined for the SWI. This collection of portable archive files is called a **Portable Software Instance (PSWI)**.
 - The **producer** then **distributes** the **PSWI** to one or more z/OSMF users.
 - **Customers use z/OSMF to define the PSWI** which describes the archive files
 - Customers could then **deploy the PSWI locally or remotely**. The deployment operation creates a SWI which is a copy of the original SWI exported by the producer.



Software Management – Export/Import SW instance PI66832



- Software producer defines a SWI in z/OSMF Software Management task

Software Management > Software Instances > Add Software Instance

[Help](#)

Add Software Instance

- ✓ Welcome
- ➔ **Name and Description**
- ✓ System and Global Zone
- ✓ Target Zones
- Categories
- Non-SMP/E Managed Data Sets
- Summary

Name and Description

Enter the name and description of the software instance.

* Name:

Description: (maximum 256 characters, currently 30 characters)

< Back

Next >

Finish

Cancel

Software Management – Export/Import SW instance PI66832



- Software producer exports the defined SWI as a PSWI

Software Management > Software Instances Help

Software Instances Switch To: ▾

Actions ▾

↔ No filter applied

<input type="checkbox"/>	Name Filter	System Filter	Messages Filter	Description Filter	Activity Filter	Global Zone CSI Filter	Target Zone Filter
<input checked="" type="checkbox"/>	swi-gz				Being deployed	SMPMSTR.VICOMCSI.GLOBAL.CSI	DB2T300
<input type="checkbox"/>	swi-gz-re					SMPMSTR.VICOMCSI.GLOBAL.CSI	DB2T300
<input type="checkbox"/>	swi-nogz						
<input type="checkbox"/>	swi-nogz-						

Total: 4 Selected: 1

Last refresh: Jun 29, 2016, 2:25:35 PM

View

Modify

Copy...

Open Deployments

Export as Portable Software Instance

Remove...

Retrieve Product, Feature, and FMID Information

Maintenance Reports

Software Management – Export/Import SW instance PI66832



- Customers add a new PSWI

Software Management > Portable Software Instances

Portable Software Instances

Actions

- Modify
- View
- Open Deployments
- Remove...
- Add...**
- Select All
- Deselect All
- Configure Columns...
- Hide Filter Row
- Clear Sorts
- Export Table Data
- Print Table Data

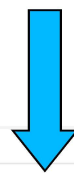


Software Management > Portable Software Instances > Add Portable Software Instance

Add Portable Software Instance

* System:

* File location (UNIX file):



Software Management > Portable Software Instances

Portable Software Instances

Messages 0 0 1 Close All

Category "swi-nogz" was created. IZUD150I Jun 30, 2016, 2:36:55 PM

Switch To:

Actions

No filter applied

Name Filter	Description Filter	Activity Filter	System Filter	File Location Filter	Categories Filter	
<input type="checkbox"/>		Available	PEV171	/u/smpdev/pev171/zosmfad/debinst	Java	
<input type="checkbox"/>		Available	PEV171	/u/zosmfad/NoGZ	NoGZ	

Software Management – Export/Import SW instance PI66832



- Customers could deploy the PSWI locally or remotely

Software Management > Deployments > Deployment Checklist > Select Software Help

Deployment Checklist

To deploy software, complete the checklist.

Checklist

Progress	Step
	Specify the properties for this deployment.
	Select the software to deploy.
	Select the objective for this deployment.
	Configure this deployment.
	Define the job settings. zOSMF creates the deployment summary and jobs. <ul style="list-style-type: none">• View the deployment summary.
	Submit deployment jobs.
	Specify the properties for the target software instance.

Select Software

Select the type of software to deploy:

Software Instance Portable Software Instance

Portable Software Instances

Actions

No filter applied

Name Filter	Description Filter	Activity Filter	System Filter	File Location Filter	Categories Filter
<input type="radio"/> debinst		Available	PEV171	/u/tmpdev/pev171/zosmfad/debinst	Java
<input type="radio"/> psw-nogz		Being deployed	PEV171	/u/zosmfad/NoGZ	NoGZ

Total: 2 Selected: 0

Last refresh: Jun 30, 2016, 4:08:06 PM local time (Jun 30, 2016, 8:08:06 AM GMT)

Older Retrospect of z/OSMF V2R2 and V2R2 SPEs



- z/OSMF V2R2 (Sep 2015)
 - Integrated into z/OS
 - **Parmlib configuration of z/OSMF (IZUPRMxx) !**
 - Multiple sysplex support
 - Incident Log supports managing incidents cross sysplex
- z/OSMF SPEs (1Q 2016)
 - Rollback most of V2R2 functions to V2R1
 - Support email and mobile notification
 - zEvent Beta Mobile App
 - Workflow supports more security control
 - REST z/OS data set and file services Enhancements



Summary

- z/OSMF V2R3
 - z/OSMF auto-start
 - **NEW** Sysplex Management plugin
 - **NEW** z/OS Operator Consoles plugin
 - **NEW** Welcome screen with customization capabilities
 - **NEW** Named Angel usage
 - **NEW** Workflow Multiple Sysplex Support
- z/OSMF V2R2 updates in 2H 2016
 - z/OSMF usage statistics
 - REST z/OS Console services
 - REST z/OS data set and file services enhancements
 - Software Management supports none SMP/E software
 - Software Management supports export/import software
 - Workflow enhancements (Archive workflow, Support feedback, Workflow Editor)
 - Incident Log supports searching APAR and manual incidents



- ~~74 Retrospect of z/OSMF V2R2 and V2R1 SPEs~~
IBM Systems Technical Events | ibm.com/training/events



Additional information

- z/OSMF website
 - <http://www-03.ibm.com/systems/z/os/zos/features/zosmf/index.html>
- IBM z/OS Management Facility Browser Compatibility
 - http://www-03.ibm.com/systems/z/os/zos/features/zosmf/browser_notes.html
- z/OS Management Facility Publications
 - <http://www-03.ibm.com/systems/z/os/zos/features/zosmf/moreinfo/>
 - IBM z/OS Management Facility Configuration Guide (SC27-8419)
 - IBM z/OS Management Facility Programming (SC27-8420)
- z/OS Management Facility Resource Requirements
 - <http://www-03.ibm.com/support/techdocs/atmastr.nsf/WebIndex/WP101779>
- z/OS Management Facility Downloads
 - <http://www-03.ibm.com/systems/z/os/zos/features/zosmf/downloads/>