

Using z/OSMF Workflows to Configure ...

Greg Daynes (gdaynes@us.ibm.com)

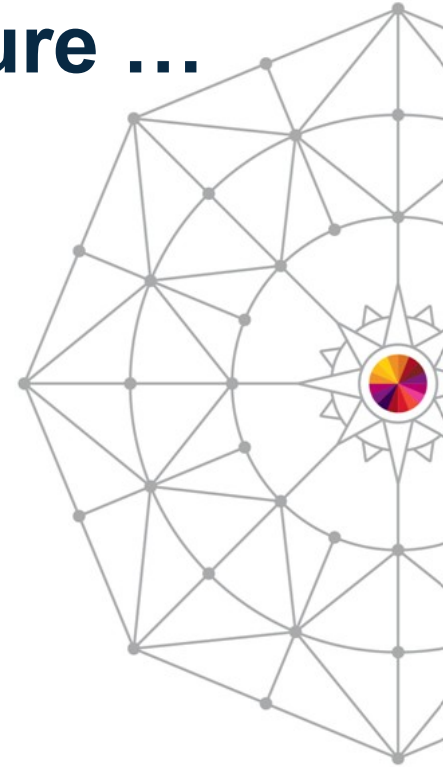
Joey Zhu (zhuxiaoz@cn.ibm.com)

IBM Corporation

August 7, 2014

Session Number 16079

www.SHARE.org



#SHAREorg



Trademarks

The following are trademarks of the International Business Machines Corporation in the United States and/or other countries.

IBM*	ServerPac*	* Registered trademarks of IBM Corporation
IBM (logo)	WebSphere*	
RACF*	z/OS*	

The following are trademarks or registered trademarks of other companies.

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

Firefox is a trademark of Mozilla Foundation

Cell Broadband Engine is a trademark of Sony Computer Entertainment, Inc. in the United States, other countries, or both and is used under license there from.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Internet Explorer is a trademark of Microsoft Corp

InfiniBand is a trademark and service mark of the InfiniBand Trade Association.

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

ITIL is a registered trademark, and a registered community trademark of the Office of Government Commerce, and is registered in the U.S. Patent and Trademark Office.

IT Infrastructure Library is a registered trademark of the Central Computer and Telecommunications Agency, which is now part of the Office of Government Commerce.

* All other products may be trademarks or registered trademarks of their respective companies.

Notes:

Performance is in Internal Throughput Rate (ITR) ratio based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput improvements equivalent to the performance ratios stated here.

IBM hardware products are manufactured from new parts, or new and serviceable used parts. Regardless, our warranty terms apply.

All customer examples cited or described in this presentation are presented as illustrations of the manner in which some customers have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics will vary depending on individual customer configurations and conditions.

This publication was produced in the United States. IBM may not offer the products, services or features discussed in this document in other countries, and the information may be subject to change without notice. Consult your local IBM business contact for information on the product or services available in your area.

All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.

Information about non-IBM products is obtained from the manufacturers of those products or their published announcements. IBM has not tested those products and cannot confirm the performance, compatibility, or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

Prices subject to change without notice. Contact your IBM representative or Business Partner for the most current pricing in your geography.

See url <http://www.ibm.com/legal/copytrade.shtml> for a list of IBM trademarks.

Agenda

- **Overview of z/OSMF Workflows**
- **Using Workflows to configure z/OSMF Incident Log**
 - Overview
 - Configuring z/OS Requirements for z/OSMF Incident Log (manual process)
 - Configuring z/OS Requirements for z/OSMF Incident Log using the z/OSMF Configuration Workflow
- **Using Workflows to configure zEDC**
 - Overview
 - Configuring z/OS Requirements for zEDC (manual process)
 - Configuring z/OS Requirements for zEDC using the zEDC Workflow

Agenda

Overview of z/OSMF Workflows

- Using Workflows to configure z/OSMF Incident Log
 - Overview
 - Configuring z/OS Requirements for z/OSMF Incident Log (manual process)
 - Configuring z/OS Requirements for z/OSMF Incident Log using the z/OSMF Configuration Workflow
- Using Workflows to configure zEDC
 - Overview
 - Configuring z/OS Requirements for zEDC (manual process)
 - Configuring z/OS Requirements for zEDC using the zEDC Workflow

Workflow Definition

- **Wikipedia**

- A **workflow** consists of an orchestrated and repeatable pattern business activity enabled by the systematic organization of resources into [processes](#) that transform materials, provide services, or process information.
- It can be depicted as [a sequence of operations](#), declared as work of [a person or group](#), an organization of staff, or one or more simple or complex mechanisms.

- **BusinessDictionary.com**

- A **workflow** is a [progression of steps](#) (tasks, events, interactions) that comprise a [work process](#), involve [two or more persons](#), and create or add value to the organization's activities.
- In a [sequential](#) workflow, each step is dependent on occurrence of the previous step; in a [parallel](#) workflow, two or more steps can occur concurrently.

z/OSMF Workflow Application

- **The z/OSMF Workflow application is a framework supports user (Workflow provider) to define a guided flow (workflow) through steps to accomplish a task.**
- **Step is the basic unit of workflow:**
 - Steps may instruct the user to perform a task via documentation or invoke wizards that guide the user through performing the task
 - Wizards can update and submit jobs, execute shell scripts and run REXX EXECs
 - Steps may define dependencies on other steps
 - Steps may be assigned to an individual or a specific role, such as
 - “systems programmer”
 - “security administrator”
 - Steps may be performed manually or automatically

User Scenario (Product Configuration)

- **The system programmer installs a product's code that provides a z/OSMF Workflow for its configuration.**
- **The person that will configure the product logs on to z/OSMF and creates a new workflow from file provided by the product.**
 - z/OSMF prompts the user to provide the fully qualified location
 - z/OSMF reads in the metadata file(s).
 - Once loaded, the original metadata file(s) is no longer used.
 - This will create a workflow instance

That person becomes the workflow owner

- **The owner can then start by opening the workflow instance**
 - The owner can now view and assign tasks to either individual SAF users or a role (group of users)
- **Assignees will then get notified that tasks are assigned to them**
- **Each assignee then accepts the tasks and can perform the steps when they are ready.**
- **Everyone can track the progress of the workflow and view what steps have been completed, what steps are ready, and what steps are waiting**

z/OSMF Workflow Application

- **The z/OSMF Workflow application is useful to:**
 - Assist people unfamiliar with how to perform a given task, or a task that they perform rarely
 - Ensure that all tasks are performed in the right order and only when their dependencies have been met
 - Ensure that all steps are completed
 - Even if many of the tasks have been delegated to a number of different colleagues
 - Monitor and track progress toward the completion of the task
 - Provide a history (audit trail) of the steps performed for a task
 - Perform the same tasks on multiple systems
 - Enabling a function (e.g. zEDC)
 - Migrating a new release of software (e.g., z/OS)

Demo of a simple workflow

- **Purpose of this workflow:**

- z/OSMF Administrator plans user name to be created and the group to connect
- Security Administrator does the actual security changes

- **Process:**

- Create the workflow instance
- Be familiar with the workflow instance
- Workflow owner assign steps to the right person
- Assignee accepts steps
- Assignee check if steps are ready for perform
- Assignee “z/OSMF Administrator” plans user name & group name
- Assignee “Security Administrator” creates user and connects it to group
- Review History

Create the workflow instance

IBM z/OS Management Facility

Log out

IBM

Welcome

Notifications

Workflows

Configuration

Links

Performance

Problem Determination

Software

z/OS Classic Interfaces

z/OSMF Administration

z/OSMF Settings

- FTP Servers
- Systems

Refresh

Welcome

Workflows

Workflow main panel

Workflows

Simplifies tasks through guided step-based workflows, and provides administrative functions for assigning workflow responsibilities and tracking progress.

Actions

Search

Workflow Name	Description	Version	Vendor	Owner	System
This workflow for z/OS set plug-in that i				zosmfad	PLEX1.SY1 (SY1_003)
Susans test				zosmfad	PLEX1.SY1 (SY1_003)
z/OS setup f plug-in - W					
testing -serv					
z/OSMF plug					
april 24, 201					

Create Workflow

Path of 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:
/tmp/workflow_demo.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

< Back Next > Finish Cancel Help

Input property file

Total: 6, Selected: 0

Refresh

Last refresh: Jul 26, 2014, 8:39:47 PM local time

Create Workflow

Workflow definition file:
/tmp/workflow_demo.xml

Description:
Sample workflow for demo

Vendor:
XYZ Inc.

Version:
1.0

Vendor, Version

Workflow name

Workflow name:
Simple workflow for demo

Owner user ID:
zosmfad

System:
PLEX1.SY1

System name

Comments:
Create this simple workflow for demo

☒ Open workflow on finish ☐ Assign all steps to owner user ID

< Back Next > Finish Cancel Help

© Copyright IBM Corp

Be familiar with the workflow instance

IBM z/OS Management Facility

Welcome zosmfad

Log out

IBM

Welcome x Workflows x

Workflows ▶ Simple workflow for demo

Help

Simple workflow for demo

Description:
Sample workflow for demo

Percent complete:
0%

Progress bar
(Support weight value)

Owner:
zosmfad

Steps complete:
0 of 3

System:
PLEX1.SY1

Status:
In Progress

Notes | History

Notes, History

Step progress

Current assignee

Workflow Steps

Actions

Automatic Indication

State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input type="checkbox"/> Unassigned	1	<input type="checkbox"/> Plan User ID and Group Name	Yes		zOSMF Administrator	
<input type="checkbox"/> Unassigned	2	<input type="checkbox"/> Make security changes				
<input type="checkbox"/> Unassigned	2.1	<input type="checkbox"/> Creat user	Yes		Security Administrator	
<input type="checkbox"/> Unassigned	2.2	<input type="checkbox"/> Connect user to a group	Yes		Security Administrator	

All steps initially unassigned

Several steps can be expanded to show individual tasks

Required skill category:

- System Programmer
- Security Administrator

Total: 4, Selected: 0

Workflow owner assign steps to the right person (Collaboration support I)

Actions

State Filter

Assigned

No. Filter

1

Title Filter

Plan User ID and Group Name

Unassigned

2

Make security changes

Creat user

Connect user to a group

Properties

Accept

Perform

Skip

Status

Override Complete

Resolve Conflicts

Assignment And Ownership

Expand

Collapse

Add Assignees...

Remove Assignees...

Take Ownership

Return

Total: 4, Selected: 3

Assign security related steps to Security Administrator

Workflow owner assigns these security related steps to Security Administrator

Welcome

Workflows

Workflows

Simple workflow for demo

Add Assignees

Help

Add Assignees

Select one or more SAF user IDs, SAF groups or z/OSMF roles to be assigned to the selected steps.

Selected Steps

Available assignees

Actions

Name Filter

Type Filter

z/OS Security Administrator

z/OSMF Administrator

z/OSMF User

z/OSMF role

z/OSMF role

z/OSMF role

Total: 3, Selected: 1

Add >

Add All >>

< Remove

<< Remove All

* Assignees to be added:

z/OS Security Administrator

Comments:

Workflow owner assigns these security related steps to Security Administrator

Send z/OSMF notifications to assignees (comments are not included on notifications)

OK

Cancel

Workflow owner assign steps to the right person (Collaboration support II)

IBM z/OS Management Facility

Welcome ibmuser

Log out

IBM

Notification received

Welcome x Notification... x

Help

Notifications (1)

Actions

Search

Description Filter	Task Filter	Recipients Filter	Time Filter
<input type="checkbox"/> One or more steps in workflow "Simple workflow for demo" have been assigned to you.	Workflows	z/OS Security Administrator	Jul 23, 2014, 10:54:..

Click notification brings you to assigned step in workflow

IBM z/OS Management Facility

Welcome ibmuser

Log out

IBM

Welcome x Workflows x

Workflows > Simple workflow for demo

Help

Simple workflow for demo

Description: Sample workflow for demo

Percent complete: 0%

Owner: zosmfad

Steps complete: 0 of 3

System: PLEX1.SY1

Status: In Progress

Notes | History

Workflow Steps

Actions

Search

State Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input type="checkbox"/> Assigned	<input type="checkbox"/> Plan User ID and Group Name	Yes	zOSMF Administrator	z/OSMF Administrator
<input checked="" type="checkbox"/> In Progress	<input type="checkbox"/> Make security changes			
<input checked="" type="checkbox"/> Assigned	<input type="checkbox"/> Create user	Yes	Security Administrator	ibmuser
<input checked="" type="checkbox"/> Assigned	<input type="checkbox"/> Connect user to a group	Yes	Security Administrator	ibmuser

State: Assigned

Current assignee

Assignee accepts steps (Collaboration support III)

Actions

State Filter	No. Filter	Title Filter
Assigned	1	Plan User ID and Group Name
In Progress	2	Make security changes
Assigned	2.1	Creat user
Assigned		Connect user to a group

Properties

Accept

Perform

Skip

Status

Override Complete

Resolve Conflicts

Assignment And Ownership

Expand

Collapse

Accept step

Total: 4, Selected: 3

Accept Step

Selected Steps

No.	Title	State	Owner
2	Make security changes	In Progress	
2.1	Creat user	Assigned	
2.2	Connect user to a group	Assigned	

Total: 3

Comments:

Security Administrator accepts these steps.

Input comments if needed

OK Cancel Help

Welcome Workflows

Workflows Simple workflow for demo

Simple workflow for demo

Description: Sample workflow for demo

Percent complete: 0 of 3

Owner: zosmfad

System: PLEX1.SY1

Steps complete: 0 of 3

Status: In Progress

Notes History

Workflow Step

State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
Ready	1	Plan User ID and Group Name	Yes	zosmfad	zOSMF Administrator	z/OSMF Administrator
In Progress	2	Make security changes				
Not Ready	2.1	Creat user	Yes	ibmuser	Security Administrator	z/OS Security Administrator
Not Ready	2.2	Connect user to a group	Yes	ibmuser	Security Administrator	z/OS Security Administrator

State:

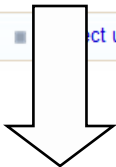
- Ready
- Not Ready

Assignee check if steps are ready for perform (Dependency checking)

☒ ☐ Actions ▾

	State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input type="checkbox"/>	➡ Ready	1	■ Plan User ID and Group Name	Yes	zosmfad	zOSMF Administrator	z/OSMF Administrator
<input type="checkbox"/>	🔄 In Progress	2	■ Make security changes				
<input type="checkbox"/>	⚠ Not Ready	2.1	■ Creat user	Yes	ibmuser	Security Administrator	z/OS Security Administrator
<input type="checkbox"/>	⚠ Not Ready	2.2	■ Add user to a group	Yes	ibmuser	Security Administrator	z/OS Security Administrator

Click the step



Welcome x Workflows x

Workflows ▶ Simple workflow for demo ▶ 2.1. Creat user Help

Properties for Workflow Step 2.1. Creat user

General

Details

Notes

Perform

Status

Input Variables

State: ⚠ Not Ready

Skill category: Security Administrator

Owner: ibmuser

Assignees: z/OS Security Administrator

Step Dependencies

Actions ▾

State Filter	No. Filter	Title Filter	Owner Filter	Skill Category Filter	Assignees Filter
➡ Ready	1	■ Plan User ID and Group Name	zosmfad		z/OSMF Administrator

Total: 1

Step Dependencies

Prerequisite steps need to be completed

Assignee plans user name & group name

(Instruct user via documentation)

State Filter	No. Filter	Title Filter
<input checked="" type="checkbox"/> Ready	1	Plan User ID and Group Name
<input type="checkbox"/> In Progress		Take security changes
<input type="checkbox"/> Not Started		Create user
<input type="checkbox"/> Not Started		Connect user to a group

Properties

Accept

Perform

Skip

Status

Override Complete

Resolve Conflicts

Assignment And Ownership

Expand

Collapse

Workflow Step 1: Plan User ID and Group Name

Input Variables

User information

Group information

Review Instructions

User name - The user name to be created:

CJOEY

UID - z/OS UNIX System Services UID:

5008

Next >

Save

Finish

Cancel

Workflow Step 1: Plan User ID and Group Name

Review Instructions

Review and confirm the instructions provided below have been performed on PLEX1.SY1, then click Finish to mark the step complete.

Instructions:

The following user will be added by later step:

user name: CJOEY

user id: 5008

And CJOEY will be connected to existing group IZUUSER.

Next >

Save

Finish

Cancel

User's input

Documentation is changed accordingly

Assignee creates user and connects it to a group (JCL/REXX/SHELL support)

Actions

State Filter	No. Filter	Title Filter	Automated Filter
<input type="checkbox"/> Complete	1	<input type="checkbox"/> Plan User ID and Group Name	
<input checked="" type="checkbox"/> In Progress	2	<input type="checkbox"/> Make security changes	
<input checked="" type="checkbox"/> Ready	2	<input type="checkbox"/> Create user	Yes
<input type="checkbox"/> Properties		<input type="checkbox"/> Connect user to a group	Yes
<input type="checkbox"/> Accept			
<input type="checkbox"/> Perform			
<input type="checkbox"/> Skip			
<input type="checkbox"/> Status			
<input type="checkbox"/> Override Complete			
<input type="checkbox"/> Resolve Conflicts			
<input type="checkbox"/> Assignment And Ownership			
<input type="checkbox"/> Expand			
<input type="checkbox"/> Collapse			

Perform options

Perform Automated Step

The selected step can be performed automatically. How would you like to proceed?

☐ Automatically perform the selected step, and all subsequent automated steps, according to their declared step dependencies, until one of the following occurs:

- all workflows steps have been completed.
- a non-automated, non-Complete step, is reached, or
- an error occurs.

☐ Automatically perform the selected step only.

☒ Manually perform the selected step.

When input file variable conflicts occur:

☐ Always use input file values. Existing values will be overwritten and automation will continue.

☐ Always keep existing values. Input file values will be ignored and automation will continue.

☐ Allow step or workflow owner to choose whether the input file value or existing value should be used for each conflicting variable. Automation will be stopped.

OK

Cancel

Help

General

Details

Notes

Perform

Status

Input Variables

Input Variables

User information

Review Instructions

Create JOB statement

Review JCL

Submit and Save JCL

Input Variables - User information

Enter the variable values for this input category.

Customize embedded JCL via Input

*User name- The user name to be created:
CJOEY

*UID- z/OS UNIX System Services UID:
5008

Review JCL

Review the generated JCL, then click Next to proceed. Optionally, you can edit

```
// IZUWFJB JOB (ACCTINFO),CLASS=A,MSGCLASS=0,
//          MSGLEVEL=(1,1),REGION=0M,NOTIFY=IBMU
/*JOBPARM  SYSAFF=SY1
//STEP1    EXEC  PGM=IKJEFT01,DYNAMNBR=20
//SYSTSPT  DD    SYSOUT=A
//SYSTSIN   DD    *
ADDUSER    CJOEY NOPASSWORD OMVS (UID(5008))
/*
```

Customize embedded JCL directly

Edit JCL

Maximum record length: 1,024

< Back

Next >

Save

Finish

Cancel

Assignee creates user and connects it to a group (Automation Support)

Welcome x Workflows x

Workflows ▶ Simple workflow for demo

Simple workflow for demo

Automation indication

Description:
Sample workflow for demo
Percent complete:
50%

Owner:
zosmfad
Steps complete:
2 of 3

System:
PLEX1.SY1
Status:
Automation in Progress [ibmuser]

Notes | History

Workflow Steps

	State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input type="checkbox"/>	Complete	1	Plan User ID and Group Name	Yes	zosmfad	zOSMF Administrator	z/OSMF Administrator
<input checked="" type="checkbox"/>	In Progress	2	Make security changes				
<input checked="" type="checkbox"/>	Complete	2.1	Creat user	Yes	ibmuser	Security Administrator	z/OS Security Administrator
<input type="checkbox"/>	Ready	2.2	Connect user to a group	Yes	ibmuser	Security Administrator	z/OS Security Administrator

Welcome x Workflows x

Workflows ▶ Simple workflow for demo

Simple workflow for demo

Automation Done

Description:
Sample workflow for demo
Percent complete:
100%

Owner:
zosmfad
Steps complete:
3 of 3

System:
PLEX1.SY1
Status:
Complete

Notes | History

Workflow Steps

	State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input type="checkbox"/>	Complete	1	Plan User ID and Group Name	Yes	zosmfad	zOSMF Administrator	z/OSMF Administrator
<input type="checkbox"/>	Complete	2	Make security changes				
<input type="checkbox"/>	Complete	2.1	Creat user	Yes	ibmuser	Security Administrator	z/OS Security Administrator
<input type="checkbox"/>	Complete	2.2	Connect user to a group	Yes	ibmuser	Security Administrator	z/OS Security Administrator

Review History

Welcome x Workflows x

Workflows > Simple workflow for demo > History

History for Simple workflow for demo

Actions ▼

	Date and Time (GMT) Filter	Action Filter	Messages [More Less] Filter	User ID Filter	Comments [More Less] Filter
<input type="radio"/>	Jul 23, 2014, 2:37:19 PM	Workflow Created	IZUWF0020 :The workflow name is set to "Simple workflow for demo" . IZUWF0021 :The workflow owner is set to "zosmfad" . IZUWF0022 :The workflow system is set to "SY1" . [More]	zosmfad	
<input type="radio"/>	Jul 23, 2014, 2:44:21 PM	Step Assigned	IZUWF0025 :The following users have been assigned to step "Plan User ID and Group Name" : Users: "z/OSMF Administrator" IZUWF0026 :Step "Plan User ID and Group Name" has changed to state "Assigned" .	zosmfad	
<input type="radio"/>	Jul 23, 2014, 2:54:57 PM	Step Assigned	IZUWF0025 :The following users have been assigned to step "Creat user" : Users: "z/OS Security Administrator" IZUWF0026 :Step "Creat user" has changed to state "Assigned" . [More]	zosmfad	Workflow owner assigns these security related steps to Security Administrator.
<input type="radio"/>	Jul 23, 2014, 3:07:12 PM	Step Accepted	IZUWF0045 :User "ibmuser" has accepted step "Creat user" . This user is now the step owner. IZUWF0026 :Step "Creat user" has changed to state "Not Ready" . IZUWF0045 :User "ibmuser" has accepted step "Connect user to a group" . This user is now the step [More]	ibmuser	Security Administrator accepts these steps.
<input type="radio"/>	Jul 23, 2014, 3:10:42 PM	Step Accepted	IZUWF0045 :User "zosmfad" has accepted step "Plan User ID and Group Name" . This user is now the step owner. IZUWF0026 :Step "Plan User ID and Group Name" has changed to state "Ready" .	zosmfad	z/OSMF admin accepts this step to plan the user name to be created.
<input type="radio"/>	Jul 23, 2014, 3:30:55 PM	Step Completed	IZUWF0026 :Step "Plan User ID and Group Name" has changed to state "Complete" . IZUWF0026 :Step "Creat user" has changed to state "Ready" .	zosmfad	
<input type="radio"/>	Jul 23, 2014, 3:38:56 PM	Automation Started	IZUWF0160 :The automation processing for workflow "Simple workflow for demo" has been started by user "ibmuser" from step "Creat user" .	ibmuser	
<input type="radio"/>	Jul 23, 2014, 3:38:56 PM	Submitted	IZUWF0026 :Step "Creat user" has changed to state "Submitted" .	ibmuser	
<input type="radio"/>	Jul 23, 2014, 3:38:57 PM	Step Completed	IZUWF0026 :Step "Creat user" has changed to state "Complete" . IZUWF0026 :Step "Connect user to a group" has changed to state "Ready" .	ibmuser	
<input type="radio"/>	Jul 23, 2014, 3:38:59 PM	Automate Step Complete	IZUWF0164 :Automation processing for step "Creat user" is complete.	ibmuser	
<input type="radio"/>	Jul 23, 2014, 3:38:59 PM	Submitted	IZUWF0026 :Step "Connect user to a group" has changed to state "Submitted"	ibmuser	
Total: 15, Selected: 0					

Agenda

- Overview of z/OSMF Workflows
- **Using Workflows to configure z/OSMF Incident Log**


Overview

- Configuring z/OS Requirements for z/OSMF Incident Log (manual process)
 - Configuring z/OS Requirements for z/OSMF Incident Log using the z/OSMF Configuration Workflow
- Using Workflows to configure zEDC
 - Overview
 - Configuring z/OS Requirements for zEDC (manual process)
 - Configuring z/OS Requirements for zEDC using the zEDC Workflow

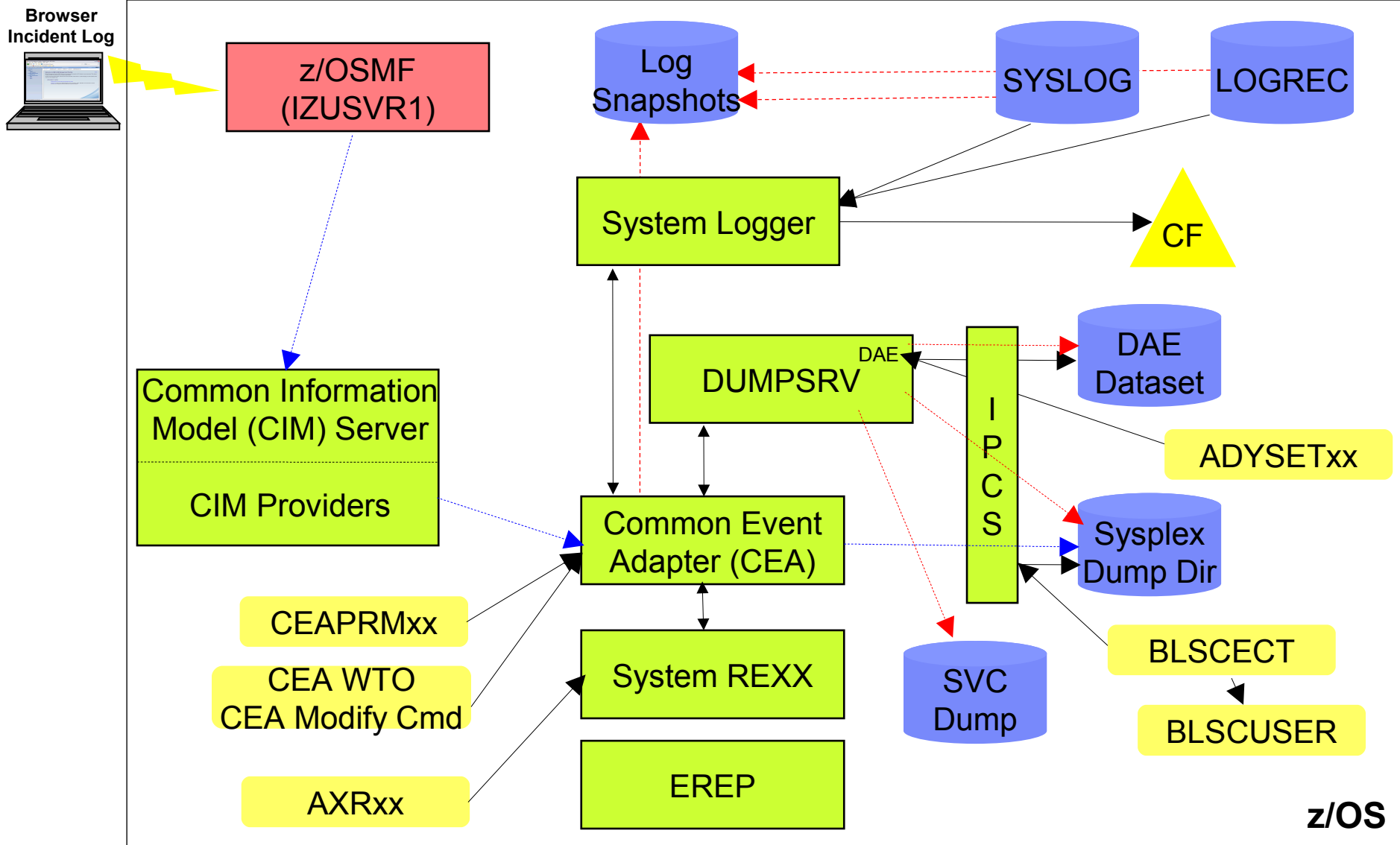
z/OSMF Problem Determination – Incident Log

- **Auto-capture basic diagnostic materials, triggered when the dump is written to a data set**
 - Diagnostic data “snapshots” for transient data: Snapshots of 30 min OPERLOG or SYSLOG, 1 hr LOGREC detail, and 4-hour LOGREC summary
 - Incident Log will also support the creation of diagnostic log snapshots based on the SYSLOG and LOGREC data sets, as well as the OPERLOG and LOGREC sysplex log streams
 - View, sort, and act on abend related incidents (identified by subsystem)
 - Package dump and log data for transmission in minutes

Agenda

- Overview of z/OSMF Workflows
- **Using Workflows to configure z/OSMF Incident Log**
 - Overview
 -  **Configuring z/OS Requirements for z/OSMF Incident Log (manual process)**
 - Configuring z/OS Requirements for z/OSMF Incident Log using the z/OSMF Configuration Workflow
- Using Workflows to configure zEDC
 - Overview
 - Configuring z/OS Requirements for zEDC (manual process)
 - Configuring z/OS Requirements for zEDC using the zEDC Workflow

z/OS Infrastructure for Full Incident Log Functionality



Configure z/OS for Full Incident Log Functionality

- **z/OSMF's Incident Log exploits existing best practices for data management for problem determination.**
 1. Ensure that the Common Information Model (CIM) server is configured on your system, including security authorizations and file system customization.
 2. Optional: Use of System Logger for SYSLOG (OPERLOG) and LOGREC
 3. Enable error and message log snapshots on the host system, or optionally on a sysplex-wide basis.
 4. Automatic Dump Data Set Allocation
 5. Dump analysis and elimination (DAE) is active and its symptom data set is available
 6. Sysplex Dump Directory (required)
 7. Ensure that the common event adapter (CEA) component is configured on your system, including security authorizations.
 8. Ensure that System REXX (SYSREXX) is set up and active on your system.
 9. If your installation has chosen to rename a dump data set, ensure that the data set name in the sysplex dump directory is correct.

Shameless question:

Can we exploit z/OSMF workflows to make it easier?

Configure z/OS for Full Incident Log Functionality ...

- **(1) CIM server setup**

- Incident Log task requires that the Common Information Model (CIM) server be setup and running
- CIM includes jobs to help you perform these tasks (CFZSEC and CFZRCUST). See the chapter on CIM server quick setup and verification in *z/OS Common Information Model User's Guide*, SC33-7998.
- When configuring Incident Log plug-in or the Workload Management plug-in, the z/OSMF administrator user must have the proper level of access to the CIM server resources
- Ensure that the CIM server is active on the system before continuing to the –finish step of configuring z/OSMF.
 - You can verify that the CIM server is started by entering a command like the following: `D A,CFZCIM`

Configure z/OS for Full Incident Log Functionality ...

- **(2) Use of System Logger for SYSLOG (OPERLOG) and LOGREC**
 - OPERLOG and LOGREC are important z/OS diagnostic logs that provide a recording of system activity.
 - The OPERLOG and LOGREC log streams capture message and error log information from all systems in the sysplex, and writes that information to log streams managed by the system logger component of z/OS.
 - The log streams should be written to coupling facility structures (in non-monplex environments) and are ultimately backed up to system managed storage (SMS)-DASD data sets.
 - The OPERLOG and LOGREC log streams have been the strategic method for capturing sysplex-scope log data for many years.
 - In the z/OSMF's Incident Log, the log streams are used to automate the gathering of diagnostic data (log snapshots) associated with an SVC dump.
 - Sample jobs are documented in the z/OSMF Configuration Guide.
 - Additional information documented in the August 2009 Hot Topics Newsletter

Notes:

1. Recommended for multi-system Parallel Sysplex environments
2. As of V1.12, SYSLOG and LOGREC datasets can be used instead to capture snapshots on DASD shared between the systems.

Configure z/OS for Full Incident Log Functionality ...

- **(4) Automatic Dump Data Set Allocation**
 - SVC dump processing supports automatic allocation of dump data sets at the time the system writes the dump to DASD. Automatically allocated dumps will be written using the system-determined block size. The dump data sets can be allocated as SMS-managed or non-SMS-managed, depending on the VOLSER or SMS classes defined on the DUMPDS ADD command. When the system captures a dump, it allocates a data set of the correct size from the resources you specify.
 - Using Extended Format Sequential data sets, the maximum size of the dump can exceed the size allowed for non-SMS managed data sets.
 - If automatic allocation fails, pre-allocated dump data sets are used. If no pre-allocated SYS1.DUMPnn data sets are available, message IEA793A is issued, and the dump remains in virtual storage. SVC Dump periodically retries both automatic allocation and writing to a pre-allocated dump dataset until successful or until the captured dump is deleted either by operator intervention or by the expiration of the CHNGDUMP MSGTIME parameter governing message IEA793A.
 - If you set the MSGTIME value to 0, the system will not issue the message, and it deletes the captured dump immediately.
 - If you rename the dump data set, or copy it to another data set, you must include a batch job to update the dump data set name in the sysplex dump directory.
 - Doing so will allow Incident prepare and send to locate the dump.
 - See the z/OSMF Configuration Guide for more info.
 - Instructions on setting up automatic dump data set allocation is documented in the z/OSMF Configuration Guide.

Configure z/OS for Full Incident Log Functionality ...

- **(5) Dump analysis and elimination (DAE)**

- Dump analysis and elimination (DAE) allows an installation to suppress SVC dumps and SYSMDUMP ABEND dumps that are not needed because they duplicate previously written dumps. To identify the cause of previous and requested dumps, DAE uses symptom strings, which contain data that describes a problem. DAE stores these symptom strings in a DAE data set that you provide.
- You can use the DAE data set in a single-system environment, or the systems in a sysplex can share a single DAE data set.
 - IBM suggests that you provide a name other than SYS1.DAE for the DAE data set to be shared in the sysplex.
- z/OSMF uses a shared DAE data set to allow the user to enable future dumps that occur on any system in the sysplex to be captured (not suppressed)
- Instructions on setting up the a shared DAE environment is documented in the z/OSMF Configuration Guide.

Configure z/OS for Full Incident Log Functionality ...

- **(6) Sysplex Dump Directory**

- The sysplex dump directory describes the SVC dumps generated by a sysplex in a central, compact, and manageable place. If you have write access, you can add source descriptions for other unformatted dumps that IPCS can format and for trace data sets.
- When setting up the sysplex dump directory, arrange for all systems in the sysplex to share it:
 - Use the default name of SYS1.DDIR for the sysplex dump directory or specify the same name for it in the SYSDDIR statement in the BLSCUSER PARMLIB member.
 - Place the data set for the sysplex dump directory on a DASD shared by all systems in the sysplex.
 - When a system that has access to a sysplex dump directory generates an SVC dump, the system automatically records the source description for it in the sysplex dump directory. IPCS adds the source description without initializing the dump, which takes time.
- Authorized users can access the sysplex dump directory and edit it.
- Do not access the sysplex dump directory via a ISPF IPCS session
 - Doing so will lockout DUMPSRV and CEA, resulting in dumps not being recorded in the directory, and not appearing in the Incident Log summary
- z/OSMF Incident Log uses the sysplex dump directory to get the dump data set name and display Summary and Detail information of incidents
- Instructions on setting up the sysplex dump directory is documented in the z/OSMF Configuration Guide.

Configure z/OS for Full Incident Log Functionality ...

(7) Customizing CEA

- Common event adapter (CEA) is a component of the BCP that provides the ability to deliver z/OS events to C-language clients, such as the z/OS CIM server. A CEA address space is started automatically during initialization of every z/OS system.
- CEA has two modes of operation:
 - **Full function mode.** In this mode, both internal z/OS components and clients such as CIM providers can use CEA indication functions.
 - **Minimum mode.** In this mode, only internal z/OS components can use CEA indication functions.
- Incident Log requires CEA in full function mode.
- To start CEA in full function mode, perform the following customization:
 - Define user ID CEA to the security product
 - The CEA sample job CEASEC can be used as a model
 - Give user ID CEA read access to the profile protecting SYS1.PARMLIB:
 - The user ID CEA needs write and execute access to the z/OS UNIX directory, /SYSTEM/var
- If CEA is running in minimum mode, you can change to full function mode by:
 - Making the security definitions above,
 - Stopping CEA (P CEA), and restarting it (S CEA).
- Other customization that you might have to perform for CEA is the following:
 - If your system will run with multilevel security, allow CEA to perform multilevel security file accesses you'll need additional security definitions
 - If your MAXCAD setting in PARMLIB member IEASYSxx is inadequate to accommodate the data space created by CEA, raise the setting.


z/OS Functionality for Incident Log - Summary

z/OS Function	z/OSMF Incident Log capability if enabled	z/OSMF Incident Log capability if NOT enabled
Sysplex Dump Directory	z/OSMF can display summary and details of incidents	None – function required
OPERLOG and LOGREC use of System Logger	Log snapshots are gathered for the entire sysplex	Log snapshots gathered for the specific system
Shared dump analysis and elimination (DAE)	z/OSMF can make DAE let future dumps be captured on any system in the sysplex	z/OSMF can NOT make DAE let future dumps be captured on other systems in the sysplex
Automatic Dump Data Set Allocation	Dump included in diagnostic data gathered and sent	Dump NOT included in diagnostic data gathered and sent ¹
AMATERSE program is enabled	Dump included in diagnostic data gathered and sent	Can NOT prepare or send any diagnostic data
CIM, CEA, and SYSREXX enabled and active	z/OSMF can display incidents	None – function required
Problem Documentation Upload Utility	Supports parallel encrypted FTP to IBM ²	Dump not encrypted nor broken into multiple data sets
Keep IBM default name in IEAVTSEL - Post Dump Exit	z/OSMF can display summary and details of incidents	None – function required

1 – Depending on how you archive and reuse your dumps, some capabilities may exist to send dumps as part of diagnostic data


2 – z/OS V1.12 requires the Problem Documentation Upload Utility to be downloaded and installed. In z/OS V1.13 and z/OSMF V2.1 the Problem Documentation Upload Utility is included

Agenda

- Overview of z/OSMF Workflows
- **Using Workflows to configure z/OSMF Incident Log**
 - Overview
 - Configuring z/OS Requirements for z/OSMF Incident Log (manual process)
 -  **– Configuring z/OS Requirements for z/OSMF Incident Log using the z/OSMF Configuration Workflow ****
- Using Workflows to configure zEDC
 - Overview
 - Configuring z/OS Requirements for zEDC (manual process)
 - Configuring z/OS Requirements for zEDC using the zEDC Workflow

** Latest updates are available for z/OSMF V2.1 with APAR PI20091

Configure z/OS for z/OSMF Incident Log using workflow

- Process is implemented to several steps in one workflow:
 - Create workflow instance 
 - Be familiar with the workflow
 - Assign steps to corresponding people for execution
 - Check if steps are ready to be performed
 - Check current z/OS and z/OSMF configuration for planning
 - Customize z/OS for Incident Log (Discover → Review → Customization)
 - Configure CIM
 - Configure Log snapshot
 - Enable Sysplex Dump Directory
 - Configure DAE
 - Enable automatic dump data set allocation
 - Configure CEA
 - Ensure SYSREXX is setup and active
 - Add Incident Log plugin

Create workflow instance I

IBM z/OS Management Facility

Log out IBM

Welcome

Notifications

Workflows

Configuration

Links

Performance

Problem Determination

Software

z/OS Classic Interfaces

z/OSMF Administration

z/OSMF Settings

Refresh

Welcome x Workflows x

Workflow main panel

Workflows

Simplifies tasks through guided step-based workflows, and provides administrative functions for assigning workflow responsibilities and tracking progress.

Actions

Workflow Name Description Version Vendor Owner System

Filter Filter Filter Filter Filter Filter

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/V2R1/workflow/izu.config.setup.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:
/u/current_config/workflow/izu.config.workflow.cfg

< Back

Next >

Finish

Cancel

Help

Total: 0, Selected: 0

Refresh

Last refresh: Jul 17, 2014, 1:43:43 PM local time (Jul 17, 2014, 5:43:43 AM GMT)

© Copyright IBM Corporation 2014

34

Create workflow instance II

IBM z/OS Management Facility

Welcome zosmfad

Log out

IBM

Welcome

Workflows

Workflows

Simplifies tasks through guided step-based workflows, and

Workflow Name

Filter

Description

Filter

This workflow provides the steps for z/OS setup necessary for each plug-in that is to b - Workflow_0

This workflow provides the setup necessary for each configured.

Susans test- Workflow_0

z/OS setup for each z/O

z/OS setup for each z/OSMF plug-in. - Workflow_0

z/OS setup for each z/O

testing - conia

z/OS setup for each z/O

rp10

april 24, 2012 z/OS setup for each z/OSMF plug-in. - Workflow_1

z/OS setup for each z/O

Total: 6, Selected: 0

Refresh

Last refresh: Jul 17, 2014, 4:11:07 PM local time (Jul 17, 2014, 8:11:07 AM GMT)

Create Workflow

Workflow definition file:
/usr/lpp/zosmf/V2R1/workflow/izu.config.setup.xml

Variable input file:
/u/current_config/workflow/izu.config.workflow.cfg

Description:
z/OS customization for each z/OSMF plug-in.

Vendor:

Version:

IBM

1.0 1.65 (4/29/14)

* Workflow name:

Workflow to configure z/OSMF plugins

* Owner user ID:

* System:

zosmfad

PLEX1.SY1

Comments:

z/OSMF Admin create this workflow to add Incident Log.

☒ Open workflow on finish

☐ Assign all steps to owner user ID

< Back

Next >

Finish

Cancel

Help

Vendor, Version

System Name

Workflow owner

Status

Perce

In Progress

In Progress


In Progress

In Progress

In Progress

In Progress

Configure z/OS for z/OSMF Incident Log using workflow

- Process is implemented to several steps in one workflow:
 - Create workflow instance (Ignored)
 - Be familiar with the workflow 
 - Assign steps to corresponding people for execution
 - Check if steps are ready to be performed
 - Check current z/OS and z/OSMF configuration for planning
 - Customize z/OS for Incident Log (Discover → Review → Customization)
 - Configure CIM
 - Configure Log snapshot
 - Enable Sysplex Dump Directory
 - Configure DAE
 - Enable automatic dump data set allocation
 - Configure CEA
 - Ensure SYSREXX is setup and active
 - Add Incident Log plugin



Support of
embedded
JCL/REXX



Support of
embedded
JCL/REXX

Be familiar with the workflow (Streamline tasks)

Welcome x Workflows x

Workflows

Workflow to configure z/OSMF plugins

Help

Workflow to configure z/OSMF plugins

Description:
z/OS customization for each z/OSMF plug-in.

Percent complete:

0%

Owner:
zosmfad

Steps complete:
0 of 70

Notes | History

System:
PLEX1.SY1

Status:
In Progress

Workflow Steps

Actions

Search

State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input type="checkbox"/> Unassigned	1	■ Highlights and pre-reqs of Config Workflow	No		System Programmer	
<input type="checkbox"/> Unassigned	2	+ Discovery before configuration				
<input type="checkbox"/> Unassigned	3	■ Review related z/OS and z/OSMF configuration	No		System Programmer	
<input type="checkbox"/> Unassigned	4	+ Configuration Assistant plug-in				
<input type="checkbox"/> Unassigned	5	+ ISPF plug-in				
<input type="checkbox"/> Unassigned	6	+ Common Information Model (CIM) server				
<input type="checkbox"/> Unassigned	7	+ Workload Management plug-in				
<input type="checkbox"/> Unassigned	8	+ Resource Monitoring plug-in				
<input type="checkbox"/> Unassigned	9	+ Capacity Provisioning plug-in				
<input type="checkbox"/> Unassigned	10	+ Incident Log plug-in				
<input type="checkbox"/> Unassigned	11	+ Add Plug-ins into zOSMF Server				

Total: 92, Selected: 0


Return to Workflows

Refresh

Last refresh: Jul 17, 2014, 4:14:31 PM local time (Jul 17, 2014, 8:14:31 AM GMT)

 Steps needed for Incident Log

Configure z/OS for z/OSMF Incident Log using workflow

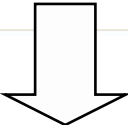
- Process is implemented to several steps in one workflow:
 - Create workflow instance
 - Be familiar with the workflow
 - Assign steps to corresponding people for execution 
 - Check if steps are ready to be performed
 - Check current z/OS and z/OSMF configuration for planning
 - Customize z/OS for Incident Log (Discover → Review → Customization)
 - Configure CIM
 - Configure Log snapshot
 - Enable Sysplex Dump Directory
 - Configure DAE
 - Enable automatic dump data set allocation
 - Configure CEA
 - Ensure SYSREXX is setup and active
 - Add Incident Log plugin

Assign steps (Collaboration support)

Workflow Steps

	State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input checked="" type="checkbox"/>	Unassigned		Properties and pre-reqs of Config	No		System Programmer	
<input checked="" type="checkbox"/>	Unassigned		Accept before configuration				
<input checked="" type="checkbox"/>	Unassigned		Perform general zOS setups	Yes		System Programmer	
<input checked="" type="checkbox"/>	Unassigned		Skip zOSMF run-time properties	Yes		System Programmer	
<input checked="" type="checkbox"/>	Unassigned		Override Fail z/OS and z/OSMF	No		System Programmer	
<input checked="" type="checkbox"/>	Unassigned		Status Override Complete				
<input type="checkbox"/>	Unassigned		Resolve Conflicts in Assistant plug-in				
<input type="checkbox"/>	Unassigned		Assignment And Ownership				
<input type="checkbox"/>	Unassigned		Expand Add Assignees...				
<input type="checkbox"/>	Unassigned		Collapse Remove Assignees...				
<input type="checkbox"/>	Unassigned		7 Take Ownership				
<input type="checkbox"/>	Unassigned		Workload Ma Return				

Select steps and assign them to different role/user



IBM z/OS Management Facility

Welcome zosmfad

Log out

IBM.

Welcome

Workflows

Workflows

Workflow to configure z/OSMF plugins

Add Assignees

Add Assignees

Select one or more SAF user IDs, SAF groups or z/OSMF roles to be assigned to the selected steps.

Selected Steps

Available assignees

Name Filter	Type Filter
<input checked="" type="checkbox"/> ibmuser	SAF user ID
<input type="checkbox"/> z/OS Security Administrator	z/OSMF role
<input type="checkbox"/> z/OSMF Administrator	z/OSMF role
<input type="checkbox"/> z/OSMF User	z/OSMF role

Total: 4, Selected: 1

Add >

Add All >>

< Remove

<< Remove All

Assignees to be added:

ibmuser

Select user/role here

Target assignee

Comments:

Assign steps to z/OSMF installer user ID "ibmuser"

☒ Send z/OSMF notifications to assignees (comments are not included on notifications)

OK

Cancel

Assignee receives the notification (Collaboration support)

IBM z/OS Mana

Welcome ibmuser

Log out

IBM.

Welcome

Notifications (1)

Workflows

Configuration

Links

Performance

Problem Determination

Software

z/OS Classic Interfaces

z/OSMF Administration

z/OSMF Settings

Refresh

Welcome

Notification...

Help

Notifications (1)

Actions

Search

Description Filter	Task Filter	Recipients Filter	Time Filter
<input type="checkbox"/> One or more steps in workflow "Workflow to configure z/OSMF plugins" have been assigned to you.	Workflows	ibmuser	Jul 17, 2014, 4:27:52 PM

Notification received

Click notification brings you to assigned step in workflow

IBM z/OS Management Facility

Welcome ibmuser

Log out

IBM.

Welcome

Notifications

Workflows

Workflows

Workflow to configure z/OSMF plugins

Help

Workflow to configure z/OSMF plugins

Notes | History

Description: z/OS customization for each z/OSMF plug-in.

Owner: zosmfad

System: PLEX1.SY1

Percent complete: 0%

Steps complete: 0 of 70

Status: In Progress

Workflow Steps

Actions

Search

State Filter	No. Filter	Title Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input checked="" type="checkbox"/> Assigned	1	Highlights and pre-reqs of Config Workflow		System Programmer	ibmuser
<input checked="" type="checkbox"/> In Progress	2	Discovery before configuration			
<input checked="" type="checkbox"/> Assigned	2.1	Discover general zOS setups		System Programmer	ibmuser
<input checked="" type="checkbox"/> Assigned	2.2	Discover zOSMF run-time properties		System Programmer	ibmuser
<input checked="" type="checkbox"/> Assigned	3	Review related z/OS and z/OSMF configuration		System Programmer	ibmuser
<input type="checkbox"/> Unassigned	4	Configuration Assistant plug-in			
<input type="checkbox"/> Unassigned	5	ISPF plug-in			
<input type="checkbox"/> Unassigned	6	Common Information Model (CIM) server			
<input type="checkbox"/> Unassigned	7	Workload Management plug-in			

Total: 92, Selected: 5

Return to Workflows

Refresh

Last refresh: Jul 17, 2014, 4:32:08 PM local time (Jul 17, 2014, 8:32:08 AM GMT)

Current assignee

State: Assigned

Assignee accept the assigned steps (Collaboration support)

Workflow Steps

State Filter	No. Filter	Title Filter
<input checked="" type="checkbox"/> Assigned		Highlights and pre-reqs of Config Workflow
<input checked="" type="checkbox"/> In Progress		Discovery before configuration
<input checked="" type="checkbox"/> Assigned		Discover general z/OS setups
<input checked="" type="checkbox"/> Assigned		Discover z/OSMF run-time properties
<input checked="" type="checkbox"/> Assigned		Review related z/OS and z/OSMF configuration
<input type="checkbox"/> Unassigned		Configuration Assistant plug-in
<input type="checkbox"/> Unassigned		(Optional) Transfer existing backing store into z/OSMF
<input type="checkbox"/> Unassigned		ISPF plug-in
<input type="checkbox"/> Unassigned	6	Common Information Model (CIM) server

Accept step

Accept Step

Selected Steps

No.	Title	State	Owner
1	Highlights and pre-reqs of Config Workflow	Assigned	
2	Discovery before configuration	In Progress	
3	Review related z/OS and z/OSMF configuration	Assigned	

Total: 5

Comments:
Accept the steps Workflow owner assigned to me

Input comments if needed

OK Cancel Help

Workflow Steps

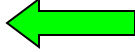
State:

- Ready
- Not Ready

State Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input checked="" type="checkbox"/> Ready				
<input type="checkbox"/> In Progress				
<input checked="" type="checkbox"/> Ready				
<input checked="" type="checkbox"/> Ready				
<input checked="" type="checkbox"/> Not Ready				
<input type="checkbox"/> Unassigned				
<input type="checkbox"/> Unassigned				

No.	Title	Automated	Owner	Skill Category	Assignees
1	Highlights and pre-reqs of Config Workflow	No	ibmuser	System Programmer	ibmuser
2	Discovery before configuration				
2.1	Discover general z/OS setups	Yes	ibmuser	System Programmer	ibmuser
2.2	Discover z/OSMF run-time properties	Yes	ibmuser	System Programmer	ibmuser
3	Review related z/OS and z/OSMF configuration	No	ibmuser	System Programmer	ibmuser
4	Configuration Assistant plug-in				
5	ISPF plug-in				

Configure z/OS for z/OSMF Incident Log using workflow

- Process is implemented to several steps in one workflow:
 - Create workflow instance
 - Be familiar with the workflow
 - Assign steps to corresponding people for execution
 - Check if steps are ready to be performed 
 - Check current z/OS and z/OSMF configuration for planning
 - Customize z/OS for Incident Log (Discover → Review → Customization)
 - Configure CIM
 - Configure Log snapshot
 - Enable Sysplex Dump Directory
 - Configure DAE
 - Enable automatic dump data set allocation
 - Configure CEA
 - Ensure SYSREXX is setup and active
 - Add Incident Log plugin

Check if steps are ready to be performed (Dependency checking)

Workflow Steps

Actions

State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
➡ Ready	1	■ Highlights and pre-reqs of Config Workflow	No	ibmuser	System Programmer	ibmuser
🟢 In Progress	2	☐ Discovery before configuration				
➡ Ready	2.1	■ Discover general z/OS setups		ibmuser	System Programmer	ibmuser
➡ Ready	2.2	■ Discover z/OSMF run-time properties		ibmuser	System Programmer	ibmuser
🚧 Not Ready	3	■ Review related z/OS and z/OSMF configuration	No	ibmuser	System Programmer	ibmuser
Unassigned	4	☐ Configuration Assistant plug-in				
Unassigned	5	☐ ISPF plug-in				

Click the step

IBM z/OS Management Facility

Welcome ibmuser

Log out

IBM

Welcome

Notifications

Workflows

Workflows

Workflow to configure z/OSMF plugins

3. Review related z/OS and z/OSMF configuration

Help

Properties for Workflow Step 3. Review related z/OS and z/OSMF configuration

General

Details

Notes

Perform

Status

Input Variables

State: 🚧 Not Ready

Skill category: System Programmer

Owner: ibmuser

Assignees: ibmuser

Step Dependencies

Actions

State Filter	No. Filter	Title Filter	Step Filter	Owner Filter	Assignees Filter
🟢 In Progress	2	☐ Discovery before configuration			
➡ Ready	2.1	■ Discover general z/OS setups		ibmuser	ibmuser
➡ Ready	2.2	■ Discover z/OSMF run-time properties		ibmuser	ibmuser

Step Dependencies

Prerequisite steps need to be completed

Total: 3

Check the activities we have done (Support History)

Welcome x Notifications x Workflows x

Workflows ▸ Workflow to configure z/OSMF plugins ▸ History

Help

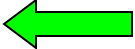
History for Workflow to configure z/OSMF plugins

Actions ▾ <input type="text"/> Search					
	Date and Time (GMT) Filter	Action Filter	Messages [More Less] Filter	User ID Filter	Comments [More Less] Filter
	Jul 17, 2014, 8:14:26 AM	Workflow Created	IZUWF0020:The workflow name is set to "Workflow to configure z/OSMF plugins" . IZUWF0021:The workflow owner is set to "zosmfad" [More]	zosmfad	z/OSMF Admin create this workflow to add Incident Log.
	Jul 17, 2014, 8:27:52 AM	Step Assigned	IZUWF0025:The following users have been assigned to step "Highlights and pre-reqs of Config Workflow" : Users: "ibmuser" IZUWF0026:Step "Highlights and pre-reqs of Config Workflow" assigned to user "ibmuser" [More]	zosmfad	Assign steps to z/OSMF installer user ID "ibmuser"
	Jul 17, 2014, 8:36:34 AM	Step Accepted	IZUWF0045:User "ibmuser" has accepted step "Highlights and pre-reqs of Config Workflow" . This user is now the step owner. IZUWF0046:User "ibmuser" has accepted step "Highlights and pre-reqs of Config Workflow" . This user is now the step owner. [More]	ibmuser	z/OSMF installer accepts these steps.

Activities

Comments

Configure z/OS for z/OSMF Incident Log using workflow

- Process is implemented to several steps in one workflow:
 - Create workflow instance (Ignored)
 - Be familiar with the workflow
 - Assign steps to corresponding people for execution (Ignored)
 - Check if steps are ready to be performed (Ignored)
 - Check current z/OS and z/OSMF configuration for planning 
 - Customize z/OS for Incident Log (Discover → Review → Customization)
 - Configure CIM
 - Configure Log snapshot
 - Enable Sysplex Dump Directory
 - Configure DAE
 - Enable automatic dump data set allocation
 - Configure CEA
 - Ensure SYSREXX is setup and active
 - Add Incident Log plugin

Check current z/OS and z/OSMF configuration

Workflow Steps

State Filter	No. Filter	Title Filter	Automated Filter
Complete	1	Highlights and pre-reqs of Config Workflow	No
In Progress	2	Discovery before configuration	
Ready	21	Discover general z/OS setups	Yes
Ready		z/OSMF run-time properties	Yes
Not Ready		Related z/OS and z/OSMF	No
Unassigned		Configuration Assistant plug-in	
Unassigned		Transfer existing backing files into z/OSMF	No
Unassigned		Configuration plug-in	
Unassigned		Information Model (CIM) server	
Unassigned		Management plug-in	
Unassigned		Resource Monitoring plug-in	
Unassigned	9	Capacity Provisioning plug-in	

Properties
Accept
Perform
Skip
Override Fail
Status
Override Complete
Resolve Conflicts
Assignment And Ownership
Expand
Collapse

Perform option

Perform options

Perform Automated Step

The selected step can be performed automatically. How would you like to proceed?

- ➊ Automatically perform the selected step, and all subsequent automated steps, according to their declared step dependencies, until one of the following occurs:
 - all workflows steps have been completed.
 - a non-automated, non-Complete step, is reached, or
 - an error occurs.
- ➋ Automatically perform the selected step only.
- ➌ Manually perform the selected step.

When input file variable conflicts occur:

- ☒ Always use input file values. Existing values will be overwritten and automation will continue.
- ☐ Always keep existing values. Input file values will be ignored and automation will continue.
- ☐ Allow step or workflow owner to choose whether the input file value or existing value should be used for each conflicting variable. Automation will be stopped.

OK Cancel Help

Manually perform the step I (JCL/REXX/Shell support)

Workflows ▶ Workflow to configure z/OSMF plugins ▶ 2.1. Discover general z/OS setups

Help

Properties for Workflow Step 2.1. Discover general z/OS setups

General Details Notes **Perform** Status Input Variables

Review Instructions

Edit Output File Path
Create JOB statement
Review JCL
Submit and Save JCL

Review Instructions

To proceed with a wizard for creating and executing the shell script on PLEX1.SY1, click **Next**. Or, you can choose to bypass this step. If so, first review and confirm that the instructions below have been done. Then, click **Finish** to mark the step complete.

Instructions:

Click the 'Next' button until finish the wizard, workflow will execute script in z/OS side to discover general or related z/OS configuration. The values we found will be displayed in future step "Review related z/OS and z/OSMF configuration" for your reference.

Review instructions
provided by vendor

Workflows ▶ Workflow to configure z/OSMF plugins ▶ 2.1. Discover general z/OS setups

Help

Workflow Step 2.1. Discover general z/OS setups

Notes **Perform** Status Input Variables

Embedded JCL
assist user to do
this step

- ✓ Review Instructions
- ✓ Edit Output File Path
- ➔ Create JOB statement**
- ✓ Review JCL
 - ✓ Review JCL - Edit JCL
- ✓ Submit and Save JCL

Create JOB statement

Specify the JOB statement to use for this job. You can accept the default or define a new JOB statement.

Customize job card

* JOB statement JCL:

```
//IZUWFJB JOB (ACCTINFO),CLASS=A,MSGCLASS=0,  
//          MSGLEVEL=(1,1),REGION=0M,NOTIFY=ZOSMFAD
```

< Back

Next >

Save

Finish

Cancel

Manually perform the step II (JCL/REXX/Shell support)

Welcome x Notifications x Workflows x

Workflows > Workflow to configure z/OSMF plugins > 2.1. Discover general zOS setups

Help

Properties for Workflow Step 2.1. Discover general zOS setups

General Details Notes Perform Status Input Variables

Review Instructions

Edit Output File Path

Create JOB statement

Review JCL

Submit and Save JCL

Review JCL

Review the generated JCL, then click **Next** to proceed. Optionally, you can edit the JCL. To do so, click the **Edit JCL** button.

```
//IZUWFJB JOB (ACCTINFO),CLASS=A,MSGCLASS=0,
//          MSGLEVEL=(1,1),REGION=0M,NOTIFY=ZOSMFAD
/*JOBPARM  SYSAPP=SY1
//*****
//          STEP - Create temporary directory using BPXBATCH
//*****
//
//CREATE   EXEC PGM=BPXBATCH
//
//STDOUT   DD SYSOUT=*
//
//STDERR   Welcome x Notifications x Workflows x
//
//
```

Edit JCL

< Back

Next >

Review or edit embedded JCL here

Workflows > Workflow to configure z/OSMF plugins > 2.1. Discover general zOS setups

Help

Properties for Workflow Step 2.1. Discover general zOS setups

General Details Notes Perform Status Input Variables

Review Instructions

Edit Output File Path

Create JOB statement

Review JCL

Submit and Save JCL

Submit and Save JCL

Select whether to submit the JCL or save it, and then click **Finish**.

☒ Submit JCL

☐ Save JCL

z/OS UNIX file. Specify the full path, including the file name:

z/OS data set. Specify an existing data set, including the member name if applicable:

Volume serial (if the data set is not cataloged):

☐ Overwrite the file or member if it exists already.

Restore Default Location

< Back

Next >

Save

Finish

Cancel

Submit job and save JCL for reference

Automatically perform steps

Welcome x Notifications x Workflows x

Workflows

Workflow to configure z/OSMF plugins

Help

Workflow to configure z/OSMF plugins

Description:
z/OS customization for each z/OSMF plug-in.
Percent complete:

1%

Owner:
ibmuser

Steps complete:
1 of 70

System:
PLEX1.SY1

Status:
Automation in Progress [zosmfad]

Status:

Automation in progress

Workflow Steps

Actions

Search

State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter	
<input type="checkbox"/> Complete	1	■ Highlights and pre-reqs of Config Workflow	No	zosmfad	System Programmer	z/OSMF Administrator	
<input checked="" type="checkbox"/> In Progress	2	■ Discovery before configuration					
<input checked="" type="checkbox"/> Submitted	2.1	■ Discover general z/OS setups	Yes	zosmfad	System Programmer	z/OSMF Administrator	
<input type="checkbox"/> Ready	2.2	■ Discover zOSMF run-time properties	Yes	zosmfad	System Programmer	z/OSMF Administrator	
<input type="checkbox"/> Not Ready	3	■ Review related z/OS and z/OSMF configuration	No	zosmfad	System Programmer	z/OSMF Administrator	
<input type="checkbox"/> Unassigned	4	■ Configuration Assistant plug-in					
<input type="checkbox"/> Unassigned	4.1	■ (Optional) Transfer existing backing store files into z/OSMF					
<input type="checkbox"/> Unassigned	5	+ ISPF plug-in					
<input type="checkbox"/> Unassigned	6	+ Common Information Model (CIM) server					
<input type="checkbox"/> Unassigned	7	+ Workload Management plug-in					
<input type="checkbox"/> Unassigned	8	+ Resource Monitoring plug-in					

Automation stops here due to auto-disabled step

Total: 92, Selected: 1

Return to Workflows

Refresh

Last refresh: Jul 15, 2014, 7:17:17 PM local time (Jul 15, 2014, 11:17:17 AM GMT)

Review result of each step (JCL/REXX/Shell support)

Welcome x Workflows x

Workflows > Workflow to configure z/OSMF plugins > 2.1. Discover general zOS setups

Help

Properties for Workflow Step 2.1. Discover general zOS setups

GeneralDetailsNotesPerformStatusInput Variables

Job return code

Output

Name:IZUWFJBID:JOB00075Class:AType:JOBStatus:OUTPUTReturn code:CC 0000

JESMSG LGJESJCLJESYSMSGSYSTSPRTSTDOUT

DD name:STDOUTStep name:XBATCHProcedure step name:Dataset ID:108Class:0Record count:59

Output (3.383KB of 3.383KB shown)

IZUG2111I: The workflow discovery function is now verifying your current system setup.

IZUG2012I: The system is currently running in SYSPLEX mode.

IZUG2116I: The following parmlib data sets are active in your system:

ENTRY	FLAGS	VOLUME	DATA SET
1	S	PEVTS3	CIMSSRE.R14ONLY.PARMLIB
2	S	PEVTS3	CIMSSRE.R13ONLY.PARMLIB
3	S	PEVTS3	CIMSSRE.R12ONLY.PARMLIB
4	S	PEVTS3	CIMSSRE.PARMLIB
5	S	PEVTST	HDENNIS.ZOS17.PARMLIB
6	S	CTTPAK	XESCT.PARMLIB
7	S	CTTPAK	SYS1.PARMLIB
8	S	SDR21	SYS1.PARMLIB.POK
9	S	SDR21	SYS1.PARMLIB.INSTALL

IZUG2019I: Processing has extracted the IEASYSxx parmlib member suffix CE.

IZUG2001I: The workflow is searching for member IEASYSxx in the active parmlib installation.

Refresh

Review current z/OS and z/OSMF configuration I

(Discovered by embedded job of prior step)

Welcome x Workflows x

Workflows > Workflow to configure z/OSMF plugins > 3. Review related z/OS and z/OSMF configuration [Help](#)

Properties for Workflow Step 3. Review related z/OS and z/OSMF configuration

General Details Notes **Perform** Status Input Variables

✓ Input Variables

- ➔ **Current layout of z/OSMF tasks**
 - z/OSMF run-time properties
 - Dependency check
- General z/OS configuration
- Review Instructions

Input Variables - Current layout of z/OSMF tasks
Enter the variable values for this input category.

☐ Incident Log- *Is Incident Log already configured?* ⓘ

☒ Configuration Assistant- *Is Configuration Assistant already configured?* ⓘ

☒ Workload Management- *Is Workload Management already configured?* ⓘ

☒ RMF- *Is Resource Management already configured?* ⓘ

Which plugins have been installed

Welcome x Workflows x

Workflows > Workflow to configure z/OSMF plugins > 3. Review related z/OS and z/OSMF configuration [Help](#)

Properties for Workflow Step 3. Review related z/OS and z/OSMF configuration

General Details Notes **Perform** Status Input Variables

✓ Input Variables

- ✓ Current layout of z/OSMF tasks
- ➔ **z/OSMF run-time properties**
- ✓ Dependency check
- General z/OS configuration
- Review Instructions

Input Variables - z/OSMF run-time properties
Enter the variable values for this input category.

Host name- *z/OSMF server host name* : ⓘ
PEV185.POK.IBM.COM

Port number- *HTTP SSL port number for z/OSMF* : ⓘ
443

Port number- *HTTP port number for z/OSMF* : ⓘ
80

Path- *Mount point of the z/OSMF data file system* : ⓘ
/var/zosmf/data

Data set name- *Data set name for the z/OSMF data file system* : ⓘ
IZU.SIZUDATZ

Prefix- *z/OSMF SAF profile prefix* : ⓘ
IZUFLT

Current z/OSMF properties:

- HTTPS port number
- Path of data file system
-

< Back Next > Save Finish Cancel

Review current z/OS and z/OSMF configuration II

(Discovered by embedded job of prior step)

Welcome x Workflows x

Workflows > Workflow to configure z/OSMF plugins > 3. Review related z/OS and z/OSMF configuration [Help](#)

Properties for Workflow Step 3. Review related z/OS and z/OSMF configuration

General Details Notes **Perform** Status Input Variables

✓ Input Variables

- ✓ Current layout of z/OSMF tasks
- ✓ z/OSMF run-time properties
- ✓ Dependency check
- ➔ **General z/OS configuration**

Review Instructions

Input Variables - General z/OS configuration

Enter the variable values for this input category.

General z/OS configuration- *Sysplex name for the z/OS host system:* [?](#)

General z/OS configuration- *Names of all z/OS systems in the same sysplex:*

General z/OS configuration- *Parmlib data sets of the z/OS host system:* [?](#)

General z/OS configuration- *IEASYSxx member suffixes:* [?](#)

General z/OS configuration- *COMMNDxx member suffixes:* [?](#)

General z/OS configuration- *CEAPRMxx member suffixes:* [?](#)


< Back Next > Save Finish Cancel

Parmlib data set concatenation

Active parmlib member

Configure z/OS for z/OSMF Incident Log using workflow

- Process is implemented to several steps in one workflow:

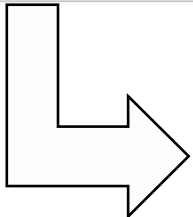
- Create workflow instance (Ignored)
- Be familiar with the workflow
- Assign steps to corresponding people for execution (Ignored)
- Check if steps are ready to be performed (Ignored)
- Check current z/OS and z/OSMF configuration for planning
- Customize z/OS for Incident Log (Discover → Review → Customization) 
- Configure CIM
- Configure Log snapshot
- Enable Sysplex Dump Directory
- Configure DAE
- Enable automatic dump data set allocation
- Configure CEA
- Ensure SYSREXX is setup and active
- Add Incident Log plugin

Review what z/OS customization need to be done for Incident Log

Workflow Steps

State Filter	No. Filter	Title Filter
In Progress	9	Capacity Provisioning plug-in
In Progress	10	Incident Log plug-in
Complete (Override)	10.1	Ensure that the CIM server is configured
Complete	10.2	Ensure log snapshots is configured properly
In Progress	10.3	Set up a sysplex dump directory
In Progress	10.4	(Optional) Configure dump analysis and elimination (DAE)
In Progress	10.5	Configuring automatic dump data set allocation
In Progress	10.6	Ensure that CEA is configured
In Progress	10.7	Ensure that SYSREXX is configured
In Progress	10.8	Authorizing the data set for AM

Several areas need to be configured

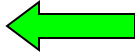


Workflow Steps

State Filter	No. Filter	Title Filter	Automated Filter
In Progress	10	Incident Log plug-in	
Complete (Override)	10.1	Ensure that the CIM server is configured	
Complete	10.2	Ensure log snapshots is configured properly	No
In Progress	10.3	Set up a sysplex dump directory	
Ready	10.3.1	Discover sysplex dump directory	Yes
Not Ready	10.3.2	Review whether dump directory is already set up	No
Not Ready	10.3.3	Create a sysplex dump directory data set	Yes
Not Ready	10.3.4	Update BLSCUSER with the name of created sysplex dump directory	Yes
Not Ready	10.3.5	Recycle the dump services address space	Yes
Not Ready	10.3.6	Register the sysplex dump directory with IPCS	Yes
In Progress	10.4	(Optional) Configure dump analysis and elimination (DAE)	

Each area follows similar structure

Configure z/OS for z/OSMF Incident Log using workflow

- Process is implemented to several steps in one workflow:
 - Create workflow instance
 - Be familiar with the workflow
 - Assign steps to corresponding people for execution
 - Check if steps are ready to be performed
 - Check current z/OS and z/OSMF configuration for planning
 - Customize z/OS for Incident Log (Discover → Review → Customization)
 - Configure CIM
 - Configure Log snapshot
 - Enable Sysplex Dump Directory 
 - Configure DAE
 - Enable automatic dump data set allocation
 - Configure CEA
 - Ensure SYSREXX is setup and active
 - Add Incident Log plugin

Configure Sysplex Dump Directory - Discover and Review current settings

Actions

State Filter	No. Filter	Title Filter
<input type="checkbox"/> Complete (Override)	9	<input type="checkbox"/> Capacity Provisioning plug-in
<input checked="" type="checkbox"/> In Progress	10	<input type="checkbox"/> Incident Log plug-in
<input checked="" type="checkbox"/> Complete	10.1	<input type="checkbox"/> Ensure that the CIM server is configured
<input checked="" type="checkbox"/> Complete	10.2	<input type="checkbox"/> Ensure log snapshots is configured properly
<input checked="" type="checkbox"/> In Progress	10.3	<input type="checkbox"/> Set up a sysplex dump directory
<input checked="" type="checkbox"/> Ready	10.3.1	<input type="checkbox"/> Discover sysplex dump directory
<input checked="" type="checkbox"/> Not Ready	10.3.2	<input type="checkbox"/> Review whether dump directory is already set up
<input checked="" type="checkbox"/> Not Ready		<input type="checkbox"/> Create a sysplex dump directory data set
<input checked="" type="checkbox"/> Not Ready		<input type="checkbox"/> Update BLSUSER with the name of created sysplex dump directory
<input checked="" type="checkbox"/> Not Ready		<input type="checkbox"/> Recycle the dump services address space
<input checked="" type="checkbox"/> Not Ready		<input type="checkbox"/> Register the sysplex dump directory with IPCS
<input checked="" type="checkbox"/> Not Ready		<input type="checkbox"/> Optional) Configure dump analysis
<input checked="" type="checkbox"/> In Progress		

Properties

Accept

Perform

Skip

Override Fail

Status

Override Complete

Resolve Conflicts

Assignment And Ownership

Expand

Collapse



Welcome Workflows

Workflows > Workflow to configure z/OSMF plugins > 10.3.1. Discover sysplex dump directory

Properties for Workflow Step 10.3.1. Discover sysplex dump directory

General Details Notes Perform Status Input Variables

☒ Review Instructions
☒ Edit Output File Path
☒ Create JOB statement
☒ Review JCL
☒ Submit and Save JCL

Submit and Save JCL
Select whether to submit the JCL or save it, and then click **Finish**.

☒ Submit JCL
☐ Save JCL

☐ z/OS UNIX file. Specify the full path, including the file name:

☐ z/OS data set. Specify an existing data set, including the member name if applicable:

Volume serial (if the data set is not cataloged):

☐ Overwrite the file or member if it exists already.

Embedded job assists to detect current setting



Welcome Workflows

Workflows > Workflow to configure z/OSMF plugins > 10.3.2. Review whether dump directory is already set up

Properties for Workflow Step 10.3.2. Review whether dump directory is already set up

General Details Notes Perform Status Input Variables

☒ Input Variables
☒ Current sysplex dump directory
☒ Current Sysplex Dump Directory
☒ Review Instructions

Input Variables - Current sysplex dump directory
Enter the variable values for this input category.

☒ Sysplex dump directory already allocated - Is the sysplex dump directory already set up?

Data set name - Sysplex dump directory data set name:
MVSSPT.SYSPLEX.DMPDIR

Volume serial - Volume for the sysplex dump directory:
TMPPK1



Actions

State Filter	No. Filter	Title Filter
<input checked="" type="checkbox"/> Complete	10.3.1	<input type="checkbox"/> Discover sysplex dump directory
<input checked="" type="checkbox"/> Ready	10.3.2	<input type="checkbox"/> Review whether dump directory is already set up
<input checked="" type="checkbox"/> Not Ready		<input type="checkbox"/> Create a sysplex dump directory data set
<input checked="" type="checkbox"/> Not Ready		<input type="checkbox"/> Update BLSUSER with the name of created sysplex dump directory
<input checked="" type="checkbox"/> Not Ready		<input type="checkbox"/> Recycle the dump services address space
<input checked="" type="checkbox"/> Not Ready		<input type="checkbox"/> Register the sysplex dump directory with IPCS
<input checked="" type="checkbox"/> In Progress		<input type="checkbox"/> Optional) Configure dump analysis and elimination (DAE)
<input checked="" type="checkbox"/> In Progress		<input type="checkbox"/> Configuring automatic dump data set allocation

Properties

Accept

Perform

Skip

Override Fail

Status

Override Complete

Resolve Conflicts

Assignment And Ownership

Expand

Collapse

Configure Sysplex Dump Directory - Using current dump directory

- ✓ Input Variables
 - ✓ Current sysplex dump directory
 - ✓ Current Sysplex Dump Directory
- ➡ Review Instructions

Review Instructions

Review and confirm the instructions provided below have been performed on **PLEX1.SY1**, then click **Finish** to mark the step complete.

Instructions:

Please review current configuration of sysplex dump directory:

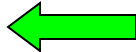
Discoveries	Result or Value
Is sysplex dump directory already configured?	true
Parmlib dataset in which BLSCUSER member resides:	HDENNIS.ZOS17.PARMLIB
Current sysplex dump directory dataset is:	MVSSPT.SYSPLEX.DMPDIR
Volume in where current sysplex dump directory resides:	TMPPK1
Is the current sysplex dump directory valid?	true

Current setting meets requirement

Actions				
	State Filter	No. Filter	Title Filter	Automated Filter
<input type="checkbox"/>	In Progress	10	<input type="checkbox"/> Incident Log plug-in	
<input type="checkbox"/>	Complete	10.1	<input type="checkbox"/> Ensure that the CIM server is configured	No
<input type="checkbox"/>	Complete	10.2	<input type="checkbox"/> Ensure log snapshots is configured properly	No
<input type="checkbox"/>	Complete	10.3	<input type="checkbox"/> Set up a sysplex dump directory	
<input type="checkbox"/>	Complete	10.3.1	<input type="checkbox"/> Discover sysplex dump directory	
<input type="checkbox"/>	Complete	10.3.2	<input type="checkbox"/> Review whether dump directory is already set up	
<input type="checkbox"/>	Complete (Override)	10.3.3	<input type="checkbox"/> Create a sysplex dump directory data set	Yes
<input type="checkbox"/>	Complete (Override)	10.3.4	<input type="checkbox"/> Update BLSCUSER with the name of created sysplex dump directory	Yes
<input type="checkbox"/>	Complete (Override)	10.3.5	<input type="checkbox"/> Recycle the dump services address space	Yes
<input type="checkbox"/>	Complete (Override)	10.3.6	<input type="checkbox"/> Register the sysplex dump directory with IPCS	Yes
<input type="checkbox"/>	In Progress	10.4	<input type="checkbox"/> (Optional) Configure dump analysis and elimination (DAE)	

Configuration is not necessary

Configure z/OS for z/OSMF Incident Log using workflow

- Process is implemented to several steps in one workflow:
 - Create workflow instance
 - Be familiar with the workflow
 - Assign steps to corresponding people for execution
 - Check if steps are ready to be performed
 - Check current z/OS and z/OSMF configuration for planning
 - Customize z/OS for Incident Log (Discover → Review → Customization)
 - Configure CIM
 - Configure Log snapshot
 - Enable Sysplex Dump Directory
 - Configure DAE
 - Enable automatic dump data set allocation 
 - Configure CEA
 - Ensure SYSREXX is setup and active
 - Add Incident Log plugin

Enable automatic dump data set allocation - Discover and review current settings

Actions

State Filter

No. Filter

Title Filter

Automated Filter

Owner Filter

Skill Category Filter

Assignees Filter

In Progress

10.4

(Optional) Configure dump analysis and elimination (DAE)

In Progress

10.5

Configuring automatic dump data set allocation

Ready

10.5.1

Discover automatic dump data set allocation

No

Accept

Perform

Skip

Override Fail

Status

Over

Res

Assi

In Pr

In Pr

Coll

In Pr

Unassigned

Total: 92, Selected

Workflow to configure z/OSMF plugins

10.5.2. Review whether automatic dump dataset allocation is already configured

Properties for Workflow Step 10.5.2. Review whether automatic dump dataset allocation is already configured

General

Details

Notes

Perform

Status

Input Variables

Input Variables

Current configuration of auto-dump

Review Instructions

Input Variables - Current configuration of auto-dump

Enter the variable values for this input category.

☒ Auto-dump active - Is auto-dump allocation active:

Naming convention - Naming convention to be used for automatic dump data set allocation:

☒ Volume - Storage type for saving dump data sets:

Volume serial - Volumes to be used for saving dump data sets:

☐ SMS - Storage type for saving dump data sets:

SMS storage class - SMS storage class to be used for saving dump

Automatic dump data set allocation is already active

Current naming rule

Current storage option

Enable automatic dump data set allocation - Change naming rule

Welcome x Workflows x

Workflows > Workflow to configure z/OSMF plugins > 10.5.3. Set up dump naming convention

Properties for Workflow Step 10.5.3. Set up dump naming convention

General Details Notes **Perform** Status Input Variables

- ✓ Input Variables
 - ➔ **Configuration for auto-dump**
 - ✓ Review Instructions
 - ✓ Create JOB statement
 - ✓ Review JCL
 - ✓ Submit and Save JCL

Input Variables - Configuration for auto-dump

Enter the variable values for this input category.

*Naming convention - Naming convention to be used for automatic dump data sets: ⓘ

&VMUSERID..DUMP.D&YYMMDD..T&HHMMSS..&SYSN

Welcome x Workflows x

Workflows > Workflow to configure z/OSMF plugins > 10.5.3. Set up dump naming convention

Properties for Workflow Step 10.5.3. Set up dump naming convention

General Details Notes **Perform** Status Input Variables

- ✓ Input Variables
 - ✓ Configuration for auto-dump
 - ✓ Review Instructions
 - ✓ Create JOB statement
 - ➔ **Review JCL**
 - ✓ Submit and Save JCL

Review

Review the generated JCL, then click **Next** to proceed. ⓘ

```
//IZUW      B (ACCTINFO),CLASS=A,MSGCLASS=0,
//          MSGLEVEL=(1,1),REGION=0M,NOTIFY=IBMUSER
//*JOBPAR   SYSAFF=SY1
//*****
//          STEP - Create temporary directory using BPXBATCH
//*****
//          EXEC PGM=BPXBATCH
//          *
//STDOUT    DD SYSOUT=*
//          *
//STDERR     DD SYSOUT=*
//          *
//STDPARM   DD *
```

Edit JCL ⓘ Maximum record length: ⓘ 1,024


< Back Next > Save Finish Cancel

Benefit 1:
Initial value will be the current setting

Benefit 2:
Script does the actual customization for you

Customize embedded JCL explicitly

Configure z/OS for z/OSMF Incident Log using workflow

- Process is implemented to several steps in one workflow:
 - Create workflow instance
 - Be familiar with the workflow
 - Assign steps to corresponding people for execution
 - Check if steps are ready to be performed
 - Check current z/OS and z/OSMF configuration for planning
 - Customize z/OS for Incident Log (Discover → Review → Customization)
 - Configure CIM
 - Configure Log snapshot
 - Enable Sysplex Dump Directory
 - Configure DAE
 - Enable automatic dump data set allocation
 - Configure CEA
 - Ensure SYSREXX is setup and active
 - Add Incident Log plugin 

Follow the guide of workflow until finish configuration for Incident Log

Welcome x Workflows x

Workflows Workflow to configure z/OSMF plugins Help

Workflow to configure z/OSMF plugins

Description:
z/OS customization for e

Percent complete:

100%

Owner:
ibmuser

Steps complete:
70 of 70

Notes | His

System:
PLEX1.SY1

Status:
Complete

Status:
Complete

Workflow Steps

Actions

Search

	State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input type="checkbox"/>	Complete	1	Highlights and pre-reqs of Config Workflow	No	ibmuser	System Programmer	ibmuser
<input type="checkbox"/>	Complete	2	Discovery before configuration				
<input type="checkbox"/>	Complete	3	Review related z/OS and z/OSMF configuration	No	ibmuser	System Programmer	ibmuser
<input type="checkbox"/>	Complete (Override)	4	Configuration Assistant plug-in				
<input type="checkbox"/>	Complete (Override)	5	ISPF plug-in				
<input type="checkbox"/>	Complete (Override)	6	Common Information Model (CIM) server				
<input type="checkbox"/>	Complete (Override)	7	Workload Management plug-in				
<input type="checkbox"/>	Complete (Override)	8	Resource Monitoring plug-in				
<input type="checkbox"/>	Complete (Override)	9	Capacity Provisioning plug-in				
<input type="checkbox"/>	Complete	10	Incident Log plug-in				
<input type="checkbox"/>	Complete (Override)	11	Add Plug-ins into zOSMF Server				

Total: 92, Selected: 0

Return to Workflows


Refresh

Last refresh: Jul 16, 2014, 2:46:24 PM local time (Jul 16, 2014, 6:46:24 AM GMT)

© Copyright IBM Corporation 2014

62

Agenda

- Overview of z/OSMF Workflows
- Using Workflows to configure z/OSMF Incident Log
 - Overview
 - Configuring z/OS Requirements for z/OSMF Incident Log (manual process)
 - Configuring z/OS Requirements for z/OSMF Incident Log using the z/OSMF Configuration Workflow
- **Using Workflows to configure zEDC**
 -  **Overview**
 - Configuring z/OS Requirements for zEDC (manual process)
 - Configuring z/OS Requirements for zEDC using the zEDC Workflow

zEDC Express feature

- **IBM Enterprise Data Compression (zEDC) is a new capability of z/OS V2.1**
 - IBM zEnterprise Data Compression (zEDC) offers a compression acceleration solution designed for high performance, low latency compression with little additional overhead.
- **Designed to support high performance data serving by providing:**
 - A tenfold increase in data compression rates with much lower CP consumption than using software compression, including software compression that exploits the System z Compression Call instruction (System z hardware data compression)
 - A reduction in storage capacity required (creation of storage “white space”) that in turn reduces the cost of storage acquisition, deployment, operation, and management
- **Configuration:**
 - One compression accelerator per PCIe I/O feature card
 - Supports concurrent requests from up to 15 LPARs
 - Sustained aggregate 1 GBps compression rate when given large block inputs
 - Up to 8 features supported by zBC12 or zEC12
 - **Minimum two feature configuration recommended**

zEDC Express Feature

- **Exploitation and Compatibility**
 - **z/OS V2.1**
 - SMF logger
 - DFSMS BSAM/QSAM extended format data sets
 - DFSMSdss and DFSMSHsm plans to exploit zEDC by the end of the 3Q14
 - Notes:
 - z/OS V1.13 and V1.12 - Software support for decompression only, no hardware compression/decompression acceleration support
 - z/VM V6.3 support for z/OS V2.1 guest: June 27, 2014
- **IBM 31-bit and 64-bit SDK71 for z/OS Java Version 7 Release 1 and higher, IBM 31-bit and 64-bit SDK7 for z/OS SR7 and higher**
- **IBM Encryption Facility for z/OS V1.2**
- **IBM Sterling Connect:Direct for z/OS V5.2**
- **IBM Security zSecure V2.1**
- **IBM WebSphere MQ for z/OS V8**
 - COMPMSG(ZLIBFAST)

IBM zEnterprise Data Compression

Improved Management of Data with zEDC Compression



```
1001010101110101001010110110100101
110101011010101001101011010100101
01011011010101010101101101010110
1010010101011101
01011010101101010
101010110110101010
```

New! Additional compression capabilities extend the reach of zEDC Express

- IBM Encryption Facility for z/OS can help you to reduce encryption time by using hardware compression (zlib-based, industry-standard)
- Save disk and reduce CPU requirements with new zEDC capabilities for sequential data set compression and support for Java™ Technology Edition, Version 7 Release 1

zBNA tool helps analyze SMF records to identify candidates for compression

www.ibm.com/support/techdocs/atsmastr.nsf/WebIndex/PRS5132

New! IBM Sterling Connect:Direct for z/OS Standard Edition V5.2

- Facilitates high-speed data transfer across the enterprise
- Optimized for high-volume, secure file delivery between System z and distributed systems
- Data transfer at channel speed; Supports DS8000® series, EAV large volumes
- zEDC compression can help you save more data
 - Helps meet compliance needs
 - Helps with more current data for analysis

BSAM/QSAM*

Compress data up to 4X, with up to 80% reduced CPU *

Java 7**

Up to 90% reduction in CPU time with up to 74% reduction in elapsed time vs. using zlib software

Managed File Transfer - Sterling Connect :Direct for z/OS 5.2 ***


Achieve up to 80% reduction in elapsed time for managed z/OS to z/OS file transfers

*These results are based on projections and measurements completed in a controlled environment. Results may vary by customer based on individual workload, configuration and software levels

**Exploited through standard Java APIs java.util.zip in the latest releases of Java 7.0.0, and Java V7R1

*** Achieve up to 80% reduction in elapsed time for z/OS to z/OS file transfers with minimal CPU increase. Results vary by data set type and characteristics of the data

Agenda

- Overview of z/OSMF Workflows
- Using Workflows to configure z/OSMF Incident Log
 - Overview
 - Configuring z/OS Requirements for z/OSMF Incident Log (manual process)
 - Configuring z/OS Requirements for z/OSMF Incident Log using the z/OSMF Configuration Workflow
- **Using Workflows to configure zEDC**
 - Overview
 -  **– Configuring z/OS Requirements for zEDC (manual process)**
 - Configuring z/OS Requirements for zEDC using the zEDC Workflow

Configuring z/OS Requirements for zEDC (manual process)

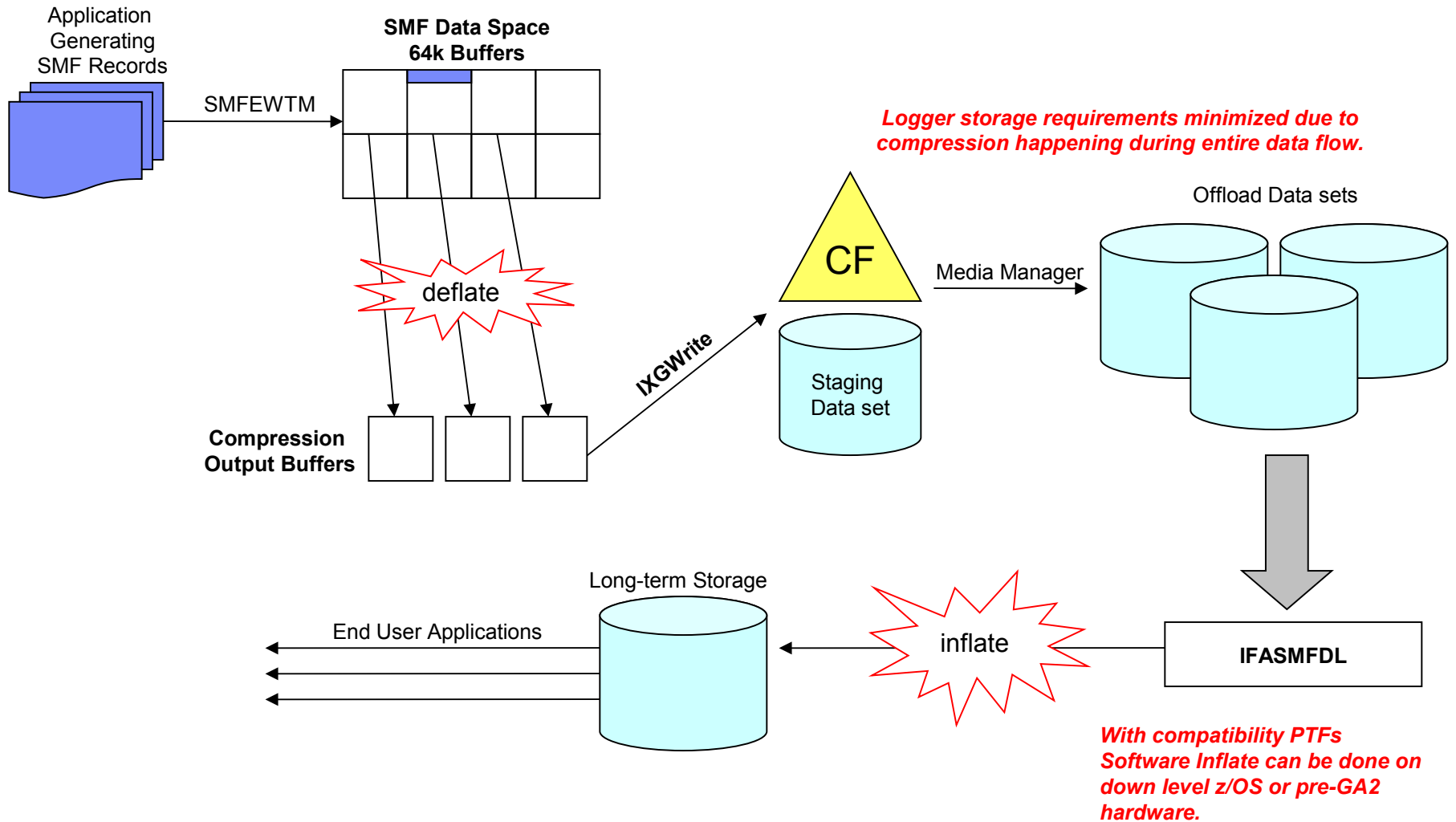
- Order hardware feature
- License software feature
- Define FUNCTION definition in IOCP (defined by HCD or HCM)
 - A PCIe function is defined by a unique identifier, the function ID (FID).
 - Each function specifies a function type (ROCE or ZEDC-EXPRESS) and a physical channel identifier PCHID.
 - Multiple functions may be specified to the same PCHID value provided that each of these functions defines a unique virtual function (VF) number.
 - Select the LPARs that should be entitled to access the function.
 - Activate the new IODF with zEDC Express devices defined.
 - Use the D PCIE and D PCIE,PFID=xxxx command to verify that the zEDC Express devices are available to z/OS.
- Enable the z/OS V2.1 zEDC software feature (this must be done prior to IPL)
 - Specified in IFAPRDxx member of PARMLIB

```
PRODUCT OWNER('IBM CORP')
  NAME('z/OS')
  ID(5650-ZOS)
  FEATURENAME(ZEDC)
  VERSION(*) RELEASE(*) MOD(*)
  STATE(ENABLED)
```

Configuring z/OS Requirements for zEDC (manual process)

- Exploit zlib data compression in applications
 - A modified version of the zlib compression library is used by zEDC.
 - The IBM-provided zlib compatible C library provides a set of wrapper functions that use zEDC compression when appropriate and when zEDC is not appropriate, software-based compression services are used.
- 1. Link or re-link applications to use the IBM-provided zlib.
- 2. Protect and authorize the use of zlib
 - Access to zEDC is protected by the SAF FACILITY resource class FPZ.ACCELERATOR.COMPRESSION.
 - Give READ access to FPZ.ACCELERATOR.COMPRESSION to the identity of the address space(s) that the zlib task will run in.
- 3. Verify (and adjust if necessary) the input buffer size
 - Ensure that adequately sized input buffers are available.
 - If the input buffer size falls below the minimum threshold, data compression occurs using zlib software compression and not zEDC.
 - This threshold can be controlled at a system level using the PARMLIB member IQPPRMxx.

SMF Data Flow Overview




Configuring z/OS Requirements for zEDC (manual process)

Enable SMF use of zEDC

- SMF records must be directed to a CF or DASD log stream
- Specify the new COMPRESS option on one or more log stream definitions (LSNAME) or DEFAULTLSNAME
 - Option to specify amount of memory to permanently fix for performance
 - Note: For testing purposes, the same SMF record can be directed to multiple log streams and compression can be enabled on one of them.
- IFASMF DL requirements
 - No changes required if zEDC devices are available; they will be used automatically
 - Specify the SOFTINFLATE option to process compressed data when there are no zEDC devices available
 - Requires z/OS PTF to provide software inflate (decompression) capability for z/OS 1.12 and 1.13 systems
 - If the SOFTINFLATE option is not specified on a system without zEDC devices an error will occur and no records will be deleted from the SMF logstream
- Enable the following SMF records to collect performance information:
 - SMF 23 – SMF buffer usage, number of records written etc.
 - SMF 88 - System logger log stream size, frequency of offload

Agenda

- Overview of z/OSMF Workflows
- Using Workflows to configure z/OSMF Incident Log
 - Overview
 - Configuring z/OS Requirements for z/OSMF Incident Log (manual process)
 - Configuring z/OS Requirements for z/OSMF Incident Log using the z/OSMF Configuration Workflow
- **Using Workflows to configure zEDC**
 - Overview
 - Configuring z/OS Requirements for zEDC (manual process)
 -  **– Configuring z/OS Requirements for zEDC using the zEDC Workflow**

Structure of zEDC workflow

IBM z/OS Management Facility

Welcome ibmuser

Log out

IBM

Welcome Workflows

Workflows z/OS V2R1 zEnterprise Data Compression Setup Workflow

Help

z/OS V2R1 zEnterprise Data Compression Setup Workflow

Notes | History

Description:
z/OS V2R1 zEnterprise Data Compression Setup Workflow

Owner:
ibmuser

System:
PLEX1.SY1

Steps complete:
0 of 13

Status:
In Progress

Percent complete:
0%

Workflow Steps

Actions

State Filter	No. Filter	Title Filter	Skill Category Filter	Assignees Filter
In Progress	1	Configure a zEDC Express Adapter		
In Progress	1.1	IODF Updates		
Ready	1.1.1	IODF Configuration Changes	No	ibmuser
Not Ready	1.1.2	Perform Dynamic Activate	No	ibmuser
Ready	1.2	(Optional) Configure zEDC Express devices online and offline	No	ibmuser
Ready	1.3	(Optional) Confirm zEDC Express is active	No	ibmuser
Ready	2	Enable the zEDC z/OS Software Feature	No	ibmuser
In Progress	3	Update an Application to use zEDC enabled zlib		
Not Ready	3.1	Re-link applications		ibmuser
Not Ready	3.2	Provide System Authorization Facility (SAF) Access		ibmuser
Not Ready	3.3	Verify application input buffer sizes		ibmuser
Not Ready	3.4	Adjust Pre-allocated Buffer sizes	No	ibmuser
Not Ready	3.5	(Optional) Disable zEDC for an application	No	ibmuser
In Progress	4	Enable SMF Compression		
Not Ready	4.1	Update SMFPRMxx		ibmuser
Not Ready	4.2	Review IFASMFDDL Procedure		ibmuser
Not Ready	4.3	(Optional) Verify with SMF23 Records		ibmuser

Enable hardware and software features

Making app exploits zEDC enabled zlib

Enable SMF compression using zEDC

Total: 17, Selected: 0

Return to Workflows

Refresh

Last refresh: Jul 16, 2014, 3:07:08 PM local time (Jul 16, 2014, 7:07:08 AM GMT)

Guided steps

Properties for Workflow Step 2. Enable the zEDC z/OS Software Feature

General

Details

Notes

Perform

Status

Input Variables

Title:
Enable the zEDC z/OS Software Feature

Description:

The software feature for z/OS zEDC must be enabled before any usage of zEDC is possible. The `IFAPRDxx` parmlib member must be updated with the following:

PRODUCT	OWNER ('IBM CORP')
	NAME ('Z/OS')
	FEATURENAME ('ZEDC')
	ID (5650-ZOS)
	VERSION (*)
	RELEASE (*)
	MOD (*)
	STATE (ENABLED)

Note that this must be setup at IPL time to take effect.

Summary (1 of 2): z/OSMF Workflow Application

- **The z/OSMF Workflow application is a framework supports user (Workflow provider) to define a guided flow (workflow) through steps to accomplish a task.**
- **The z/OSMF Workflow application is useful to:**
 - Assist people unfamiliar with how to perform a given task, or a task that they perform rarely
 - Ensure that all tasks are performed in the right order and only when their dependencies have been met
 - Ensure that all steps are completed
 - Even if many of the tasks have been delegated to a number of different colleagues
 - Monitor and track progress toward the completion of the task
 - Provide a history (audit trail) of the steps performed for a task
 - Perform the same tasks on multiple systems
 - Enabling a function (e.g. zEDC)
 - Migrating a new release of software (e.g., z/OS)

Summary (2 of 2): z/OSMF Workflow Samples

- **Simple workflow to create user and connect it to a group**
- **z/OSMF Configuration Setup**
 - **A number of steps are required to verify or setup the prerequisites for z/OSMF plug-ins (applications)**
 - **IBM provides a workflow to assist in the verification and setup of the z/OS prerequisites as well as adding the plug-ins to z/OSMF**
 - **In this session you saw how to use z/OSMF Workflow to configure the z/OS requirements for z/OSMF Incident Log**
- **zEDC Configuration Setup**
 - **IBM provides an as-is workflow that can be used to assist in configuring z/OS requirements for enabling zEDC**

Advertisements

- **Session 15605: z/OSMF Roundtable**

(Thursday, August 7, 2014: 12:25 PM-1:15 PM, Room 310)

- **Hands-On lab sessions:**

Session 15815: z/OSMF Hands-On Labs - Choose Your Own - II

(Thursday, August 7, 2014: 1:30 PM-2:30 PM, Room 301)

Session 15814: z/OSMF Hands-On Labs - Choose Your Own - I

(Friday, August 8, 2014: 11:15 AM-12:30 PM, Room 301)

- z/OS SDSF using z/OSMF
- z/OSMF Incident Log
- z/OSMF Resource Monitoring
- z/OSMF Software Deployment
- z/OSMF Software Management
- **z/OSMF Workflows (Using z/OSMF for a z/OS V2.1 Migration)**
- z/OSMF Workload Management

Thank You

