

z/OS 3.1 IBM Education Assistant

Solution Name: zMSC New Enhancements 1.2, zMSC New Sample Services 1.2

Solution Element(s): z/OS Management Services Catalog

July 2023



Agenda

- Trademarks
- Terminology
- Objectives
- Overview
- Usage & Invocation
- Interactions & Dependencies
- Upgrade & Coexistence Considerations
- Installation & Configuration
- Summary
- Appendix

Trademarks

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

Terminology

- **Services** – Services help you perform management tasks on a z/OS system. You provide values and information the service needs. When you run the service, it completes the steps automatically. Administrators create services and publish them to the Catalog for other users to run.
- **Sample services** – Services created by IBM and included in z/OS Management Services Catalog for customization and use (Create a zFS file system, Mount a zFS file system, Delete an alias from a catalog, and more).
- **Service submissions** – An instance of a service that runs on a target system.
- **Categories** – Created by Administrators to organize and group services in the Catalog.
- **Target system** – The z/OS systems on which a service submission runs. Target systems are enabled by Administrators in Global settings and are obtained from the z/OSMF Systems app.

Objectives

- Problem Statement / Need Addressed / User Stories:
 - **Management Complexity:** z/OS management is complex, especially for system programmers who are new to the platform. Even routine tasks are manual and involve institutional knowledge and processes that often take years to learn.
 - **Skills Transfer and Fewer Errors:** The average years to retirement for mainframe personnel sits at three years and continues to decrease. As new system programmers are onboarded, the learning curve needs to decrease for them to start contributing quickly and with fewer errors.
- Solution:
 - z/OS Management Services Catalog
- Benefit / Value:
 - An early tenure Systems Programmer can perform z/OS management tasks by using a modern interface that does not expose them to the complexities of ISPF, command line, operator console, or JCL jobs.
 - An experienced Systems Programmer can reduce the complexity of their organization's z/OS management processes so they can transfer their knowledge to the next generation.

Objectives

This solution consists of two initiatives.

Services help users streamline repetitive and frequent tasks as well as complex, infrequent tasks. z/OS Management Services Catalog will provide the following new sample services to help system programmers accomplish their z/OS management tasks:

- New capabilities for z/OS Management Services Catalog 1.2
 - Service creation enhancements
 - Service management enhancements
- New Sample Services for z/OS Management Services Catalog 1.2
 - List the Attributes of a User ID
 - Rename a zFS file system

Objectives

The new capabilities include:

Service creation enhancements

- System programmers can now share or move services from one system to another rather than needing to rebuild them in order to simplify the service creation process.
- System programmers can now preview the submission experience without having to test the service.
- Support file selection from the web browser when selecting the workflow definition file instead of typing in the full file path.

Service management enhancements

- The category of a published service can now be changed from the administration table.
- Support has been added for calling secondary workflows from a service.
- System programmers now have the ability to select and move multiple inputs at once during service creation.

Overview

- Who (Audience)
 - Seasoned System Programmers and Early tenure System Programmers
- What (Solution)
 - z/OS Management Services Catalog is designed to transform how z/OS systems programmers manage their z/OS environments. With the ability to translate z/OS management processes into modern services based on workflows, system programmers can independently complete tasks simply and with fewer errors. zMSC will provide a number of new enhancements which will allow greater flexibility in performing z/OS tasks. z/OS Management services will provide new sample services in addition to existing ones.
- Wow (Benefit / Value, Need Addressed)
 - New features enable users to share services across multiple systems and allow them to make their services extensible for calling secondary workflows.
 - Providing users the ability to search and select workflow definition files at service creation and workflow editor enhancements.
 - Users can change of category for published services from Administration and Service Details.
 - Users can Preview a service without testing it.
 - Support has been added for calling secondary workflows from a service.
 - System programmers can now select and move multiple inputs at once during service creation.

Usage & Invocation

Import and Export

Management Services Catalog

CatalogActivityHistoryAdministration

New service

Help

Administration

Last refreshed a minute ago

Filter by statusFilter by categorySearch

Service name

Status

Category

Last modified

<input type="checkbox"/>	Create a zFS file system copy 1	<div>Suspended</div>	Sample services	<div>Feb 21, 2023, 11:43:14 AM CST</div>
<input type="checkbox"/>	Replace SMP/E RECEIVE ORDER certificate copy 1	Archived	Sample services	<div>Feb 21, 2023, 11:43:07 AM CST</div>
<input type="checkbox"/>	Delete a RACF user ID copy 1	Published	Sample services	<div>Feb 21, 2023, 11:43:03 AM CST</div>
<input type="checkbox"/>	Create a zFS file system	Unpublished	Sample services	<div>Feb 21, 2023, 11:25:08 AM CST</div>
<input type="checkbox"/>	Replace SMP/E RECEIVE ORDER certificate	Unpublished	Sample services	<div>Feb 21, 2023, 11:23:58 AM CST</div>
<input type="checkbox"/>	Delete a RACF user ID	Unpublished	Sample services	<div>Feb 21, 2023, 11:23:57 AM CST</div>
<input type="checkbox"/>	Expand a zFS file system	Unpublished	Sample services	<div>Feb 21, 2023, 11:23:56 AM CST</div>
<input type="checkbox"/>	Unmount a zFS file system	Unpublished	Sample services	<div>Feb 21, 2023, 11:23:56 AM CST</div>
<input type="checkbox"/>	Create a RACF digital certificate	Unpublished	Sample services	<div>Feb 21, 2023, 11:23:55 AM CST</div>
<input type="checkbox"/>	Encrypt a zFS file system	Unpublished	Sample services	<div>Feb 21, 2023, 11:23:55 AM CST</div>
<input type="checkbox"/>	Delete an alias from a catalog	Unpublished	Sample services	<div>Feb 21, 2023, 11:23:54 AM CST</div>
<input type="checkbox"/>	Mount a zFS file system	Unpublished	Sample services	<div>Feb 21, 2023, 11:23:53 AM CST</div>

Items per page: 251-12 of 12 items

1 of 1 page

https://pev187.pok.ibm.com/administration/

Usage & Invocation

Service Details- Preview a service

Management Services Catalog

CatalogActivityHistoryAdministration

New service

Help

Administration

Last refreshed a few seconds ago

Filter by status

Filter by category

Search

New service

<input type="checkbox"/> Service name	Status	Category	Last modified
<input type="checkbox"/> Create a zFS file system	Unpublished	Sample services	Feb 20, 2023, 02:43:43 PM CST
<input type="checkbox"/> Create a zFS file system copy 1	Published	Sample services	Feb 20, 2023, 02:36:48 PM CST
<input type="checkbox"/> Replace SMP/E RECEIVE ORDER certificate	Unpublished	Sample services	Feb 19, 2023, 06:08:04 AM CST
<input type="checkbox"/> Delete a RACF user ID	Unpublished	Sample services	Feb 19, 2023, 06:08:04 AM CST
<input type="checkbox"/> Expand a zFS file system	Unpublished	Sample services	Feb 19, 2023, 06:08:03 AM CST
<input type="checkbox"/> Unmount a zFS file system	Unpublished	Sample services	Feb 19, 2023, 06:08:03 AM CST
<input type="checkbox"/> Create a RACF digital certificate	Unpublished	Sample services	Feb 19, 2023, 06:08:02 AM CST
<input type="checkbox"/> Encrypt a zFS file system	Unpublished	Sample services	Feb 19, 2023, 06:08:02 AM CST
<input type="checkbox"/> Delete an alias from a catalog	Unpublished	Sample services	Feb 19, 2023, 06:08:01 AM CST
<input type="checkbox"/> Mount a zFS file system	Unpublished	Sample services	Feb 19, 2023, 06:08:01 AM CST

Items per page: 25

1-10 of 10 items

1 of 1 page

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Usage & Invocation

- Data set and File Search

The screenshot shows the 'Administration' tab in the 'Management Services Catalog'. The page is for creating a new service, with a 'Service name' field at the top. Below this, there are tabs for 'Details' (selected) and 'Inputs'. The 'Details' tab contains instructions on how to provide a workflow, a text input for the 'Workflow definition' with a 'Browse' button, a link to 'Use a workflow variable input file', a 'Service name' field with a help icon, a 'Service category' dropdown menu, and a 'Start building' button with a right arrow. The top navigation bar includes 'Catalog', 'Activity', 'History', and 'Administration'. The right side of the page has a 'New service' dropdown, a settings gear, a help icon, and a 'Help' link. A 'Service name' field is also present at the top right, and a 'Next' button is located at the bottom right of the 'Details' tab.

Management Services Catalog

Catalog Activity History Administration

New service

← Administration

Service name

Help

Unpublished

Details Inputs

Next

Provide a workflow

Services are built using workflow definitions. Workflow definitions define variables and steps. Values for variables are typically entered as inputs each time someone submits the service. You can assign a hard-coded value to any variable. Hard-coded values cannot be changed and are used each time the service runs. Variables assigned to runAsUser steps must have hard-coded values. [Learn about Workflows](#)

Workflow definition

Enter data set or file path

Browse

[Use a workflow variable input file](#)

Service name ⓘ

Enter name

Service category ⓘ

Select category

Start building →

Usage & Invocation

Category change from Administration table and Service Details

Management Services Catalog

CatalogActivityHistoryAdministration

New service

Help

Administration

Last refreshed a few seconds ago

Filter by status

Filter by category

Search

New service

<input type="checkbox"/>	Service name	Status	Category		Last modified	
<input type="checkbox"/>	Create a zFS file system	Unpublished	Sample services	▼	Feb 20, 2023, 02:13:16 PM CST	⋮
<input type="checkbox"/>	Create a zFS file system copy 3	Suspended	Sample services	▼	Feb 20, 2023, 02:13:06 PM CST	⋮
<input type="checkbox"/>	Create a zFS file system copy 2	Archived	Sample services	▼	Feb 20, 2023, 02:12:50 PM CST	⋮
<input type="checkbox"/>	Create a zFS file system copy 1	Published	Sample services	▼	Feb 20, 2023, 02:12:42 PM CST	⋮
<input type="checkbox"/>	Replace SMP/E RECEIVE ORDER certificate	Unpublished	Sample services	▼	Feb 19, 2023, 06:08:04 AM CST	⋮
<input type="checkbox"/>	Delete a RACF user ID	Unpublished	Sample services	▼	Feb 19, 2023, 06:08:04 AM CST	⋮
<input type="checkbox"/>	Expand a zFS file system	Unpublished	Sample services	▼	Feb 19, 2023, 06:08:03 AM CST	⋮
<input type="checkbox"/>	Unmount a zFS file system	Unpublished	Sample services	▼	Feb 19, 2023, 06:08:03 AM CST	⋮
<input type="checkbox"/>	Create a RACF digital certificate	Unpublished	Sample services	▼	Feb 19, 2023, 06:08:02 AM CST	⋮
<input type="checkbox"/>	Encrypt a zFS file system	Unpublished	Sample services	▼	Feb 19, 2023, 06:08:02 AM CST	⋮
<input type="checkbox"/>	Delete an alias from a catalog	Unpublished	Sample services	▼	Feb 19, 2023, 06:08:01 AM CST	⋮
<input type="checkbox"/>	Mount a zFS file system	Unpublished	Sample services	▼	Feb 19, 2023, 06:08:01 AM CST	⋮

Items per page: 25

1-12 of 12 items

1 of 1 page

Usage & Invocation

Service details – Multiselect movement improvements

Management Services Catalog

CatalogActivityHistoryAdministration

New service

Help

← Administration

Create a zFS file system copy 1

Last saved on 2/23/2023, 2:38:19 PM

Unpublished

Details

Inputs

General

General

Prior to running this service, determine whether to allocate the new zFS using either SMS or Non-SMS managed volumes. If SMS managed, determ... [Show all](#)

Data set name

Enter a fully-qualified data set name for the zFS file system.

Enter value

Catalog name (optional)

Enter the fully-qualified catalog name to define the data set in. Only use this if you want to override the default catalog.

Enter value

Encrypt file system (optional)

Select True to encrypt the file system. Select False to not encrypt the file system.

☐ True

☒ False (Default)

Iftrue

Page details

Title

General

Description (optional)197/1280

Prior to running this service, determine whether to allocate the new zFS using either SMS or Non-SMS managed volumes. If SMS managed, determine the STORCLASS. If Non-SMS, determine the

New page

Usage & Invocation

Previously, if a workflow contained a called workflow step, the workflow would be rejected at service creation time. With the new updates, this restriction has been lifted and now services can have a calling step.

Step Details

Overview

Prerequisites

Instructions

Type

Template Contents

The step type indicates the type of processing that the step performs and related details.

Step Type:

Calling Step

File Template

Inline Template

REST API

Instructions Only

Calling Step

Call Workflow

Workflow

Workflow

Interactions & Dependencies

- Software Dependencies
 - z/OSMF Core (APAR PH39637)
 - z/OSMF Configuration (APAR PH41334)
 - z/OSMF Workflow (APAR PH43962)
 - z/OSMF zMSC 1.1.4 (APAR PH52183)
- Hardware Dependencies
 - None
- Exploiters
 - None

Upgrade & Coexistence Considerations

- None

Installation & Configuration

- Standard SMP/E installation of the PTF for PH48733 and the Core, Configuration and Workflow prerequisite PTFs.

- Initialization

- Optional plug-in must be enabled using [z/OSMF General Settings](#)
- Starts automatically by z/OSMF on subsequent server restarts.
- Can also be disabled using [z/OSMF General Settings](#)
- Enabling/disabling requires a server restart

Optional Services

Enable All

Capacity Provisioning	<input checked="" type="checkbox"/> Enabled
IBM z/OS Encryption Readiness Technology (zERT) Network Analyzer	<input type="checkbox"/> Disabled
ISPF	<input checked="" type="checkbox"/> Enabled
Incident Log	<input checked="" type="checkbox"/> Enabled
Network Configuration Assistant	<input checked="" type="checkbox"/> Enabled
Resource Monitoring	<input checked="" type="checkbox"/> Enabled
Software Management	<input checked="" type="checkbox"/> Enabled
Storage Management	<input type="checkbox"/> Disabled
Sysplex Management	<input checked="" type="checkbox"/> Enabled
Workload Management	<input checked="" type="checkbox"/> Enabled
z/OS Management Services Catalog	<input type="checkbox"/> Disabled

To disable this function completely, you must restart the z/OSMF server. Before doing so, verify that the function is not enabled in the IZUPRMxx parmlib member, which causes it to become active again when the z/OSMF server is restarted. For greater flexibility, it is recommended that you only use the z/OSMF General Settings page

Summary

- The following two initiatives for z/OS Management Services Catalog have been discussed:
 - Two new sample services
 - New functionality:
 - Import/Export services
 - Preview a Service
 - Category Management Enhancements
 - Use of File and Data Search to select files/directories
 - Multi-input movement during service creation

Appendix

Publications

- IBM z/OS Management Facility Configuration Guide
- IBM z/OS Management Facility Programming Guide
- Content Solutions page: <https://www.ibm.com/support/z-content-solutions/management-services/>