z/OS V1R13

z/OSMF overview

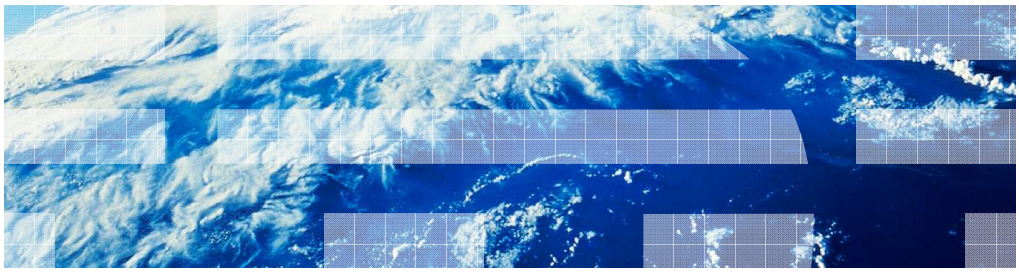


Table of contents

Session objectives

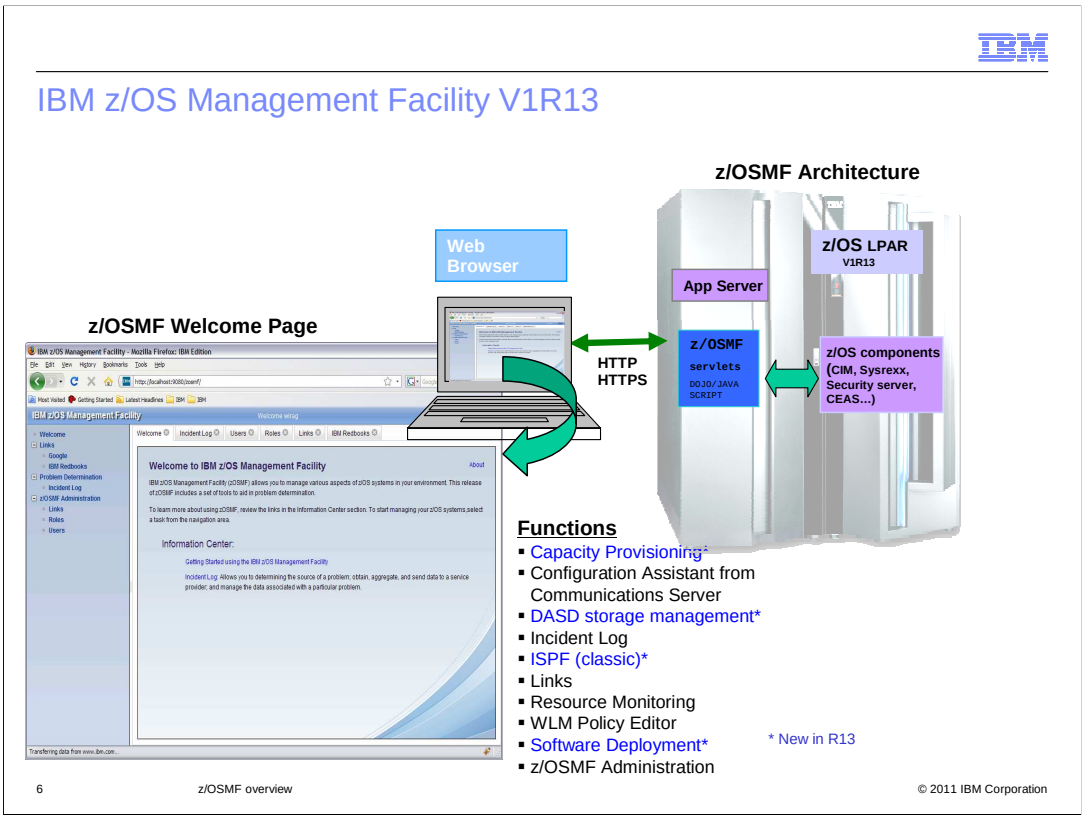
- This session will cover the following points
  - What are the focus areas for z/OSMF V1R13
  - What are the new functions in z/OSMF V1R13
    - What are the benefits
  - What are the enhancements to existing functions
  - Explain any migration issues or concerns
  - Identify new/changed installation procedures for this item
  - Indicate list of publications and references

z/OSMF V1R13 functionality

- *z/OSMF new management tasks*
  - Capacity provisioning
  - Software deployment
  - Storage management
  - ISPF classic interface
- *z/OSMF new base capabilities*
  - Application linking
  - Authorization update
  - REST API for job management
- *z/OSMF enhancements*
  - Management tasks
    - Configuration assistant
    - Incident log
    - Workload management
    - Resource monitoring and system status
  - Base enhancements
    - Currency
    - Configuration and setup

Overview

- **Problem statement / need addressed:**
  - Management of z/OS® needs to be easier for new and experienced system programmers
  - Deploying of installed software requires many manual steps
  - Adding storage volume today involves multiple complex and error prone tasks
- **Solution:**
  - Provide simpler and consistent interface to manage the cloning of installed software
  - Simplify the task of adding storage volume to SMS pool storage via a single, simple interface
  - Enhance existing functions, leverage z/OS security further and enable more seamless task flow.
- **Benefit:**
  - z/OSMF will make the day to day operations and administration of the mainframe z/OS systems easier to manage for both new and experienced system programmers
  - The focus is to help improve system programmer productivity, and make the functions easier to understand and use.



The IBM z/OS Management Facility is a new product for z/OS introduced in z/OS V1R11. z/OSMF provides support for a modern Web-browser based management console for z/OS Helps system programmers to more easily manage and administer a mainframe system by simplifying day to day operations and administration of a z/OS system More than just a graphical user interface, the z/OS Management Facility is intelligent, addressing the needs of a diversified skilled workforce and maximizing their productivity.. Automated tasks can help reduce the learning curve and improve productivity Embedded active user assistance (such as wizards) guides you through tasks and helps provide simplified operations.

The initial functions (z/OSMF 1.11) include z/OSMF Administration, Incident Log, Configuration Assistant for z/OS Communication Server and Links.

Configuration Assistant from Communication Server

Simplified configuration and setup of TCP/IP policy-based networking functions

Another category on the navigation bar is Links which:

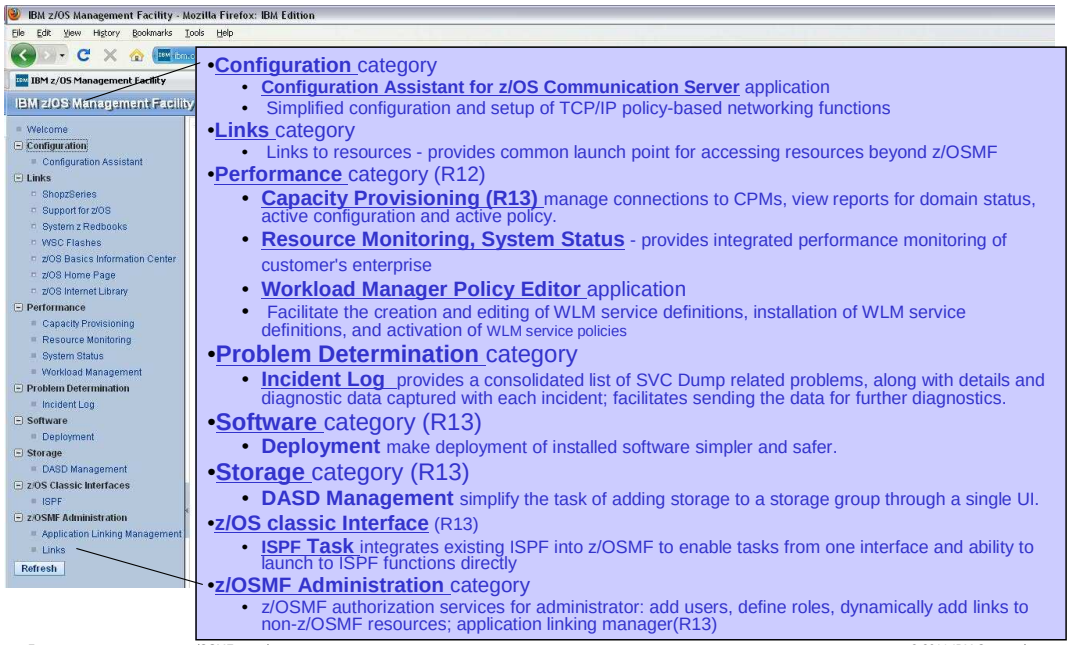
Provides common launch point for accessing resources beyond the IBM z/OS Management Facility.

Some links are pre-defined in the product.

The administrators can define additional links to share commonly used resources for their installation.

Under the Problem Determination category on the navigation bar, you will find the Incident Log task.

Usage and Invocation: z/OSMF V1R13 Welcome Page after login



- **Configuration** category
  - **Configuration Assistant for z/OS Communication Server** application
  - Simplified configuration and setup of TCP/IP policy-based networking functions
- **Links** category
  - Links to resources - provides common launch point for accessing resources beyond z/OSMF
- **Performance** category (R12)
  - **Capacity Provisioning (R13)** manage connections to CPMs, view reports for domain status, active configuration and active policy.
  - **Resource Monitoring, System Status** - provides integrated performance monitoring of customer's enterprise
  - **Workload Manager Policy Editor** application
  - Facilitate the creation and editing of WLM service definitions, installation of WLM service definitions, and activation of WLM service policies
- **Problem Determination** category
  - **Incident Log** provides a consolidated list of SVC Dump related problems, along with details and diagnostic data captured with each incident; facilitates sending the data for further diagnostics.
- **Software** category (R13)
  - **Deployment** make deployment of installed software simpler and safer.
- **Storage** category (R13)
  - **DASD Management** simplify the task of adding storage to a storage group through a single UI.
- **z/OS classic Interface** (R13)
  - **ISPF Task** integrates existing ISPF into z/OSMF to enable tasks from one interface and ability to launch to ISPF functions directly
- **z/OSMF Administration** category
  - z/OSMF authorization services for administrator: add users, define roles, dynamically add links to non-z/OSMF resources; application linking manager(R13)

z/OSMF 1.13 new management tasks

- Capacity provisioning
- Software deployment
- Storage Management
- ISPF Classic Interface

Capacity provisioning

- The Capacity Provisioning Control Center (CPCC) is the user front end to *administer* Capacity Provisioning policies
- Capacity Provisioning Control Center is available as a separate Windows-based stand-alone client.
- Part of the functionality is integrated into z/OSMF V1.13 which will ease the monitoring of CP status for different domains.
- The z/OSMF Capacity Provisioning task simplifies the work of a z/OS CP administrator and provides functionality to
  - manage connections to CPMs
  - view reports for domain status, active configuration and active policy.
- Capacity Provisioning is designed to simplify the management of temporary capacity. The scope of z/OS Capacity Provisioning is to address capacity requirements for relatively short term workload fluctuations for which On/Off Capacity on Demand is applicable. It is not a replacement for the Capacity Management process.

z/OSMF capacity provisioning (V1.13) Benefits

	Without Capacity Provisioning in z/OSMF	With Capacity Provisioning in z/OSMF
View active CP policy and compare with data provided by RMF™ and WLM	Start stand-alone Windows-based client (CPCC) for Capacity Provisioning, connect to CPM and display active configuration report. Open z/OSMF in a browser and inspect RMF and WLM data. **5 – 10 minutes until all tasks are completed**	Use integrated z/OSMF GUI to work with CP, RMF and WLM and compare data provided by each exploiter. **2 – 3 minutes until all tasks are completed**
Operating person needs to reuse existing connection	Connection information like hostname, protocol and port needs to be manually gathered from primary person. Available domains must be known. **Up to 5 minutes**	Usage of shared connection repository in z/OSMF. List of available domains is retrieved form server and shown to user. **No extra time to be spent**
Installation of the capacity provisioning UI application***	Install Windows client (CPCC) on workstation. **Hard to install on managed clients, 20 minutes otherwise**	Centrally managed z/OSMF application available to all authorized users. **No extra time to be spent**

** Based on IBM laboratory results, your results may vary

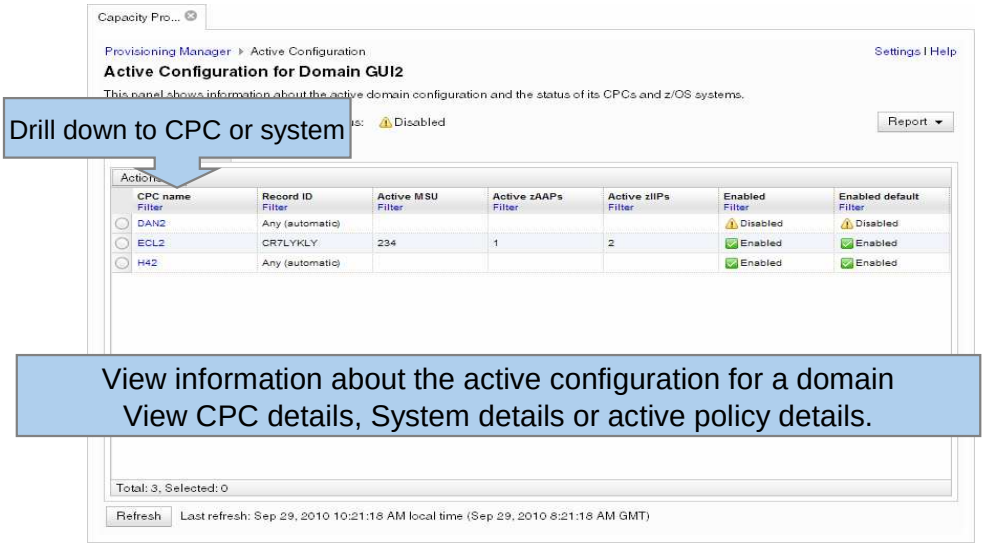
*** Complete set of CPCC functionality is not provided in V1.13

Capacity Provisioning Control Center (CPCC) is available as a separate Windows-based stand-alone client. Part of the functionality is integrated into z/OSMF V1.13 which will ease the monitoring of CP status for different domains. The z/OSMF Capacity Provisioning task simplifies the work of a z/OS CP administrator and provides functionality to manage connections to CPMs and to view reports for domain status, active configuration and active policy.

z/OSMF capacity provisioning – Functional details

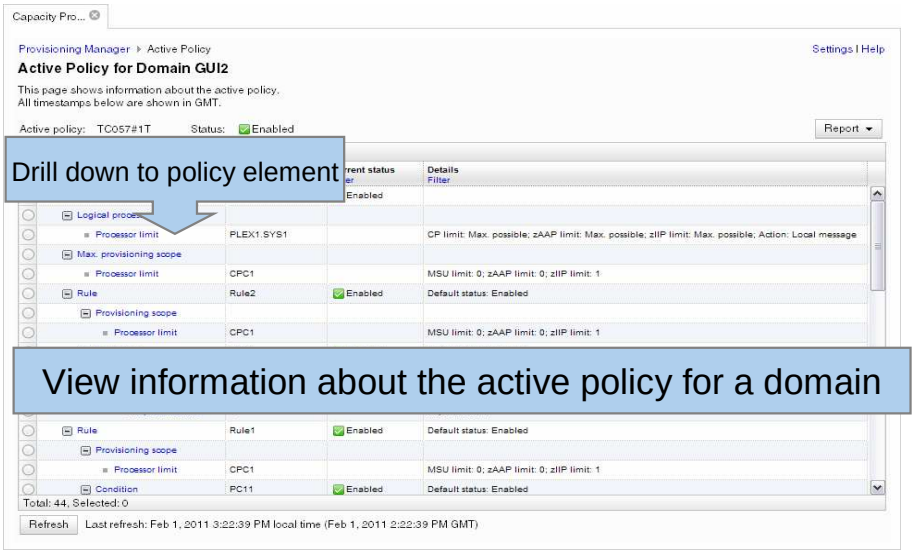
- ***Manage CIM connections to access Capacity Provisioning Manager in a central shared repository***
  Create, modify and delete CIM connections. Local and remote CIM servers can be used.
  Domain status report
  View the status of a domain. The same data is displayed that is retrieved when a REPORT DOMAIN command on the z/OS console is issued.
  Active configuration report
  View the active configuration of a domain. The same data is displayed that is retrieved when a REPORT CONFIGURATION command on the z/OS console is issued.
  Active policy report
  View the active policy of a domain. The same data is displayed that is retrieved when a REPORT POLICY command on the z/OS console is issued.

z/OSMF capacity provisioning active configuration



This is a screen capture of the Capacity provisioning active configuration. You can drill down to CPC or system, View information about the active configuration for a domain and View CPC details, System details or active policy details.

z/OSMF Capacity Provisioning (V1.13)
Active Policy

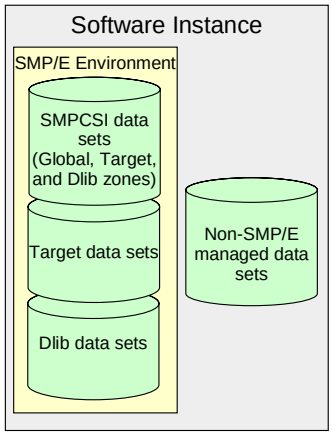


Software Deployment Overview

- **Software Deployment will make deployment of installed software simpler and safer**
  - Replaces manual and error prone procedures with a user friendly application, and
  - Codifies IBM recommended best practices for software deployment.
- **Software deployment key functions**
  - Verify cross system and cross product software requisites are satisfied.
  - Verify software fixes are not regressed.
  - Clone ALL parts of the software
  - Clone the inventory (SMP/E CSI) along with the software
- **Scope of software managed**
  - All SMP/E installed software
    - IBM and ISV software
    - z/OS operating system and related products
    - Subsystems and related products
    - Individual products
    - Service upgrades for all of the above (via complete replacement)
- **Software Deployment will clone software**
  - Locally, either on a single system or system-to-system within a sysplex
  - Remotely, system-to-system across a network and multiple sysplexes

Software Instance

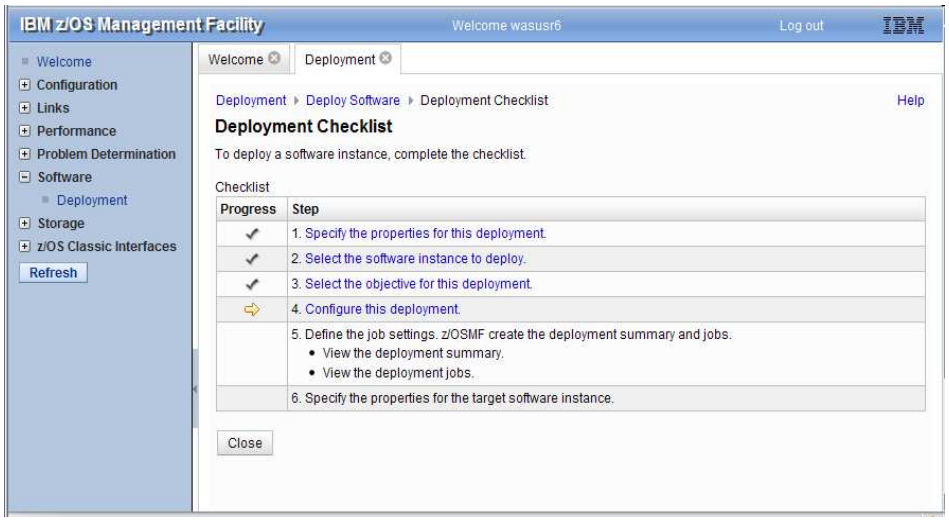
- A software instance describes a deployable unit of software.
- A software instance contains:
  - Global zone SMPCSI data set.
  - One or more target zones and related dlib zones, managed by that global zone.
  - Target and distribution libraries managed by those zones.
- A software instance may contain non-SMP/E managed data sets
  - Sequential, PDS(E), VSAM, HFS, zFS



Software deployment steps

- Software Deployment uses a checklist approach to guide you through all the steps of a deployment.
  1. Select the software to deploy (a software instance)
  2. Report missing requisites and possible regressions
  3. Select the deployment objective
  4. Configure the target software instance
  5. Validate the configuration against the target system, Summarize the deployment actions, and Generate the deployment jobs
  6. Execute the deployment jobs

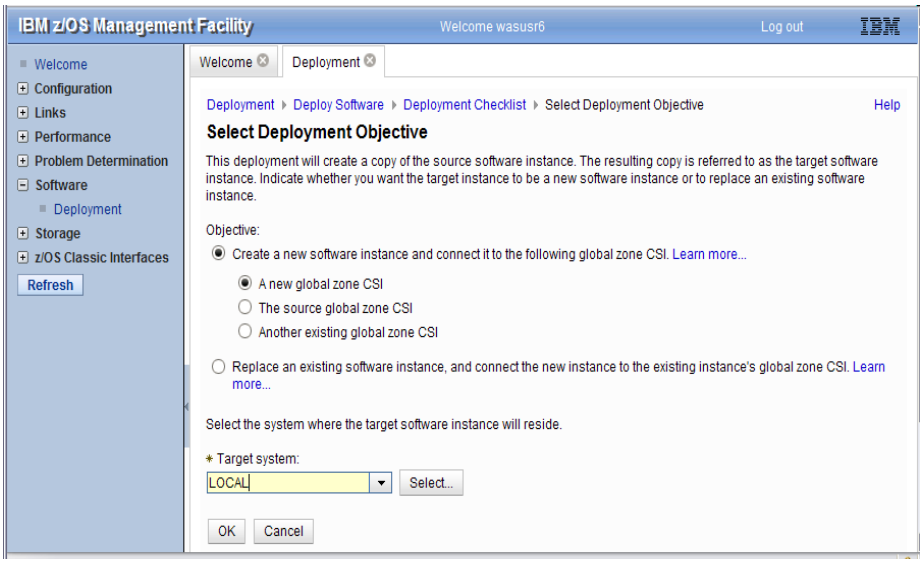
Deployment checklist



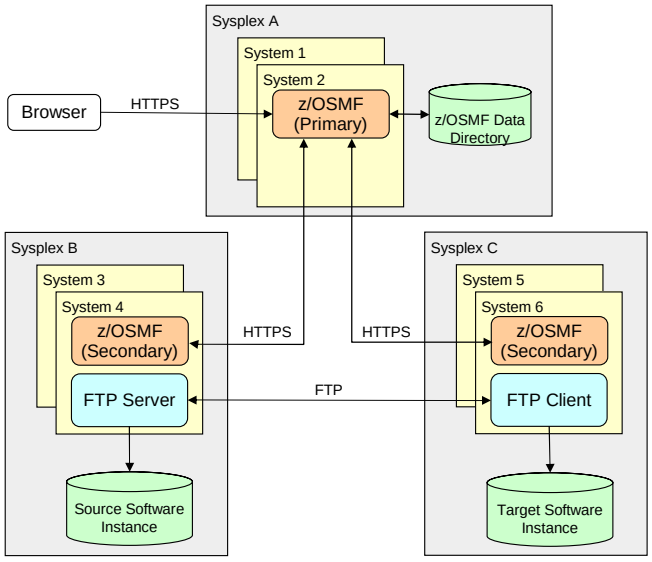
Report missing requisites and regressions

- Report missing software requisites
  - Requisites are defined using FIXCAT HOLDDATA and IFREQs.
  - Check for the following:
    - Functional and hardware requisites in the deploying instance.
    - Coexistence and fallback requisites in instances that will share resources with the deploying instance.
    - Target system requisites in instances that will run on the same target system with the deploying instance.
    - Software requisites in instances that will share resources with or run on the same target system with the deploying instance.
- Report possible software regressions
  - If there is a prior service level for the deploying instance, then check for PTF, APAR, and USERMOD regressions.
  - Identify the System HOLD delta between the prior service level and the deploying instance.

Select the deployment objective



z/OS and z/OSMF deployment topology



This shows the deployment topology

Configure the target software instance

- Specify the following:
  - SMP/E zone names
  - Data set names and locations: volume or storage class
  - Catalog state for data sets, by HLQ: use default catalog, new catalog alias, or do not catalog.
  - Target volume properties: initialize the volume, symbol for indirectly cataloged data sets on that volume.
  - Mount points for UNIX® file system data sets.

Validate the target configuration
Summarize the actions

- Ensure there are no unintended data set collisions:
  - On the target volumes, and
  - In the target system catalog.
- View summary of all volumes that will be affected.
- View summary of all data sets that will be:
  - Deleted
  - Added
  - Replaced
- View summary of all catalogs that will be affected.
- View summary of all catalog entries that will be:
  - Deleted
  - Added
  - Updated

Software deployment summary

- z/OSMF Software Deployment will provide rigor in the deployment of SMP/E installed software.
- It will ensure:
  - ALL parts of a software instance are copied.
  - The CSI is carried forward with the software.
- It will help to ensure:
  - Cross system requisites are satisfied (coexistence and preconditioning)
  - Cross product requisites on the same system are satisfied
  - Software fixes are not regressed
- Can be used to create a clone for Installation or for Execution.
- User specified information will be persisted and available for reuse.
  - Subsequent deployment operations of the same software instance should require little or no user input.

DASD management

- The first phase in simplifying SMS storage management focuses on the task of adding storage capacity to an SMS Pool storage group through a single user interface.
- Today, the storage administrator must determine when a storage group is near its capacity, identify how much storage to add, and what volumes to add. Once determined, multiple steps across various user interfaces are required to make the added capacity available to SMS:
  - ISMF to add volume entries to the storage group definition (update SCDS)
  - ICKDSF to initialize volumes
  - Operator command to vary volumes online
  - ISMF to activate the updated SCDS
- The z/OSMF DASD Management task is designed to provide the storage administrator the ability to perform the above actions with a simplified single user interface, which is also designed to incorporate policy that can be defined at the storage group level.
- *Planned to be made available in first quarter 2012 with the PTF for APAR PM40869

DASD management

The DASD Management task supports the new z/OSMF pre-defined role of Storage Administrator

The DASD Management task provides the following functionality:

- Manage containers of pre-defined available volumes with the introduction of the reserve storage pool resource
- View and use new storage pool group SMA attributes to be used as policy with this task
- View storage group and volume information associated with the active configuration
- Add storage to an SMS pool storage group via a new wizard

DASD management – Reserve storage pool

Manage containers of pre-defined available volumes with the introduction of the reserve storage pool resource.

A reserve storage pool refers to a group of volumes which are available for future use, whether they will eventually be used for SMS storage groups or for other reasons. The reserve storage pool resource is designed to replace the need for a storage administrator to manually maintain a list of defined but unused volumes.

– With the DASD Management task, users can:
  - Discover reserve storage pools which exist in the current system
  - List volumes in a reserve storage pool

DASD management – New SG attributes*

- Exploit new pool storage group SMA attributes associated with the DASD Management task
  - Storage Utilization Notification Threshold: Amount at which the storage group has exceeded an acceptable storage utilization
  - Storage Utilization Goal: Ideal storage utilization for the storage group
  - Maximum Storage Increment: Maximum amount of storage to be added at one time to a storage group
  - Default Volume Size: Preferred size of any new volumes to be added to the storage group
  - Default VTOC Size: Size of VTOC for any new volumes to be added to the storage group
  - Volume Serial Naming Convention: Naming convention for any new volumes to be added to the storage group
  - Default Reserve Storage Pool: Identifies the reserve storage pool to be used for the storage group
  - Users can
  - Define, display and update these attributes via the z/OSMF DASD Management task, ISMF and Naviquest
  - View these attributes through DCOLLECT record type ‘SG’

DASD management* – Storage group and volume info

- *View storage group and volume information*
  - With the DASD Management task, users can:
    - View the list of pool storage groups associated with the active configuration
    - View an alert when the Storage Utilization Notification Threshold is exceeded
    - Display storage group level attributes
    - Update storage group SMA attributes
    - View volumes associated with a storage group
    - Display volume level attributes

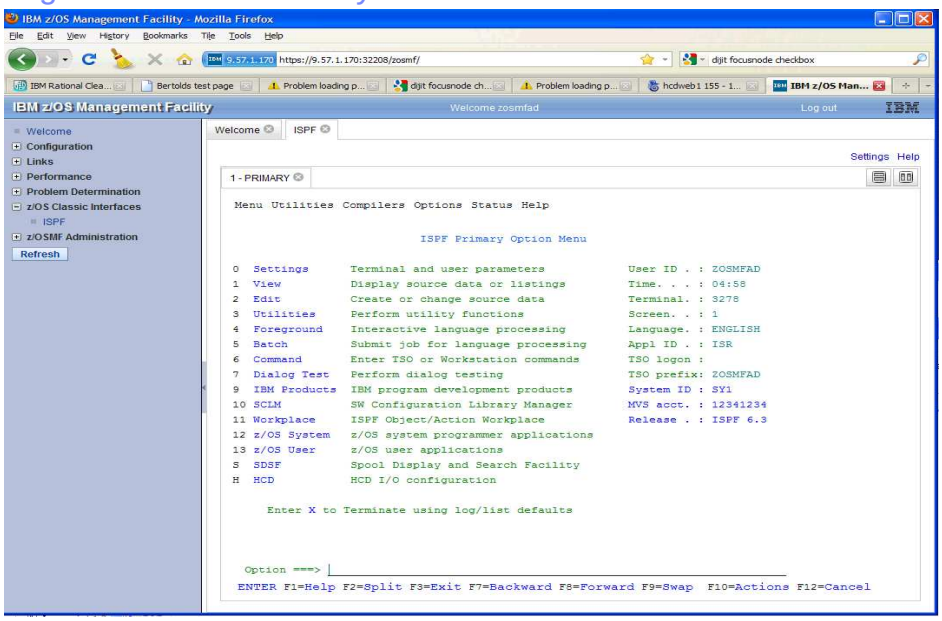
DASD management* – AddStorage wizard

- Select the AddStorage action against a storage group which invokes a Wizard that guides the user through steps that will simplify the task of adding storage to a storage group
  - Identify amount of storage to add (specified manually or through policy)
  - Selects volumes from a reserved storage pool (based on policy and volumes found in reserve storage pool)
  - Updates the SCDS with the selected volumes
  - Initializes the selected volumes to match the storage group naming convention
  - Optionally, varies the volumes online
  - Optionally, activates the changes to the SCDS to make the added capacity available for SMS use

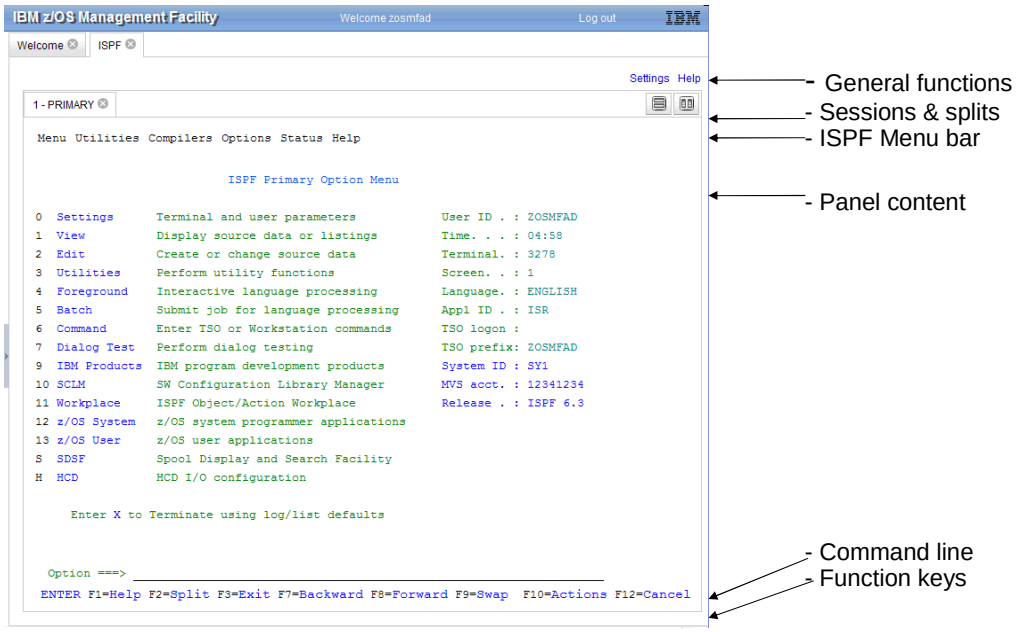
ISPF Overview

- The ISPF task under the new z/OS Classic Interfaces category integrates the ISPF based tools into z/OSMF 'as-is' to allow the system programmer to perform their tasks from one interface.
- Additionally, this interface will make the ISPF applications URL addressable and thus allow the ability to directly launch to ISPF based functions from z/OSMF tasks or from external applications.
- Login
  - User starts Web ISPF from z/OSMF navigation bar, no separate login
  - 4 screens can be viewed in parallel
    - Additional tabs for new ISPF sessions within a screen possible
- User Interaction
  - User can adapt screens size and standard colors
  - Structurally similar to 3270. with more web flavor
  - More mouse than keyboard oriented
- TSO support
  - TSO messages and option 6 available, but limited to TSO support within ISPF

Navigation bar and Primary menu

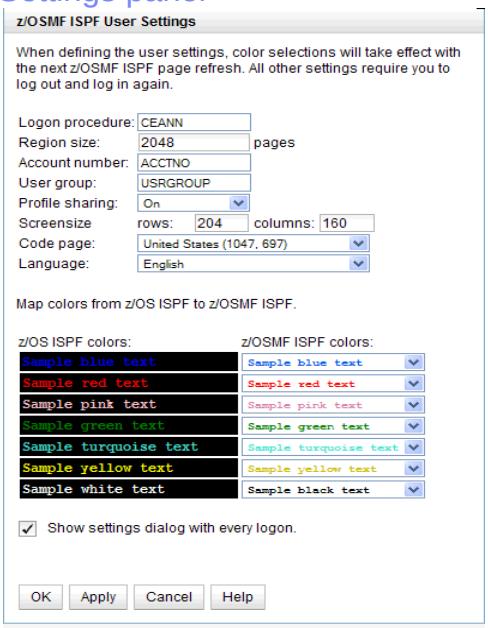


Structure



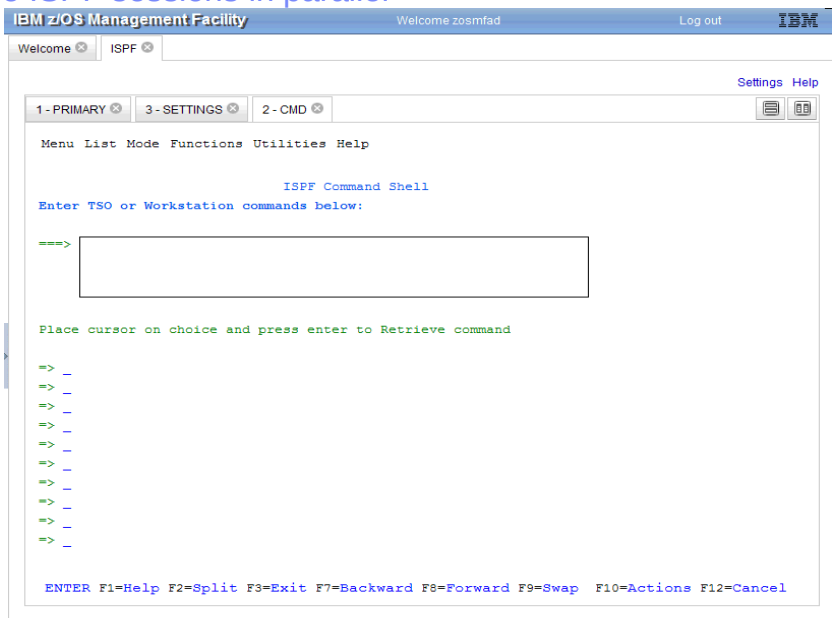
This is the structure of the ISPF Web panel

Settings panel

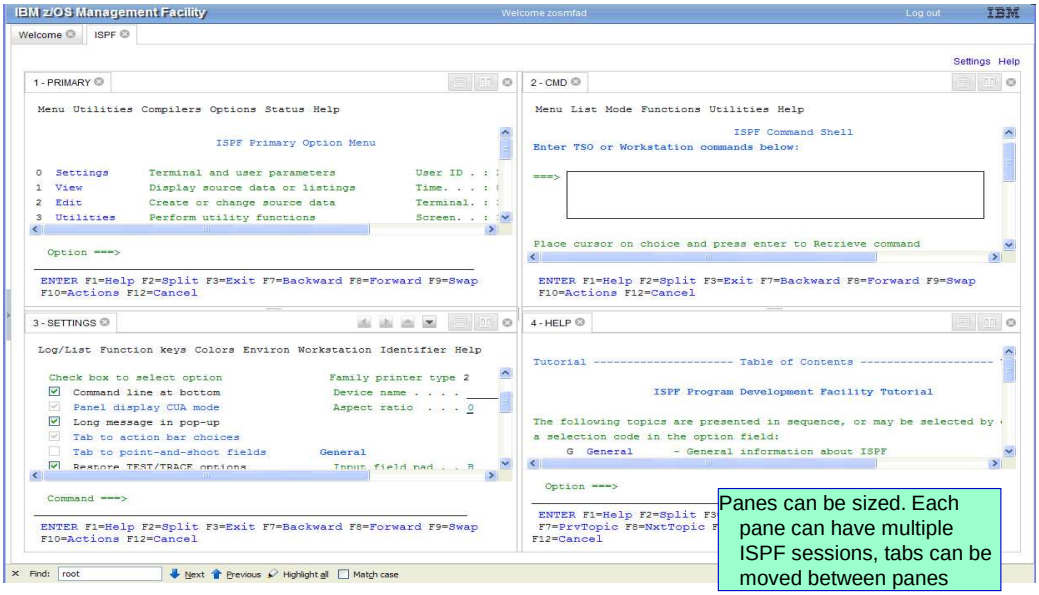


- Allows to define logon parameters for ISPF
- Standard colors can be customized
- User can define, whether to show every time

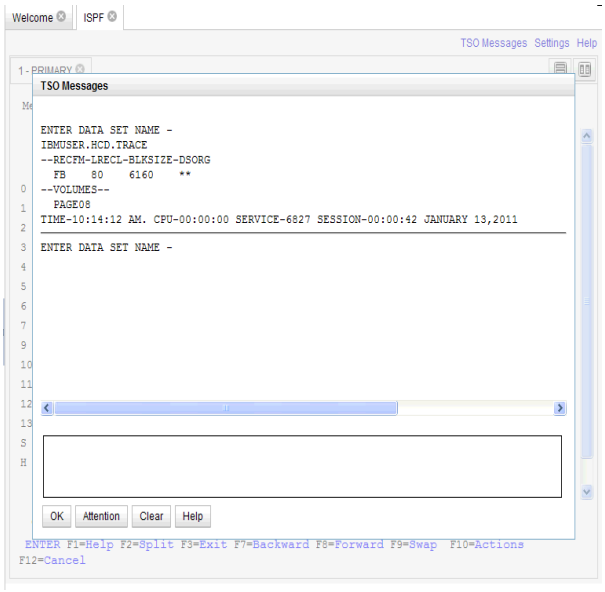
Multiple ISPF sessions in parallel



Up to four different panes possible

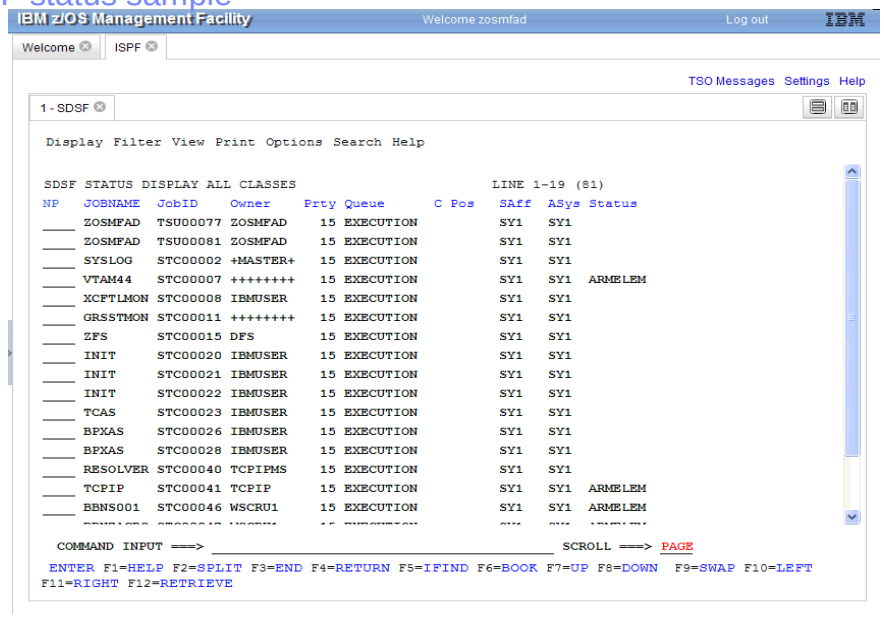


TSO commands and messages

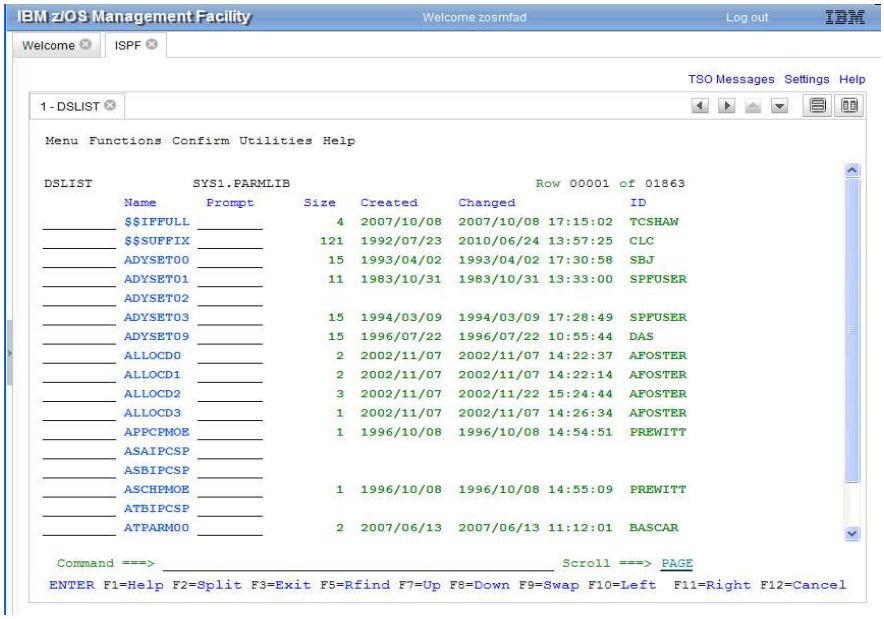


- TSO messages have priority
- If prompt requested, input field is shown
- Attention key available
- OK will return to ISPF screen or continue with TSO dialog
- History of TSO messages (50 lines) is shown above the line, can be requested any time

SDSF status sample



Member list



z/OSMF 1.13 new base capabilities

- Authorization integration with SAF
- Application linking
- REST API for job management

z/OSMF SAF based authorization

- z/OSMF is enhancing its security model to provide tighter integration with Enterprise Security Management products.
  - New resource class pair for z/OSMF
    - ZMFAPLA resource class
    - GZMFAPLA grouping class
  - Use of SAF groups to represent z/OSMF roles
  - Resource names associated with all z/OSMF tasks and links.
  - Resource class profiles control authorization to z/OSMF managed resources.

z/OSMF authorization

- Exploitation of new Resource Classes, profiles, and groups
  - Plug-ins register resource names associated with each of their tasks
  - All task resource names associated with the ZMFAPLA resource class.
  - IBM reserved resources:
    ZOSMF.<plugin-name>.<task-name>.<action-control-qualifier>
    - The plug-in profile will be defined at deployment time.
    - For delayed deployment and activation of plug ins create profiles when plug-in is deployed
  - Definition of SAF Groups and connection of z/OSMF users to these new Groups
  - Groups permitted to z/OSMF resource profiles (in ZMFAPLA) to facilitate z/OSMF Role support

z/OSMF support – New classes

ZMFAPLA	GZMFAPLA
POSIT=592	
ID=1	
MAXLNTH=246	
RACLIST=ALLOWED	RACLIST=DISALLOWED
RACLREQ=NO	
GENLIST=DISALLOWED	
DFTRETC=4	
DFTUACC=NONE	
GROUP=GZMFAPLA	MEMBER=ZMFAPLA
SLBLREQ=NO	
OPER=NO	
PROFDEF=YES	
FIRST=ANY	
OTHER=ANY	
CASE=ASIS	

z/OSMF authorization

- Creation of a new repository mode pre-defined role for storage administrators.
- Support for custom roles via creation of additional SAF groups at system programmer's discretion. Granularity of access determined by z/OSMF resource profile permissions for a given group.
- Option to stay with repository mode or convert to SAF mode
  - Can switch to SAF mode at a later time
    - Configuration support for conversion to SAF mode via scripts.
    - Requires activation of ZMFAPLA resource class
      - Enable for generic profiles if needed.
  - Ability to switch back to repository mode if needed. Not recommended to switch back and forth repeatedly. SAF mode is the strategic destination.
- Users, Roles (groups) and Task authorization management
  - SAF Mode: via ESM and customer security change control processes.
  - Repository Mode: via z/OSMF Users and Roles tasks

z/OSMF application linking

Objective

- Provide a more seamless experience for system programmers as they work with different tools and tasks on the z/OS system.
- This is accomplished by enabling Cross application linkage and context sensitive launching between z/OSMF applications and also between z/OSMF applications and external applications
  - Context sensitive launching or linking with z/OSMF applications may be within z/OSMF, for example, one task may want to launch to the other in context.
  - It can also be from external consoles or applications into z/OSMF, for example, from an ISV app to z/OSMF.

Cross application linking – z/OSMF enablement

- z/OSMF plug-in can launch to another link internal to z/OSMF with or without context
- z/OSMF plug-in can launch to another link external to z/OSMF with context or without context
- An external application can launch to a z/OSMF Plug-in
  - An External application can launch to a specific spot within a z/OSMF Plug-in, i.e. launch in context if supported
- z/OSMF plug-in or remote application can add an application link to the list of supported links maintained by z/OSMF or delete a link it added from that list
  - Requires service to add/delete a link
  - These links do not show up in the z/OSMF Navigator
- z/OSMF plug-in or remote application can query the list of supported links maintained by z/OSMF and have ability to select one to set as default or to launch to
- z/OSMF plug-in or remote application can dynamically add a new Link type (abstract name) that adheres to the naming convention and is maintained by z/OSMF

Application linking – Events

- *z/OSMF will maintain a repository of Events which are definitions of services that can be invoked*, like View abc
  - Event has a type and a set of parameters (key value pairs). The values must be representable in a URL
    - The type describes the action requested by the user
    - The parameter values are all of type string; There is no distinction between optional and required parameters.
  - Each plug-in or external application can use the registered event types, or define new event types to send or handle events.

- Events
- *The event types are dynamic.*
- *Each exploiter (external or internal) can define new event types at runtime. The process of defining of a new type is called "registering".*
- *For the registration, the plug-in has to provide a name (string) and a map of parameters the events of this type will contain.*

Application linking – Event handlers

Event Handlers

- If an application (external or internal) provides functionality to process an event, it can register as a handler for the given event type in the Application Linking Manager. Thus, it can be invoked when the respective event is sent.
- An application can be a handler of multiple event types.
- Multiple applications can register as handlers for a given event type. In this case, the Application Linking manager will display a popup dialog prompting the user to select a handler for the executed action.
  - Non-z/OSMF applications (IBM or ISVs) can register their own links which provide functionality defined by z/OSMF Link Interfaces.
- Registration is possible through servlet invocation or can be performed on a new z/OSMF task (aka GUI).
- The servlet API will provide a JSON-based RESTful interface.
- For each registration, the ID, Name and URL will need to be provided.

Launching from z/OSMF

- When an Event is launched from z/OSMF into an external link definition:
  - The code attempting to launch will supply which Name to be invoked and also the parameters defined by the respective Event to use when launching.
  - The URL will be launched and the parameters will be passed via the POST method
  - Each attempt to launch will launch a new browser window.
  - No identity will be passed (like in a parameter). It is assumed that the launched URL will address prompting for the user for an ID/password and then managing that from that point forward.

Launching to z/OSMF

- **When a z/OSMF provided Link Interface is launched:**
  - **The parameters to the URL will be: Event type and link parameters.**
    - If the browser session has already been authenticated to z/OSMF, the existing identity will be used.
    - If the browser session has not already been authenticated to z/OSMF, a popup dialog will be displayed for the user to provide their user id and password to authenticate to z/OSMF.
    - Once the user is authenticated to z/OSMF, the link will be launched in a tab in the work area. There will be no other tabs open in the work area, however the navigation tree will exist on the left hand side for the user to utilize other functions of z/OSMF which they are authorized to.

The URL will be the same regardless of which link is to be invoked (like https://host:port/zosmf/LinkManagerLaunch) and the respective Link Interface parameters will need to be provided.

Application linking notes

- There will be no strict validity checks for parameters. That is, if a handler registers an event type that already exists with different parameters, an exception will be thrown only for information. Whether the event type registration is consistent or not, events will be delivered to the registered handler at runtime. It is then up to handler to check the validity of the parameters. If e.g. some important parameters are missing, the handler might choose to display the welcome page and show an error message. If there are too many parameters in the event, they will most probably be ignored.
  - Ease the introduction and exploitation of context

Application Linking – servlet APIs (proposed)

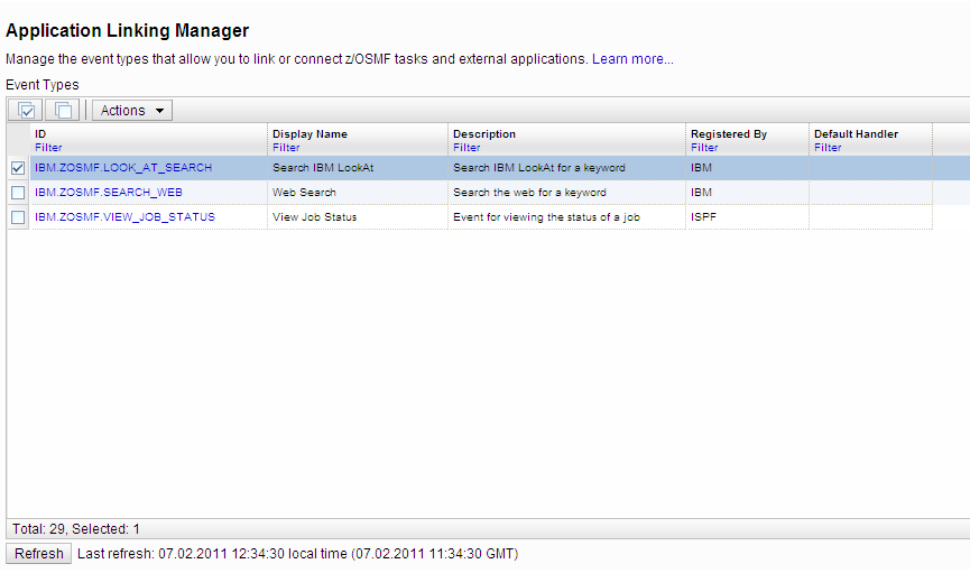
Method	*•Servlet API Method*		
	•URL	*•HTTP Method*	*•Request Parameters*

registerEventType	***/zosmf/izual/rest/eventtype/<id>***	***POST/***	{
			id: "IBM.ZOSMF.EVENT_TYPE_ID",
			displayName: "Default English name",
			desc: "Default English description",
			bundleFile: "optionalBundleFileName.js",
			bunleUrl: "optional/bundle/url/path",
			owner: "ownerId",
			params: {"key1": "English description of the param"}
			}

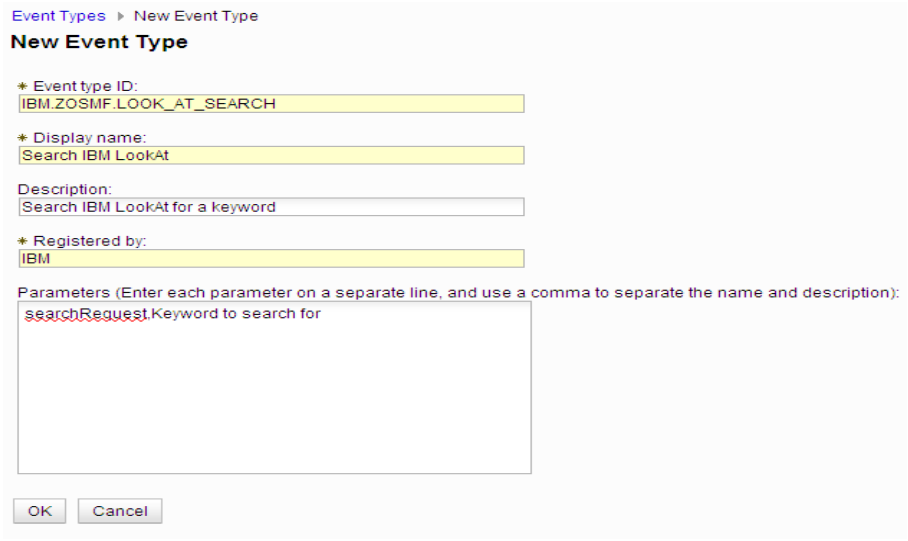
registerExternalHandler	***/zosmf/izual/rest/handler/<id>***	***POST***	{
			type: "EXTERNAL",
			id: "RM.SYSTEM_STATUS",
			displayName: "Default English name",
			bundleFile: "optionalBundleFileName.js",
			bunleUrl: "optional/bundle/url/path",
			options: {
			"CONTEXT_SUPPORT":
			"OPT_CONTEXT_SUPPORT_NONE"
			} }
			
			Valid values for the type are:- EXTERNAL or – INTERNAL
			
			Various values for the "CONTEXT_SUPPORT" option

getHandlersForEventType	***/zosmf/izual/rest/handler***	***GET***	
unregisterHandler	***/zosmf/izual/rest/handler/<id>***	***DELETE***	
unregisterEventType	***/zosmf/izual/rest/eventtype/<id>***	***DELETE***	

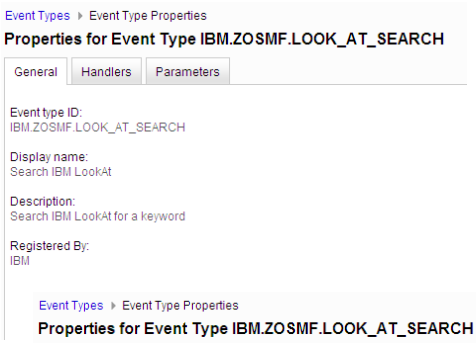
Application linking manager

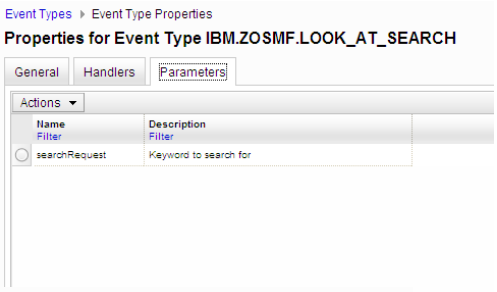


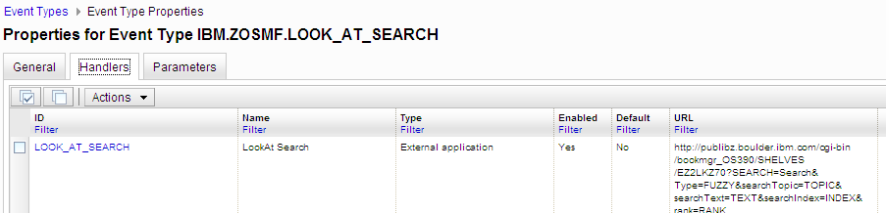
Add new event type: IBM LookAt example



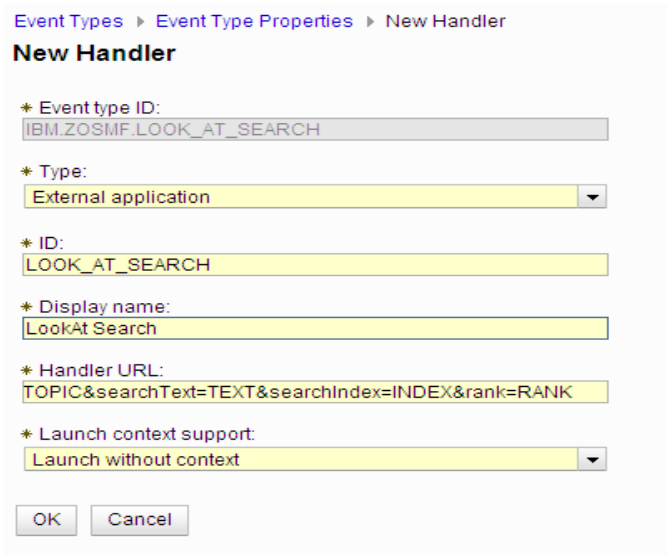
Event type details:







Add new handler: IBM LookAt example



RESTful service for JOBs management

- Introducing a new HTTP and HTTPS interface to z/OS for submitting and accessing job information.
- This interface is an open API which can be driven locally on a z/OS system or more likely driven from a remote system.
  - The remote system need only support the HTTP and HTTPS protocols.
- The web services would be easily consumable by: web applications (JavaScript/AJAX, Flex(Flash), and so on) and other web service clients, such as Java, PHP, and Perl
- The web service will support both JES2 and JES3 as the primary JES subsystem, as well as secondary subsystems
  - Secondary subsystem support is limited
- There is no GUI interface. This item provides the customer a programmatic interface for web applications via z/OSMF

RESTful service for JOBs management – Security considerations

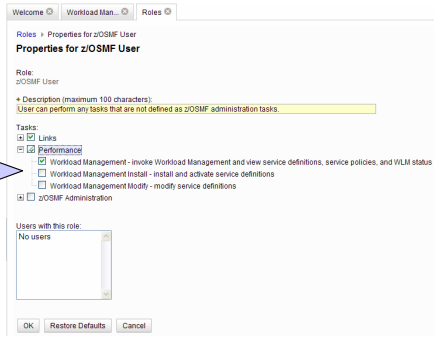
- User will need to authenticate to z/OSMF.
- Additional system requirements
  - To get contents of a spool file for a job, the user must have access to the JESSPOOL profile associated with the spool data set.
  - To submit a job, the user must be authorized to run jobs on the system and be able to access any protected resources that the job may require.
  - To cancel a job, change a job's class, or purge a job, the user must be authorized to use the Common Information Model (CIM) server and be permitted to the JES2-JES3Jobs CIM provider.
  - To cancel a job or purge a job, the user must be authorized to cancel the job.

LI2242: RESTful service for JOBs management

Service	URL	HTTP method
Get the status for a job	*https://host:port/zosmf/restjobs/jobs/*jobname/jobid	*GET*
Get the status for a job for secondary JES	*https://host:port/zosmf/restjobs/jobs/-JESB/*jobname/jobid	*GET*
Get the list of spool files related to a job ** supports secondary JES*	*https://host:port/zosmf/restjobs/jobs/*jobname/jobid*/files*	*GET*
Get the contents of a spool file for a job	*https://host:port/zosmf/restjobs/jobs/*jobname/jobid*/files/*nnn*/records*	*GET*
Get a list of jobs, optionally based on owner, prefix, or jobid parameters ** supports secondary JES*	*https://host:port/zosmf/restjobs/jobs*	*GET*
Submit a job	*https://host:port/zosmf/restjobs/jobs*	*PUT*
Cancel a job	*https://host:port/zosmf/restjobs/jobs/*jobname/jobid JSON document: {"request":"cancel"}	*PUT*
Change the job class for a job	*https://host:port/zosmf/restjobs/jobs/*jobname/jobid JSON document: {"class":"<new_job_class>"}	*PUT*
Purge a job	*https://host:port/zosmf/restjobs/jobs/*jobname/jobid	*DELETE*

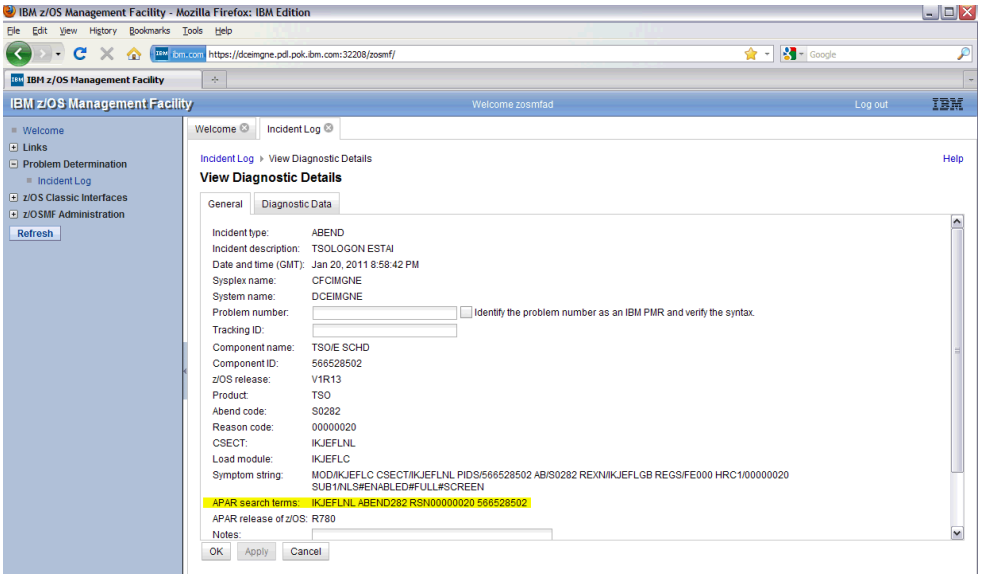
z/OSMF Workload Management V1.13 – new features
Fine-grained Authorization of Users

- Separate authorization levels for
  - Viewing of service definitions, service policies, and WLM status
  - Installation and activation of service policies
  - Modification of service definitions
- In repository authorization mode the WLM authorization of roles is controlled by three tasks on the Roles panel:
  - Workload Management
  - Workload Management Install
  - Workload Management Modify

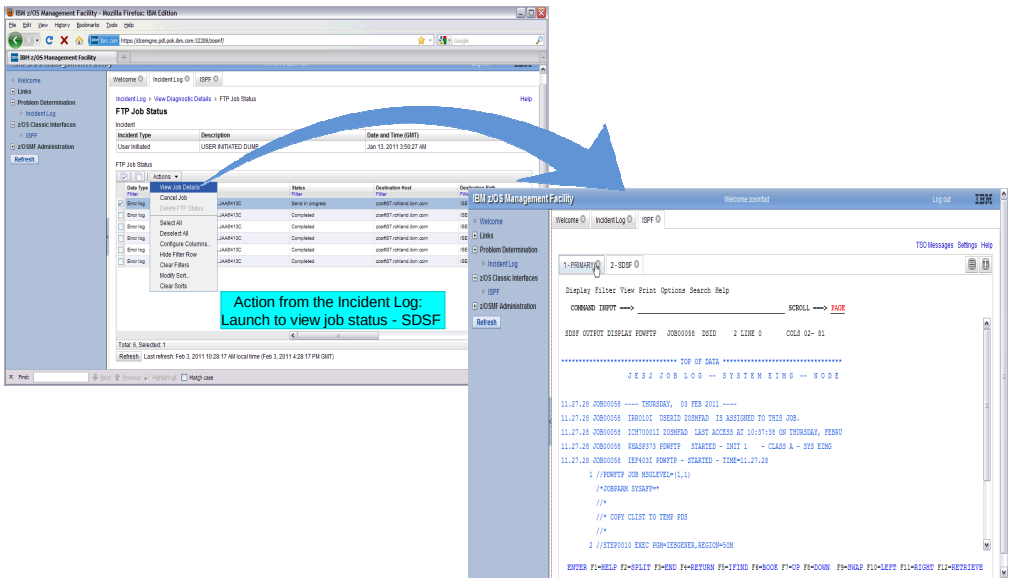


- In SAF authorization mode the WLM authorization of roles is controlled via the SAF resource names:
  - ZOSMF.WORKLOAD_MANAGEMENT.WORKLOAD_MANAGEMENT.VIEW
  - ZOSMF.WORKLOAD_MANAGEMENT.WORKLOAD_MANAGEMENT.INSTALL
  - ZOSMF.WORKLOAD_MANAGEMENT.WORKLOAD_MANAGEMENT.MODIFY
- To enable a role to launch the Workload Management task it is not sufficient to provide authorization for ‘installation’ or ‘modification’; in addition the role has to be authorized for ‘viewing’.

Incident Log – Add retain search symptom string



Incident Log – View Job details



Resource Monitoring updates

- The following tasks have been renamed
  - **Sysplex Status** has been renamed to **System Status**
  - **Monitoring Desktops** has been renamed to **Resource Monitoring**
    - The **Desktops** have been renamed to **Dashboard**
- With z/OS V1.13 and z/OSMF V1.13, RMF is intended to provide new CIM-based performance data gatherers for Linux® on System z®, Linux on System x®, and AIX® systems to provide a consistent monitoring solution for zEnterprise™ ensembles. Along with the Resource Monitoring plug-in for the z/OS Management Facility, first made available with z/OSMF V1.12, this is intended to display performance metrics from those platforms and combine them with z/OS metrics in common graphic views

Configuration Assistant for z/OS Communications Server

- Support Configuration for New Intrusion Detection Services Protection
  - Additional TCP/IP protocol-related attack and scan detections with focus on the IPv6 protocol (LI2567)
  - New attack detection for Enterprise Extender (LI2557)
    Support for Reusable Rules for IP Security (LI2568)
  - The IBM Configuration Assistant for z/OS Communications Server is enhanced to allow a policy rule to be defined once for multiple stacks. This permits more efficient policy configuration for multiple systems without having to individually define every policy rule for every stack.
  - Value: Configure rules once and apply to existing or new stacks. Removes the need to “copy”, and changes are automatically available to all stacks that use the rule.
  - Required support for symbolic naming for IP Addresses and IKE Identities
- Support for Import of Local IP Addresses from Active Systems (LI2578)
  - Value: Removes need to manually enter IP addresses for IP Address Groups and other places in the technology perspective where IP addresses are configured
  - IP addresses are imported for a targeted TCP/IP stack
  - IP addresses can be specified as the IP address or assigned symbolic names for use in configuration of rules
- Support for Configuration of Multiple z/OS Releases (LI2566)
  - Configuration Assistant supports the Configuration of z/OS Communications Server for z/OS V1R12 and V1R13
  - Generates valid configuration for the specified z/OS level
  - The IBM Configuration Assistant for z/OS Communication Server is enhanced so that a single instance of the Configuration Assistant can configure multiple releases of Communication Server. The V1R13 configuration assistant will be able to configure both V1R12 and V1R13 Communications Servers. This allows you to configure all of the systems in a mixed-release environment from a single instance of the Configuration Assistant running under z/OSMF.

Interactions and dependencies

- Software dependencies
  - z/OSMF 1.13 requires z/OS 1.13
  - WebSphere® Application Server OEM 7.0.0.15 or later
- Hardware dependencies
  - None
- Exploiters
  - None
- Clients supported
  - Windows XP, Windows Vista, Windows 7 (32 bit and 64 bit)
- Browsers supported
  - Internet Explorer 7 and 8
  - Mozilla Firefox 3.5 and 3.6

Migration and coexistence considerations

- Toleration - In order to switchover to a lower release and also switch back to z/OSMF 1.13, the following service is required
  - z/OSMF 1.11
    - PM27448
  - z/OSMF 1.12
    - PM27450 (z/OSMF core)
    - PM32108 (Incident Log)
- Migration actions
  - WLM Policy Editor
    - If you have authorized the role 'z/OSMF Users' for the Workload Management task and then migrate from R12 to R13, the role 'z/OSMF Users' would only have the authorization to view WLM service definitions and service policies, but not as in R12 the authorization to modify and install service definitions or activate service policies. You need to verify and adjust the authorization of roles for the Workload Management task when migrating from R12 to R13.
    - Later on, when switching back from R13 to R12, you also need to verify and adjust the authorization of roles for the Workload Management task. Because if role 'z/OSMF Users' has only view authorization in R13 it would have view, install, and modify authorization in R12 when the same repository files are used as in R13.

Installation

- z/OSMF can be installed via a CBPDO or via a ServerPac (or system pack)
- In a ServerPac installation, post install customization is provided to help configure a default instance of z/OSMF
- For use of the Capacity provisioning task, in this release you need to be have the CPPM installed and configured separately

V1R13 configuration and setup enhancements

- Enhancements made in R13
  - Support for new R13 exploiters
    - CP, SD, ISPF, DASD Management
  - Support for two authorization modes
    - Repository, SAF
  - Shell environment
    - Programmatic default settings accommodate most users
    - Can provide a single file and export IZU_ENV_FILE for tailored setup – sample provided
    - Can individually supply locations of:
      - Product code root, Configuration directory, Logfile directory
  - Command simplification
    - -file and -override file parameters will pre-pend IZU_CONFIG_DIR if no path is specified.
    - Configuration and override files are kept in the configuration directory and managed by the scripts

R13 configuration enhancements (1 of 2)

- Migration improvements
  - Now supports both override and configuration files
    - From any prior supported release - Can do either, or both at the same time
  - Report file is generated
- Security simplification
  - Group management –
    - scripts only create groups owned by zOSMF (Administrator, User, Storage Administrator)
    - Will prompt for and use other groups if known.
  - Authorization Mode switch
    - Can specify either SAF or Repository and then switch later
    - Will generate all necessary commands for this switch
  - Authorization of additional users is based on Mode

R13 configuration enhancements (2 of 2)

- RAS items –
  - Additional messages for better log file documentation and diagnosis
  - Temporary file handling is improved
  - Input validation improved
- z/OS configuration tasks moved to -prime step
  - Previously were in -config, -prime and -finish
  - -config is now just accumulation of configuration data

Summary

- z/OSMF new management tasks
  - Capacity provisioning
  - Software deployment
  - Storage management
  - ISPF classic interface
- z/OSMF new base capabilities
  - Application linking
  - Authorization update
  - REST API for job management
- z/OSMF enhancements
  - Management tasks
    - Configuration assistant
    - Incident log
    - Workload management
    - Resource monitoring and system status
  - Base enhancements
    - Currency
    - Configuration and setup

Appendix - References

- Product package
- Reference material

Reference material

- IBM z/OS Management Facility Configuration Guide SA38-0652-05
- IBM WebSphere® Application Server OEM Edition for z/OS Configuration Guide, Version 7.0, (z/OSMF Web Page) GA32-0631-03
- IBM z/OS Management Facility Messages, SA38-0654-00
- z/OS Management Facility, overview
  - http://www.ibm.com/systems/z/os/zos/zosmf/
- IBM z/OS Management Facility License Information GC52-1263
- Program Directory for z/OS Management Facility GI11-2886-02

Product package

- zOSMF V1R13 is comprised of:
- **PID# 5655-S28**
- **S/S PID# 5655-S29**
- ***FMID#***
  - ***HBBN700 (IBM WebSphere Application Server OEM Edition for z/OS v7.0)***
    - **COMPID 5655I3512 - WEBS APP SVR OEM**
  - HSMA130 - IBM z/OS Management Facility
    - COMPID 5655S28SM - zOSMF Core
    - COMPID 5655S28RJ - zOSMF RestJobs
  - HSMA131 - IBM z/OS Management Facility – ISPF
    - COMPID 5655S2801 - zOSMF ISPF
  - HSMA132 - IBM z/OS Management Facility – RM
    - COMPID 5655S2802 - zOSMF RM
  - HSMA133 - IBM z/OS Management Facility – WLM
    - COMPID 5655S2803 - zOSMF WLM
  - HSMA134 - IBM z/OS Management Facility – Deplymnt Mgr
    - COMPID 5655S2804 - zOSMF Core
  - HSMA135 - IBM z/OS Management Facility - Incident Log
    - COMPID 5655S2805 - zOSMF PD Incident Log
  - HSMA136 - IBM z/OS Management Facility – Capacity Prov
    - COMPID 5655S2806 - zOSMF Capacity Provisioning
  - HSMA13A - IBM z/OS Management Facility - Config Assist
    - COMPID 5655S28CA – Comm server Config ASST
  - HSMA13F - IBM z/OS Management Facility - DFSMS
    - COMPID 5655S28DF z/OSMF Storage manager

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