What's new in z/OSMF V1R13?
Session: 10635

Anuja Deedwaniya

anujad@us.ibm.com

STSM, z/OS Systems Management and Simplification

"The z/OS Management Facility initiative has been expanded with a number of new functions available with z/OS V1.13. This product shows great promise of being a great help for the younger z/OS system programmers, who may not have many years of experience with the platform. "

Bertil Andersson, Senior Enterprise IT Architect, Svenska Handelsbanken

z/OSMF R13 Functionality

- *z/OSMF new management tasks*
  - Performance: Capacity provisioning
  - Software: Deployment
  - z/OS Classic Interface: ISPF
- *z/OSMF new base capabilities*
  - REST Api for Job management
  - Application Linking
  - Authorization update
- *z/OSMF enhancements*
  - Management tasks
    - Configuration Assistant
    - Incident Log
    - Workload management
    - Resource Monitoring and System Status
  - Base enhancements
    - Currency
  - Follow-on service enhancements
  - Configuration and Setup

z/OS Management Facility V1R13

Problem Management & Analysis	Installation, Migration, and Maintenance	Configuration
Monitoring z/OS system health; identifying real and potential problems; Analyzing and resolving problems	*Planning, installing, and upgrading z/OS systems and products that run on z/OS*	*Adding or changing z/OS system components; enabling new features; defining and updating policies that affect system behavior*

Simplify and modernize the user experience and programming requirements
Task-oriented browser based user-interface; end-to-end task simplification ; eliminating opportunity for error

Incident Log (R11/R12) The Incident Log provides a consolidated list of SVC Dump related problems, along with details and diagnostic data captured with each incident. It also facilitates sending the data for further diagnostics.

New **Software Deployment (R13)** Deployment Manager will make deployment of installed software simpler and safer. It will replace manual and error prone procedures with a user friendly application, and incorporate IBM recommended best practices for software deployment.

Configuration Assistant for z/OS Comm Server (R11) Simplified configuration and setup of TCP/IP policy-based networking functions

WLM Policy Editor (R12) Simplified management of WLM service definitions and policies. Facilitate the creation and editing of WLM service definitions, installation of WLM service definitions, and activation of WLM service policies

Resource Monitoring (R12) dynamic real time metrics for system performance

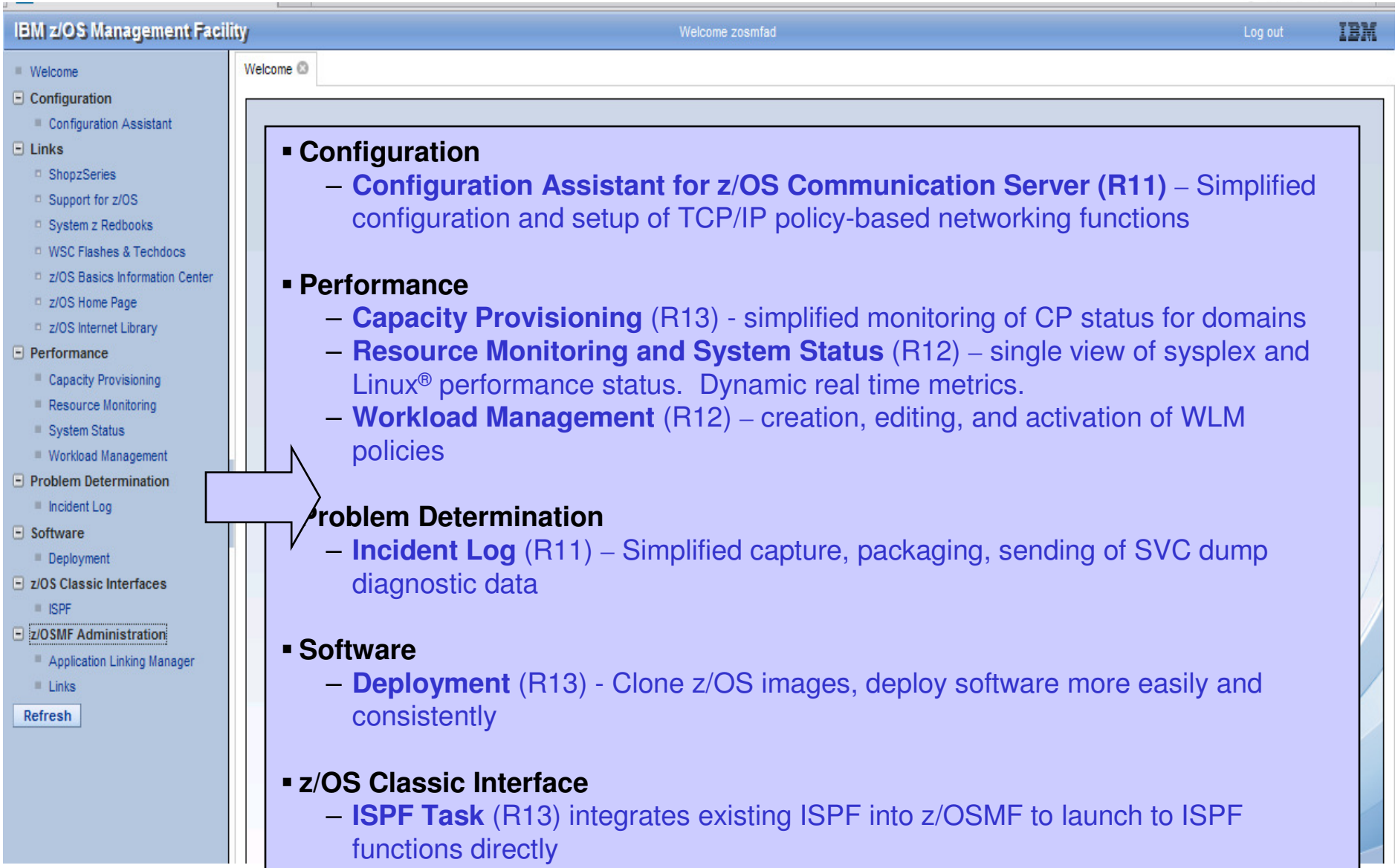
New **Capacity Provisioning (R13)** simplify the work of a z/OS CP administrator to manage connections to CPMs, view reports for domain status, active configuration and active policy.

z/OSMF Base Services:
- The ability to add non-z/OSMF launch points and links to any category in the navigation tree allows a central tool for effective information and knowledge sharing.
- Application linking New New
- Security integration with SAF New
- ISPF Web UI New
- REST API for Jobs

Customer requirements

Usability enhancements
- **Ongoing**

IBM z/OS Management Facility V1R13 (5655-S28)



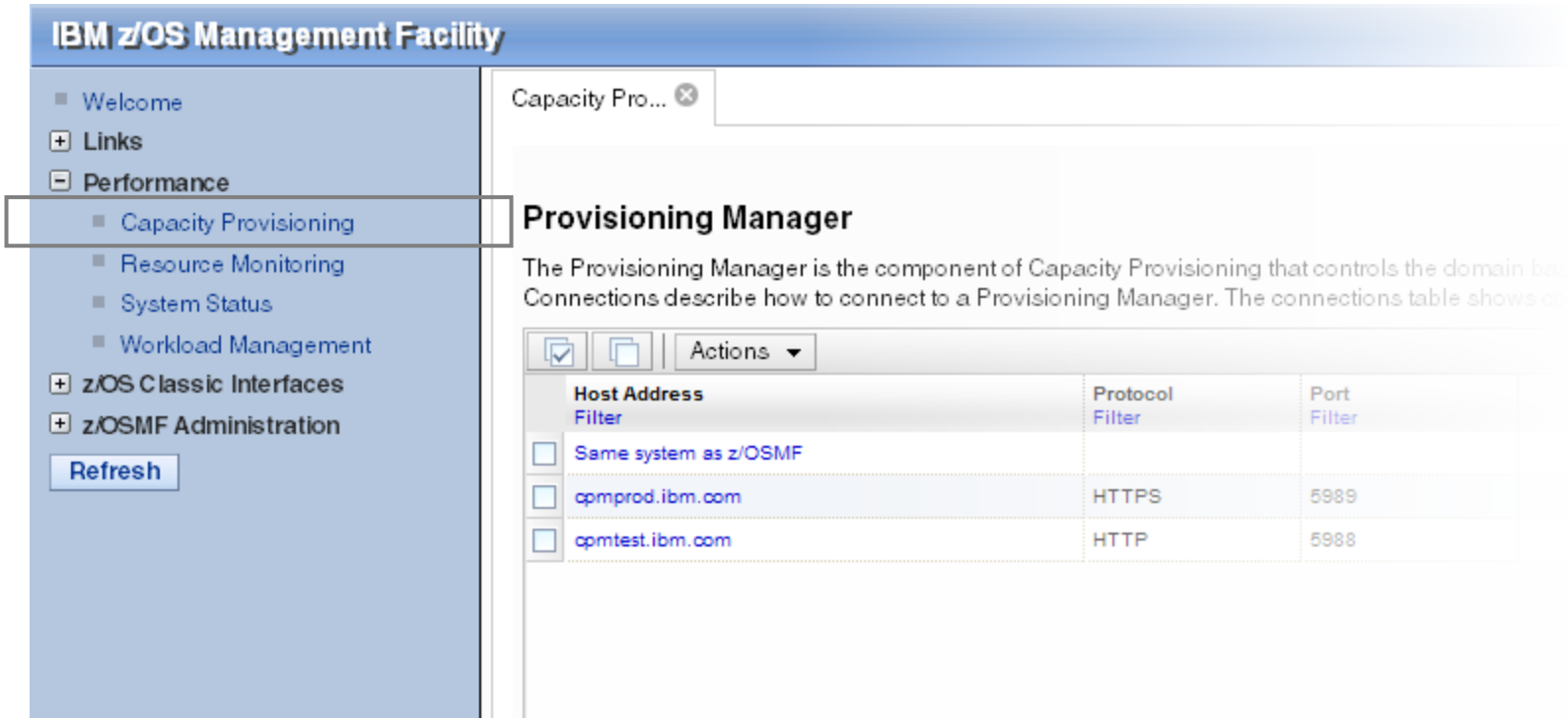
- **Configuration**
  - **Configuration Assistant for z/OS Communication Server (R11)** – Simplified configuration and setup of TCP/IP policy-based networking functions
- **Performance**
  - **Capacity Provisioning** (R13) - simplified monitoring of CP status for domains
  - **Resource Monitoring and System Status** (R12) – single view of sysplex and Linux® performance status. Dynamic real time metrics.
  - **Workload Management** (R12) – creation, editing, and activation of WLM policies
- **Problem Determination**
  - **Incident Log** (R11) – Simplified capture, packaging, sending of SVC dump diagnostic data
- **Software**
  - **Deployment** (R13) - Clone z/OS images, deploy software more easily and consistently
- **z/OS Classic Interface**
  - **ISPF Task** (R13) integrates existing ISPF into z/OSMF to launch to ISPF functions directly

z/OSMF 1.13 new management tasks

- Capacity provisioning
- Software deployment
- ISPF Classic Interface

z/OSMF Capacity Provisioning (V1.13)
Navigation

The Capacity Provisioning task can be found in the Performance category.



z/OSMF Capacity Provisioning (R13)

New! – view the status of z/OS capacity provisioning domains

- System z On/Off Capacity on Demand

  Ideal if your business has few periodic workload peaks over the year. Potentially:
  - Save on hardware - No need to purchase hardware, 'you rent it' for the days you need it.
  - Save on monthly software charges – only pay for software charges for On/Off CoD peak capacity in the month it is incurred**

  Also ideal if you own extra hardware capacity (banked capacity). Potentially:
  - Save on monthly software charges – budget for peak 'banked' capacity and turn off the resources when not needed to possibly gain software savings.

- z/OS Capacity Provisioning Manager can automate On/Off CoD for z/OS
  - Can manage processing capacity more reliably, more easily, and faster.
  - What had taken minutes or hours to discover, identify, decide, and resolve, now can be specified to happen automatically in as little as tw minutes.

- New z/OSMF Capacity Provisioning task (R13)
  - Initial phase simplifies the **monitoring** of z/OS CP connections, domains, configurations, and policies
  - Separate Windows-based tool required for z/OS CP **management** functions.

z/OSMF Capacity Provisioning
Background

- The Capacity Provisioning Manager (CPM) is in the base of z/OS
  - The z/OS Capacity Provisioning Manager (CPM, in the base of z/OS) can automate the process of managing System z capacity, including adding and removing capacity based On/Off Capacity on Demand (On/Off CoD).

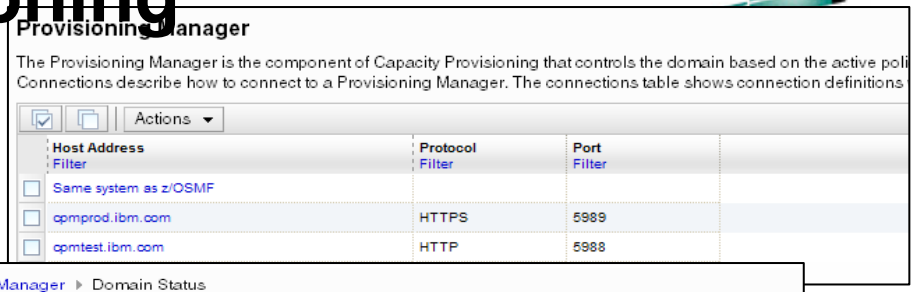
- The Capacity Provisioning Control Center (CPCC) is the user GUI to CPM used for administering the Capacity Provisioning policies
  - Available as a separate Windows-based stand-alone client.

- Part of CPCC monitoring function is integrated into z/OSMF V1.13
  - Manage connections to CPMs
  - View reports for domain status, active configuration and active policy.

- The Windows based CPCC is still required to manage policies
  - z/OSFM CP and Windows CPCC will coexist together.

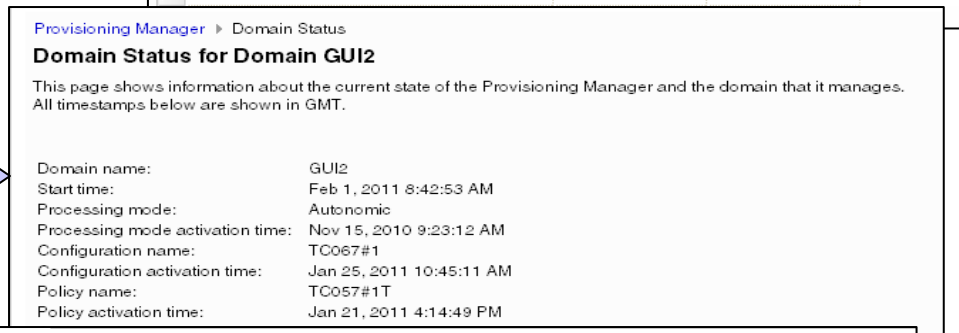
z/OSMF Capacity Provisioning
Function

Manage CIM connections to access a Provisioning Managers



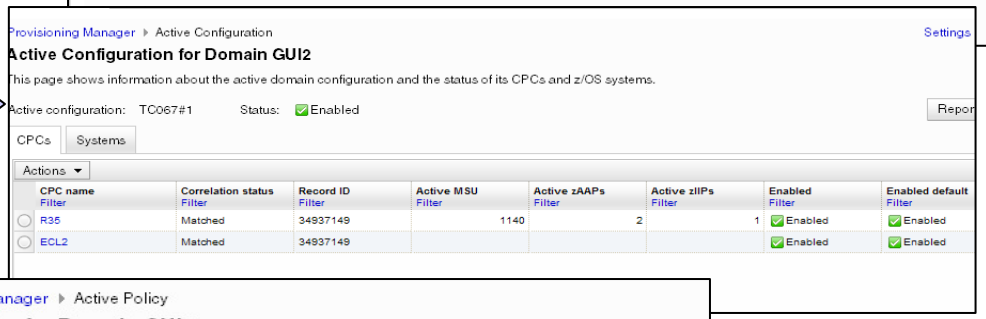
View detailed status about a domain

Quick switch between reports for same domain



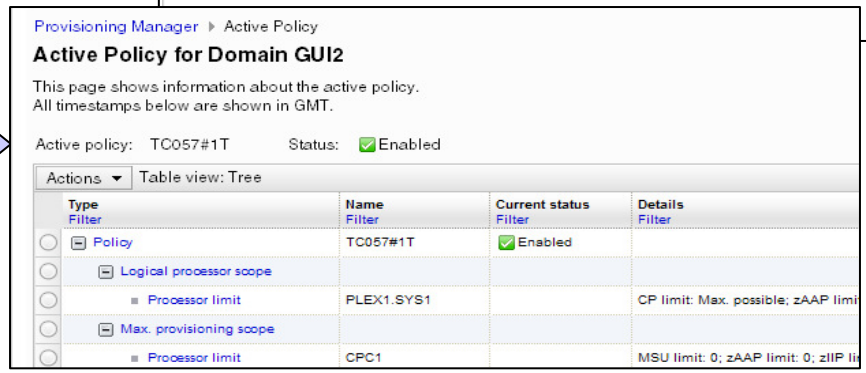
View information about the active configuration for a domain

•Drill down to CPC or system



View information about the active policy for a domain

Drill down to policy element



z/OSMF Capacity Provisioning (V1.13)
Functions

- ***Manage CIM connections to access a 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 (R13)
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**

The **z/OSMF Capacity Provisioning** task requires the base feature z/OS Capacity Provisioning

** Based on IBM laboratory results, your results may vary
** NOTE: Montoring only, complete set of CPCC management functionality is not provided in V1.13,

z/OSMF Software Deployment

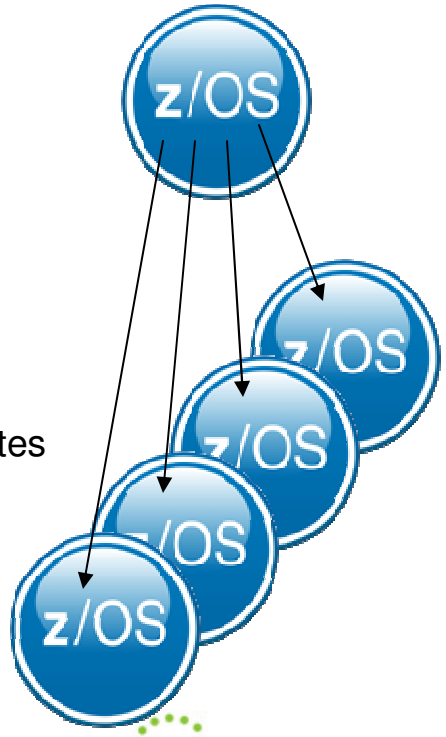
New! - simplified deployment of installed software

- z/OSMF Software Deployment will provide rigor in the deployment of SMP/E installed software.
- New task designed to make deployment of installed software simpler and safer.
  - Replaces manual and error prone procedures with a user friendly application
  - Incorporates IBM recommended best practices for software deployment.

- Software Deployment can clone software
  - Locally, either on a single system or system-to-system within a sysplex
  - Remotely, system-to-system across a network, even multiple sysplexes.

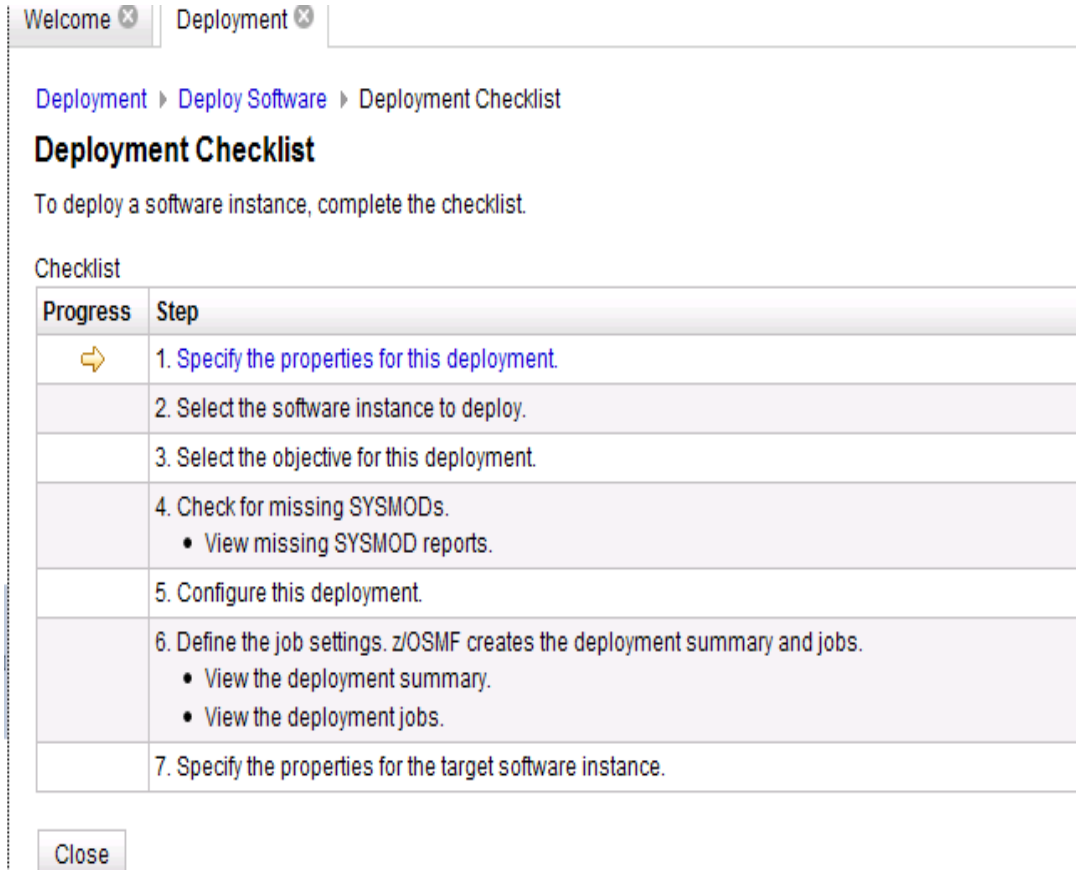
- Software Deployment can also:
  - Identify, modify, delete software instances
  - Generate jobs to copy a software instance
  - Verify cross-system and cross-product requisites, verify fixes
  - Copy ALL parts of the software (including SMP/E CSI inventory)
  - Helps identify actions including catalog, configuration, and security updates

- Software scope includes all SMP/E installed software:
  - IBM and ISV
  - z/OS, stack or individual products,
  - Service upgrades for all of the above (via complete replacement)



z/OSMF Software Deployment

- An intuitive checklist helps guide you though the z/OS and related software deployment process
  - Select the software to deploy (a software instance)
  - Select the deployment objective
  - Report missing requisites and possible regressions
  - Configure the target software instance
  - Validate the configuration against the target system, Summarize the deployment actions, and Generate the deployment jobs
  - Execute the deployment jobs



z/OSMF Software Deployment (R13)
Benefits

	Without z/OSMF Software Deployment **	With z/OSMF Software Deployment **
Software deployment according to IBM recommendations	**Only choice is to develop and maintain in-house z/OS software deployment tools and processes.** **•Limited capability to add best practices for deploying software.** **•Possibly missing documentation**	**A new choice, a supported tool from IBM. Reduce or reallocate resources normally used to develop and maintain in-house deployment tools. IBM recommended path for cloning/deployment is built in, complete with documentation and support.**
Error checking	**Manual processes. Errors possible from:** **•Missed steps in deployment process due to limited or no internal documentation of in-house tools.** **•Incorrect or incomplete requisite checking resulting in potential software compatibility issues prior to deploying software.**	**Reduced errors and missed steps in the cloning process. A deployment checklist provides a guide to avoid missed steps required to deploy software, which includes requisite and regression checks that help reduce errors made prior to deploying software.**
Skills and risks	**High SMP/E skill level needed**	**Can help reduce SMP/E skill level required by providing a task flow to complete a deployment.** **According to IBM measurements, SMP/E skill level reduced by approximately 30%** when deploying software using IBM-provided task flow and instructions.**

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

z/OSMF Software Deployment (R13)
Benefits

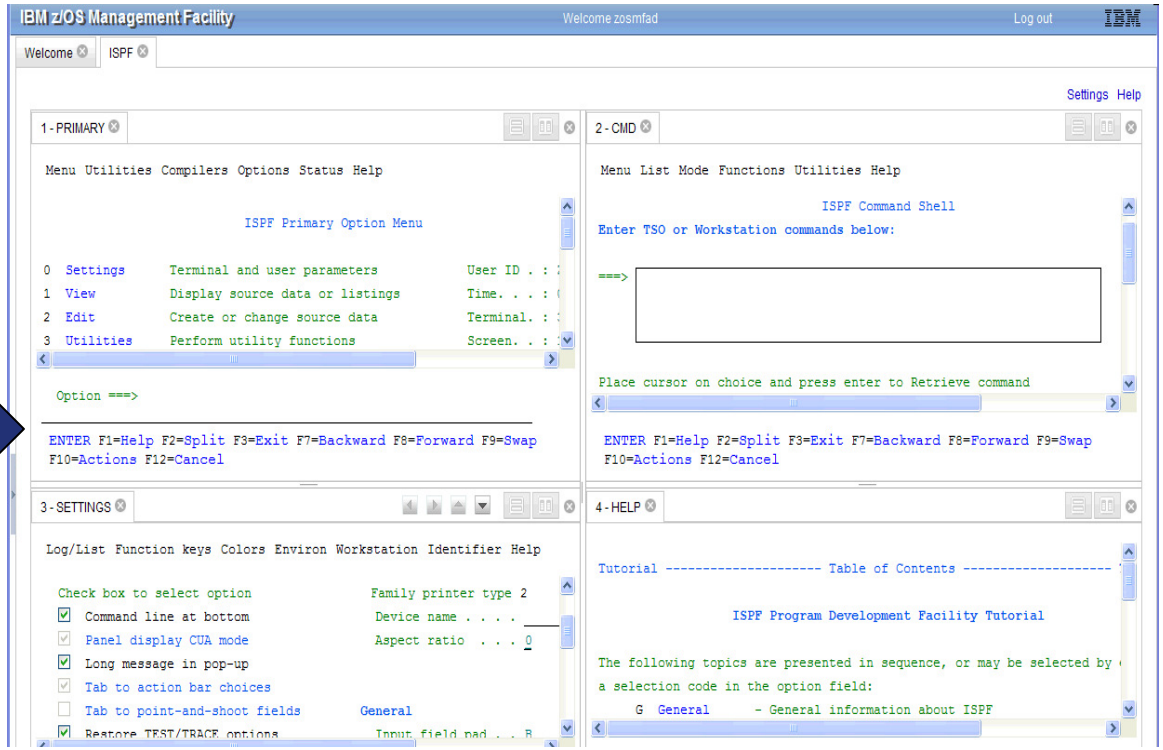
Task	Without z/OSMF Software Deployment	With z/OSMF Software Deployment
Identify missing requisite PTFs on instances that will share resources with the deployed software.	▪manually create and run SMP/E jobs to identify missing required service on other instances. ▪Analyze smpe report output manually ▪Missing coexistence PTFs can cause sysplex wide outages which require fallback to prior levels. ▪Deep smpe skills required	▪2 wizard steps in the deployment checklist to generate the complete report ▪Supports cross-system checking. ▪Fewer skills, simpler
Identify regressed software on the prior level instance.and Identify required actions from PTF HOLDs.	▪manually create and run SMP/E job to compare source with prior instance. ▪Can not be done if source and prior instance are on different systems. ▪Manually identify the delta and required actions ▪No SMP/E report capability to compare source with the prior instance available. ▪Ignoring actions or regressing service on the target system causes problems to occur.	▪3 wizard steps in the deployment checklist to generate the complete report ▪Supports cross-system checking. ▪Few minutes (can be combined with previous action)
Identify complete content of software to be deployed.	▪manually analyze SMP/E inventory to identify the correct content to deploy. ▪More typical is to deploy entire volumes or data sets by prefix. This requires strict volume and data set name conventions, which contribute to user errors. For example: • Copy PDSE without UNIX file system (was common with WAS V6) • Copy one data set without another causing partial APAR fixes. • Renaming a data set causes it to not be copied.	▪Automatically use specified SMP/E inventory to identify the all of the data sets that compose the source to be deployed.

z/OSMF Software Deployment (R13)
Benefits

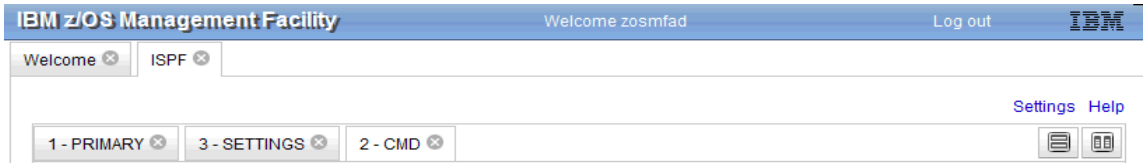
Task	Without z/OSMF Software Deployment	With z/OSMF Software Deployment
Modify the target software layout (data set names, location, and catalog).	Manual: •Define target system datasets, volumes and catalogs. •ensure the desired catalogs will be updated and new HLQs are identified •Best-guess for volume free space and required space for target data sets. •Mistakes typically require cleanup and deployment jobs to be rerun. •Hours	Automated checklist and wizard will; •Analyze target system catalogs to identify which will be updated for the target data sets, accounting for new, deleted, and replaced data sets. •Calculate volume free space and ensure target data sets will fit. Account for data sets added, deleted, replaced. •Ensure no existing data sets are accidentally clobbered. •Few minutes
Create deployment jobs.	•Create jobs from scratch or copy IBM supplied samples. Manual and error prone. •Easily allows users to mistakenly deploy subsets of software. •Inhibits exploiting new technologies, like zFS.	•Complete and accurate jobs are automatically created that always deploy complete software instances. •Supports current technologies.
View the planned target system updates before running the jobs.	•If done at all, manually compare source with the target system.	•Automatically generate reports to summarize the changes to the target system before making those changes. •Save reports for later audit or problem determination.

z/OSMF and ISPF (R13)
Work with existing interfaces

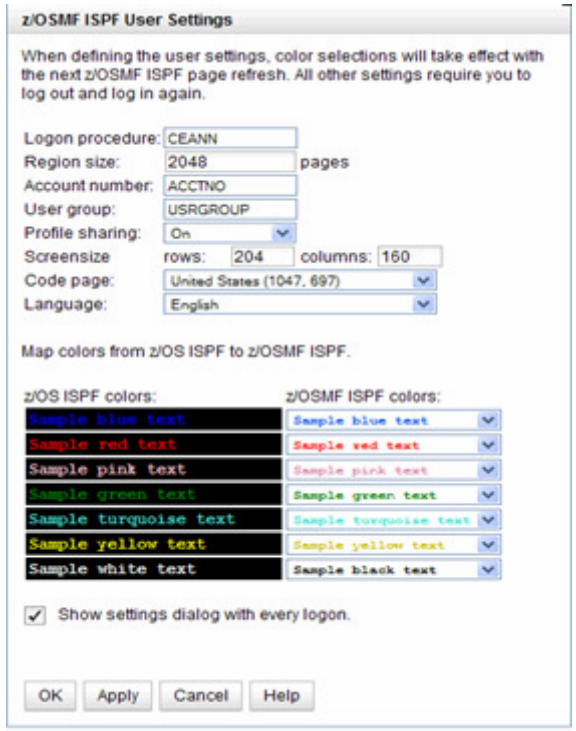
- **Enables system programmer to perform tasks from one interface.**
  - Also makes ISPF applications URL Web-accessible for linking and launching from other applications
- Up to 4 panes
  - Panes can be sized. Each pane can have multiple ISPF sessions, tabs can be moved between panes for a total of 8 tabs
  - Shows ISPF Menu bar, Command line, Function keys



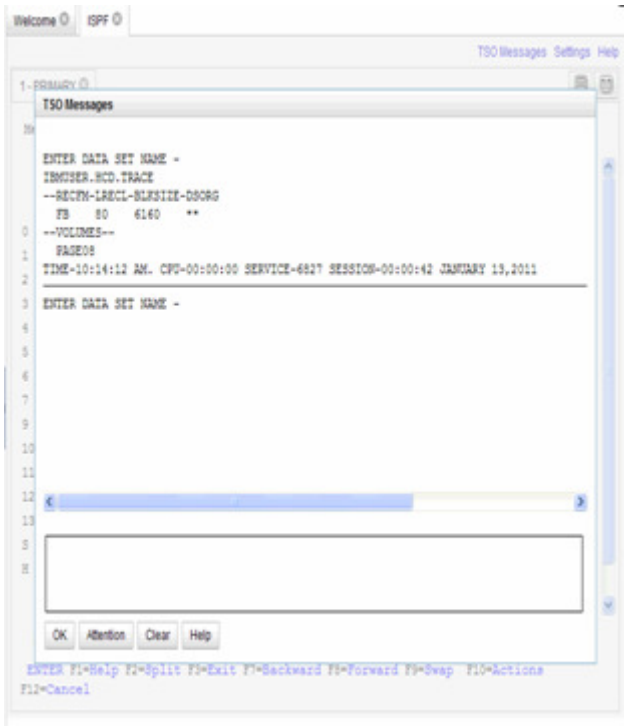
- Also available in tabbed format



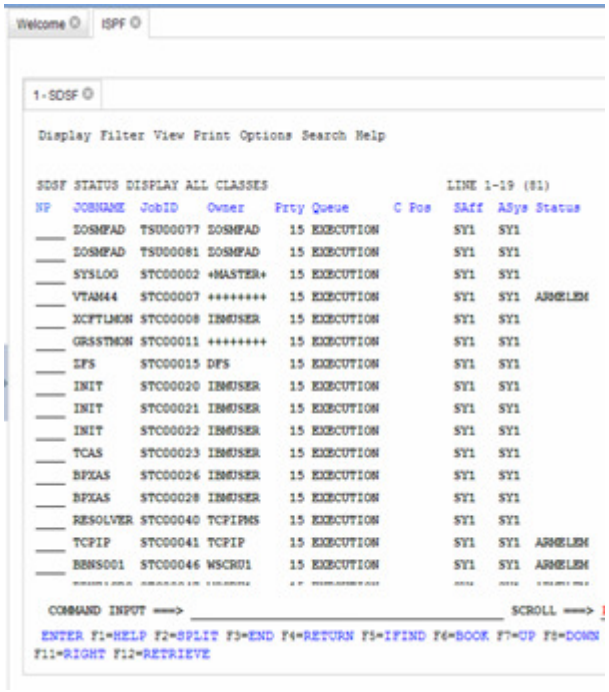
z/OSMF and ISPF (R13)
Additional screens



- **Customize settings**



- **TSO messages have priority and pop up**



- **Example: SDSF status**

z/OSMF 1.13 new core functions

- REST APIs for Job Management
- Application Linking
- SAF Authorization

New programmatic interface for z/OS
Function delivered with z/OSMF R13

- **A RESTful web service (also called a RESTful web API, or REST API) is a simple web-based publishing service implemented using HTTP.**
- **z/OSMF R13 Introduces a new REST API (HTTP(s)) interface to z/OS for submitting and accessing batch job information.**
- **This interface is an open API which can be driven locally on a z/OS system or driven from a remote system (The remote system need only support the HTTP(s) protocol)**
- **REST API web services can be used by: web applications (javascript/AJAX, Flex(Flash), etc) and other web service clients, such as Java, PHP, Perl, etc**
- **The REST API web service will connect to both JES2 and JES3, as well as secondary subsystems for select functions**
- **There is no GUI interface for the REST API.**
  - This item provides the customer a programmatic interface for web applications for z/OS Jobs via z/OSMF

JOBS REST API for z/OS – use with z/OS BATCH

- Today's options:
  - Allocate and open internal reader
  - TSO/ISPF submit,
  - FTP "interface-level2"
  - Java z/OS submit interface

- Complex programming
- Security protocol limitations

- New RESTful HTTPs based API
  - Secure
  - Firewall friendly
  - Text like

- Any web-based, Java, PHP, Perl application, etc. supporting HTTP

- z/OSMF R13
- z/OS JES2
- z/OS JES3

Submit JCL, get status, retrieve output files, change jobclass, cancel job, purge job

- Improve access to z/OS batch
  - Increase client coverage
  - Add a non-controversial remote interface
  - Align with Web technologies
  - Make z/OS a little more approachable
- Invoke the power of z/OS batch from virtually any non-z/OS application

JOBS REST Interface (example)

- Example
  - A job named G1JAVA1B with job number JOB00023

GET /**zosmf/restjobs/jobs/G1JAVA1B/JOB00023** HTTP/1.1

HTTP/1.1 200 OK
Date: Thu, 13 Jan 2011 05:39:28 +0000GMT
Content-Type: application/json
Connection: close
{
”jobid”:”JOB00023”,”jobname”:”G1JAVA1B”,”subsystem”:null,”owner”:”G1JAVA1”,
”status”:”OUTPUT”,”type”:”JOB”,”class”:”A”,”retcode”:”CC 0000”,
"url":"https:\/\/host:port\/zosmf\/restjobs\/jobs\/G1JAVA1B\/JOB00023",
"files-url":"https:\/\/host:port\/zosmf\/restjobs\/jobs\/G1JAVA1B\/JOB00023\/files"
}

  - Using the files-url you can retrieve the individual datasets, you can retrieve the data in chunks etc.

JOBS REST Interface (example)

- Other interfaces:

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*

The foundation for modern batch
Function for z/OS R13

- **About 90% of customers consider batch mission critical, the majority running on System z**.**
  - COBOL batch is almost everywhere and is capable of supporting billions of transactions a day.
  - Challenge with batch: maintaining 24x7 uptime for on-line processing systems coupled with processing ever increasing data volumes in an ever diminishing batch window

- **z/OS R13 the foundation for modern batch applications**
  - A new z/OS base component, the z/OS Batch Runtime environment, provides the framework for Java-to-COBOL interoperability, for transactional updates to DB2®, and for sharing database connections between Java and COBOL.
    - Re-use valuable COBOL assets by developing new and/or enhancing existing batch applications with Java
  - JES2 JCL enhancements are designed to make programming JCL easier, provide more control of batch applications.
    - In-stream data in catalogue procedures, more options on setting job return codes, and the ability to stop and hold a job at the end of a step (not just at the end of the job) give much more granularity and control.
  - New REST API enables you to access z/OS batch from non-z/OS servers.
    - Submit JCL, get status, retrieve output files, change jobclass, cancel job, purge job
  - Prerequisites
    - IBM 31-bit SDK for z/OS, Java Technology Edition, Version 6.0.1 (5655-R31)
    - DB2 V9.1 for z/OS (5635-DB2) or later with PTFs
    - IBM Enterprise COBOL for z/OS V4.1 (5655-S71) or later

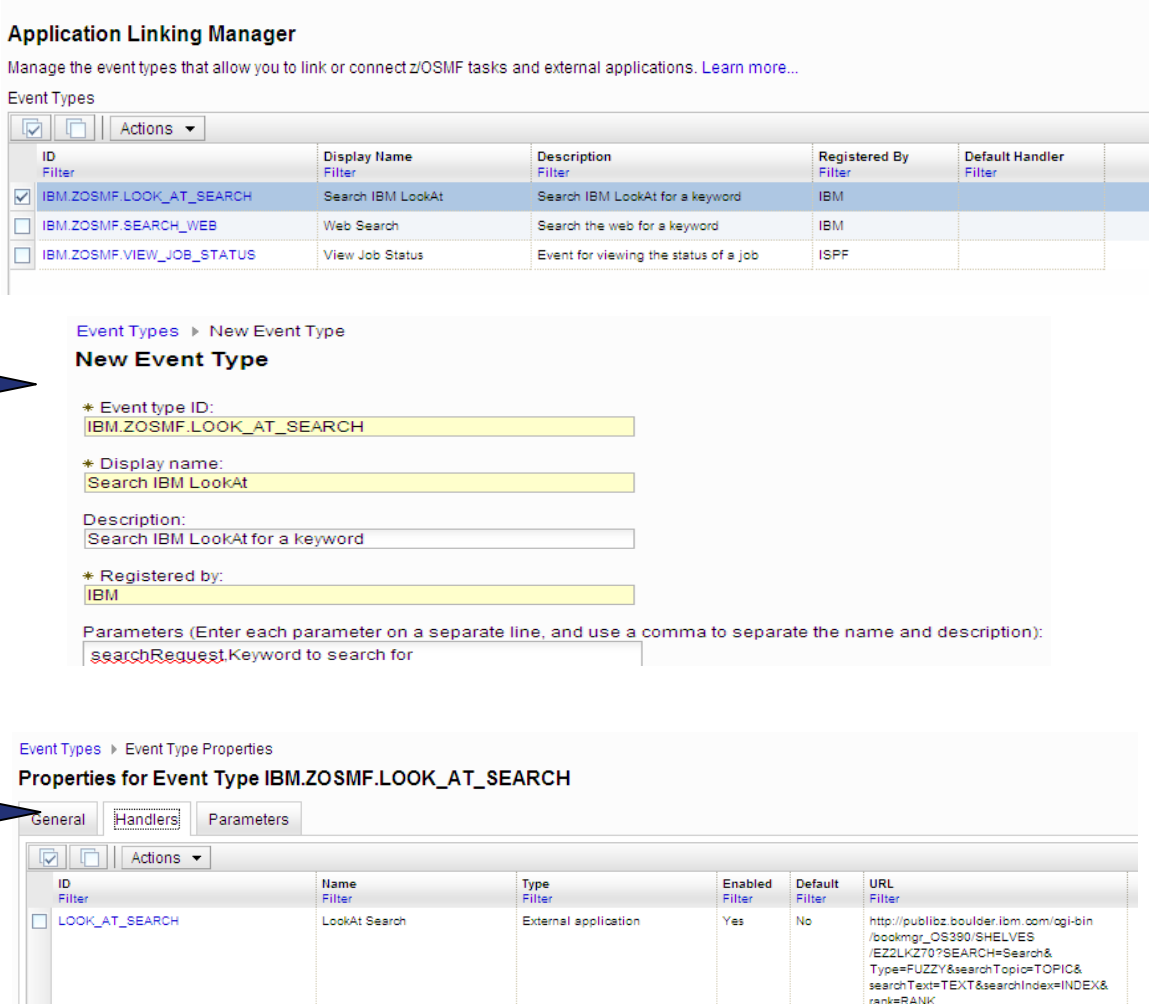
** IBM Market Research

Application linking (R13)

- 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
- Link z/OSMF apps to z/OSMF apps … or …. Link non-z/OSMF web-based apps to z/OSMF apps

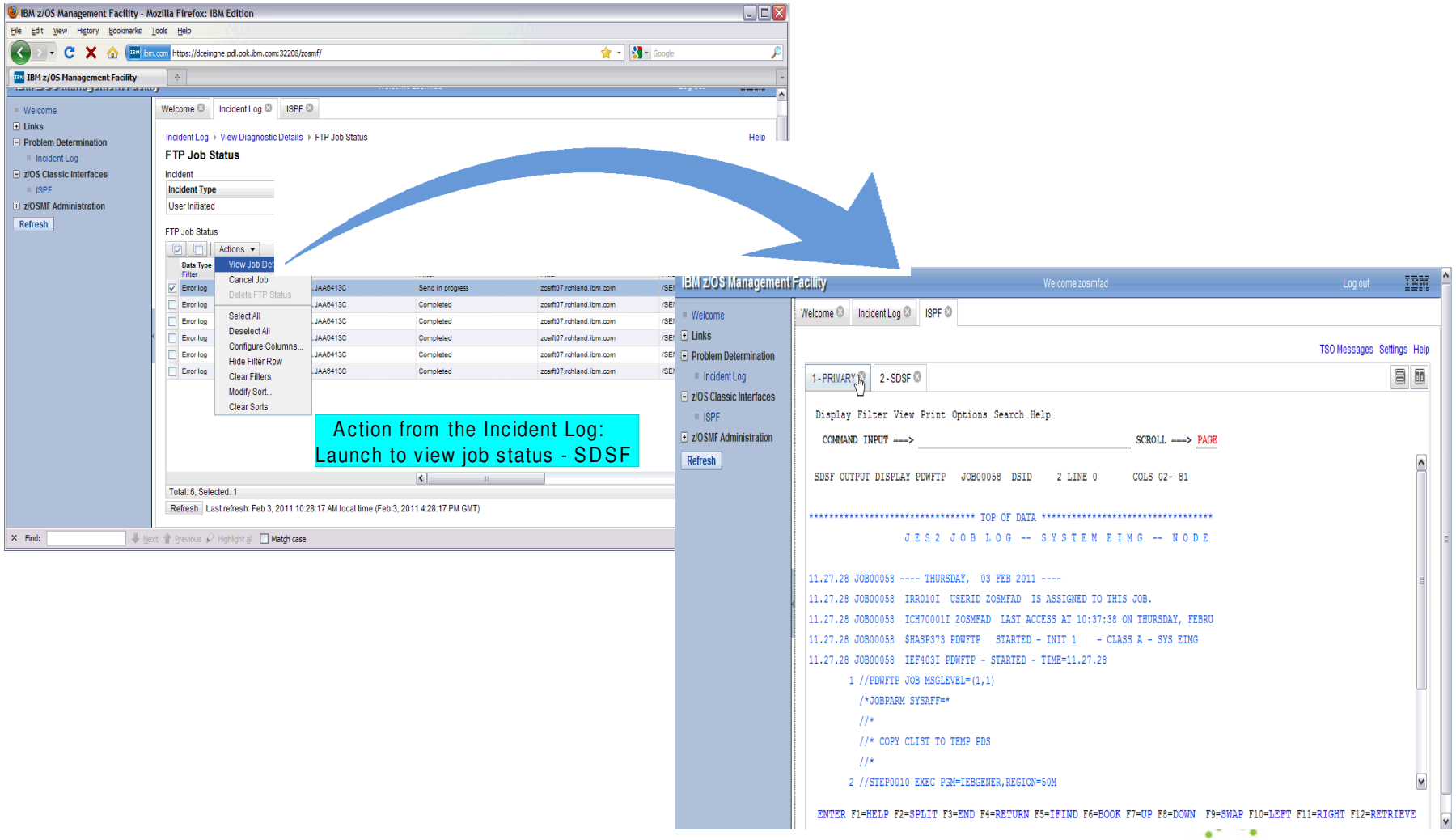
Application linking (R13)
Example, link from z/OSMF to LookAt

- Define an ‘event’ (such as “LookAt”)
- Then define the ‘event handler’ action and parameters (such as ‘go to LookAt’ with text search)



Application Linking

Example, link Incident Log to SDSF in context



Application Linking - APIs

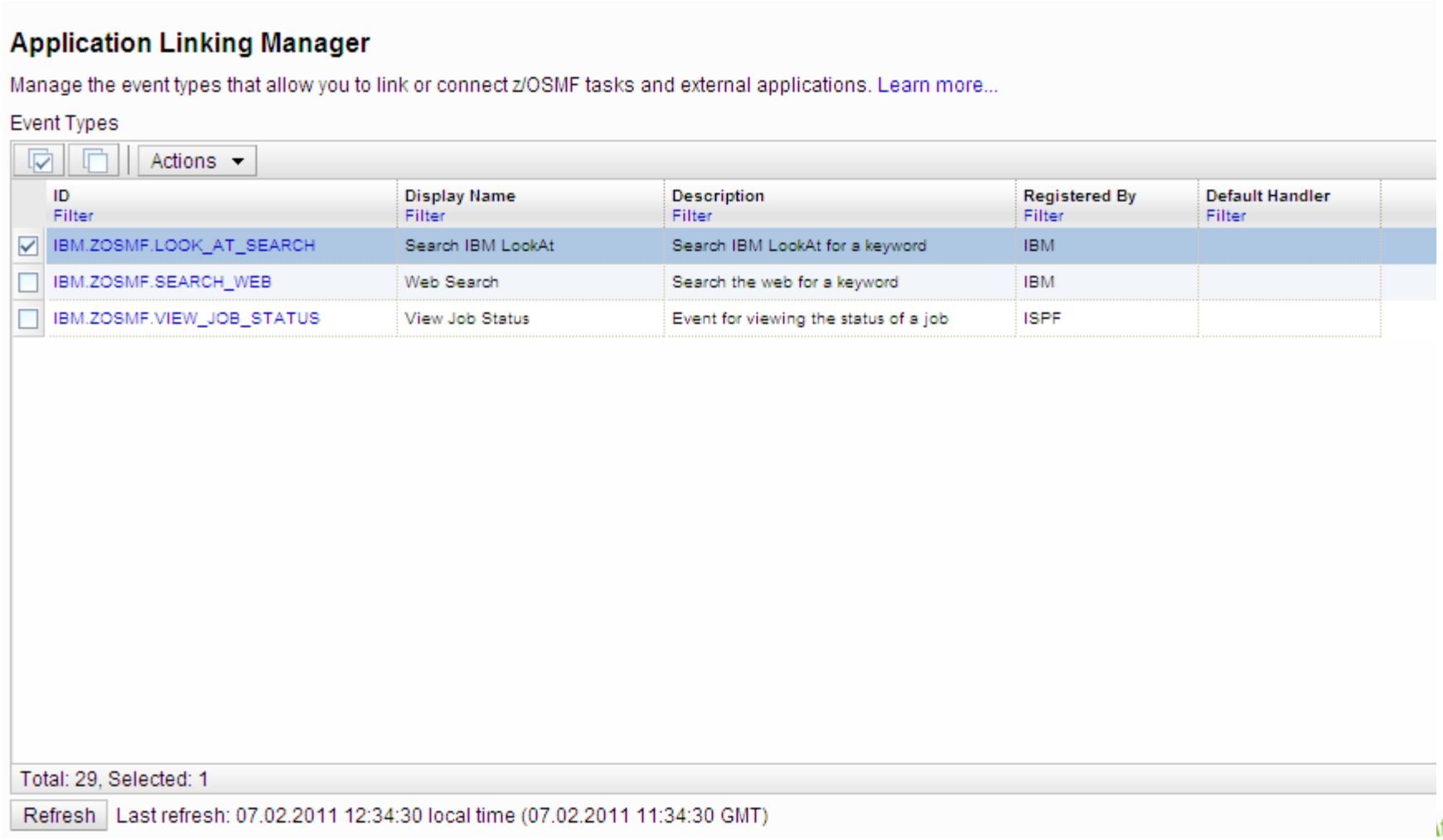
Method	*•Servlet API Method*		
	•URL	*•HTTP Method*	*•Request Parameters*

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 – GUI interface



z/OSMF Administration: SAF-based authorization (R13)

- z/OSMF is enhancing its authorization 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
    - connection of z/OSMF users to these new Groups
  - Resource names associated with all z/OSMF tasks and links.
  - Resource class profiles control authorization to z/OSMF managed resources.
- **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.

z/OSMF Administration: SAF-based authorization (R13)

- **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 Administration: SAF-based authorization (R13)

- 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

Enhancements to existing tasks

Config. Assist. for z/OS Communications Server

Updates for z/OSMF R13

- Retrieving TCP/IP profile information from active TCP/IP stacks, enabling it to import lists of IP addresses that are available for policy configuration.
- Allowing a single instance of the Configuration Assistant to be used to configure both z/OS V1.12 and z/OS V1.13 Communications Server. This is intended to allow you to configure systems in a mixed-release environment from a single instance of the Configuration Assistant running under z/OSMF.
- Allowing a policy rule to be defined once for multiple stacks, to permit more efficient policy configuration for multiple systems without having to individually define every policy rule for every stack.
- z/OS Communications Server intrusion detection services (IDS) technology is enhanced to add support for IPv6 traffic and also additional attack types, including Enterprise Extender, data hiding, and out of sequence packet denial of service attacks.

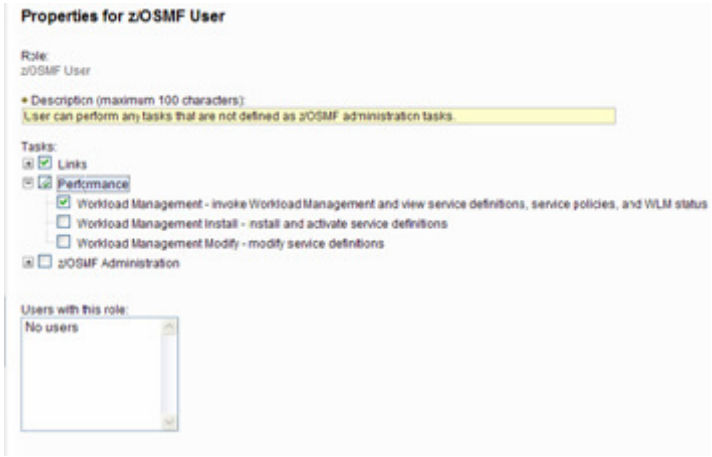
Incident Log

Updates for z/OSMF 1.13

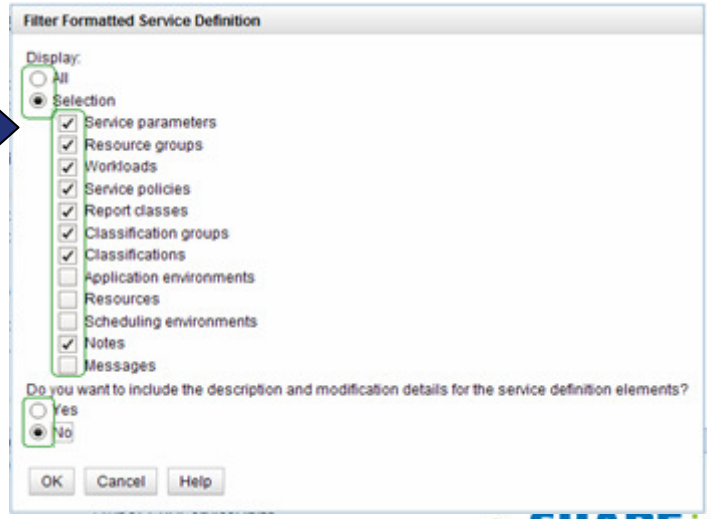
- FTP destination and Firewall Proxy settings shared with Software deployment
  - Can be updated during the wizard
  - Can be locked for update
- The name of file being transmitted is also included in the message
- Support the PDUU included with z/OS as of R13
- Use of system temp dataset for working with Unix files also – compressing before sending
- Retain search string added in the View Diagnostic Details panel
- Exploit Application launch for dataset browse and job status

z/OSMF Workload Management
Updates for z/OSMF R13

- Separate authorization levels for
  - Viewing of service definitions,
  - service policies, and WLM status
  - Installation and activation of service policies
  - Modification of service definitions



- Settings of a user are persisted between sessions
  - Sorting/filtering/configuration of (tree)-table columns
  - Recently used data set names during import/export of service definitions
  - Selections in Print Preview Filter dialog
  - Selections in Export to Local Workstation dialog



Resource Monitoring
Updates for z/OSMF V1R13

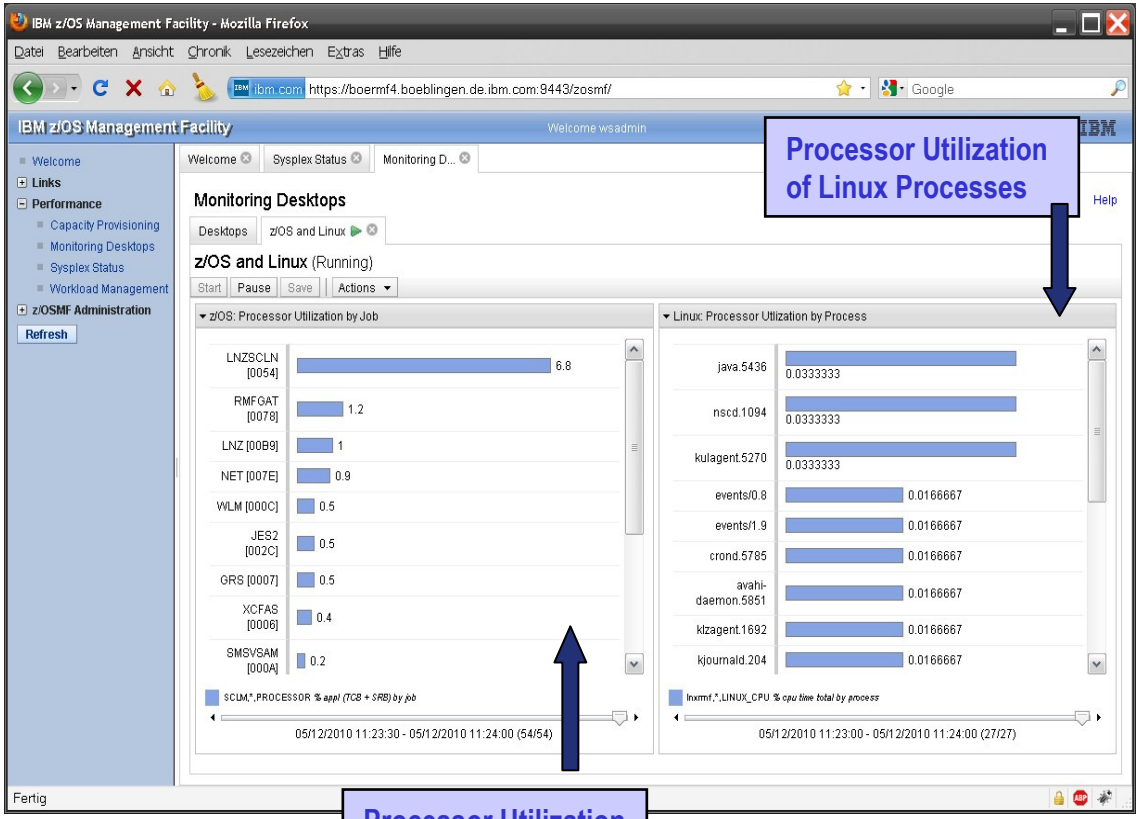
- **The following tasks have been renamed**
  - Sysplex Status **has been renamed to** System Status
  - Monitoring Desktops **has been renamed to** Resource Monitoring
    - **The** Desktops **have been renamed to** Dashboard
- **With z/OS V1.13 and z/OSMF V1.13, RMF is intended to provide new CIM-based performance data gatherers for Linux on System z, Linux on System x, and AIX systems to provide a consistent monitoring solution for zEnterprise ensembles.**
  - RMF XP can monitor Linux systems that run in LPAR as well as in z/VM. (Technically there is no difference for RMF XP as it talks to the endpoints via CIM.) If running in LPAR, RMF XP can also access LPAR hypervisor data and therefore can provide zCEC and zLPAR resources. These HW-related information is not available in VM.
- **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**

Integrated z/OS and Linux resource monitoring

A monitoring solution for multi-tier workloads

- **Monitor the resources for z/OS and Linux workloads**
- **Ideal for use with System z Enterprise System**

- **For z/OSMF R12**
  - Use separate as-is, no-charge web-download tool to gather resource information for Linux for System z and Linux for x86 systems.
- **For z/OSMF R13**
  - New performance data gatherers for Linux on System z, Linux on IBM System x®, and AIX® systems integrated in z/OSMF
  - Consistent monitoring solution for these systems in zEnterprise ensembles.



Note, screen capture from z/OSMF R12

Delivering on requirements

Software deployment

- ***PM40761: (***UK73699) ***- SUPPORT DEPLOYING A SOFTWARE INSTANCE WHEN UNIX FILE SYSTEM DATASETS ARE NOT MOUNTED.***
  - With PM40761, instead of displaying an error message, if a directory is not found in the active UNIX file system, z/OSMF allows the user to identify the UNIX data sets that contain the directories and files identified by the target zone DDDEF entries, thus removing the requirement for these data sets to be mounted.

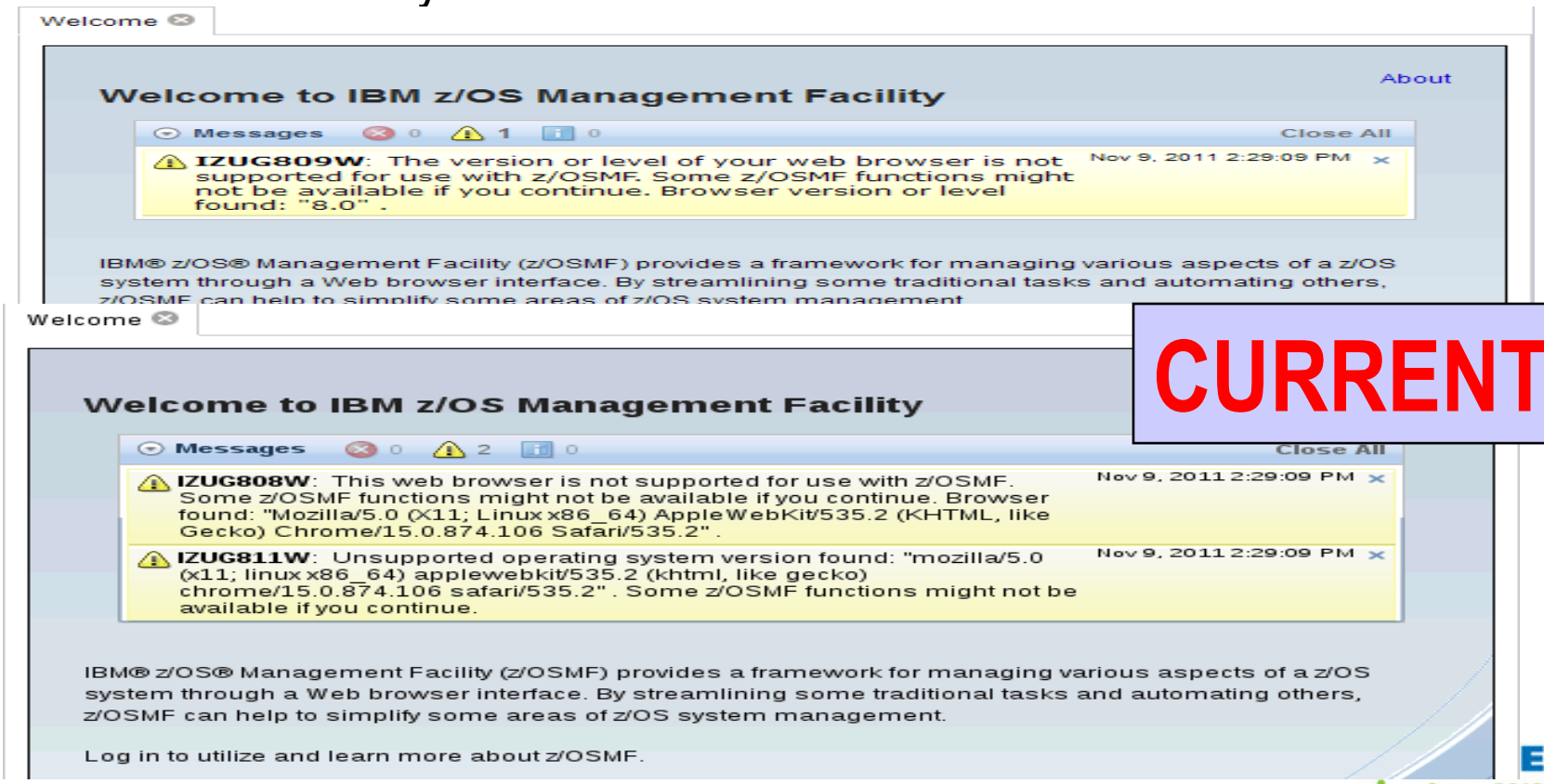
Software deployment - continued…

- PM40764: **ALLOW A USER TO CREATE A NEW DEPLOYMENT THAT USES THE SAVED CONFIGURATION FROM A PREVIOUS DEPLOYMENT**
- **Copy a Deployment**
  - z/OSMF will allow a user to make a copy of a prior completed deployment in order to reuse the valuable information that describes the target of that deployment.
    - z/OSMF will compare the saved information to the current source software instance and identify any discrepancies or differences, and allow you to reuse the saved information as much as possible, thus making a second or subsequent deployment must quicker and easier.
- **Granular Authorization**
  - Security administrators will now have the capability to define SAF profiles that can control users' access to certain functions or to certain objects.
    - For example, it will now be possible for DB2 administrators to have authorization to add and modify software instances and deployments only for DB2 software, but not for z/OS, and vice versa for z/OS administrators. Thus, both DB2 and z/OS administrators can be confident they will be able to manipulate only the objects they are authorized.
    - by default all users will continue to have authorization to all software instances and deployments.
- Requires Core/Config support - PM50561

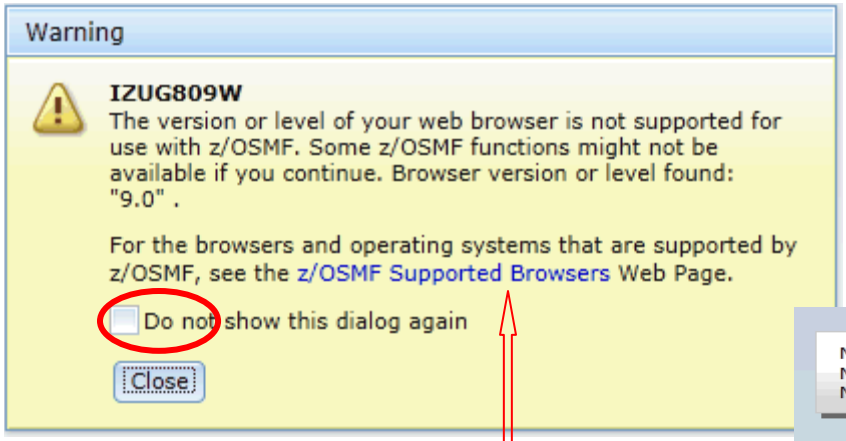
PM56416: Unsupported browser and operating system message enhancement

Use case:

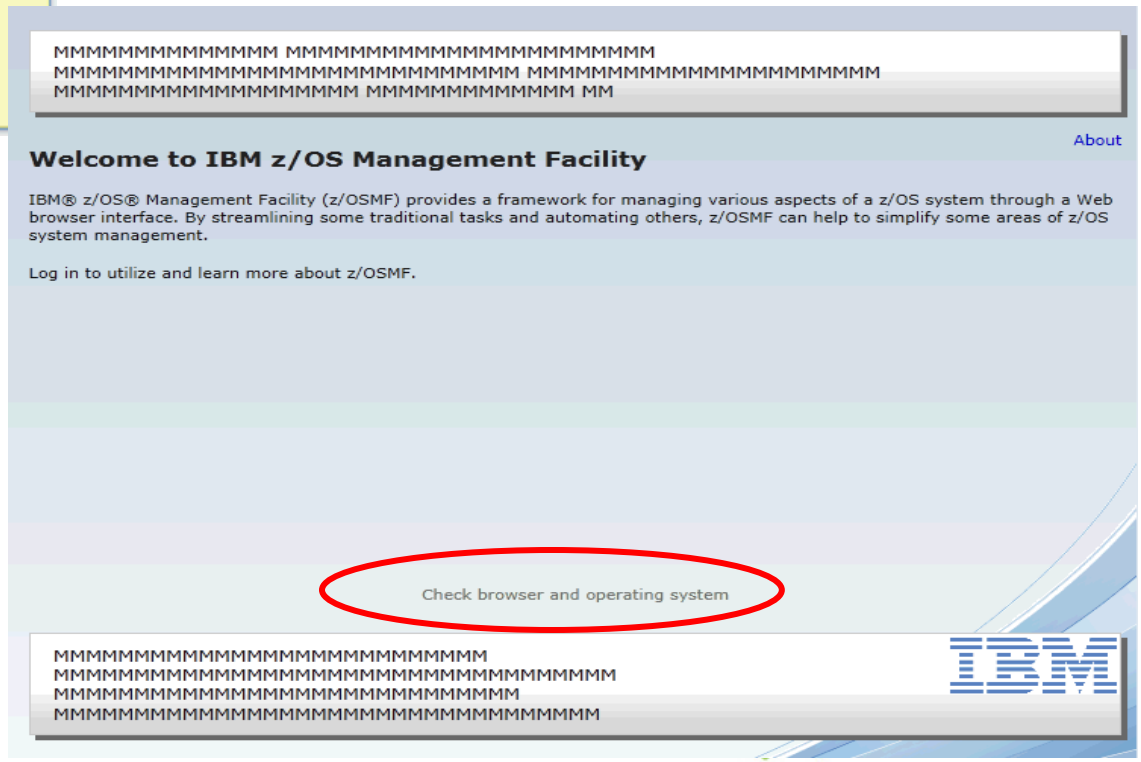
- As a user of z/OSMF I want the message associated with a browser or platform not supported by z/OSMF to either not be issued or have the ability to be turned off so that I am not annoyed each time I launch z/OSMF in my browser.



PM56416(UK76406): Unsupported browser and operating system message enhancement (contd)



NEW



Incident Log and ISPF

- Incident log – migrated dataset handling
  - In the past, working with migrated diagnostic data sets could be lengthy resulting in timeouts; now z/OSMF can process migrated data sets with improved handling
  - *z/OSMF APAR - PM46302*
  - *z/OS CEA APAR – OA37149*
- ISPF Usability enhancement - *PM47241*

z/OSMF V1R13 Pre requisites

- Software Dependencies
  - z/OSMF 1.13 requires z/OS 1.13
  - WAS OEM 7.0.0.17 or later
- Hardware Dependencies
  - 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
  - Internet Explorer 9 (compat mode, behaves like IE 7)

Additional information

- **z/OS Management Facility website**
  - http://ibm.com/systems/z/os/zos/zosmf/
- **z/OS Hot Topics, Issue 25:**
  - http://ibm.com/systems/z/os/zos/bkserv/hot_topics.html
- **Program Directory for z/OS Management Facility** GI11-2886
- **IBM z/OS Management Facility Configuration Guide** SA38-0652
- **z/OS Management Facility Messages** SA38-0654
- **IBM WebSphere Application Server OEM Edition for z/OS Configuration Guide, Version 7.0** GA32-0631
- **IBM z/OS Management Facility License Information** GC52-1263

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**
  - Browser/platform support

BACKUP

Migration and coexistence

- 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 - UK65987
  - z/OSMF 1.12
    - PM27450 (z/OSMF core) - UK65997
    - PM32108 (Incident Log) – UK66066
- 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.

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 –
    - COMPID 5655S28DF z/OSMF Storage manager

Ordering - ShopzSeries

MVS: z/OS Operating System

Select		Product	Description		Version	Language
☐	◆	[5655-P97]	Encryption Facil Encrypt Ser	[FMIDs]	1.02.00	English (US)
☐	◆	[5655-P97]	Encryption DFSMSdss Encrypt	[FMIDs]	1.02.00	English (US)
☐	◆	[5655-S26]	Sys Svcs Runtm Env for z/OS	[FMIDs]	1.01.00	English (US)
☐	◆	[5655-S28]	z/OS Management Facility	[FMIDs]	1.13.00	English (US)
☐	◆	[5694-A01]	z/OS V1 DFSMStvs	[FMIDs]	1.13.00	English (US)
☐	◆	[5694-A01]	z/OS V1 SDSF	[FMIDs]	1.13.00	English (US)
☐	◆	[5694-A01]	z/OS V1 BDT FTF	[FMIDs]	1.13.00	English (US)
☐	◆	[5694-A01]	z/OS V1 BDT SNA NJE	[FMIDs]	1.13.00	English (US)
☐	◆	[5694-A01]	z/OS V1 Base	[FMIDs]	1.13.00	English (US)

IBM z/OS Management Facility

- **The IBM z/OS Management Facility is a zero priced separately licensed program product**
  - z/OS Management Facility V1.13 (5655-S28)
    - Same program number as z/OS Management Facility V1.11 and V1.12
  - z/OS Management Facility V1.1 Subscription and Support (5655-S29)
- **The IBM z/OS Management Facility product consists of :**
  - WebSphere Application Server OEM Edition
  - z/OSMF core infrastructure
  - z/OSMF plug-ins
- **z/OS Management Facility V1.11 runs on z/OS V1.10 through z/OS V1.13**
  - The Configuration Assistant for z/OS Communications Server requires z/OS V1.11 or higher
- **z/OSMF V1.12 requires z/OS V1.12 or higher**
- **z/OSMF V1.13 requires z/OS 1.13**

Software Installation

- **z/OSMF V1.13 ordered in a z/OS ServerPac**
  - Provides default customization via ServerPac provided customization job
    - Provided for Full System Replace installation path
    - Software Upgrade jobs and documentation provided but may need changes based on your existing environment
  - Can also use the WebSphere Application Server OEM Edition Configuration Guide and z/OSMF Configuration Guide
    - Product configuration scripts to setup, if defaults are not viable
- **z/OSMF V1.13 ordered in a CBPDO**
  - Use Program Directory to get started
  - Use the WebSphere Application Server OEM Edition Configuration Guide and z/OSMF Configuration Guide
    - Product configuration scripts to setup