System z simplification

z/OS Management Facility (z/OSMF) 1.12 Overview

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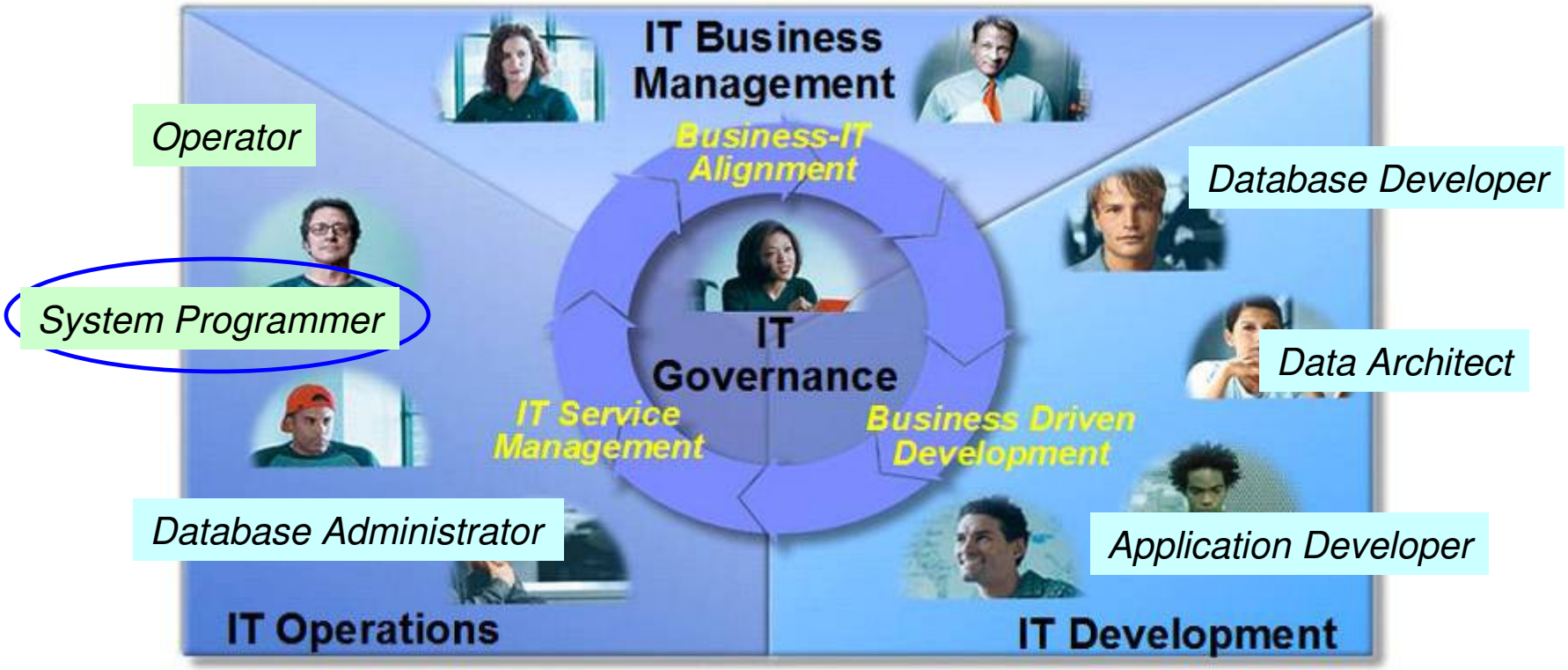
Agenda

- z/OSMF Overview
- z/OSMF Functions
  - **Incident Log**
  - **Configuration Assistant for the z/OS Communications Server**
  - **WLM Policy Editor**
  - **Resource Monitoring**
  - **Proposed z/OSMF V1.13 functions**
  - **Administration**
- Summary

IT Organizational Domains

✓ Need for simplification of tasks

✓Modernization and integration of tools



✓ Within each domain to enhance productivity

✓Across domains to enhance collaboration

Focus Areas for Simplification

Problem Determination and Analysis

- Monitoring health; identifying real and potential problems
- Analyzing and resolving problems

Configuration

- Adding or changing system components; enabling new features; defining and updating policies that affect system behavior.

Simplify and modernize the System Programmer User Experience

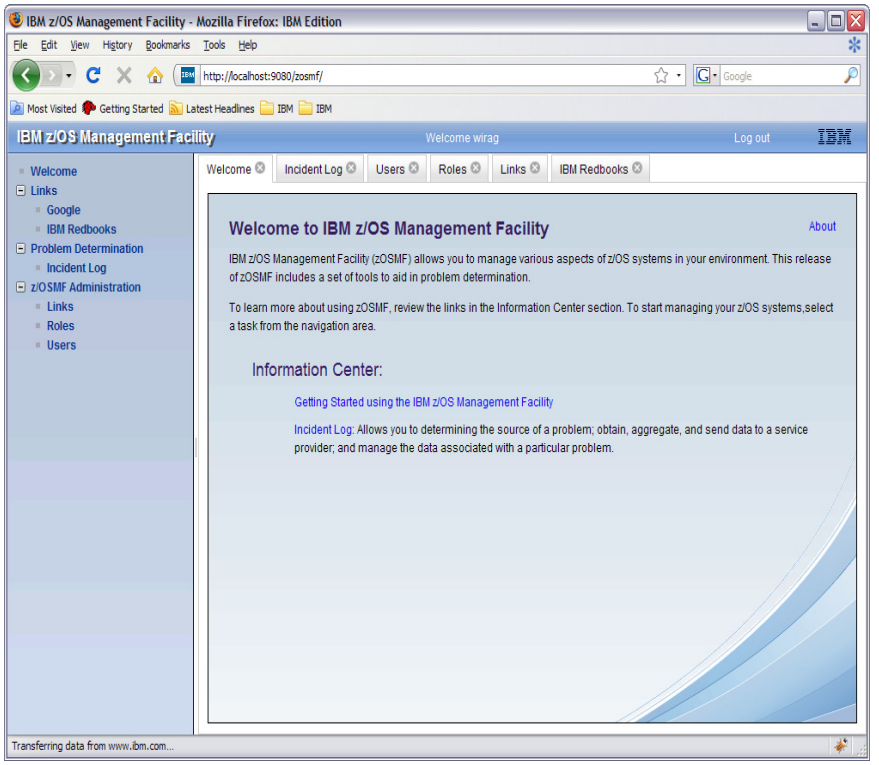
Deliver solutions in a task-oriented browser-based user interface with integrated user assistance

Information

Finding the information needed to use z/OS

IBM z/OS Management Facility

- The IBM z/OS Management Facility is a new product for z/OS that provides support for a modern, Web-browser based management console for z/OS.
- First release is z/OSMF 1.11, introduced with z/OS 1.11
- 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.

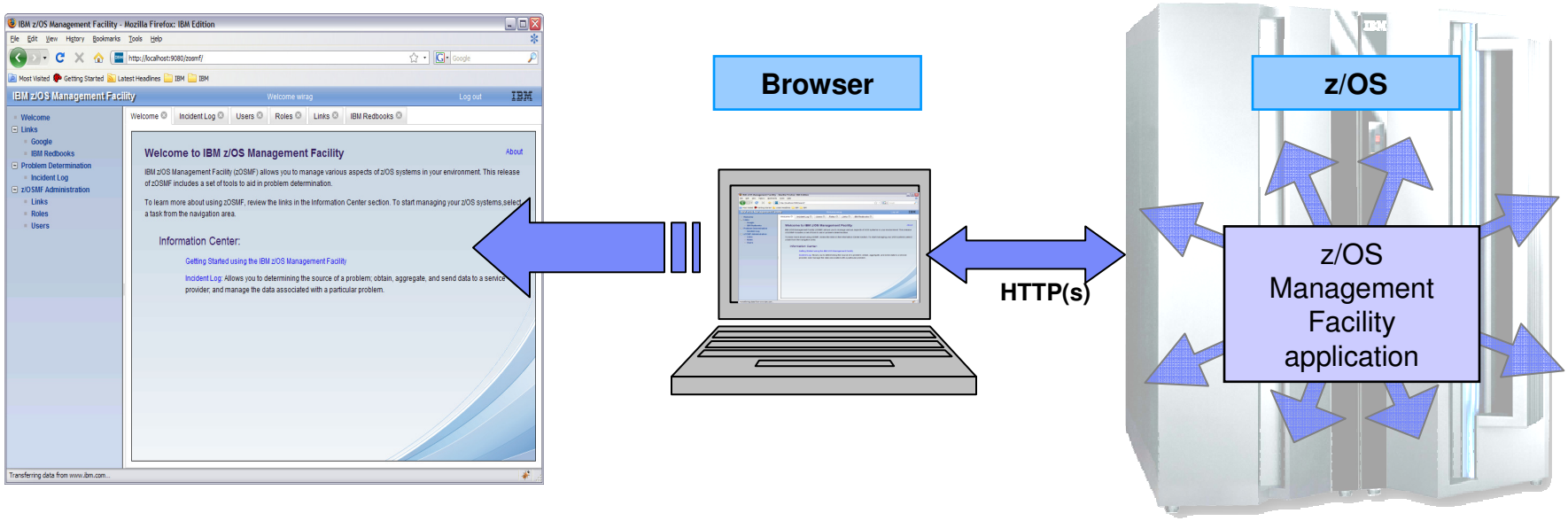


Focus on System Programming

- Address the needs for a mixed skilled workforce.
- Make System Programmers who are new to the mainfram productive more quickly by:
  - Providing a modern browser-based user interface that is more familiar to those new to the platform
  - Automating tasks, thus reducing the learning curve
  - Embedding active user assistance in the UI (e.g., wizards that guide users through tasks, interactive troubleshooting aids).
- Make experienced System Programmers more productive by:
  - Making functions easier
  - z/OS Management Facility is optional for those who prefer traditional interfaces

IBM z/OS Management Facility

z/OS application, browser access

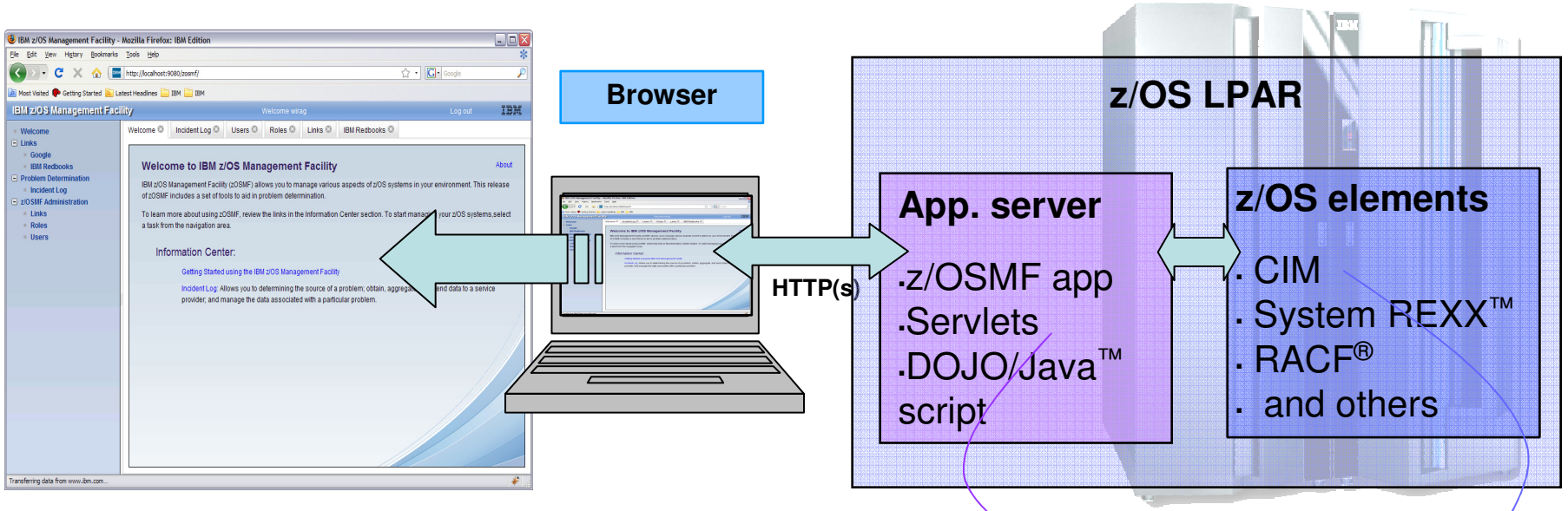


- z/OS Management Facility is a Web 2.0 application on z/OS
  - Manages z/OS from z/OS
  - Browser communicates with z/OS MF via secure connection, anywhere, anytime
  - z/OSMF V1R11 is supported on z/OS V1R10 w/maint, z/OSV1R11, and z/OS V1R12
  - z/OSMF V1R12 is supported on z/OS V1R12, and z/OS 1.13*
  - z/OSMF V1R13 is to be supported on z/OS V1R13*

* Statements regarding IBM future direction and intent are subject to change or withdrawal, and represents goals and objectives only.

IBM z/OS Management Facility

Industry standards

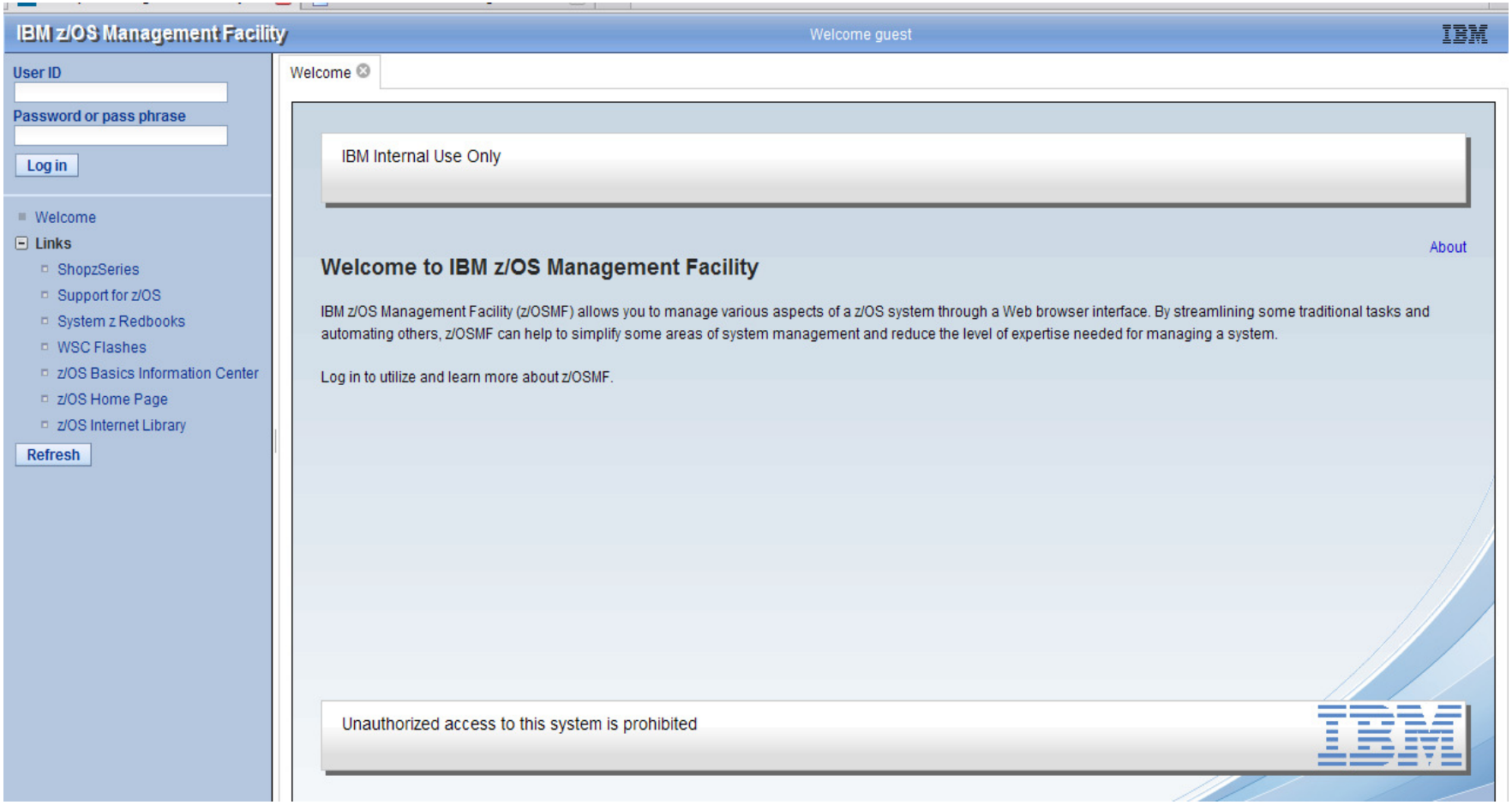


z/OS Management Facility is based on industry standards

- Java and Dojo - Dojo is an Open Source DHTML toolkit written in JavaScript. Dojo allows you to build dynamic capabilities into web pages and any other environment supporting JavaScript. Most of z/OSMF application is written in Java
- Parts of z/OS Management Facility, such as Incident Log (R11) and WLM Policy Editor (R12) use CIM

Guest view

Login



- To log in you will need a z/OS user ID that has been defined and enabled for z/OSMF (and the WebSphere® runtime environment)
  - Guidance is provided.

IBM z/OS Management Facility – V1R12

Welcome page

- **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)
  - **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
  - Resource Monitoring: **Sysplex status and Monitoring desktops -** provides integrated performance monitoring of z/OS sysplexes in the customer's environment
- **Problem Determination** category
  - **Incident Log** application
  - 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.
- **z/OSMF Administration** category
  - z/OSMF authorization services for administrator: add users, define roles, dynamically add links to non-z/OSMF resources.

Focus on Problem Determination

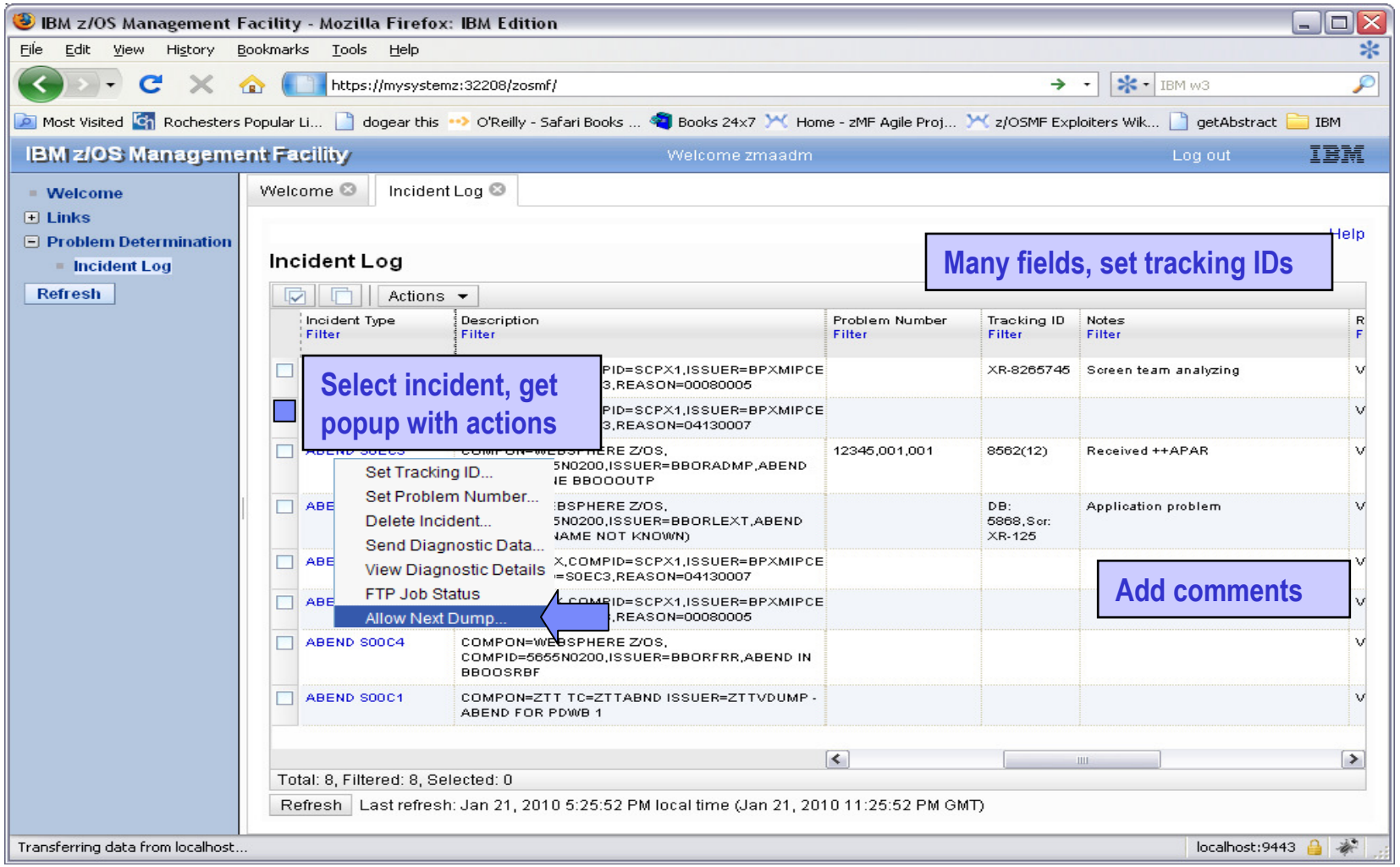
- Pain Points
  - Need to troubleshoot a live system, recover from the failure.
  - Need to reduce risk to the business, reduce risk of re-occurrence.
  - Complexity of performing the task (number of steps, jargon).
  - Data collection very time-consuming
  - Significant skill level needed to analyze problems, interact with IBM and ISVs to obtain additional diagnostic info (setting SLIP traps, traces, etc.)
- Focus on Problem Determination capability - Incident Log:
  - Troubleshoot your system easier, faster
  - The incident log and underlying z/OS diagnostic data gathering greatly improves the tasks related to:
    - Identifying system-detected problems (related to SVC dumps taken by the system)
    - Collecting diagnostic materials related to a problem and sending materials to IBM or another company's support area
    - Tell the system to take the next dump for a previously-recognized problem

z/OSMF Problem Determination – Incident Log

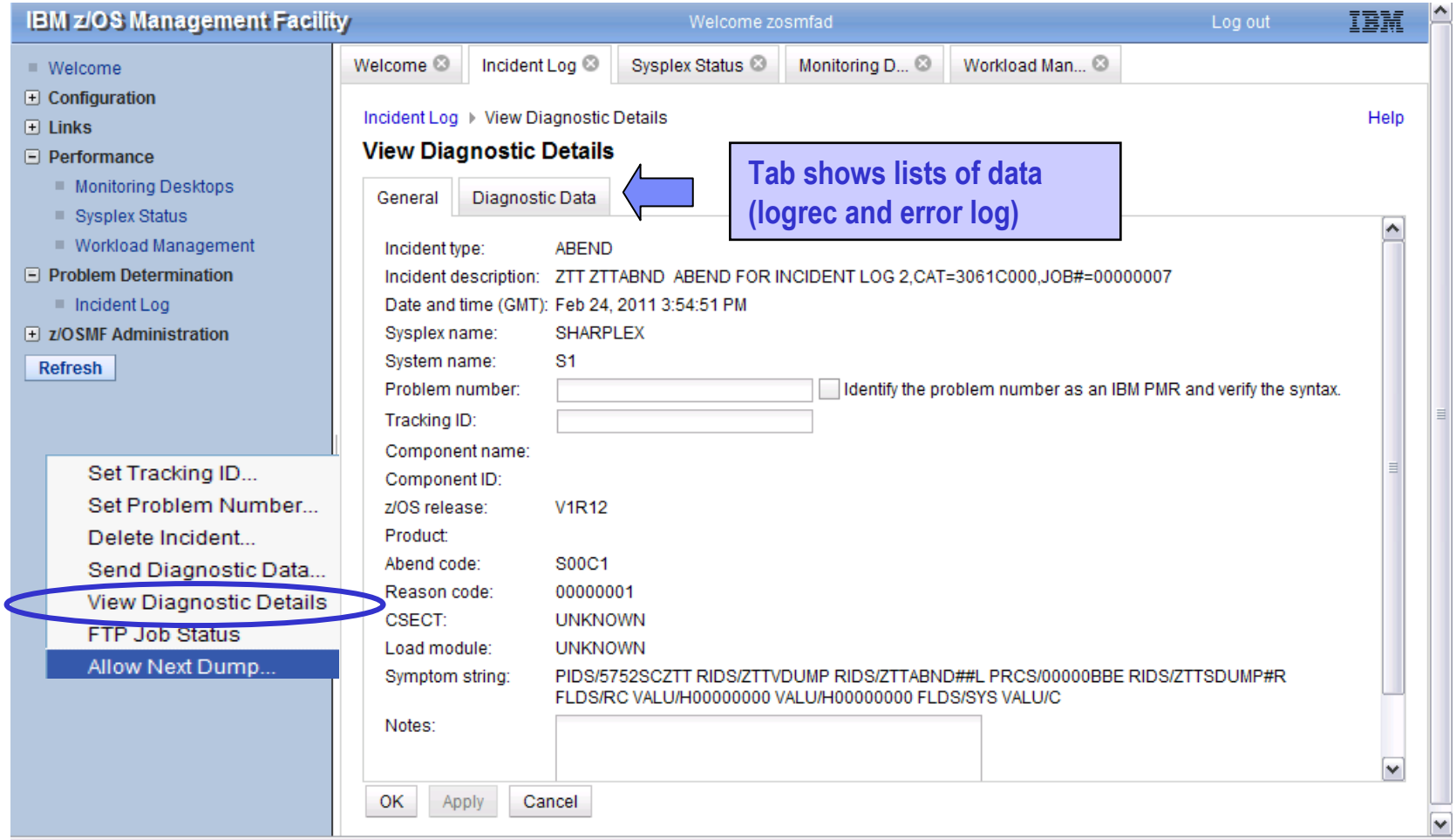
Details

- **Auto-capture basic diagnostic materials, triggered when the dump is written to a data set, managed via PARMLIB member**
  - Initial focus is on Abend and user initiated SVC dumps
  - Improved FFDC for system-detected problems
  - Diagnostic data “snapshots” for transient data: Snapshots of 30 min Operlog or Syslog, 1 hr Logrec detail, and 4-hour Logrec summary
    - Incident Log will also support the creation of diagnostic log snapshots based on the SYSLOG and LOGREC data sets, as well as the OPERLOG and LOGREC sysplex log streams
  - Allow doc to be tersed and FTP'd to IBM (or ISV) without having to keep track of where logs are archived via easy to use interface
  - Simplify informing DAE to take the next dump for the incident's symptom string
- **Functions include:**
  - Display list of incidents (Filter/ sort/ configure/ delete)
  - Display properties – view list of diagnostic data, logs
  - Set properties: associate problem number and tracking id (R11), new fields and more customization capabilities (R12)
  - Send diagnostic data via FTP: Manage FTP jobs status and define FTP Profiles (firewall) (R11), support for encrypted and parallel FTP (R12)
  - Send additional user-defined diagnostic data (R12)
  - Enhance scope of diagnostic log snapshots created (R12)
  - Allow next dump

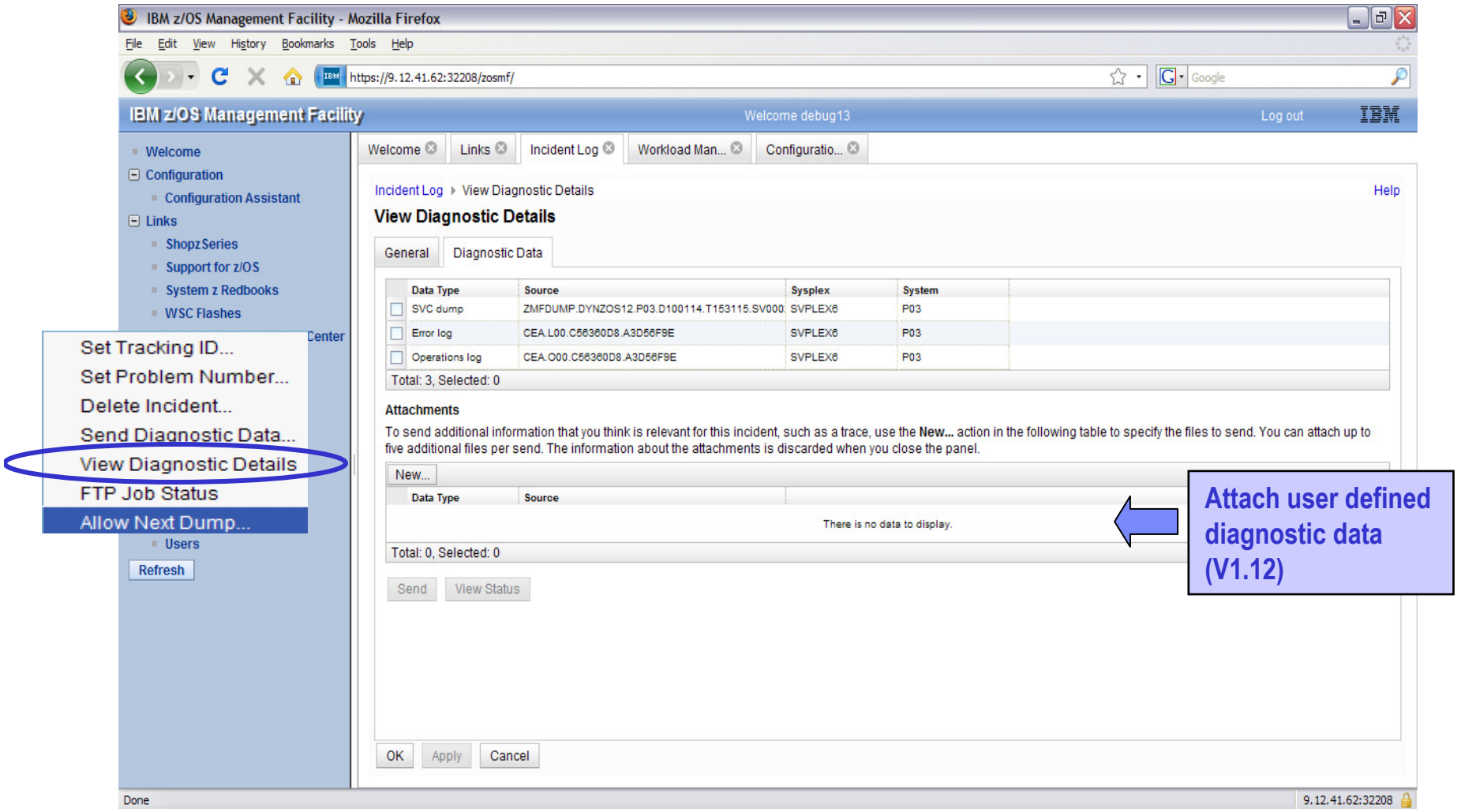
Incident Log – Summary Information



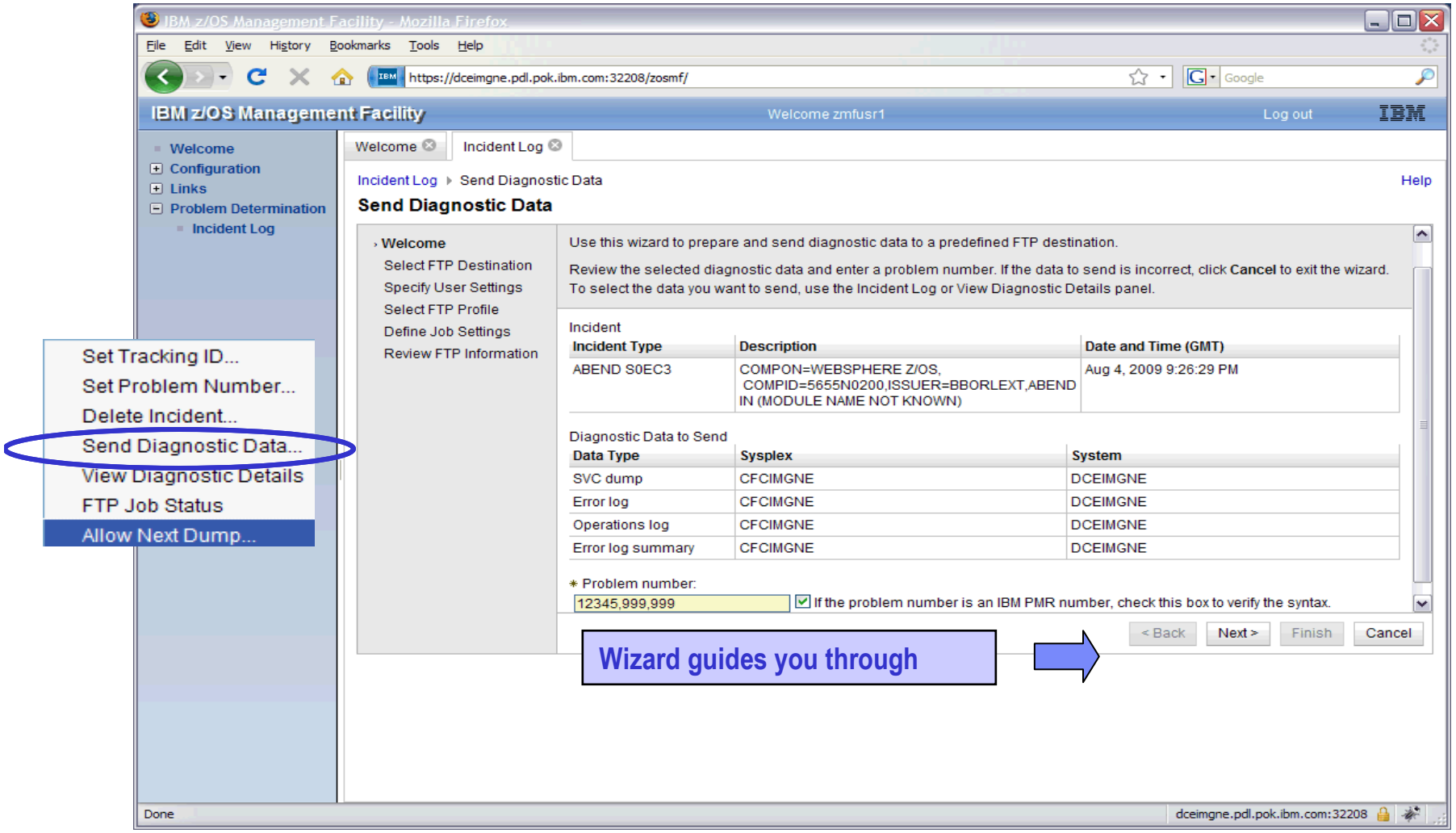
Incident Log – Incident Details



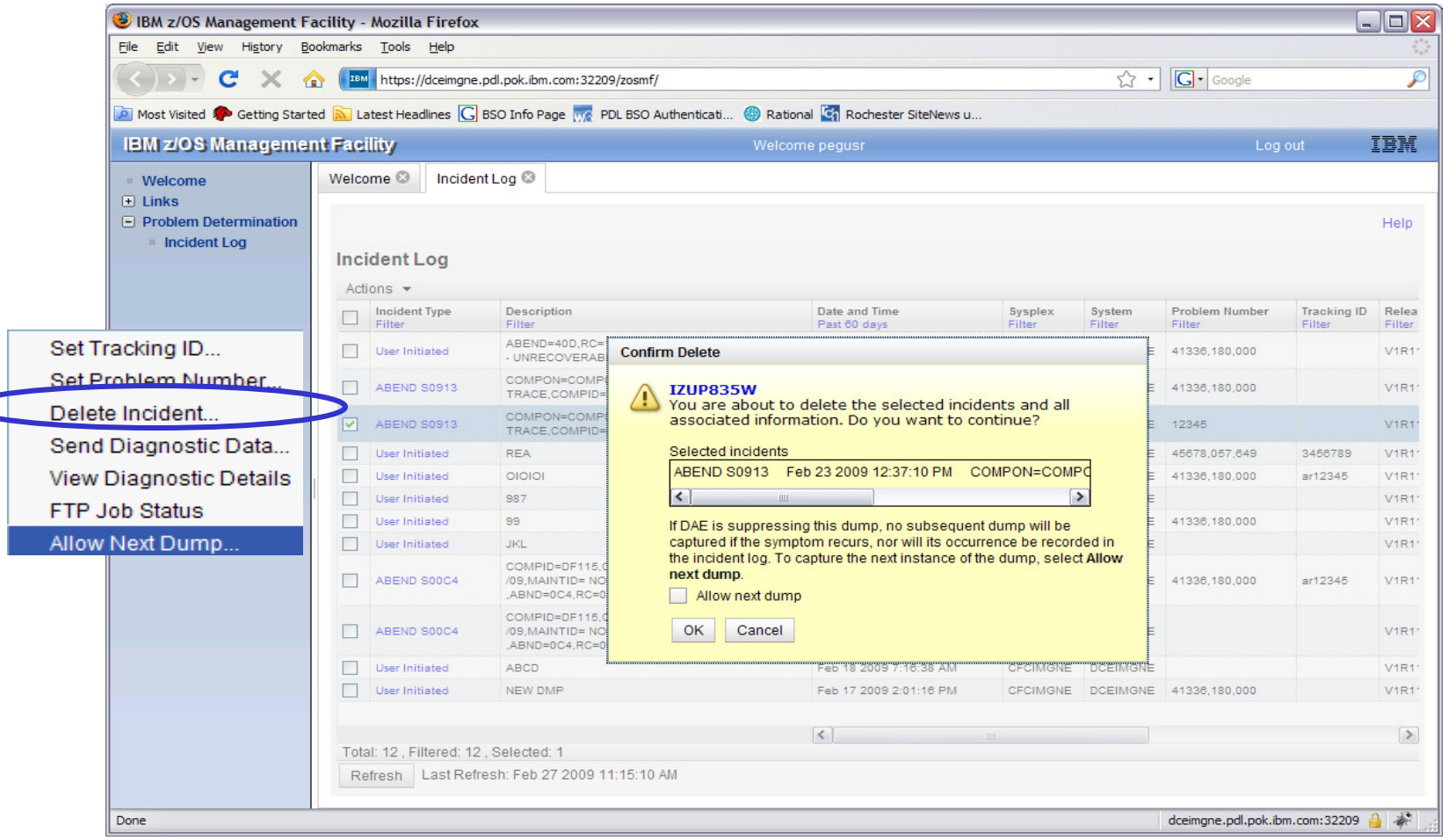
Incident Log – Diagnostic Data



Incident Log – Send Diagnostic Data



Incident Log – Delete Incident



z/OSMF Problem Determination – Incident log

Benefits

	Without z/OSMF Incident Log **	With z/OSMF Incident Log **
Recognizing a system-detected (dumped) problem occurred	Requires 5 to 7 manual steps, plus skill on effective use of IPCS to extract data from each of the dumps. Up to 5-6 minutes	Display in 1 click. Greatly reduced skill required As little as 5 seconds
Allow new dump to be taken for the same symptom	Requires 7 to 12 manual steps, plus skill on effective use of IPCS to locate the dump data set, obtain the symptom string, get into the IPCS DAE display, locate the matching symptom string (could be non-trivial) and indicate TakeNext on the IPCS display Up to 15 minutes	Make the update happen in 3 mouse clicks As little as 10 seconds
Collecting and sending diagnostic data	Requires 7 to 15 manual steps, plus skill to locate the right log files, build and run jobs, rename the output datasets, and use an FTP job to send the different data sets to the target destination. Up to 20 minutes Up to 30 minutes for sysplex components	Send the material in 8 clicks: ▪Select the incident materials ▪Specify the FTP destination information ▪Send the material ▪Check whether the information was FTP'd successfully As little as 30 seconds

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

Focus on Configuration

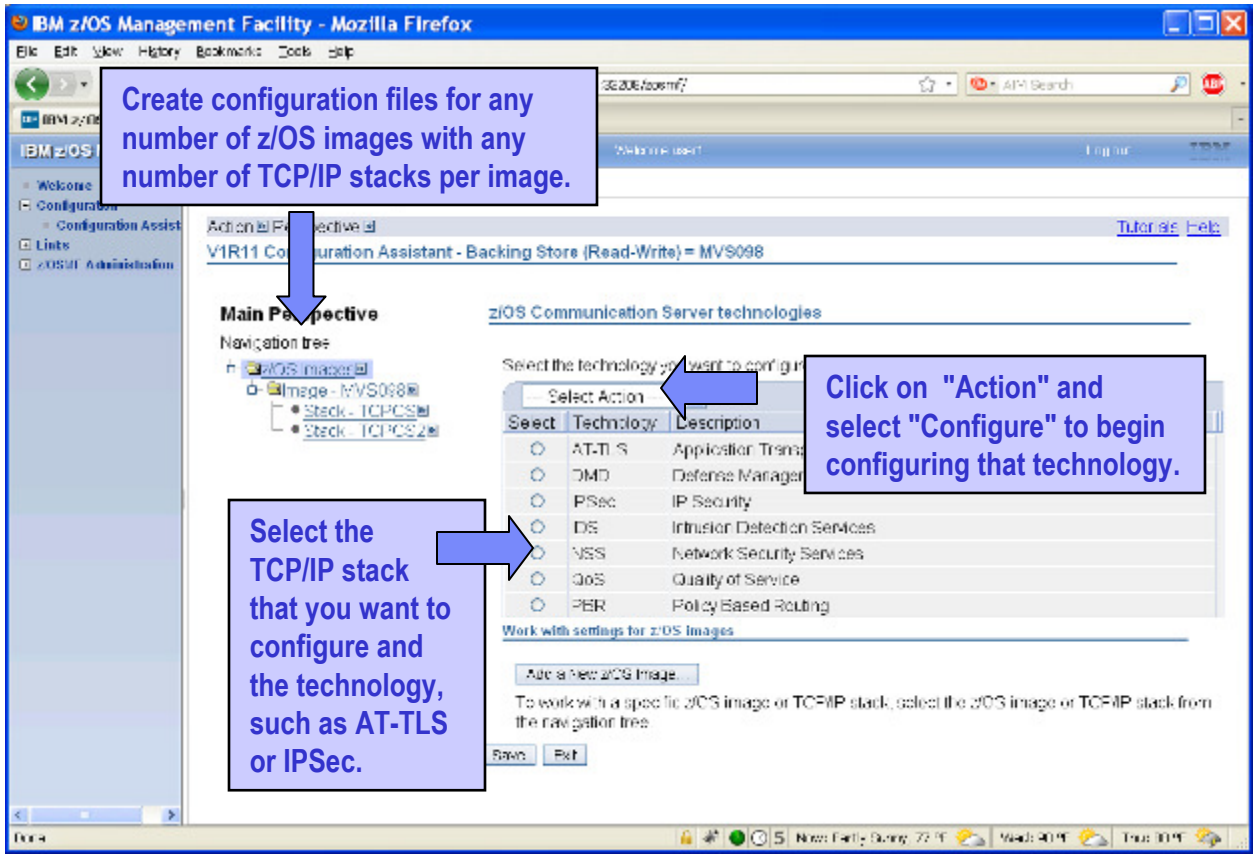
- Pain Points
  - Configuration task is highly fragmented
    - Multiple tools, limited integration between tools
  - User interfaces not intuitive for new system programmers
  - Syntax is complicated and error-prone
  - Regression of dynamic changes not reflected in system control files
  - Difficult to assess impact of configuration changes
- Initial focus on Configuration Assistant for the z/OS Comm. Server
  - A GUI for the z/OS Communications Server Policy Agent - simplifies the configuration and setup of the following TCP/IP policy-based networking functions:
    - Application Transparent TLS (AT-TLS)
    - IP Security (IPSec) including filters and VPNs
    - Network Security Server(NSS)
    - Intrusion Detection Services (IDS)
    - Policy-based Routing (PBR)
    - Quality of Service (QoS)

Configuration Assistant for z/OS Comm. Server

- A GUI for the z/OS Communications Server Policy Agent - simplifies the configuration and setup of TCP/IP policy-based networking functions.
- Available as a Microsoft® Windows® Web download (since z/OS V1.7)
  - Still available as a Windows download, but strategy is to provide it only with z/OSMF
  - All functions available with Windows are also provided with z/OSMF
- Available with z/OSMF (starting with z/OSMF V1R11 and z/OS V1R11)
  - Configuration files can now be saved to local disk storage that is accessible to your z/OS system where the Configuration Assistant is running so FTP (from Windows) is not required
  - Can also import configuration text files in cases where users have already defined policies and would like to begin using the Configuration Assistant
  - Delivered in z/OSMF R12:
    - Support the configuration of IKE version 2.
    - Support the configuration of new crytographic algorithms for IPSec and IKE.
    - Support the configuration of FIPS 140 cryptographic mode for IKE.
    - Support the configuration of certificate trust chains and certificate revocation lists.

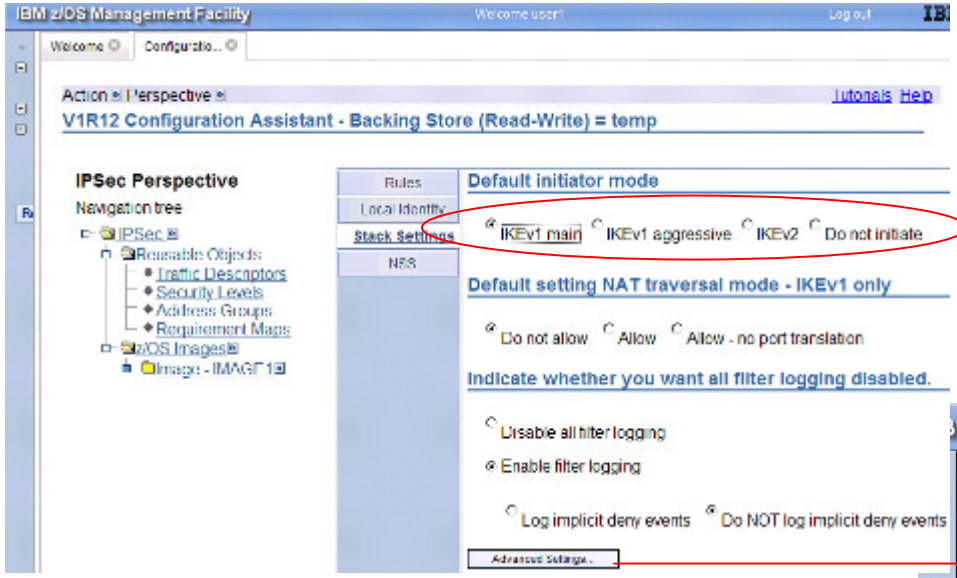
Configuration Assistant for z/OS Comm. Server

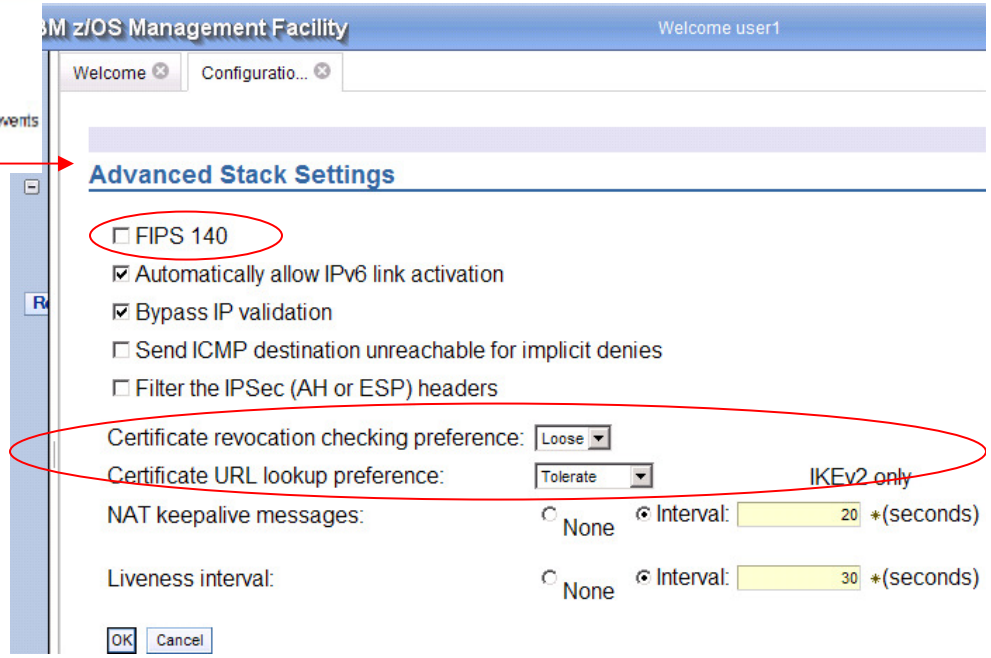
- **Configuration Assistant for the z/OS Comm. Server is available on the z/OS Management Facility**
  - All the same function as in the Web-download tool, but now on z/OS
  - No need to FTP network configuration files!
  - Requires z/OS V1.11 and later



Configuration Assistant for z/OS Comm. Server

Support for IKEv2 (V1.12)





- Support for FIPS 140
- Support for IKEv2
- Support for certificate revocation lists.

z/OSMF Configuration Assistant for z/OS CS

Benefits

	Without Configuration Assistant** With Policy Agent only	With Configuration Assistant** in z/OSMF GUI for Policy Agent
Filter unwanted network traffic from your z/OS system	•Learn how to set up IP filters •Review the IP Configuration Guide **·Configure the Policy Agent application** **·Create configuration policy for IP Filter rules** **·Configure default filter rules in the TCP/IP profile** **·Configure the TRMD application** **·Configure the Syslogd application** Hours (or even days for initial setup)	• Configuration Assistant guidance **· Go to IP Security Perspective** **· Add a connectivity rule for an IP Filter** **· Use Application Setup Tasks to assist with the configuration and setup of the required applications** **·The Configuration Assistant will generate and help you deploy the configuration files to your z/OS system** As little as 30 minutes
Secure your TN3270 server connections with SSL	•Manual process •Review the IP Configuration Guide **·Configure the Policy Agent application** **·Configure TTLS in the TCP/IP profile** **·Configure the Syslogd application** **·Create configuration policy for AT-TLS for your TN3270 Server** Hours (or even days for initial setup)	•Configuration Assistant guidance **· Go to AT-TLS Perspective** **· Select the AT-TLS rule for the TN3270 server and enable** **· Use Application Setup Tasks to assist with the configuration and setup of the required applications** **·The Configuration Assistant will generate and help you deploy the configuration files to your z/OS system** As little as 30 minutes

Get started faster! The Config. Assistant takes the rules and best practices found in various configuration publications and puts them under a single, simple user interface, saving you much time and effort.

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

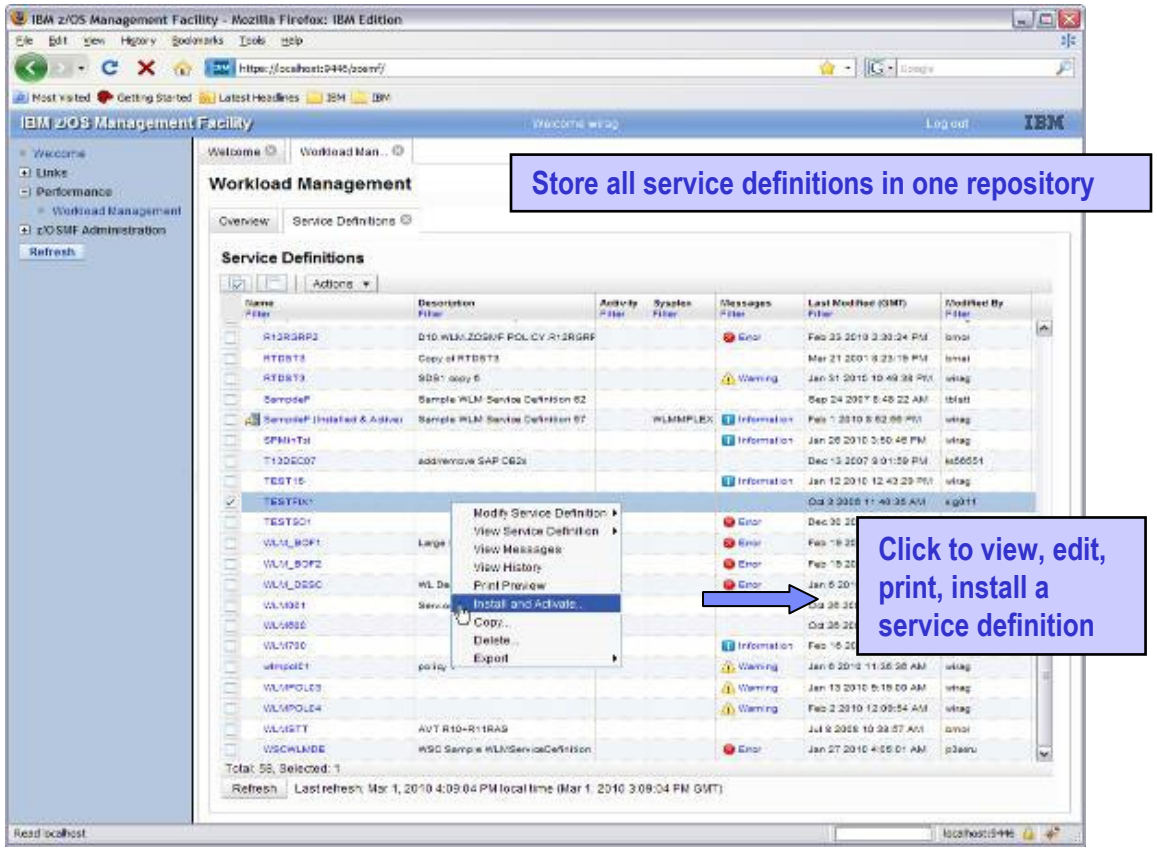
Focus on Configuration/ Performance

- Pain Points
  - Work competes for resources, serialized by locks and latches
    - Low important work may hold a resource and high important work may have to wait for it
    - Incorrect WLM classification of system work can lead to serious system problems and even outages
  - WLM Administrative Application provides little support to review and optimize service definitions
    - It is difficult to see the relationship of policy elements and to compare them
    - Recommendations and best-practices for the specification and optimization of service definitions are scattered over several manuals and have to be applied without tool support
    - User has to walk through drill-down and interim panels to create/change policy elements

- Initial focus on WLM Policy Editor
  - Application which enables you to manage WLM service definitions
    - Integrates repository to store service definitions
    - Import and export of service definitions in XML format
    - Printing of service definitions
    - Creation, editing, reviewing of service definitions in tabular format
    - Direct navigation between policy elements during editing/viewing of service definitions
    - Best-practice checking for service definitions
    - Supports the installation of service definitions and the activation of service policies
    - Displays WLM status of systems in sysplex

z/OSMF Workload Management (V1.12)

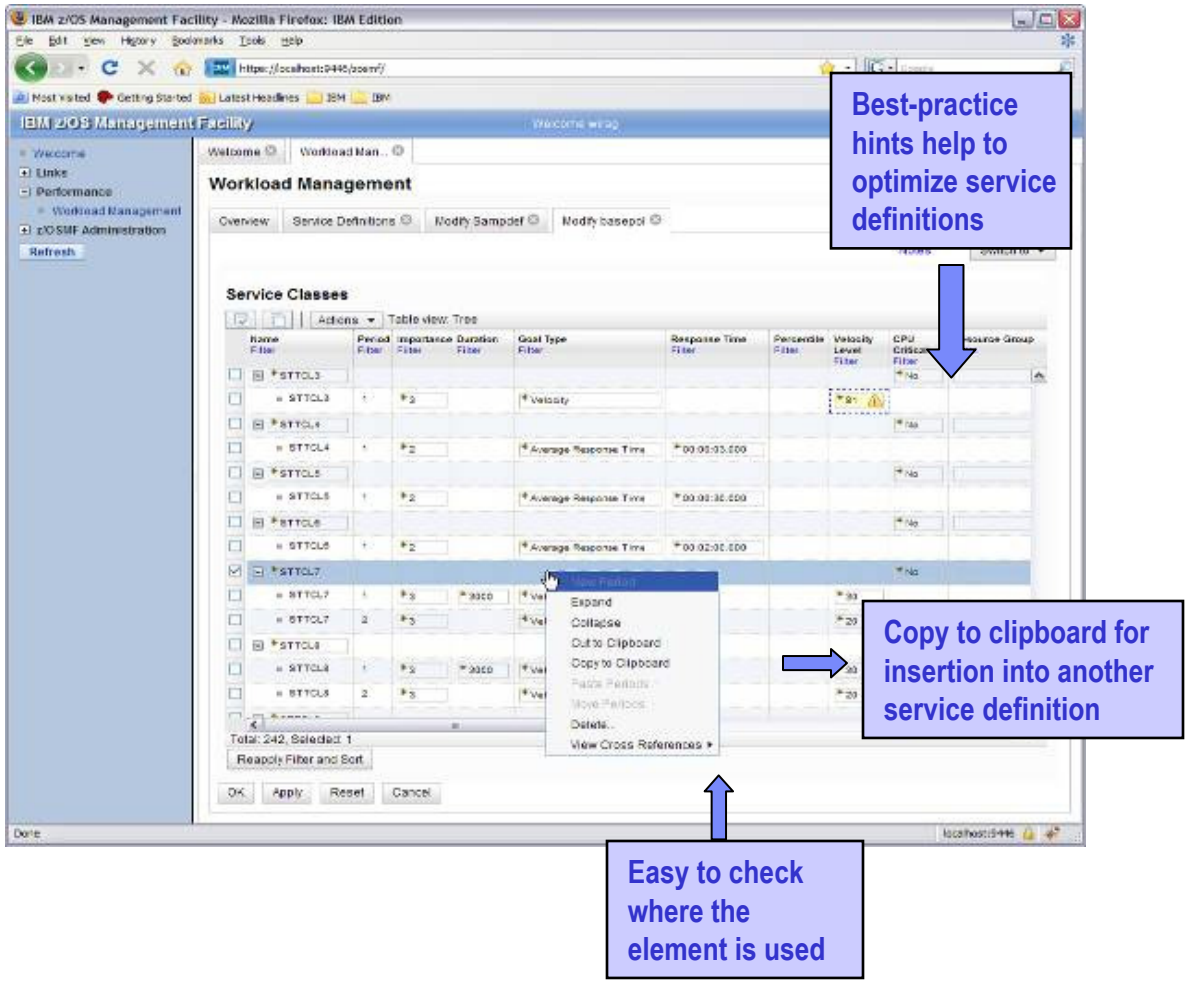
- **WLM Policy Editor is available on the z/OS Management Facility**
  - All the same function as in the Web-download tool and many new features
  - Direct access to the WLM Couple Data Set to install/extract service definitions. No need to FTP WLM policy files!
  - Activation of service policies and monitoring of the WLM status in the sysplex
- **Requires z/OSMF V1.12 and z/OS V1.12**



z/OSMF Workload Management (V1.12)

Editing service definitions

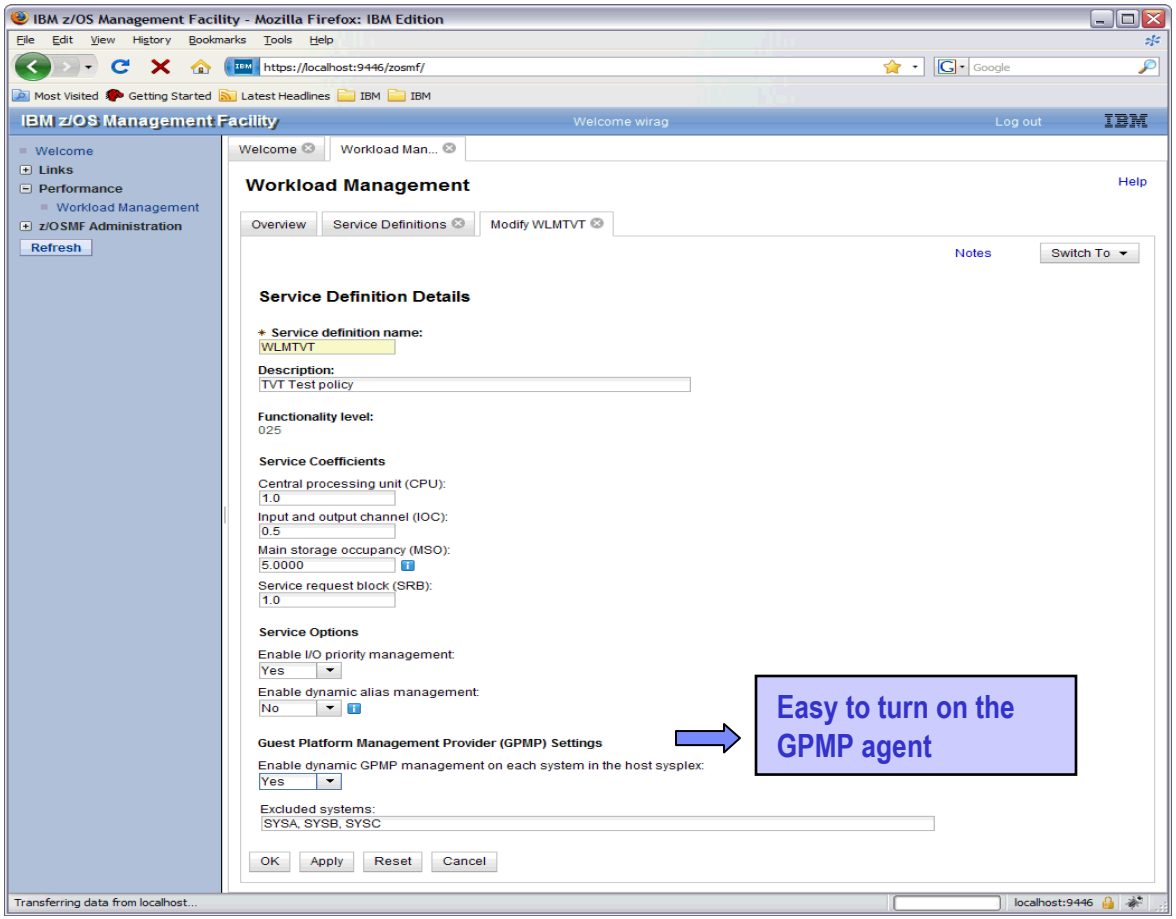
- **Simplified creation, modification and review of service definitions**
  - Policy elements are presented in tables
  - Tables can be edited, filtered, and sorted
  - Best-practice hints are displayed automatically
  - Several service definitions can be opened simultaneously
  - Cut, Copy, Paste of policy elements between service definitions



z/OSMF Workload Management

Can send basic data to the zEnterprise server

- Integration with the new IBM zEnterprise server
  - **Unified Resource Manager (Monitors Dashboard) can monitor heterogeneous workloads.**
- New agent in z/OS R12 will feed data to Unified Resource Manager.
  - **System resource utilization, system delays, paging delays**
- Unified Resource Manager will link distributed workload with z/OS workload
  - **Ex: AIX Application Serving Blade front end to DB2 z/OS backend**
  - **End to end monitoring**



z/OSMF Workload Management

Summary

- Simplified creation and editing of WLM service definitions
  - The elements of a service definition are displayed in tabular form
  - Service definition elements are created or edited directly in tables
  - The creation and editing of WLM service definitions is supported by best practice checks
  - Direct navigation between policy elements during editing/viewing of service definitions
  - Serialization of the editing of the active service definition
- Simplified handling via integrated repository for WLM service definitions
  - WLM service definitions are stored in a repository integrated in the z/OSMF file system
  - WLM service definitions can be exported to the local workstation or a host data set as well as imported from a file on the local workstation or a host dataset
  - WLM service definitions can be printed using the print menu of the web browser
- Installation of WLM service definitions and activation of WLM service policies
- Monitoring of the WLM status of a sysplex and the systems in a sysplex
  - WLM status report is automatically updated if the WLM status on the systems changes
- Allow opening multiple tabs to enable users to perform tasks simultaneously
  - Simplified migration: Policy elements can be copied from one service definition to another
  - Simplified operation: A user can start to edit a service definition, interrupt the editing to activate a service policy, and then continue with the editing without loosing the context

z/OSMF WLM Policy Editor (V1.12)

Benefits

	Without WLM Policy Editor** using WLM Administrative Application	With WLM Policy Editor** in z/OSMF
Optimization of a service definition based on best-practices	**Read through WLM-related manuals and identify best-practices. Print out the service definition and investigate it with respect to proposed best-practices. If required, modify the policy elements correspondingly.** Hours (or days when done initially)	**Check the best-practice hints the GUI displays for policy elements. If required, modify the policy elements correspondingly.** Minutes (or hours when done initially)
Review of service definitions for daily changes, migration, consolidation	**To get an overview of a service definition you have to print it to a data set, download the data set, and print it out or feed it into the Service Definition Formatter tool to filter and sort policy elements.** 5-10 minutes until review can start	**Open a service definition from the service definition repository. Navigate through it using links. Filter and sort policy elements in the tables.** Seconds until review can start
Transfer policy elements from a test service definition to a production service definition	**Print out the test service definition and update the production service definition by typing in the changes.** Up to several minutes per policy element	**Open the test and production service definition simultaneously and copy over the changed policy elements via copy&paste operations.** Seconds per policy element

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

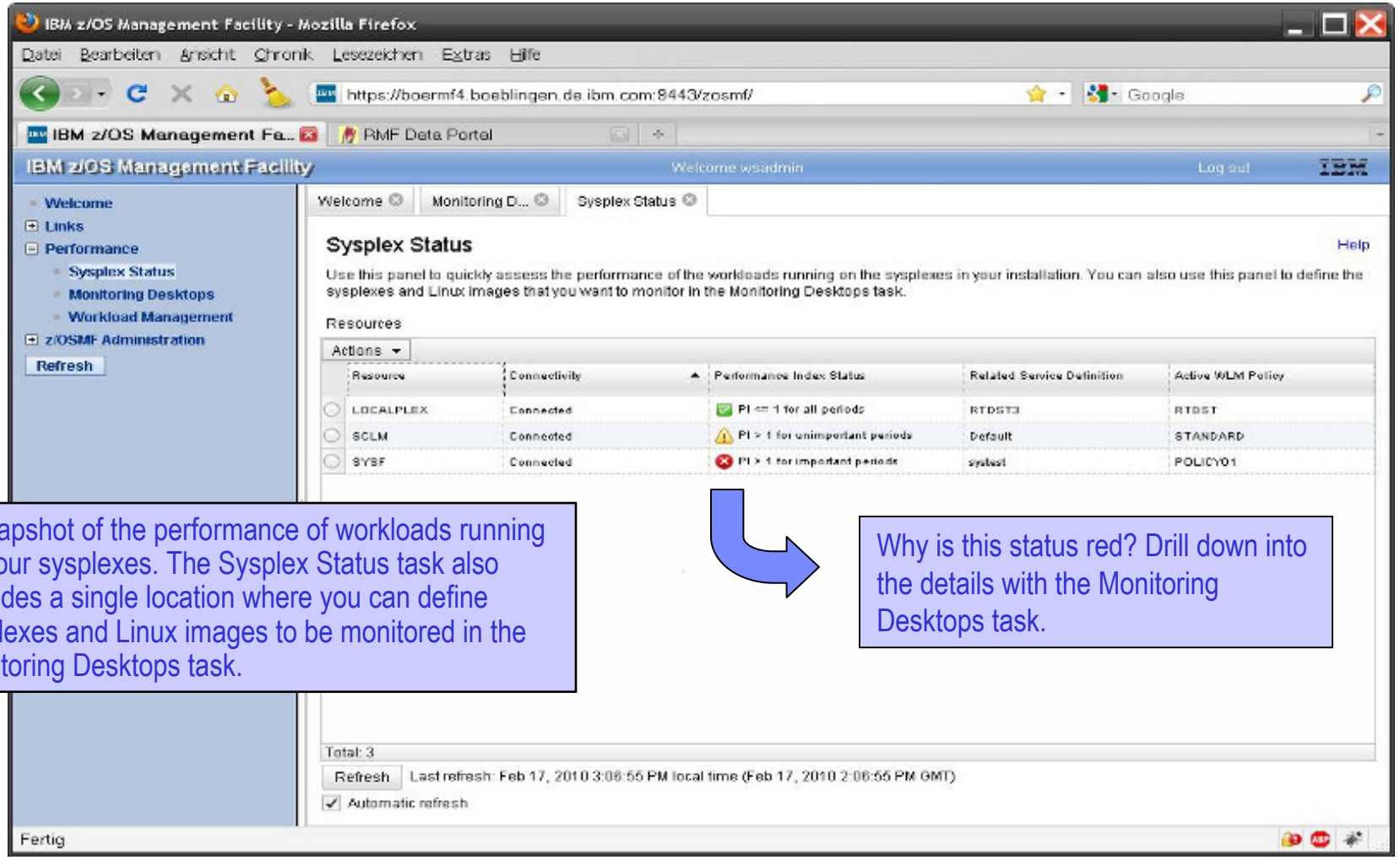
Resource Monitoring features

- The z/OSMF Resource Monitoring application provides integrated performance monitoring in the customer's environment
- Supports z/OS z/OS sysplexes and Linux® images (System z® and Intel®) in your installation
  - Requires the RMF z/OS Data server (DDS) on each sysplex being monitored and the Linux data gatherer (rmfpms) running on the Linux image that is being monitored.
- There are two z/OSMF tasks: *Monitoring Desktops and Sysplex Status*
  - Monitoring Desktops task:

    Monitor most of the metrics supported by the Resource Measurement Facility (RMF™) Monitor III, create and save custom views of the metrics, and display real-time performance data as bar charts.
  - Sysplex Status task:

    Assess the performance of the workloads running on the z/OS sysplexes in your environment. The Sysplex Status task also provides a single location where you can define the z/OS sysplexes and Linux images to be monitored in the Monitoring Desktops task.
- If you plan to use the tasks from the Resource Monitoring plug-in, it is recommended that you enable the optional priced feature, Resource Measurement Facility (RMF), on one of the systems in your enterprise. For information about enabling features, see z/OS Planning for Installation, GA22-7504.

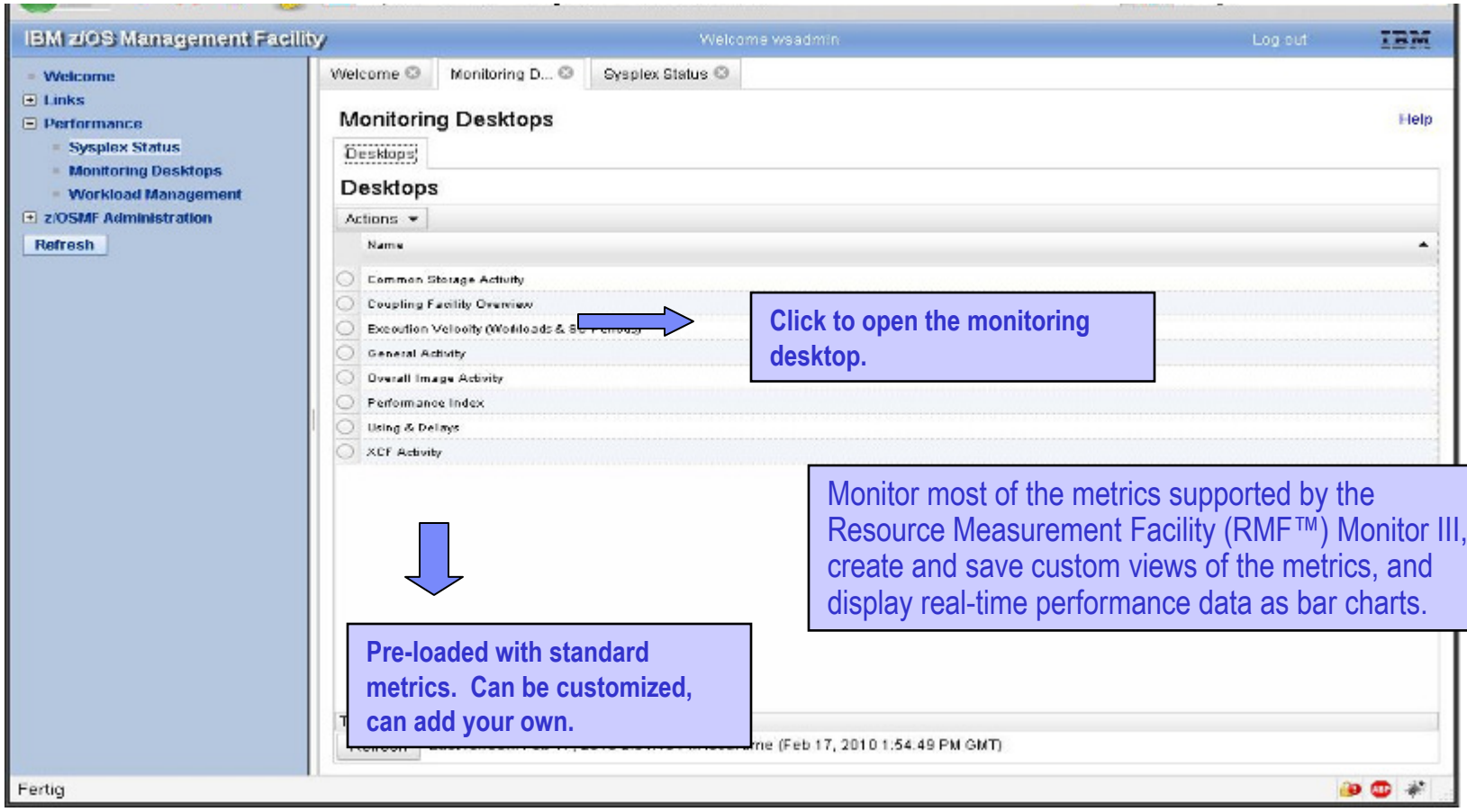
Resource Monitoring : Sysplex Status



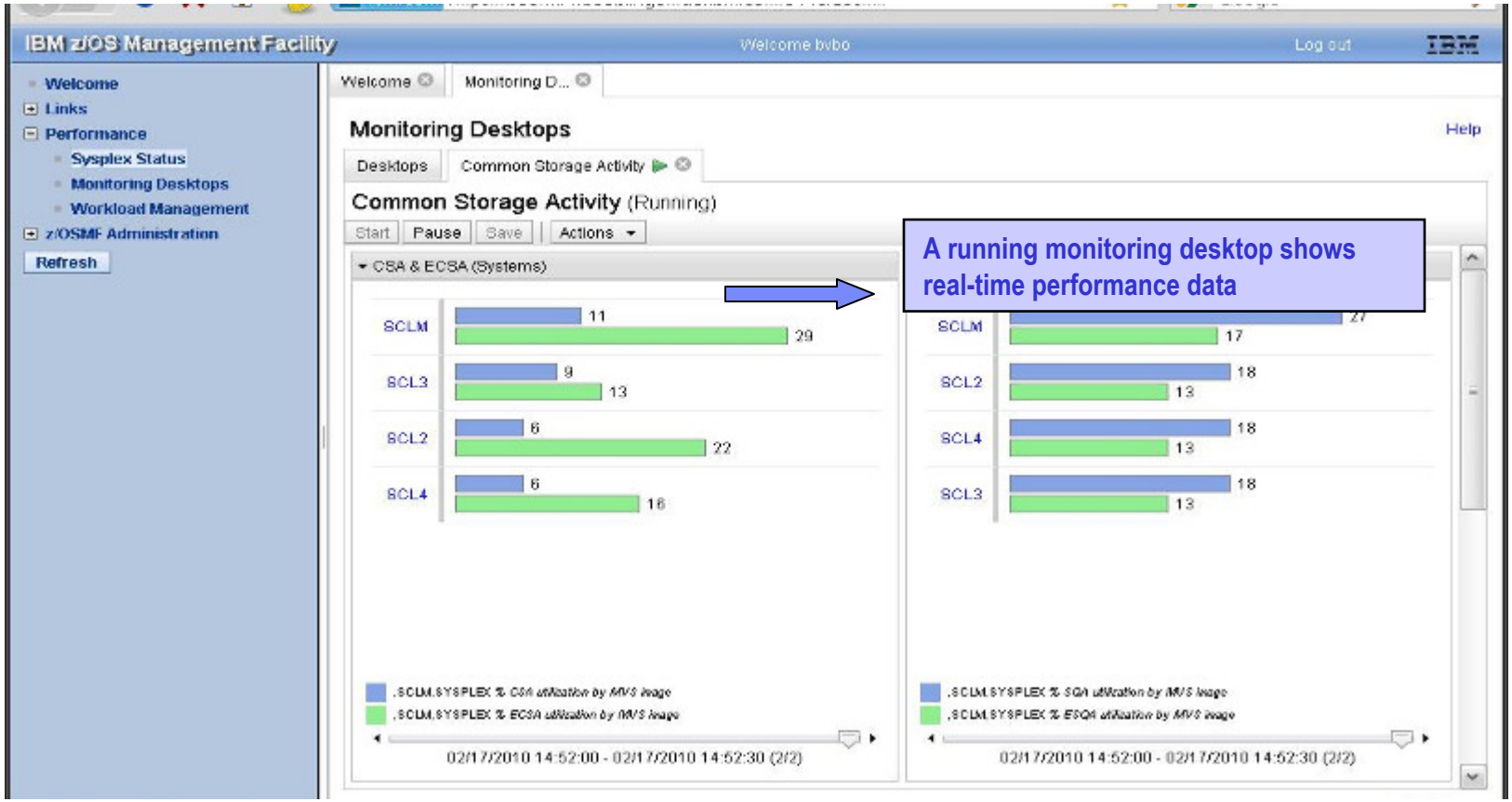
A snapshot of the performance of workloads running on your sysplexes. The Sysplex Status task also provides a single location where you can define sysplexes and Linux images to be monitored in the Monitoring Desktops task.

Why is this status red? Drill down into the details with the Monitoring Desktops task.

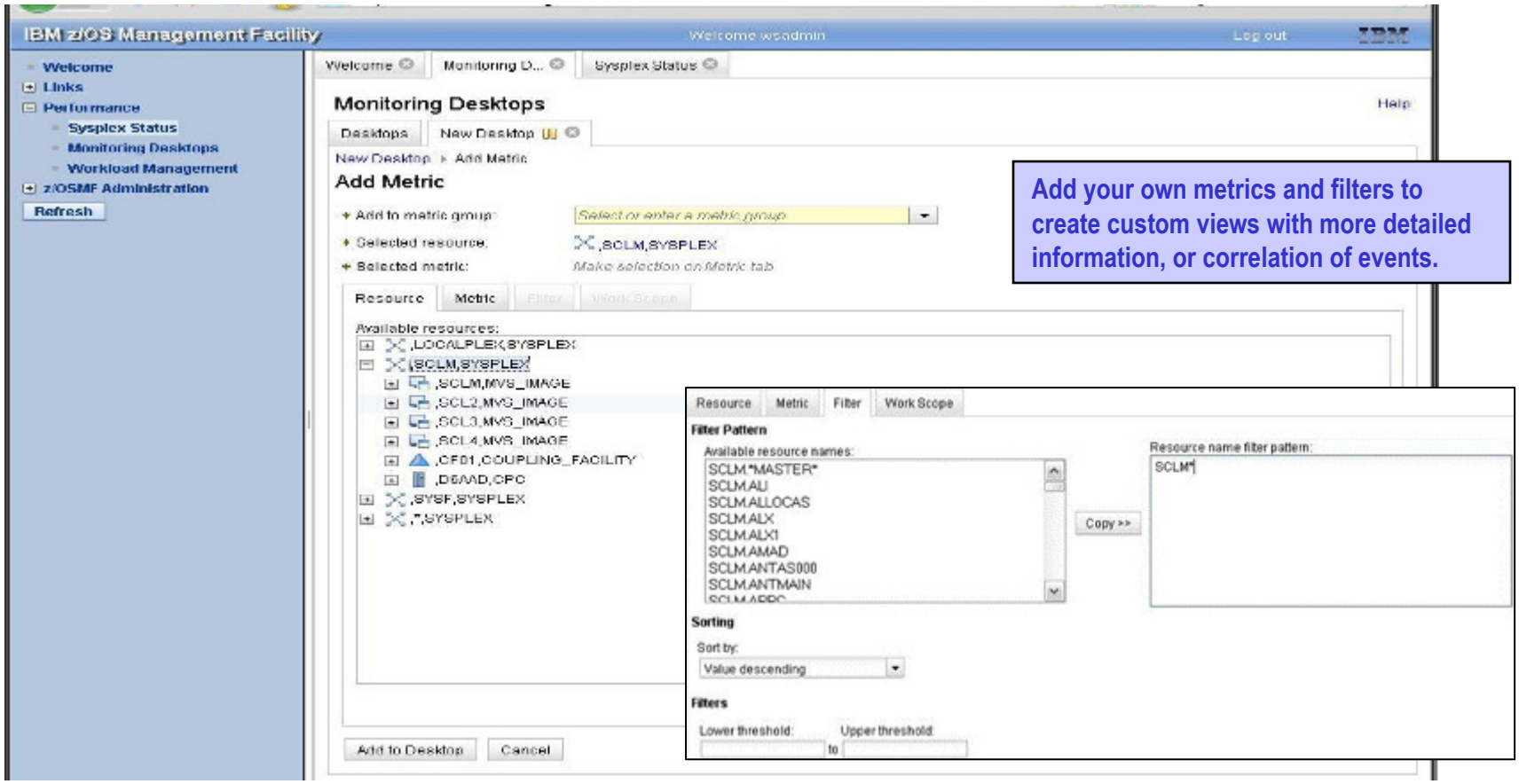
Resource Monitoring: Monitoring Desktops



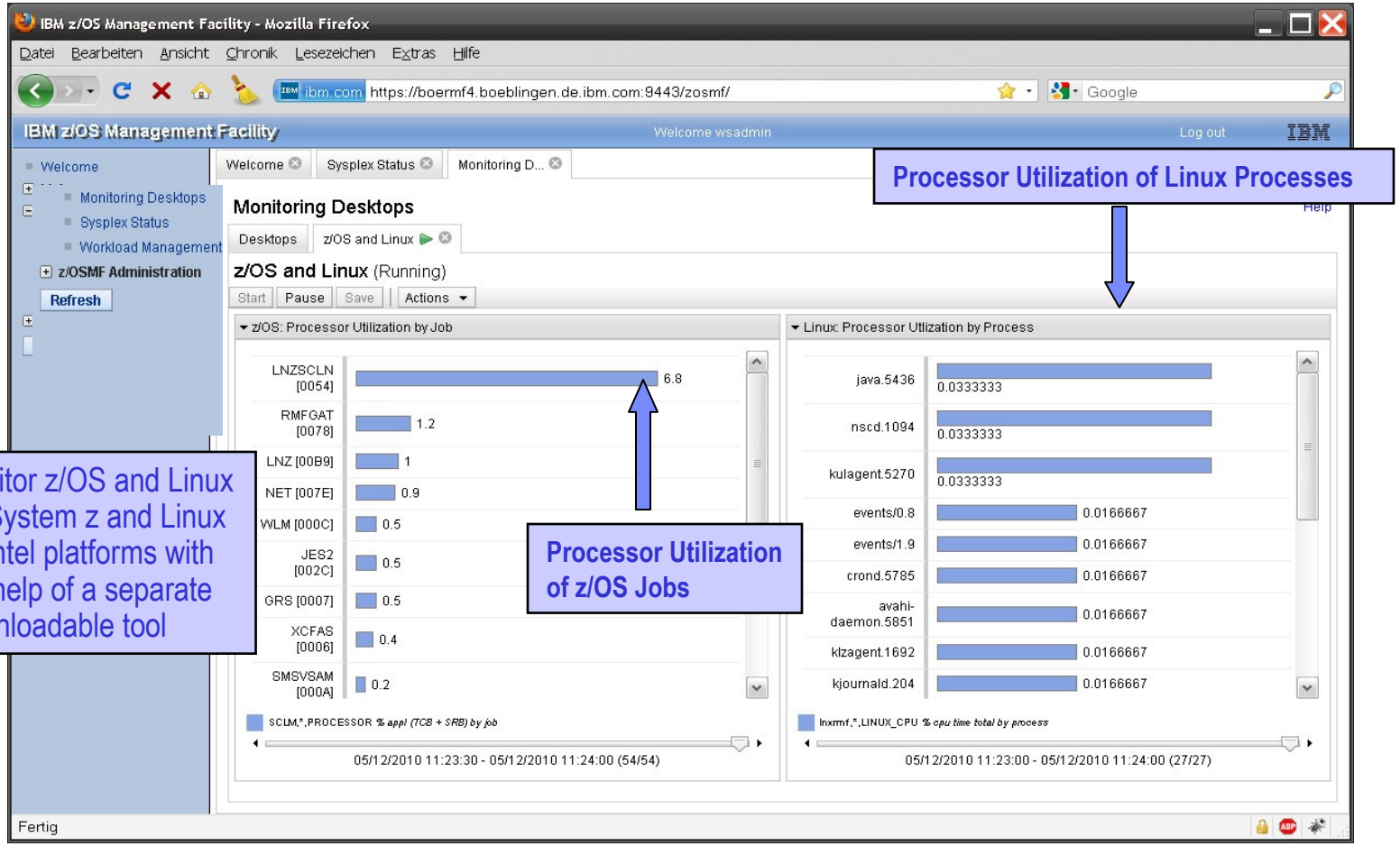
Monitoring Desktops – example



Monitoring Desktops – add a metric



Integrated z/OS and Linux Monitoring



z/OSMF Resource Monitoring (V1.12)

Benefits

	Without z/OSMF Resource Monitoring (using RMF ISPF Monitor III Reporter)	With z/OSMF Resource Monitoring
Checking the performance status for several sysplexes	**You need a Monitor III Reporter session on each sysplex, and manually consolidate data from different reports. (Monitoring of Linux resources has to be done with other tools)** Up to 15 minutes to look up each sysplex and high degree of skill needed to interpret reports	**Cross-sysplex performance monitoring from a single point of control with a quick red-yellow-green health indicator for your systems on a single panel.** **(Linux monitoring features are fully integrated.)** Just seconds to see the health of all your sysplexes (and Linux images)
Explore & compare the processor usage of specifics jobs	**Tabular reports are a fixed layout and can be viewed only one at a time with limited ability to customize and filter the data presentation. You have to manually consolidate data from different reports** A long time, depending on data required and correlations needed. In some cases, generating reports is not possible.	**The monitoring desktops are fully customizable. Specific metrics of selected resources can be added to a desktop and are presented as charts. Multiple desktops can be started in parallel in different tabs. Advanced filtering features allow you to conduct more sophisticated performance analysis.** About 5 minutes to set up a custom monitoring desktop, 3 key clicks to view real-time statistics

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

Resource Monitoring application - benefits

- **Integrated monitoring from a single point of control**
- **Support for z/OS and Linux**
- **Quick assessment of the health (Sysplex Status task)**
- **Drill-down into resource attributes and metrics (Monitoring Desktop task)**
- **Predefined set of desktops for a quick start**
- **Flexibility through customizable user defined desktops**
- **Advanced filtering features for focused monitoring**

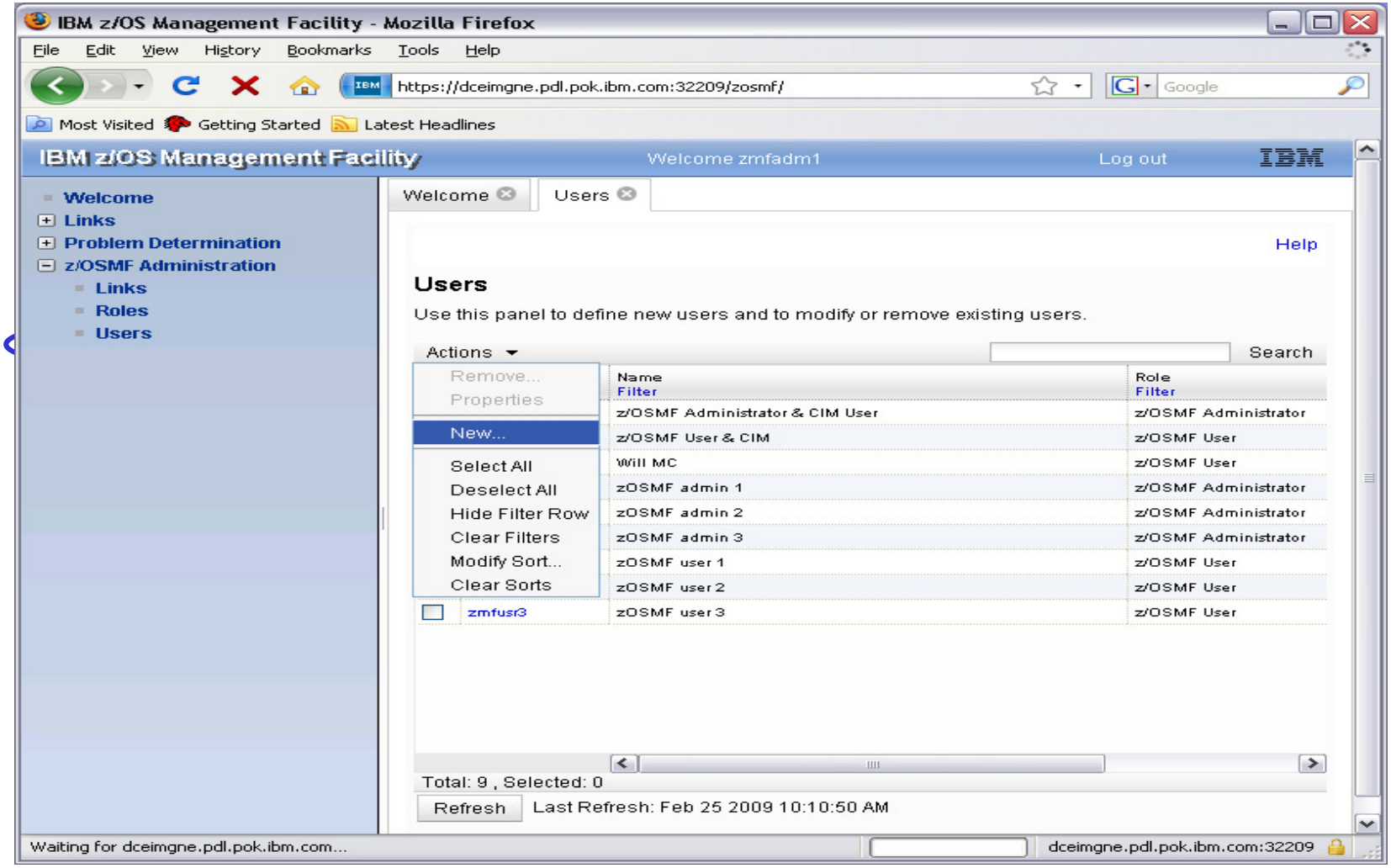
Convenient, easy-to-use, flexible and customizable !

Focus on z/OSMF Administration

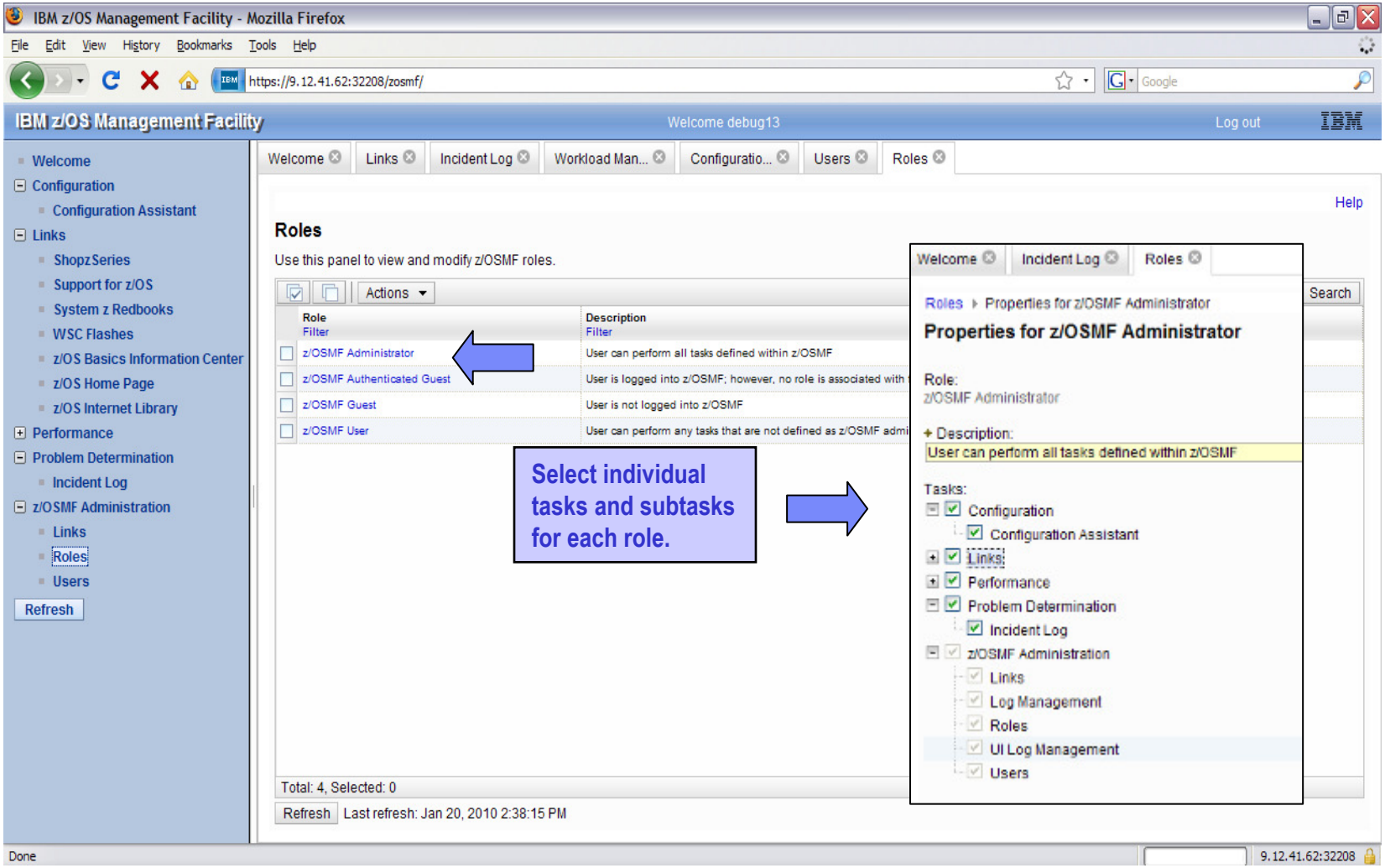
- z/OSMF Authorization – defining users and roles
  - The z/OSMF administrator must authorize the user to z/OSMF and assign a role in order for the user to start working with z/OSMF tasks
    - The user must have a valid userid on the z/OS system
    - The security administrator must authorize the user to the required z/OS stack for the z/OSMF tasks
      - Scripts are provided to perform the end-end authorization
  - Plan to Introduce SAF mode in z/OSMF1.13* to have tighter integration with z/OS security management
    - Resource names associated with all z/OSMF tasks and links.
    - Resource class profiles control authorization to z/OSMF managed resources.
    - Use of SAF groups to represent z/OSMF roles
    - Users connected to SAF groups to be authorized
  - Option to stay with existing Repository mode or switch to SAF mode at any time

* Statements regarding IBM future direction and intent are subject to change or withdrawal, and represents goals and objectives only.

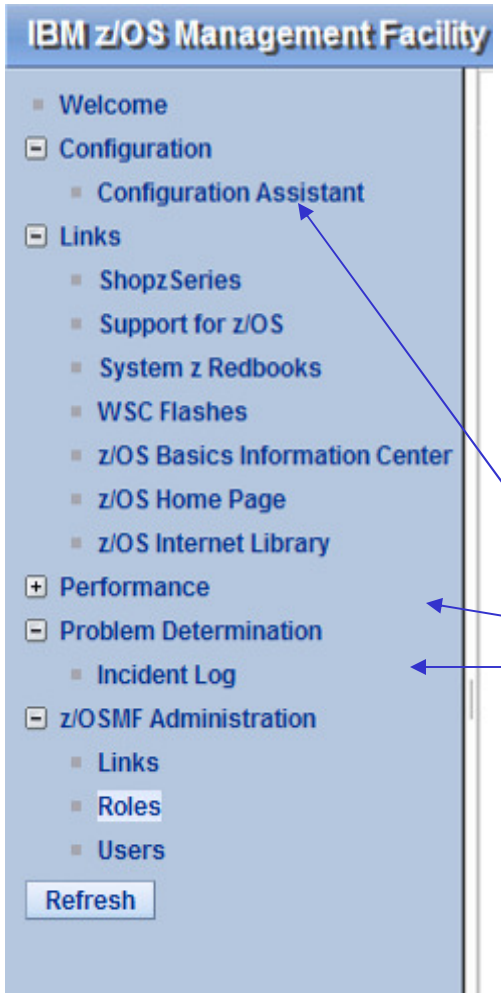
z/OSMF Administration: Authorizing a user



z/OSMF Administration: Defining a role

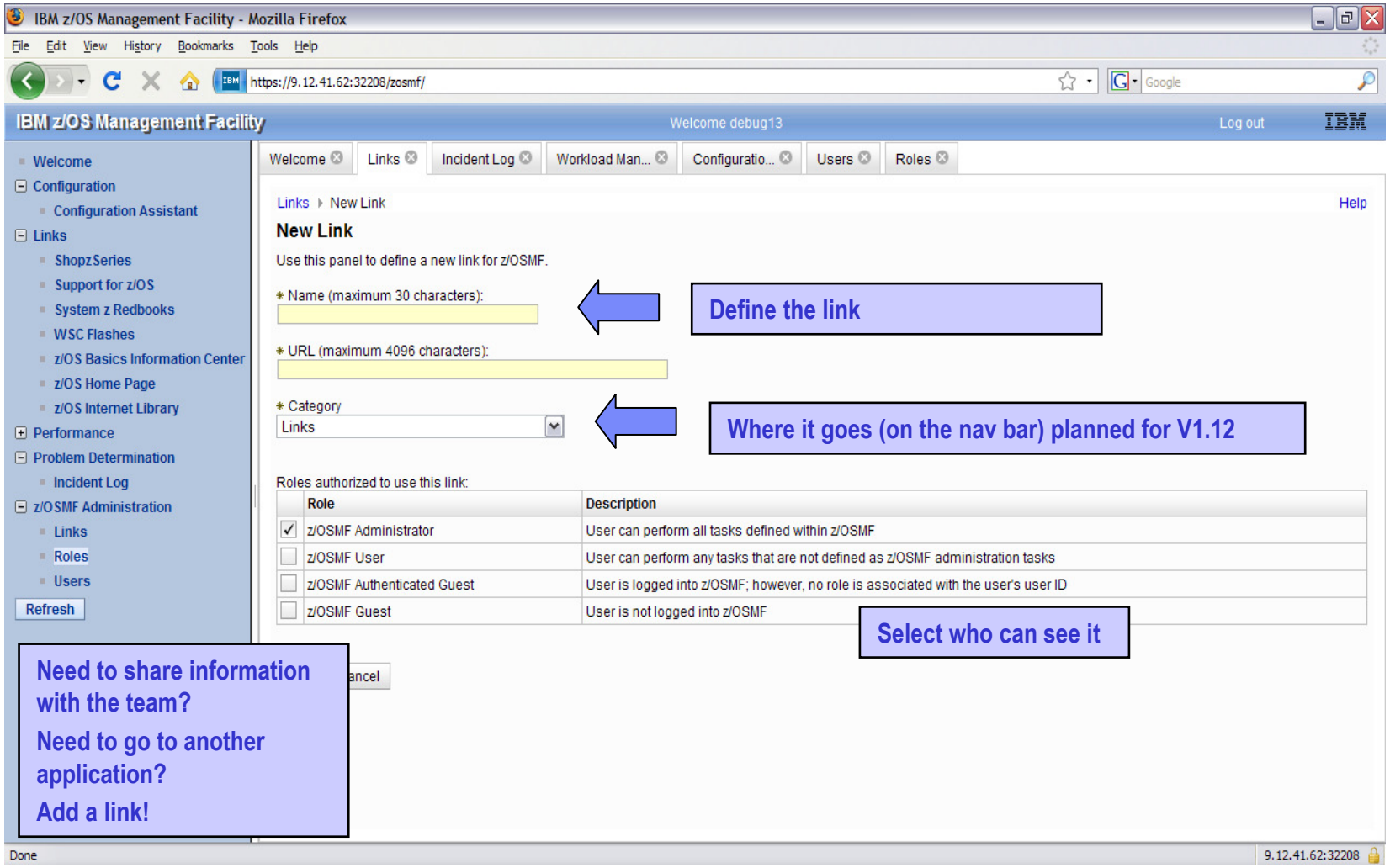


Focus on Links



- The Links category contains the pre-defined links provided by IBM as well as any new links added by the z/OSMF administrator
- Administrator can define which roles have access to each of the defined links.
  - The Links task in Administration category allows the administrator to dynamically add links to non-z/OSMF resources, e.g. ISV products, commonly used installation Web sites
- The IBM pre-defined links are accessible to all users, including guests, by default.
- Also, a new interface enables you to add non-z/OSMF launch points and links to any category on the left hand side navigation tree. (V1.12)

z/OSMF Administration: Adding a link



Software Deployment (planned for z/OSMF V1.13)*

- 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)

* Statements regarding IBM future direction and intent are subject to change or withdrawal, and represents goals and objectives only.

DASD Management (planned for z/OSMF V1.13)*

- 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 help the storage administrator by streamlining the process of adding volumes to SMS pool storage groups, and is intended to allow you to perform storage group management tasks from within the application, reducing several manually intensive steps involving multiple applications to a single GUI.

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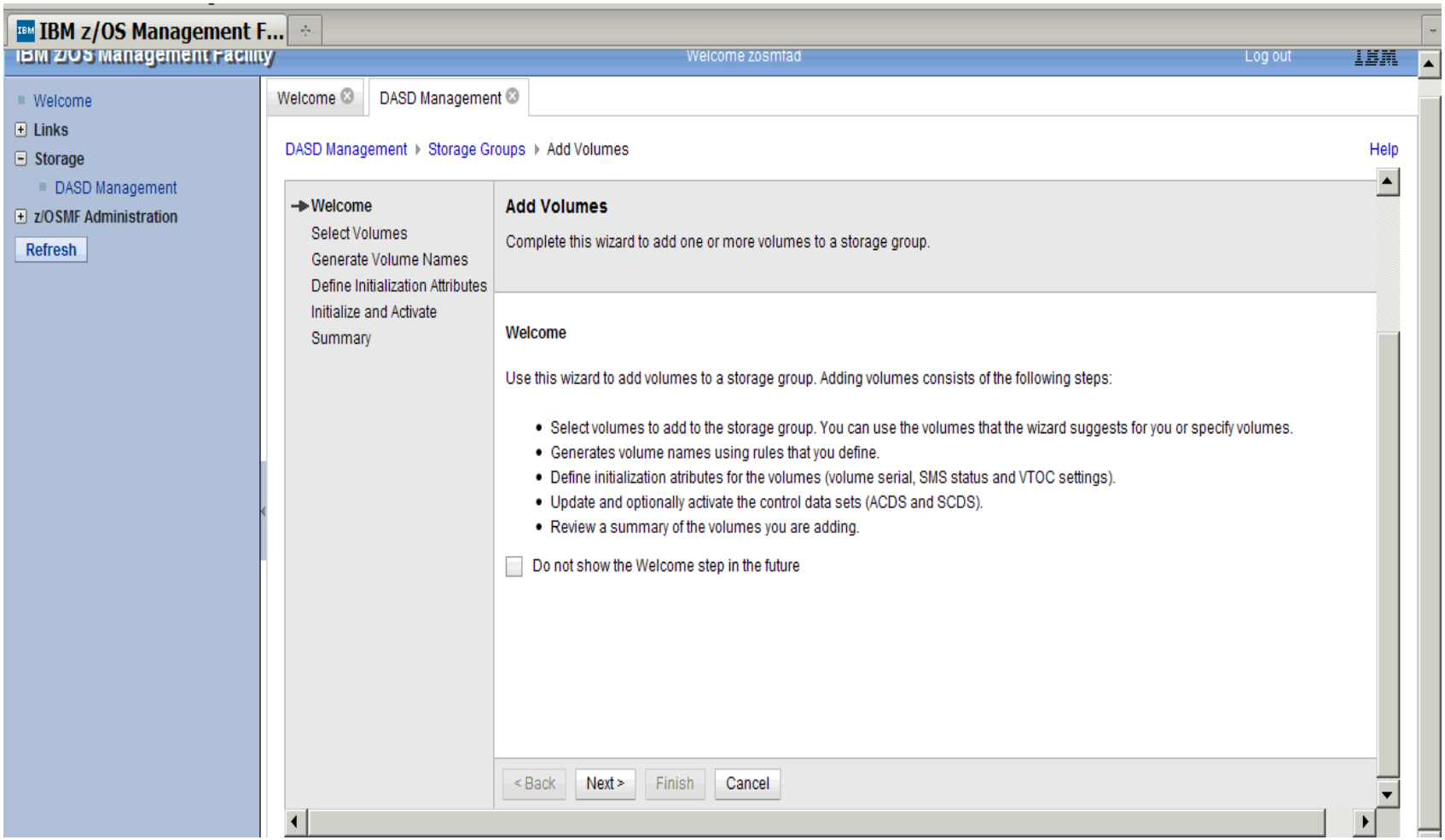
DASD Management (planned for z/OSMF V1.13)*



* Statements regarding IBM future direction and intent are subject to change or withdrawal, and represents goals and objectives only.

Capacity Provisioning (planned V1.13 for z/OSMF)*

- 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 planned to be integrated into z/OSMF V1.13 which will ease the monitoring of CP status for different domains.
- The z/OSMF Capacity Provisioning task will simplify 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.

* Statements regarding IBM future direction and intent are subject to change or withdrawal, and represents goals and objectives only.

Application Linking (planned V1.13 for z/OSMF)*

- 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 or vice versa.

* Statements regarding IBM future direction and intent are subject to change or withdrawal, and represents goals and objectives only.

Additional details on usage

- z/OSMF V1R11 and R12 operating environment
  - One instance of z/OSMF can manage only one local system or sysplex
  - Multiple users may log into the same instance of z/OSMF from different workstations/browsers
    - Expectation is to support up to 15 concurrent users (logged in and working on similar function simultaneously)
  - From one client system, user can manage additional sysplexes by opening new browser windows (or tabs) and logging into the z/OSMF instance installed on those sysplexes (one browser per system/sysplex).
  - Only one active instance of z/OSMF is supported within a sysplex at any point in time.
    - Additional instance may be created e.g for test or service update or backup, but it should not be actively managing the systems at the same time (e.g. working on the same incident concurrently from 2 separate instances of z/OSMF) or using the same data repository.

Migration & Coexistence Considerations

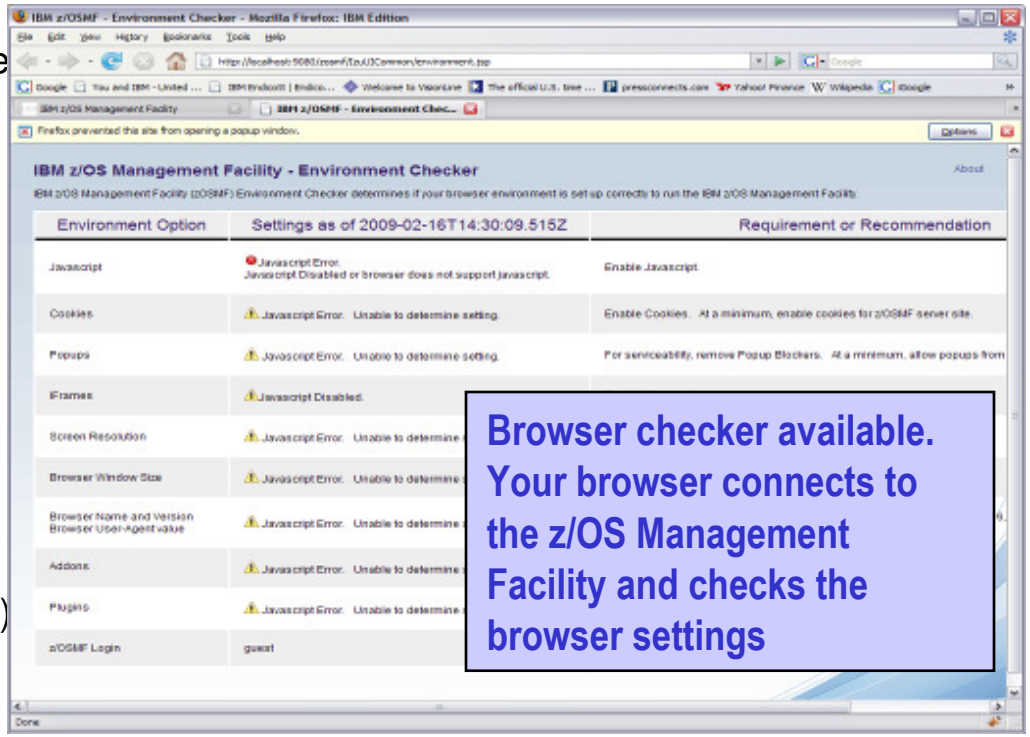
- For z/OSMF V1.11 customers - In a mixed sysplex with some systems below z/OS V1R10:
  - z/OSMF V1R11 must be installed and run on z/OS V1R10 or above
  - Incident Log: z/OS V1R9 system's SVC dumps will be reflected, but with some property values missing
- Configuration Assistant is only supported on z/OSMF V1R11 and above, running on a z/OS V1R11 or later system.
- z/OSMF can coexist with other ISV products
  - For example, all setup instructions are provided for RACF, but z/OSMF will operate with other security products with equivalent instructions

Migration & Coexistence Considerations

- z/OSMF 1.12 requires z/OS 1.12
- Migration:
  - If you have a z/OSMF 1.11 system and want to migrate to z/OSMF 1.12 on a z/OS 1.12 system, there is script support for doing that.
    - Requires that z/OSMF 1.11 be at the PTF UK52956/APAR PK97274 level prior to migration
    - Use izumigrate.sh, to migrate the R11 configuration file to the R12 format, see the z/OSMF Configuration Guide
    - Run the setup steps via izusetup.sh to enable the R12 level of applications
    - After that you can use the –add option to add the new applications added in z/OSMF 1.12
- Coexistence applies to lower-level systems which coexist (share resources) with latest z/OS systems.
  - If you require the capability to fall back from z/OS Management Facility V1.12.0 to a lower level system (z/OS Management Facility V1.11.0 on a z/OS 1.10 or later system), and retain the use of the data repository from z/OS Management Facility V1.12.0, you require APAR PM09519 on the system with z/OS Management Facility V1.11.0
  - Also require CEA APAR on the lower level z/OS systems V1R10 and V1R11) OA32285
    - If this is *not* installed, under certain circumstances, some datasets will not be deleted when the rest of the incident is deleted.

Prerequisites

- z/OSMF V1R11
  - Requires z/OS z/OS V1R10 w/maint., or z/OS V1.11
    - z/OSMF V1.11 also supported on z/OS V1R12 (but upgrade to z/OSMF V1R12 recommended)
    - The Configuration Assistant for z/OS Communications Server portion of z/OS Management Facility requires z/OS V1.11 or later.
  - Browser
    - Windows XP® operating system
    - Mozilla Firefox 3.0.6 (recommende
    - Mozilla Firefox 2
    - Internet Explorer® 7
    - Internet Explorer 6
- z/OSMF V1R12
  - Requires z/OS R12
  - Browser
    - Windows XP, Windows Vista, and Windows 7
    - Mozilla Firefox 3.0
    - Mozilla Firefox 3.5 (recommended)
    - Internet Explorer® 7
    - Internet Explorer 8



Summary

- The IBM z/OS Management Facility is a new product for z/OS customers that provides support for a modern, Web-browser based management console for z/OS.
- z/OSMF delivers solutions in a task oriented user interface. The initial functions in z/OSMF 1.11 include:
  - Configuration Assistant for z/OS Communication Server
    - Simplified configuration and setup of TCP/IP policy-based networking functions
  - Incident Log
    - 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
  - Links
    - Links to resources - provides common launch point for accessing resources beyond z/OSMF
  - z/OSMF Administration
    - z/OSMF authorization services for administrator: add users, define roles, dynamically add links to non-z/OSMF resources

Summary – z/OSMF V1.12 Enhancements (1 of 2)

- z/OSMF Incident Log:
  - Encrypt incident files
  - Break dumps into multiple data sets that can be sent via FTP in parallel
  - Specify additional data sets to send to a vendor
  - Add free-form comments to incidents and FTP destinations in new sortable fields
  - Create of diagnostic log snapshots based on SYSLOG and LOGREC data sets
    - In addition to OPERLOG and LOGREC log streams
  - All intended to help you manage problem data more easily
- z/OSMF Configuration Assistant for z/OS Communications Server planned to support configuration for
  - IKEv2
  - Certificate trust chains and certificate revocation lists
  - New cryptographic algorithms for IPSec and IKE.
  - FIPS 140 cryptographic mode for IPSec and IKE
  - ...and Enforce RFC4301 compliance for IPSec filter rules

Summary – z/OSMF V1.12 Enhancements (2 of 2)

- New z/OSMF interface:
  - Designed to allow you to add links programmatically to the z/OSMF Navigation tree
- New WLM policy editor:
  - Create, edit, and install WLM service definitions
  - Activate WLM service policies
  - Monitor of the WLM status of a sysplex and the systems in a sysplex
- New Resource Monitoring:
  - provides integrated performance monitoring in the customer's environment
  - Supports z/OS z/OS sysplexes and Linux® images (System z® and Intel®) in your installation)
  - Integrated monitoring from a single point of control
  - Drill-down into resource attributes and metrics

Summary – z/OSMF V1.13 highlights

- A new software deployment capability to simplify cloning and software deployment tasks
- Storage management support to define new storage volumes
- A new Capacity Provisioning Manager application is designed to support easier monitoring of z/OS Capacity Provisioning Manager (CPM) status

Additional information

- z/OS Management Facility website
  - http://ibm.com/systems/z/os/zos/zosmf/
- IBM z/OS Management Facility education modules in IBM Education Assistant
  - http://publib.boulder.ibm.com/infocenter/ieduasst/stgv1r0/index.jsp
    - Scroll down to z/OS Management Facility
- z/OS Hot Topics, Issue 21 and 23:
  - 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 User's Guide **SA38-0652**
- 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**

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Notes:

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

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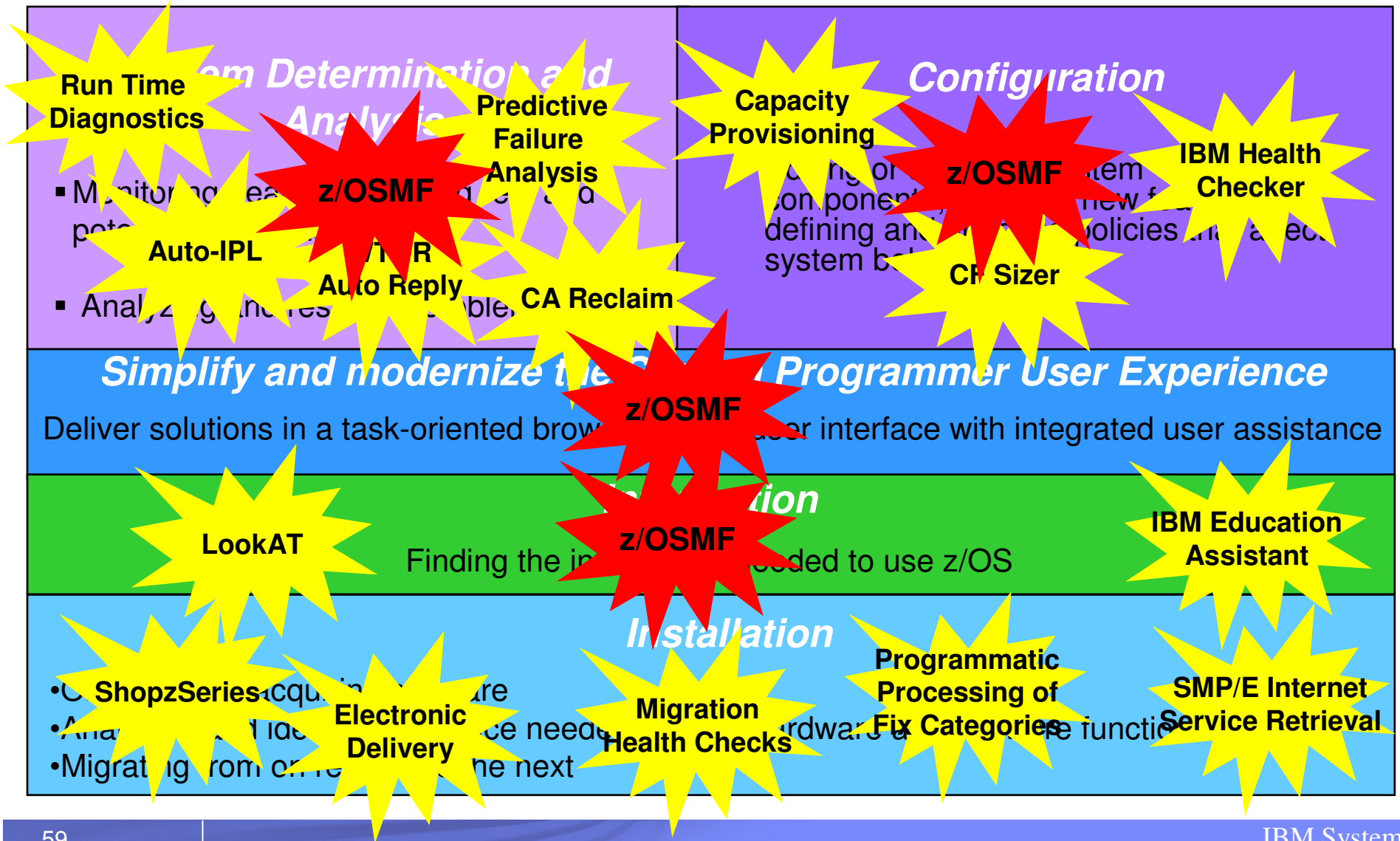
BACKUP

Focus Areas for Simplification



Smart technologies from IBM can deliver simplification across organizational domains

✓ Simplification of tasks
✓ Modernization & integration of tools

✓Improve productivity
✓Enhance collaboration

z/OSMF packaging

z/OSMF V1R11 is comprised of:

- PID# 5655-S28
- S/S PID# 5655-S29
- FMID# HSMA110
- *FMID# HBBN700 (IBM WebSphere Application Server OEM Edition for z/OS v7.0)*
  - COMPID 5655I3512 - WEBS APP SVR OEM
- HSMA110 FMID Description: IBM z/OS Management Facility
  - COMPID 5655S28SM – z/OSMF Core
  - COMPID 5655S2805 – z/OSMF Incident Log
  - COMPID 5655S28CA –Config Assist

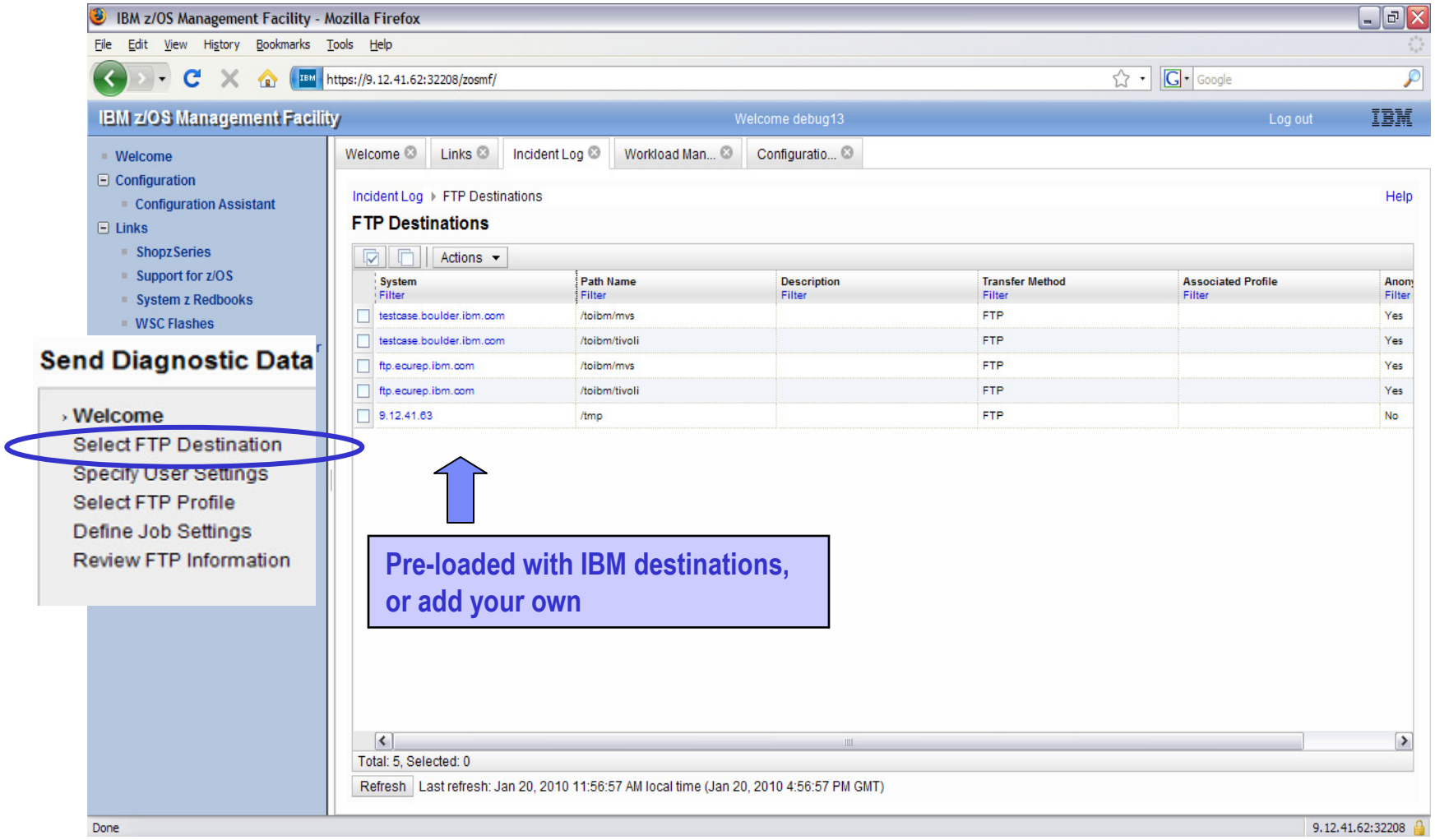
z/OSMF V1.12 product

The IBM z/OS Management Facility is a separate licensed program product

- z/OS Management Facility (5655-S28)
- z/OS Management Facility Subscription and Support (5655-S29)

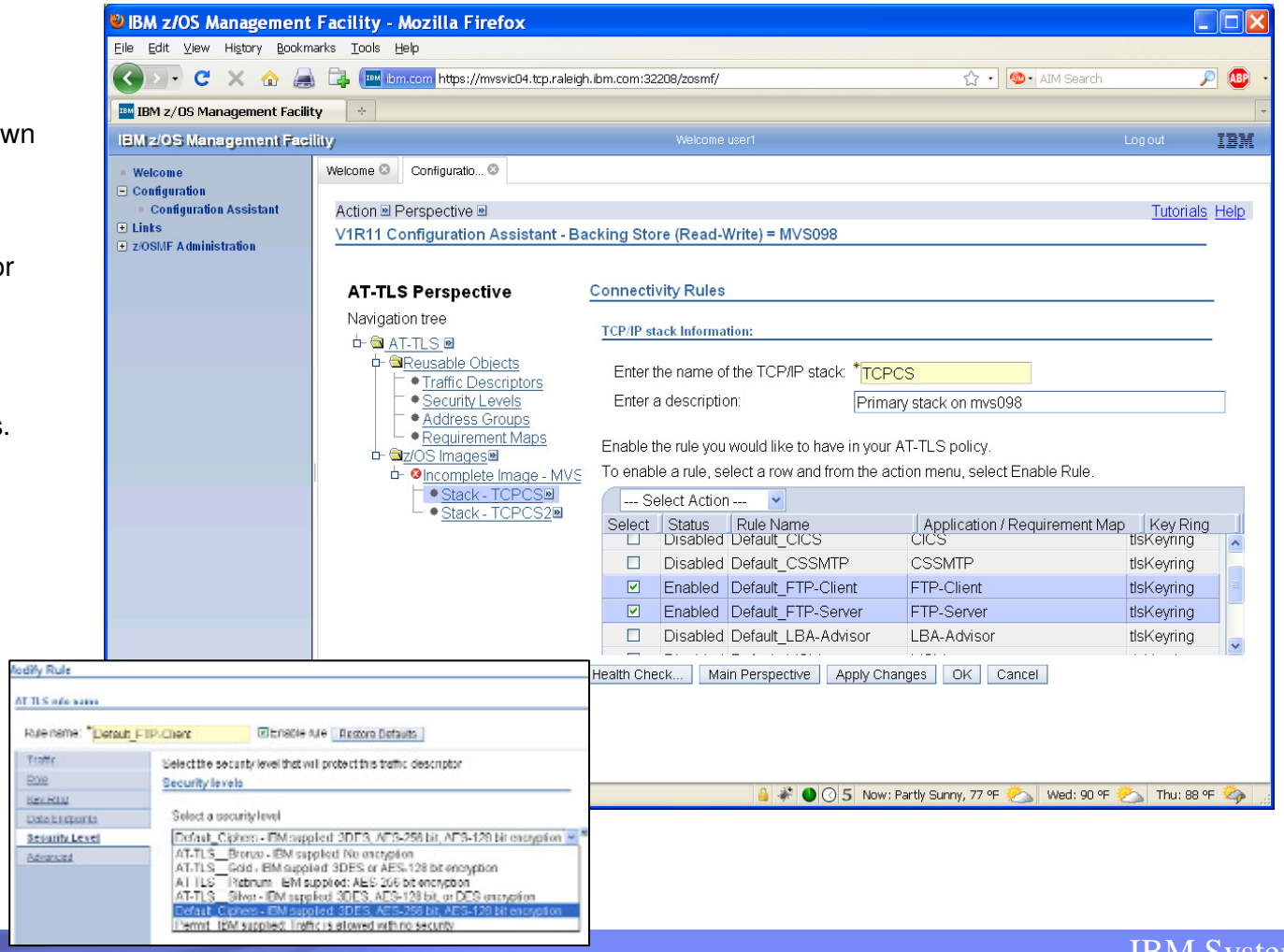
FMID	COMPID	Component Name	RETAIN Release
HSMA120	5655S28SM	z/OSMF Core	120
HSMA122	5655S2802	z/OSMF RMF	122
HSMA123	5655S2803	z/OSMF WLM	123
HSMA125	5655S2805	z/OSMF Incident Log	125
HSMA12A	5655S28CA	CONFIG ASSIST	12A
HBBN700	5655I3512	WEBS APP SRV OEM	700

Incident log - Destinations



Configuration Assistant for z/OS Comm. Server
Simplified AT-TLS Dialog (z/OS V1.11)

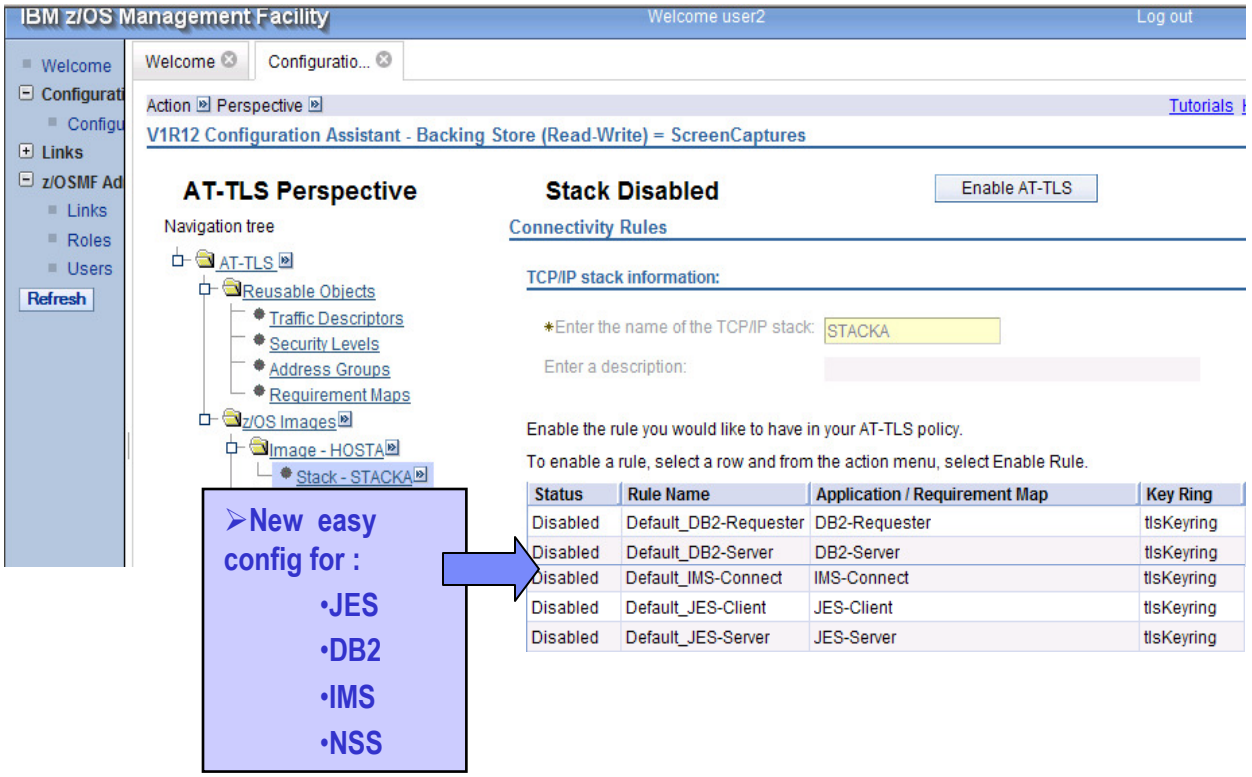
- Simplified AT-TLS dialog
  - Define AT-TLS from the application level
  - Added a list of well- known applications with predefined rules
  - Simple “click” to enable
  - Rules can be modified or copied and modified
  - AT-TLS supports new SSL and TLS (TLS V1.1) settings. (R11)



Configuration Assistant for the z/OS Comm. Server

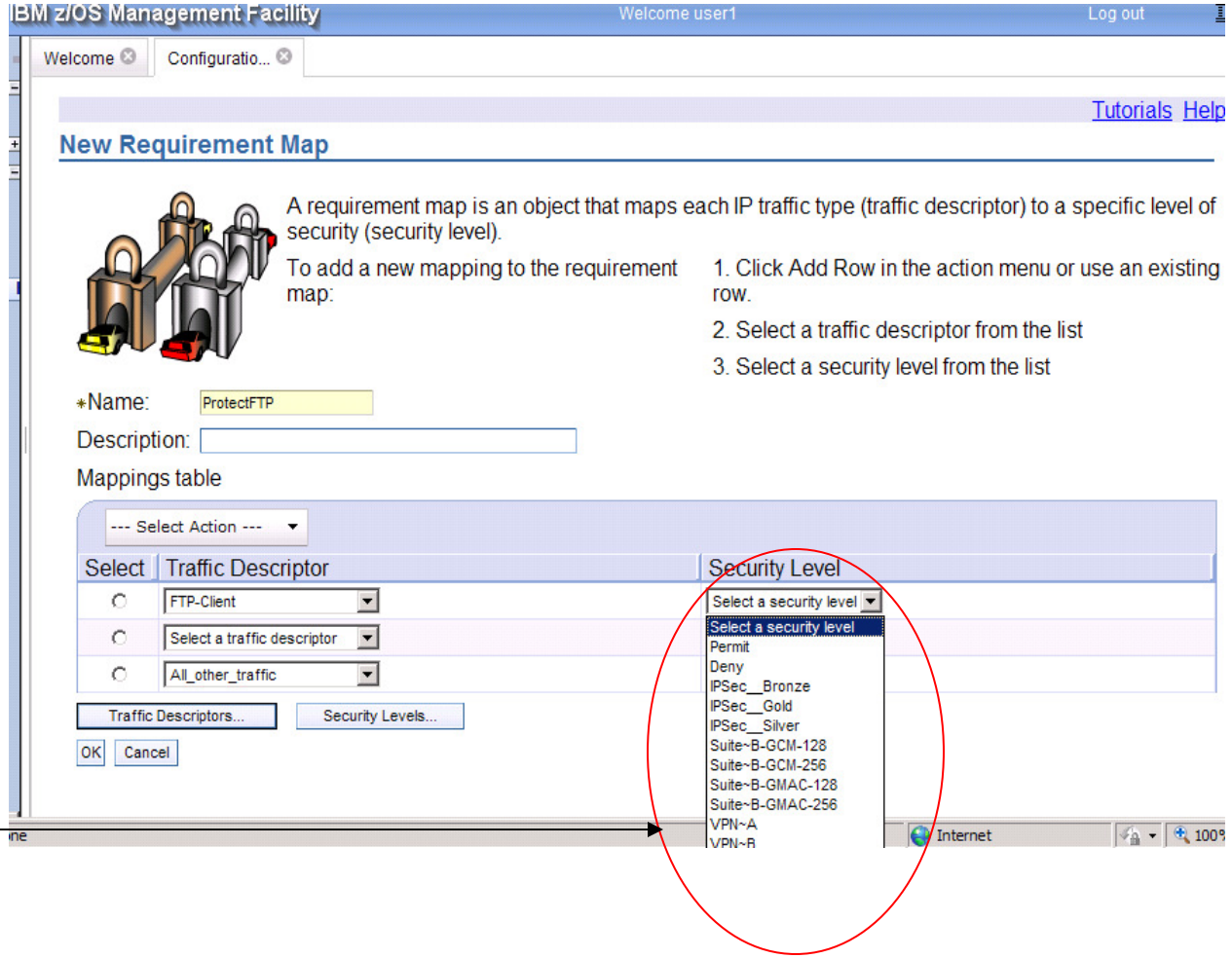
New Predefined Default AT-TLS Rules (R12)

- NEW! Predefined, default AT-TLS rules **for key IBM middleware and function, such as:**
  - JES
  - DB2
  - IMS
  - NSS
- **Helpful when TLS security is required!**
- **Can be modified if needed, as easy as open, cut, copy, paste!**



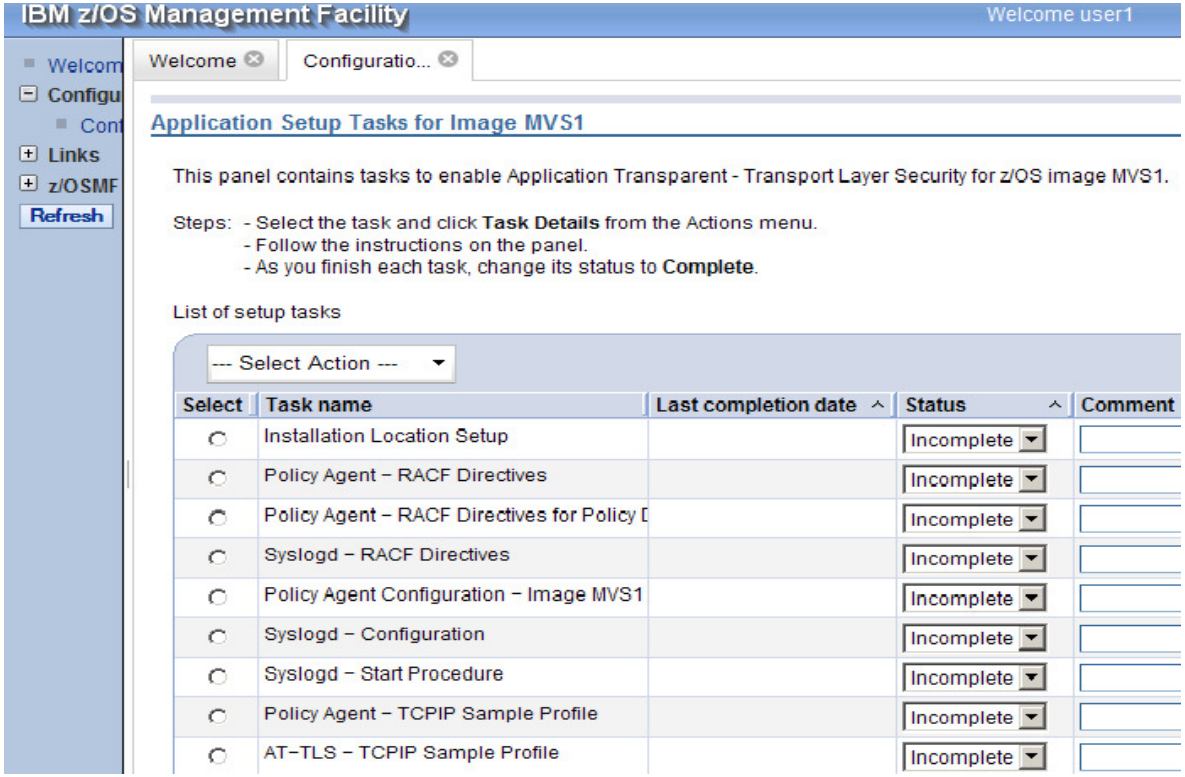
Configuration Assistant for z/OS Comm. Server
Simplified IPSec

- Simplified IPSec Requirement Map (V1R11)
  - Simplified panel to show more clearly that a requirement map was a Traffic Descriptor and a Security Level
  - New “advanced wizard” to allow for easier panel navigation
- Support for more cryptographic algorithms (for V1.12)



Configuration Assistant for z/OS Comm. Server
Application setup tasks (V1.11)

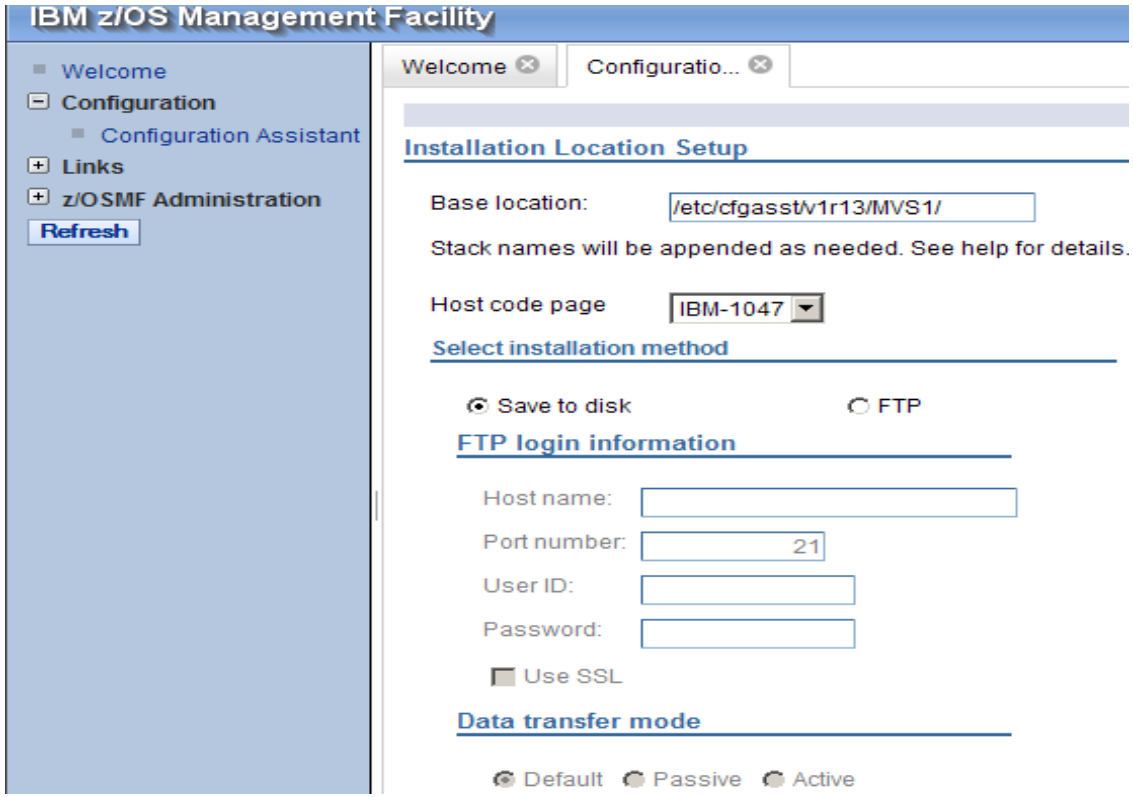
- **"Application Setup" task guides users in the creation of configuration files and started procedures**
- **Provides step-by-step for each policy perspective to deploy the applications required for that function**
- **There are both image-level and stack-level setup tasks.**



Configuration Assistant for z/OS Comm. Server

Application setup tasks – setting the base location for definition files (V1.11)

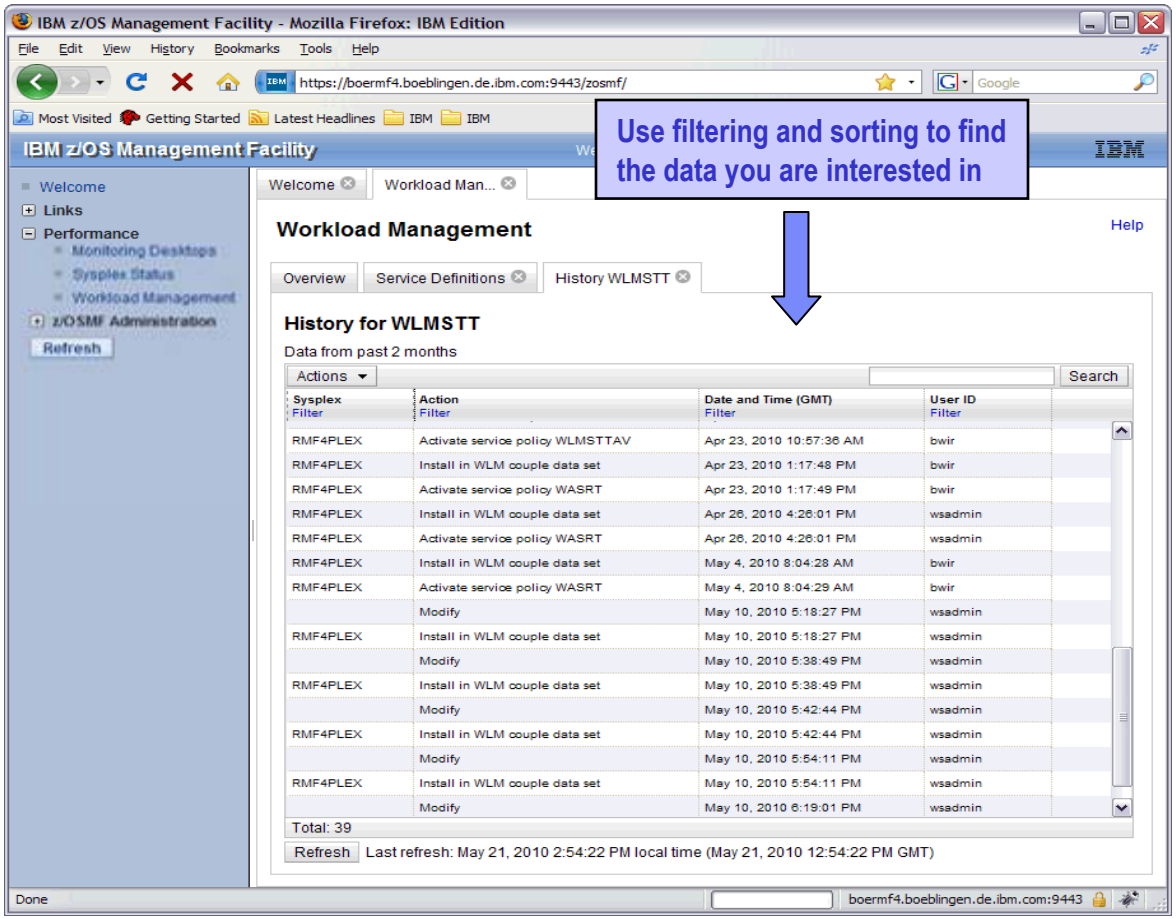
- **Base locations specify a z/OS UNIX® file directory or a PDS(E) library for storing the policy-related definitions that are created by the Configuration Assistant.**
- **There are both image-level and stack-level base locations.**
- **This example uses a PDS library.**



z/OSMF Workload Management (V1R12)

Service Definition History

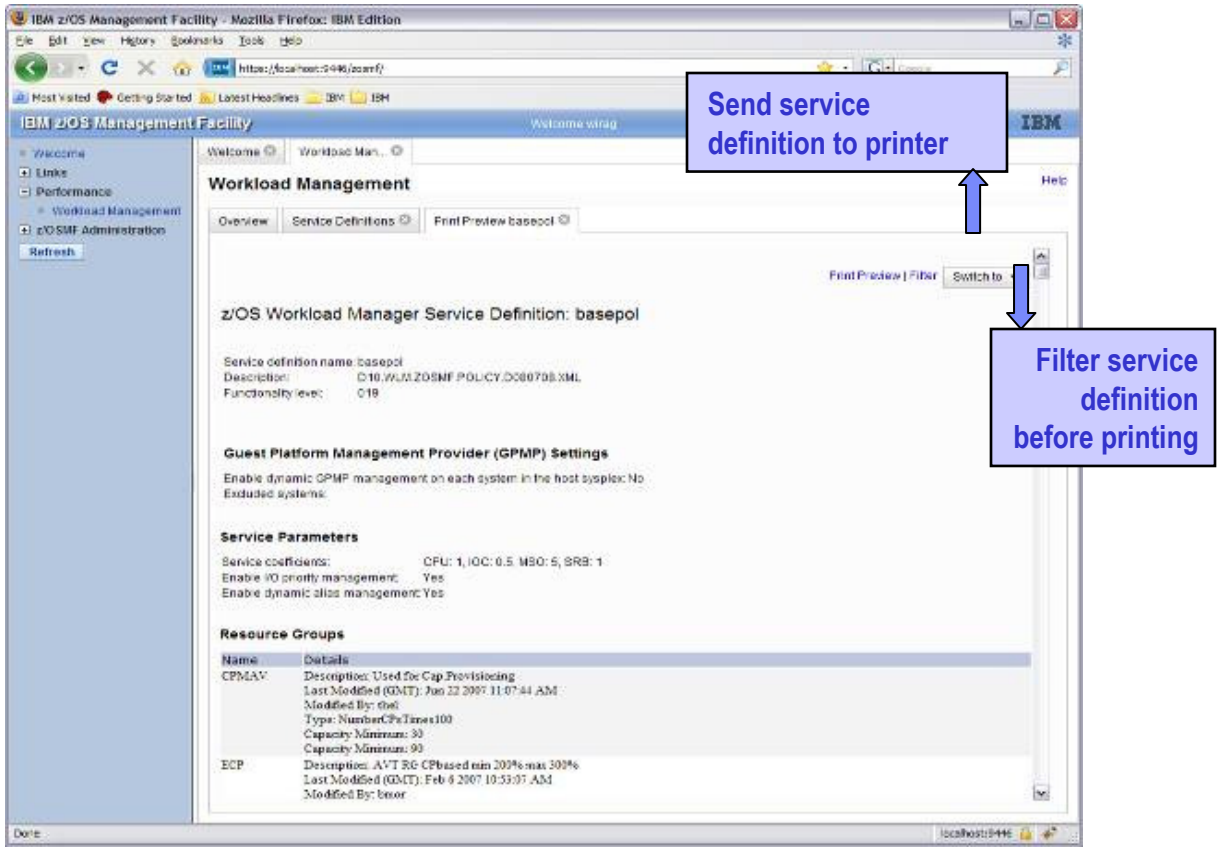
- **A history is provided for each service definition**
  - Lists the activities performed on the service definition
  - Contains edit, install, activate, import, export activities
  - Displays timestamp and user
  - The user can customize how long the history is kept



z/OSMF Workload Management (V1R12)

Printing Service Definitions

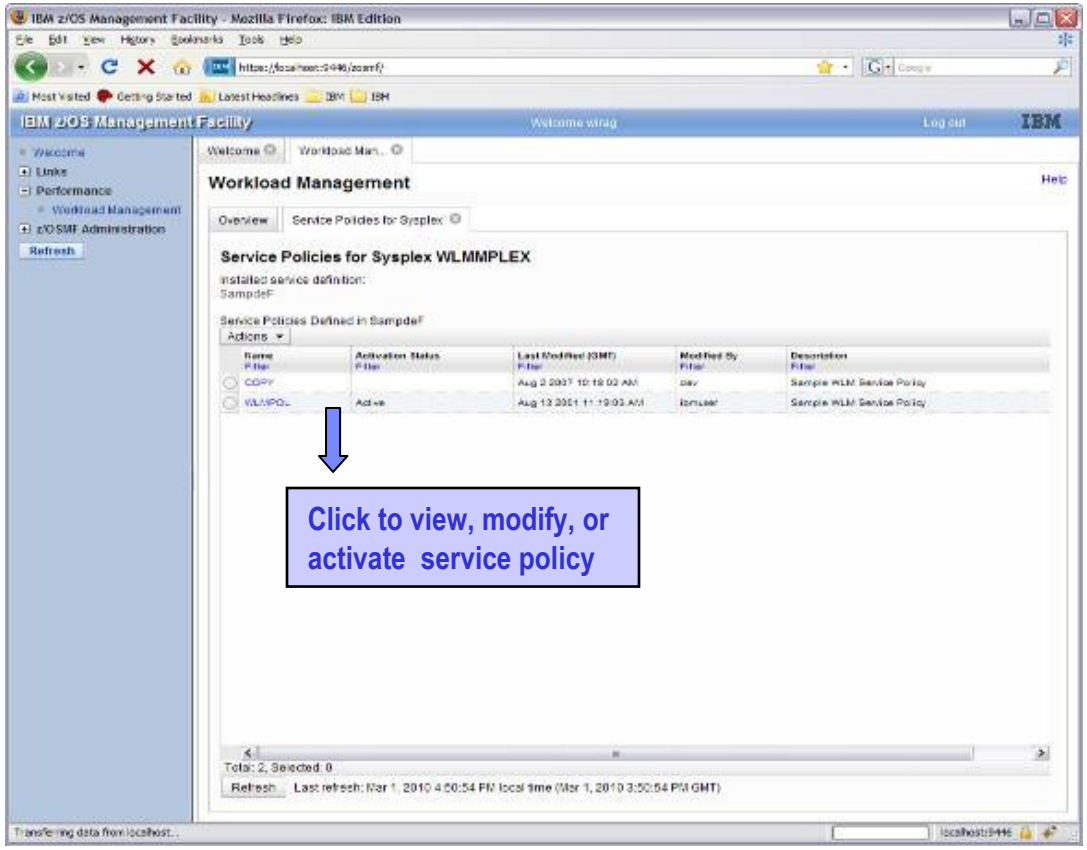
- Print Preview **function provides**
  - An clearly formatted overview of the service definition
  - filter service definition elements
  - apply service policies
- **Hints, warnings can also be printed**



z/OSMF Workload Management (V1R12)

Manage Service Policies

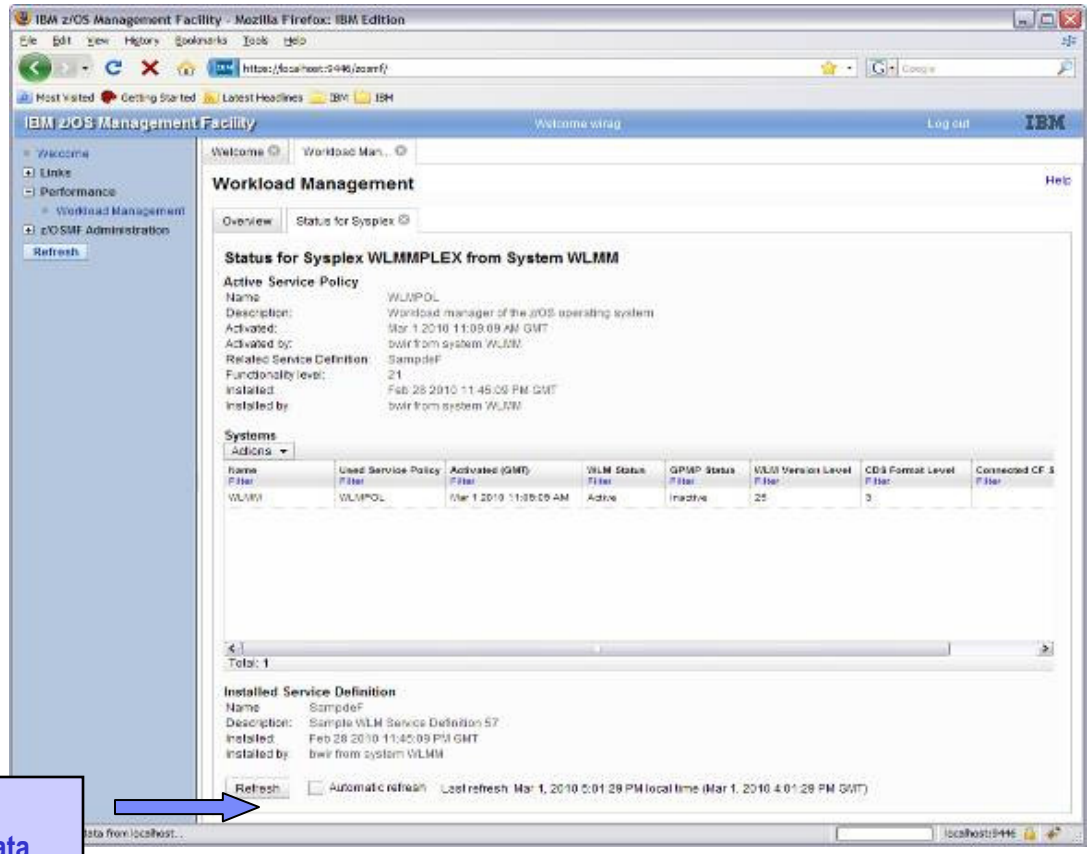
- The Manage Service Policies panel displays the state of the service policies in the installed service definition
  - View or print the service policies of the installed service definition
  - Activate a service policy of the installed service definition



z/OSMF Workload Management (V1R12)

View Sysplex Status

- The View Sysplex Status task displays
  - The active service policy
  - The WLM status on the systems in the sysplex
  - The installed service definition
  - The Sysplex Status panel comprises the information provided by the MVS console command D WLM, SYSTEMS



Check checkbox to automatically refresh data