IBM z/OS Management Facility Hands-on Lab

Session: 15051 (Thursday March 13, 2014)

SHARE, Anaheim
March 2014

Anuja Deedwaniya
anujad@us.ibm.com

Xiao Zhen Zhu
zhuxiaoz@cn.ibm.com

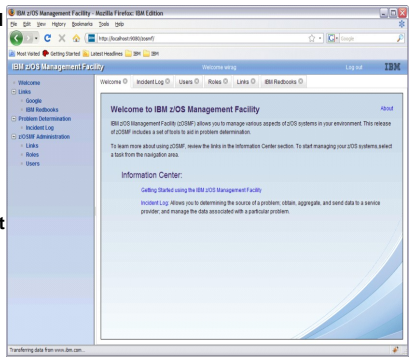
Ken Irwin
irwink@us.im.com

Lab Agenda

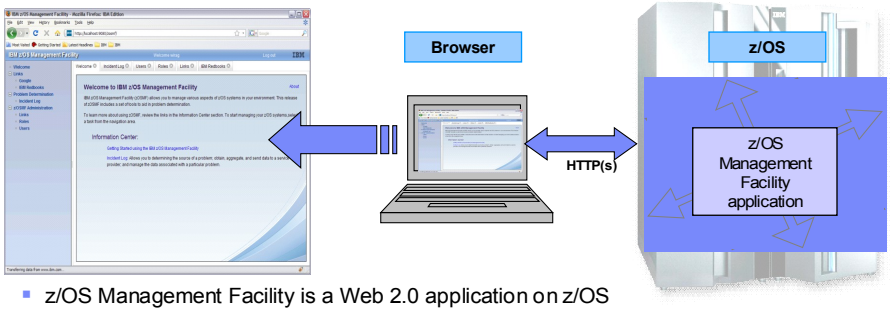
- **Brief overview of z/OSMF**
- **Start the hands on Lab – Logon to z/OSMF**
  - **Explore the different tasks in z/OSMF**
- **Lab 1 - Incident Log**
- **Lab 2 - z/OSMF ISPF, including Application Linking with Incident Log**
- **Lab 3 - Workload Management**
- **Lab 4 - System status**
- **Lab 5 - Resource Monitoring**
- **Lab 6 – Software Deployment**
- **Lab 7 – Capacity Provisioning**
- **Optional Labs**
  - **Lab 7 – Capacity Provisioning**
  - **Lab 8 - Workload Management : Print Preview of Service Definition**
  - **Lab 9 - Workload Management : View the History of a Service Definition**
  - **Lab 10 - Workload Management : View the WLM Status of the Sysplex**
  - **Lab 11 – Monitoring Desktops: Add new metrics to monitor**

IBM z/OS Management Facility

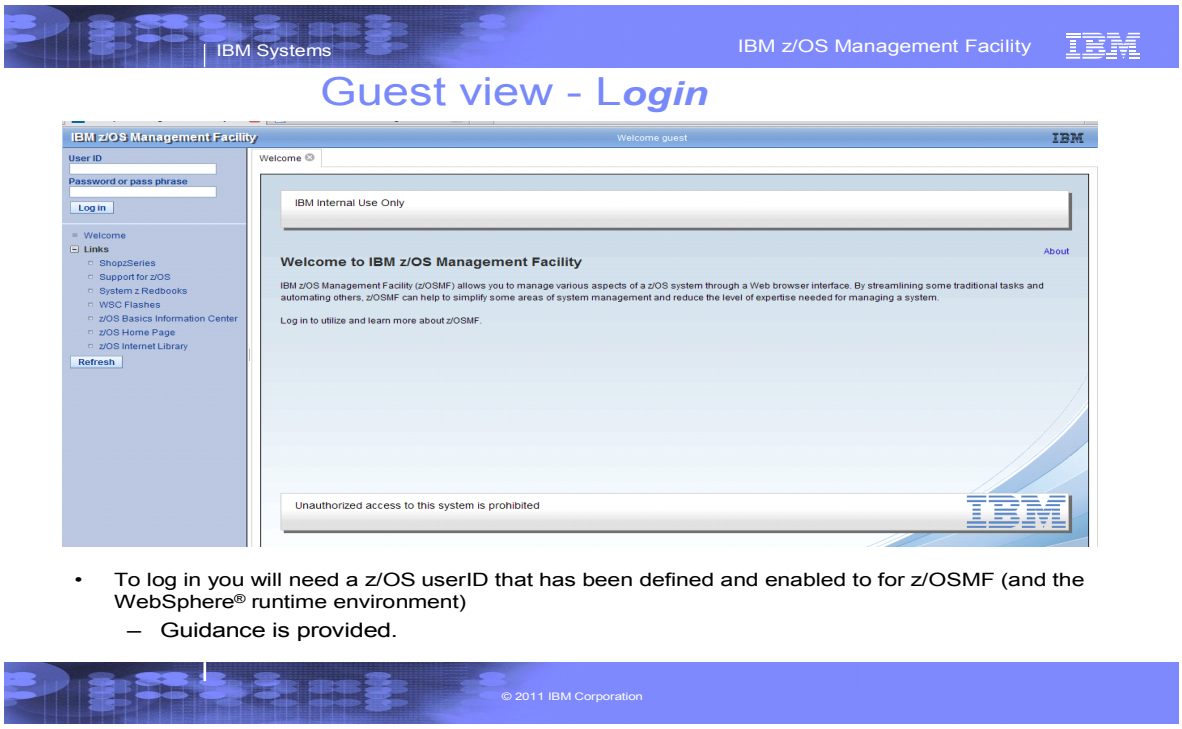
- The IBM z/OS Management Facility is a new product for z/OS that provides support for a modern, Web-browser based management console for z/OS.
- **First release is z/OSMF 1.11, introduced with z/OS 1.11**
- **Helps system programmers to more easily manage and administer a mainframe system by simplifying 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.**
- Make System Programmers who are new to the mainframe 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

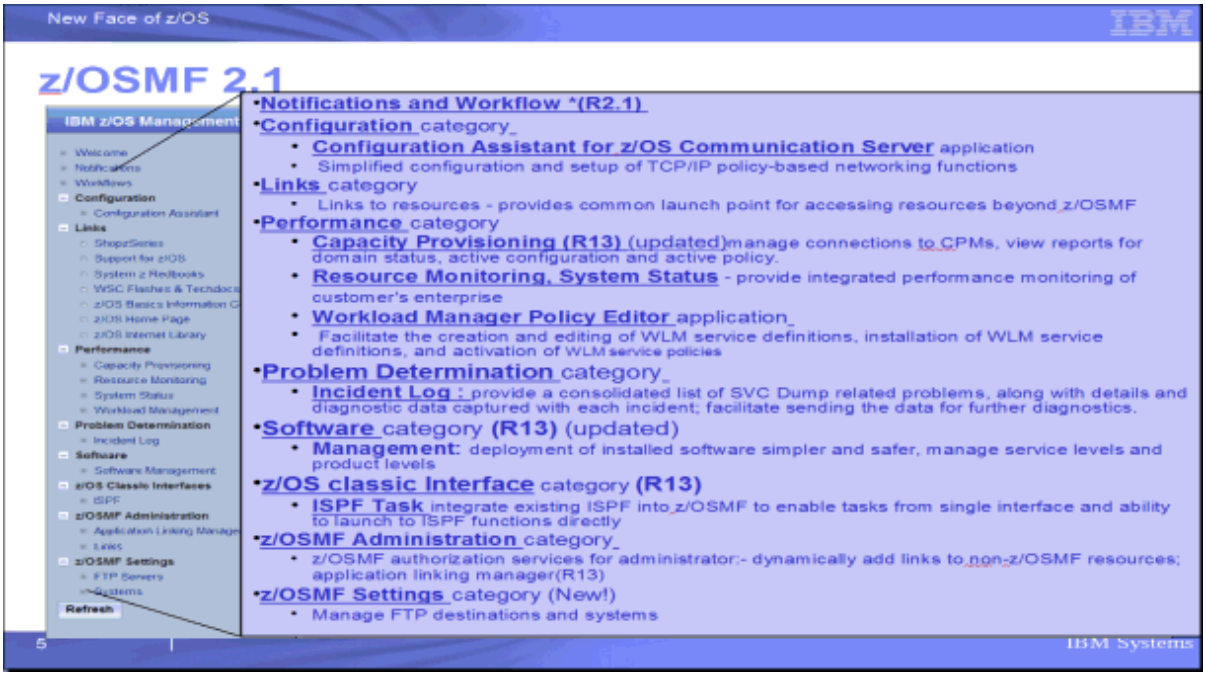


- z/OS Management Facility is a Web 2.0 application on z/OS
  - Manages z/OS from z/OS
  - Browser communicates with z/OSMF via secure connection, anywhere, anytime
  - z/OSMF V1R11 is supported on z/OS V1R10 w/maint, z/OSV1R11, and above
  - z/OSMF V1R12 is supported on z/OS V1R12
  - z/OSMF V1R13 is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



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

To access z/OSMF, you point your browser to the URL for the z/OSMF instance which is the host name, the port name and the context root for z/OSMF -this is the result



Once you log in with a valid userid, all functions that are configured and authorized for the userid are made available.

Starting the Lab – log in to z/OSMF

- Launch the Mozilla Firefox browser
  - Note: If browser asks to add exception for certificate, do so
- Point Browser to z/OSMF – enter the url provided by the instructor
  - Note: Ignore and close the warning message
    - IZUG809W Unsupported Web browser version or level found: "3.6.13 (.NET CLR 3.5.30729)" . Some z/OSMF functions might not be available if you continue.
- View the Welcome page with the customized Logo
  - view 'About' panel
    - Click top right on 'About'
      - See the details on build and service levels in the installed package.
    - Close the About panel (X on top right)
- Login with SHARE userid/pw as provided by the lab instructor.
  - See the Full Navigation list and welcome page
- Expand each category to see the tasks available

Lab 1: Incident log Lab

This lab consists of 5 tasks.

It is recommended that you execute these tasks in the order listed above. As you get familiar with the Incident Log, you will be able to work directly with the task you need to accomplish.

As with all the labs in this session, all the teams will be working with the same z/OSMF instance. Each team will be given a unique id to work with. However, you must remember that as you work with a given incident, that incident is also available to the other teams to work with. When you are working with updating an incident please make sure you work with the user defined incident assigned to your team to avoid confusing the other teams.

1. View all the incidents across all the systems in your sysplex
2. Customize your view of these incidents
3. View the details of an abend incident
4. FTP the diagnostic data captured for an incident to your service provider
5. View the status of the FTP for that incident

Optional tasks if you have time and interest

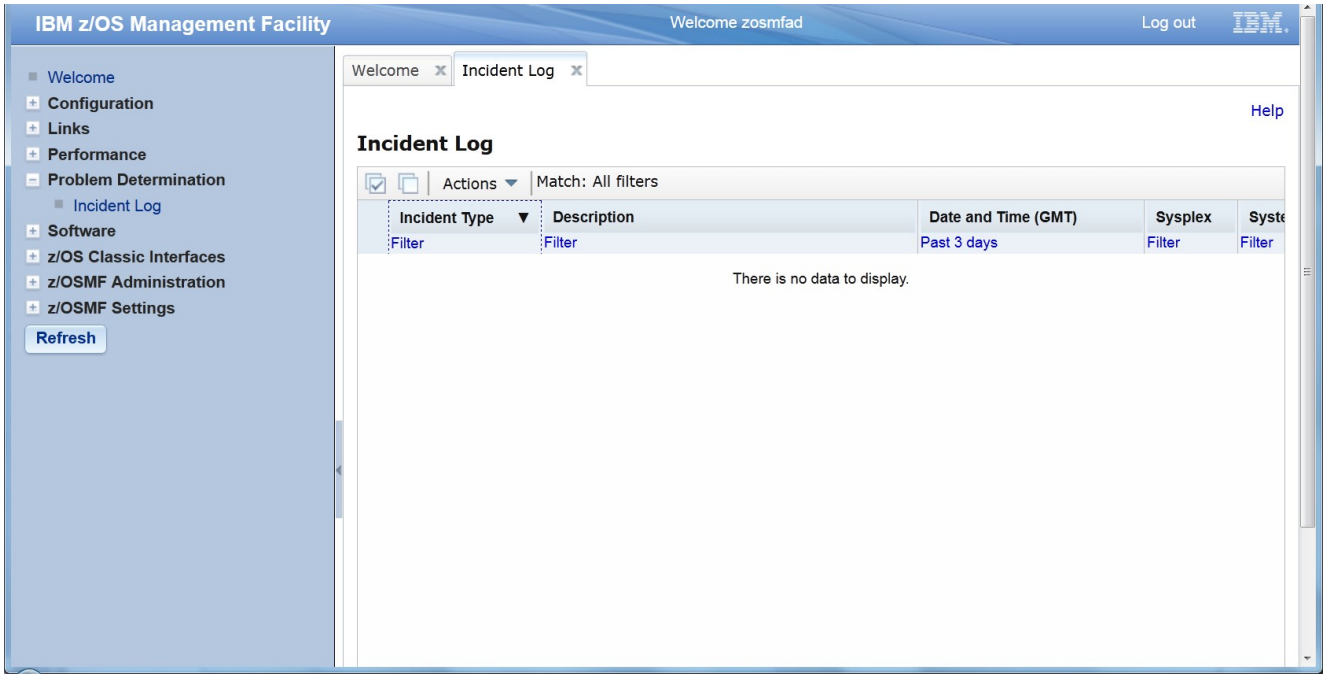
6. View FTP destinations
7. View firewall proxy

Task 1: View all the incidents across all the systems in your sysplex

Step 1: Expand the Problem Determination Category in the Left Navigation Tree

Step 2: Click on Incident Log

The first panel that opens is the main panel of the Incident Log. Here you will see a summary view of all the Incidents across all the systems in the sysplex. Take some time to scroll through and look at all the columns.
Note: It is possible that you do not see any incidents yet! See next task!



Task 2: Customize your view of these incidents

You have the ability to control what data you see in terms of configuring what columns are displayed and the order of those columns. You can also control the data you see, which is you can filter on different columns. You can also sort the columns to view the data in different sort orders. You can sort on up to 3 columns at a time!

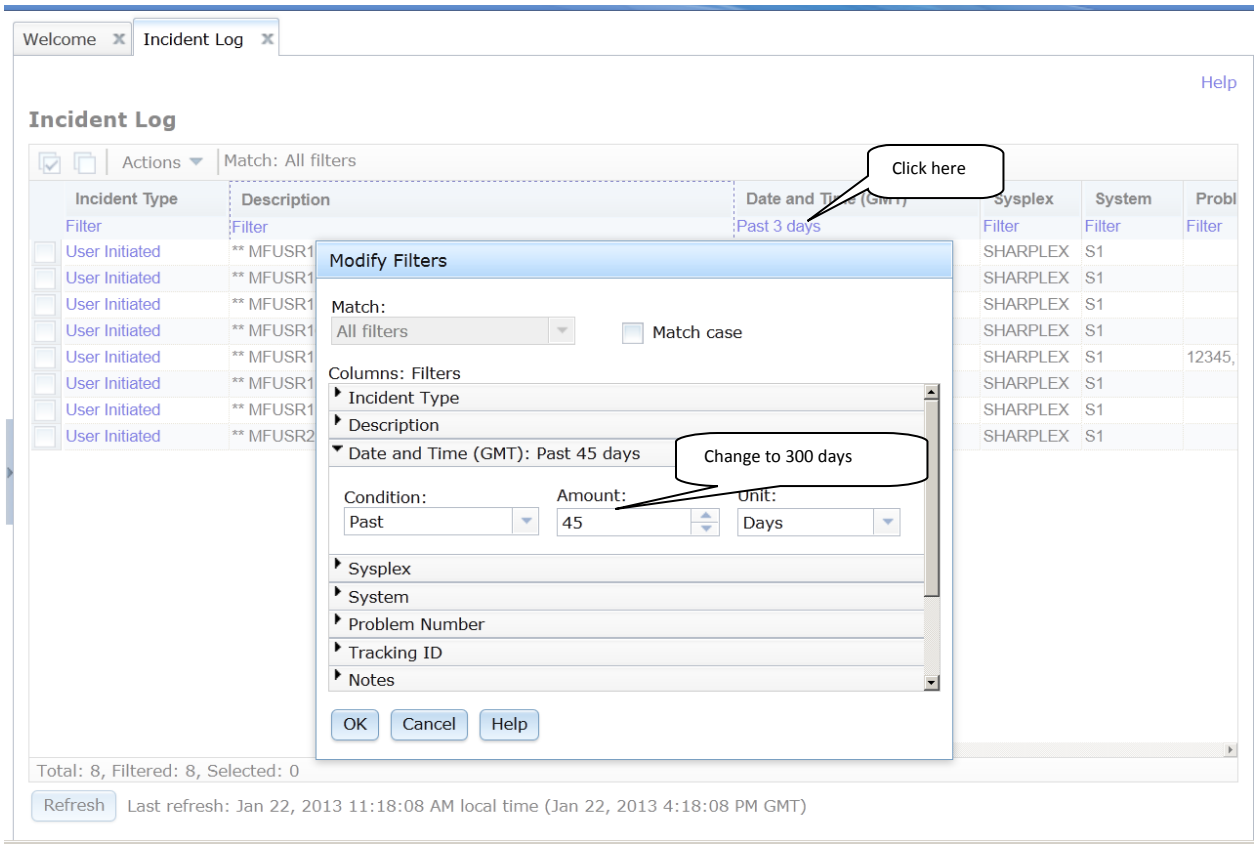
Remember that all customizations are saved on a per user basis.

Step 1: Filter the columns

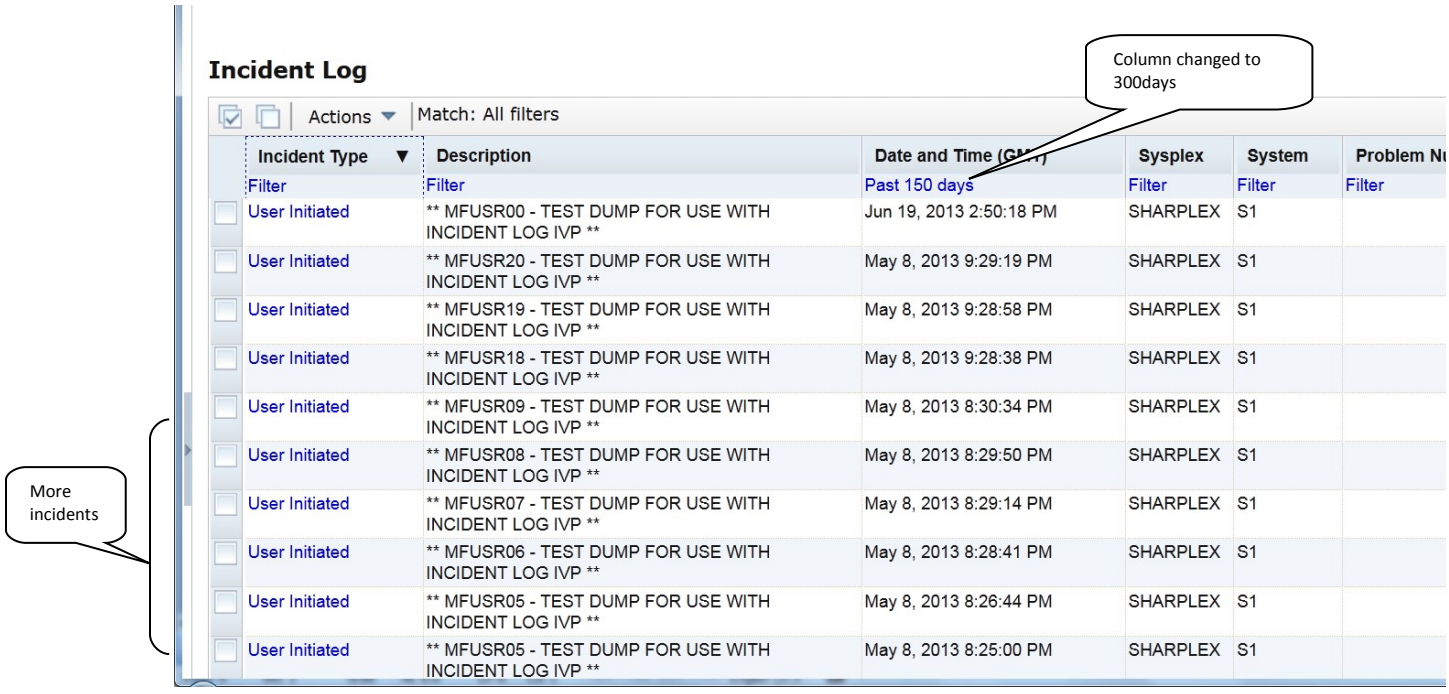
By default you will get all the incidents that have occurred in the last 3 days. You can change this.

Click on the filter displayed under a column header to change the filter. For this example, let us say we want to look at incidents from the last **300 days**.

Click on the Date and Time column filter. In the resulting dialog, change the days to 300 days and click OK

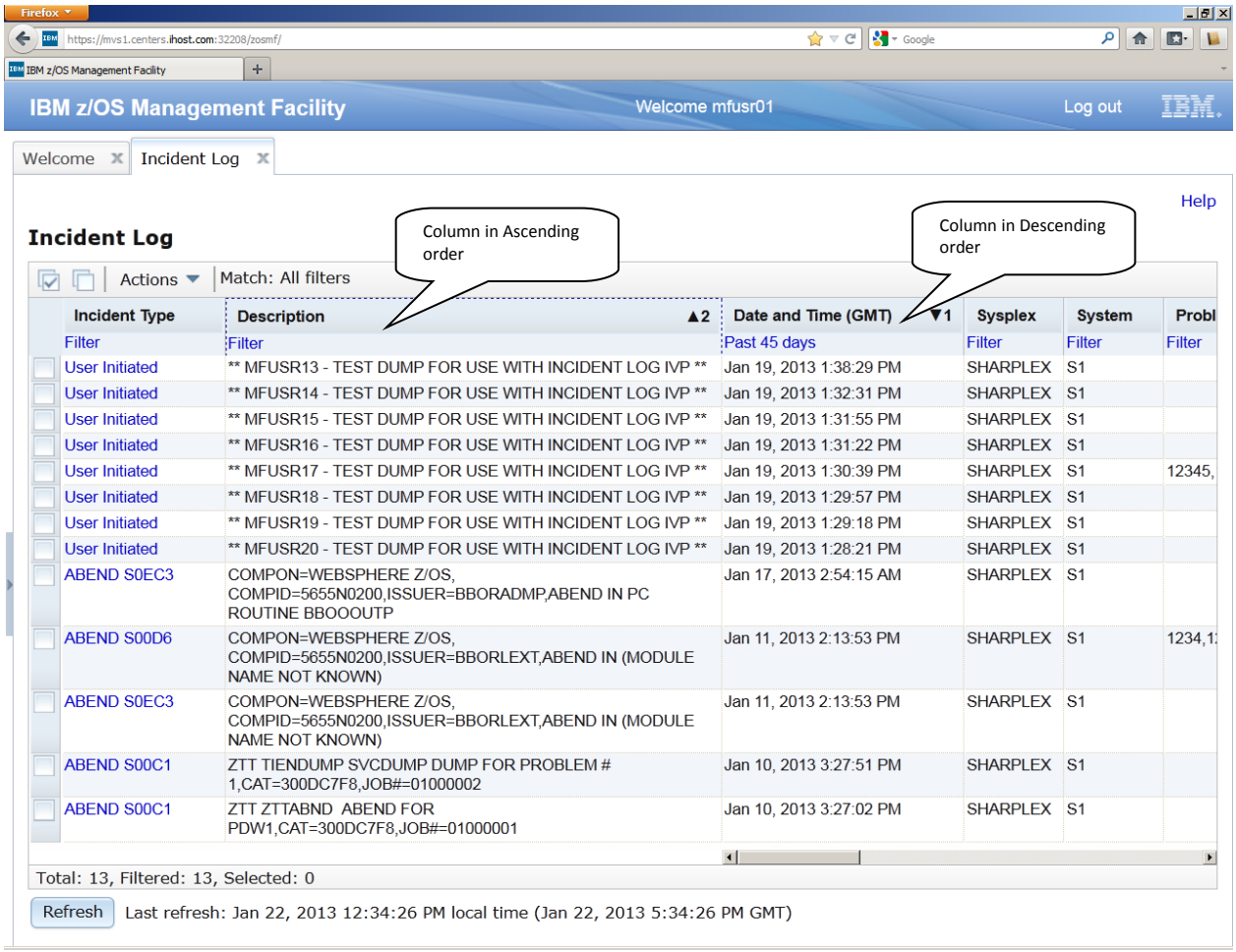


You will now see Incidents from the last 300 days on your sysplex.



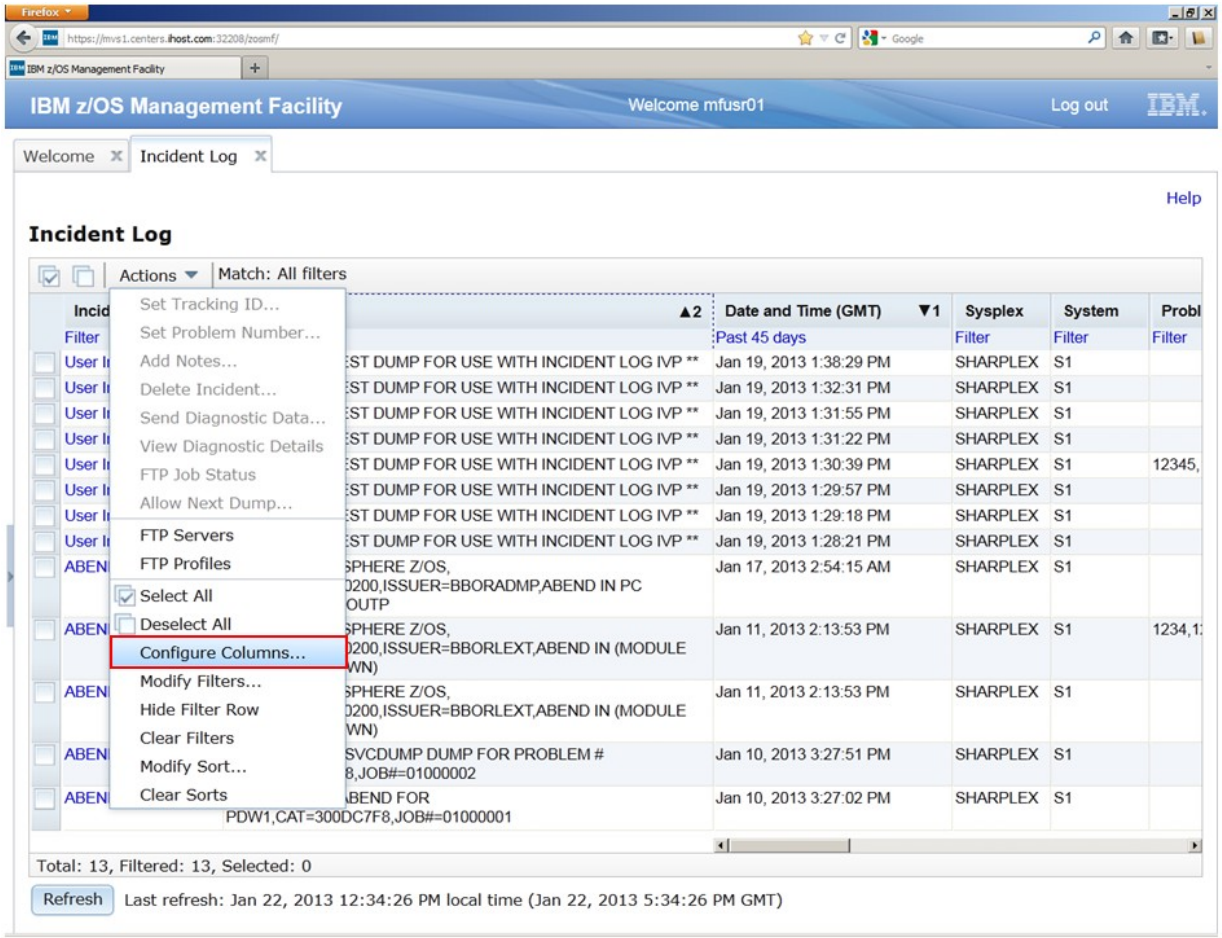
Step 2: Sort the columns

Click on the column header of the column you want to sort on. The first time you click on it, it will sort it in ascending order, the second time in descending order and the third time it will clear the sort. Try sorting in descending order on the Date and Time column. Notice the arrows that show up. Next try to sort on the Incident Description column. Now note the sort order numbers that show up on the column headers.

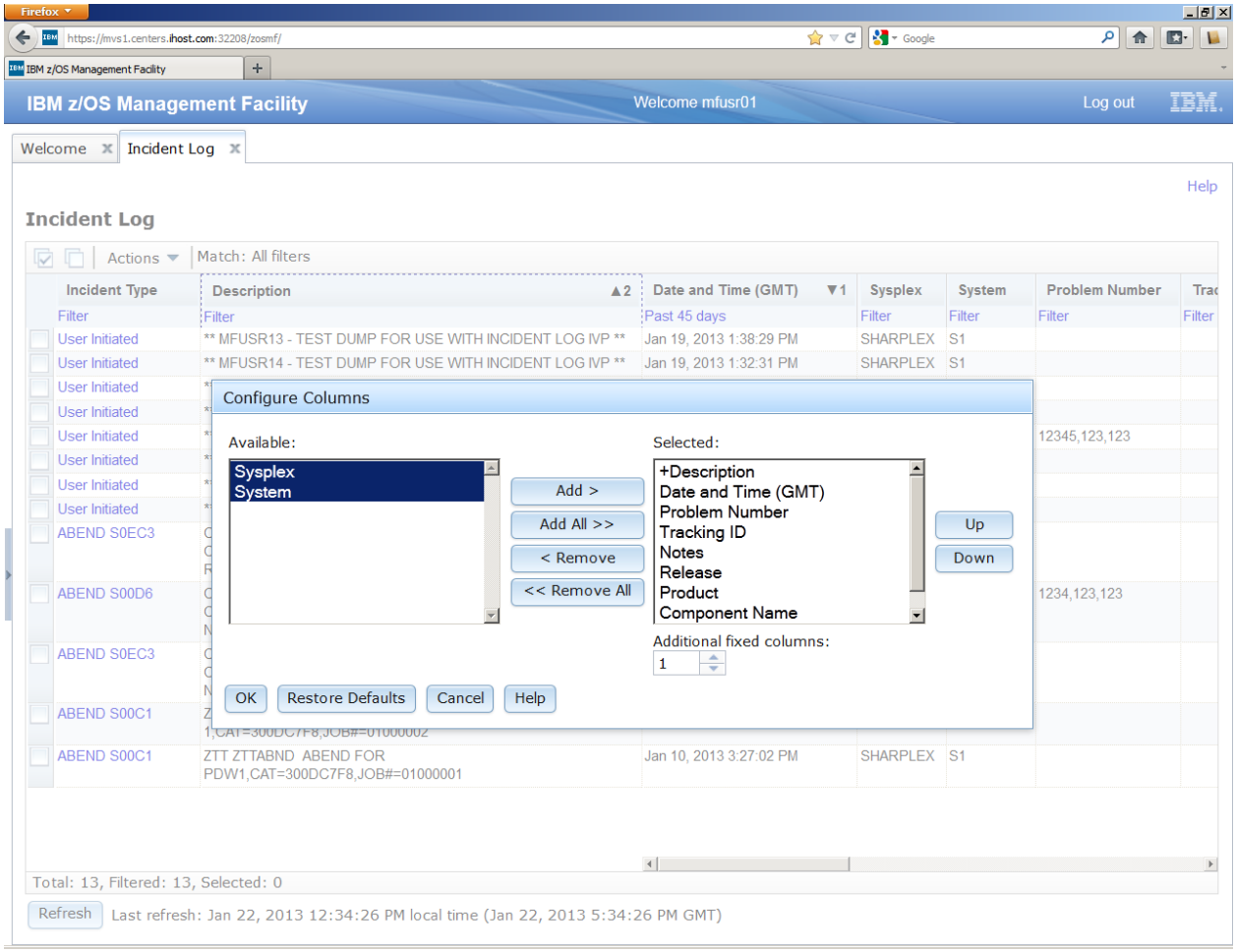


Step 3: Rearrange the order of the columns as you would like to see it

Click on Actions->Configure Columns

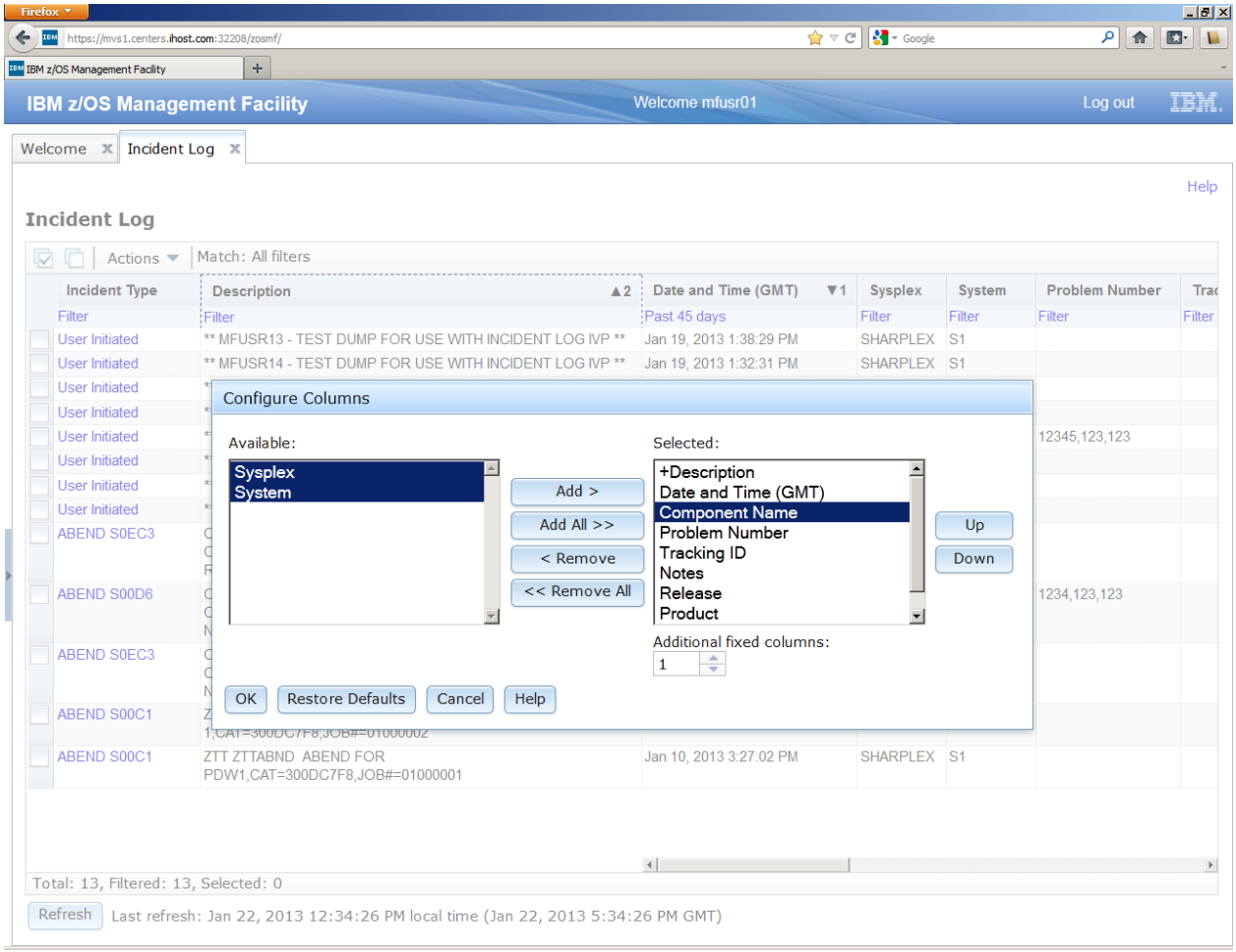


Assume you do not want to see the sysplex and system columns. Select them and click on the Remove button

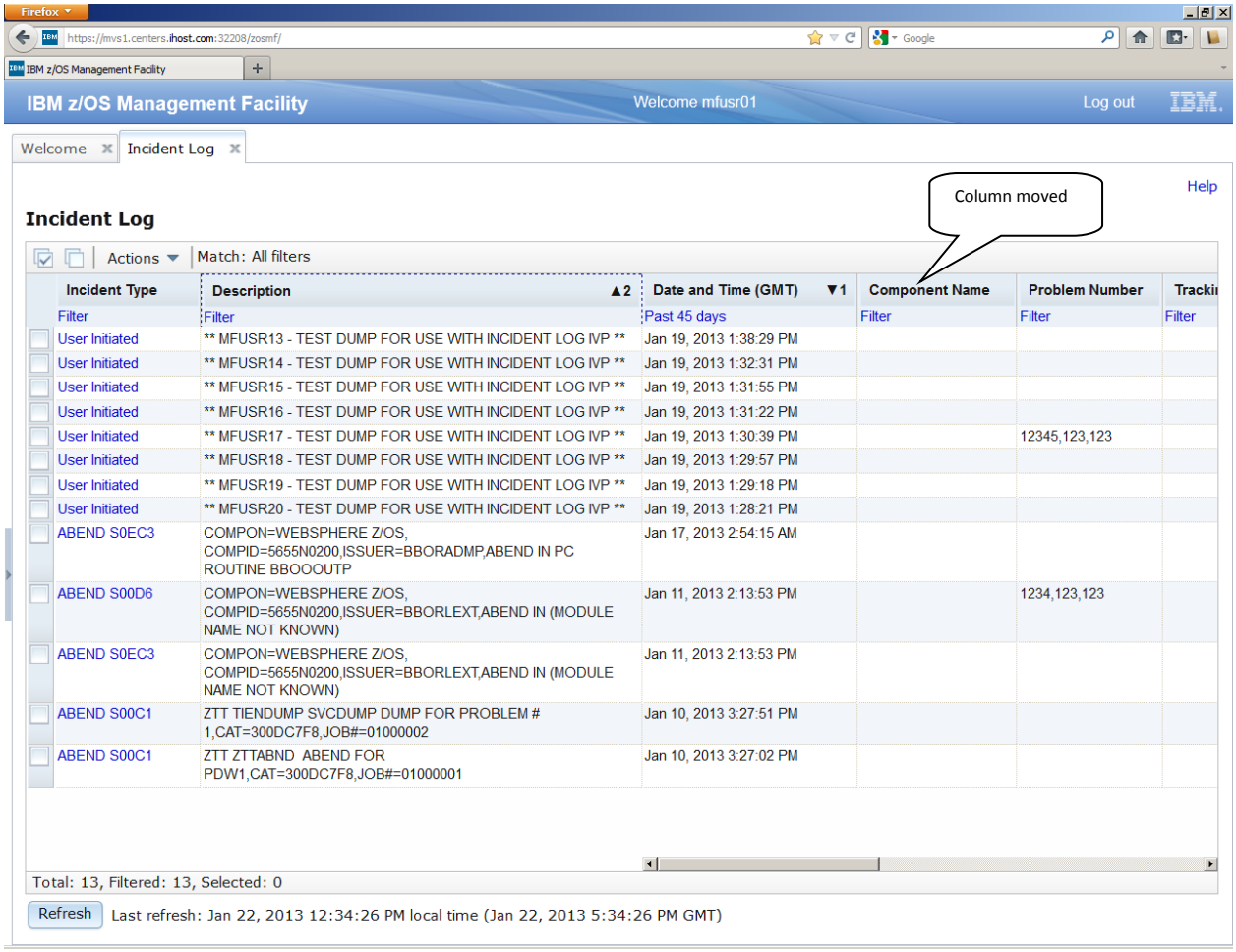

Firefox
https://mvs1.centers.ihost.com:32208/zosmf/
IBM z/OS Management Facility
IBM z/OS Management Facility
Welcome mfusr01
Log out
IBM.
Welcome
Incident Log
Help
Incident Log
Actions
Match: All filters
Incident Type
Description
Date and Time (GMT)
Sysplex
System
Problem Number
Filter
Past 45 days
User Initiated
** MFUSR13 - TEST DUMP FOR USE WITH INCIDENT LOG IVP **
Jan 19, 2013 1:38:29 PM
SHARPLEX
S1
User Initiated
** MFUSR14 - TEST DUMP FOR USE WITH INCIDENT LOG IVP **
Jan 19, 2013 1:32:31 PM
SHARPLEX
S1
User Initiated
User Initiated
User Initiated
12345,123,123
User Initiated
User Initiated
User Initiated
ABEND S0EC3
ABEND S00D6
1234,123,123
ABEND S0EC3
ABEND S00C1
ABEND S00C1
ZTT ZTTABND ABEND FOR PDW1,CAT=300DC7F8,JOB#=01000001
Jan 10, 2013 3:27:02 PM
SHARPLEX
S1
Configure Columns
Available:
Sysplex
System
Add >
Add All >>
< Remove
<< Remove All
Selected:
+Description
Date and Time (GMT)
Problem Number
Tracking ID
Notes
Release
Product
Component Name
Up
Down
Additional fixed columns:
1
OK
Restore Defaults
Cancel
Help
Total: 13, Filtered: 13, Selected: 0
Refresh
Last refresh: Jan 22, 2013 12:34:26 PM local time (Jan 22, 2013 5:34:26 PM GMT)

Now let's say you want to see the 'Component Name' column next to the Date and Time column

Select the Component Name column and then click on the Up button, until it is in the position you want it.



Click the OK button. You now have only the columns you want displayed in the order you want them.

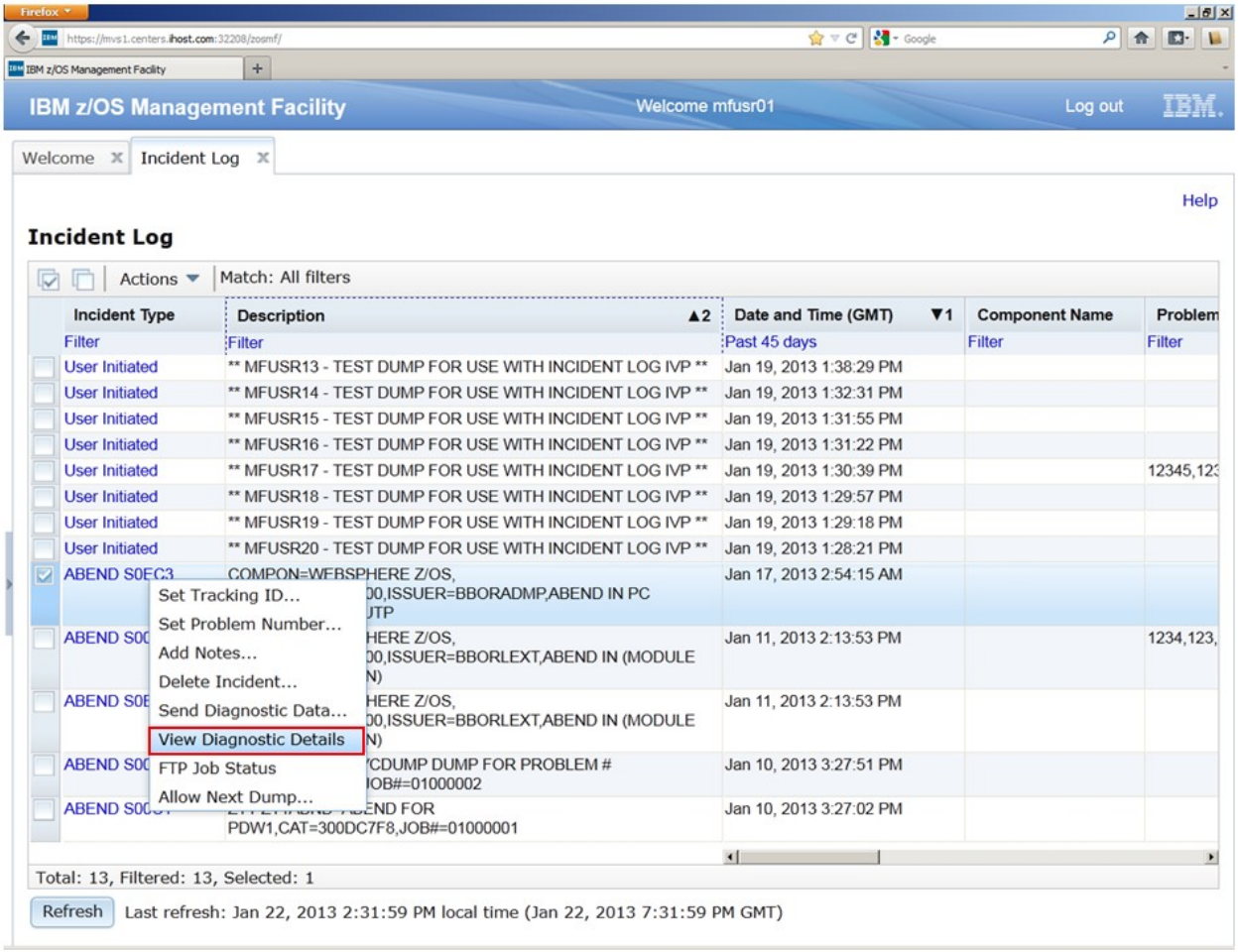


You have successfully customized your workspace! You are only viewing the columns you want, in the order you want, for a range of data that you filtered, in the sort order that you want.

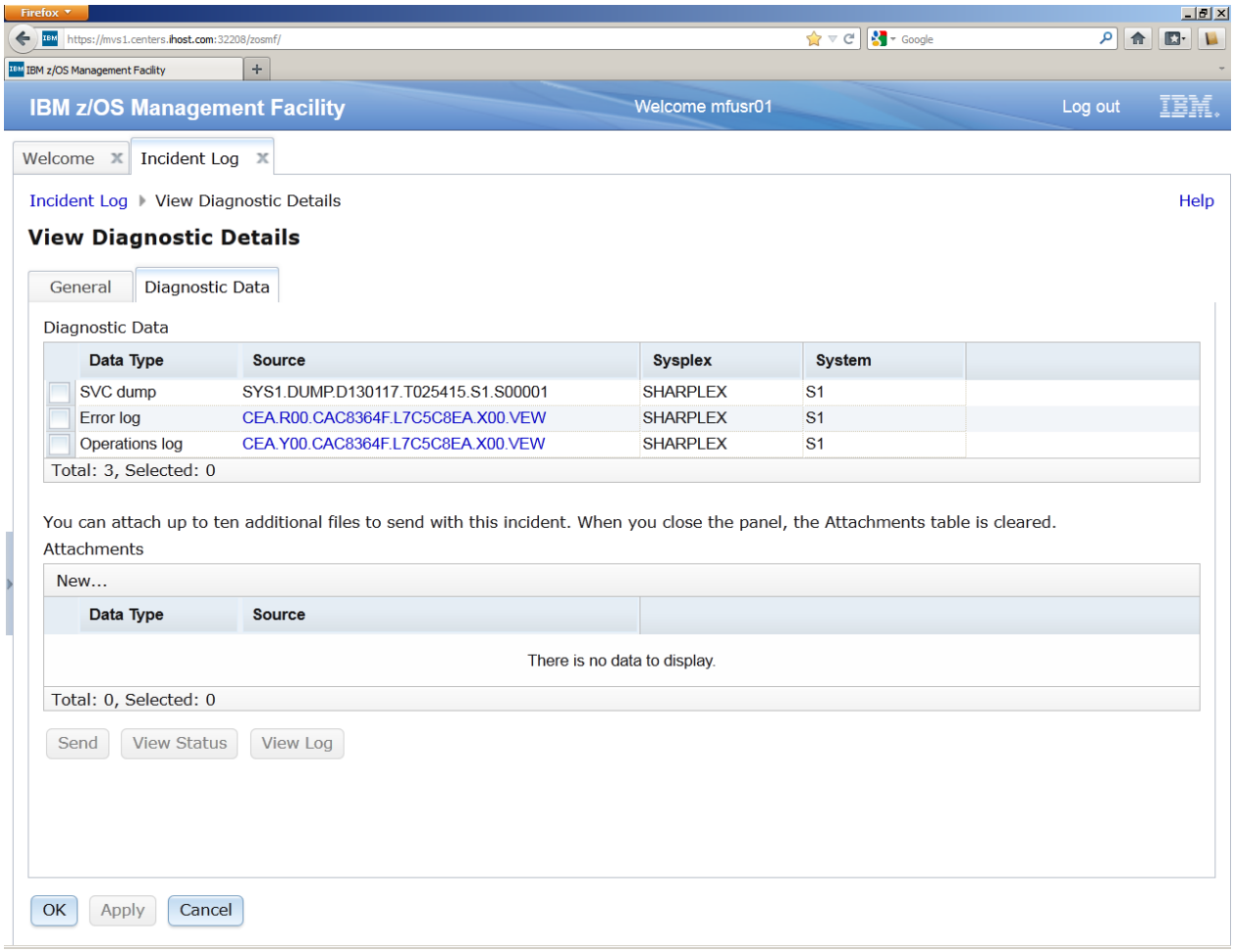
Task 3: View the details of any given incident

Now that you've customized your workspace, let us dive deeper into an individual Incident:

a. **Step 1**: Select any incident of type ABEND. Click on the Incident Type column value or you can Right click on the incident and from the popup context menu, select View Diagnostics Details



Step 2: It brings up the View Diagnostic Details panel:

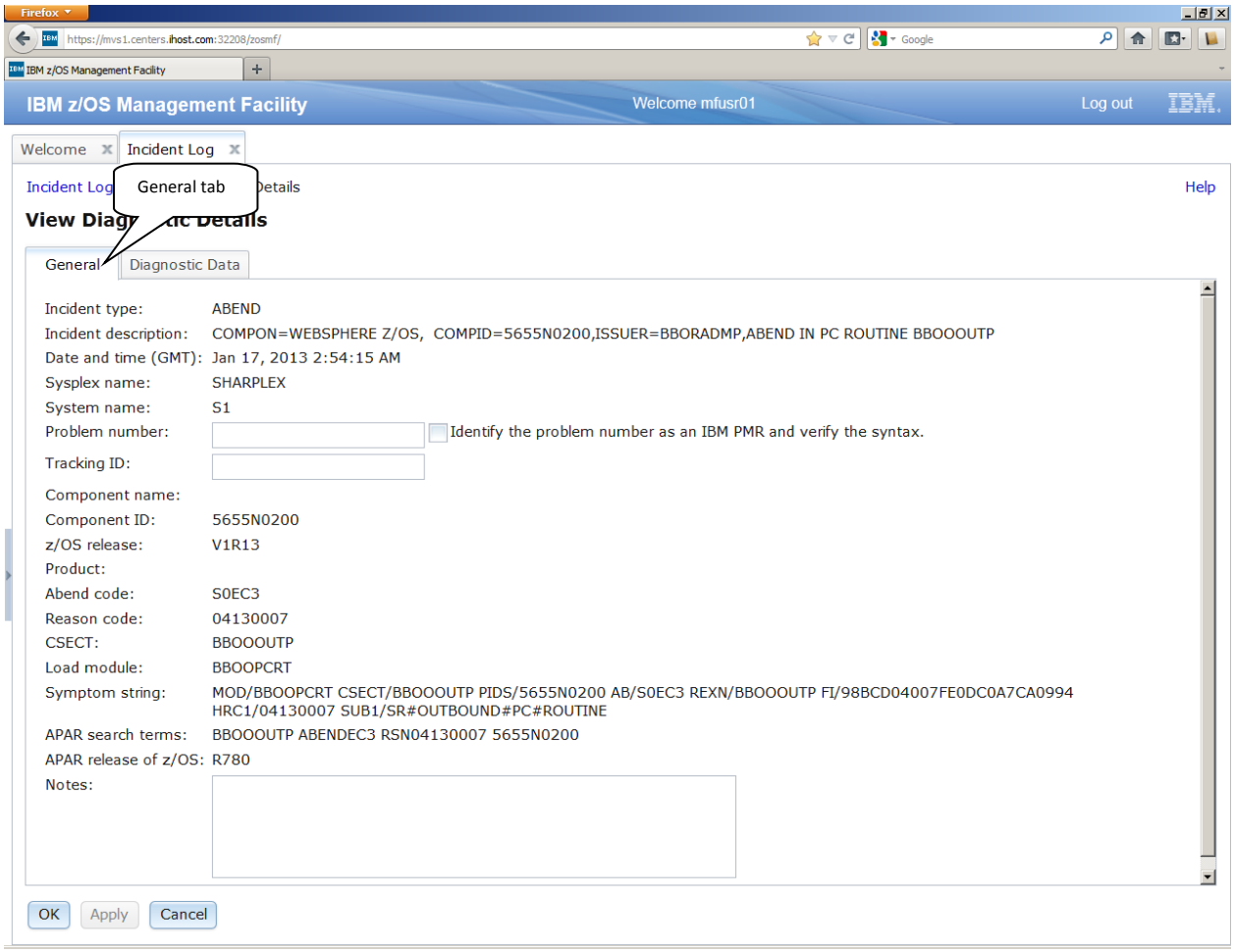


On this panel you can see all the pieces of diagnostic data that have automatically captured for this Incident by the backend instrumentation. Take some time to look at this.

Observe that you also have the ability to attach additional pieces of diagnostic data (for example a trace file)

Once you've finished with this tab, lets move on to the other tab - General

Step 3: Click on the General tab on top



You can now see additional information about the Incident - for example, the CSECT, Load module and symptom string, as well as the APAR Search String.

Step 4: Done, return to the main summary panel of the Incident Log

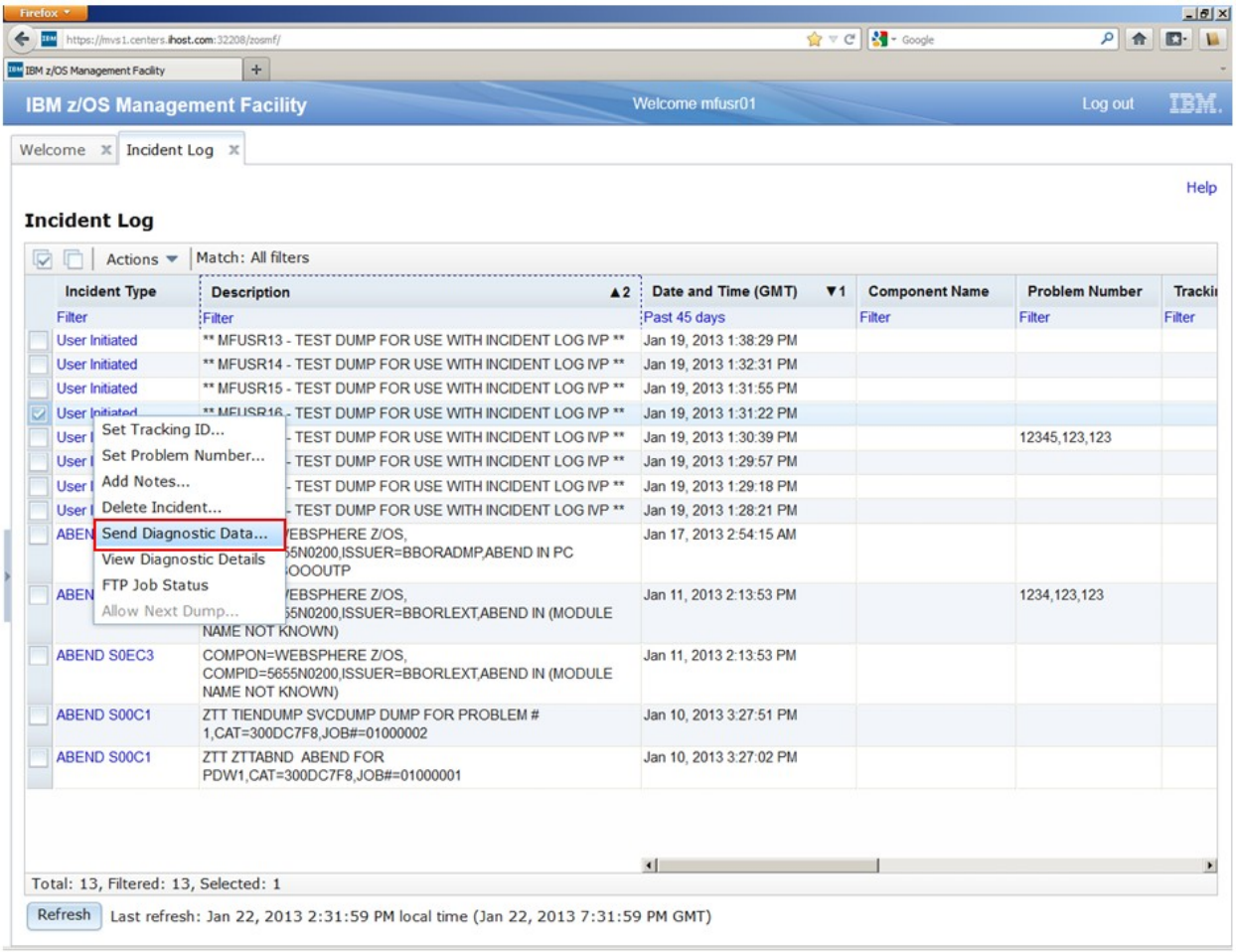
Click on the Incident Log link in the breadcrumbs at the top of the page to return, or click on the OK button

Task 4: FTP the diagnostic data captured for an incident to your service provider

Step 1: Select an Incident. Use the user initiated incident that has **your userid** in the description

(Hint: you can also 'filter' the incidents for a Description with your Userid!)

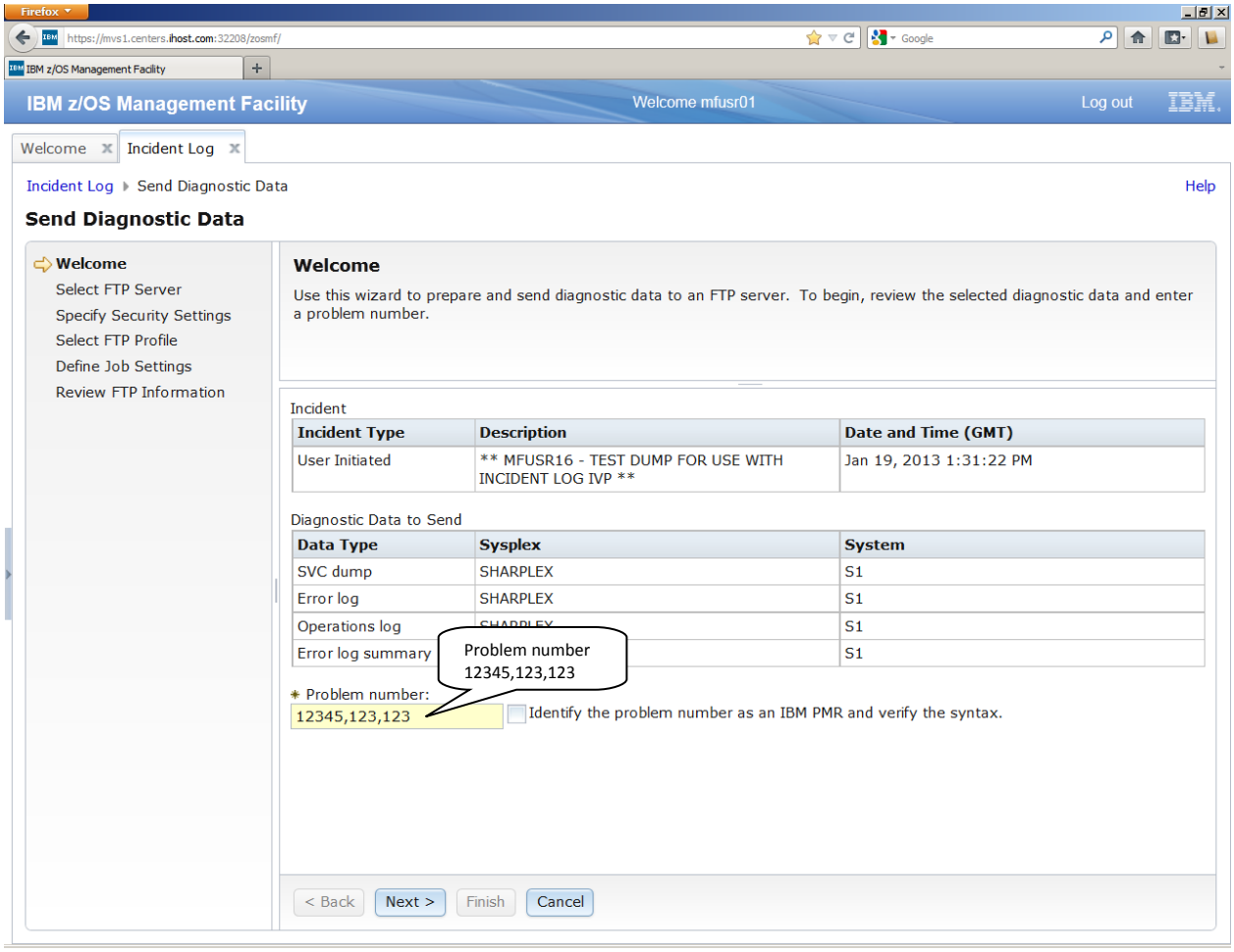
Right click (or click on the Actions button) and then select 'Send Diagnostic Data'



You will now be able to work with a wizard that will guide you through the steps to FTP the diagnostic data for that incident

Step 2: Welcome.

The first panel you see is the Welcome page. Notice that it has the steps you will be guided through on its left pane. It shows you what steps have been completed and which one is your current one



The welcome page has the details about the Incident you are working with, plus it lists the pieces of diagnostic data that is going to be sent.

It also shows you the problem number associated with the Incident. If the incident does not have one already associated, it allows you to set one here itself. Go ahead and fill in one if it does not already exist.

For this exercise, you can enter 12345,123,123 as the problem number, and select the IBM PMR option.

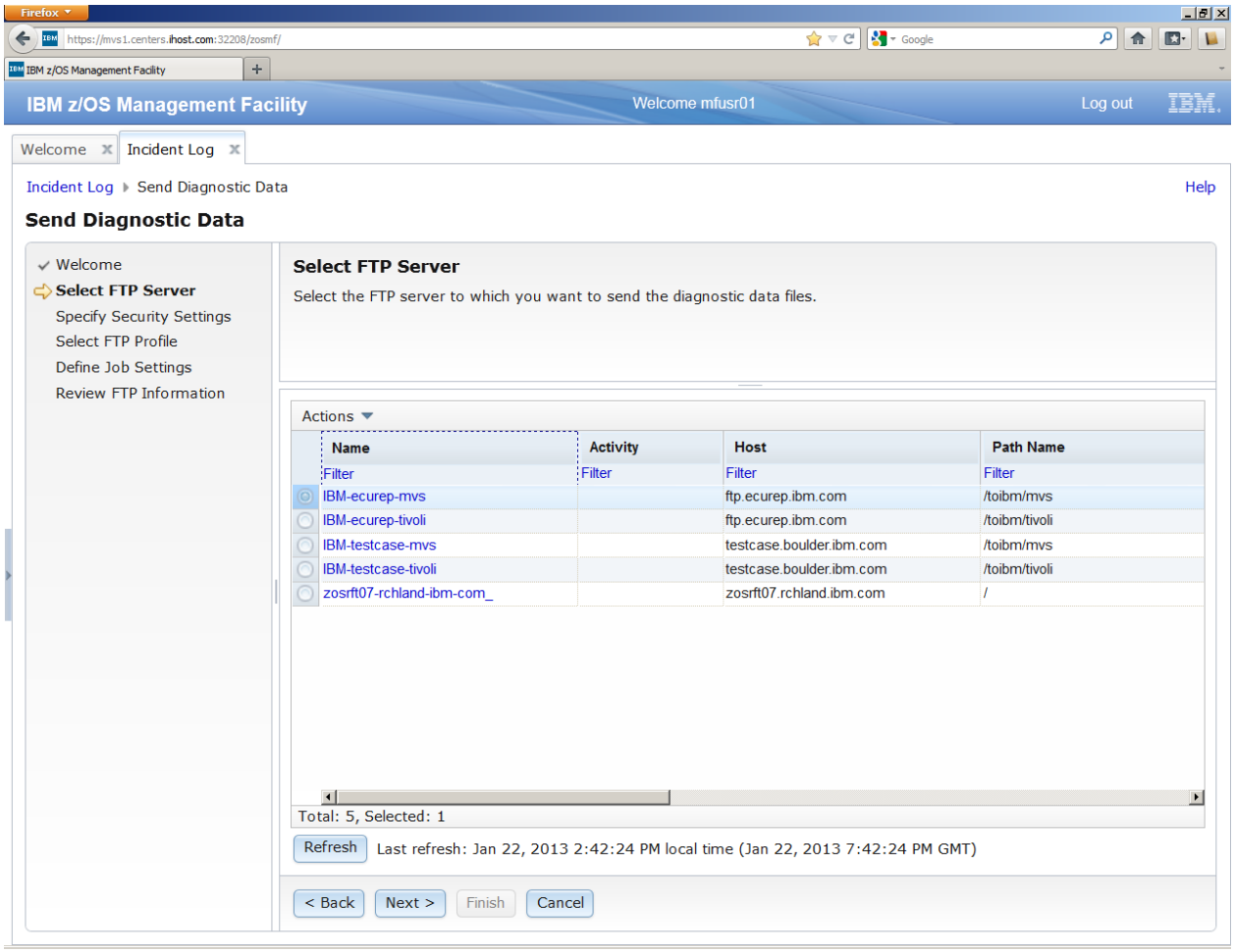
The problem number is required to help identify the FTP-ed files at the destination.

Click on next once you are done.

Step 3: Select FTP Destination:

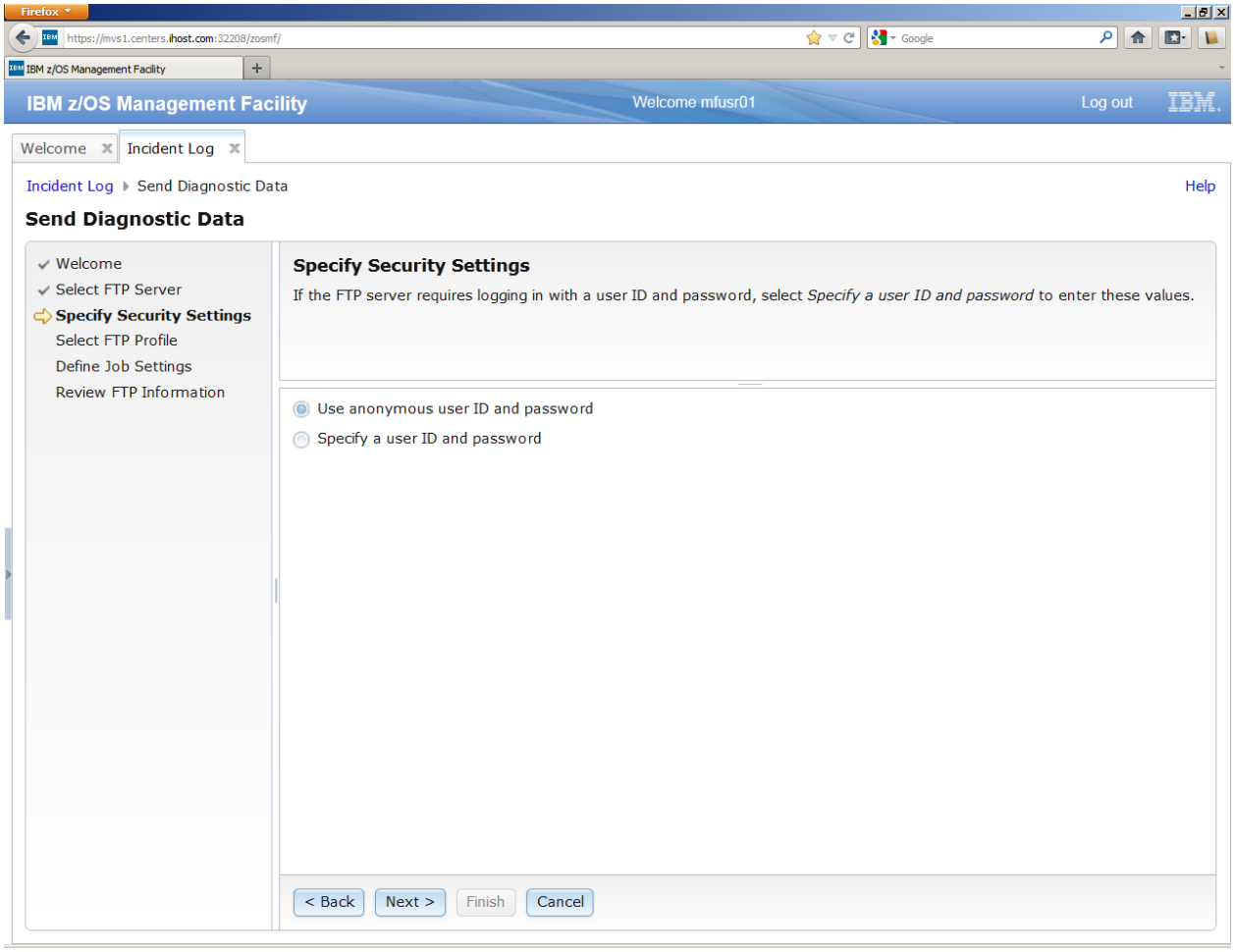
The next page in the wizard allows you to select where you want to send these files/datasets.

For this exercise, select the first one in the list and click on Next .



Step 4: Specify Security Settings:

This is where you can enter the userid/password needed to access the FTP Destination server you selected in the previous step. In this exercise, we will use the anonymous sign on.

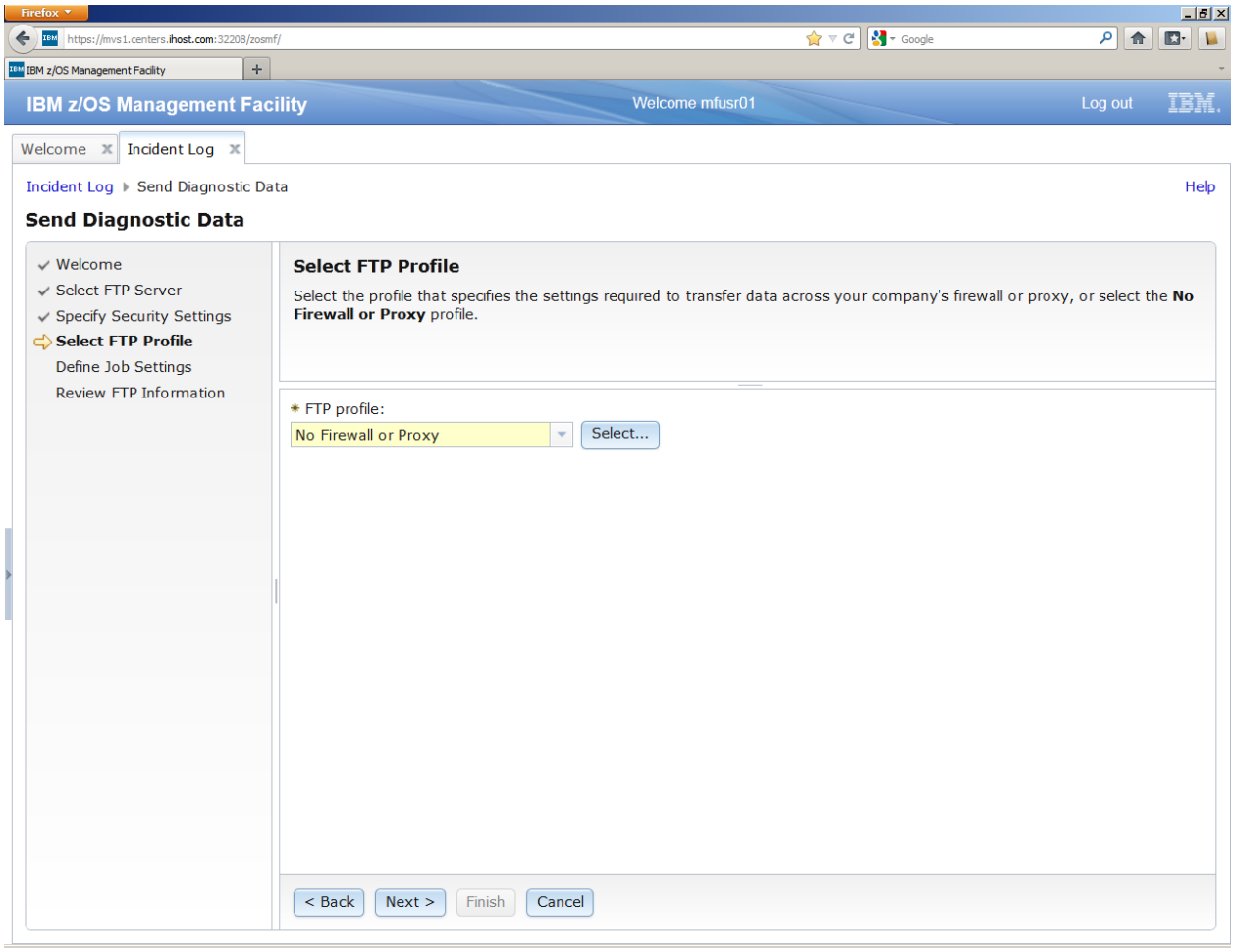


Click on Next to move on.

Step 5: Select FTP Profile

This is where you can specify your firewall or proxy information if needed. In this exercise, we do not have a firewall.

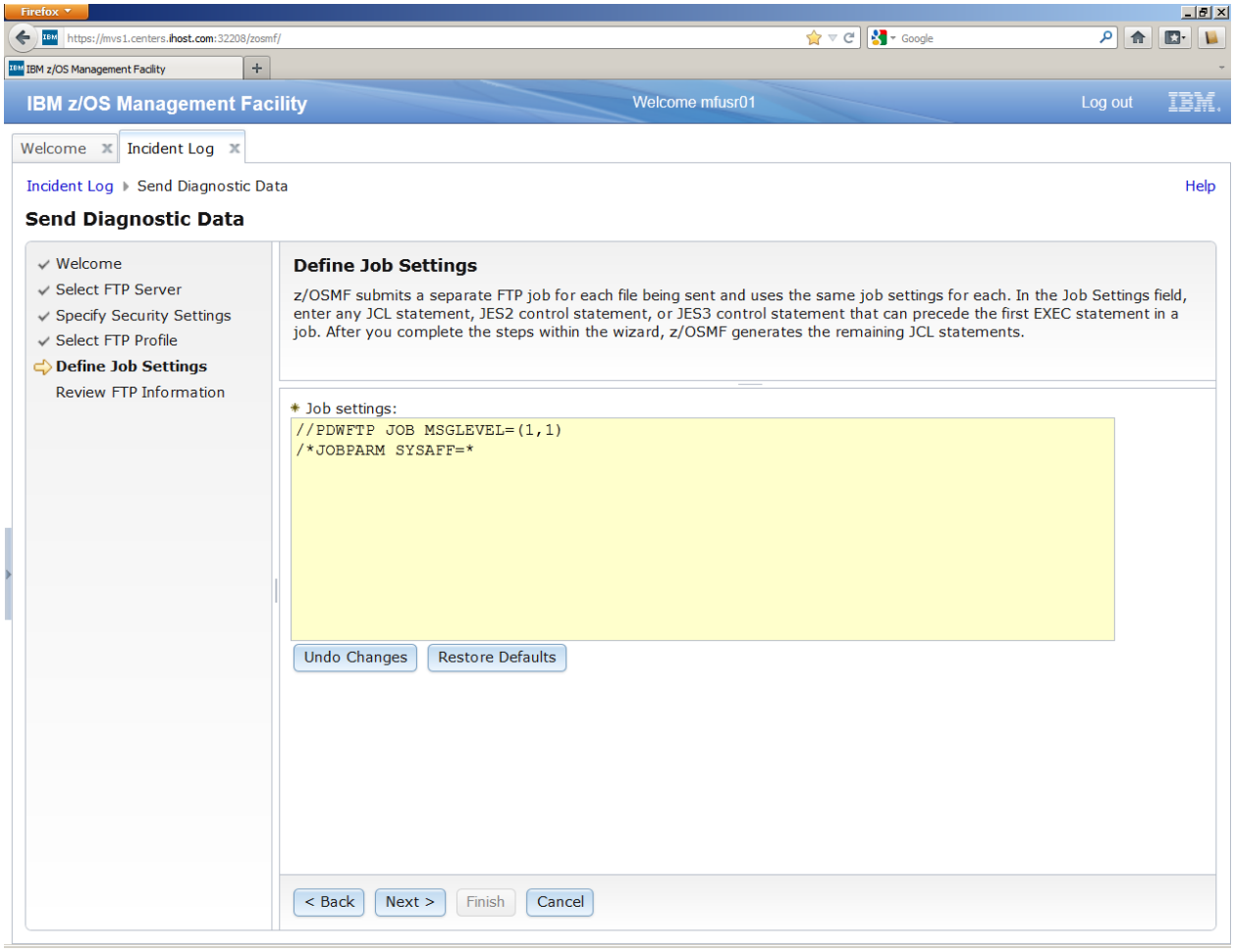
Make sure that the No firewall or proxy option is selected in the drop down.



Click on Next.

Step 6: Define Job Settings

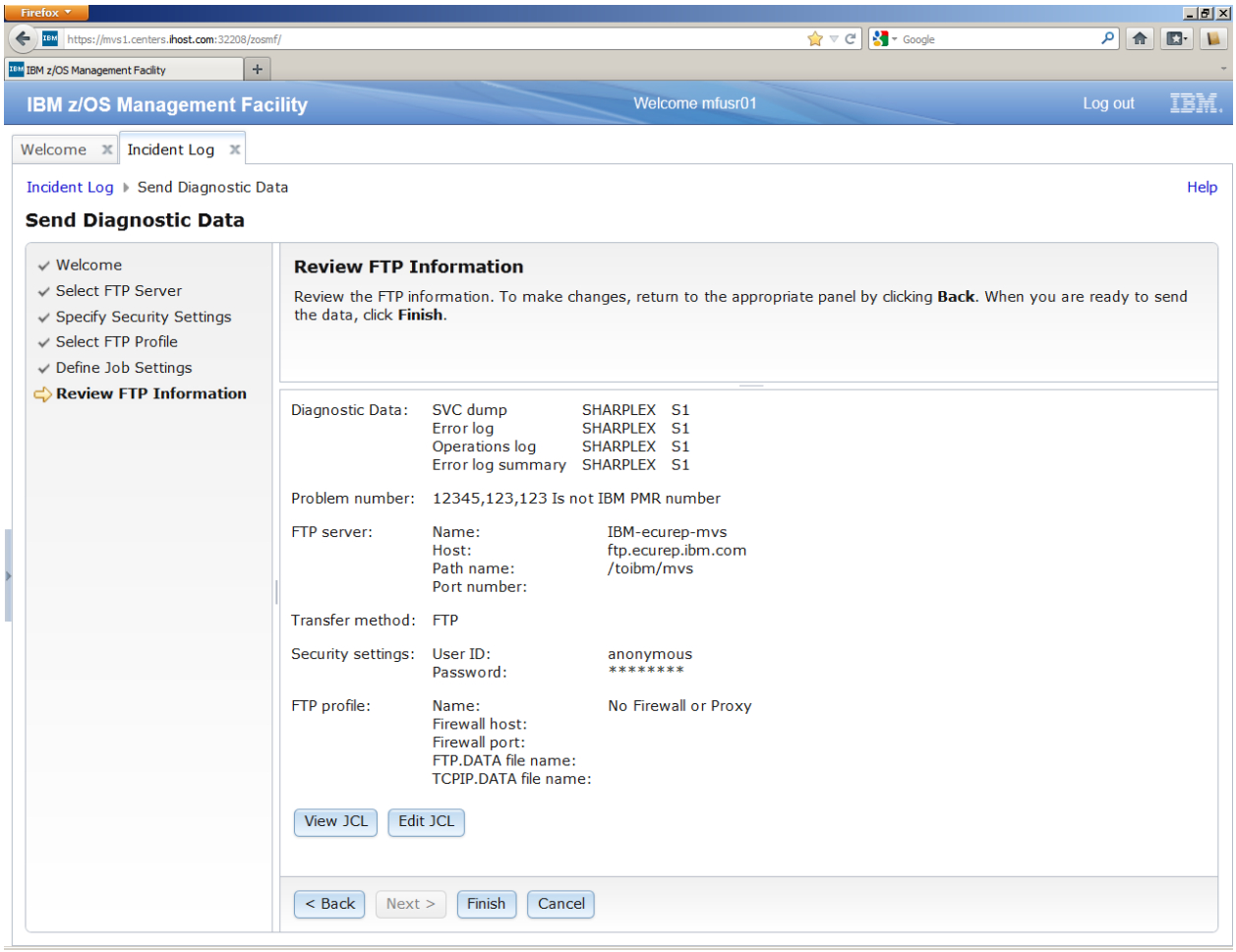
At this stage you have the ability to edit/specify the job card information for the FTP Job that is being built in the background.



You can make changes if you'd like. The default entries will work for our lab session, so you can also just click on Next

Step 7: Review FTP Information

The wizard has walked you through collecting all the information needed to FTP the diagnostic data to your service provider. This page allows you to review all the data that you have provided. If you want to change any value, you can click the Edit JCL button to make changes.
Note: We do not recommend changing the JCL.



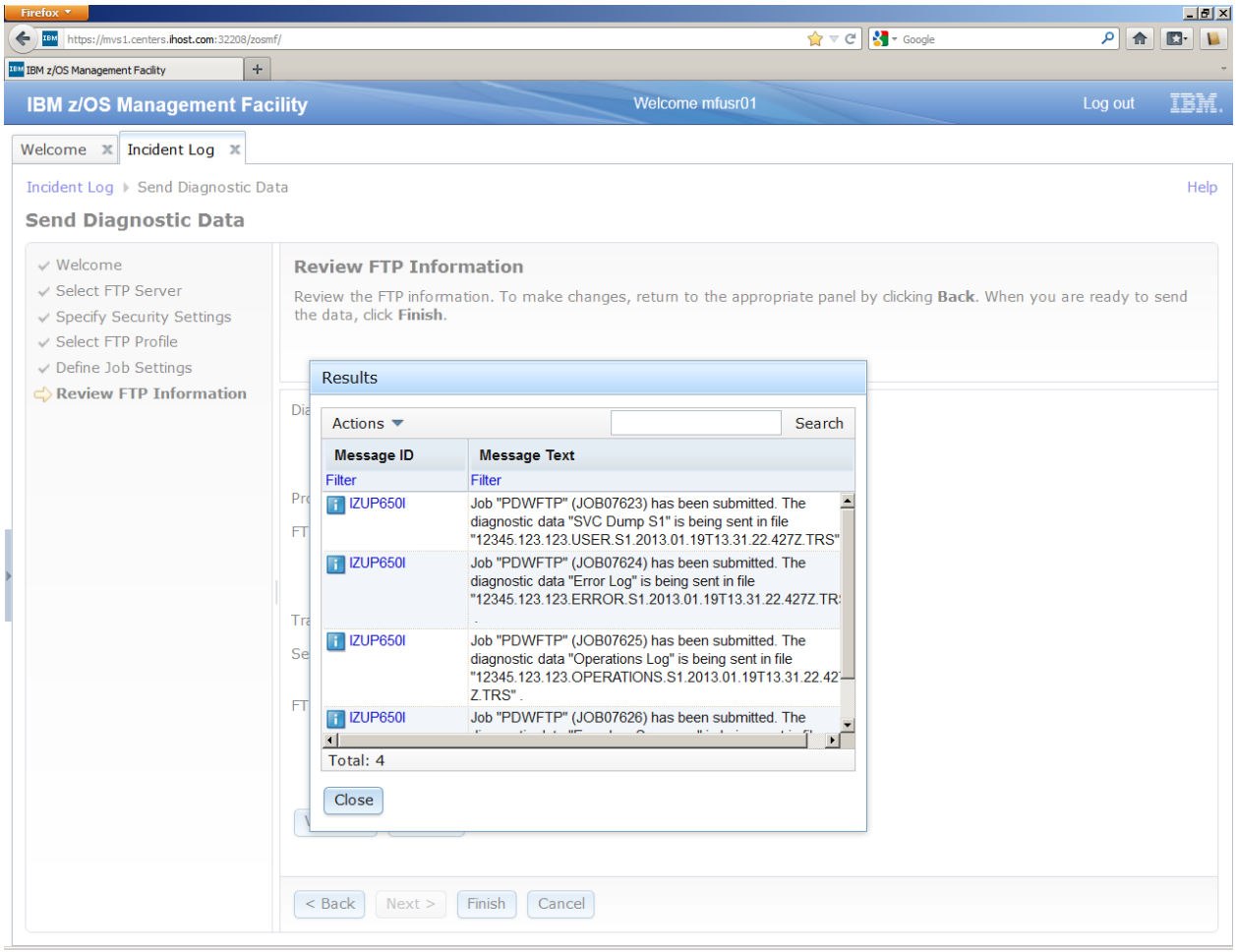
Once you are okay with the values displayed, you are ready to finish.

Before that you do have the option to view the JCL that was generated based on your input. Click on the View JCL button if you'd like to take a look at the JCL built.

When you are ready to submit the FTP jobs, click on Finish (note your instructor might ask you not to!). This will submit jobs to ftp the selected pieces of diagnostic data over to the selected FTP Destination.

Step 8: FTP Jobs submitted

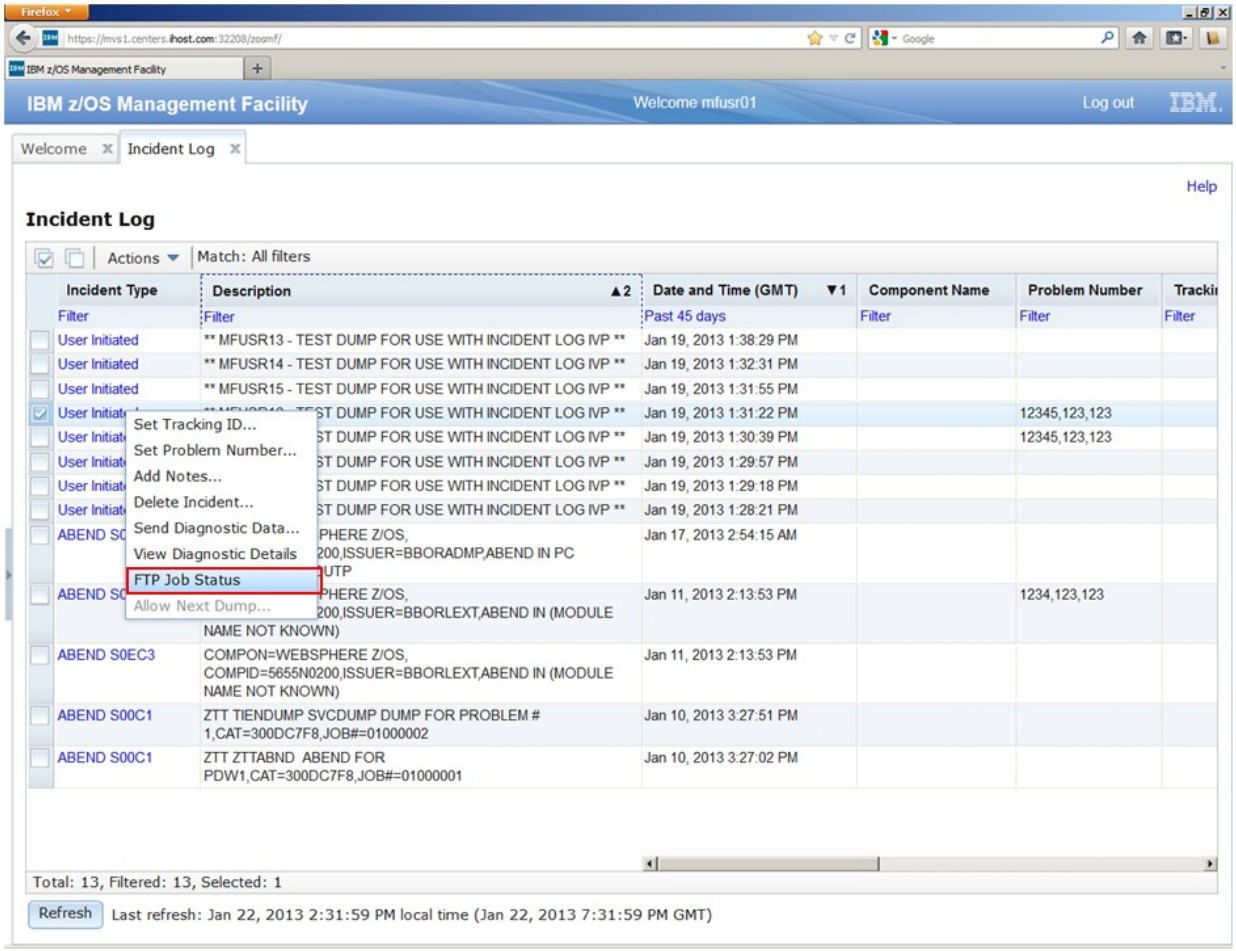
Once you click on the Finish button in the above step, z/OSMF will submit the jobs. You will get a confirmation window.



Click on Close. It will bring you back to wherever you invoked the Send wizard from.

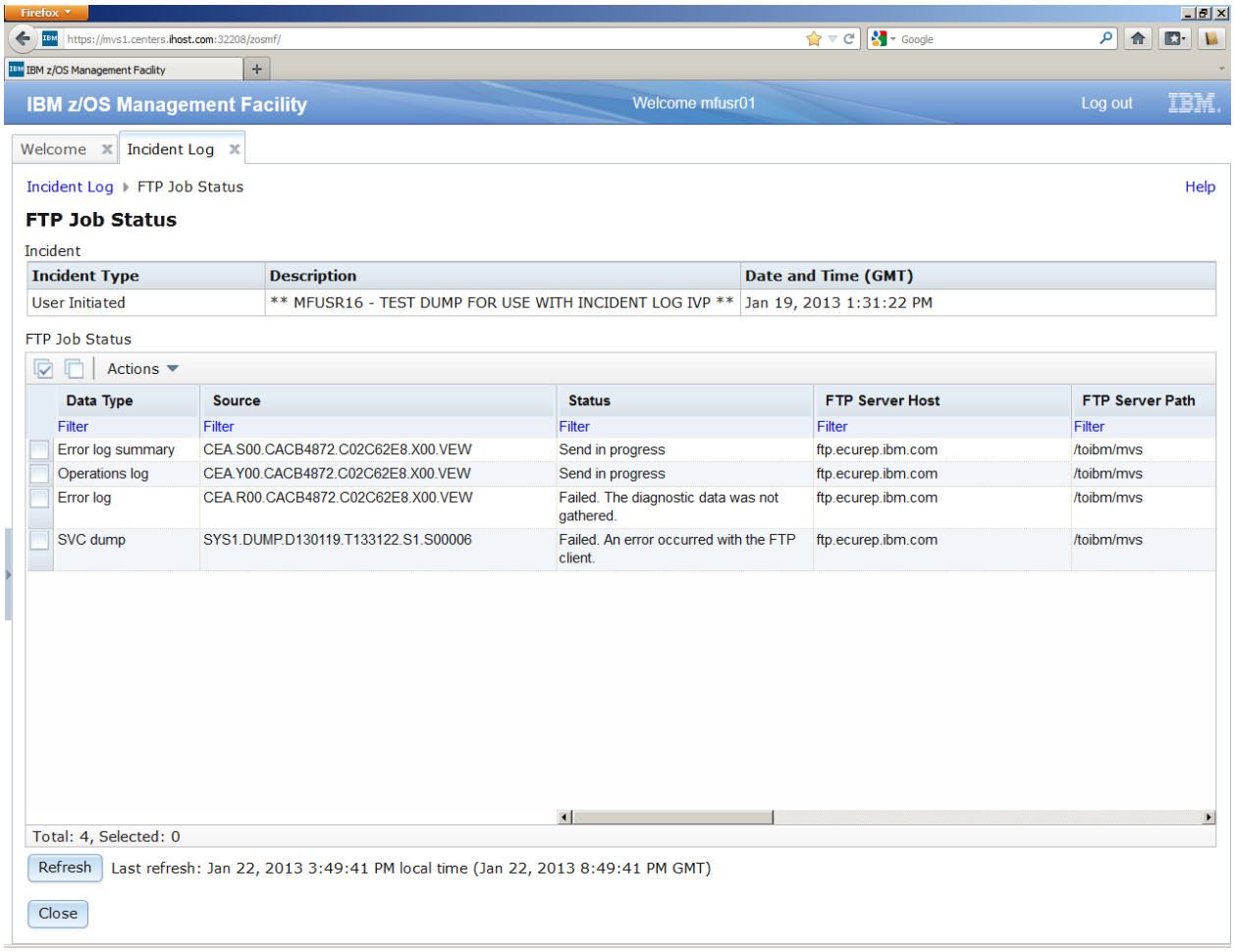
Task 5: View the Job Status for the FTP jobs submitted

Step 1: Right click on the Incident you had just sent. Select the FTP Job Status from the context menu



Step 2: FTP Job Status panel
This page shows you the job status for all the FTP jobs submitted for this incident.

Note you can click on the Refresh button to update the status of the jobs.



Click on Incident Log in the breadcrumb to get back to where you came from.

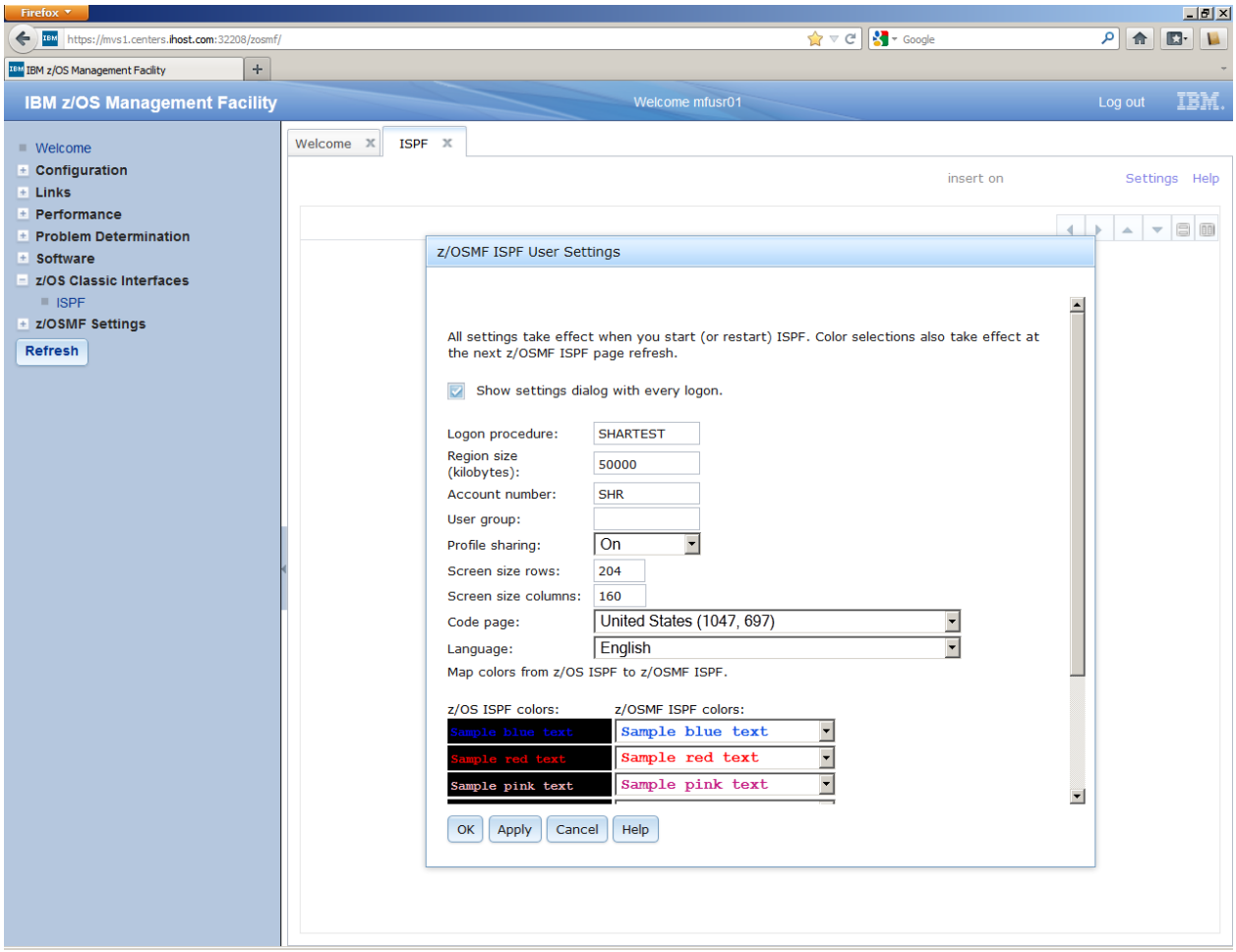
Note: If a log snapshot does not have any entries, the job might fail

Lab 2: z/OSMF ISPF, including Application Linking with Incident Log

Task 1. Starting with the ISPF task

Expand the z/OS Classic Interfaces category from the Navigation tree.
Click on the ISPF task

The settings panel will come up.
Set logon procedure to SHARTEST
Set Acct number to SHR



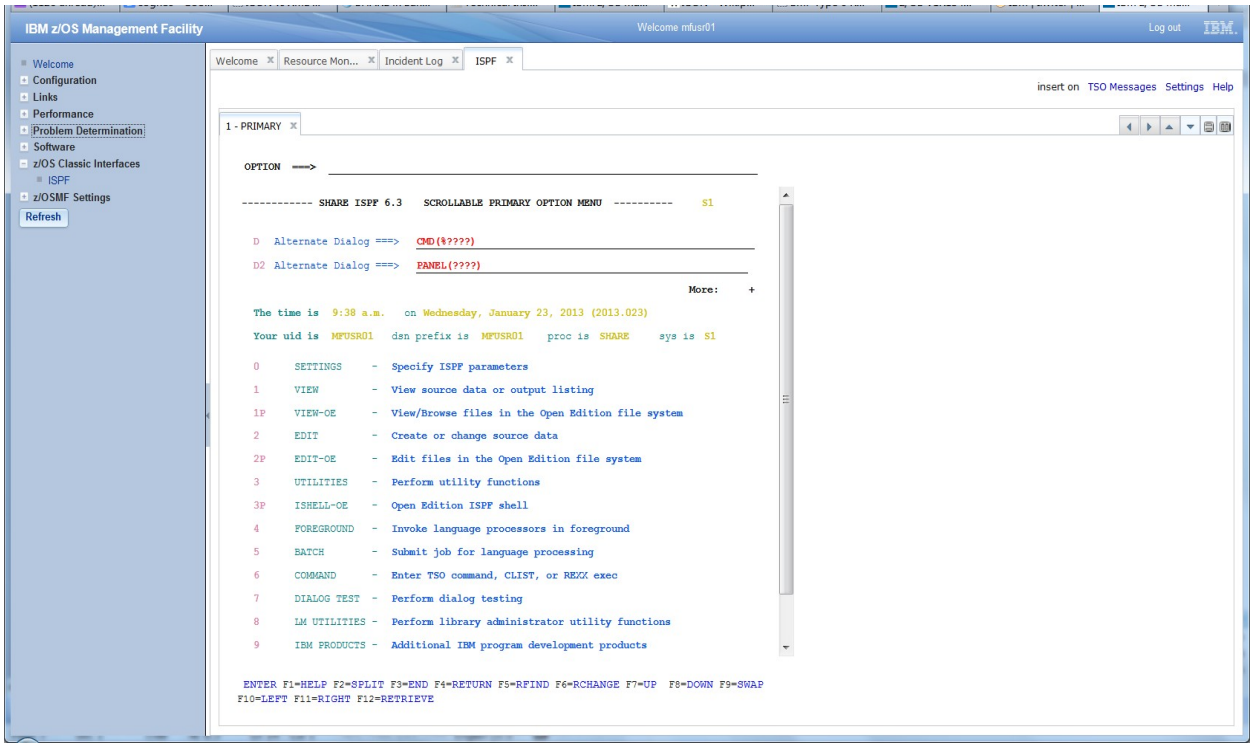
Make sure all settings are correct - notice color selection,

See the check box on top that will not open settings panel every time. If changes need to be made at a later time, can click on 'settings' on top right

Click OK after entering the new values.

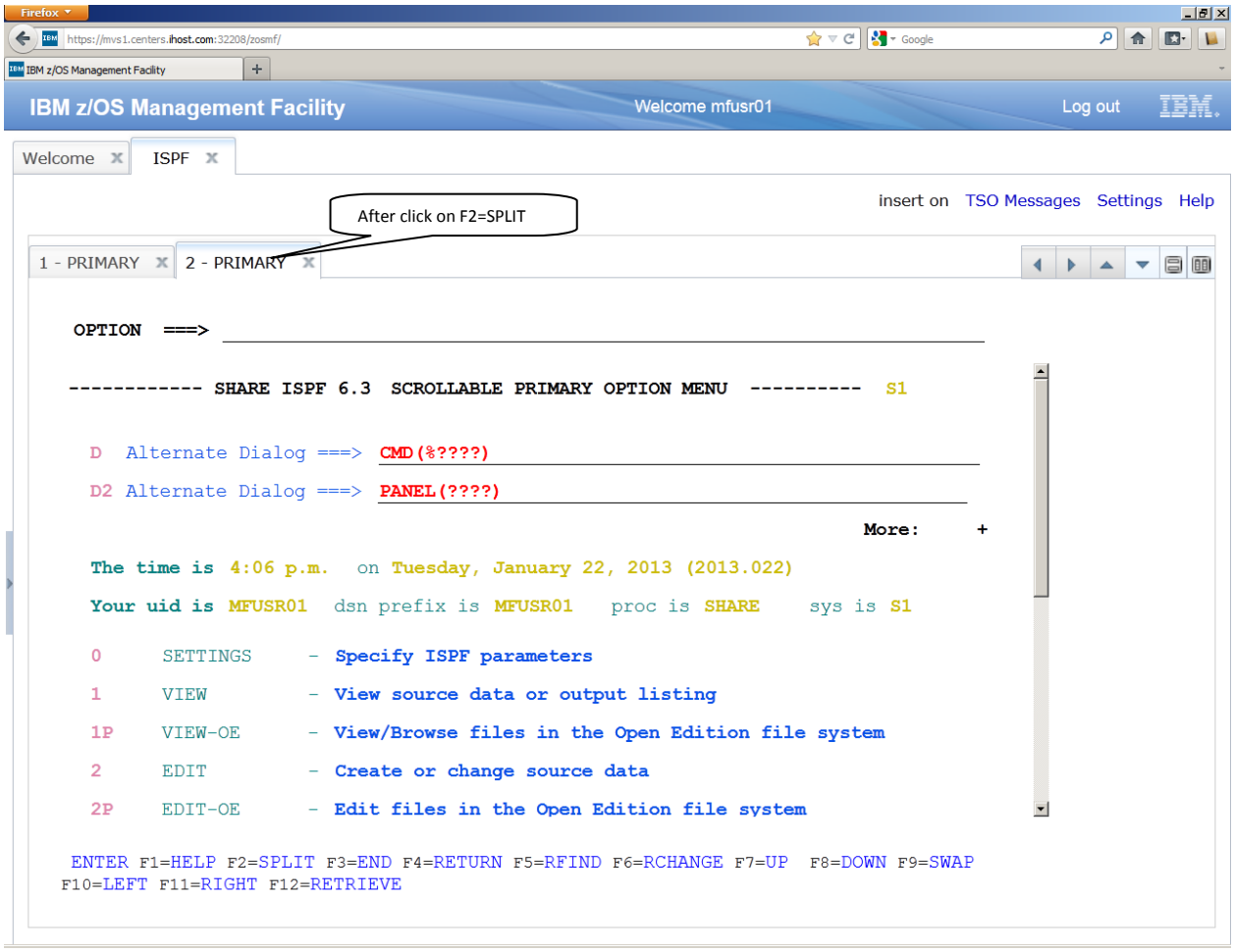
The ISPF main panel is now displayed. Note that if this has been customized for your installation, your customized panel comes up.
Play around with some of the features.

Note specifically the point and shoot feature, support for PF keys, paging arrows, horizontal and vertical split icons, help, existing toolbars and TSO messages

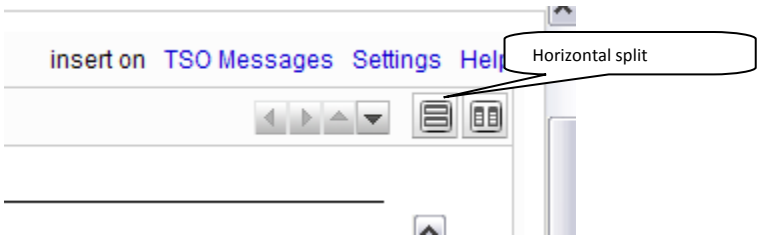


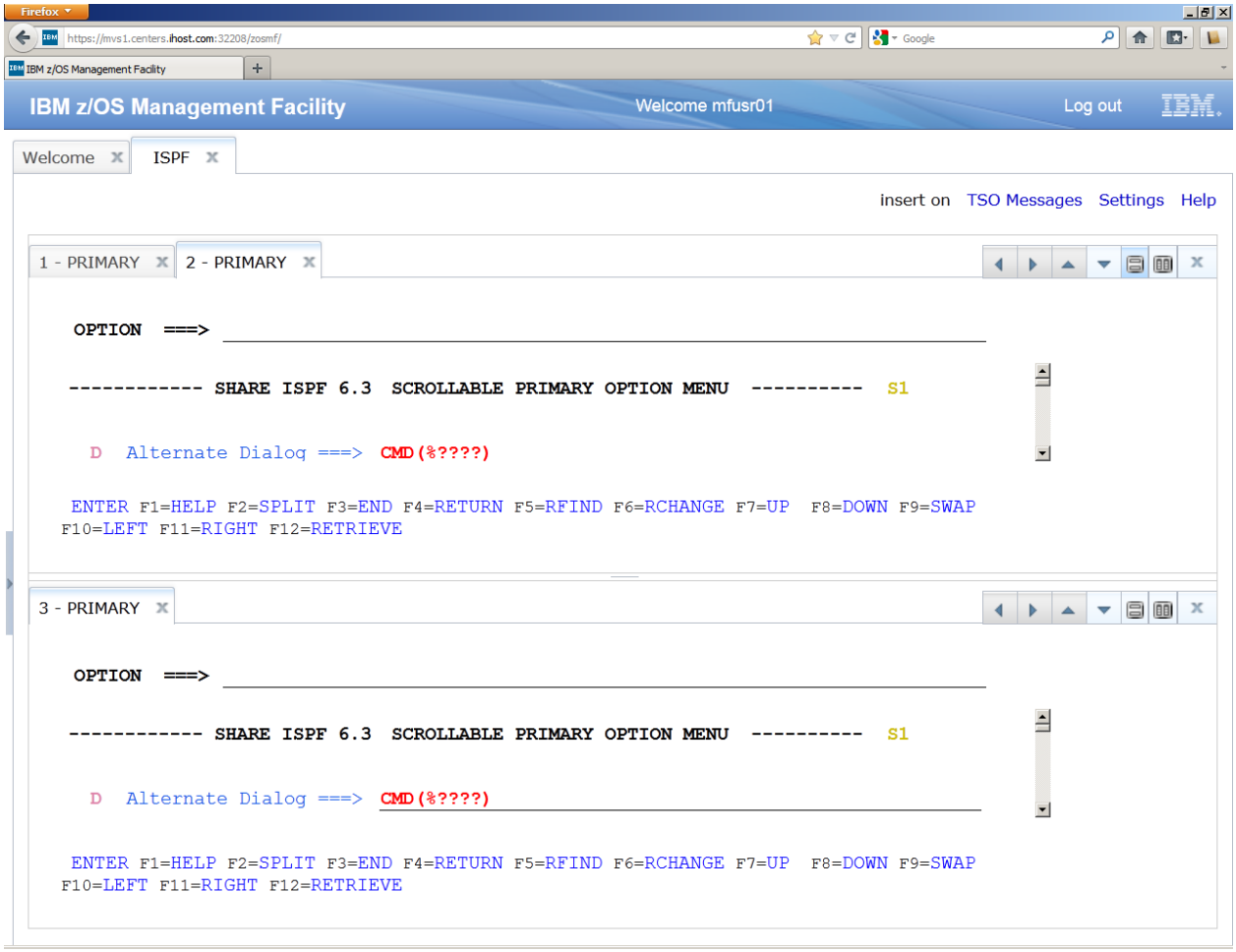
Task 2: Split screen and multiple panes

Click on F2=Split. A new tab is opened inside the ISPF task tab

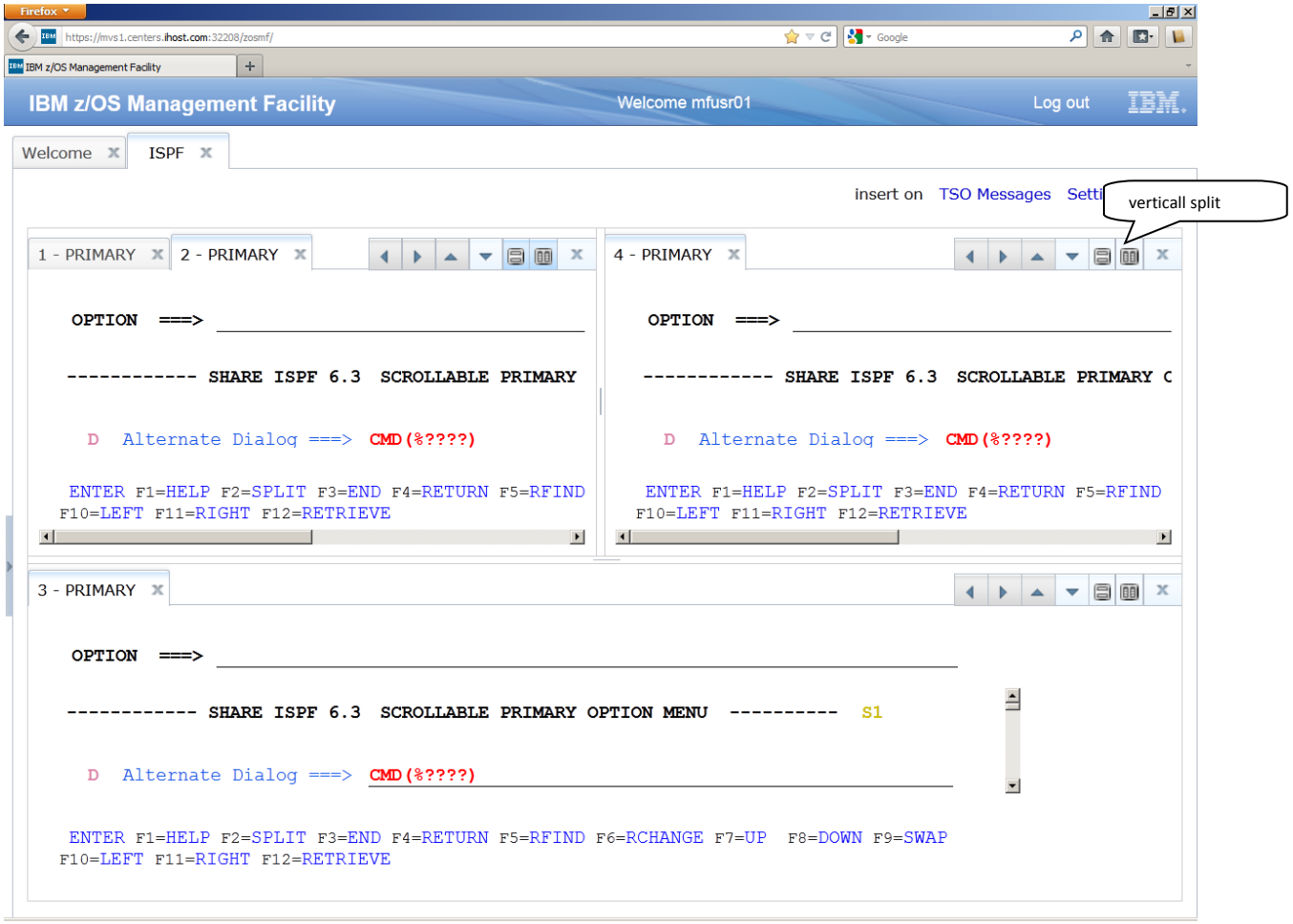


Now click on the horizontal split icon on the top right:

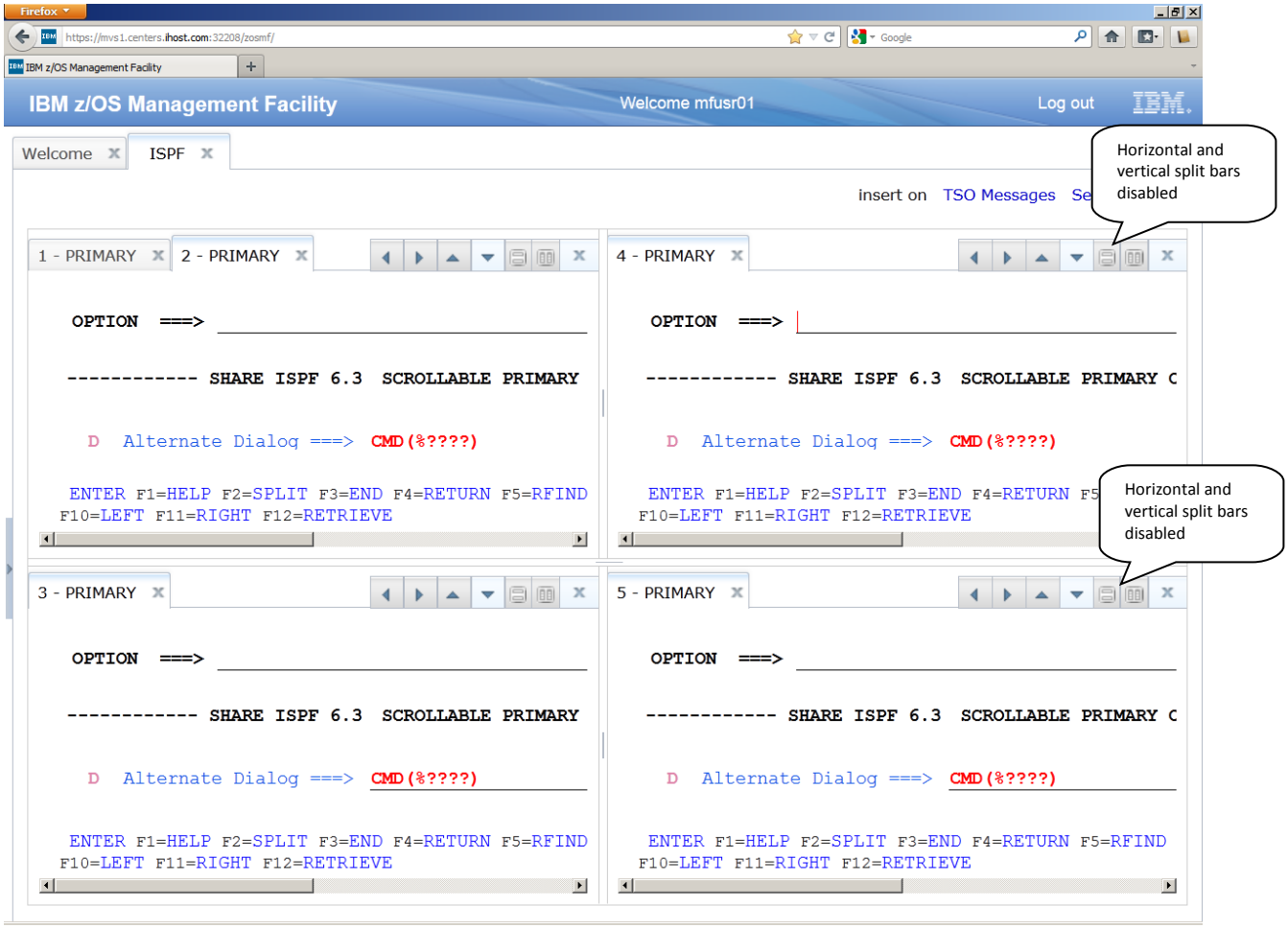




Now click on the vertical split icon on top right

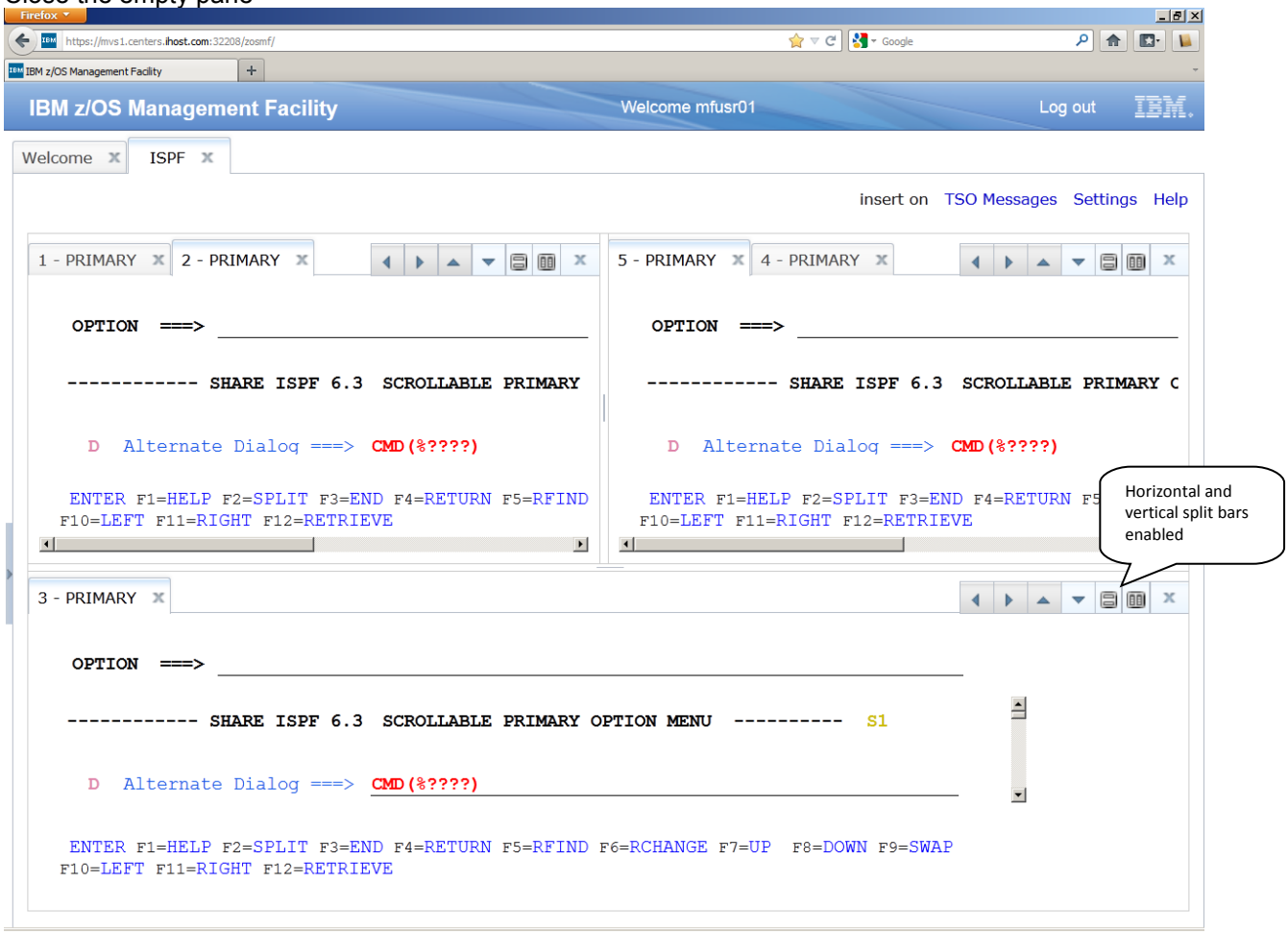


Make the bottom pane the current panel by placing cursor in it and click on vertical split icon; notice another panel



Notice the horizontal or vertical split icons are now greyed out - max 4 panes allowed

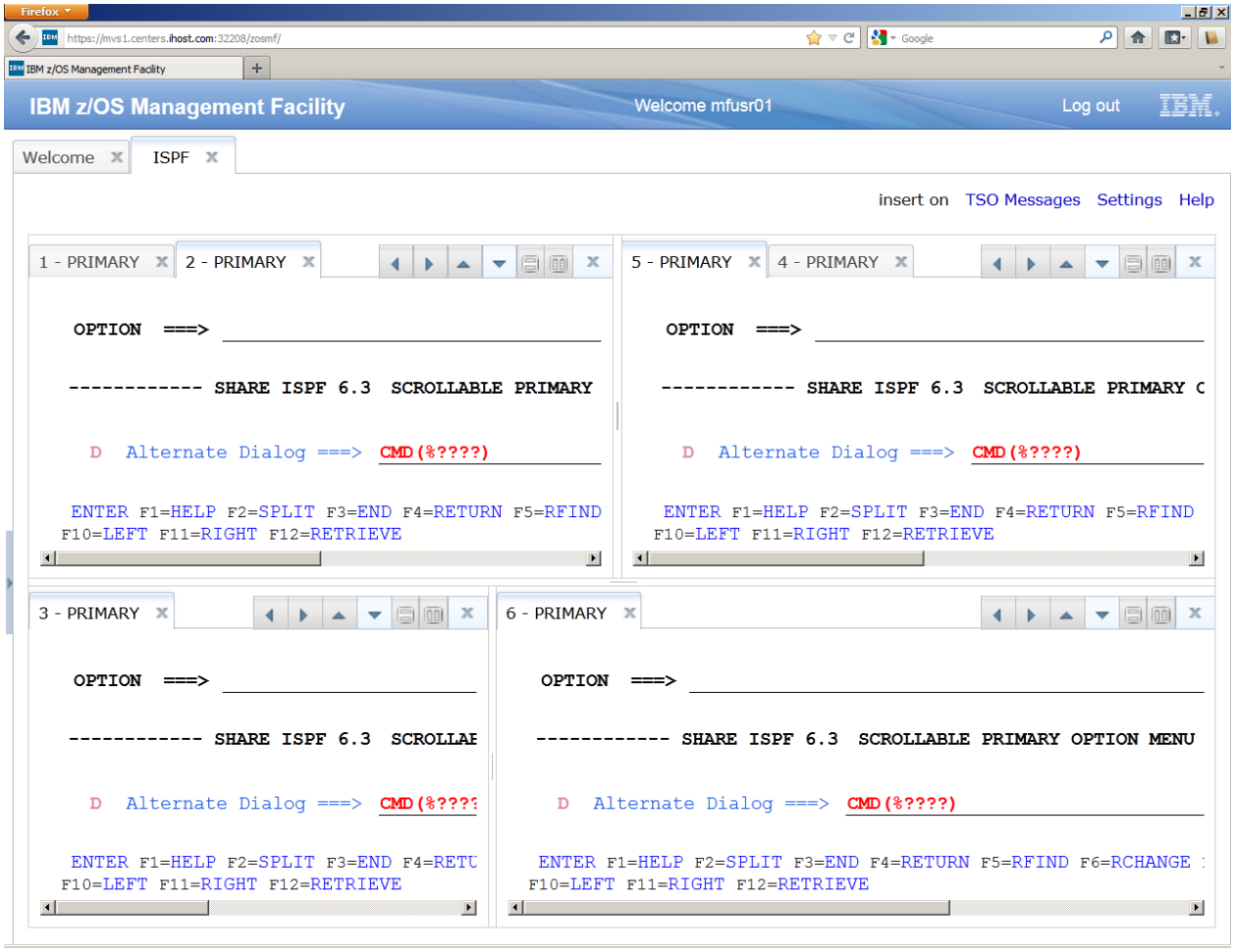
Drag and drop the tab from bottom right pane to top pane.
Close the empty pane



Now the split icons are active again

Play around to get maximum 8 tabs and 4 panes

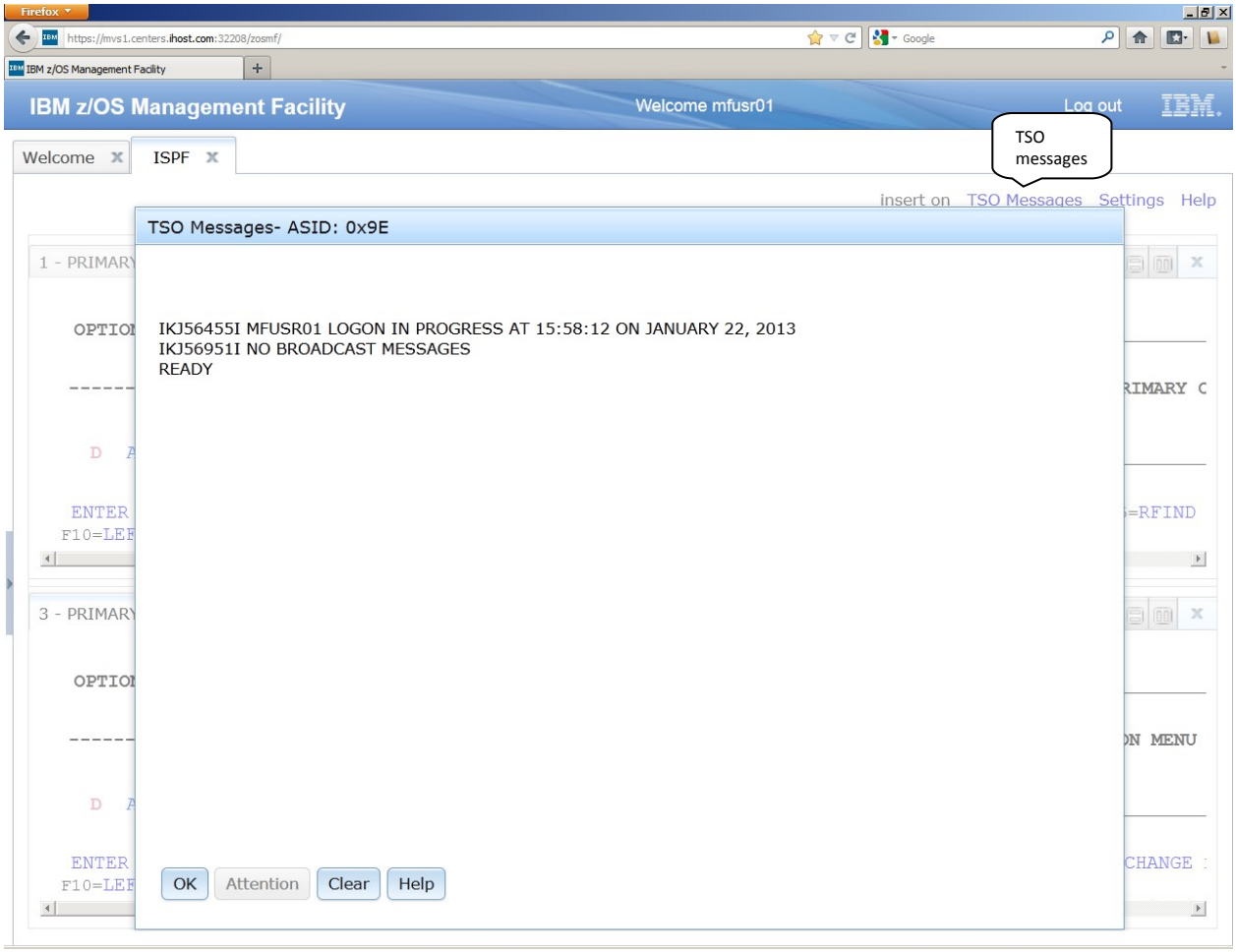
Sizing panes
Move the horizontal bar between panes up or down - Note only one horizontal bar
Move the vertical bars between panes left or right - note individual vertical bars



Close the windows and tabs that you are no longer interested in

Task 3: View TSO Messages

-To View TSO messages, click on top right where it says TSO messages



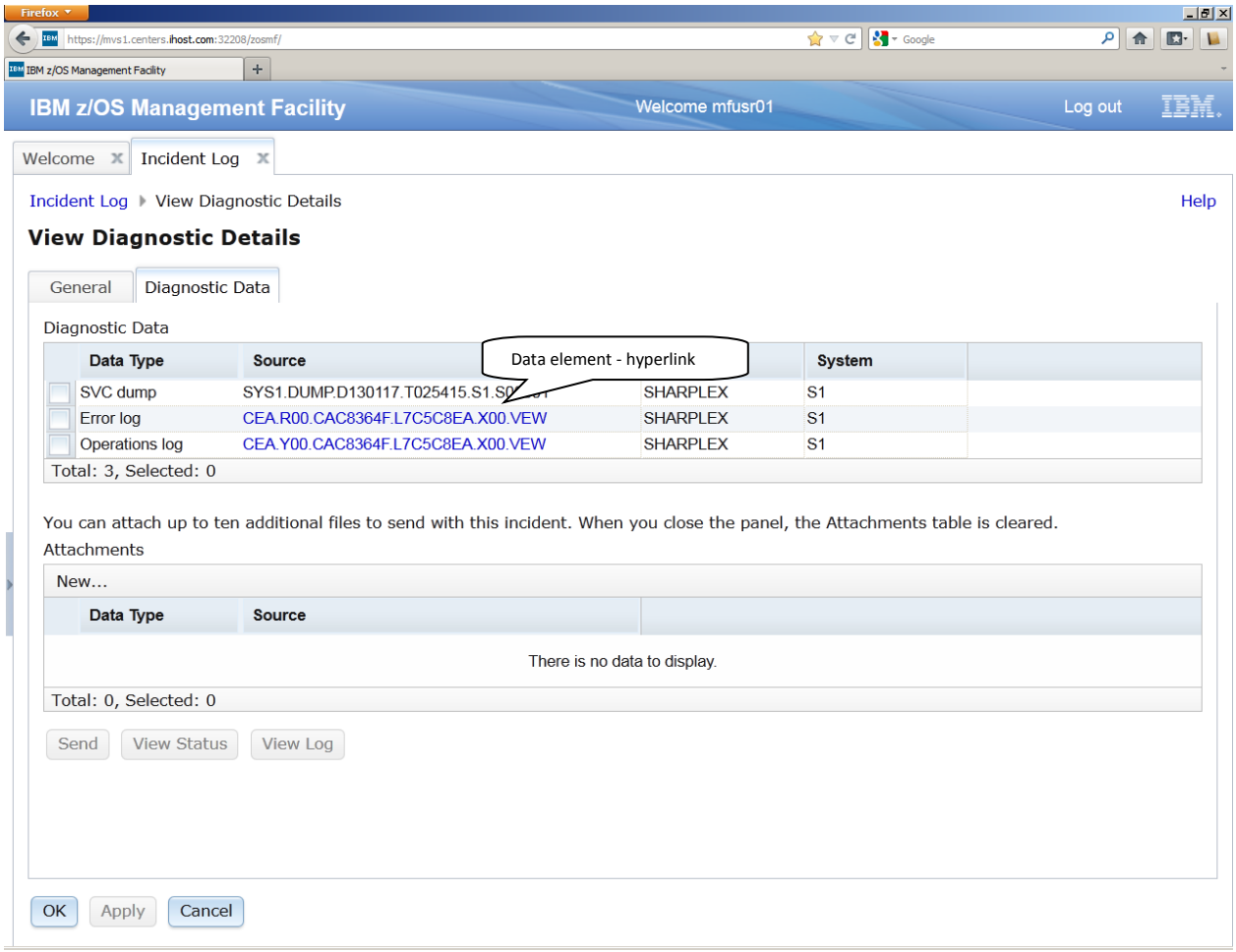
You can see the running history of TSO messages. It keeps the last 1000 lines from your session. Click on OK to close.

Task 4: z/OSMF Application Linking : Launching into ISPF from the Incident Log

Browse a diagnostic data element automatically captured for an incident

You can browse the logs captured for an Incident. z/OSMF ISPF Browse is used for this, so this feature only will work if your installation has setup and configured z/OSMF ISPF.

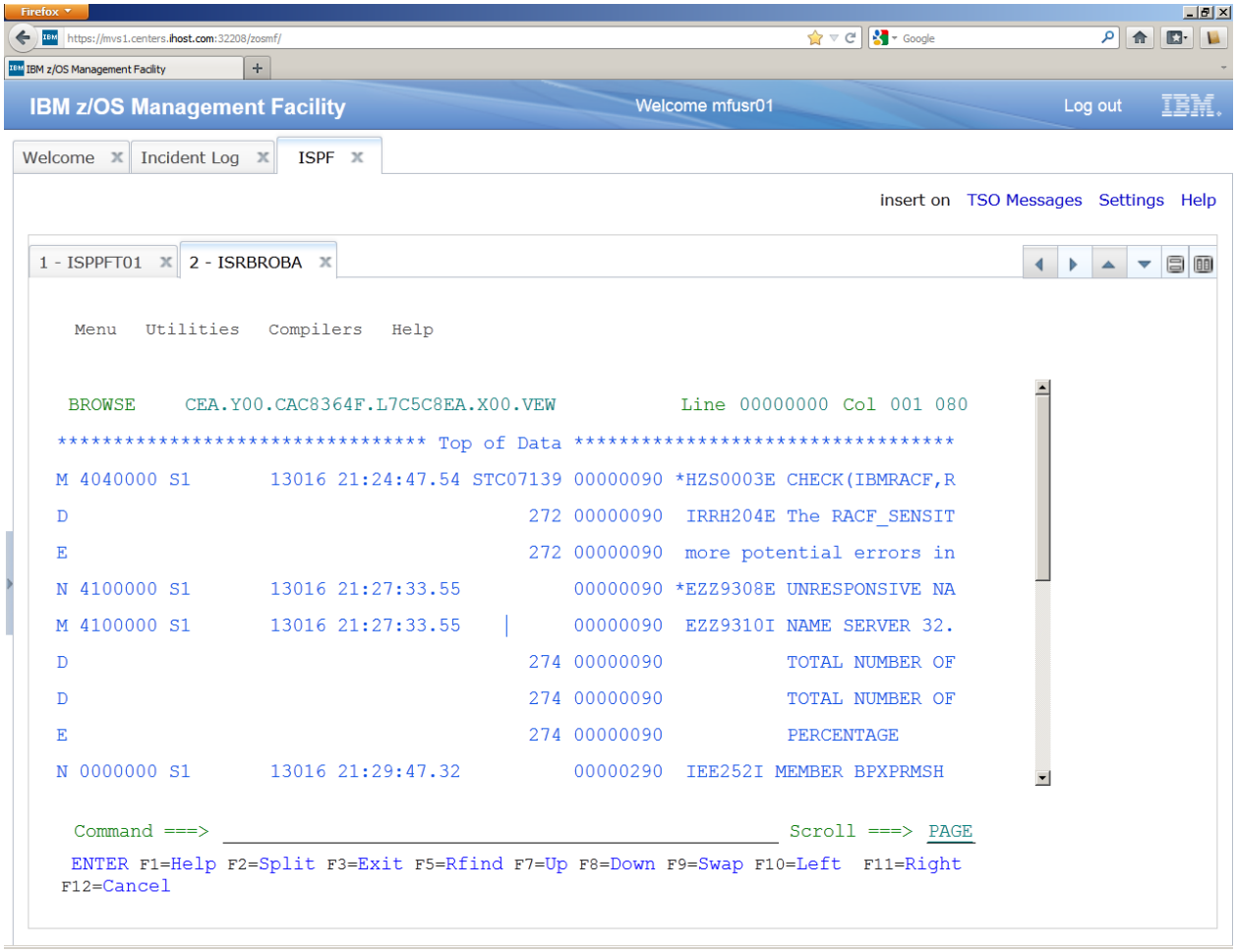
Step 1: Select an incident and View its Diagnostic Data Elements. Refer to Incident Log Task 3, but stay on the View Diagnostic Details tab. Select the Incident which has your userid in its description. In the Diagnostic Details panel, you will see the diagnostic data elements captured for that Incident.



Note the Source name of the data element. It is a hyperlink. Let's browse the Operation Log snapshot. Click on the Source name to browse that data element.

You will see that it opens ISPF browse in context for you. Note: If you do not already have a z/OSMF ISPF session running, you will get prompted for the TSO Sign-on parameters.

If you do have a z/OSMF ISPF session running, z/OSMF ISPF preserves your existing ISPF window and open a new window for you, after prompting you.



In both cases, you will ultimately find yourself using ISPF Browse on the diagnostic data element that you had clicked on from the Incident Log!!

LAB 3: z/OSMF Workload Management Lab

The lab consists of 4 main tasks that you should execute in the listed sequence:

1. Launching the Workload Management Task
2. View list of all Service Definitions
3. Creating a copy of an existing Service Definition
4. Fixing of a best practice Warning Indication for a Service Definition

This Lab focuses on the policy editing, review, and maintenance functions provided by the z/OSMF Workload Management task. Functions to install service definitions and activate service policies are also available, but not part of the Lab.

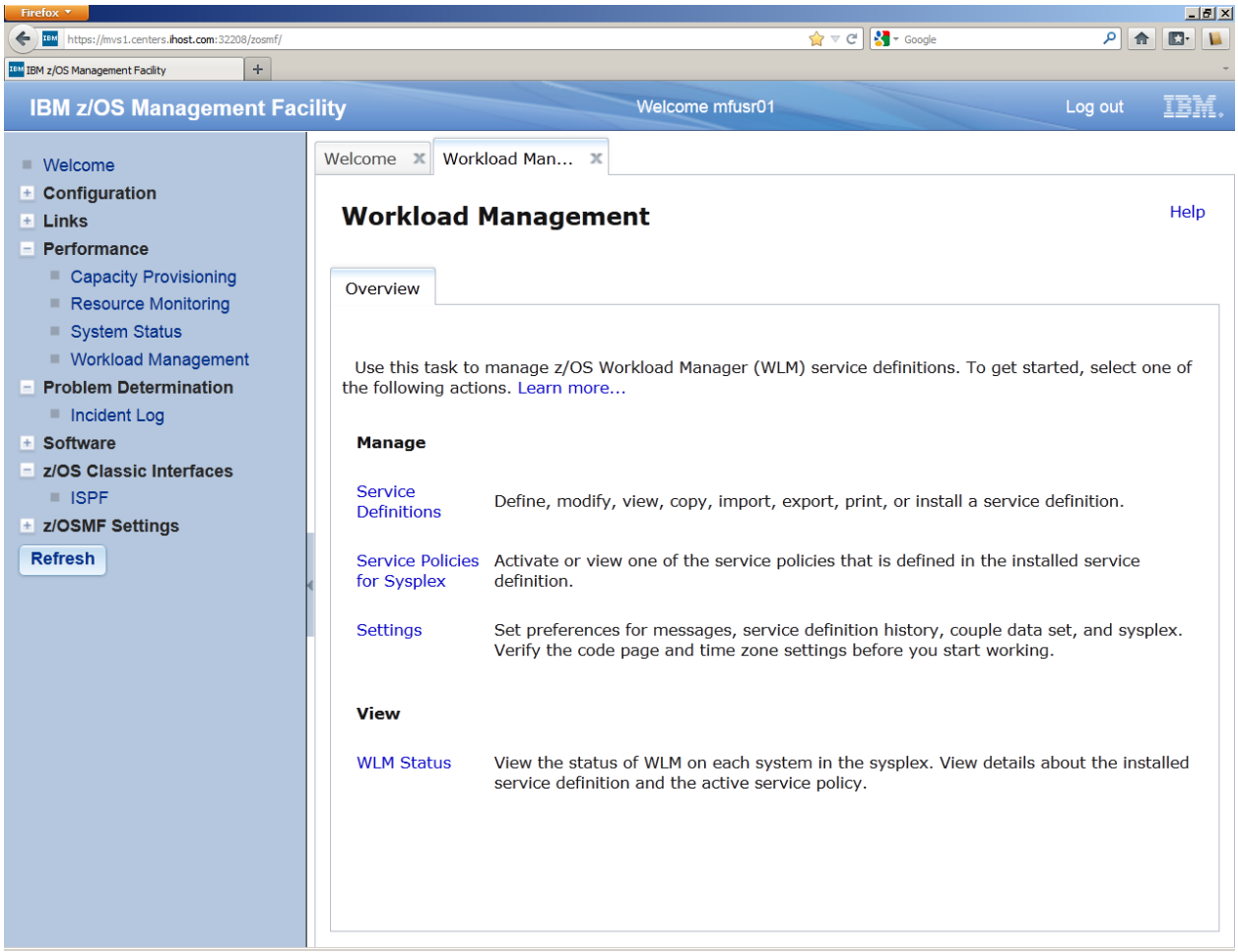
All Lab teams use the same z/OSMF instance. The z/OSMF Workload Management Task provides a service definition repository that is shared by all z/OSMF users. To prevent conflicts with other Lab teams each Lab team has to use a different service definition for task 4 and 8. Therefore, you have to specify in task 3 a unique service definition name. The service definition name should be ‘WLMPRxx’. Substitute xx with your Lab userid suffix

If the descriptions and screen captures in this manual refer to service definition ‘WLMPROD’ your service definition ‘WLMPRxx’ is meant.

Task 1: Launching the Workload Management Task

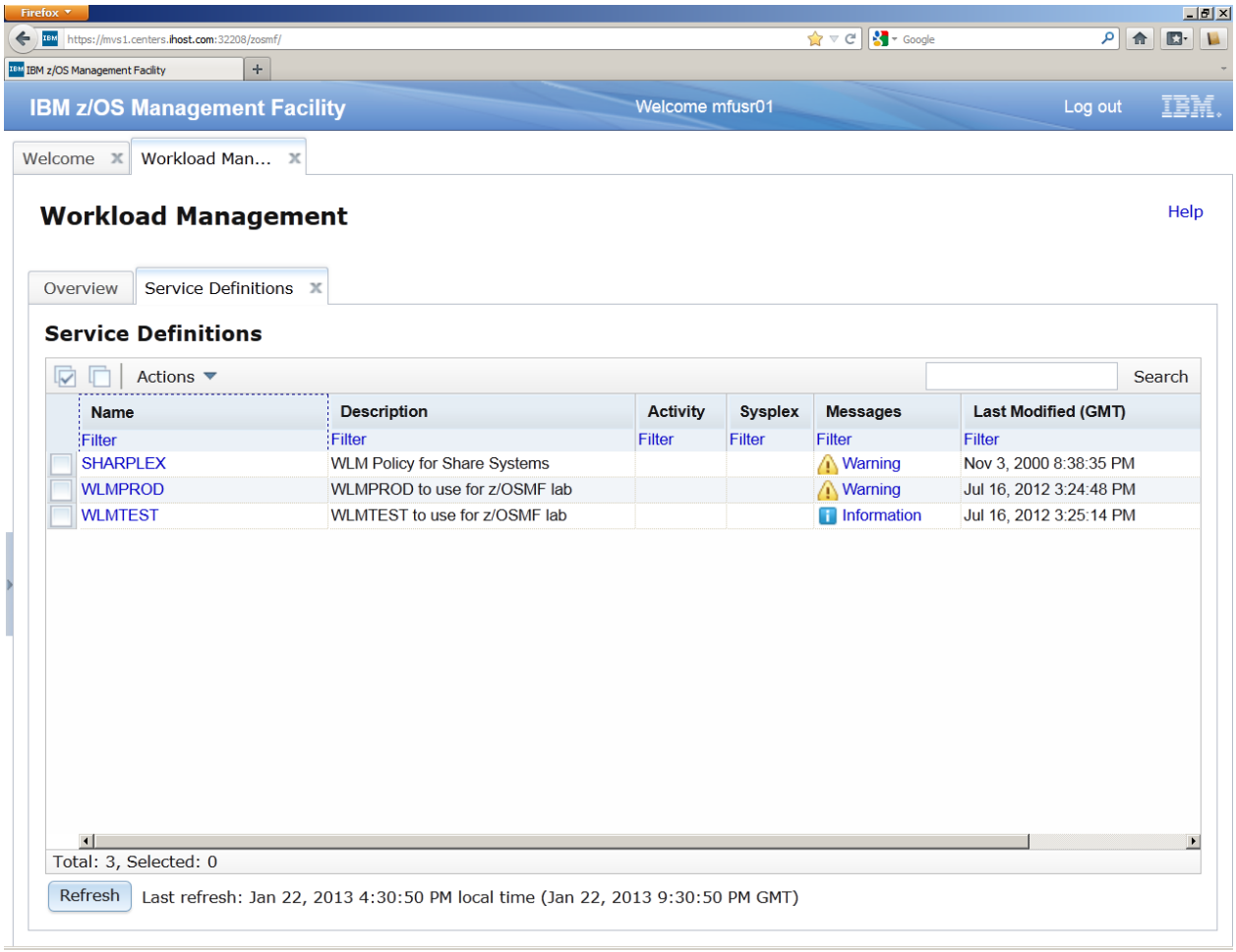
Open the workload management task by selecting ‘Performance’ → ‘Workload Management’ in the navigation tree.

The first panel that opens is the ‘Workload Management’ task tab displaying the ‘Overview’ panel listing the major tasks:



Task 2: View list of all Service Definitions

In the ‘Overview’ tab, press the ‘Service Definitions’ link. The following tab will be opened:

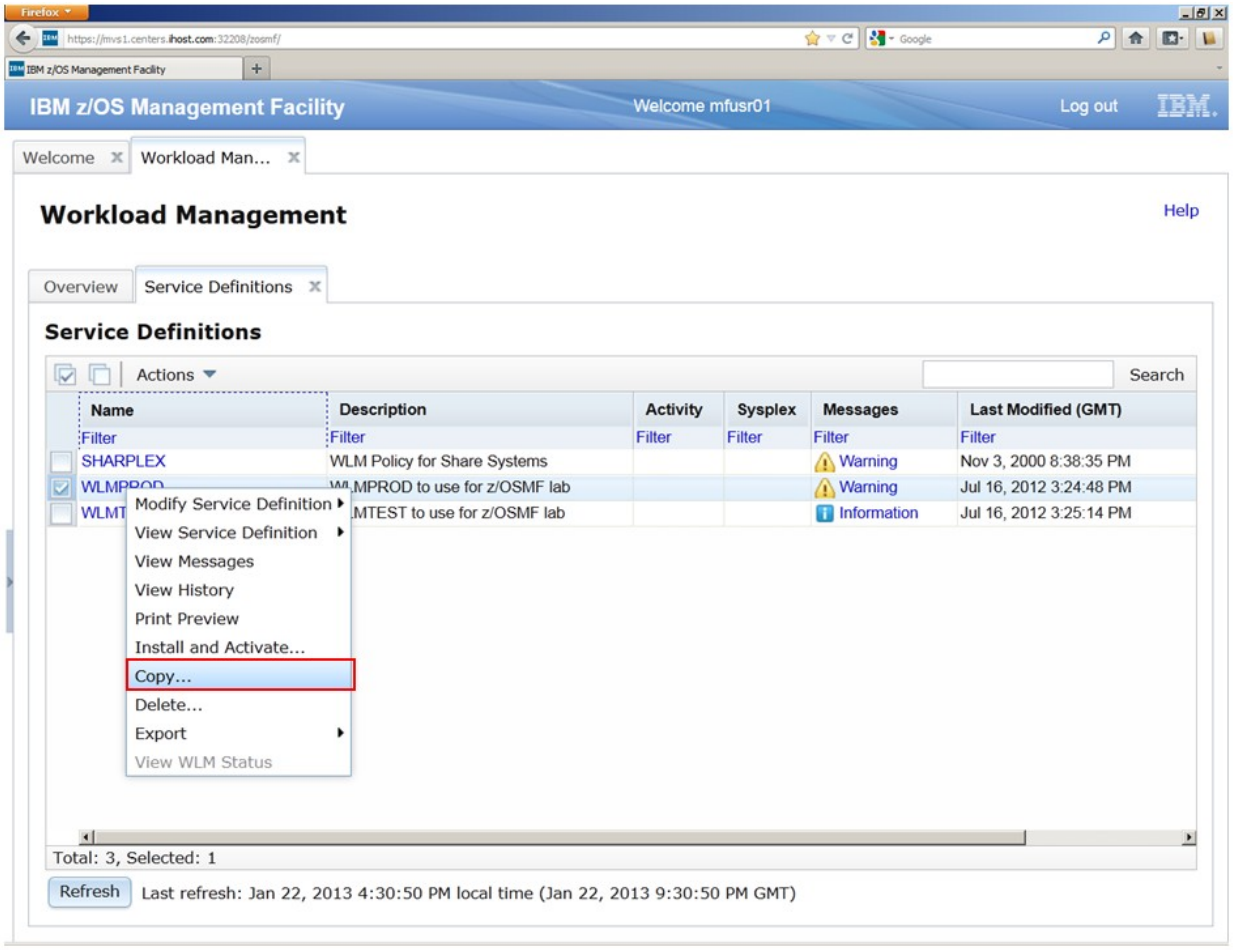


The table lists all service definitions in the policy repository integrated in z/OSMF. The service definitions are shared between all z/OSMF users. Hence, you may notice changes of the panel which are caused by other users. Your table may show different service definitions than in the screen shot.
Scroll right to view additional properties

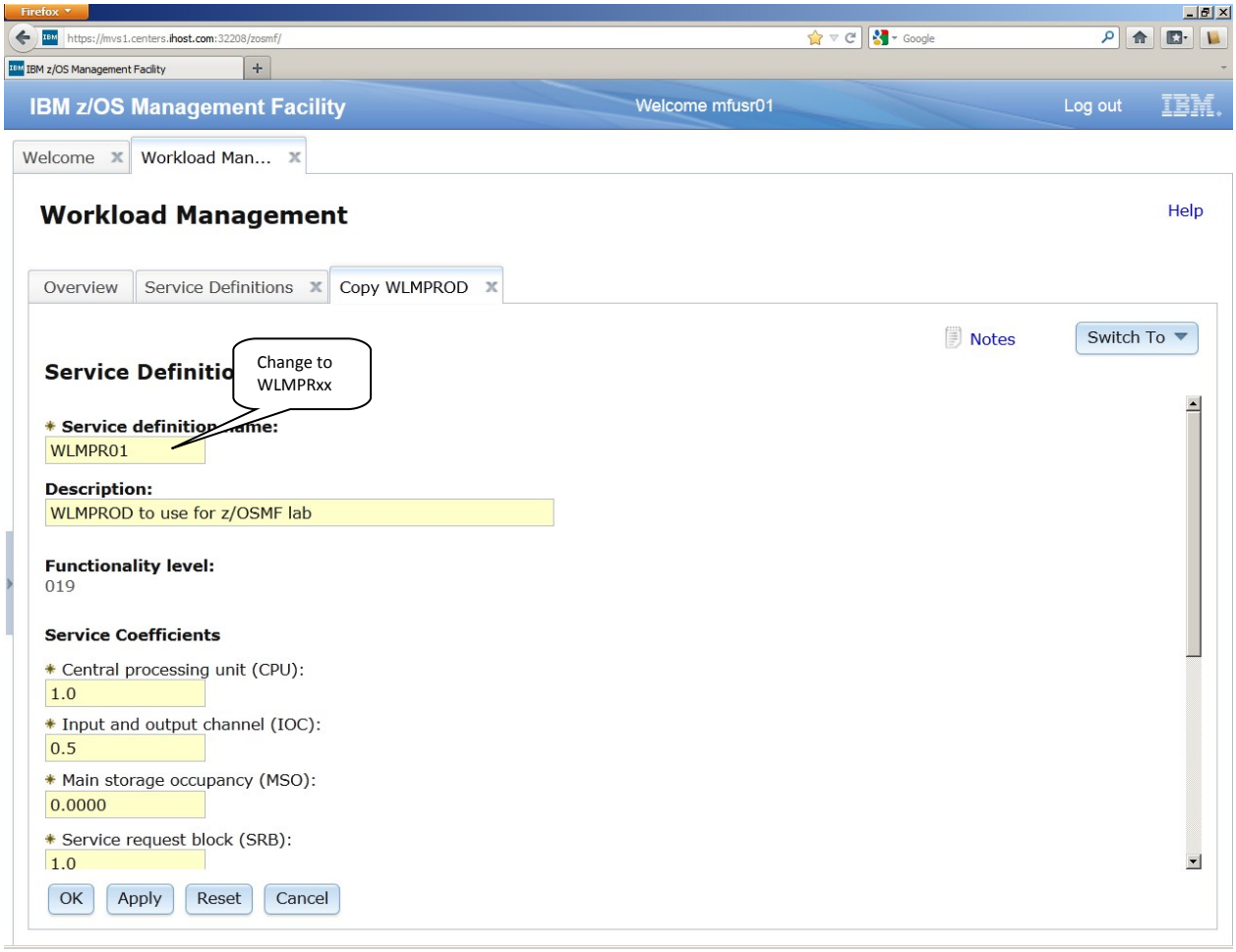
Task 3: Creating a copy of an existing Service Definition

In this task we will create your own copy of an existing service definition. That copy will then be used in the following tasks.

To create a copy of service definition ‘WLMPROD’ check the checkbox for service definition ‘WLMPROD’. Then select in the ‘Actions’ menu the action ‘Copy’.

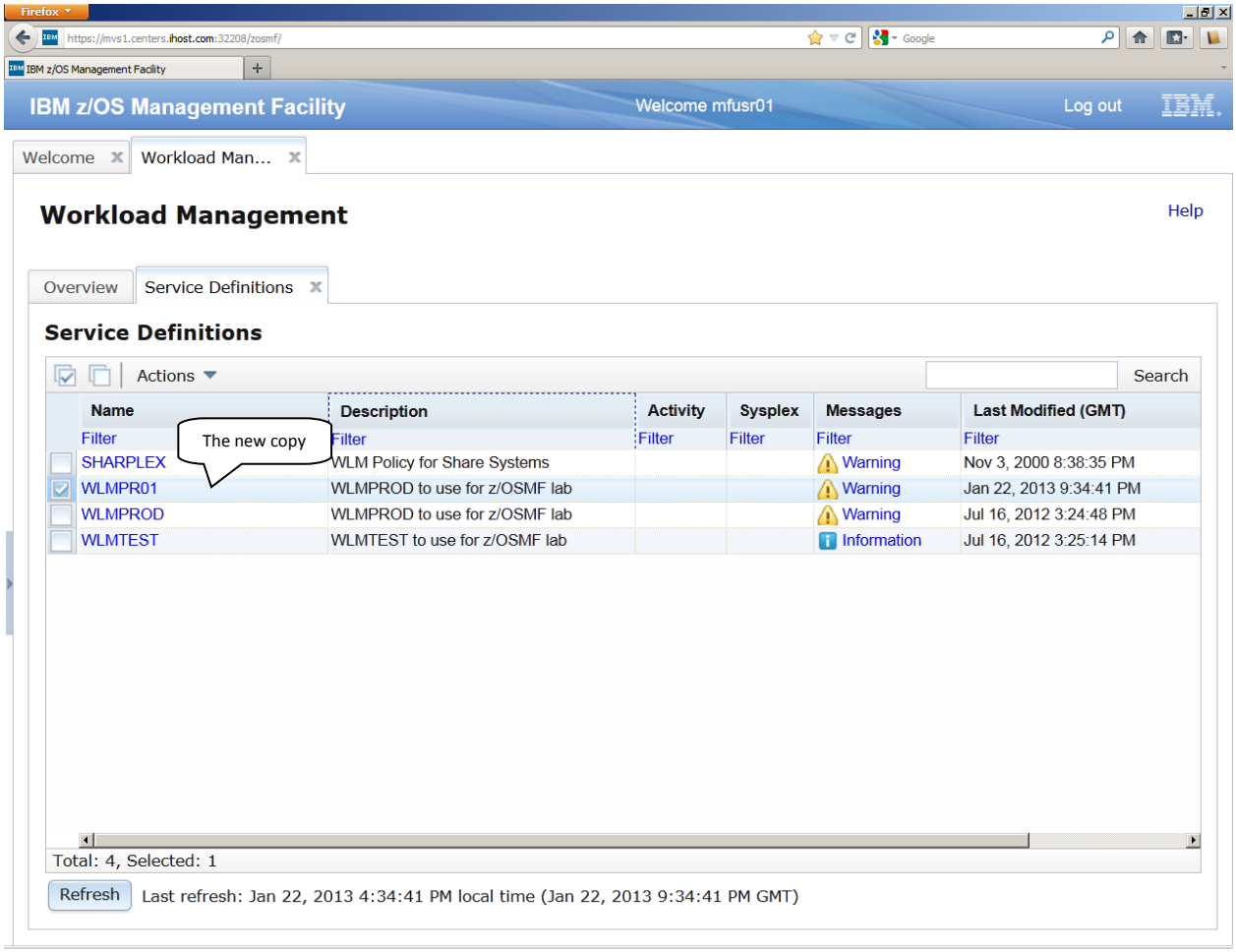


A new tab opens with the following content:



Click with the left mouse button in the field ‘Service definition name:’ and change the name to WLMPRxx. Substitute xx with your Lab team number that you find on the first page of this manual.

Press OK to save the copy of the service definition with the new name WLMPRxx in the Service Definitions table.

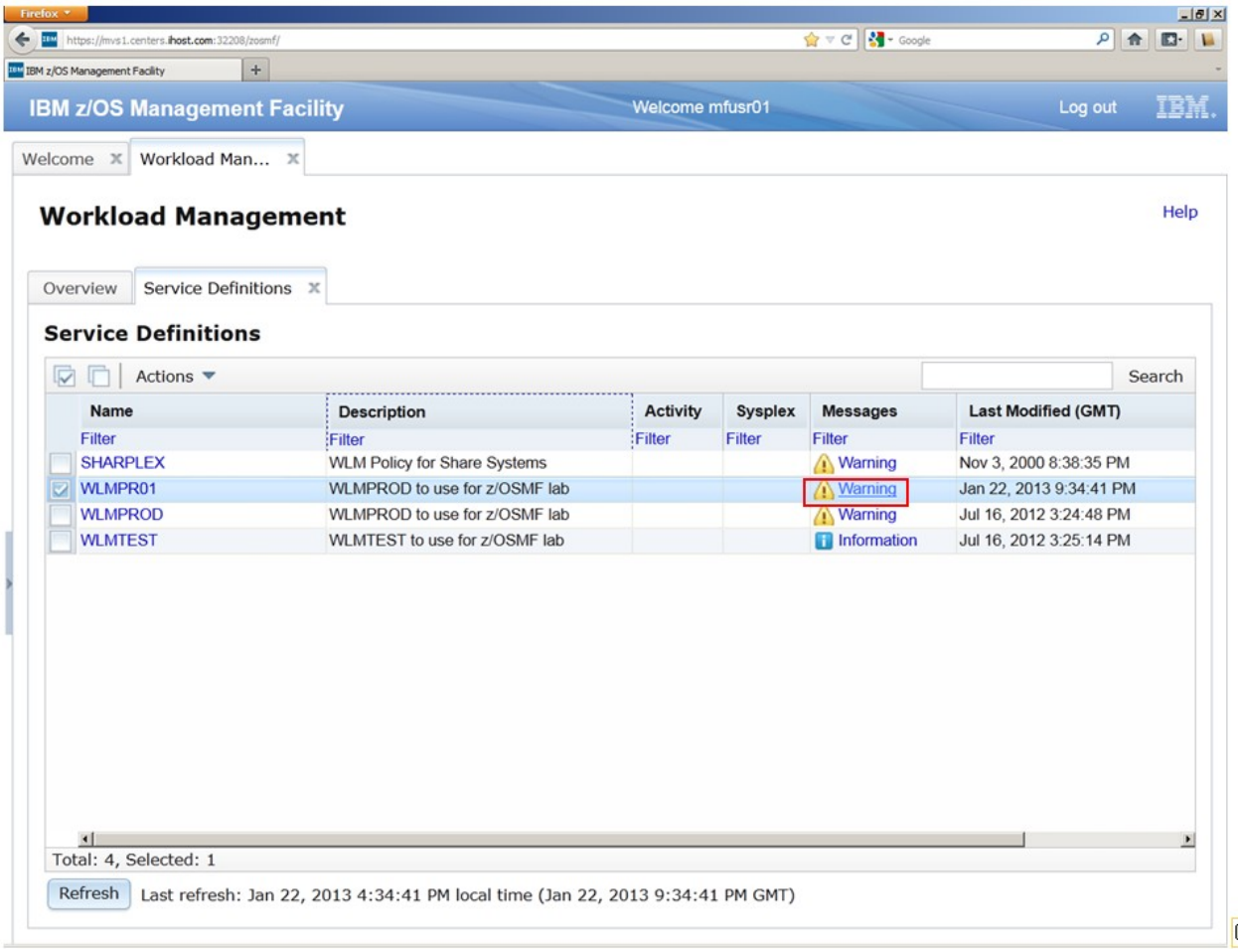


Note: If the descriptions and screen captures in the following sections of this manual refer to service definition 'WLMPROD' your copy of that service definition with the name 'WLMPRxx' is meant.

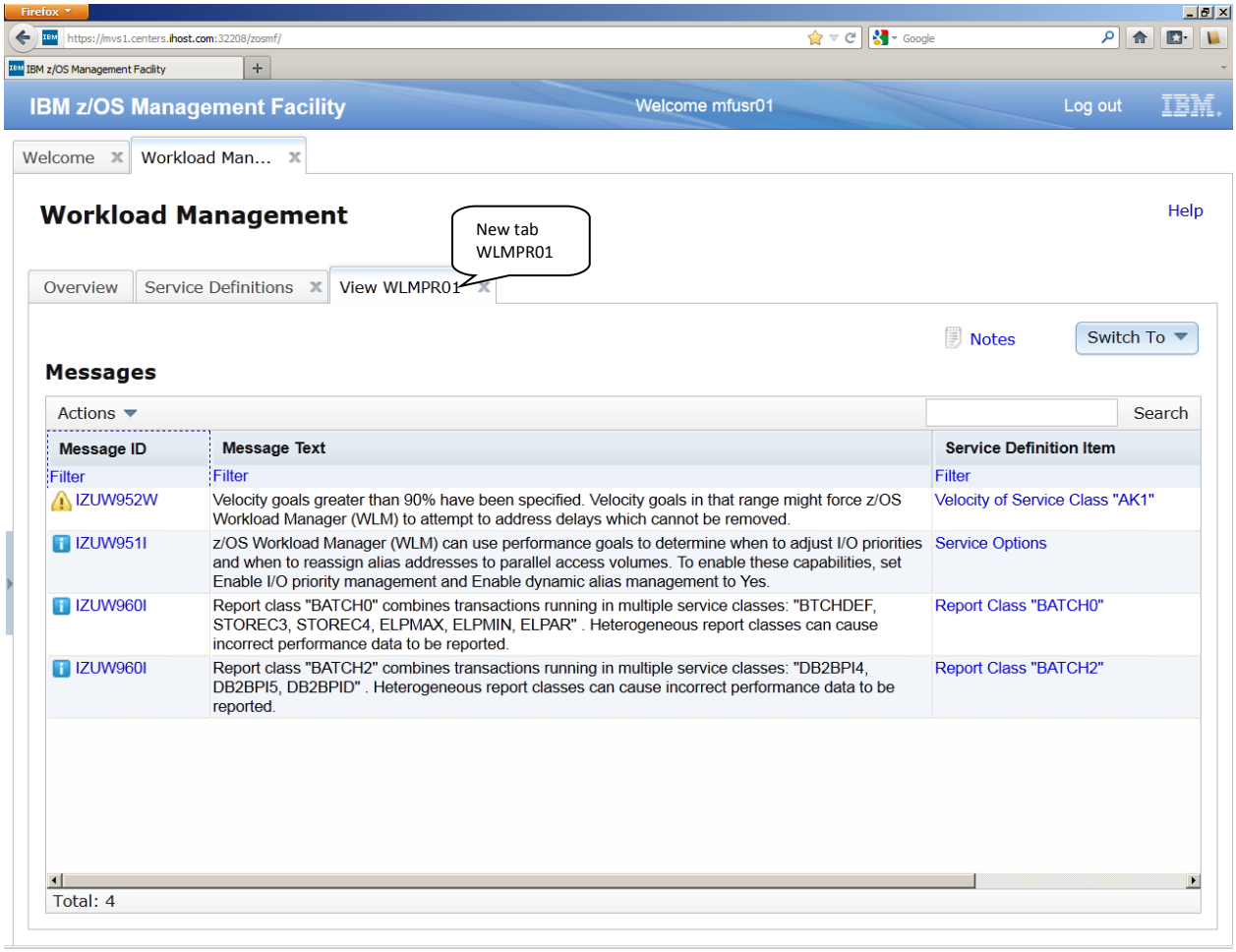
Task 4: Fixing of a best practice Warning Indication for a Service Definition

Warning messages exist for service definition 'WLMPRxx'. We will now check the warning message and fix the issue. In order to accomplish that, we open the service definition in a tab, navigate to the service definition item for which a warning message exists, and edit the service definition to fix the issue.

To open the service definition, click on the link in the 'Messages' column for the service definition with name 'WLMPRxx':

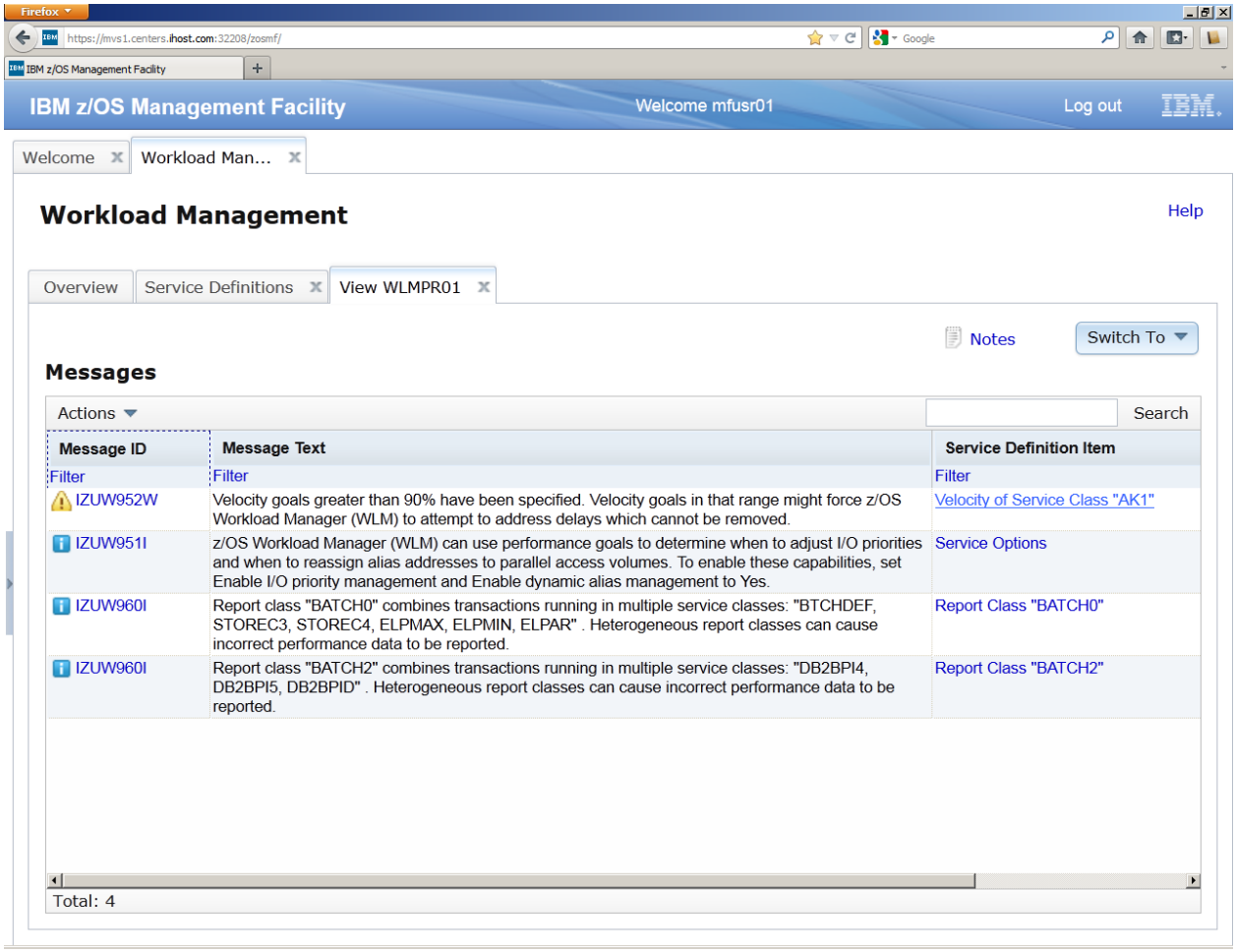


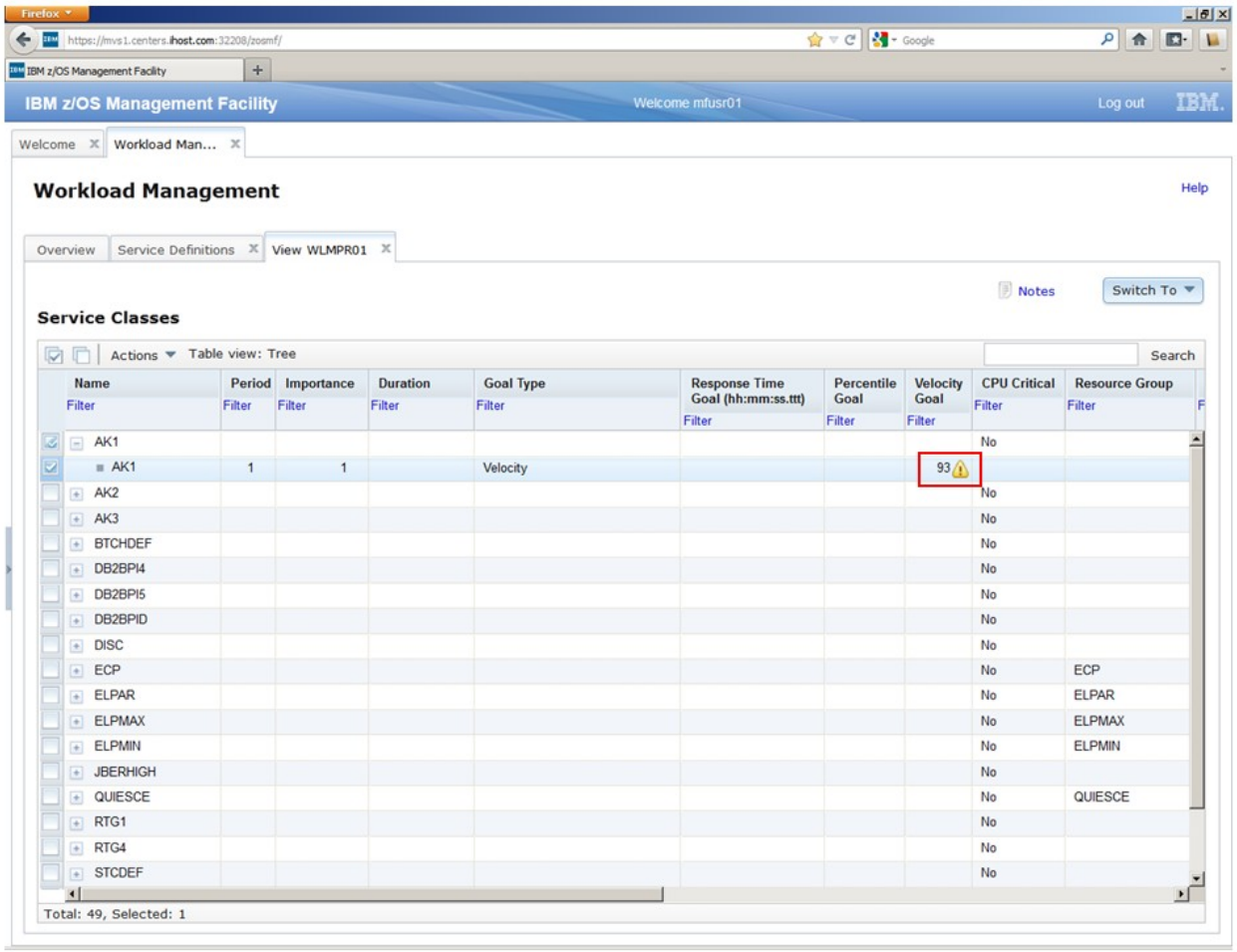
A new tab opens with the title ‘View WLMPRxx’:



A service definition consists of different sections. Each of the sections is displayed in one panel. You can watch one panel at a time in the opened tab and you can switch between the panels via the ‘Switch to’ menu. The panel that is currently displayed shows all best practice messages for service definition ‘WLMPRxx’: one warning message and three informational messages.

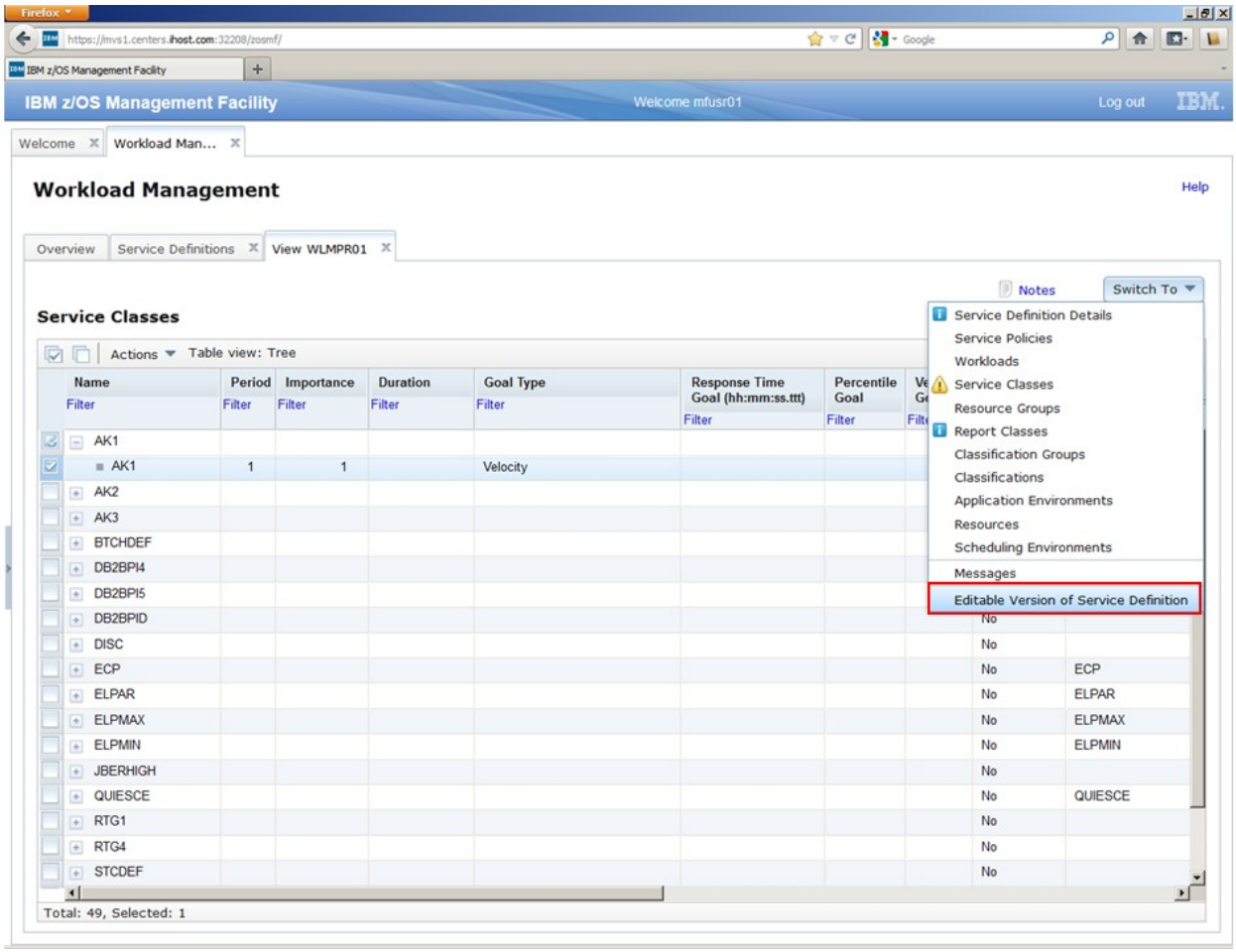
In order to navigate to the service class period referenced by the warning message click on the link ‘Velocity of Service Class “AK1” in the Messages table. The following panel is displayed:


Firefox
https://mvs1.centers.ihost.com:32208/zosmf/
IBM z/OS Management Facility
IBM z/OS Management Facility
Welcome mfusr01
Log out
IBM
Welcome
Workload Man...
Workload Management
Help
Overview
Service Definitions
View WLMPR01
Notes
Switch To
Messages
Actions
Search
Message ID
Message Text
Service Definition Item
Filter
Filter
Filter
IZUW952W
Velocity goals greater than 90% have been specified. Velocity goals in that range might force z/OS Workload Manager (WLM) to attempt to address delays which cannot be removed.
Velocity of Service Class "AK1"
IZUW951I
z/OS Workload Manager (WLM) can use performance goals to determine when to adjust I/O priorities and when to reassign alias addresses to parallel access volumes. To enable these capabilities, set Enable I/O priority management and Enable dynamic alias management to Yes.
Service Options
IZUW960I
Report class "BATCH0" combines transactions running in multiple service classes: "BTCHDEF, STOREC3, STOREC4, ELPMAX, ELPMIN, ELPAR" . Heterogeneous report classes can cause incorrect performance data to be reported.
Report Class "BATCH0"
IZUW960I
Report class "BATCH2" combines transactions running in multiple service classes: "DB2BPI4, DB2BPI5, DB2BPID" . Heterogeneous report classes can cause incorrect performance data to be reported.
Report Class "BATCH2"
Total: 4

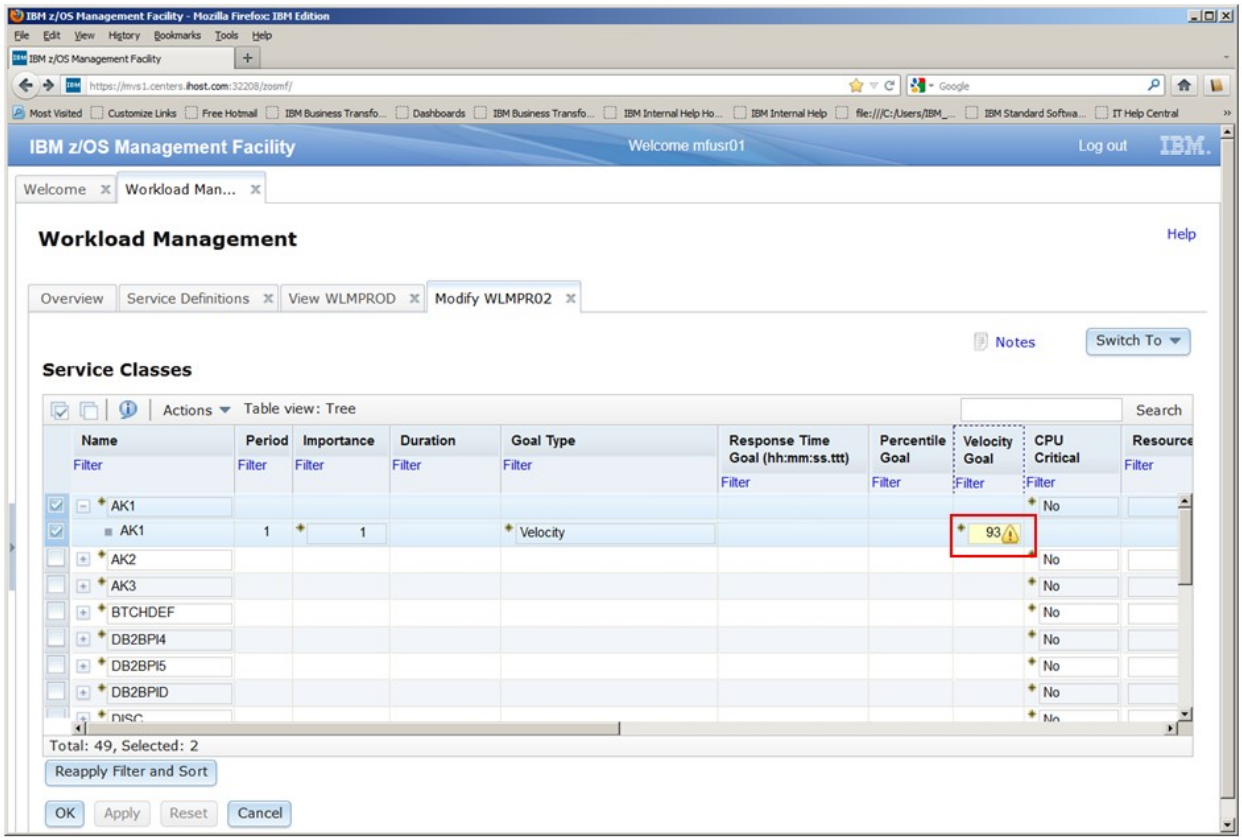


The panel shows a tree table with all service classes in the service definition. The rows with the +/- icon represent service class items. The nested rows represent the periods of the service classes. The service class period with the warning message is already expanded. The warning message is displayed if you hover with the mouse cursor over the warning icon in the table cell.

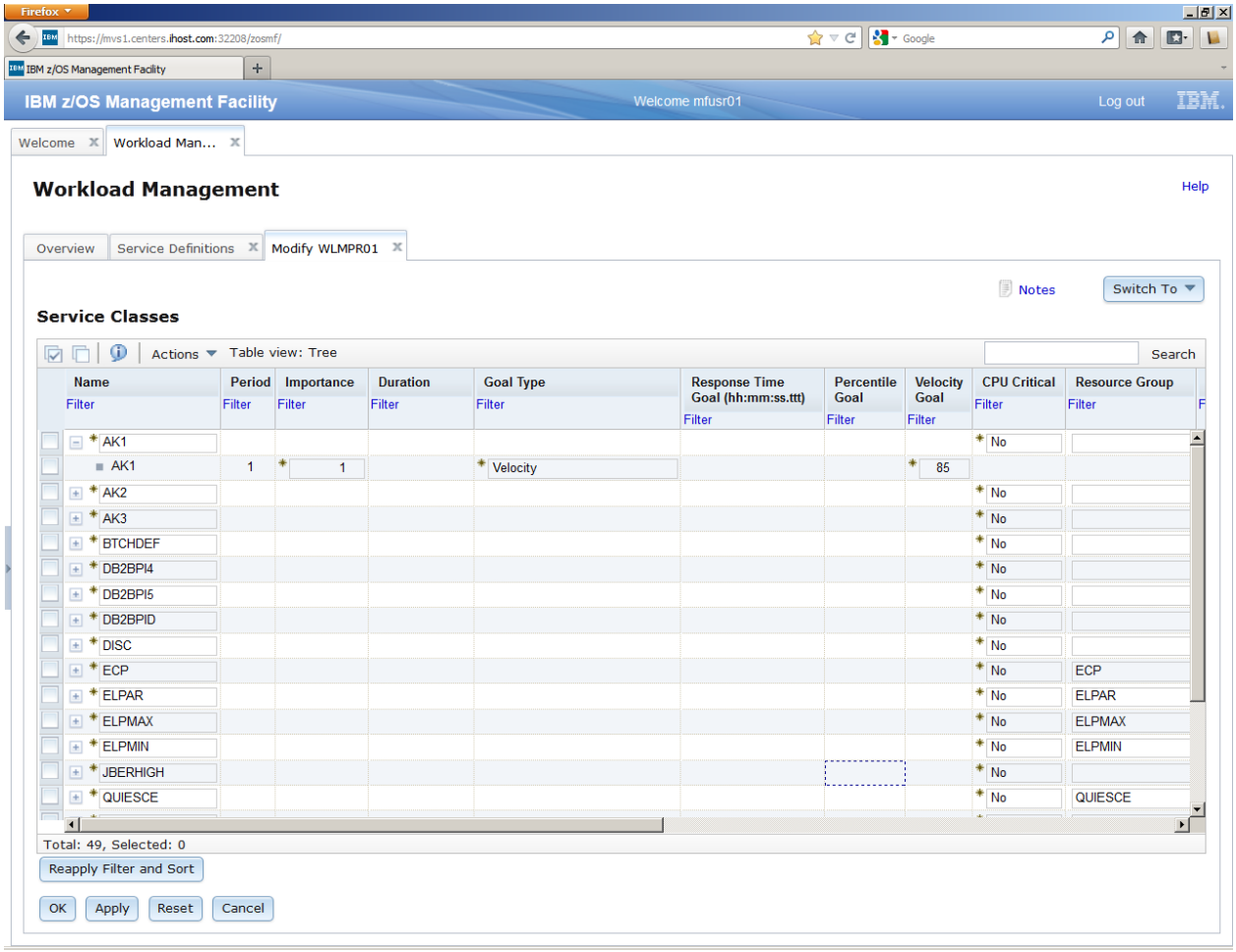
To fix the issue correlated with the warning message we will change the Velocity Goal of the service class period to a value lower than 90. First, we have to switch from view mode to modify mode via the action ‘Editable Version of Service Definition’ in the ‘Switch To’ menu:



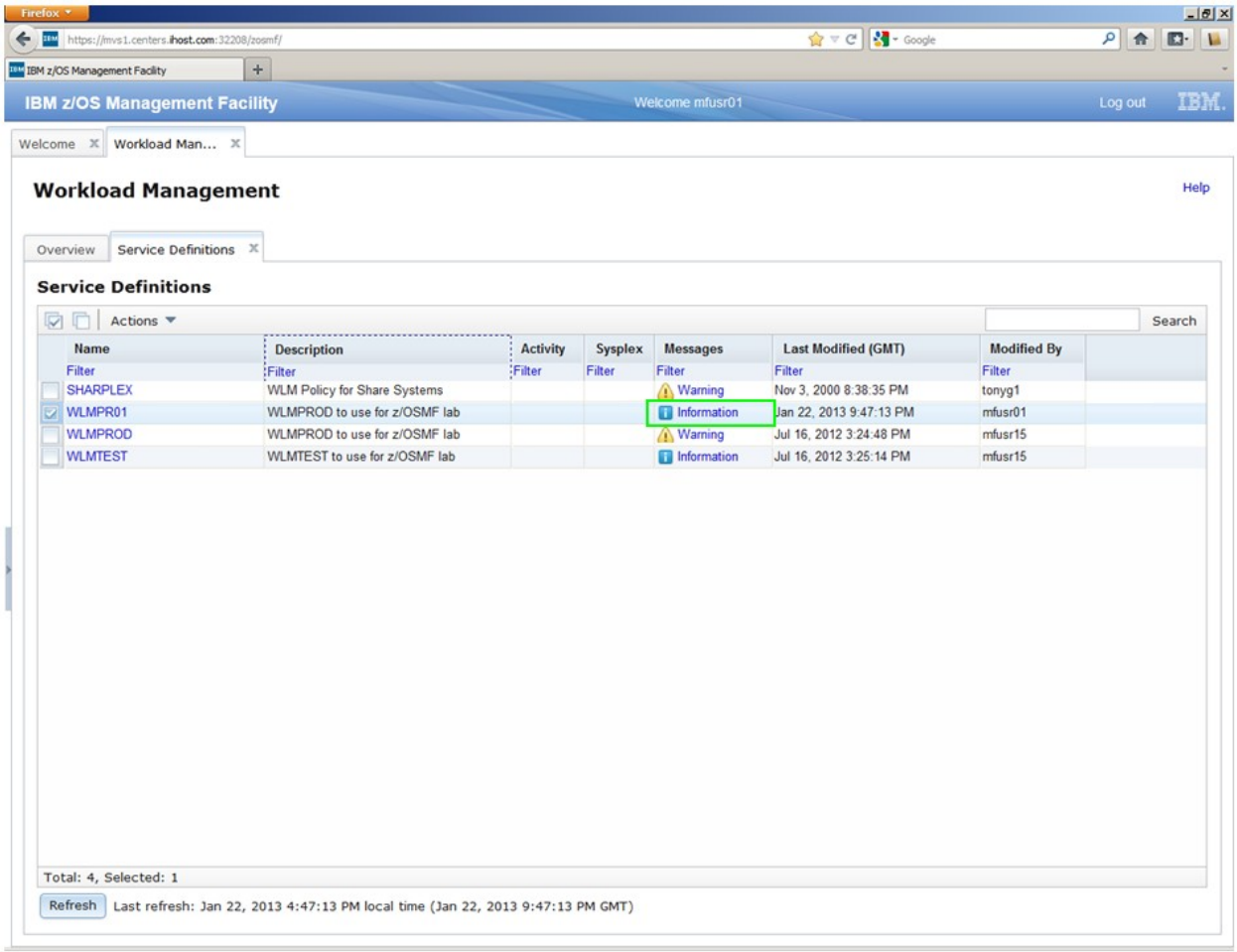
The service definition is now editable. Editable table cells have an additional border around the value in the table cell:



In order to change the Velocity Goal of the service class period with the warning indication double click on the table cell with the warning icon, then type in value 85 and press <Enter>. The warning icon is no longer shown:



Press the ‘OK’ button to save the modified service definition and to close the ‘Modify WLMPROD’ tab:

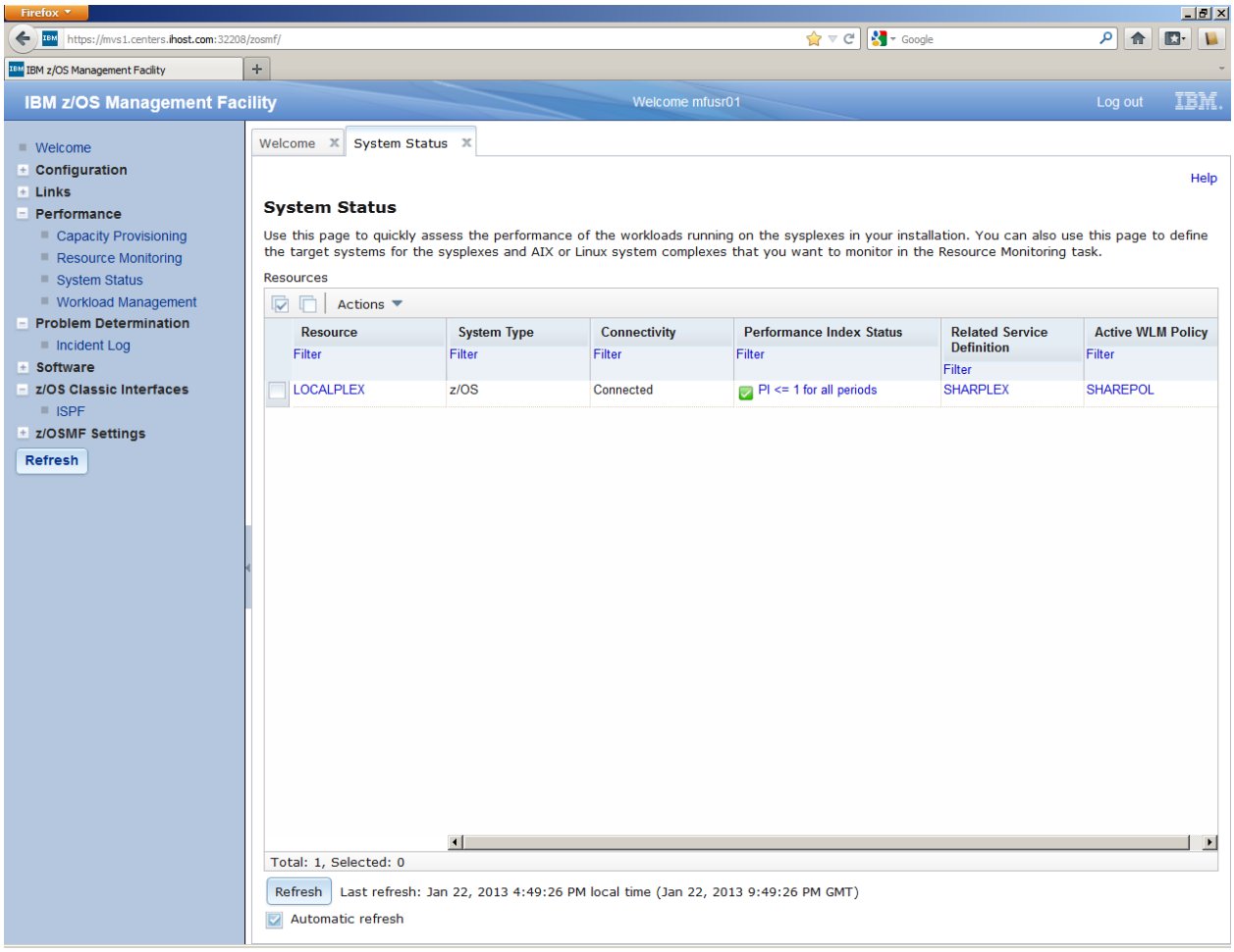


Notice that the ‘Service Definitions’ table shows no longer a warning indication for service definition ‘WLMPRxx’ since just informational messages exist for the service definition.

Lab 4: System Status

1. View the Performance status of the sysplex(es) being monitored
    a. From the Performance category select -> System status
    b. View fields
        i. The Performance Index Status column is a quick indicator for the sysplex health. For each sysplex, the performance index by service class period metric is evaluated. If service classes periods are found, that have the PI > 1 and the importance of 1 or 2, the indicator is red. This means, there‘s some important workload which is not meeting the goals. If there are periods with PI > 1, but they have importance of 3 or bigger, the indicator is yellow. Otherwise it‘s green (that is, all service class periods meet their goals and have PI <= 1).
        ii. In the last two columns, some WLM information about the sysplex is displayed.

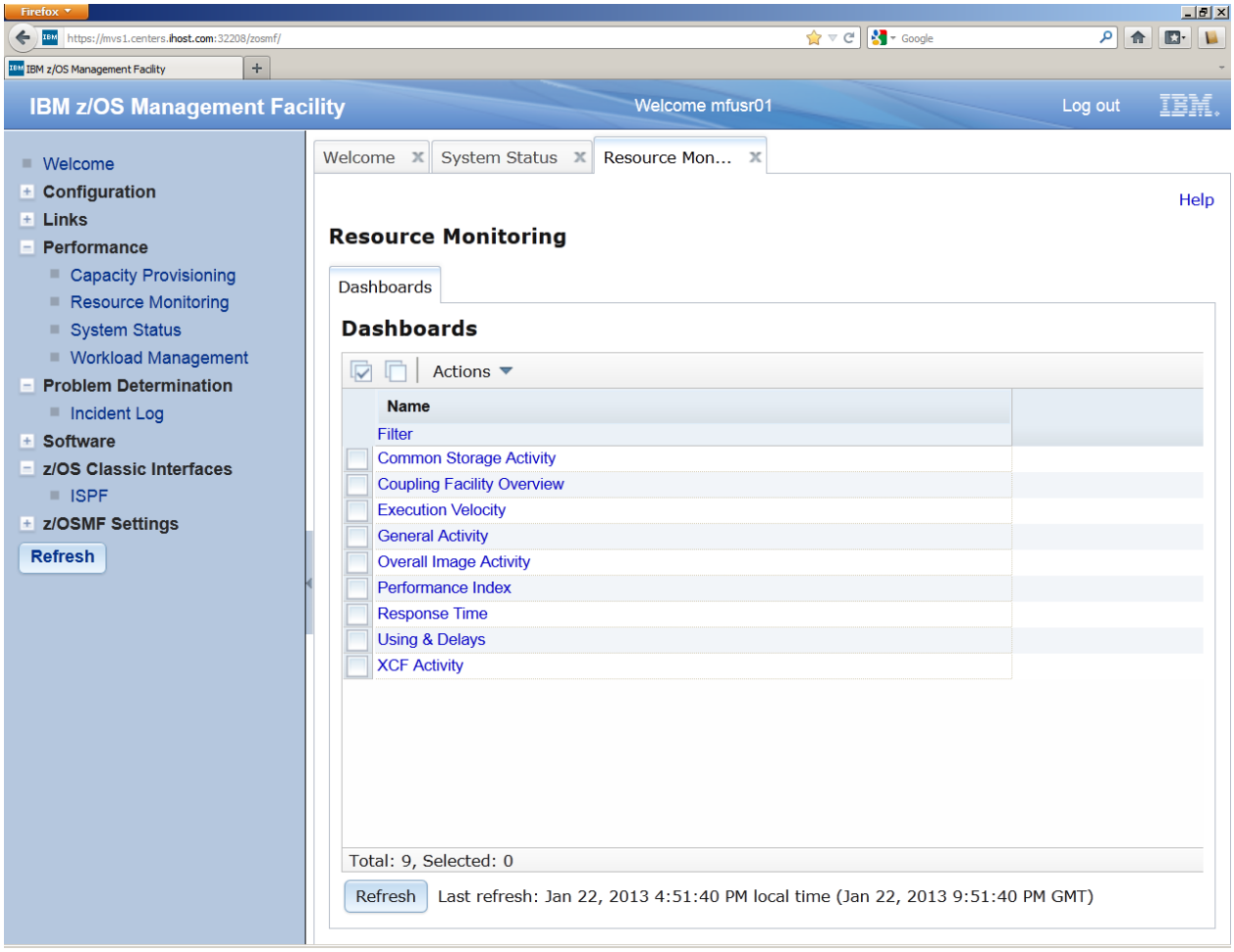
Note: From the SHARE Lab system, only one sysplex can be monitored. Typically you can add other sysplexes or Linux systems to be monitored.

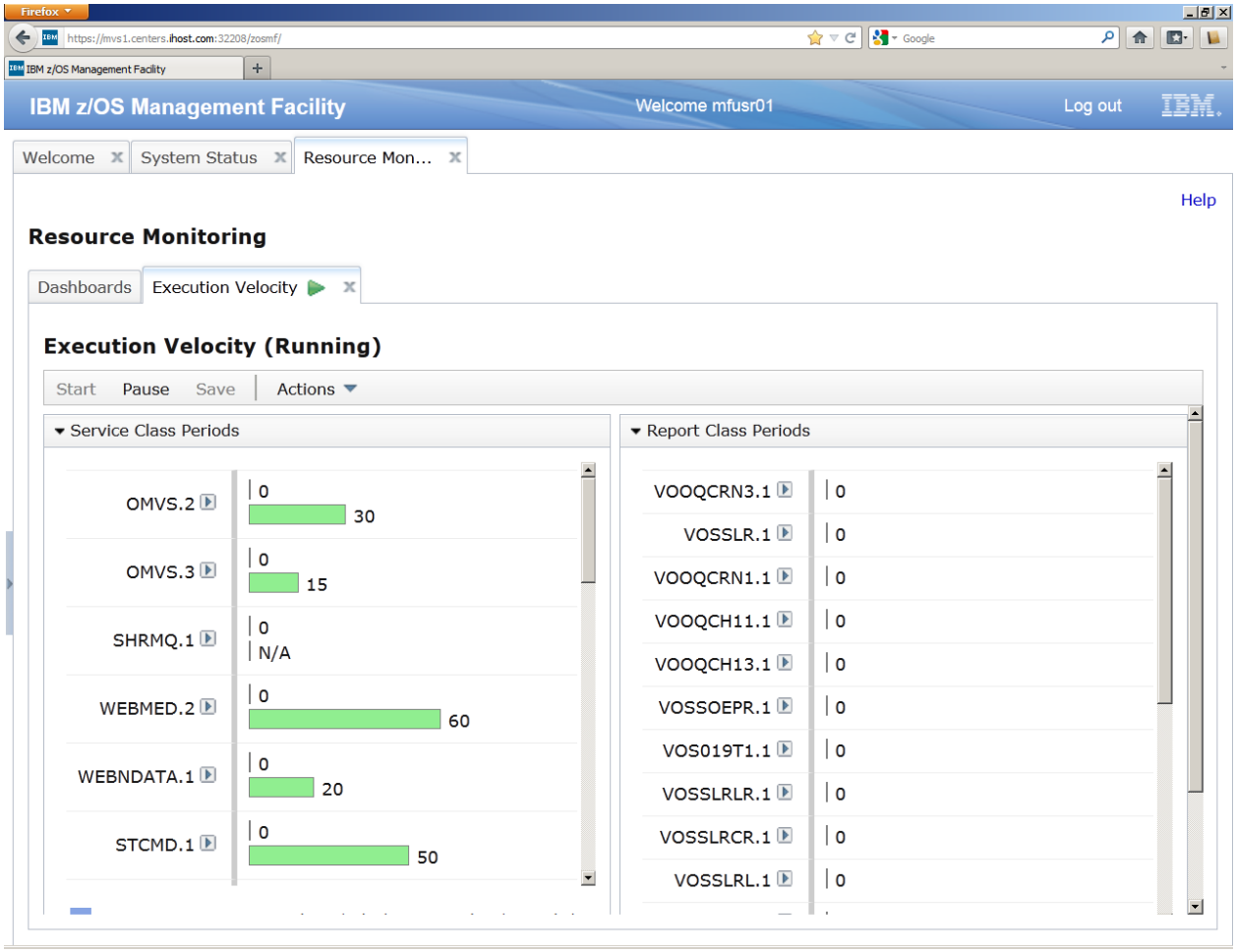


Lab 5: Resource Monitoring

Task 1: View the performance metrics

a. From the Performance category select -> Resource Monitoring,
b. See the default metrics that are pre-defined,
c. Select Execution Velocity and from Actions drop down, select ‘Open’
d. Take the default sysplex ‘LOCALPLEX’ when prompted
e. View the execution velocity metrics

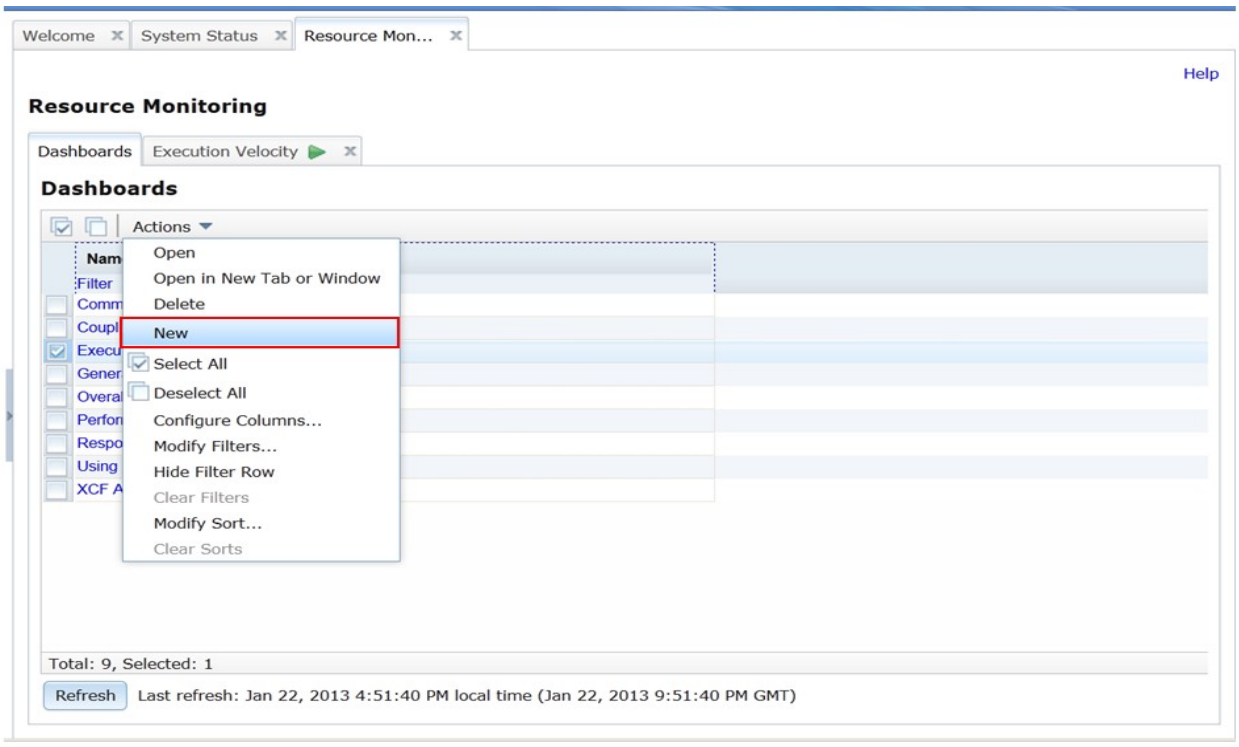


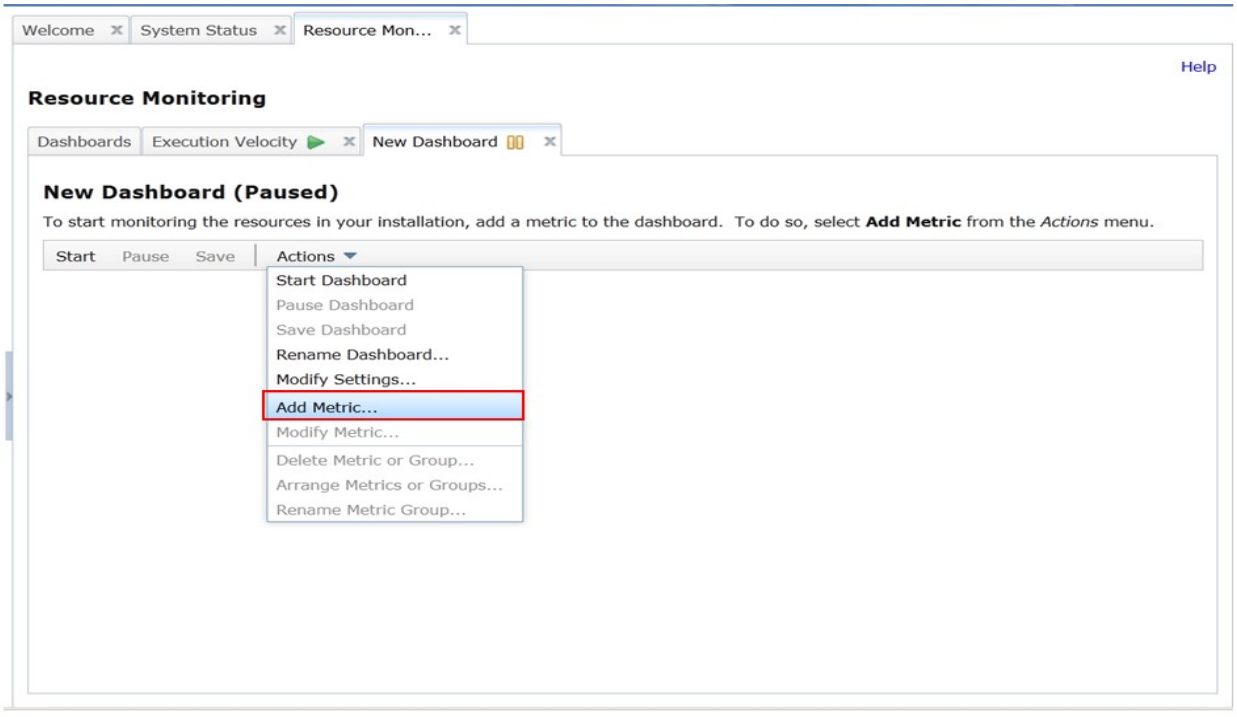

Firefox
https://mvs1.centers.ihost.com:32208/zosmf/
IBM z/OS Management Facility
IBM z/OS Management Facility
Welcome mfusr01
Log out
IBM
Welcome
System Status
Resource Mon...
Help
Resource Monitoring
Dashboards
Execution Velocity
Execution Velocity (Running)
Start
Pause
Save
Actions
Service Class Periods
OMVS.2 0 30
OMVS.3 0 15
SHRMQ.1 0 N/A
WEBMED.2 0 60
WEBNDATA.1 0 20
STCMD.1 0 50
Report Class Periods
VOOQCRN3.1 0
VOSSLR.1 0
VOOQCRN1.1 0
VOOQCH11.1 0
VOOQCH13.1 0
VOSSOEPR.1 0
VOS019T1.1 0
VOSSLRLR.1 0
VOSSLRCR.1 0
VOSSLRL.1 0

Task 2: Add new metrics to monitor

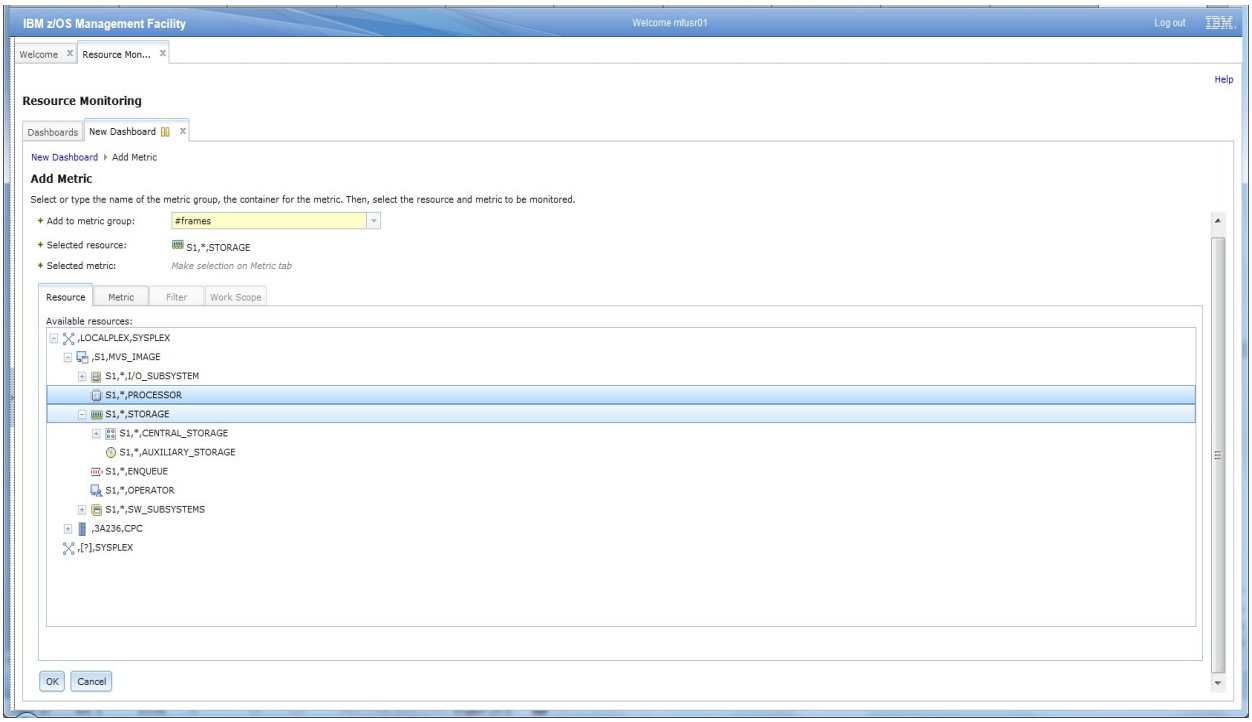
a. From Resource Monitoring task, Actions -> NEW
b. From New Desktop panel , from Actions pull down, select Add Metric

Hint: if something is not clear, click on 'Help' on top right of every panel!!

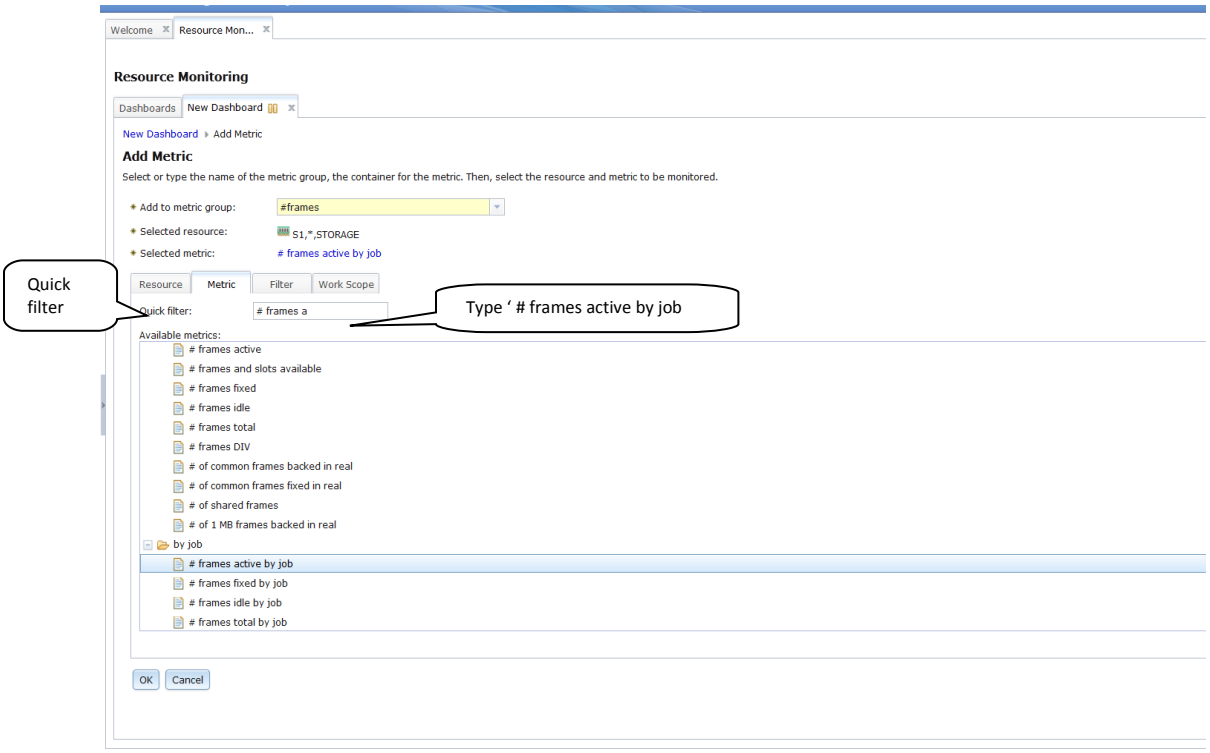




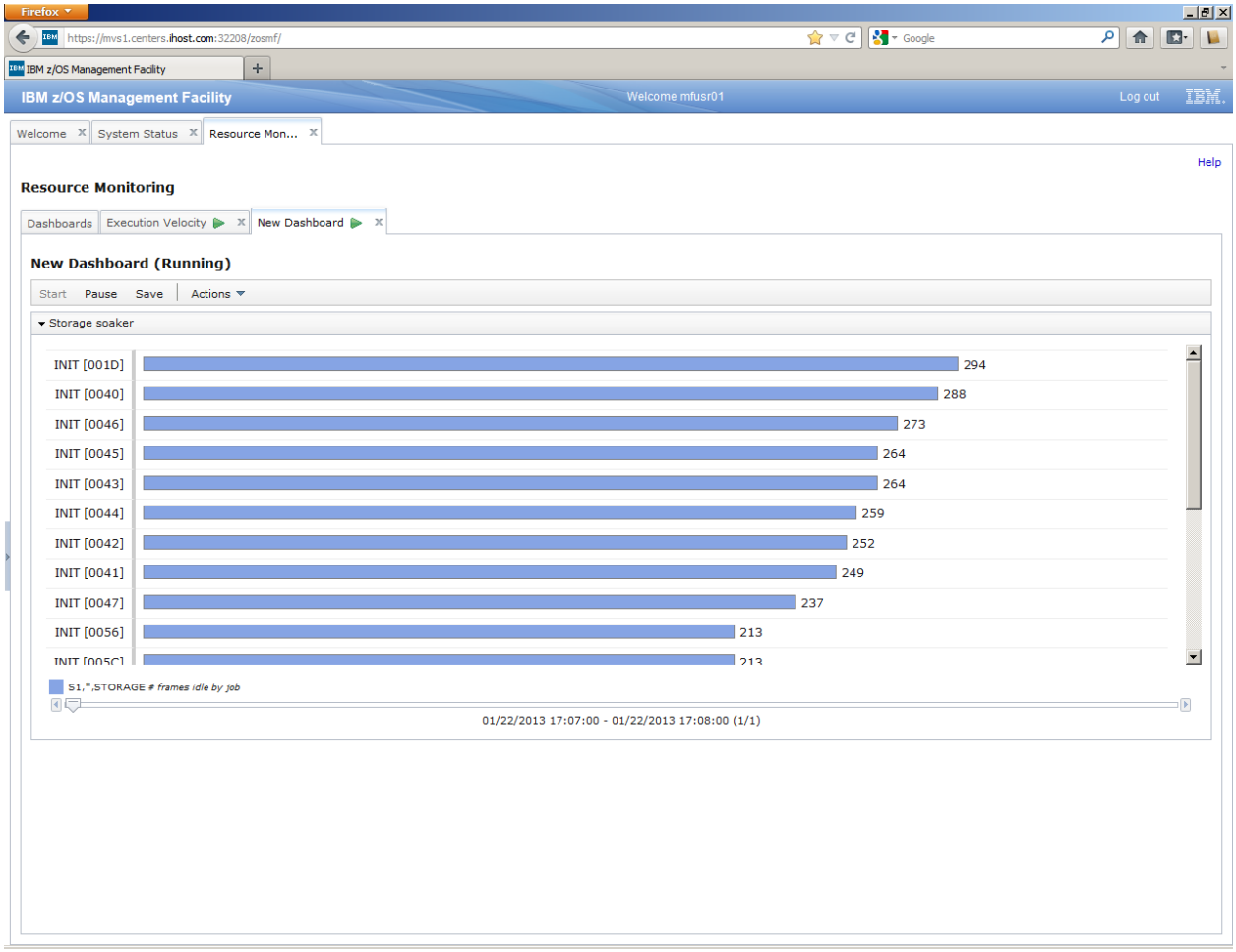
Set metric group - # frames
Select Resource – in tab below – select/expand first image, select **storage**



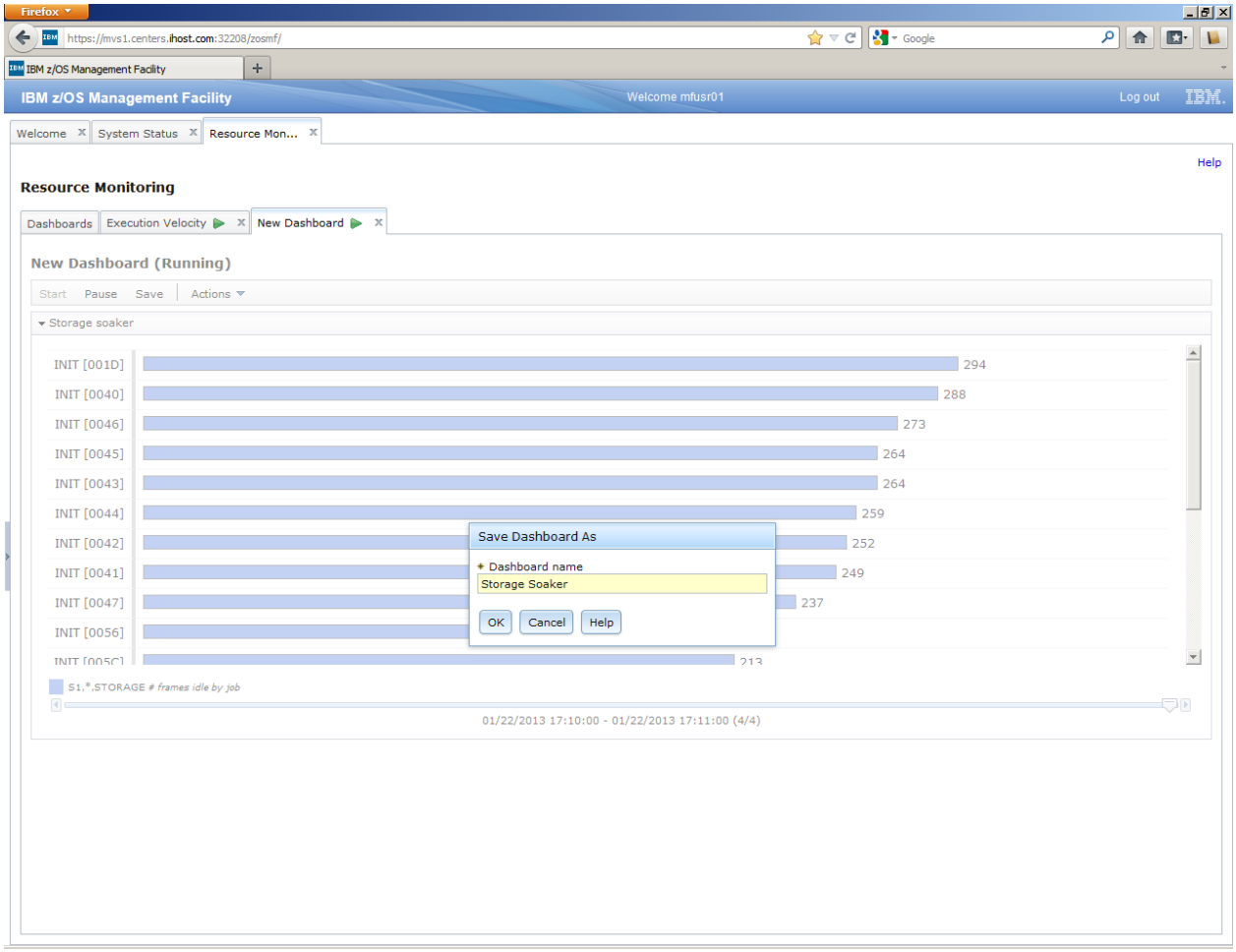
Go to Metric tab – use quick filter for '# frames by job' -> select - # frames active by job

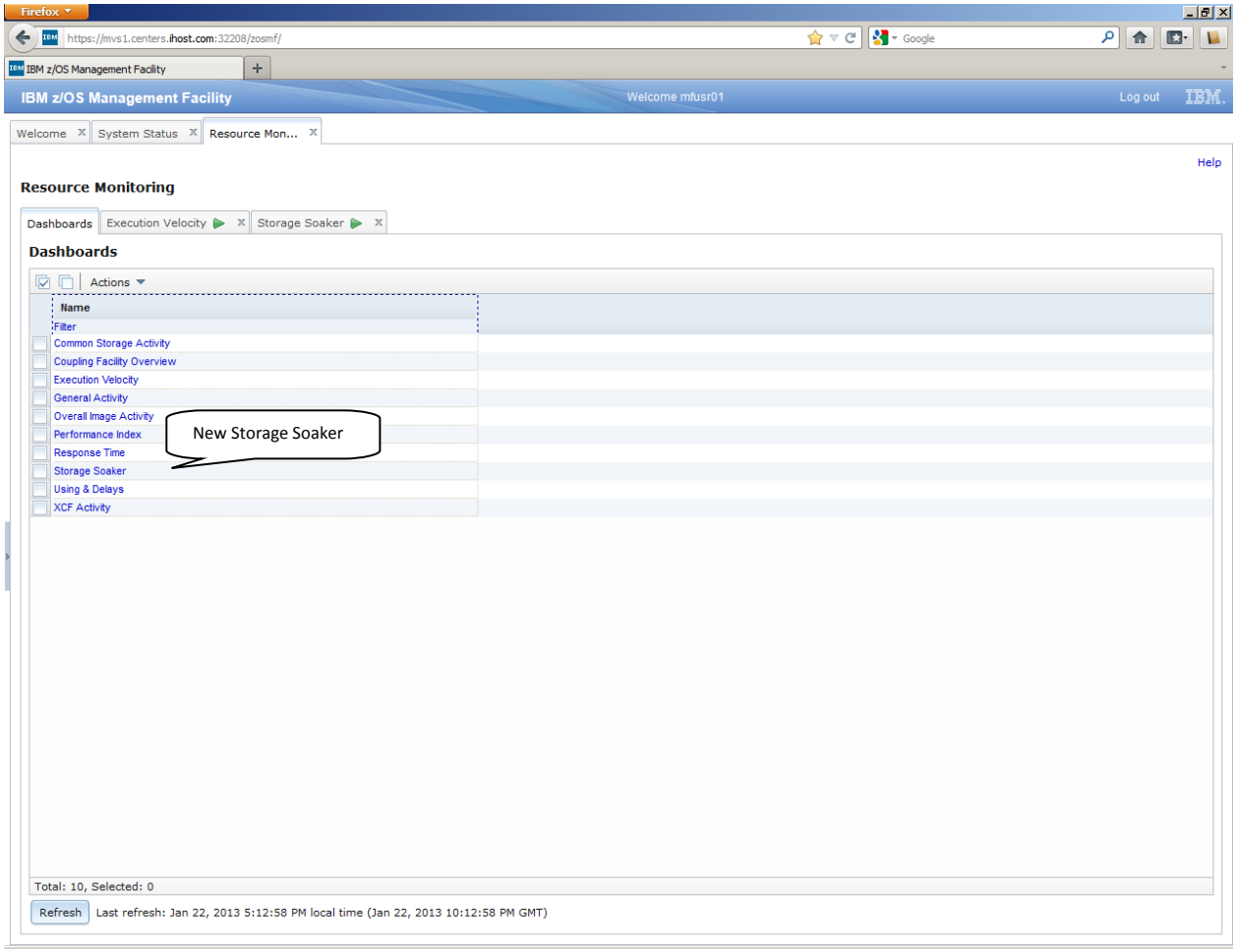


Press 'OK' button



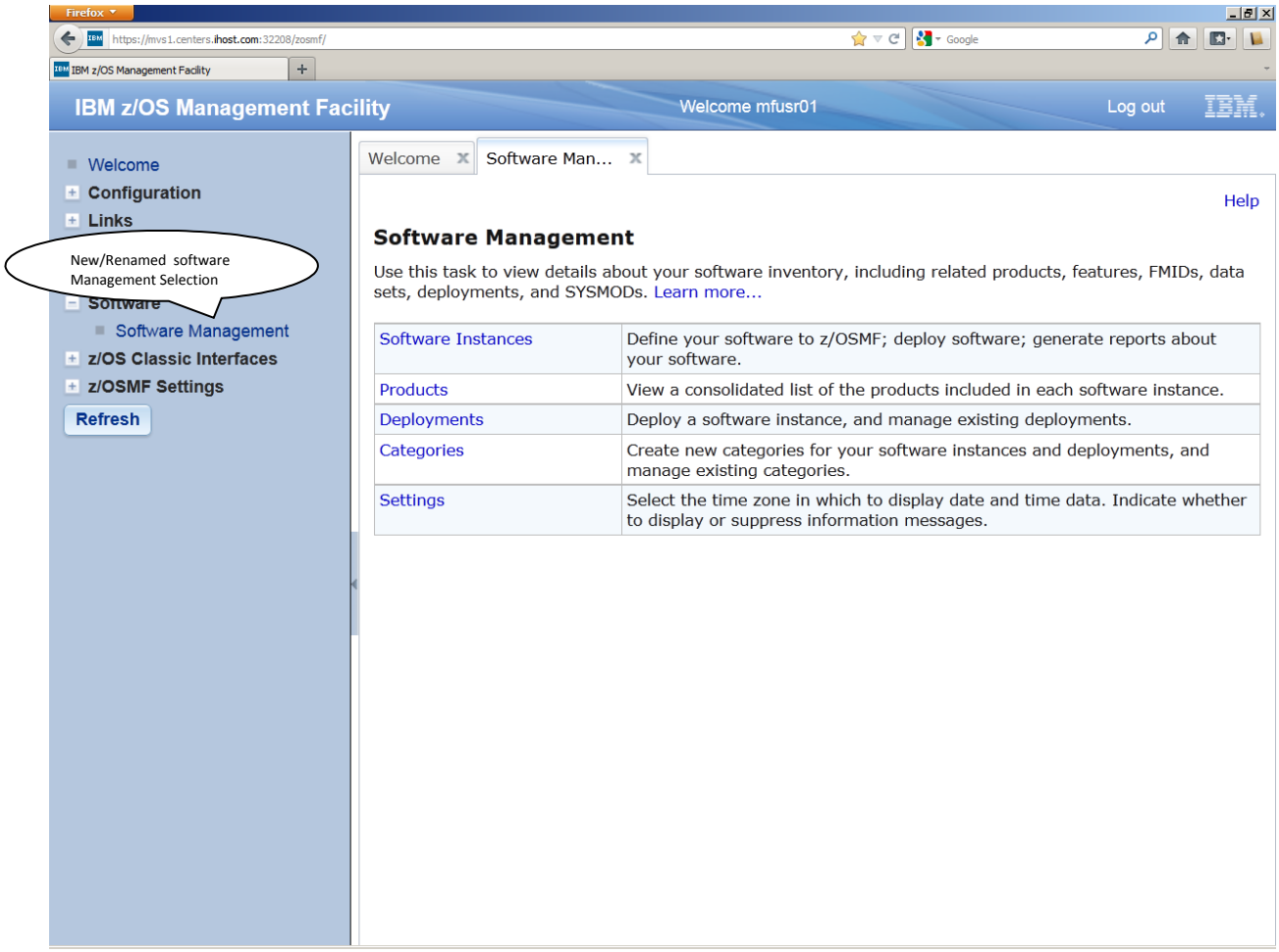
From New Dashboard click on ‘Save’
Type name ‘Storage soaker’ into field and press OK button
Storage soaker is added to the Resource Monitoring task


Firefox
https://mvs1.centers.ihost.com:32208/zosmf/
IBM z/OS Management Facility
IBM z/OS Management Facility
Welcome mfusr01
Log out
Welcome
System Status
Resource Mon...
Help
Resource Monitoring
Dashboards
Execution Velocity
New Dashboard
New Dashboard (Running)
Start
Pause
Save
Actions
Storage soaker
INIT [001D] 294
INIT [0040] 288
INIT [0046] 273
INIT [0045] 264
INIT [0043] 264
INIT [0044] 259
INIT [0042] 252
INIT [0041] 249
INIT [0047] 237
INIT [0056]
Save Dashboard As
Dashboard name
Storage Soaker
OK
Cancel
Help
S1,*,STORAGE # frames idle by job
01/22/2013 17:10:00 - 01/22/2013 17:11:00 (4/4)

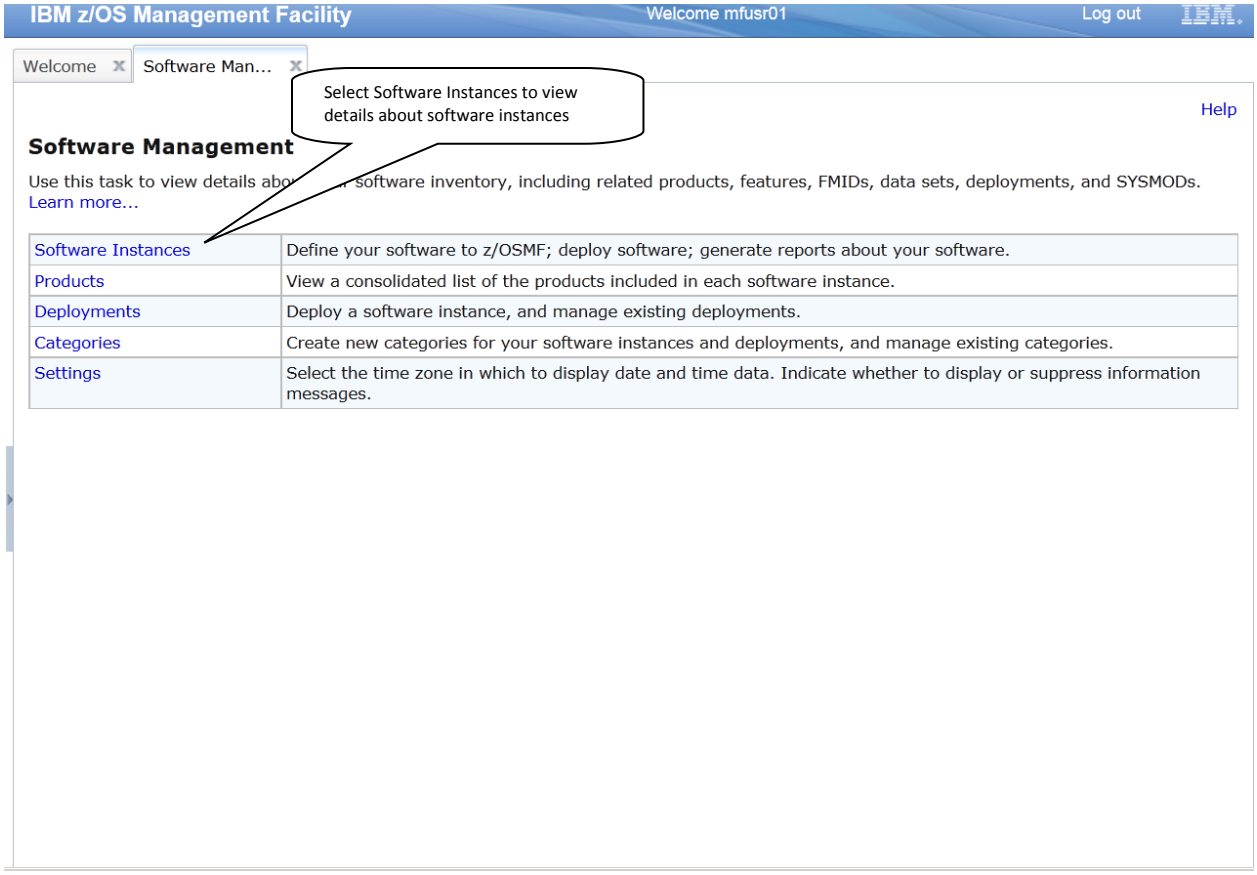

Firefox
https://mvs1.centers.ihost.com:32208/zosmf/
IBM z/OS Management Facility
Welcome mfusr01
Log out
Welcome
System Status
Resource Mon...
Help
Resource Monitoring
Dashboards
Execution Velocity
Storage Soaker
Dashboards
Actions
Name
Filter
Common Storage Activity
Coupling Facility Overview
Execution Velocity
General Activity
Overall Image Activity
Performance Index
Response Time
Storage Soaker
Using & Delays
XCF Activity
New Storage Soaker
Total: 10, Selected: 0
Refresh
Last refresh: Jan 22, 2013 5:12:58 PM local time (Jan 22, 2013 10:12:58 PM GMT)

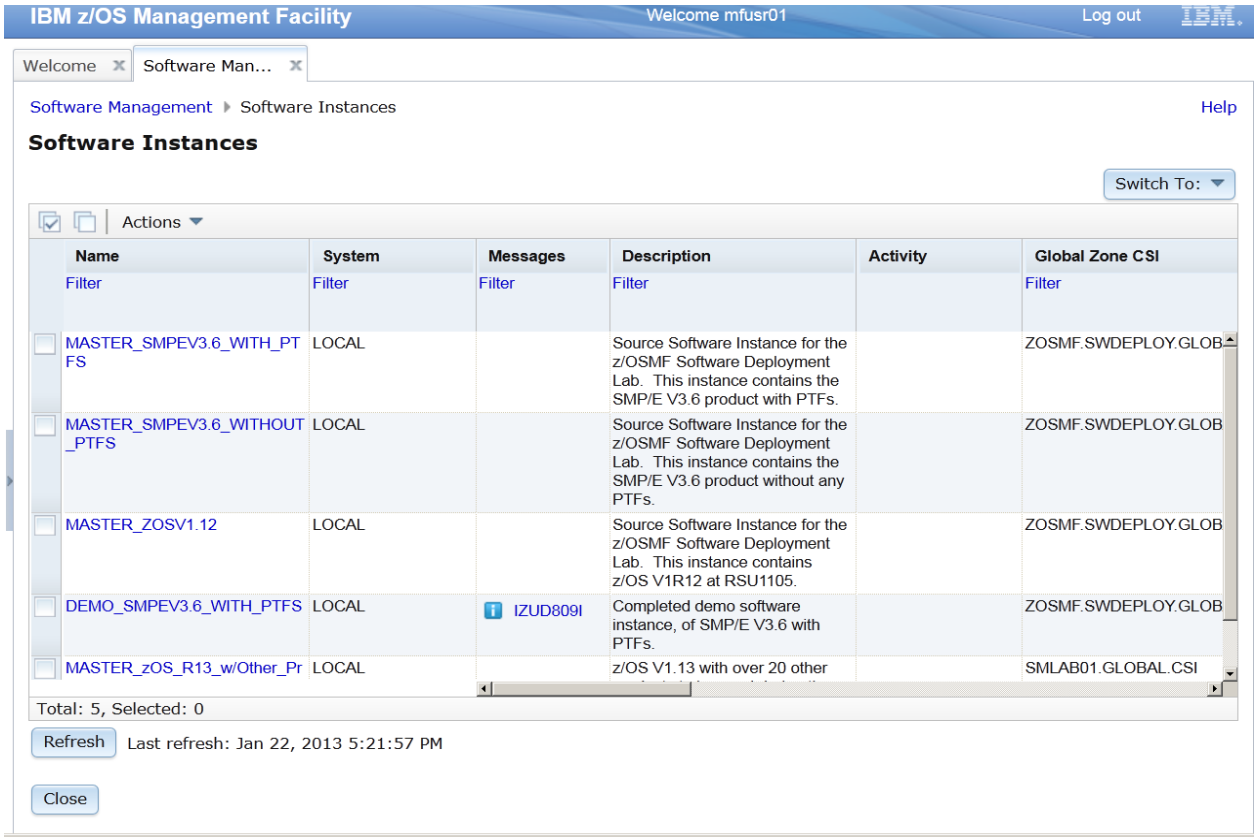
Lab 6: Software Management

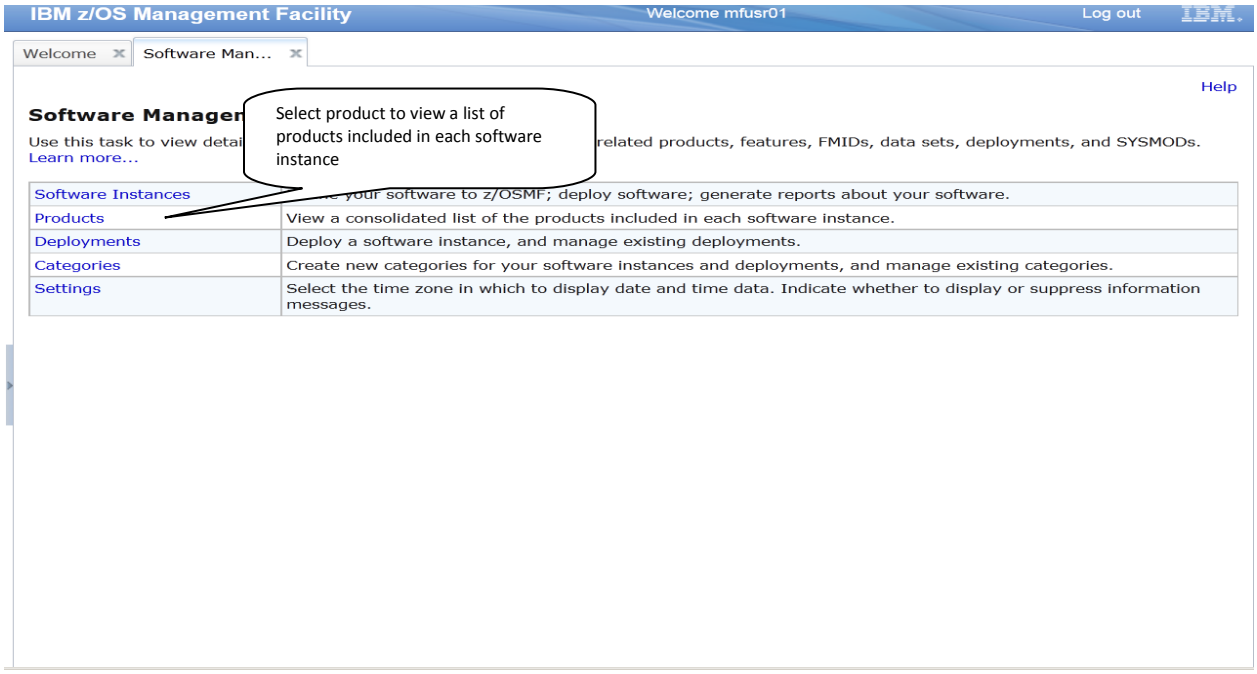
To invoke the Software Management task, click on Software Management from the Software category on the navigation tree.

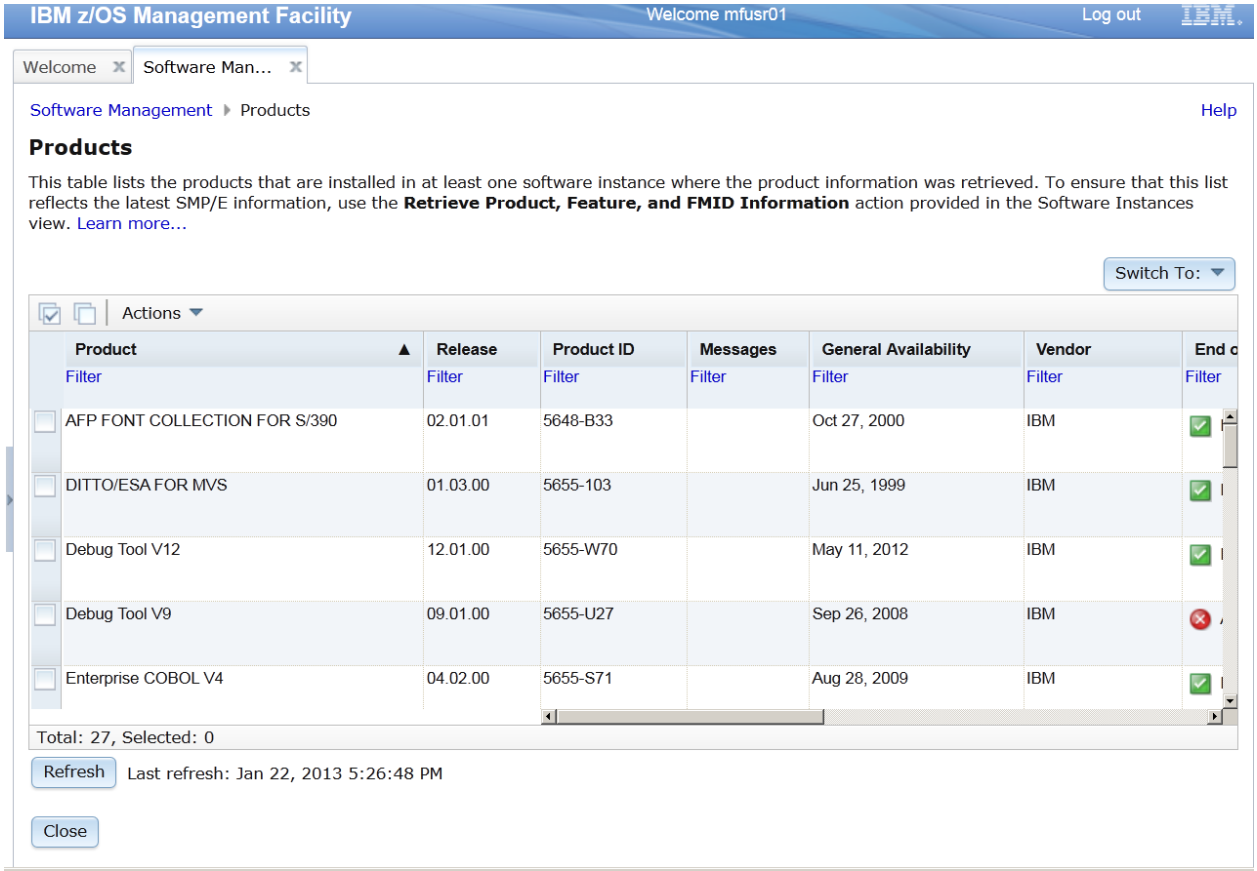


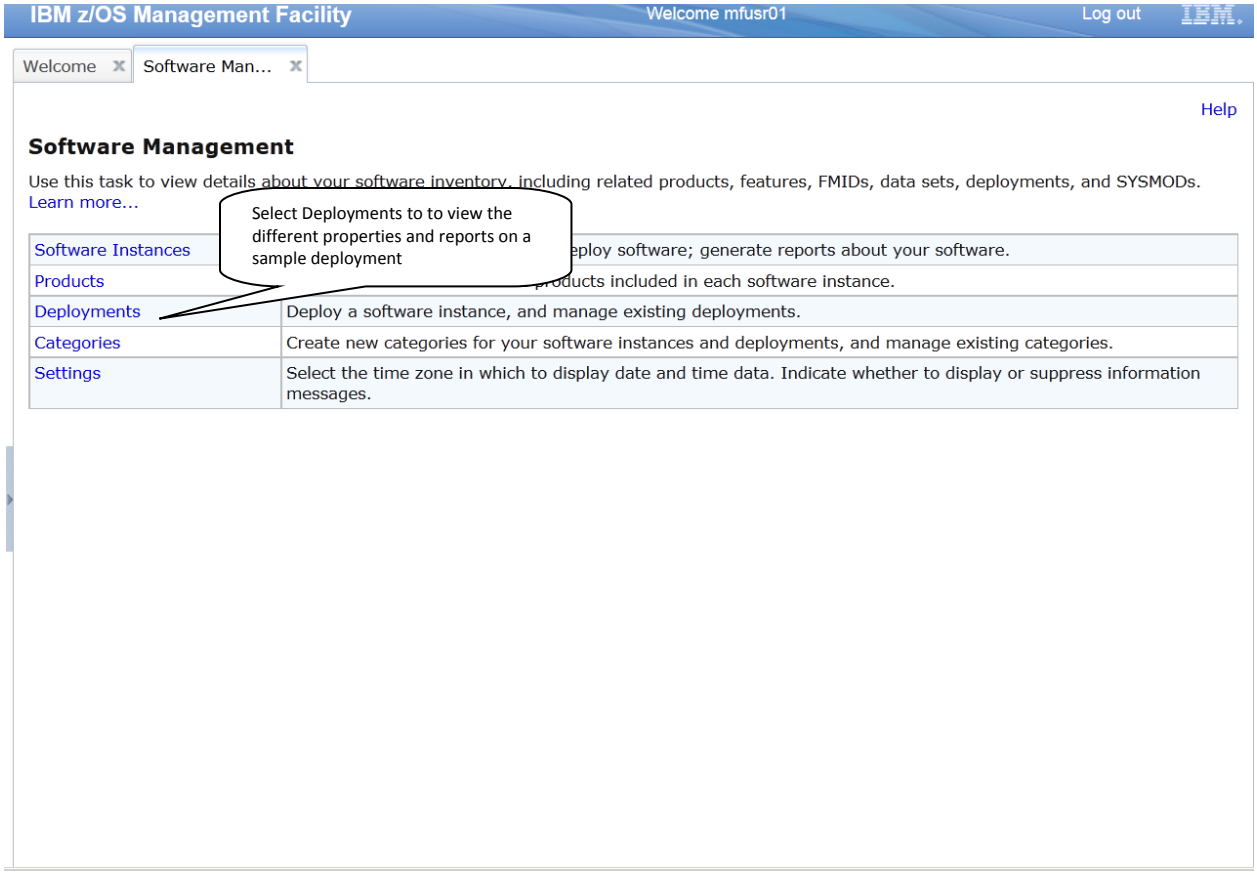
The Software Management task, previously named the Deployment task, contains the software deployment functions along with additional software management functions. The Software Management task helps you streamline the software management process by providing a centralized location that you can use to manage your z/OS software.

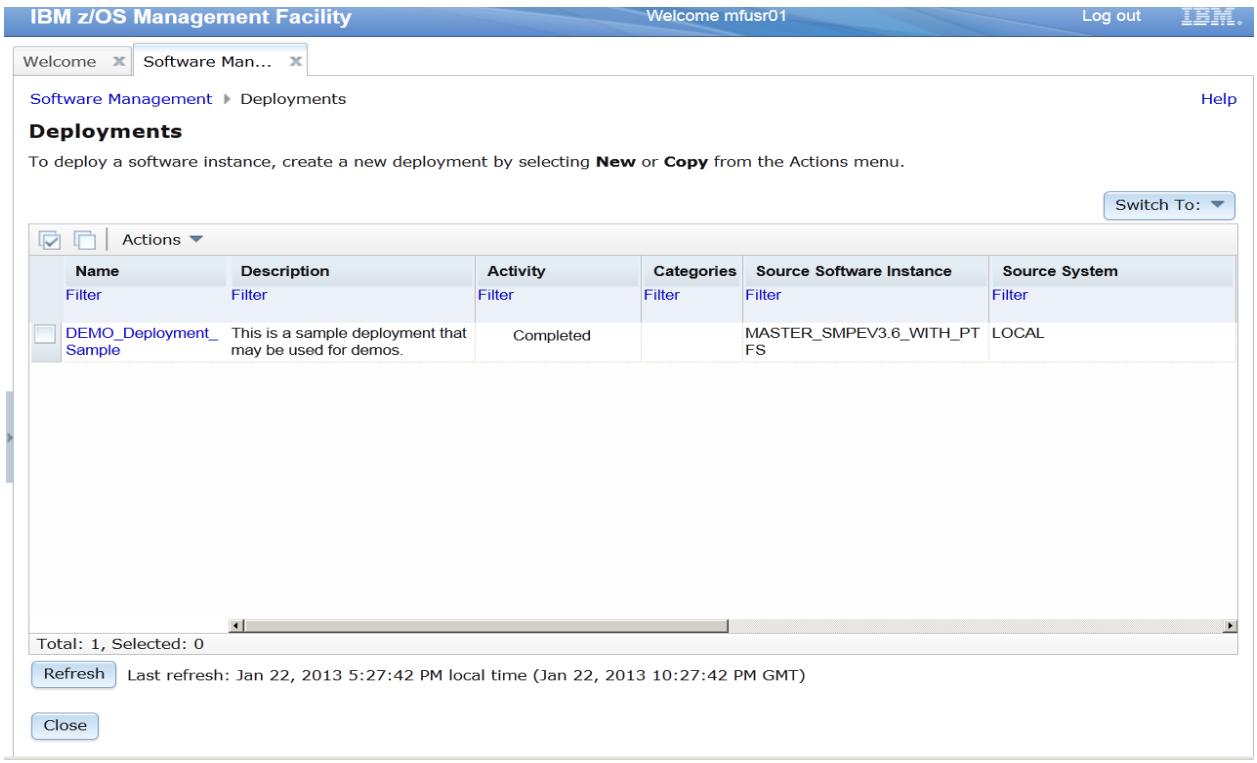

IBM z/OS Management Facility
Welcome mfusr01
Log out
Welcome
Software Man...
Select Software Instances to view details about software instances
Help
Software Management
Use this task to view details abo software inventory, including related products, features, FMIDs, data sets, deployments, and SYSMODs.
Learn more...
Software Instances
Define your software to z/OSMF; deploy software; generate reports about your software.
Products
View a consolidated list of the products included in each software instance.
Deployments
Deploy a software instance, and manage existing deployments.
Categories
Create new categories for your software instances and deployments, and manage existing categories.
Settings
Select the time zone in which to display date and time data. Indicate whether to display or suppress information messages.


IBM z/OS Management Facility
Welcome mfusr01
Log out
Welcome
Software Man...
Software Management
Software Instances
Help
Software Instances
Switch To:
Actions
Name
System
Messages
Description
Activity
Global Zone CSI
Filter
MASTER_SMPEV3.6_WITH_PTFS
LOCAL
Source Software Instance for the z/OSMF Software Deployment Lab. This instance contains the SMP/E V3.6 product with PTFs.
ZOSMF.SWDEPLOY.GLOB
MASTER_SMPEV3.6_WITHOUT_PTFS
LOCAL
Source Software Instance for the z/OSMF Software Deployment Lab. This instance contains the SMP/E V3.6 product without any PTFs.
ZOSMF.SWDEPLOY.GLOB
MASTER_ZOSV1.12
LOCAL
Source Software Instance for the z/OSMF Software Deployment Lab. This instance contains z/OS V1R12 at RSU1105.
ZOSMF.SWDEPLOY.GLOB
DEMO_SMPEV3.6_WITH_PTFS
LOCAL
IZUD809I
Completed demo software instance, of SMP/E V3.6 with PTFs.
ZOSMF.SWDEPLOY.GLOB
MASTER_zOS_R13_w/Other_Pr
LOCAL
z/OS V1.13 with over 20 other
SMLAB01.GLOBAL.CSI
Total: 5, Selected: 0
Refresh
Last refresh: Jan 22, 2013 5:21:57 PM
Close


IBM z/OS Management Facility
Welcome mfusr01
Log out
Welcome
Software Man...
Help
Software Manager
Use this task to view detai
related products, features, FMIDs, data sets, deployments, and SYSMODs.
Learn more...
Select product to view a list of products included in each software instance
Software Instances
your software to z/OSMF; deploy software; generate reports about your software.
Products
View a consolidated list of the products included in each software instance.
Deployments
Deploy a software instance, and manage existing deployments.
Categories
Create new categories for your software instances and deployments, and manage existing categories.
Settings
Select the time zone in which to display date and time data. Indicate whether to display or suppress information messages.


IBM z/OS Management Facility
Welcome mfusr01
Log out
Welcome
Software Man...
Software Management
Products
Help
Products
This table lists the products that are installed in at least one software instance where the product information was retrieved. To ensure that this list reflects the latest SMP/E information, use the Retrieve Product, Feature, and FMID Information action provided in the Software Instances view. Learn more...
Switch To:
Actions
Product
Release
Product ID
Messages
General Availability
Vendor
End o
Filter
AFP FONT COLLECTION FOR S/390 02.01.01 5648-B33 Oct 27, 2000 IBM
DITTO/ESA FOR MVS 01.03.00 5655-103 Jun 25, 1999 IBM
Debug Tool V12 12.01.00 5655-W70 May 11, 2012 IBM
Debug Tool V9 09.01.00 5655-U27 Sep 26, 2008 IBM
Enterprise COBOL V4 04.02.00 5655-S71 Aug 28, 2009 IBM
Total: 27, Selected: 0
Refresh
Last refresh: Jan 22, 2013 5:26:48 PM
Close


IBM z/OS Management Facility
Welcome mfusr01
Log out
Welcome
Software Man...
Help
Software Management
Use this task to view details about your software inventory, including related products, features, FMIDs, data sets, deployments, and SYSMODs.
Learn more...
Select Deployments to to view the different properties and reports on a sample deployment
Software Instances
eploy software; generate reports about your software.
Products
oducts included in each software instance.
Deployments
Deploy a software instance, and manage existing deployments.
Categories
Create new categories for your software instances and deployments, and manage existing categories.
Settings
Select the time zone in which to display date and time data. Indicate whether to display or suppress information messages.


IBM z/OS Management Facility
Welcome mfusr01
Log out
Welcome
Software Man...
Software Management
Deployments
Help
Deployments
To deploy a software instance, create a new deployment by selecting New or Copy from the Actions menu.
Switch To:
Actions
Name
Description
Activity
Categories
Source Software Instance
Source System
Filter
DEMO_Deployment_Sample
This is a sample deployment that may be used for demos.
Completed
MASTER_SMPEV3.6_WITH_PTFS
LOCAL
Total: 1, Selected: 0
Refresh
Last refresh: Jan 22, 2013 5:27:42 PM local time (Jan 22, 2013 10:27:42 PM GMT)
Close

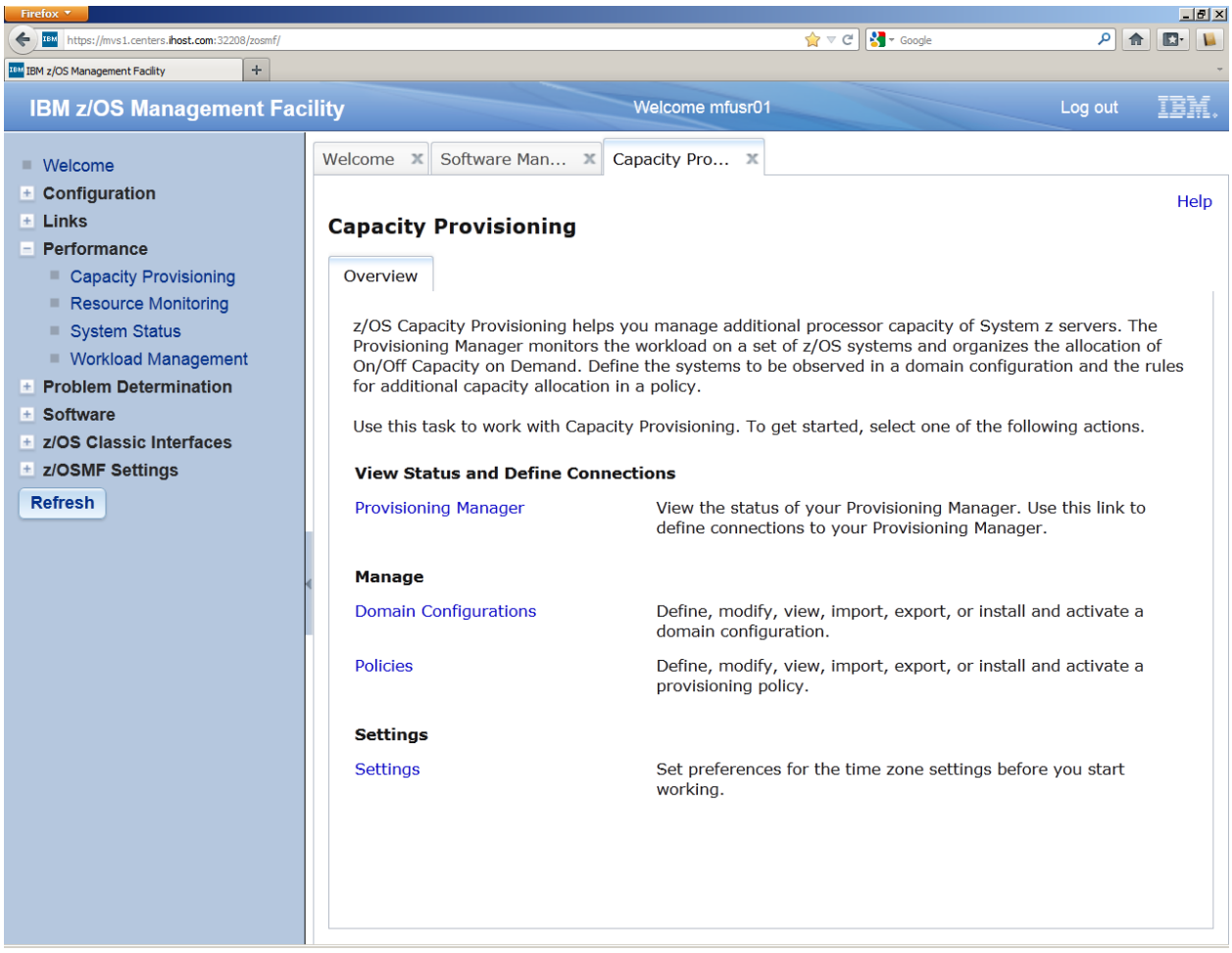
Optional Labs:

Lab 7: Capacity Provisioning

Summary:

This lab shows you how to connect to a Provisioning Manager and to display reports about the active configuration and active policy.

Click Performance – Capacity Provisioning



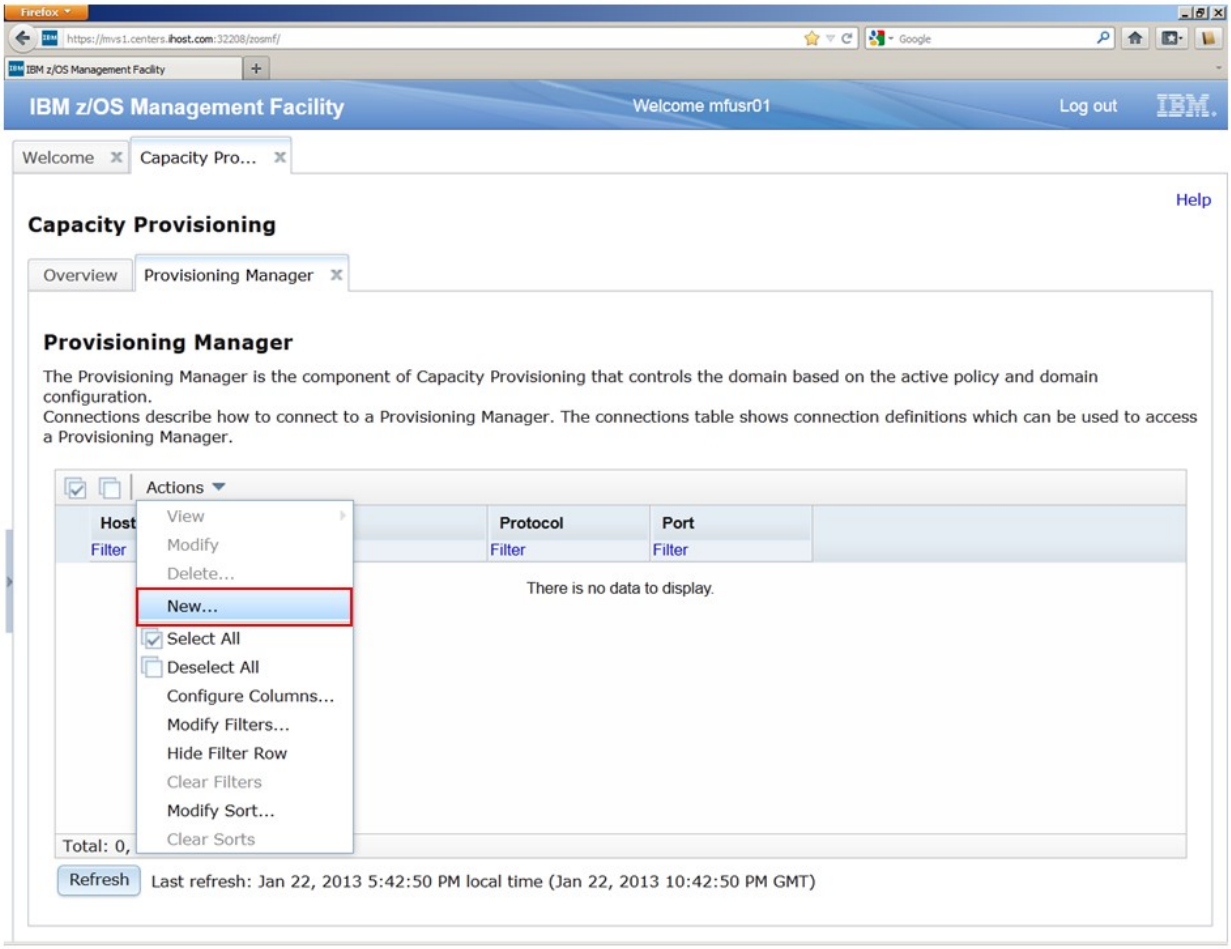
If not already done, create a connection to your Provisioning Manager (follow optional steps in section Task 1) and use this connection to view one of the following reports (see section Task 2):

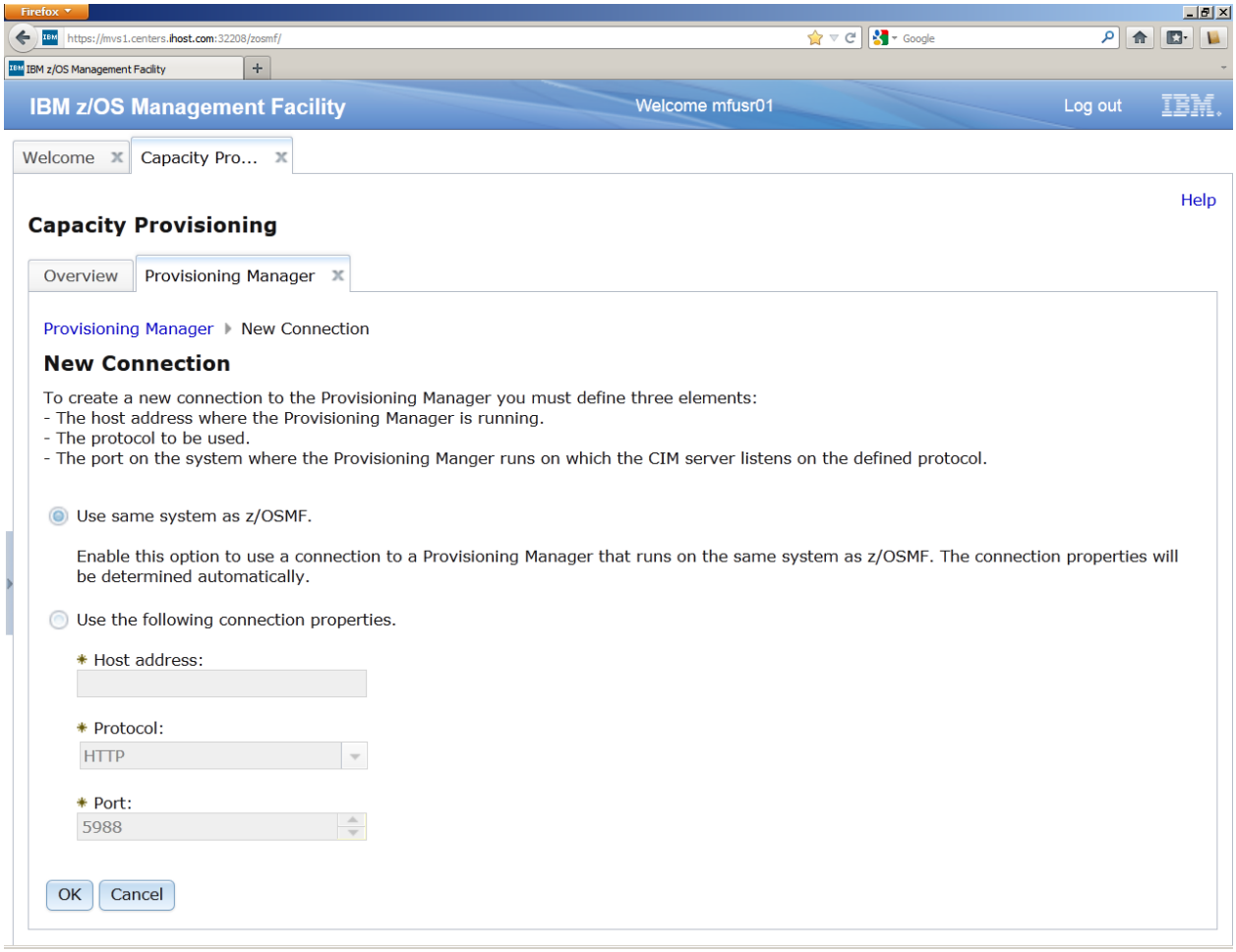
1. Domain status report
2. Active configuration report

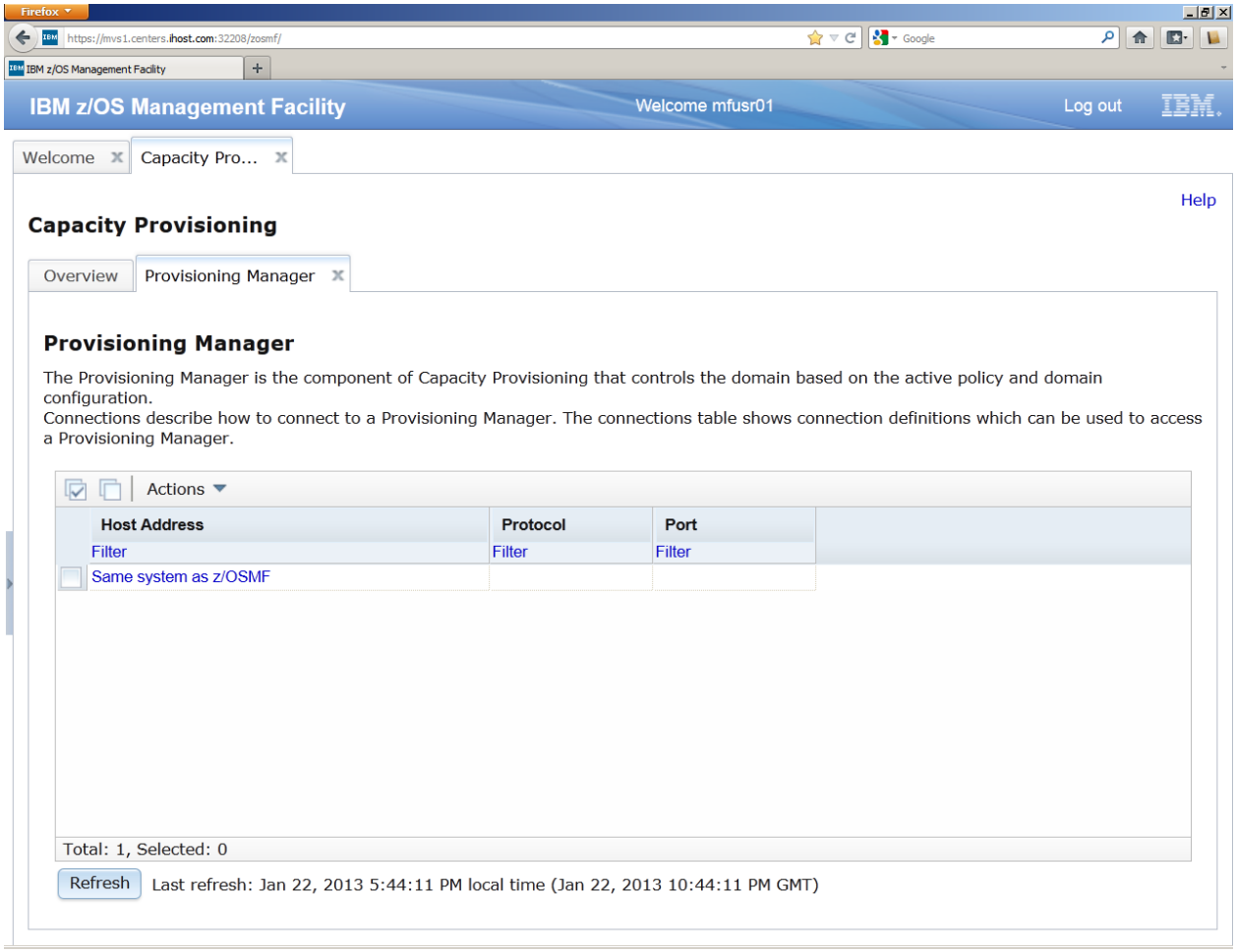
3. Active policy report

Task 1– View Status of Provisioning Manager

Click on Provisioning Manager

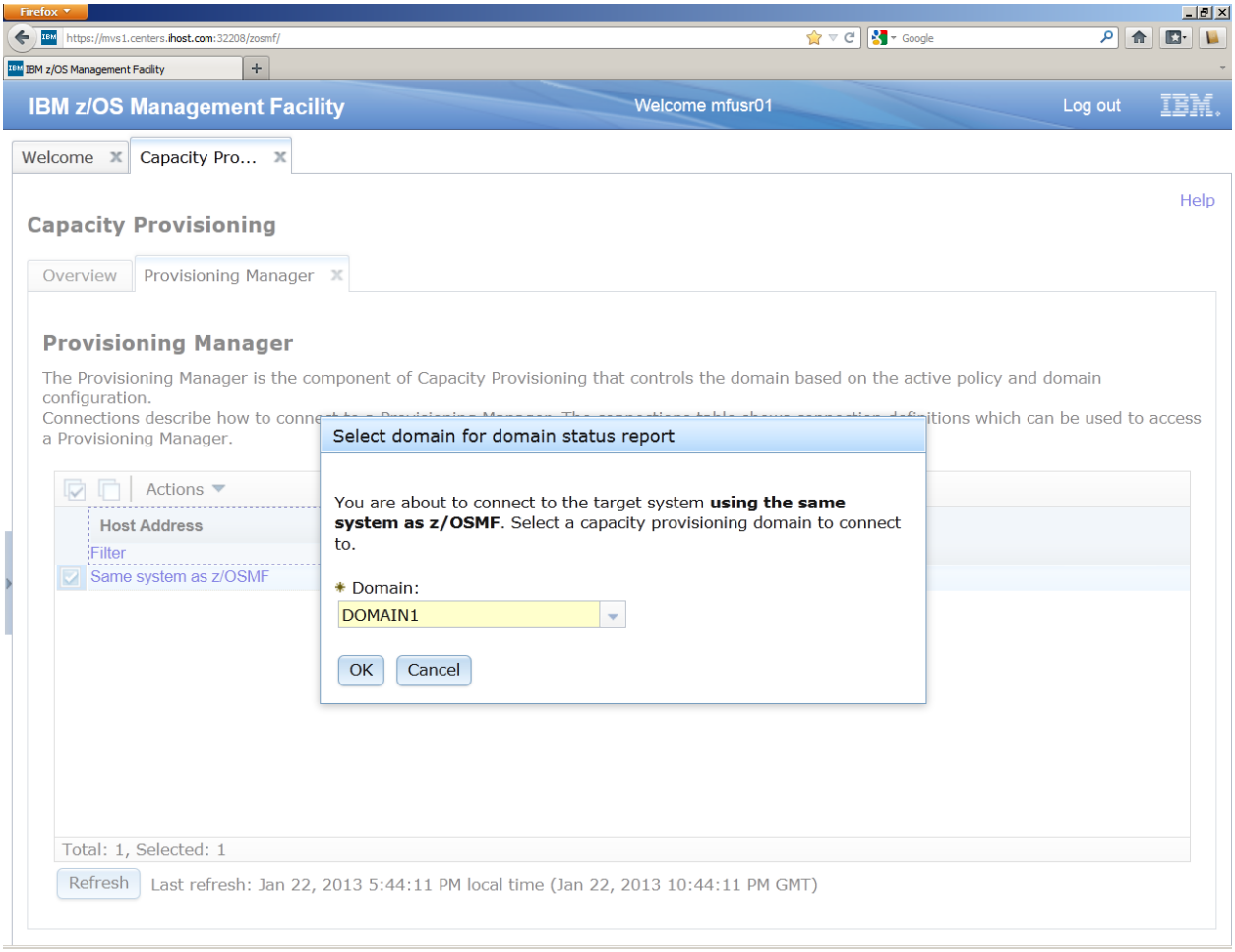



Firefox
https://mvs1.centers.ihost.com:32208/zosmf/
IBM z/OS Management Facility
IBM z/OS Management Facility
Welcome mfusr01
Log out
IBM
Welcome
Capacity Pro...
Help
Capacity Provisioning
Overview
Provisioning Manager
Provisioning Manager
New Connection
New Connection
To create a new connection to the Provisioning Manager you must define three elements:
- The host address where the Provisioning Manager is running.
- The protocol to be used.
- The port on the system where the Provisioning Manger runs on which the CIM server listens on the defined protocol.
Use same system as z/OSMF.
Enable this option to use a connection to a Provisioning Manager that runs on the same system as z/OSMF. The connection properties will be determined automatically.
Use the following connection properties.
Host address:
Protocol:
HTTP
Port:
5988
OK
Cancel

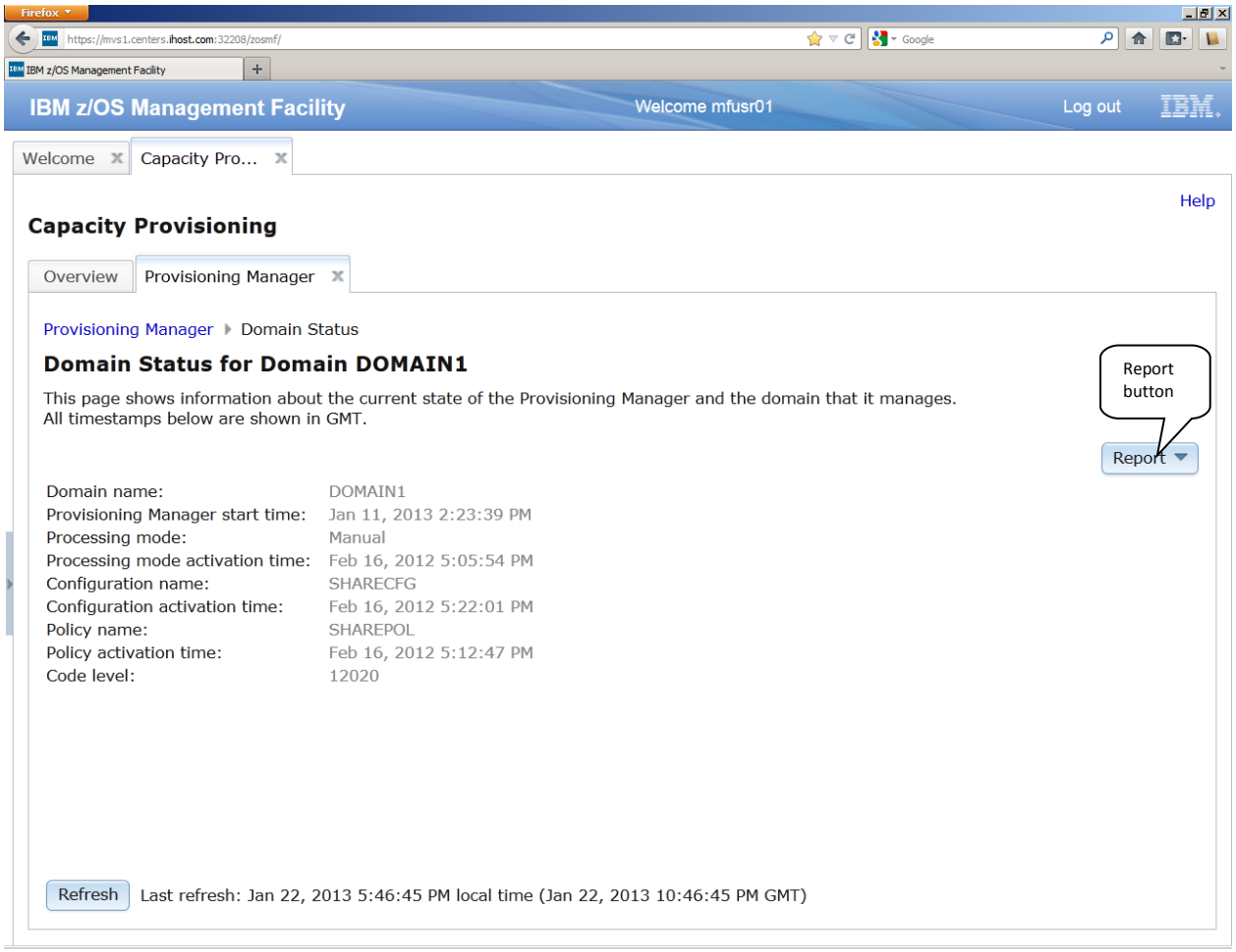


Task 2 – View reports about your Provisioning Manager

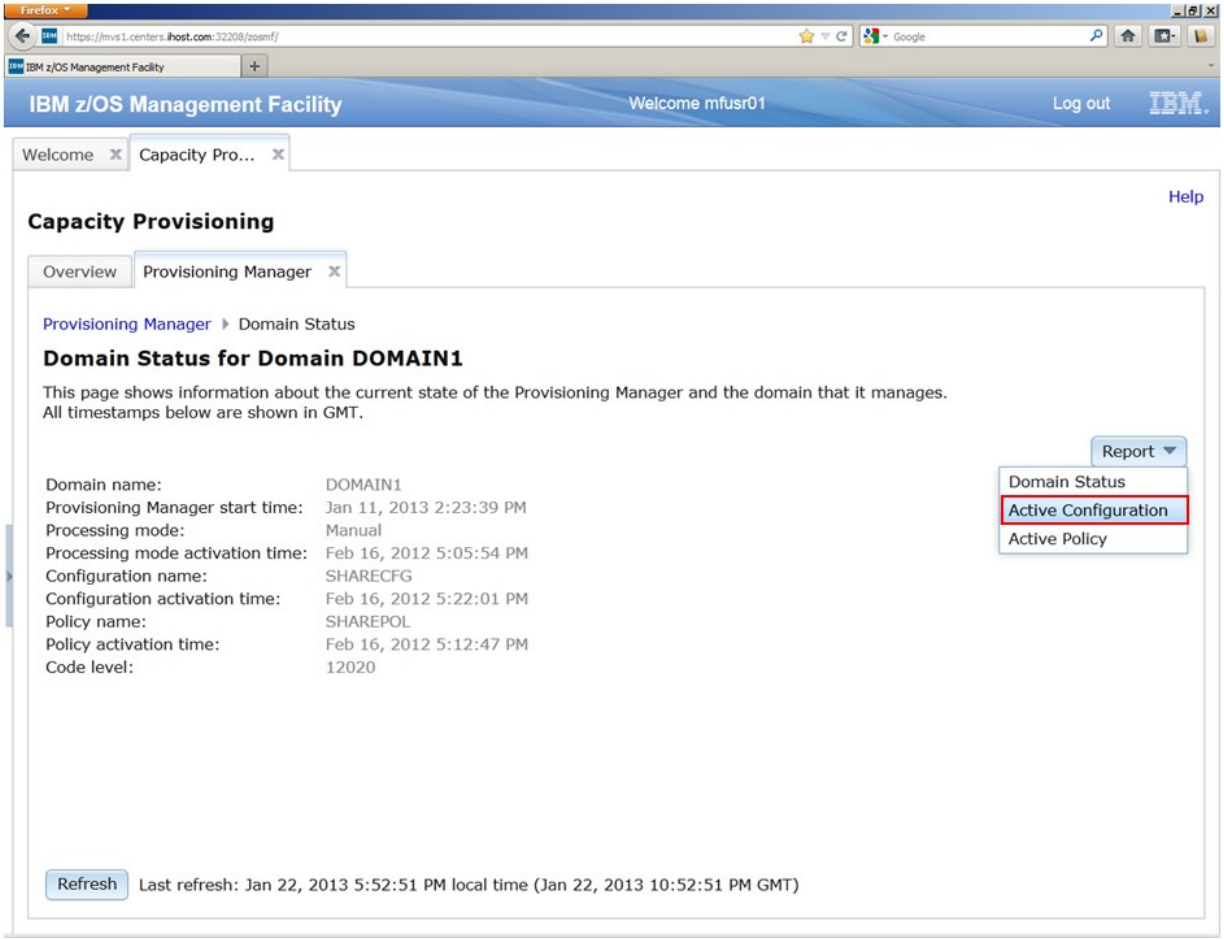
1. To view the domain status report, click on the link **Same system as z/OSMF** in the *Connections* table.
2. Right click Same system as z/OSMF,*Select view domain status, Select domain for domain report* window opens. Select the domain you want to retrieve the reports for and click **OK**.


Firefox
https://mvs1.centers.ihost.com:32208/zosmf/
IBM z/OS Management Facility
IBM z/OS Management Facility
Welcome mfusr01
Log out
IBM
Welcome
Capacity Pro...
Help
Capacity Provisioning
Overview
Provisioning Manager
Provisioning Manager
The Provisioning Manager is the component of Capacity Provisioning that controls the domain based on the active policy and domain configuration.
Connections describe how to connect to a Provisioning Manager. The connections table shows connection definitions which can be used to access a Provisioning Manager.
Actions
Host Address
Filter
Same system as z/OSMF
Select domain for domain status report
You are about to connect to the target system using the same system as z/OSMF. Select a capacity provisioning domain to connect to.
Domain:
DOMAIN1
OK
Cancel
Total: 1, Selected: 1
Refresh
Last refresh: Jan 22, 2013 5:44:11 PM local time (Jan 22, 2013 10:44:11 PM GMT)

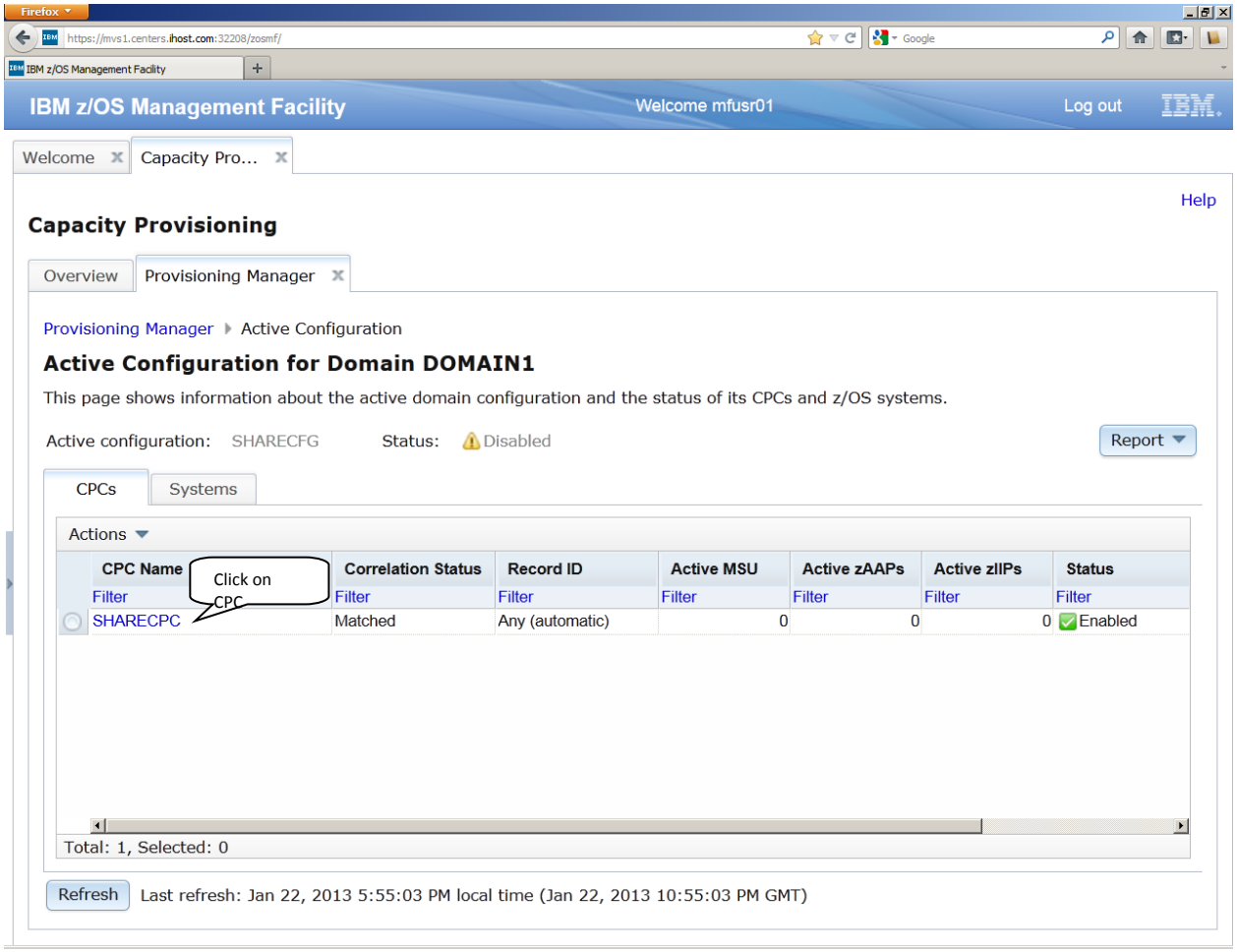
3. The *Domain Status* page opens and shows a quick overview of the configuration of your domain.



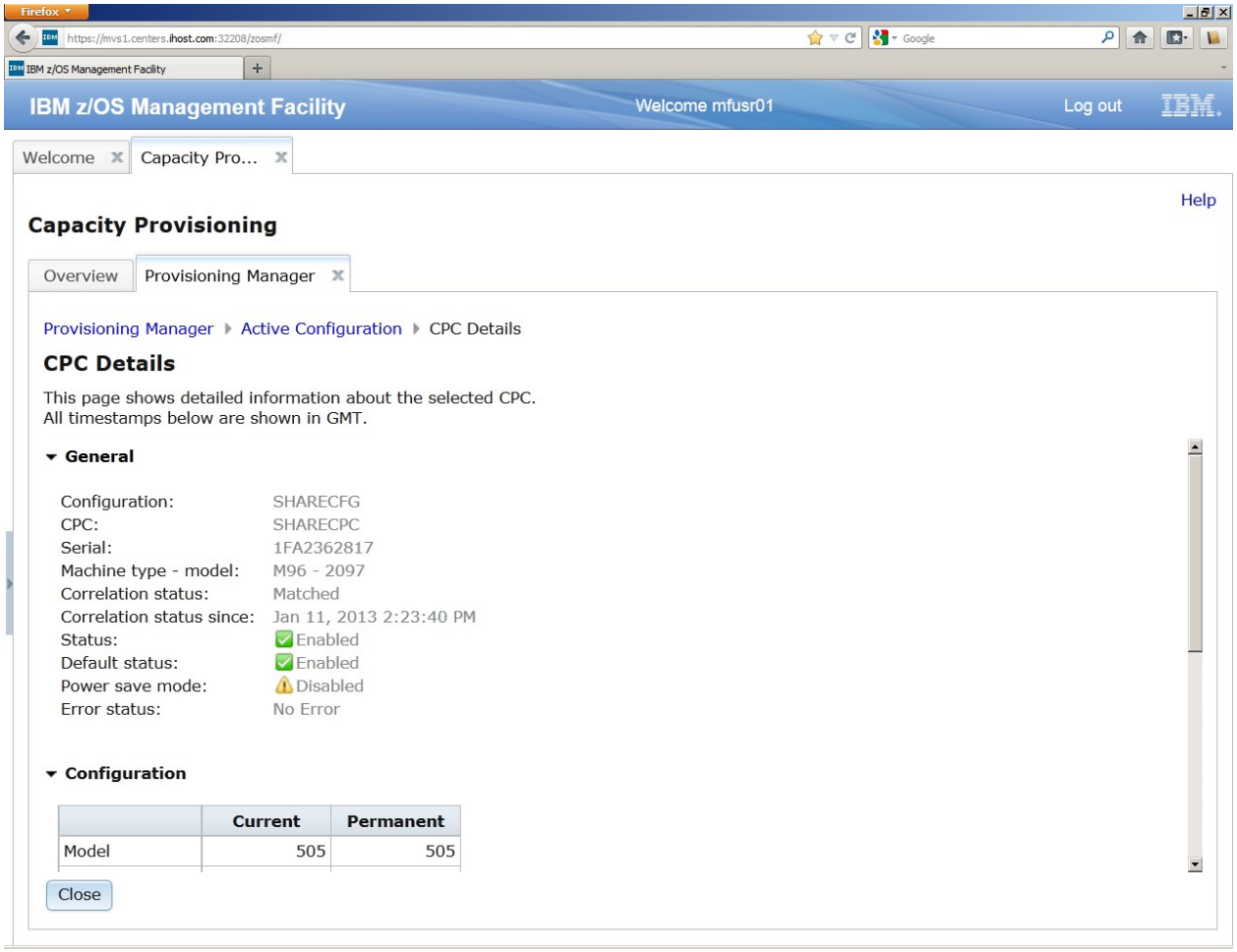
4. A click on the **Refresh** button lets you update the data.
5. On the top right corner, you can see the *Report* button. It allows you to change the report for the same domain. Click on it and select the **Active Configuration** menu item to switch to the active configuration report.



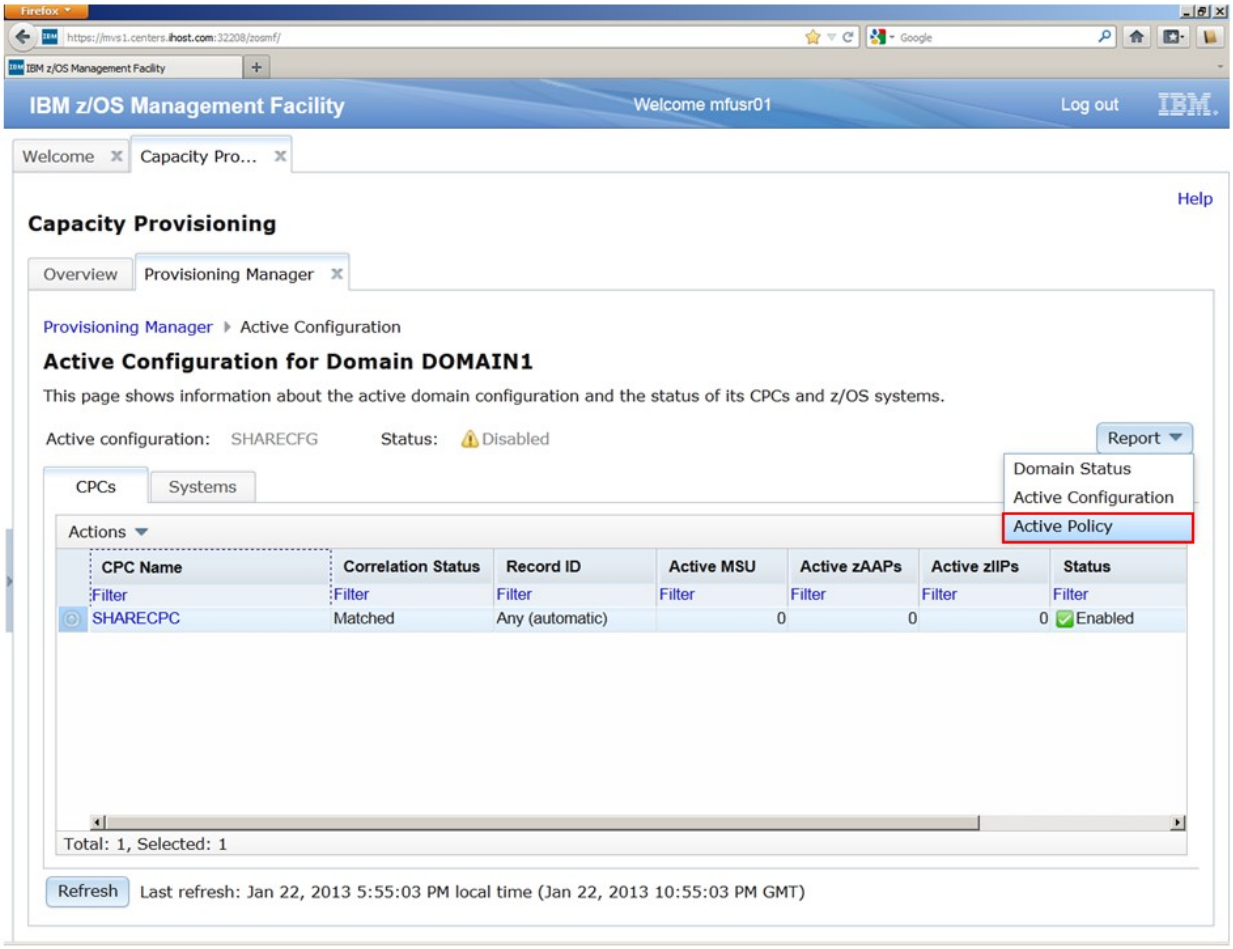
6. The *Active Configuration* page is shown and you can view details about the active configuration.



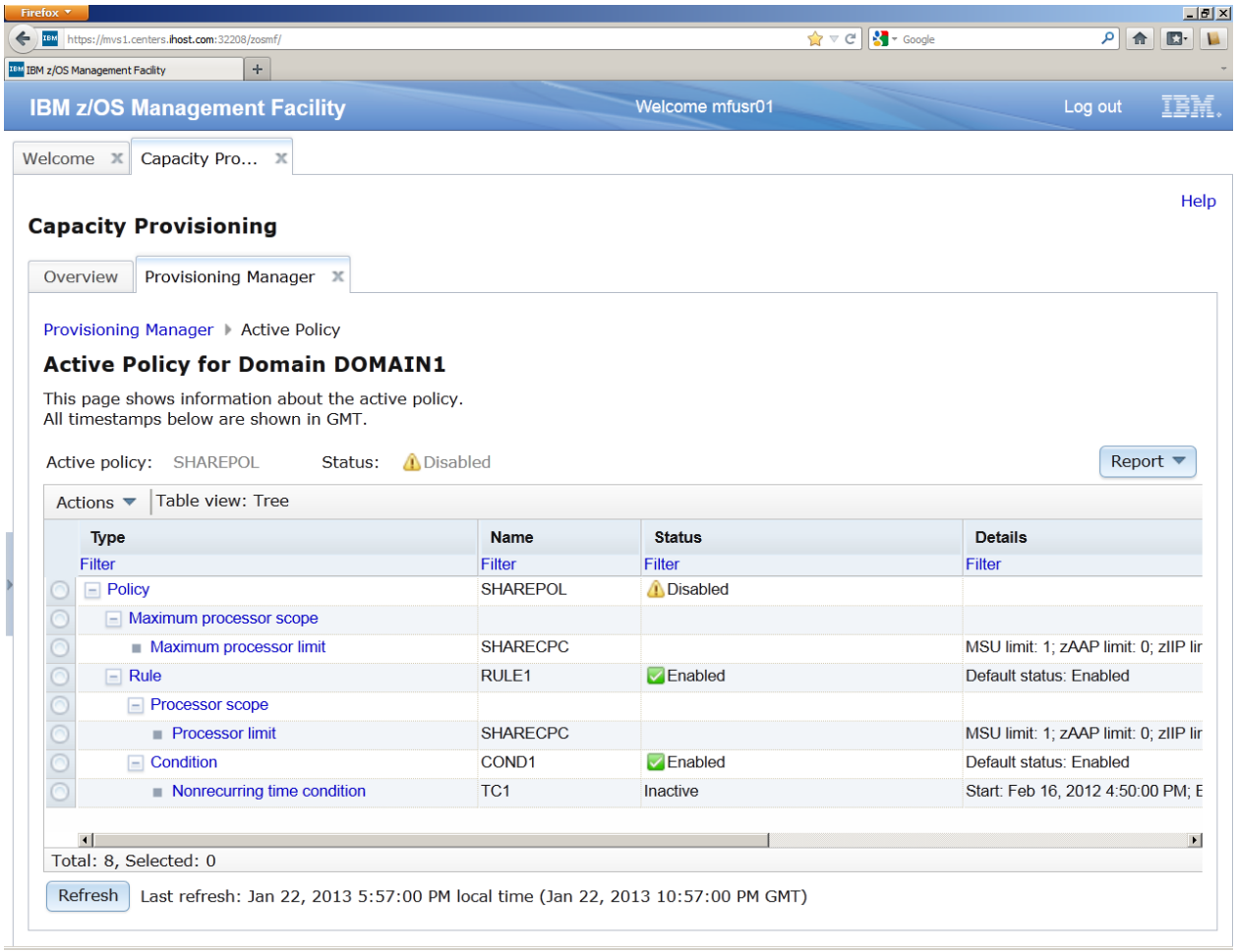
7. To show details about one of the CPCs or systems, use the name link of a CPC or system to open it. Click on the name of the first CPC to open the *CPC Details* page.



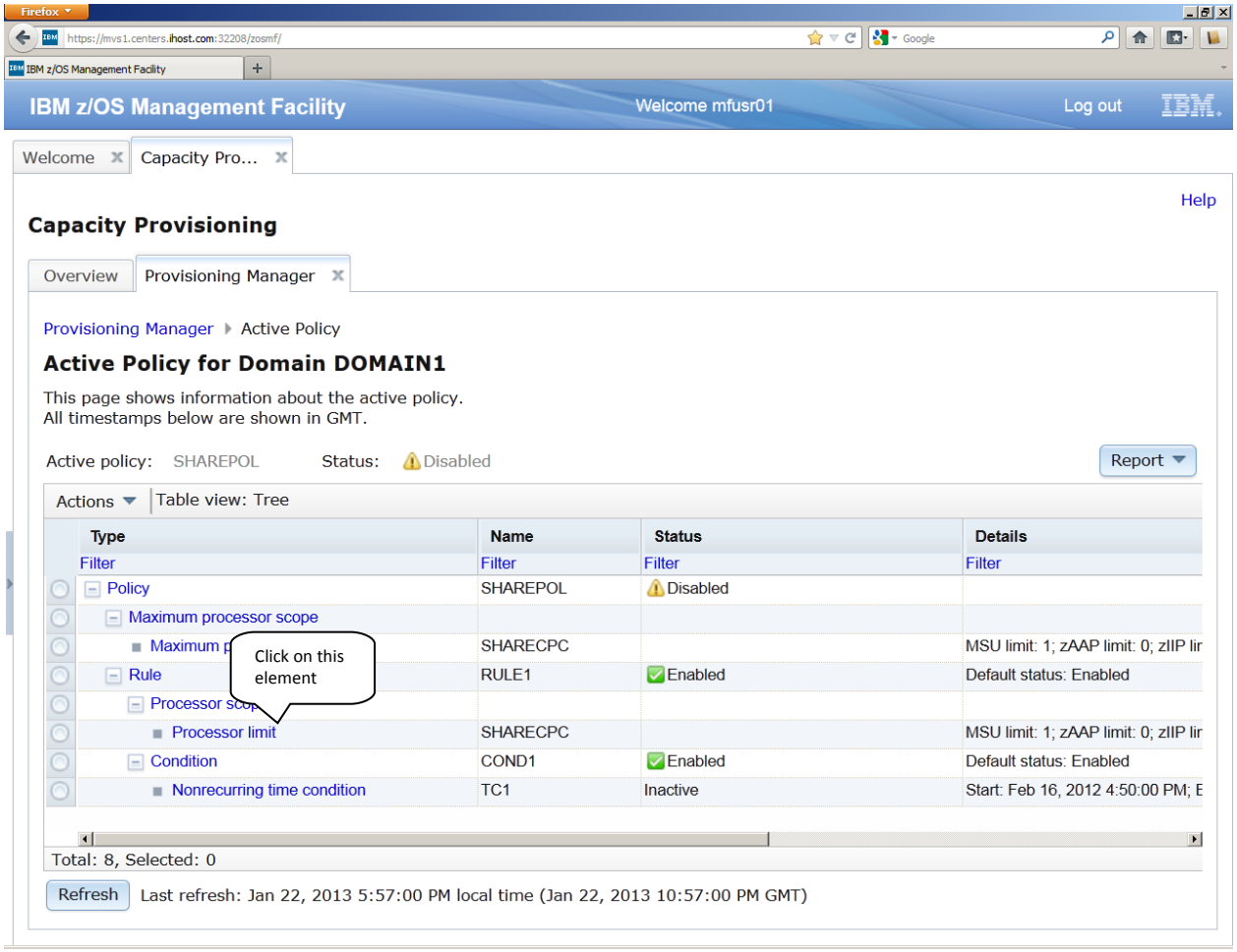
8. Click on the **Close** button to go back to the *Active Configuration* page.
9. Use again the *Report* button and click on the **Active Policy** menu item.

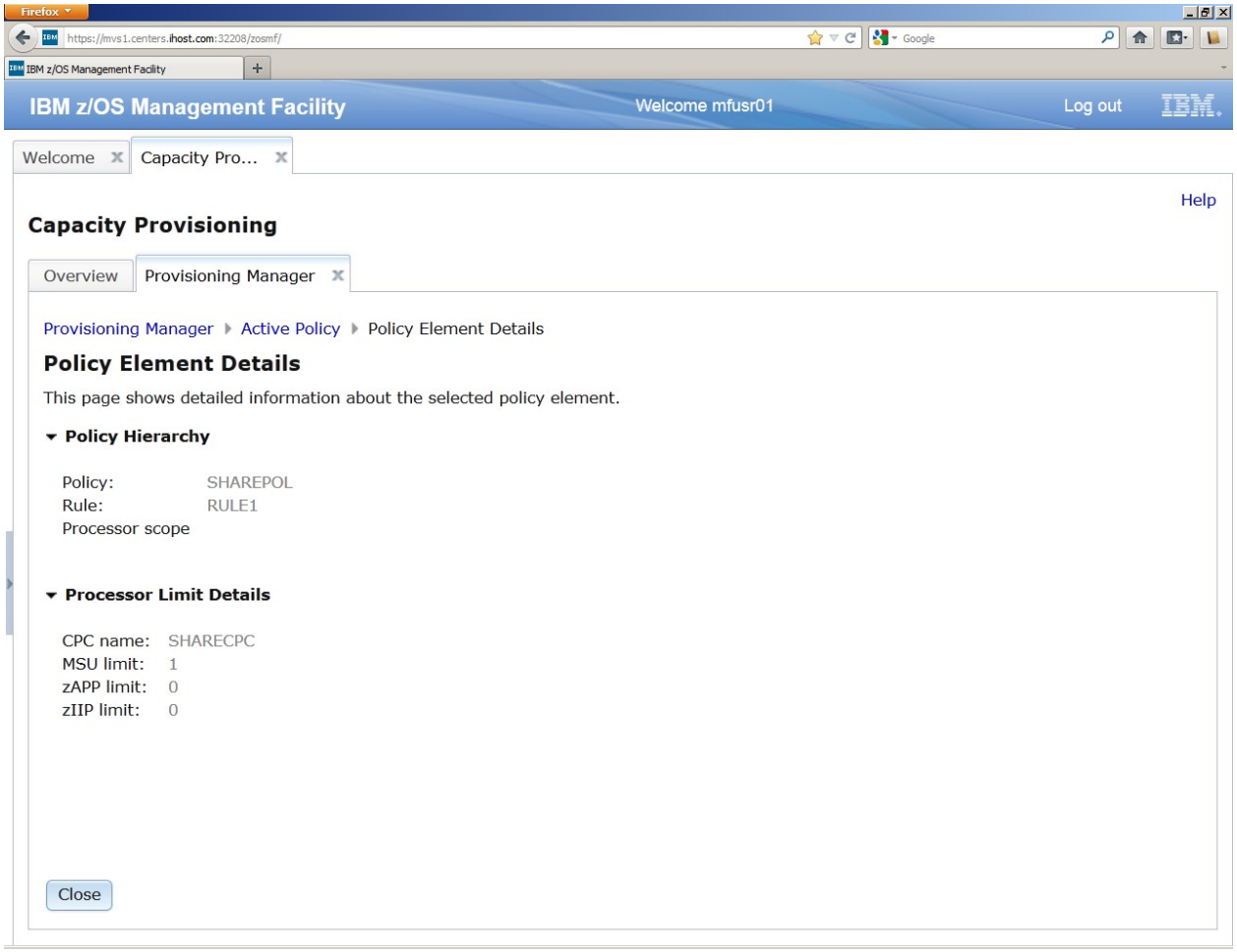

IBM z/OS Management Facility
Welcome mfusr01
Log out
Welcome
Capacity Pro...
Help
Capacity Provisioning
Overview
Provisioning Manager
Provisioning Manager ▸ Active Configuration
Active Configuration for Domain DOMAIN1
This page shows information about the active domain configuration and the status of its CPCs and z/OS systems.
Active configuration: SHARECFG
Status: Disabled
Report
Domain Status
Active Configuration
Active Policy
CPCs
Systems
Actions
CPC Name
Correlation Status
Record ID
Active MSU
Active zAAPs
Active zIIPs
Status
Filter
SHARECPC
Matched
Any (automatic)
0
0
0
Enabled
Total: 1, Selected: 1
Refresh
Last refresh: Jan 22, 2013 5:55:03 PM local time (Jan 22, 2013 10:55:03 PM GMT)

10. The Active Policy page is opened and shows the active policy in a tree representation.



11. To view more details for a policy element, click on its type link and the *Policy Element Details* page is opened. Click on the first **Processor Limit** in the maximum provisioning scope to open the details page for it.


Firefox
https://mvs1.centers.ihost.com:32208/zosmf/
IBM z/OS Management Facility
IBM z/OS Management Facility
Welcome mfusr01
Log out
Welcome
Capacity Pro...
Help
Capacity Provisioning
Overview
Provisioning Manager
Provisioning Manager
Active Policy
Active Policy for Domain DOMAIN1
This page shows information about the active policy.
All timestamps below are shown in GMT.
Active policy: SHAREPOL
Status: Disabled
Report
Actions
Table view: Tree
Type
Name
Status
Details
Filter
Policy
SHAREPOL
Disabled
Maximum processor scope
Maximum p
SHARECPC
MSU limit: 1; zAAP limit: 0; zIIP lir
Rule
RULE1
Enabled
Default status: Enabled
Processor scop
Processor limit
SHARECPC
MSU limit: 1; zAAP limit: 0; zIIP lir
Condition
COND1
Enabled
Default status: Enabled
Nonrecurring time condition
TC1
Inactive
Start: Feb 16, 2012 4:50:00 PM; E
Click on this element
Total: 8, Selected: 0
Refresh
Last refresh: Jan 22, 2013 5:57:00 PM local time (Jan 22, 2013 10:57:00 PM GMT)


Firefox
https://mvs1.centers.ihost.com:32208/zosmf/
IBM z/OS Management Facility
IBM z/OS Management Facility
Welcome mfusr01
Log out
Welcome
Capacity Pro...
Help
Capacity Provisioning
Overview
Provisioning Manager
Provisioning Manager
Active Policy
Policy Element Details
Policy Element Details
This page shows detailed information about the selected policy element.
Policy Hierarchy
Policy: SHAREPOL
Rule: RULE1
Processor scope
Processor Limit Details
CPC name: SHARECPC
MSU limit: 1
zAPP limit: 0
zIIP limit: 0
Close

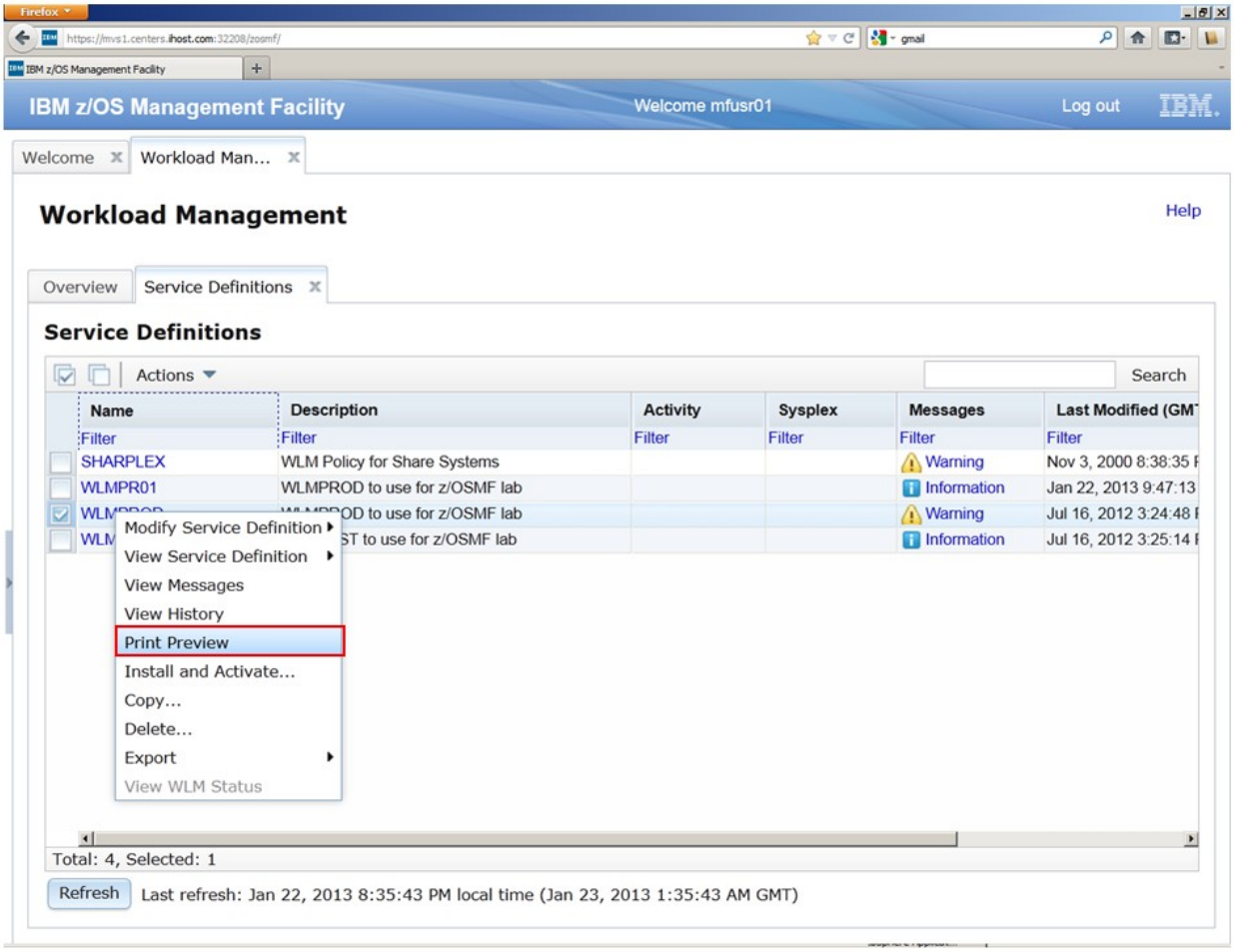
Workload manager: These are optional tasks that can be performed if there is time and interest.

1. Print Preview of Service Definition (optional)
2. View the History of a Service Definition (optional)
3. View the WLM Status in the Sysplex (optional)

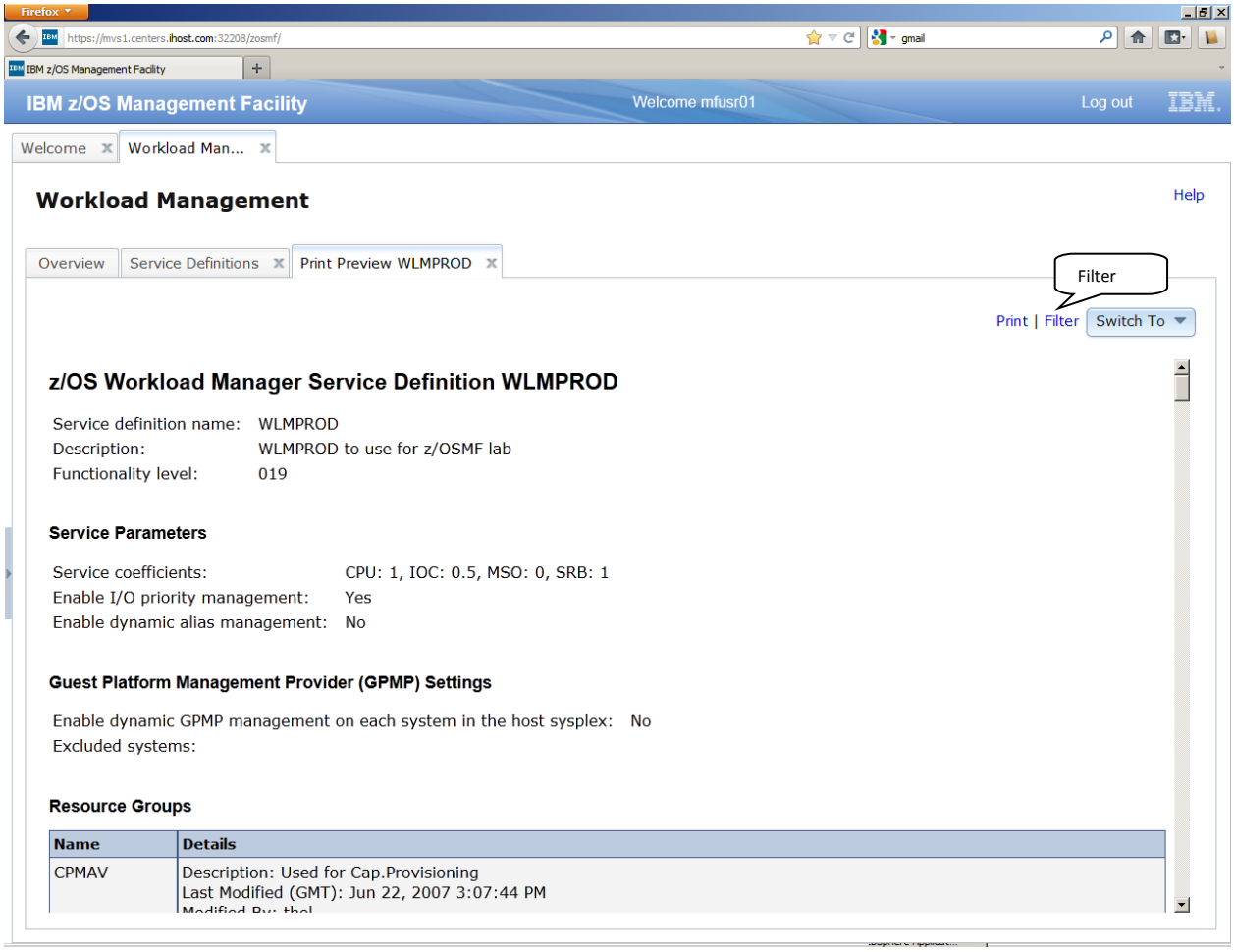
Lab 8: Print Preview of Service Definition

The Print Preview panel displays a service definition or service policy in one panel. The service definition / service policy can be printed.

In the Service Definitions tab select the row with service definition 'WLMPRxx'. Right click to open the context menu and select 'Print Preview'.

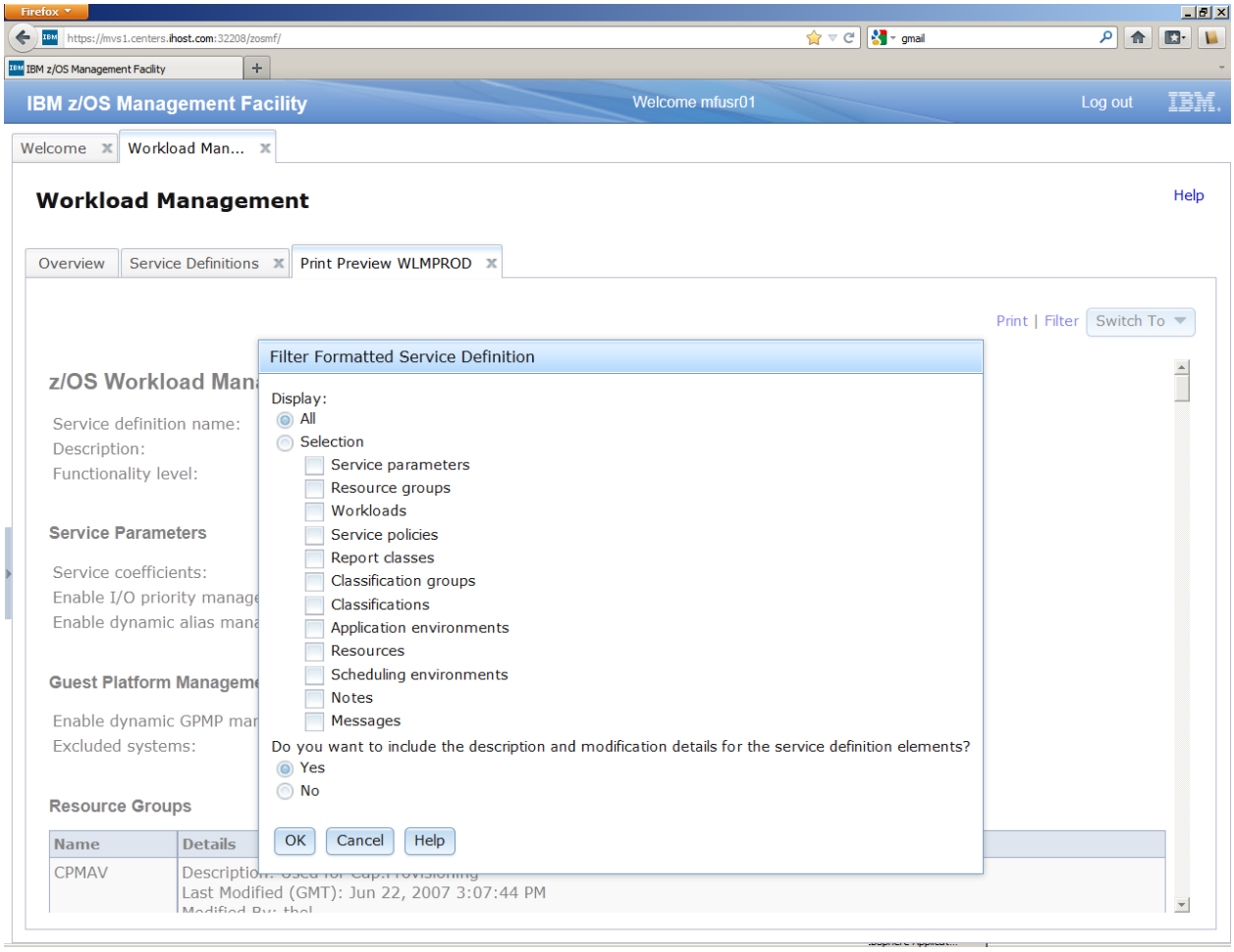


A tab opens with the 'Print Preview' panel for the service definition:



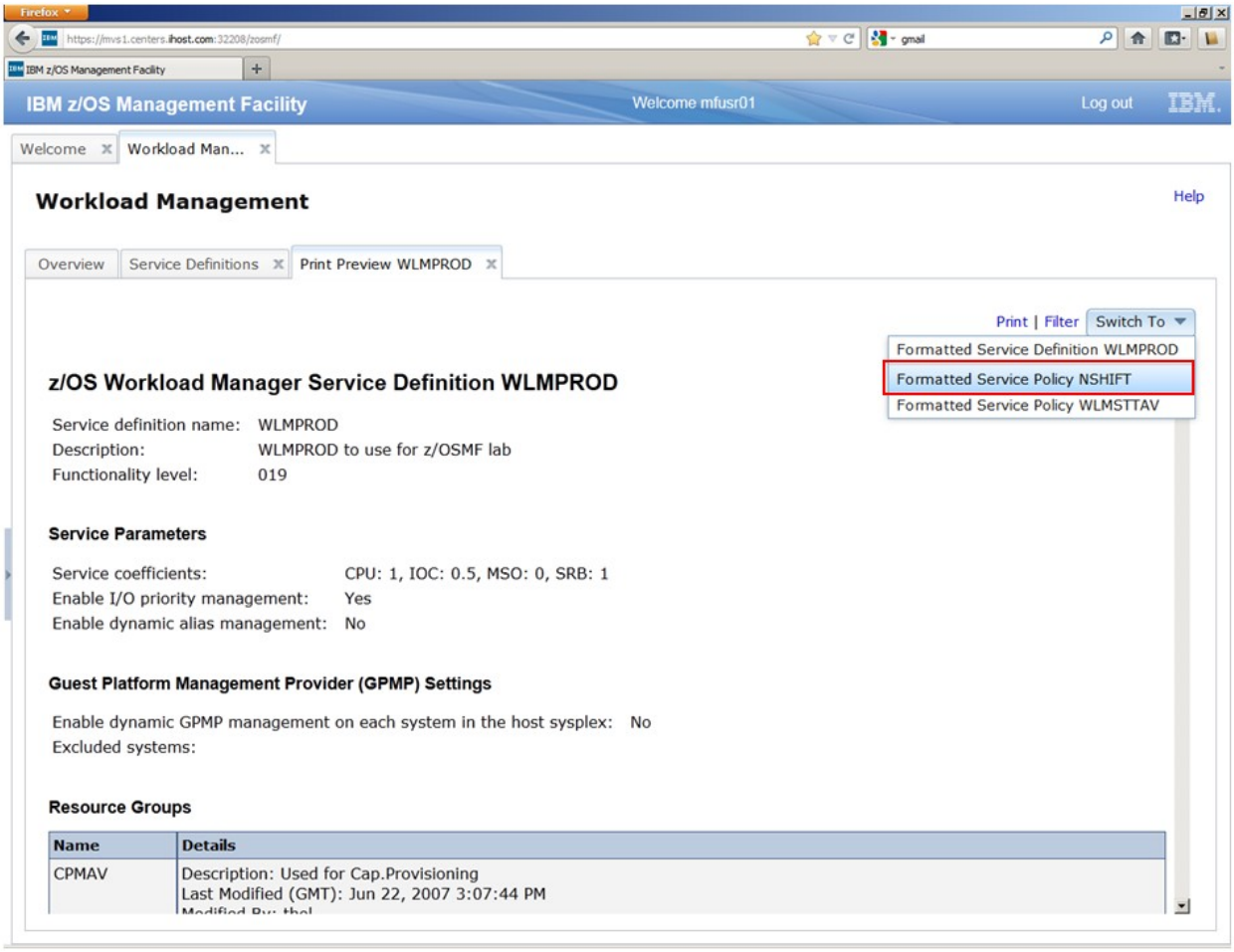
Use the scrollbar on the right side of the panel and check how the print preview is structured.

Press the ‘Filter’ link to open the ‘Filter Formatted Service Definition’ dialog:

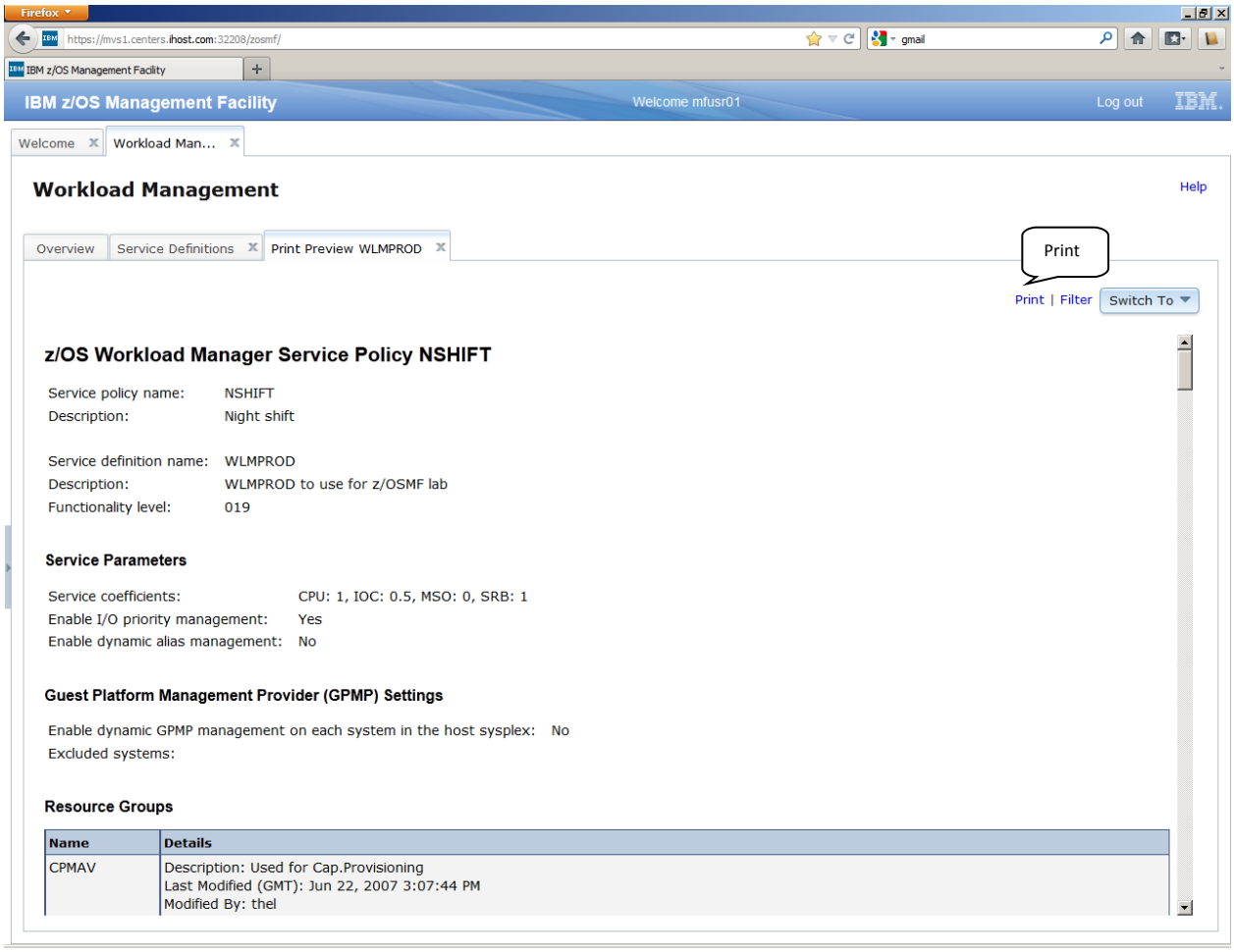

Firefox
https://mvs1.centers.ihost.com:32208/zosmf/
IBM z/OS Management Facility
IBM z/OS Management Facility
Welcome mfusr01
Log out
IBM.
Welcome
Workload Man...
Workload Management
Help
Overview
Service Definitions
Print Preview WLMPROD
Print | Filter
Switch To
z/OS Workload Man
Service definition name:
Description:
Functionality level:
Service Parameters
Service coefficients:
Enable I/O priority manage
Enable dynamic alias mana
Guest Platform Manageme
Enable dynamic GPMP mar
Excluded systems:
Resource Groups
Name
Details
CPMAV
Last Modified (GMT): Jun 22, 2007 3:07:44 PM
Filter Formatted Service Definition
Display:
All
Selection
Service parameters
Resource groups
Workloads
Service policies
Report classes
Classification groups
Classifications
Application environments
Resources
Scheduling environments
Notes
Messages
Do you want to include the description and modification details for the service definition elements?
Yes
No
OK
Cancel
Help

Check ‘Selection’, then check the checkboxes ‘Service parameter’, ‘Resource groups’, ‘Workloads’, ‘Service Policies’, ‘Report Classes’, ‘Classifications’. Press ‘OK’. Use the scrollbar to review the displayed elements. Notice that only the service definition items you selected in the filter dialog are displayed.

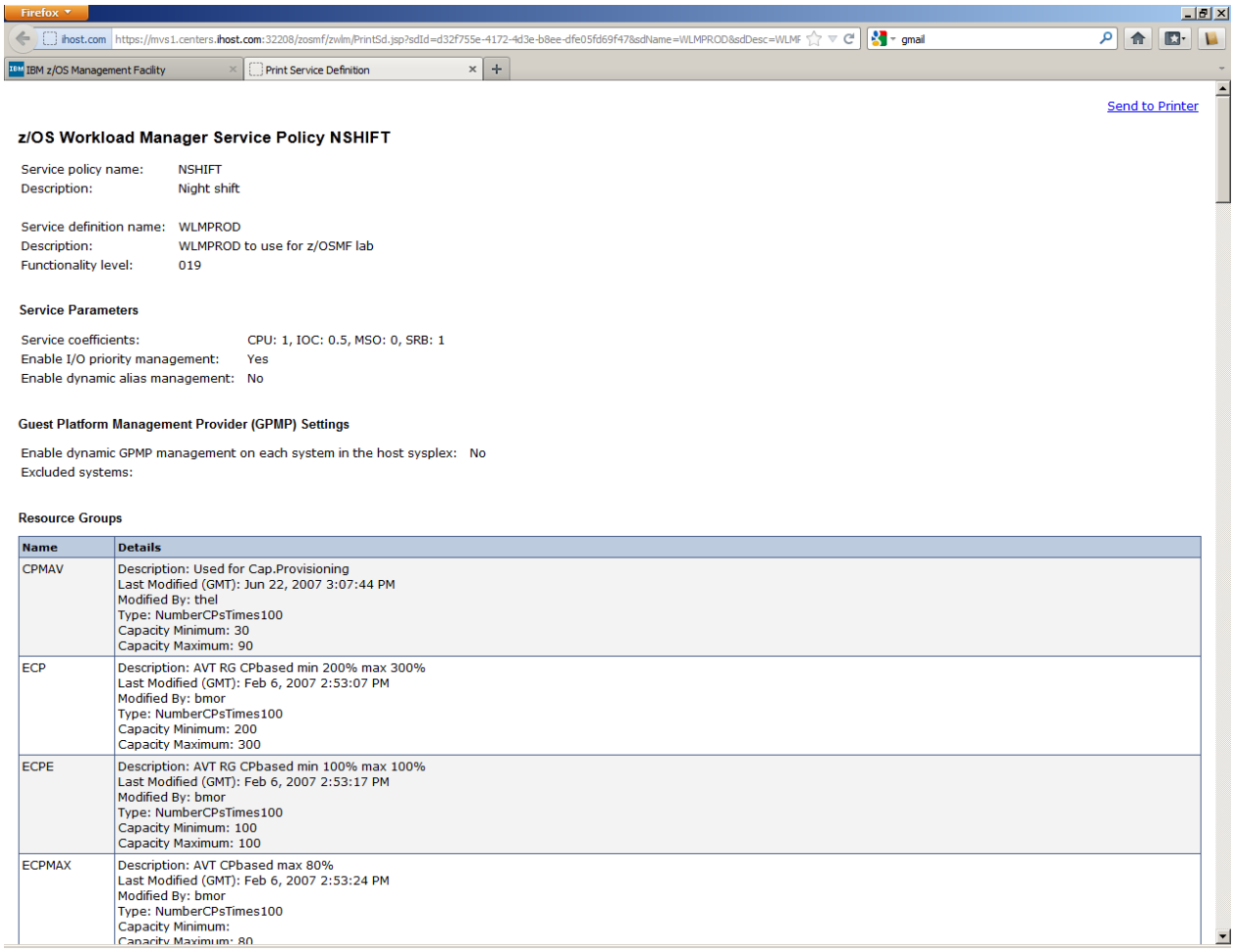
Open the ‘Switch To’ menu and select ‘NSHIFT’:



The panel shows now the service definition with the applied service class overrides and resource group overrides of service policy 'NSHIFT':



Press the ‘Print’ link in the upper right corner of the panel. A new web browser tab or window opens with the same content:



You may print the service definition / service policy by pressing the ‘Send to Printer’ link. (Note: will not work for this lab. FYI only)

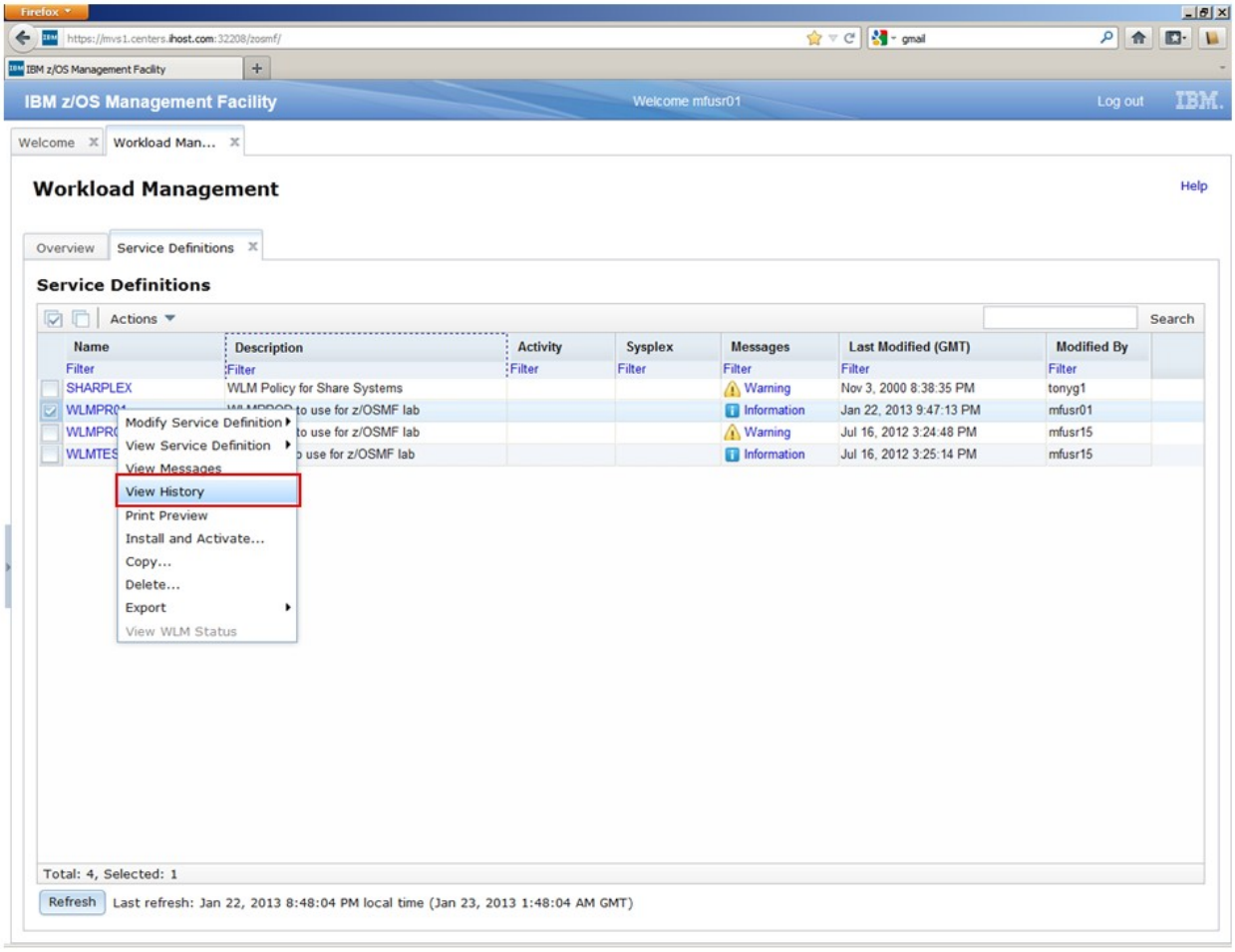
Close the ‘Print Service Definition’ web browser tab by clicking the X in the tab header.

Close the ‘Print Preview’ tab by clicking the X in the tab header.

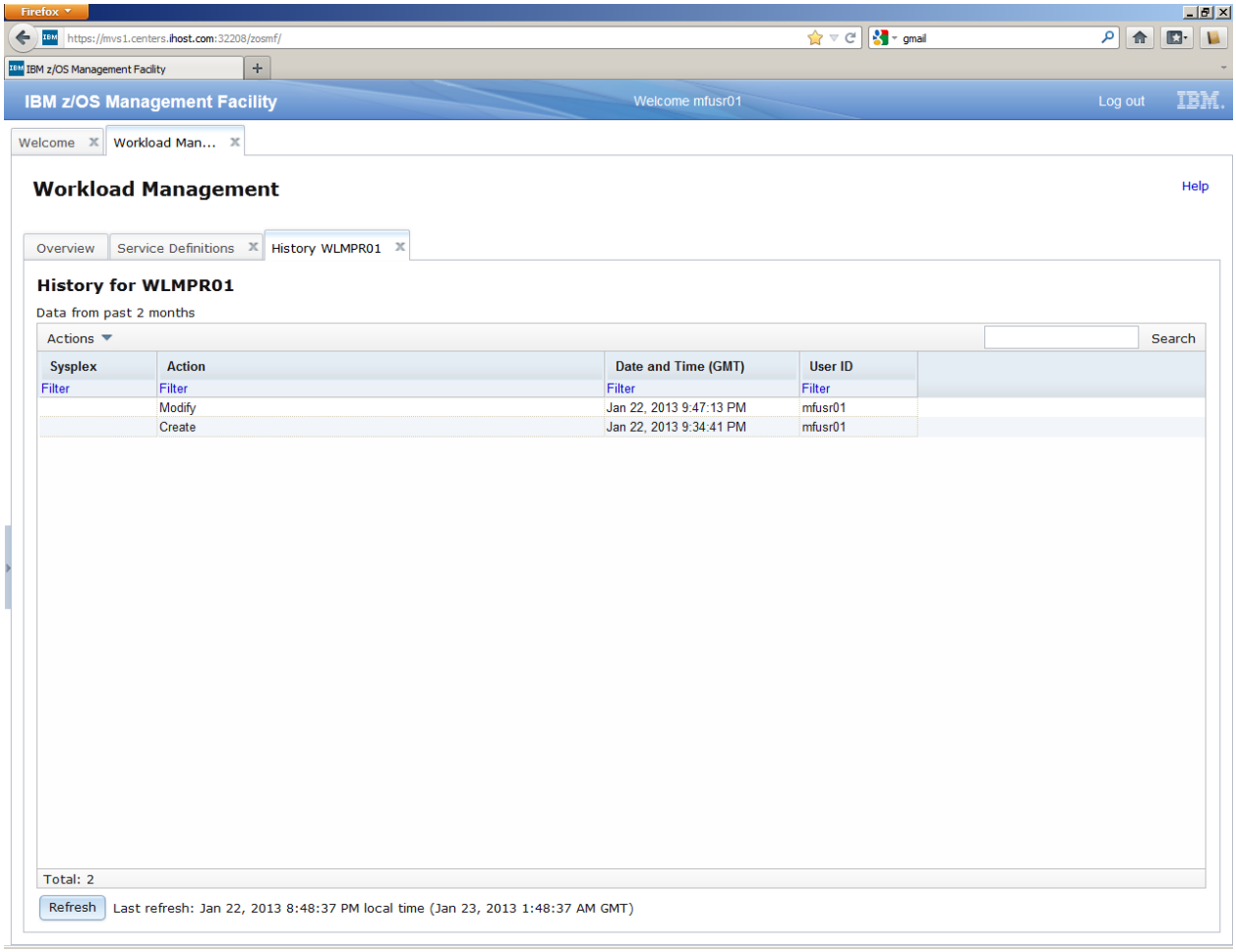
Lab 9: Workload management: View the History of a Service Definition

The History panel displays the operation history for a service definition.

In the ‘Service Definition’ tab select service definition ‘WLMPRxx’. Right click to open the context menu for ‘WLMPRxx’ and select ‘View History’:



The history panel displaying the operation history of the service definition is opened in a new tab:

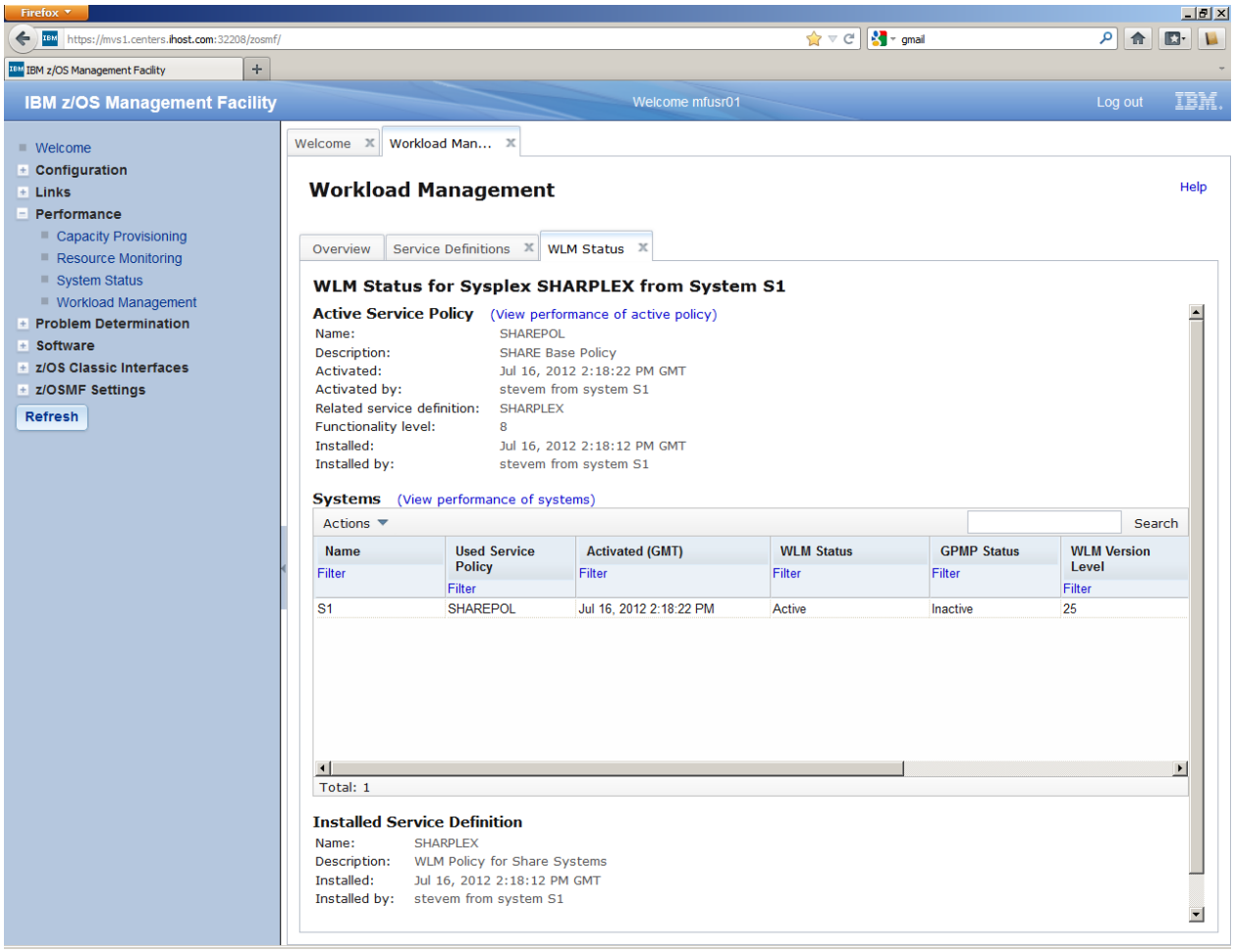


The service definition history shows the operations you have performed so far on the service definition ‘WLMPRxx’.

Lab 10: View the WLM Status of the Sysplex

The WLM status of the Sysplex can be viewed.

If not already displayed, switch to the ‘Overview’ tab by clicking on the tab header. Then, click the link ‘WLM Status’. The ‘Status for Sysplex’ tab opens:



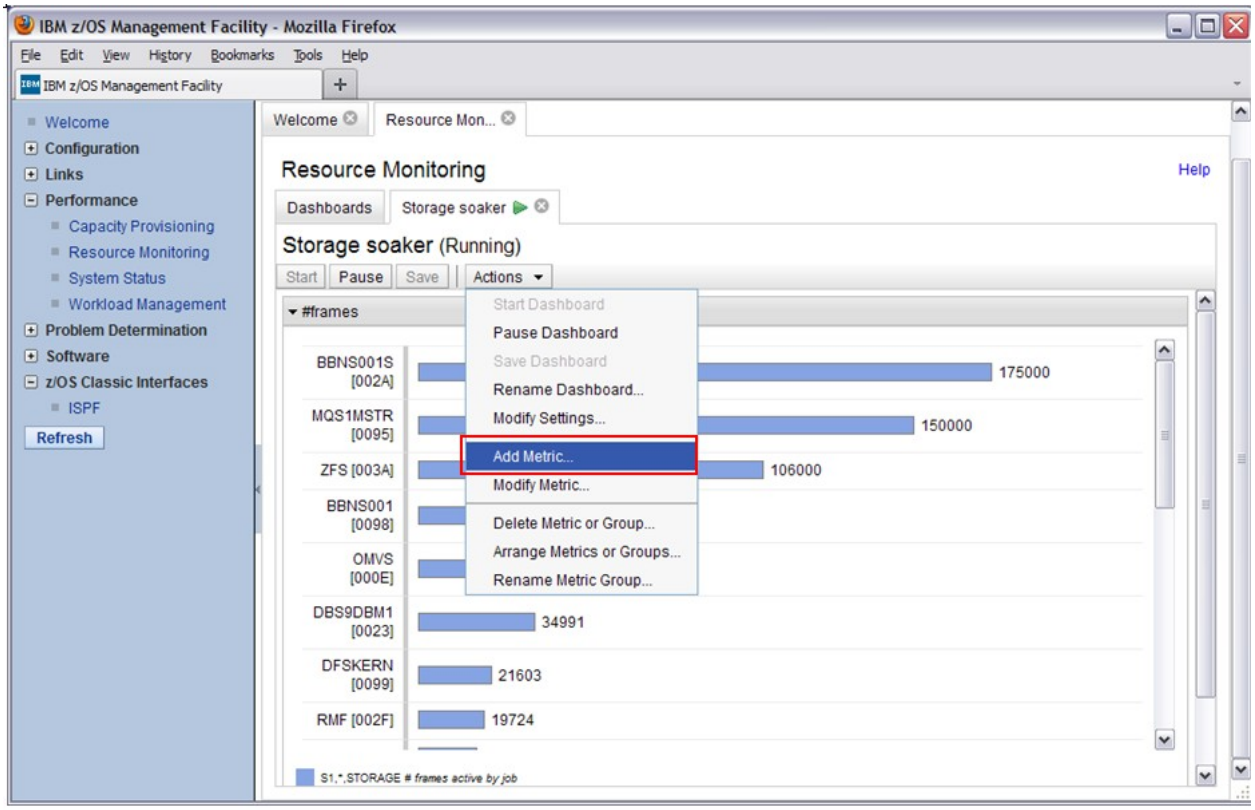
The ‘Status for Sysplex‘ panel shows the Active Service Policy in the Sysplex and on each system in the Sysplex as well as the service definition installed in the WLM couple data set.

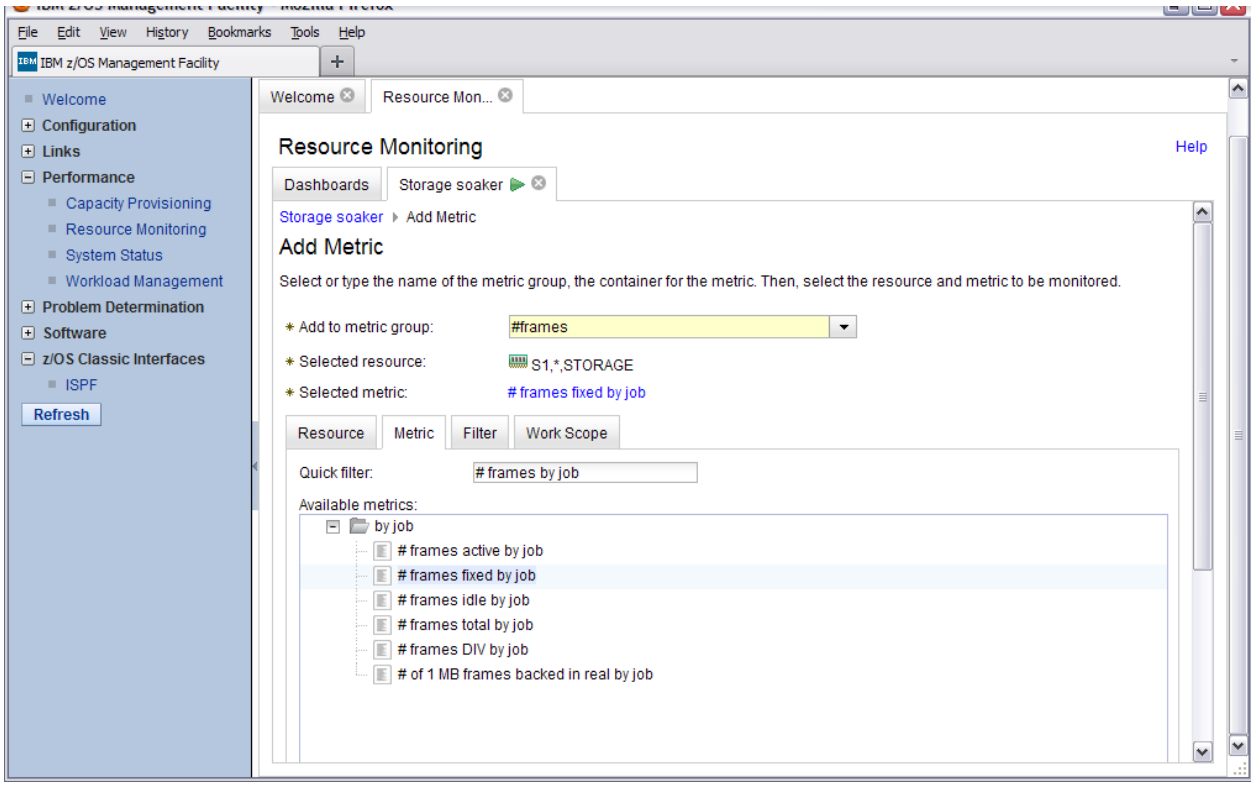
Press the X in the tab header to close the ‘Status for Sysplex’ panel.

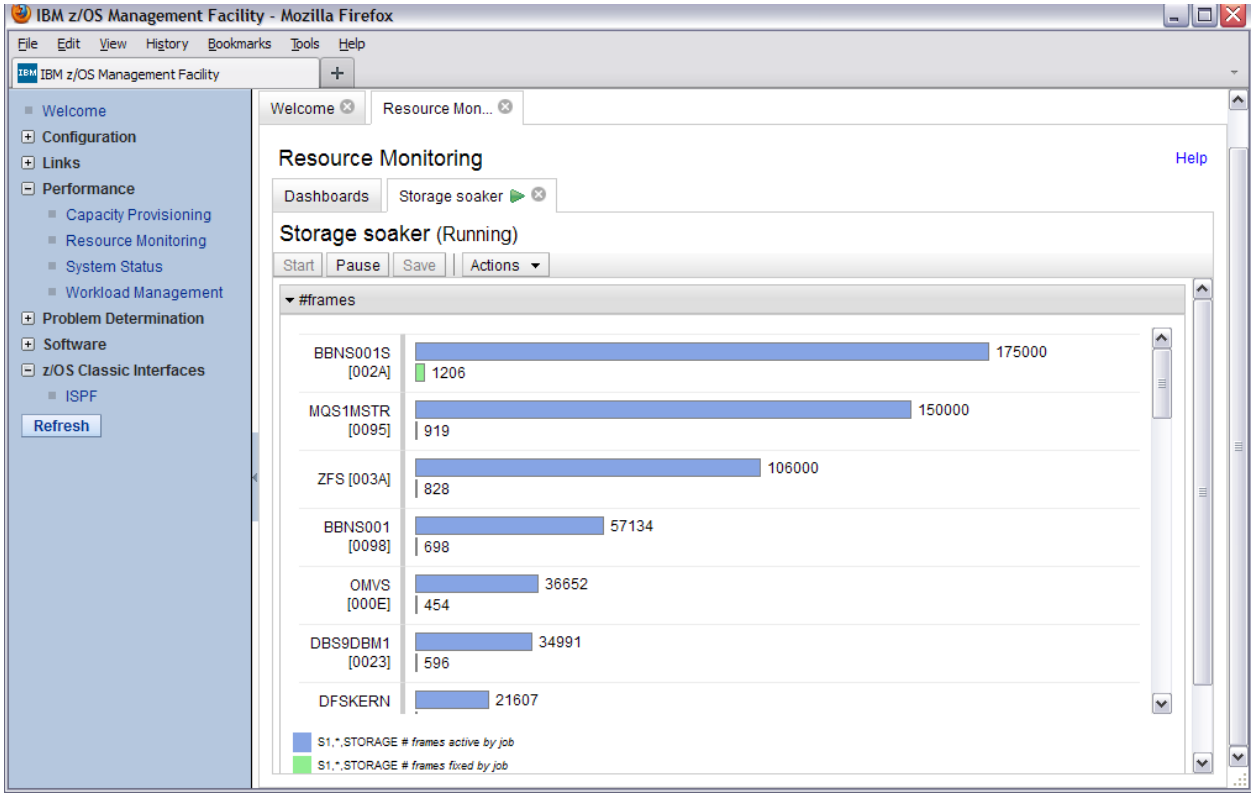
Lab 11 – Monitoring Desktops: Add additional metrics to dashboard

The scenario repeats steps b to e from the previous lab for adding a metric for the 2nd metric:

a. From the list of Dashboards in the Resource Monitoring home page, open the dashboard you had created in the previous Lab. (the 'Storage soaker').
b. From Actions pull down, select Add Metric
c. Set metric group **(as the metric group already exists, you can use the drop-down list)** - # frames
d. resource – in tab below – select/expand first image, select **storage**
e. go to Metric tab – use quick filter for '# frames by job' -> select - # frames **fixed** by job
f. see the desktop – Save/ or action drop down




File Edit View History Bookmarks Tools Help
IBM z/OS Management Facility
Welcome
Configuration
Links
Performance
Capacity Provisioning
Resource Monitoring
System Status
Workload Management
Problem Determination
Software
z/OS Classic Interfaces
ISPF
Refresh
Welcome
Resource Mon...
Resource Monitoring
Help
Dashboards
Storage soaker
Storage soaker ▸ Add Metric
Add Metric
Select or type the name of the metric group, the container for the metric. Then, select the resource and metric to be monitored.
* Add to metric group: #frames
* Selected resource: S1,*,STORAGE
* Selected metric: # frames fixed by job
Resource
Metric
Filter
Work Scope
Quick filter: # frames by job
Available metrics:
by job
frames active by job
frames fixed by job
frames idle by job
frames total by job
frames DIV by job
of 1 MB frames backed in real by job


IBM z/OS Management Facility - Mozilla Firefox
File Edit View History Bookmarks Tools Help
IBM z/OS Management Facility
Welcome
Configuration
Links
Performance
Capacity Provisioning
Resource Monitoring
System Status
Workload Management
Problem Determination
Software
z/OS Classic Interfaces
ISPF
Refresh
Welcome
Resource Mon...
Resource Monitoring
Help
Dashboards
Storage soaker
Storage soaker (Running)
Start
Pause
Save
Actions
#frames
BBNS001S [002A] 175000 1206
MQS1MSTR [0095] 150000 919
ZFS [003A] 106000 828
BBNS001 [0098] 57134 698
OMVS [000E] 36652 454
DBS9DBM1 [0023] 34991 596
DFSKERN 21607
S1,*,STORAGE # frames active by job
S1,*,STORAGE # frames fixed by job