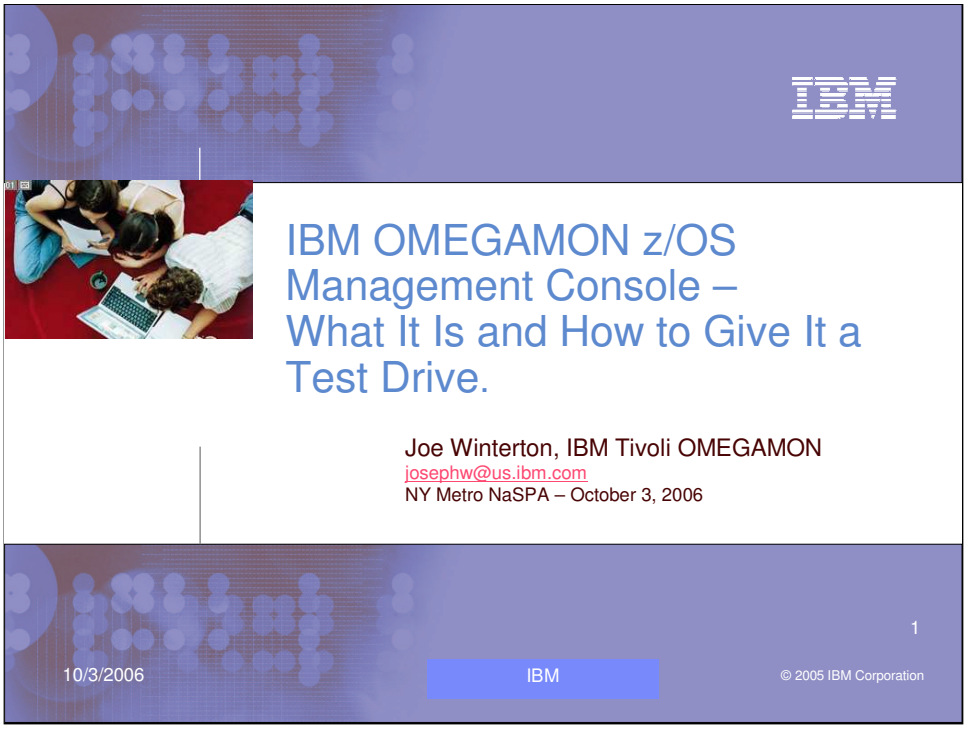
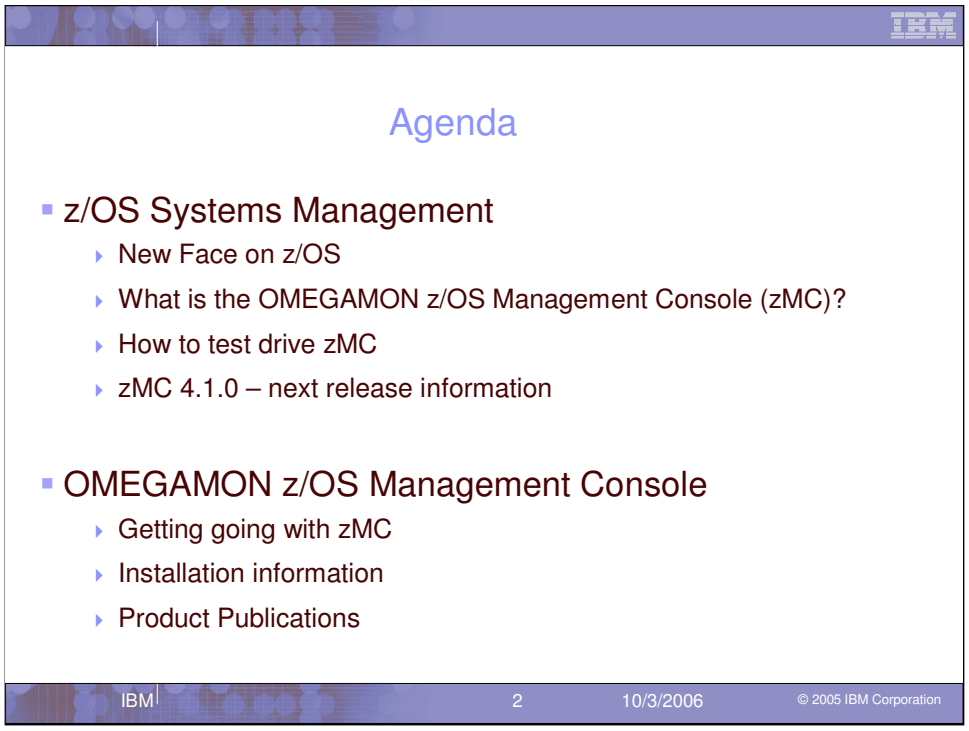
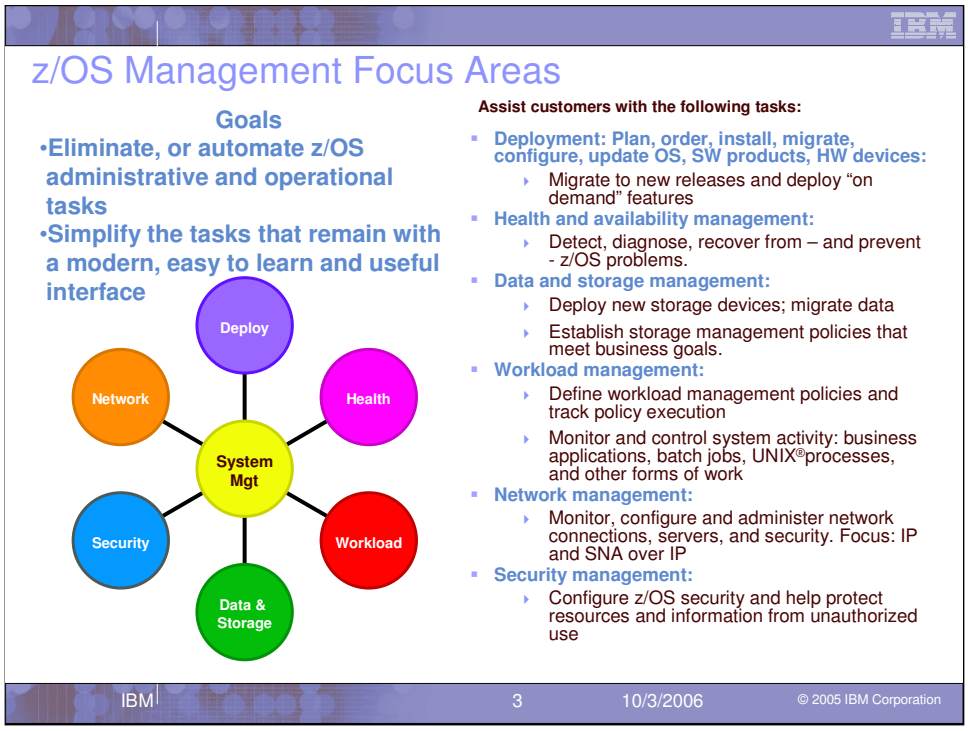


Today we have a nice interesting topic to cover in this session. First we will cover the IBM OMEGAMON z/OS Management Console product which is an introduction to the “new face on z/OS”. Then we will also discuss why you may want to give it a test drive. Then we will discuss the download and install if the IBM OMEGAMON z/OS Management Console 1.1.1 product.



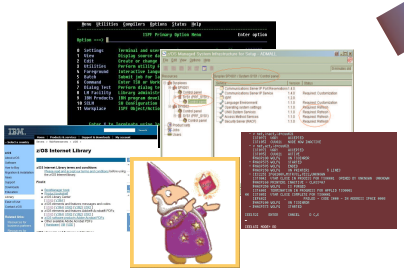
Here is the agenda for this session.



Our goals are to eliminate or automate z/OS administrative and operational tasks for our users. Then if we simplify the tasks that remain with a modern, easy to learn and useful interface, z/OS management will be improved. We are looking to assist customers with tasks in each of these areas.

Modernizing the "Face" of z/OS

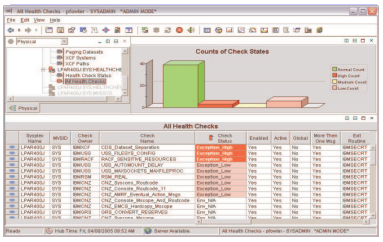
Today



Expert-friendly, long learning curve for people new to platform

- Multiple, inconsistent UIs – no central system management portal
- Many interfaces foreign to those new to platform
- Manual tasks requiring extensive documentation

Tomorrow

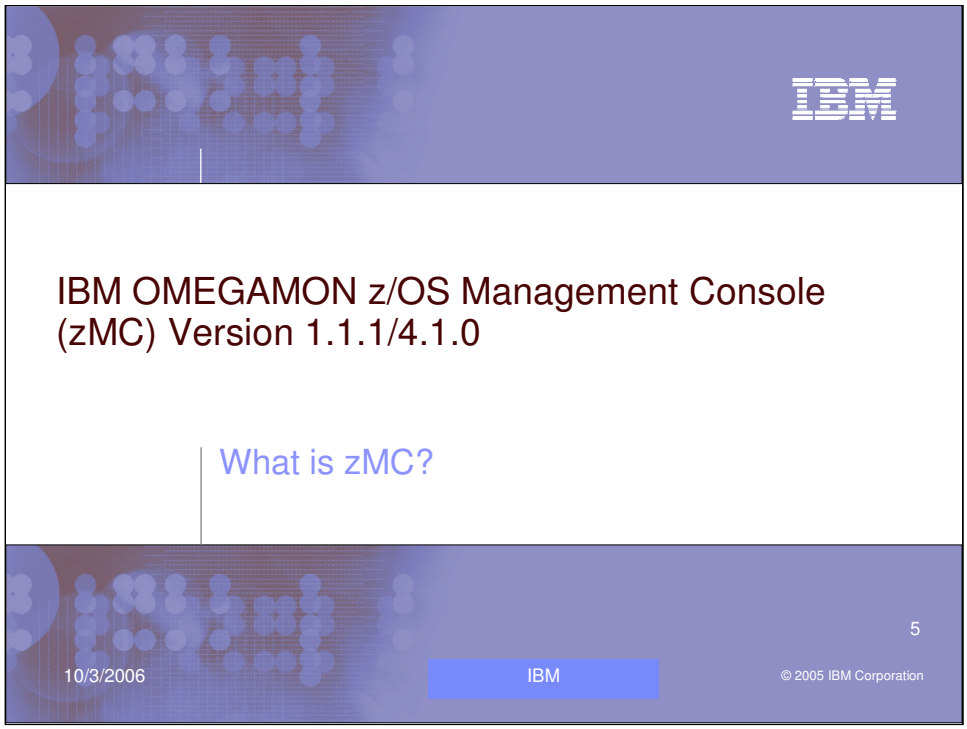


- ✓***Central*** z/OS management portal
- ✓***Simplified***, ***automated*** task-oriented mgmt interface, with integrated user assistance
- ✓***Modern*** look & feel; more familiar to those new to platform
- ✓Focus on ***customer goals***
- ✓***Optional*** for those who prefer traditional interfaces

IBM 4 10/3/2006

There are many interfaces today for z/OS Management. While many are expert friendly they also have a long learning curve for people new to the z/OS platform. The many user interfaces are also inconsistent with no central kick off point of system management portal provided. To those new to the platform these interfaces may seem a little foreign. For any manual tasks we need to provide extensive documentation to help the users get the job done. This is not an ideal environment for bringing new users on to the platform.

We have moved to modernize the face of z/OS. We are moving to provide a central z/OS management portal that is a simplified interface. This interface is task oriented with user assistance. The new GUI has a modern look and fell and will be more familiar to new users on the platform. And OK for you power users who know today's interfaces, we will keep this as an optional interface. The IBM OMEGAMON z/OS Management Console product is the beginning of modernizing the face of z/OS.



Today, let me introduce you to IBM OMEGAMON z/OS Management Console (zMC) Version 1.1.1.

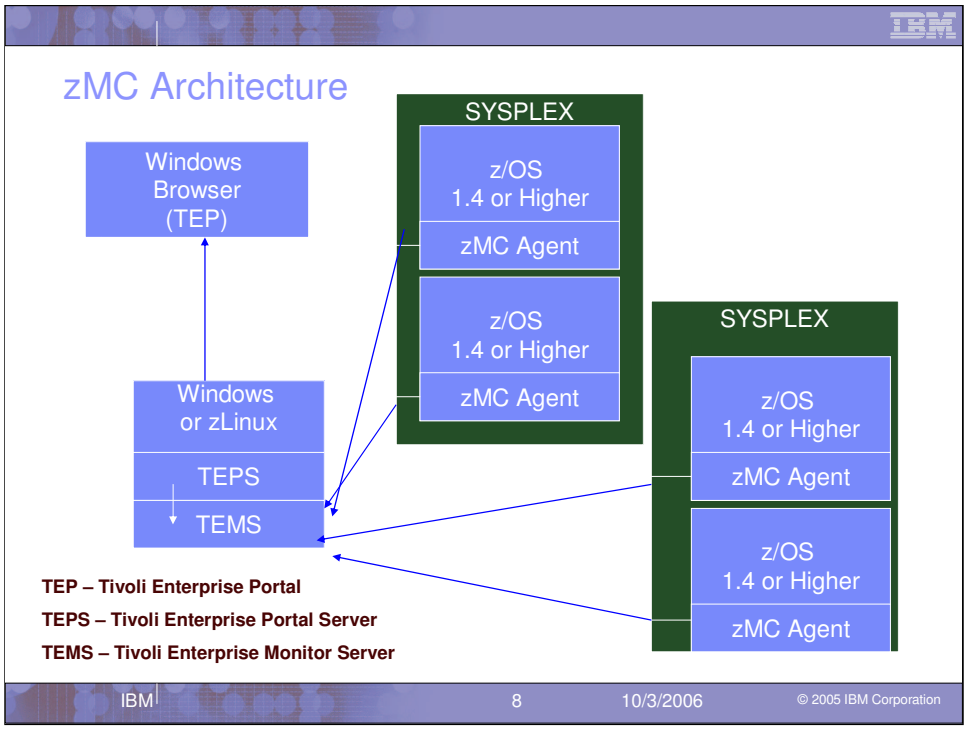
IBM OMEGAMON® z/OS Management Console

- Available at no charge for z/OS 1.4 and above
- Status of z/OS sysplexes and systems displayed using Tivoli® Enterprise Portal
- Integrated Health Checker reports
- Powerful features:
  - Event notification
  - Drill-down to problem details and expert advice
- Easy upgrade to comprehensive Tivoli Enterprise Portal products
- Foundation for the future

Learn more at: http://www.ibm.com/servers/eserver/zseries/zos/zmc/

Version 1.1.1 – Available as of March 2006

- Provides functional data equivalency as current release of z/OS Health Checker
- Collects basic Sysplex and z/OS availability information
- Exploits Tivoli Enterprise Portal (TEP) capabilities
  - Enterprise Portal user interface
  - Situations and Events
  - Expert Advice
  - Built on TEP Intelligent Remote Agent (IRA) for z/OS LPAR data collection
  - Built on TEP "Probe" for Sysplex data collection
- Obtained via Download from Web @ no additional software cost to z/OS users
  - Installed and configured using standard ITM z/OS and Windows tools
  - Base configuration for OMEGAMON XE on z/OS or XE for z/OS Subsystem upgrade



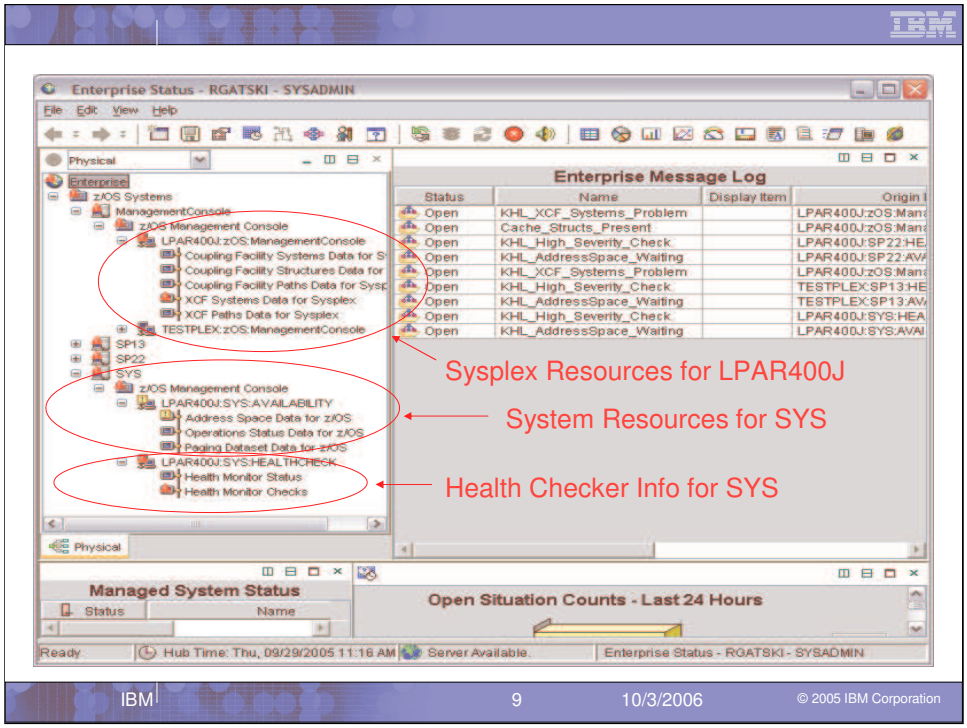
This slide shows an example of the overall architecture of the zMC product. Note that the TEMS can be configured to run in many different locations. This diagram just shows the potential for TEMS to be on Windows or Linux on System z. In fact, it can also run in z/OS as well as several other unix based platforms including Linux, SUN, HP, and AIX.

Also not shown is the potential for having remote TEMS which can be configured to run on one or more supported platforms. The use of remote TAMS is not needed for this particular application, however they can be used if installing into an environment that already has them defined.

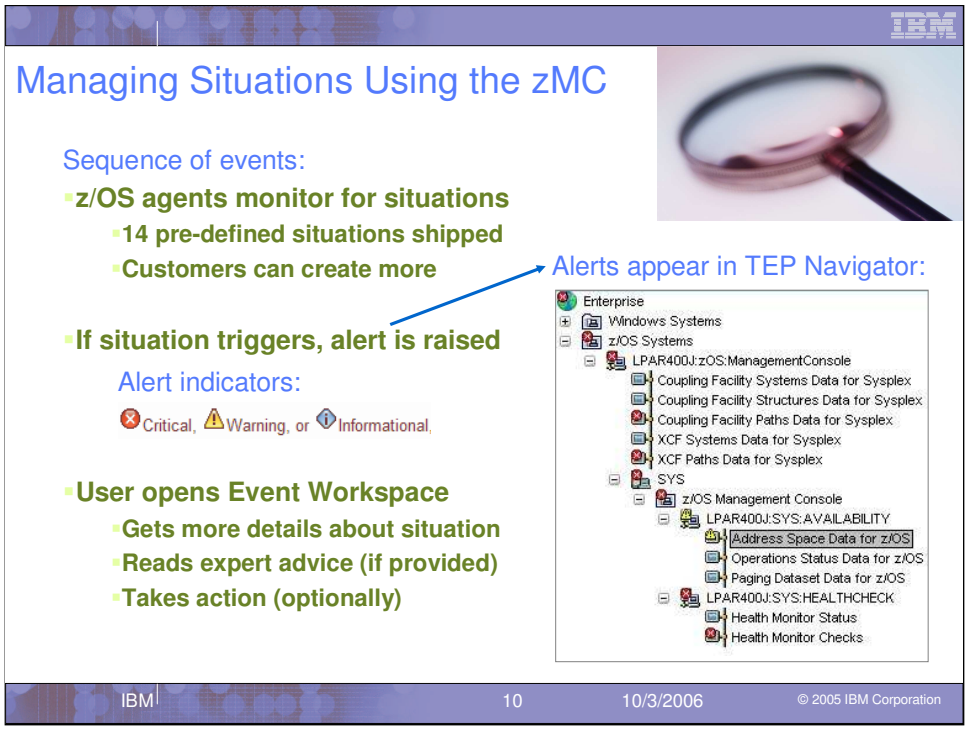
TEPS currently runs on Windows or Linux on System z. This will be a user choice when installing the system.

As shown, multiple SYSPLEX environments can be monitored concurrently. Support will not be available for systems prior to z/OS 1.4.

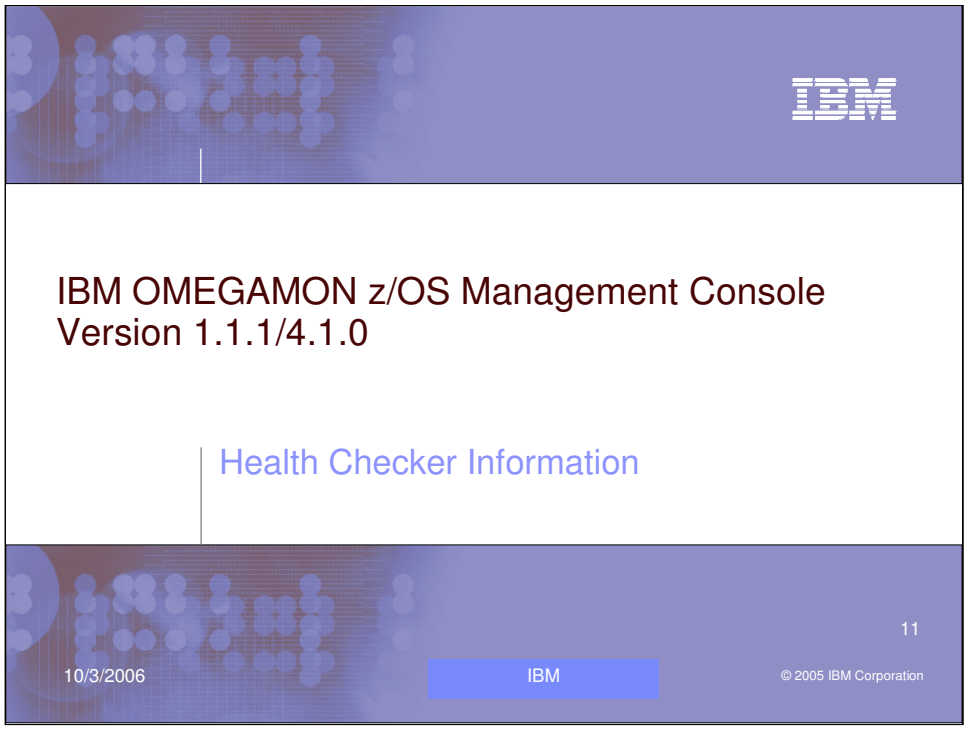
The TEP can be run through a browser interface of by using the desktop client interface. Multiple TEP connections can be running concurrently with all of them connected to a single TEPS.



There are three major areas of information collected by the OMEGAMON z/OS Management Console product. The Sysplex Resource level which provides availability information at the Sysplex level. Then at the LPAR level we have availability information and the Health Checker collected information too. Now here you can see the power of the interface that allows red lights and yellow lights to be set when situations run against the tables collected by the zMC agent.



The goal here is to **show the integration of the Tivoli portal technology that sits on top of zMC**. This will bring a number of features **tuned towards the Subject Matter Expert**, including **situations that raise alerts (Critical, Warning or Informational) based on issues** that the user can then bring up the typical info they use to troubleshoot, a simple and flexible **graphing system** to make the metrics more digestible, and the ability to **link between views** to follow diagnostic techniques between subsystems. This base set of easy to use functions comes with both products I am going to discuss. It is a powerful easy to use interface now being used in many IBM offerings.

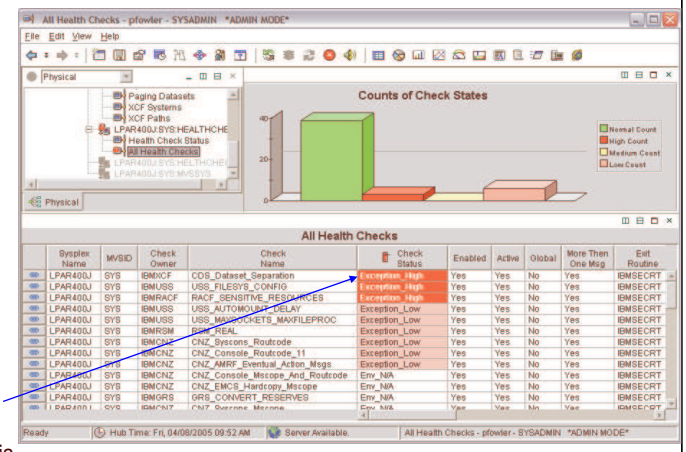


Lets look in more detail at the Health Checker information provided.

z/OS Health Checks in TEP with zMC 1.1.1/4.1.0

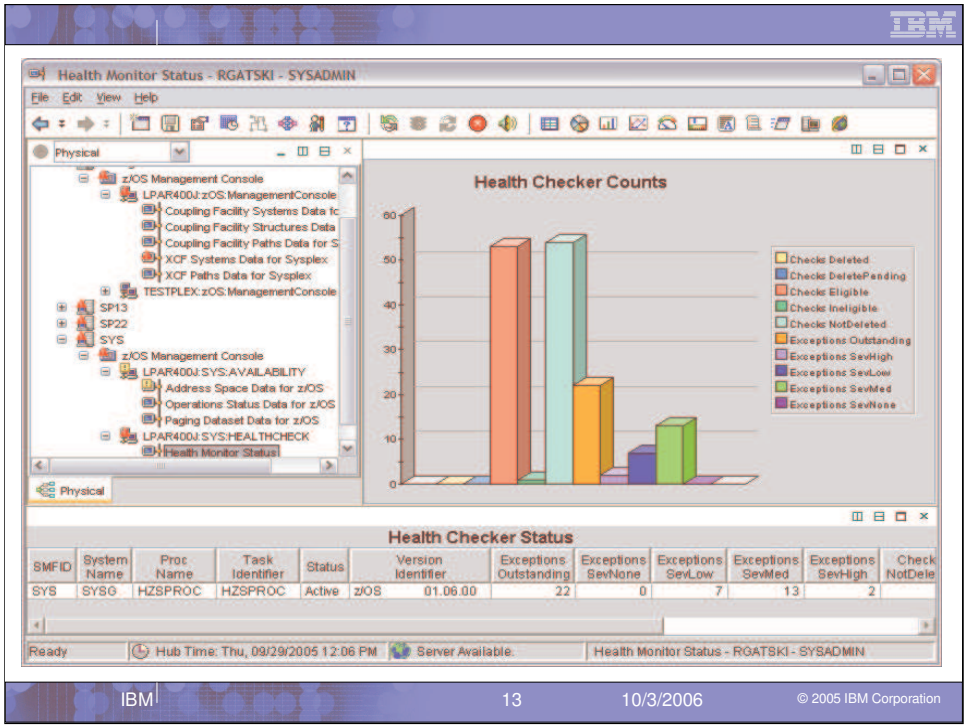
zMC provides TEP based Health Checker

- Health Checker provides z/OS elements and products to check on configuration values and report what may be a deviation from best practices
- Displays health check statistics on the TEP
- Highlights check status
- Health Checker in SDSF is more text based (web download before z/OS 1.7)

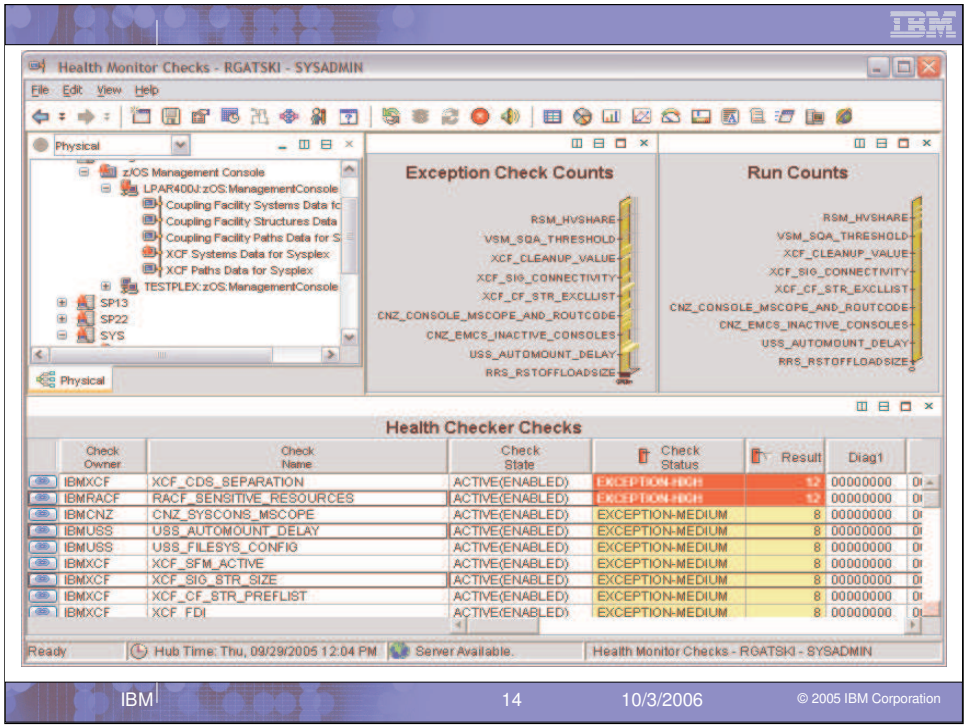


This feature is unique to the IBM OMEGAMON z/OS Management Console (zMC)

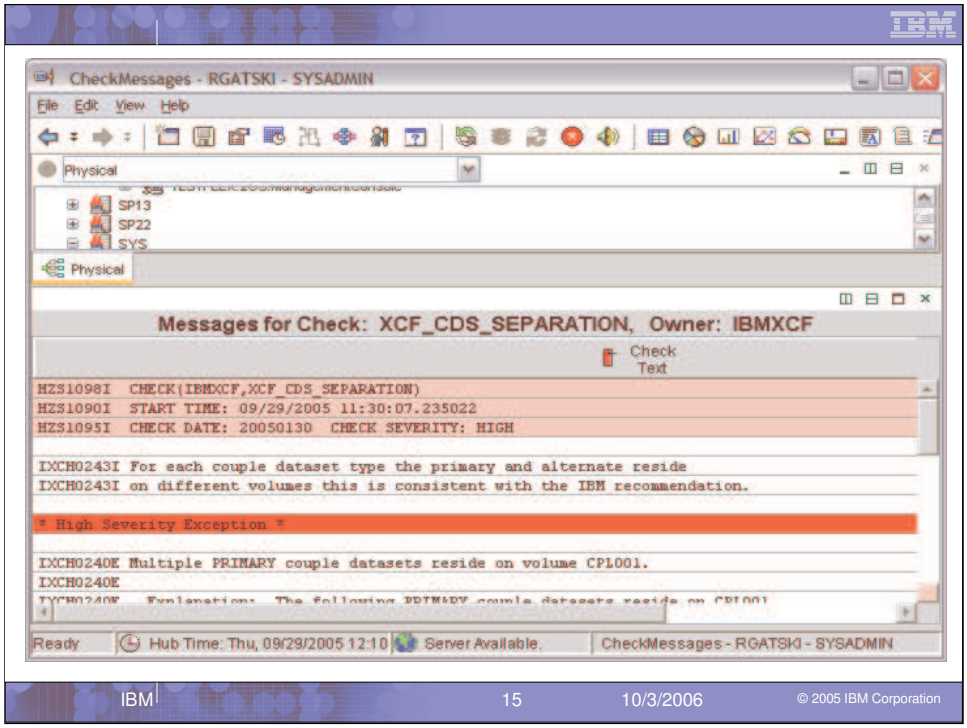
The IBM OMEGAMON z/OS Management Console (zMC) offering provides the Health Checker information provided by in z/OS SDSF in the GUI interface of TEP. With z/OS 1.7 Health Checker is shipped with z/OS and when you use zMC you can see the check run status and also get the check details too. The Health Checker provides checking of z/OS best practices to your z/OS configuration values and reports on deviations.



The zMC Health Monitor Status view gives an overview of the number of checks run and exceptions by severity code. Also it provides LPAR system information like SMFID, System name and z/OS version. If you want to take a more detailed look at the checks you would look at the next view.

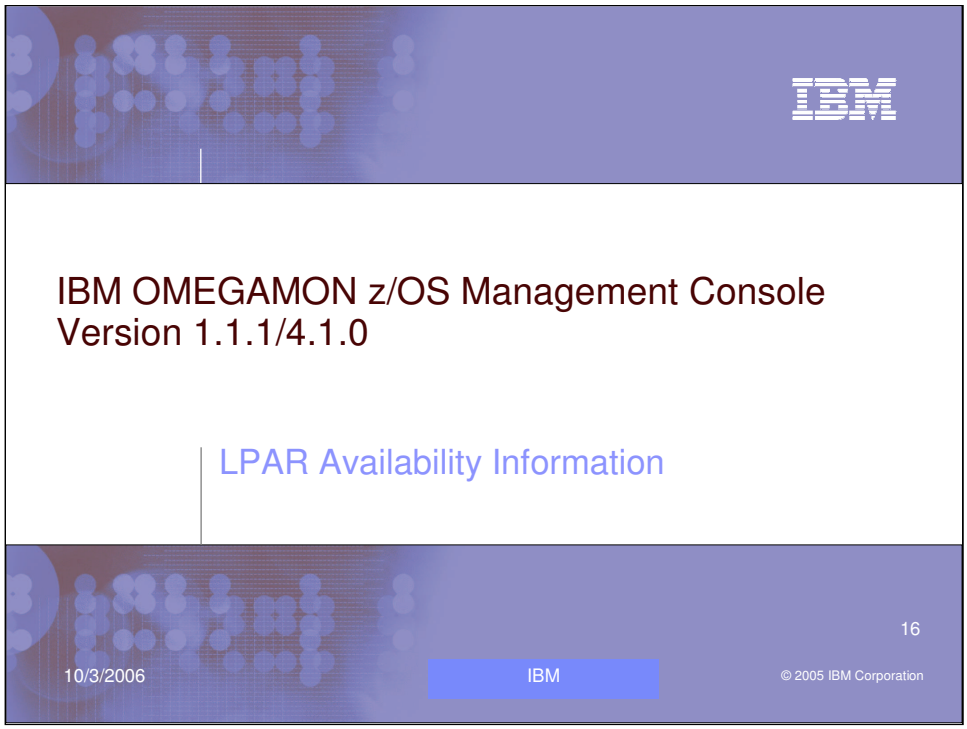


In the Health Monitor Checks view you can see information on each check run including the check status code of high, medium, low or successful. You can see the LINK button on the left that will allow a drill down on a specific check for the real details on the check. So if we click on this LINK button for the XCF_CDS_SEPARATION check, lets see what we get.

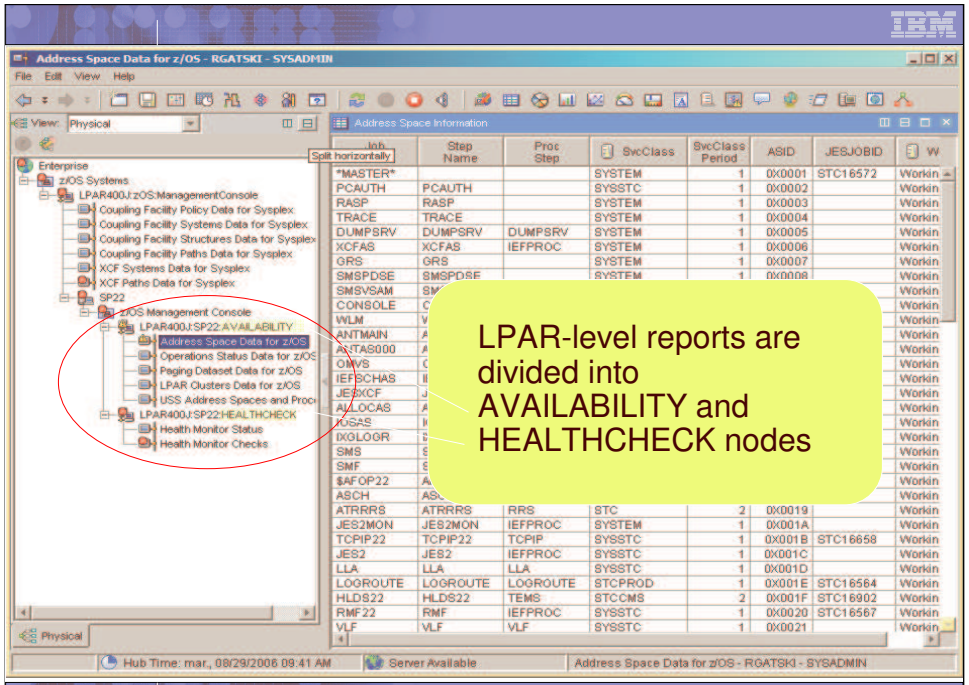


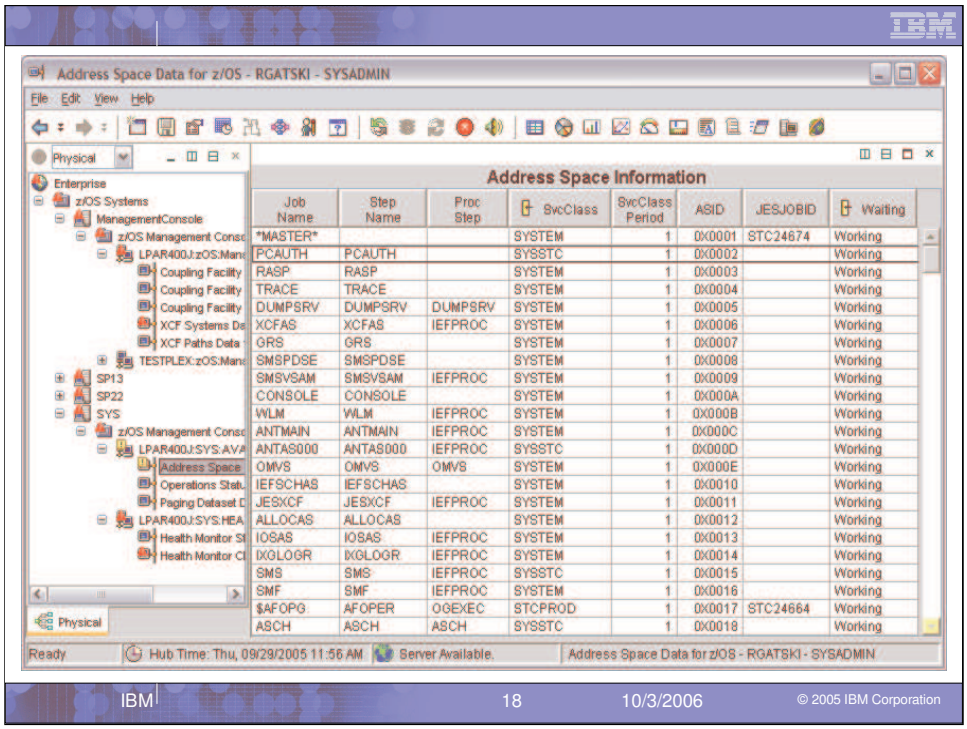
This view in the detail information back from the check. We can see check start time, date, and severity. Then the text explains your values or information compared to the best practices. On this check we have multiple PRIMARY couple datasets on the same volume. This is not good if the volume has issues. We would have better availability if we split them on different volumes.

So there is a wealth of information on your system compared to best practices with the details from the many checks provided by the Health Checker. zMC provides the information in this GUI format and allows you to get Red and Yellow alerts via the situations run against the check data.

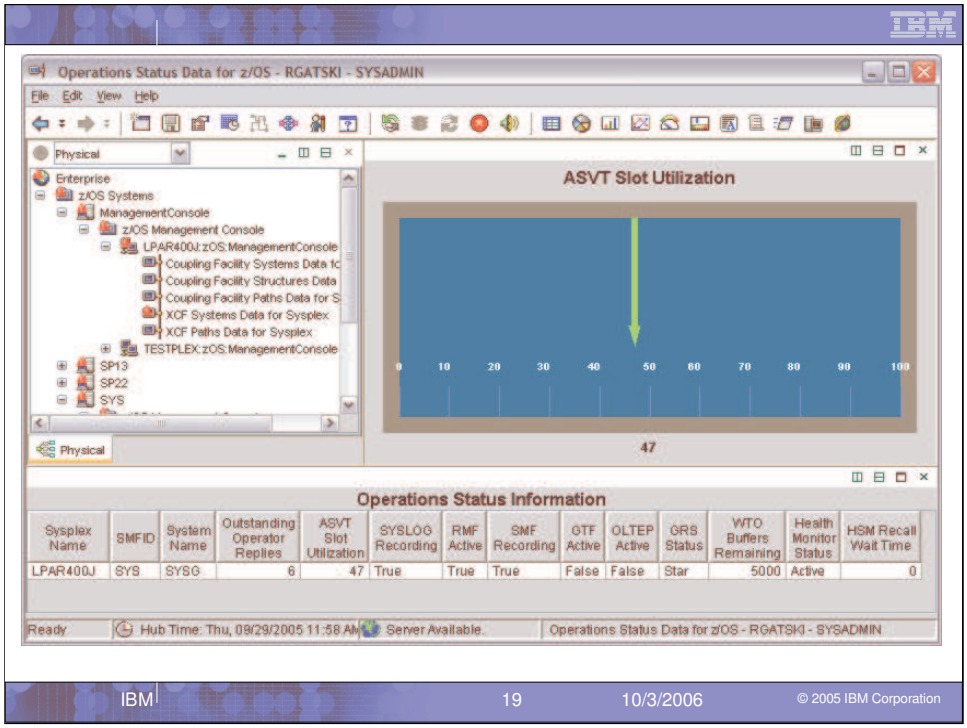


Lets take a look at the LPAR level availability information provided by zMC.

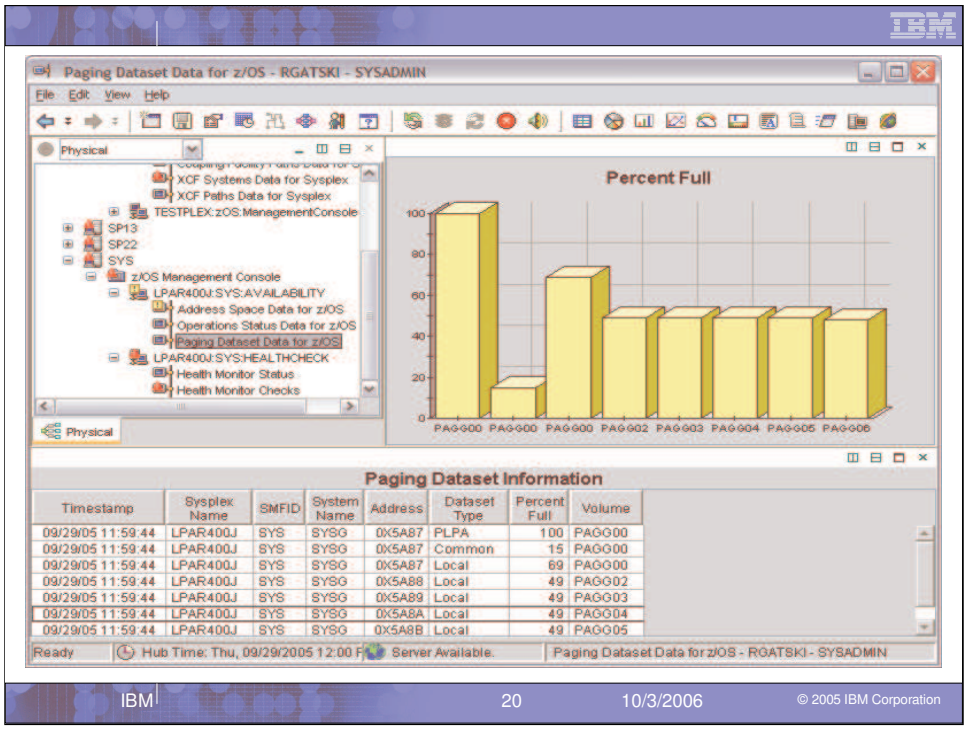




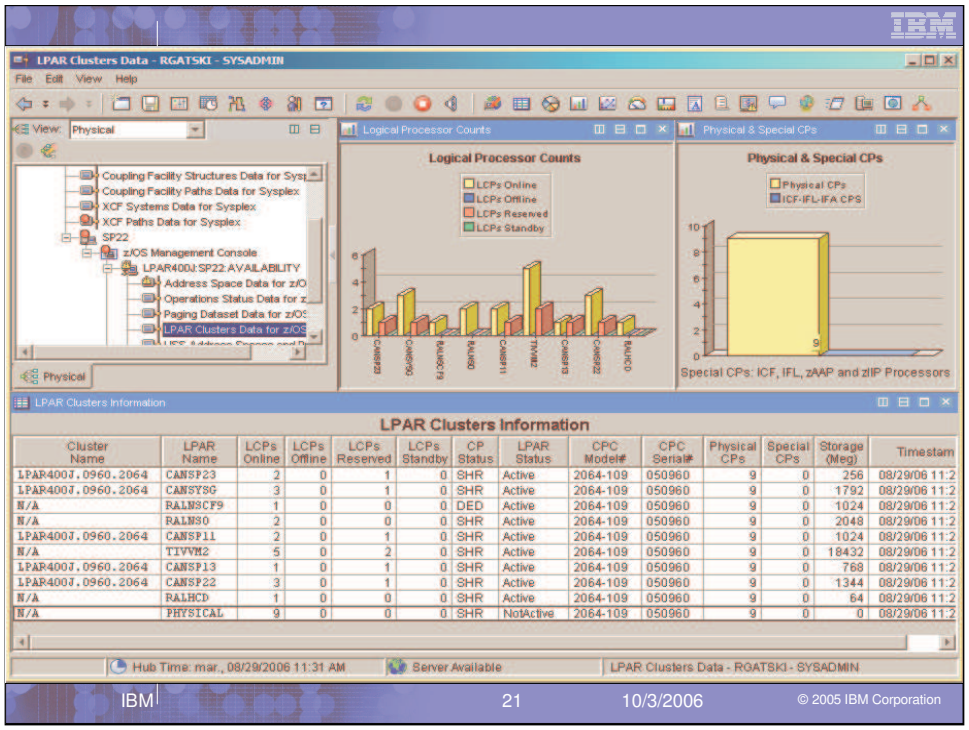
In the Address Space Information view you can see all the address spaces on this LPAR. Besides Job name, Step name, Proc name, Service Class, Service Class Period, ASID and JESJOBID, we provide a working or waiting indicator. While many Address Spaces may be in a normal wait for work or waiting for user input, if a system starts having a major issue the number of Address Spaces waiting could start to increase due to the issue.



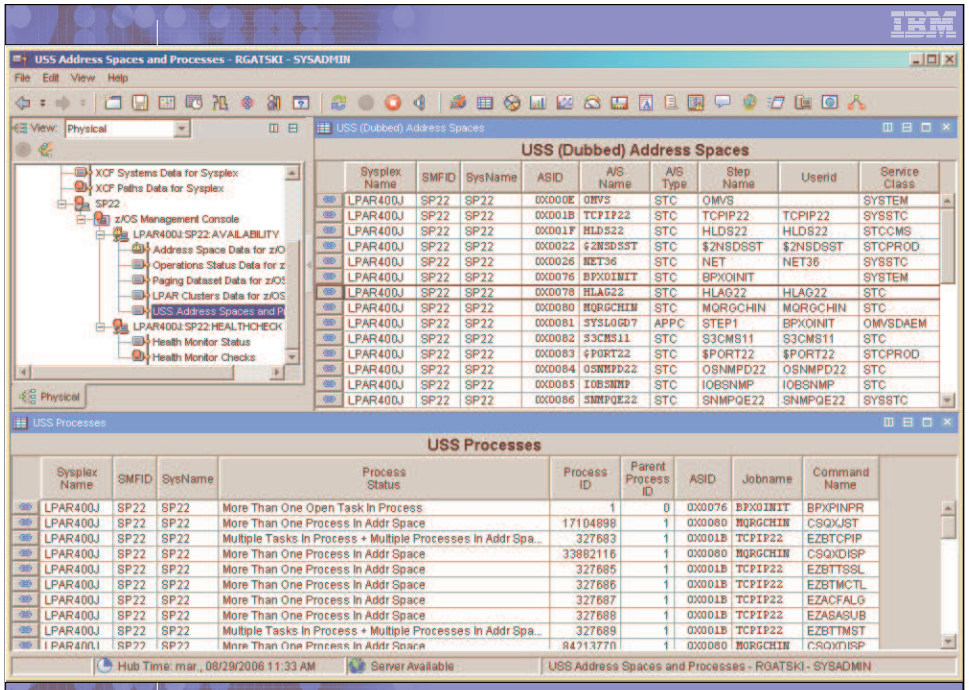
This is the Operations Status overview of an LPAR. It provides information that effects overall operations of a LPAR. Items like SMF Recording issues, GTF Active, ASVT Slot usage, Outstanding Operator replies all can have a major impact on the operations of a system. Many of our default situations are checking the details in this table looking for issues to alert you on.

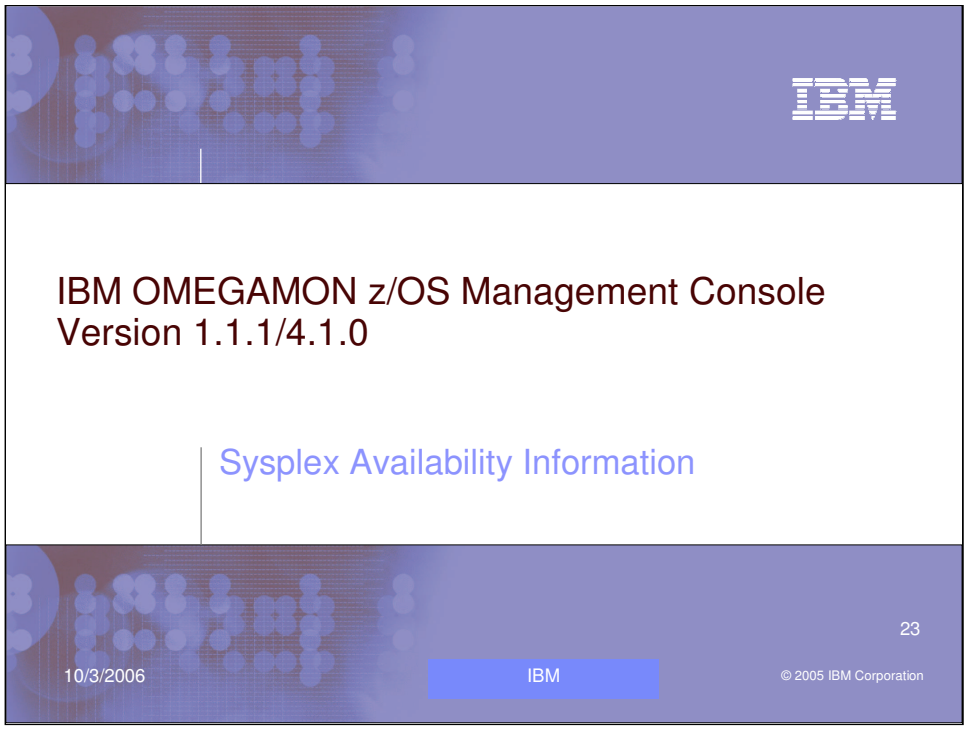


The Paging Dataset view gives an update on all the paging datasets and the major item provided here is the percent full of each of the local datasets. As if they all became full, you could be in for a big problem.

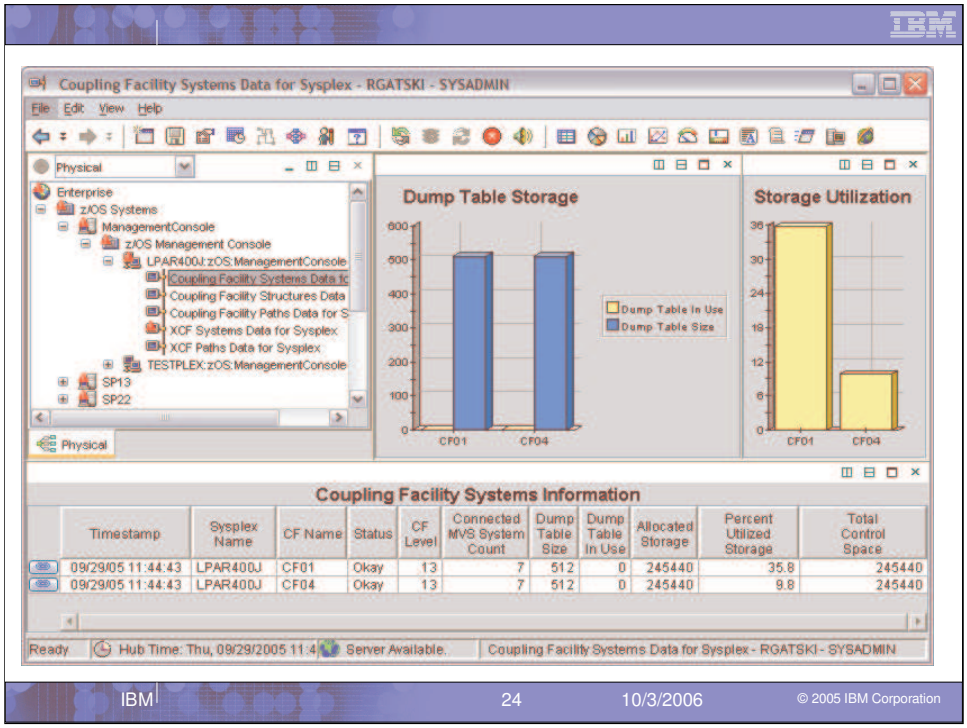


Cluster Name	LPAR Name	LCPs Online	LCPs Offline	LCPs Reserved	LCPs Standby	CP Status	LPAR Status	CPC Model#	CPC Serial#	Physical CPs	Special CPs	Storage (Meg)	Timestam
LPAR400J.0960.2064	CANSP23	2	0	1	0	SHR	Active	2064-109	050960	9	0	256	08/29/06 11:2
LPAR400J.0960.2064	CANSYSG	3	0	1	0	SHR	Active	2064-109	050960	9	0	1792	08/29/06 11:2
N/A	RALN3CF9	1	0	0	0	DED	Active	2064-109	050960	9	0	1024	08/29/06 11:2
N/A	RALN3O	2	0	0	0	SHR	Active	2064-109	050960	9	0	2048	08/29/06 11:2
LPAR400J.0960.2064	CANSP11	2	0	1	0	SHR	Active	2064-109	050960	9	0	1024	08/29/06 11:2
N/A	TIVVM2	5	0	2	0	SHR	Active	2064-109	050960	9	0	18432	08/29/06 11:2
LPAR400J.0960.2064	CANSP13	1	0	1	0	SHR	Active	2064-109	050960	9	0	768	08/29/06 11:2
LPAR400J.0960.2064	CANSP22	3	0	1	0	SHR	Active	2064-109	050960	9	0	1344	08/29/06 11:2
N/A	RALHCD	1	0	0	0	SHR	Active	2064-109	050960	9	0	64	08/29/06 11:2
N/A	PHYSICAL	9	0	0	0	SHR	NotActive	2064-109	050960	9	0	0	08/29/06 11:2

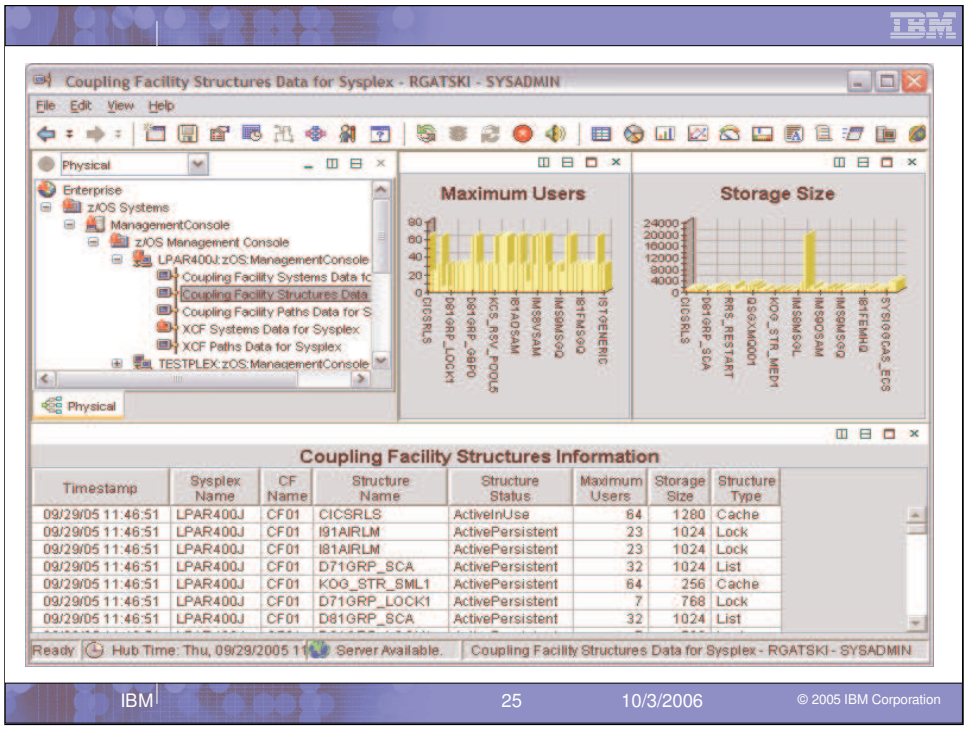




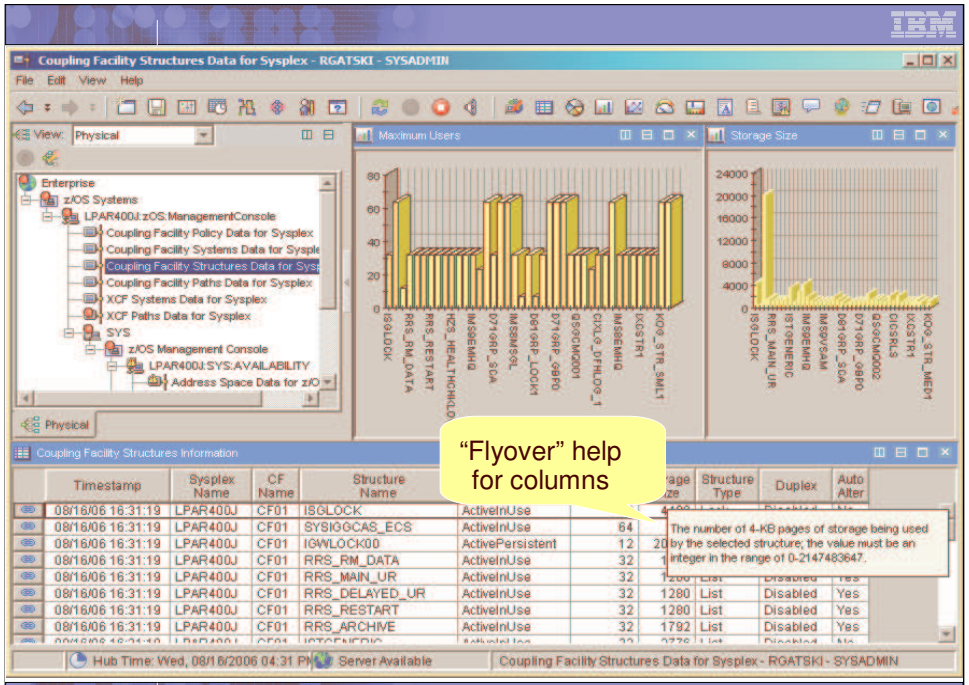
Lets now view the Sysplex Availability information.

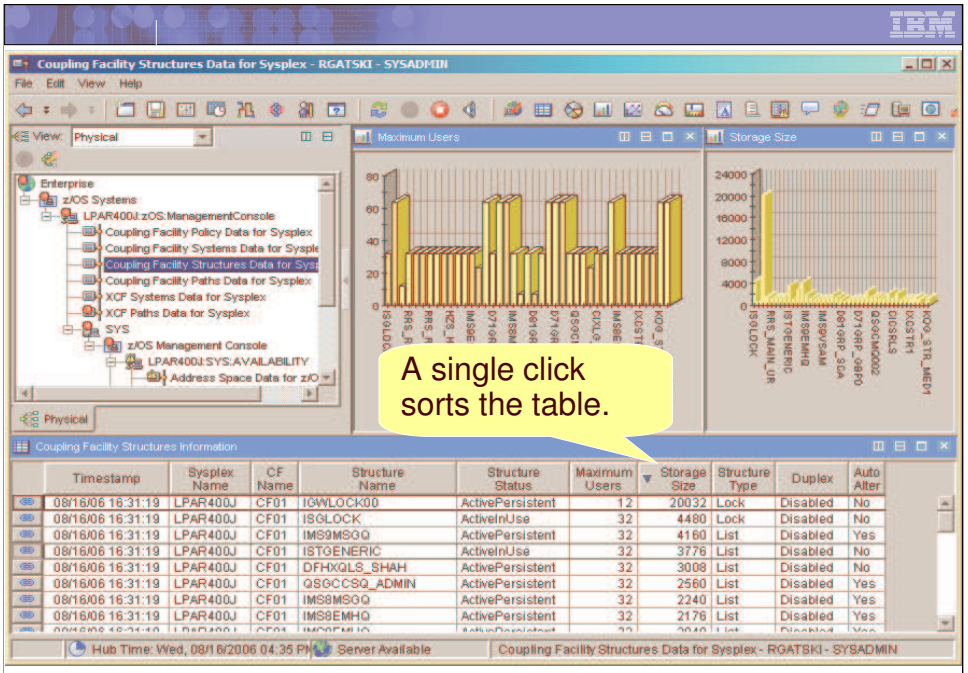


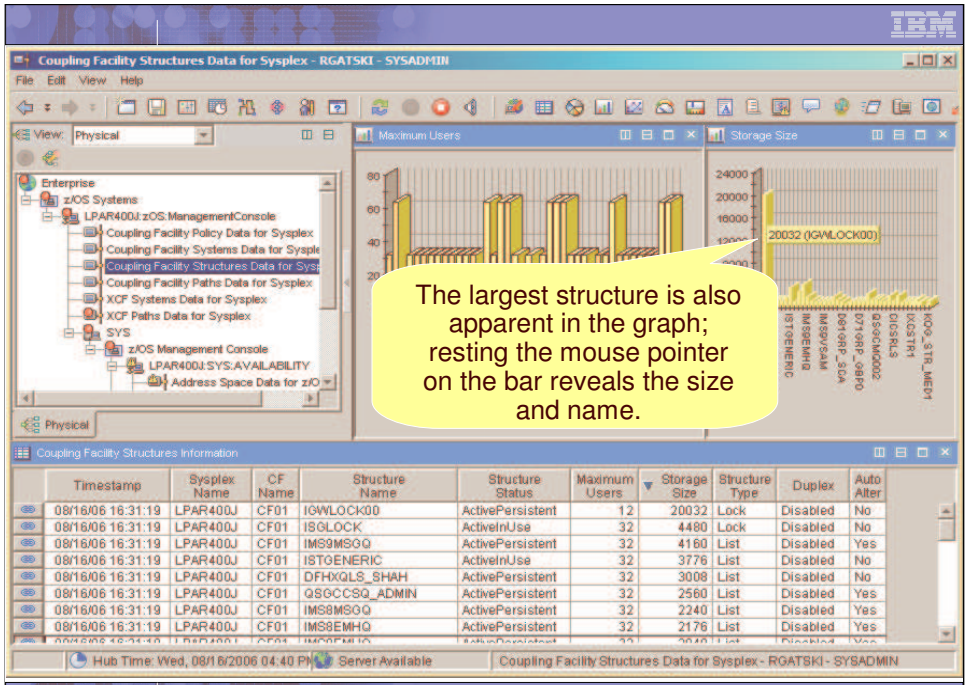
This view looks at the Coupling Facility Systems information on the LPAR400J sysplex. Items like CF Name, Level, Status, Number of z/OS connections, Allocated Storage and Percent Utilized are in this table. With the LINK button of the left you can look at the structures in the specific Coupling Facility.

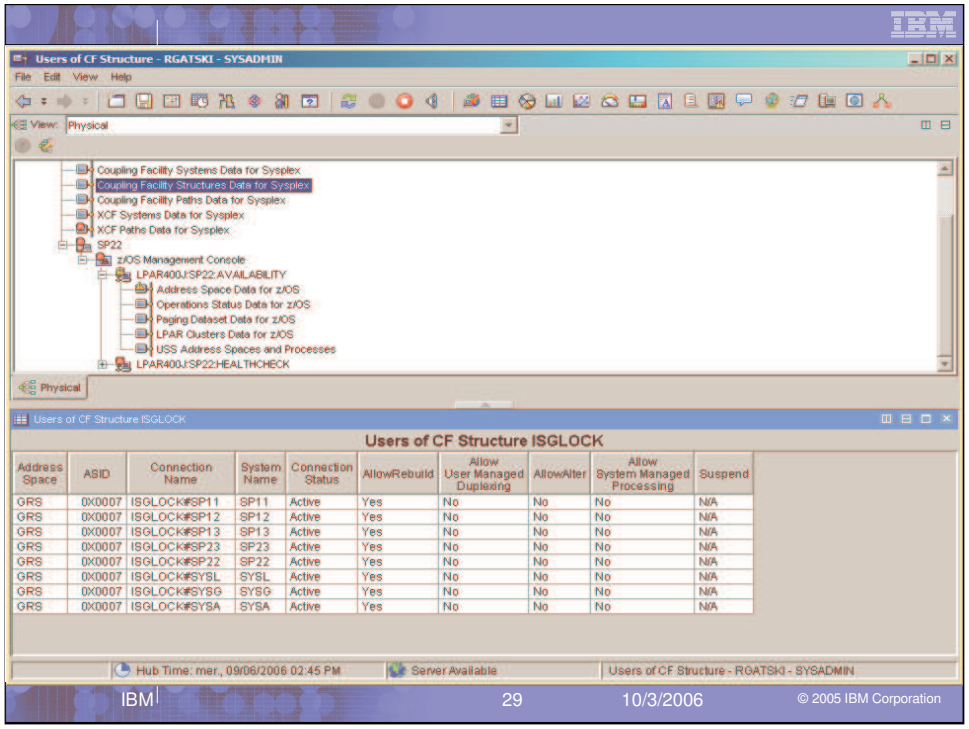


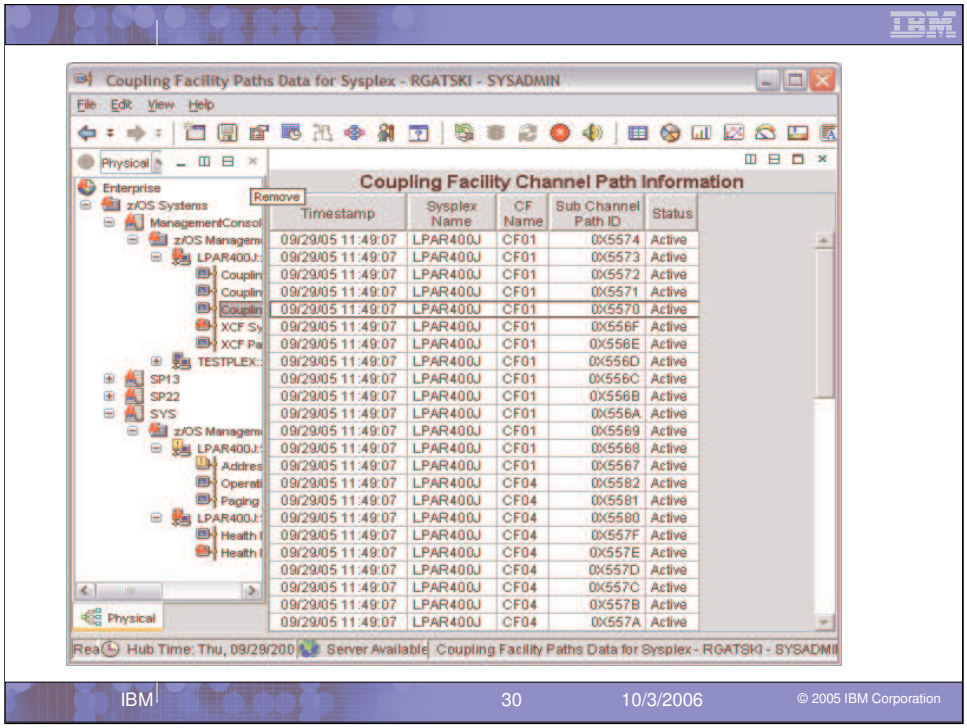
The Coupling Facility Structures view shows each structure on the CF and items like Name, Status, Max users, Size and Type for the specific structure. Now with the TEP interface you can click on a column and sort it, for example it is simple to sort on Storage size so you can see the largest sized structures quickly.



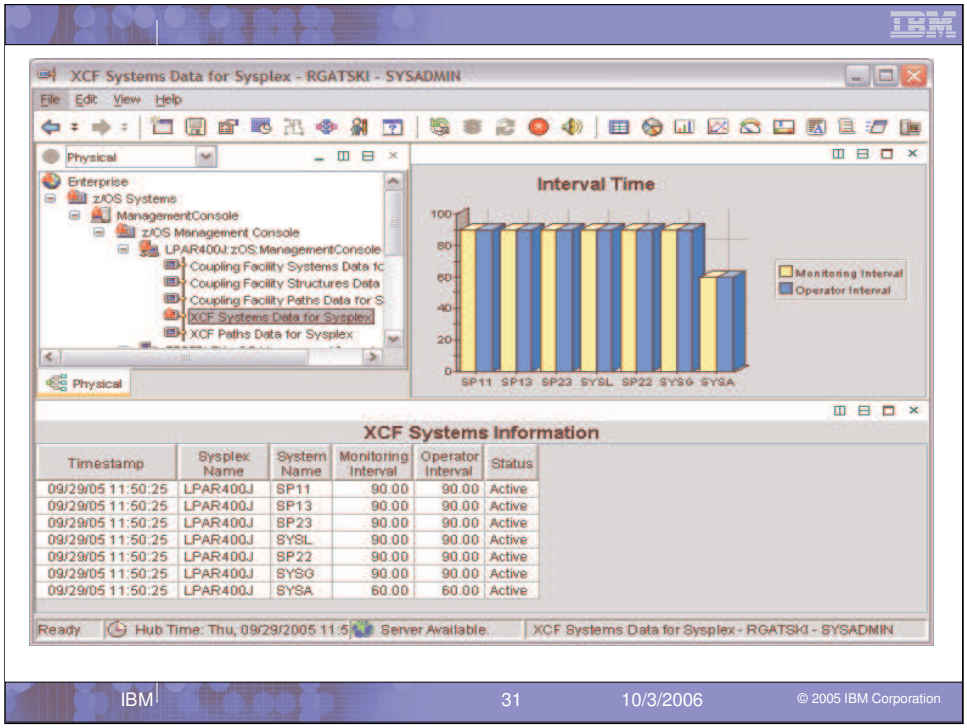




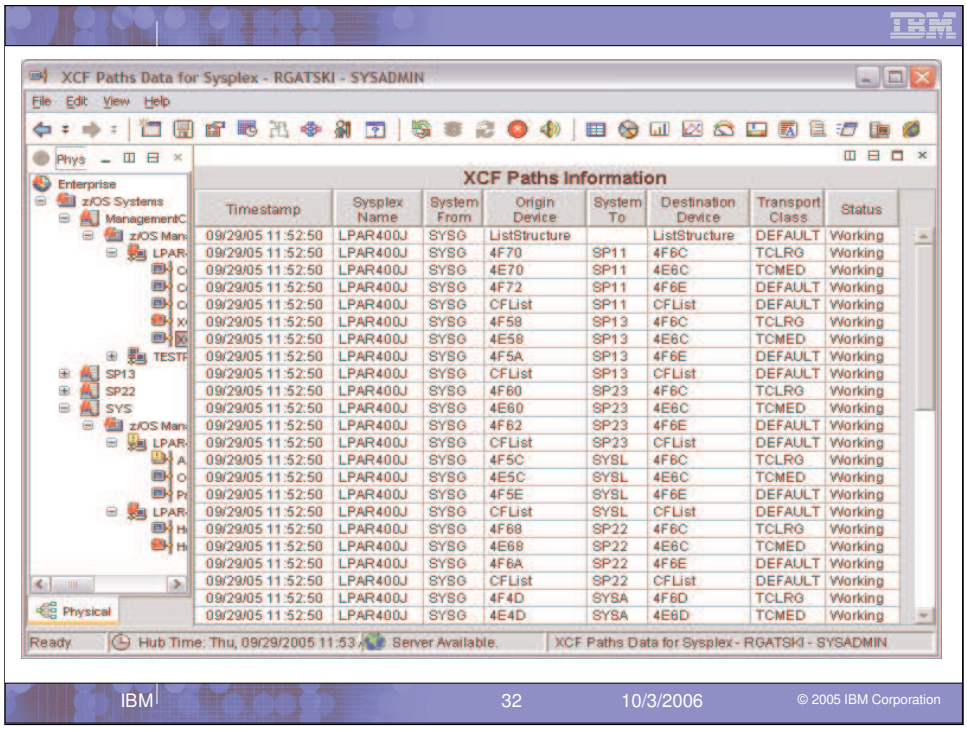




In the Coupling Facility Paths view we are able to see the Sub Channel Path ID and the status of the path to the Coupling facilities.

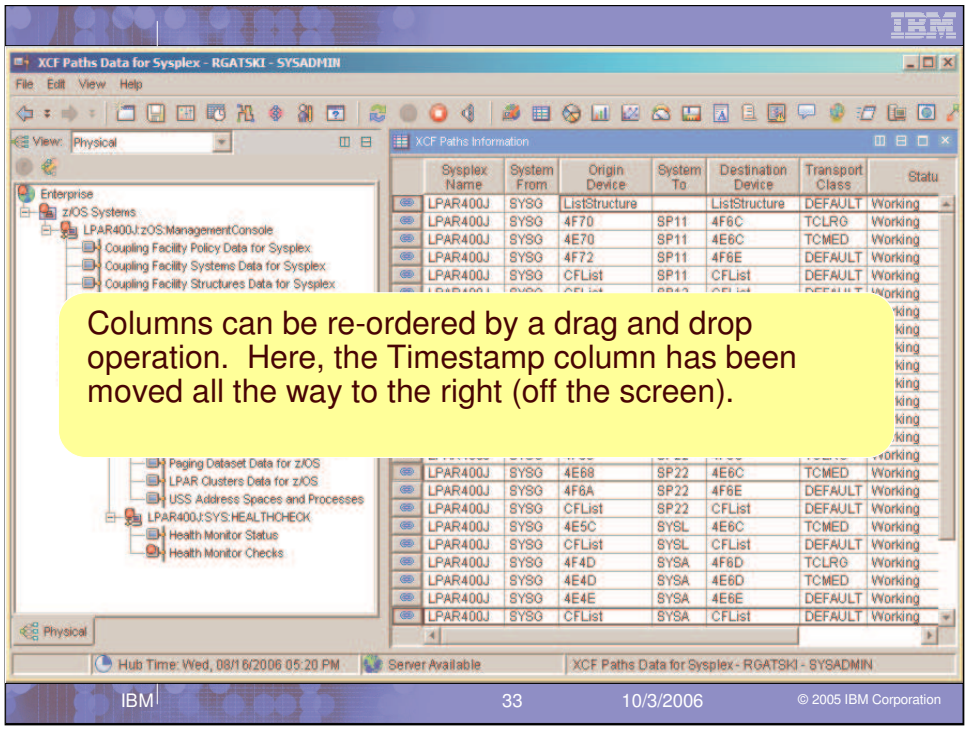


The XCF Systems view shows the Systems in the Sysplex and the current XCF status.

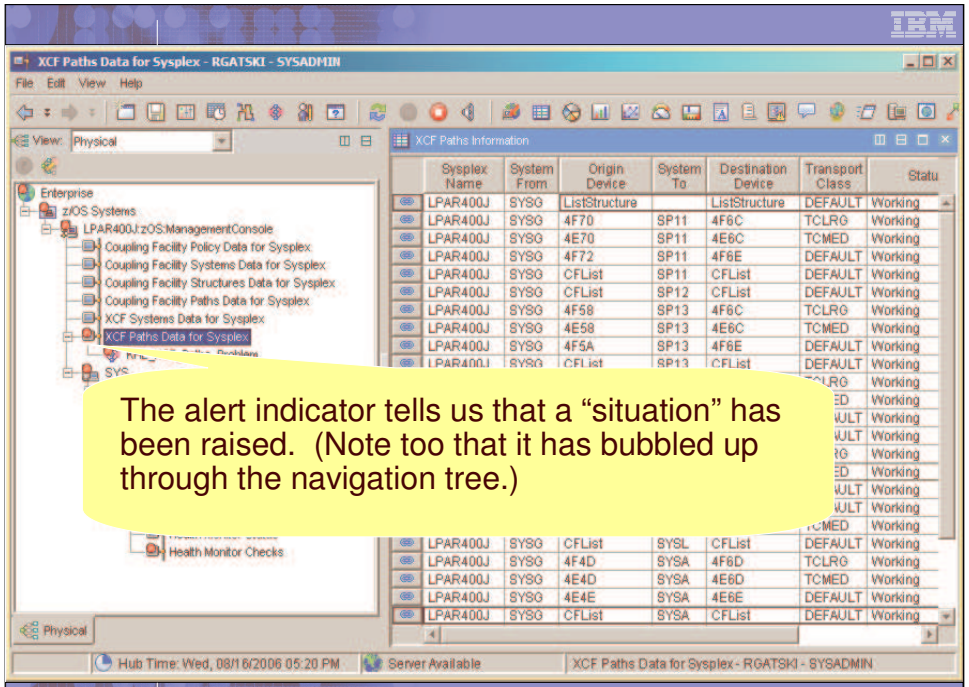


In the XCF Paths view we can see for the Sysplex who is talking to whom and which Transport class is being used. The status of the path is also provided.

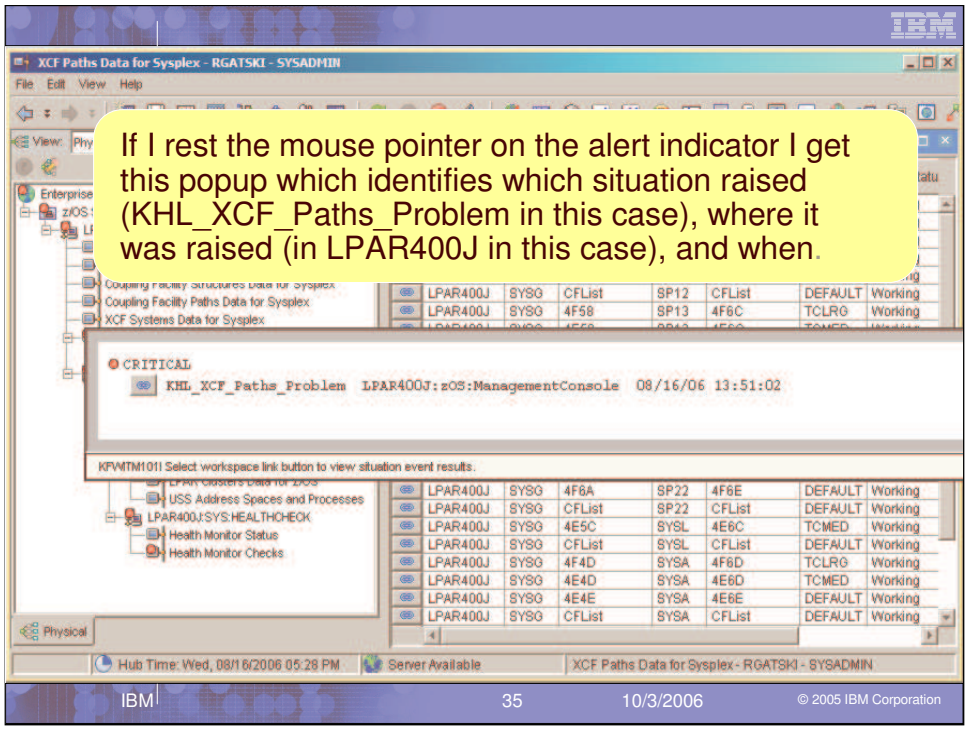
We have now completed our discussion of the availability information collected by zMC.

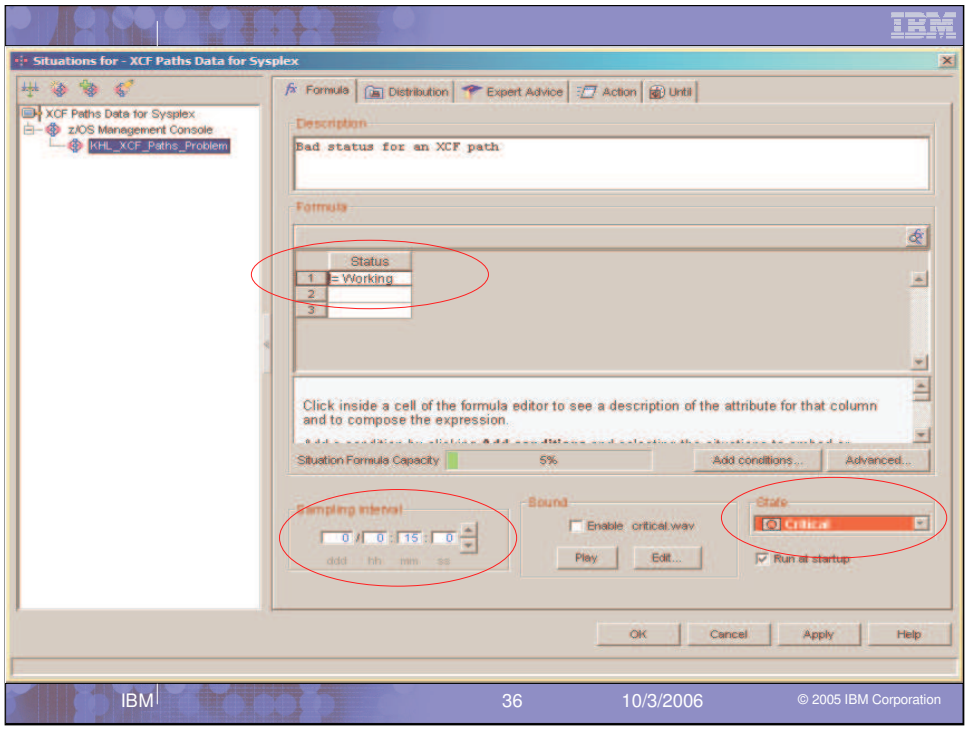


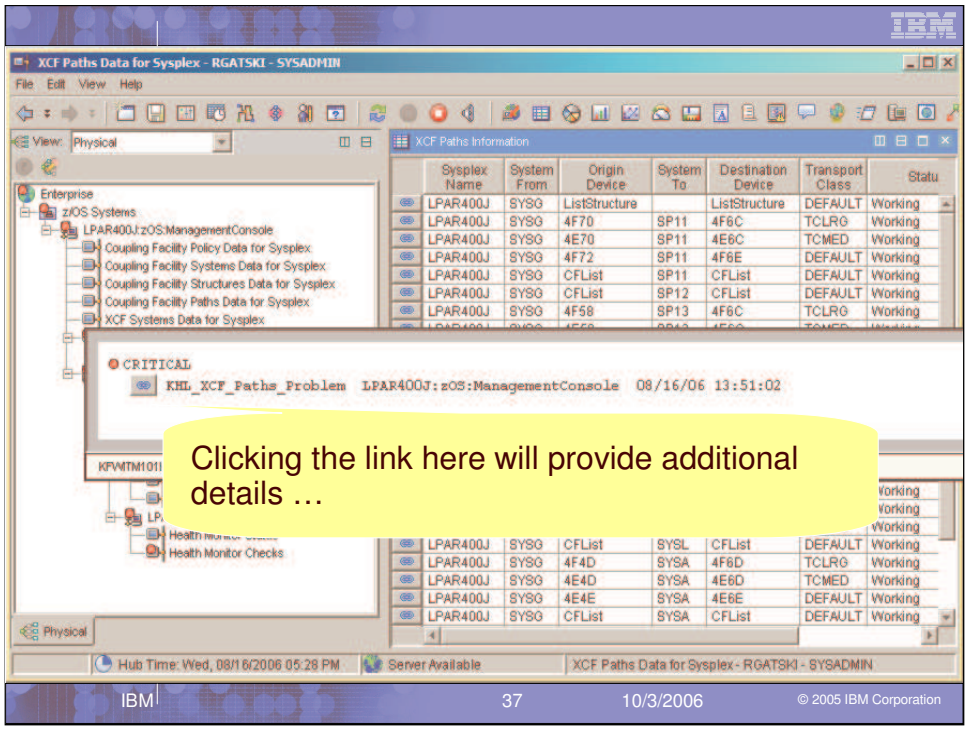
Columns can be re-ordered by a drag and drop operation. Here, the Timestamp column has been moved all the way to the right (off the screen).

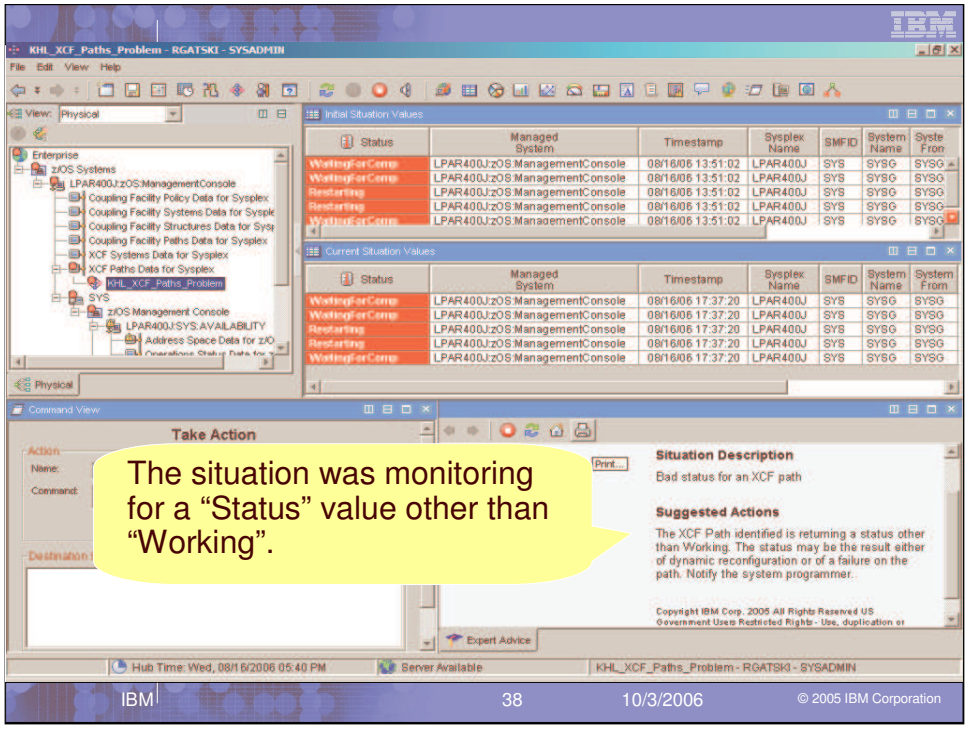


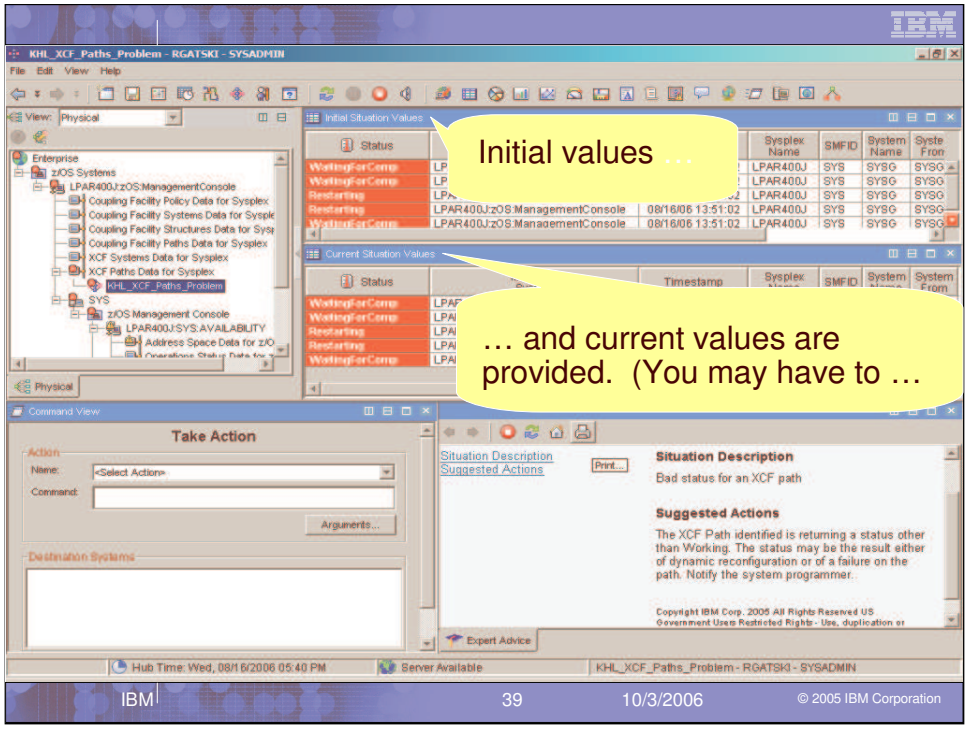
The alert indicator tells us that a “situation” has been raised. (Note too that it has bubbled up through the navigation tree.)

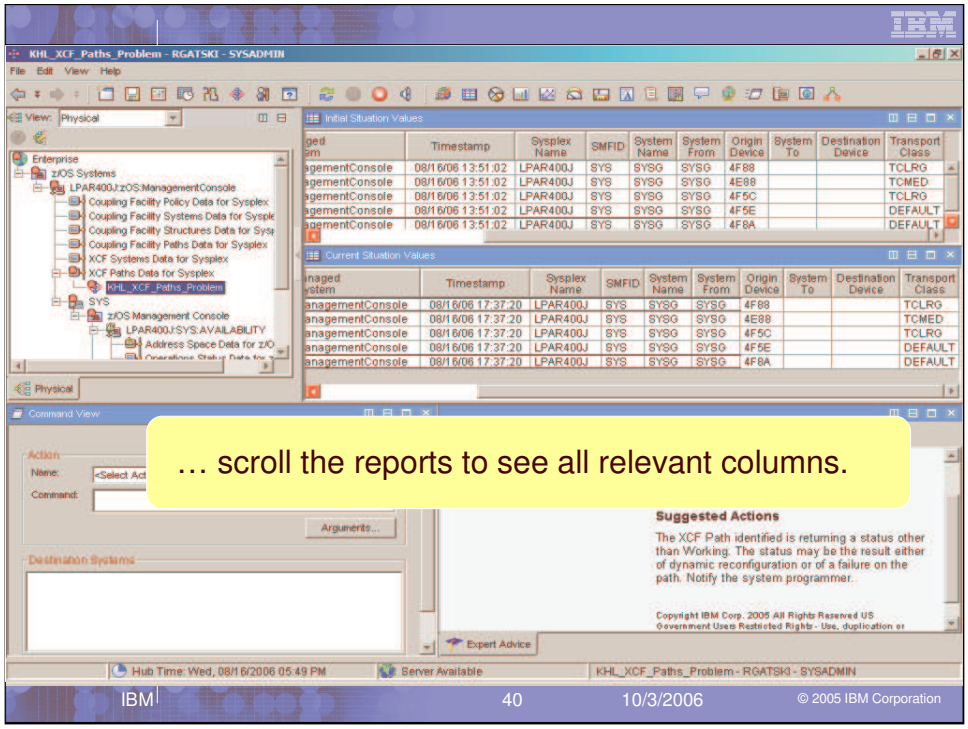


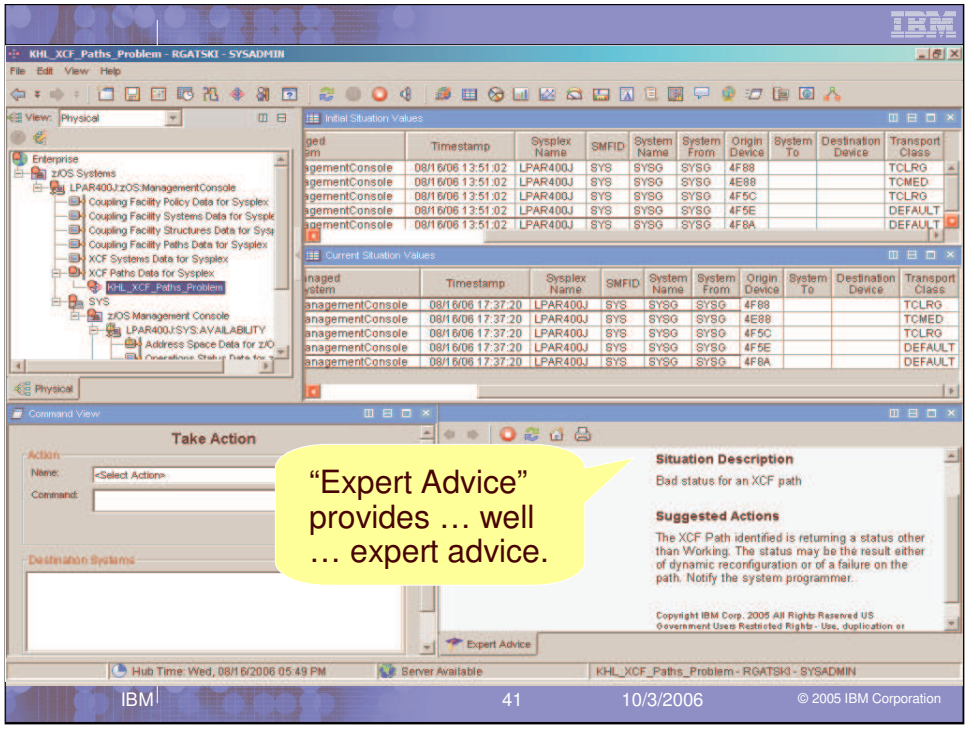


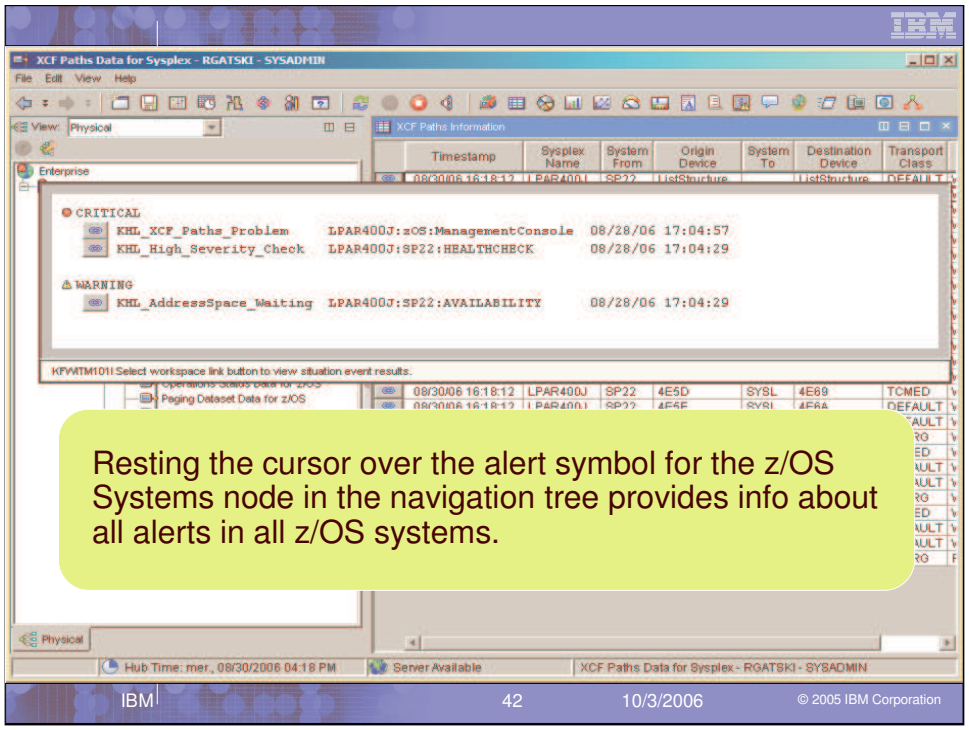




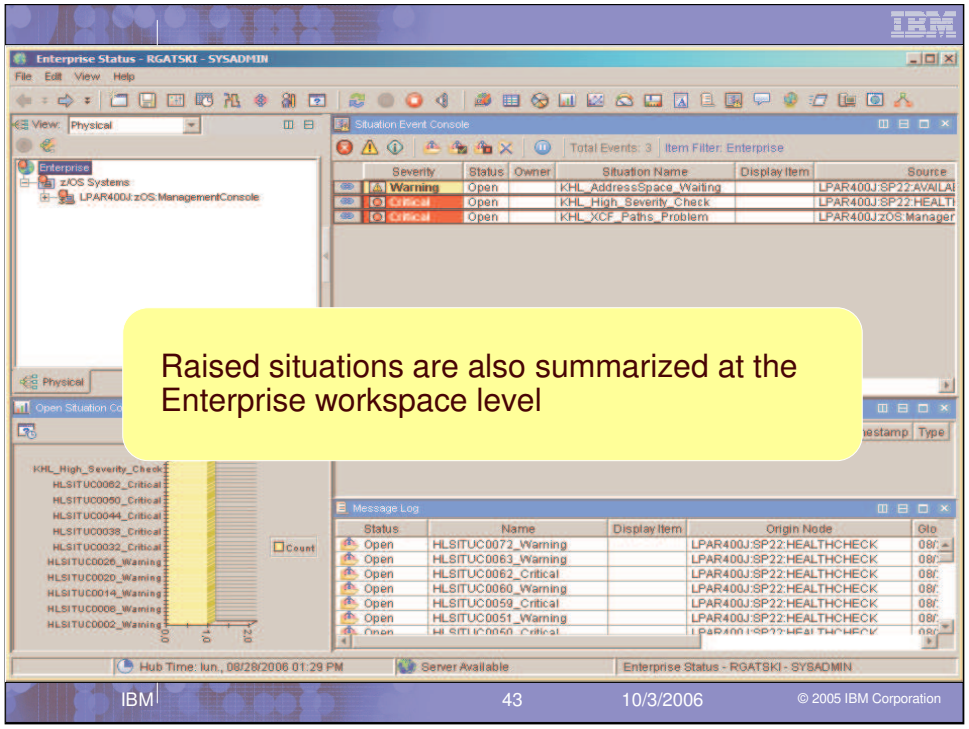




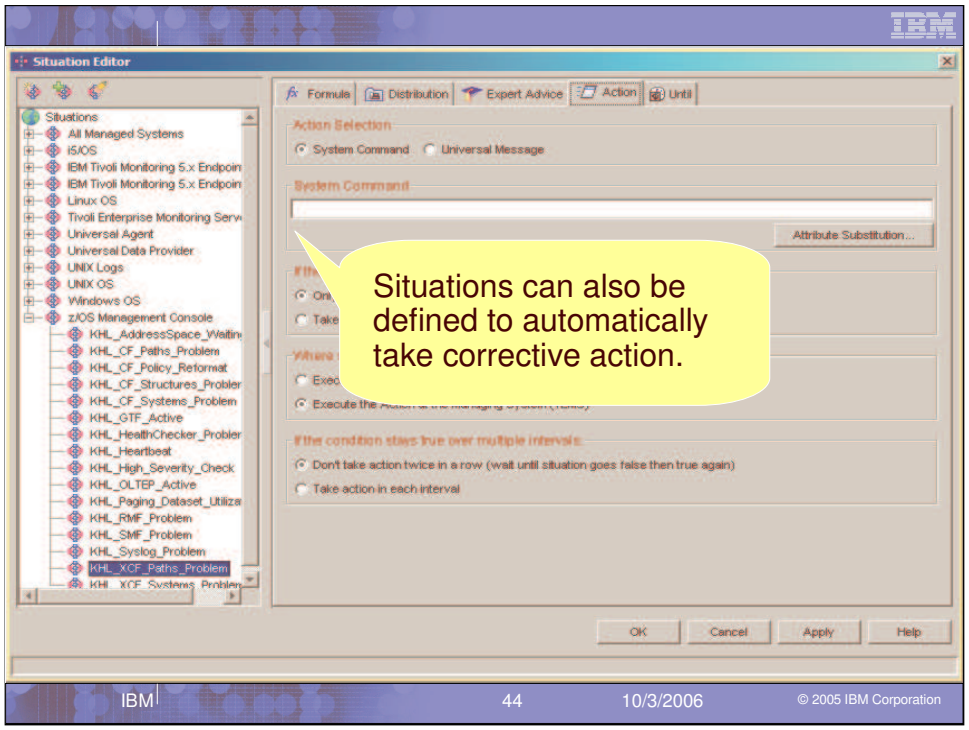


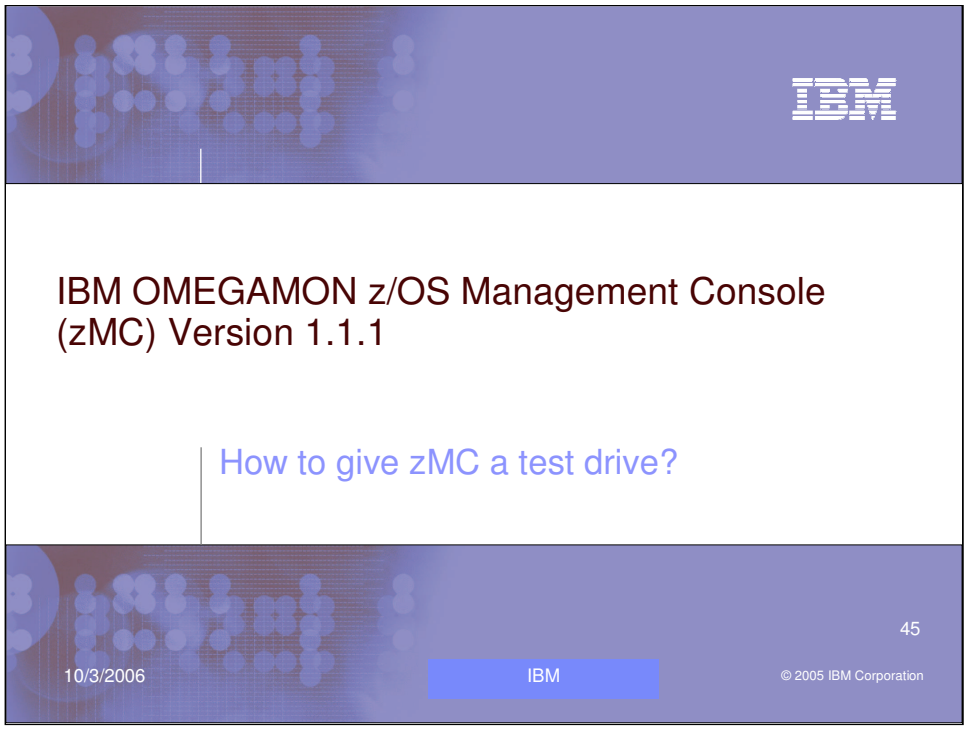


Resting the cursor over the alert symbol for the z/OS Systems node in the navigation tree provides info about all alerts in all z/OS systems.



Raised situations are also summarized at the Enterprise workspace level





Lets discuss some reasons you may want to give the IBM OMEGAMON z/OS Management Console (zMC) Version 1.1.1 a test drive in your shop.

Who may be a good candidate for zMC?

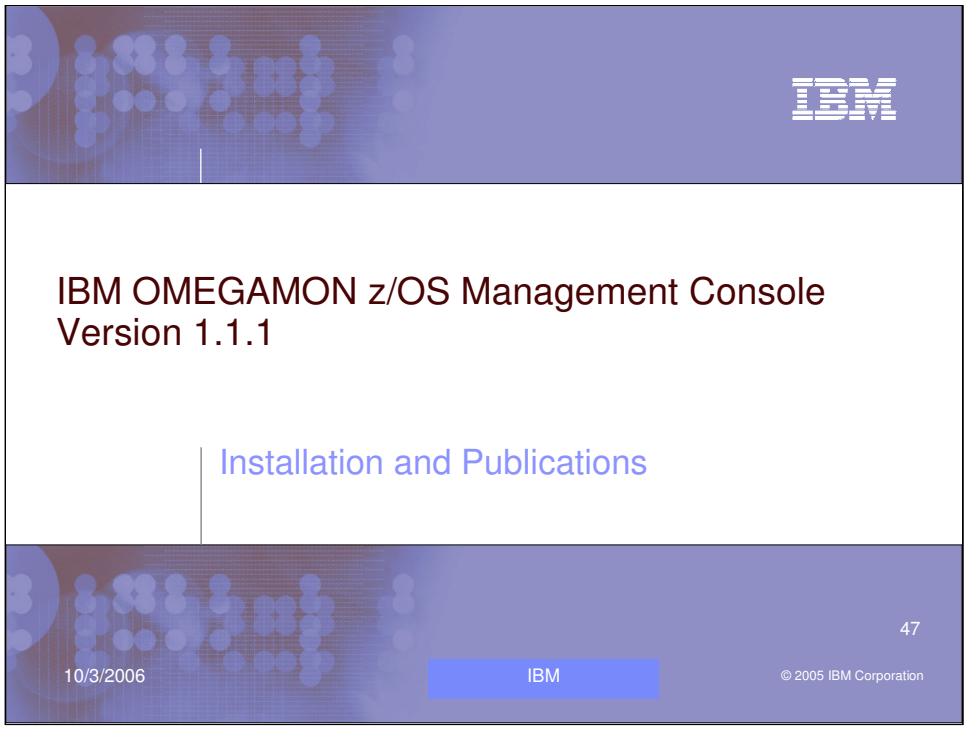
1)Small z Shop with need of some availability monitoring

2)Current OMEGAMON XE for z/OS site that wants to add in z/OS Health Checker information

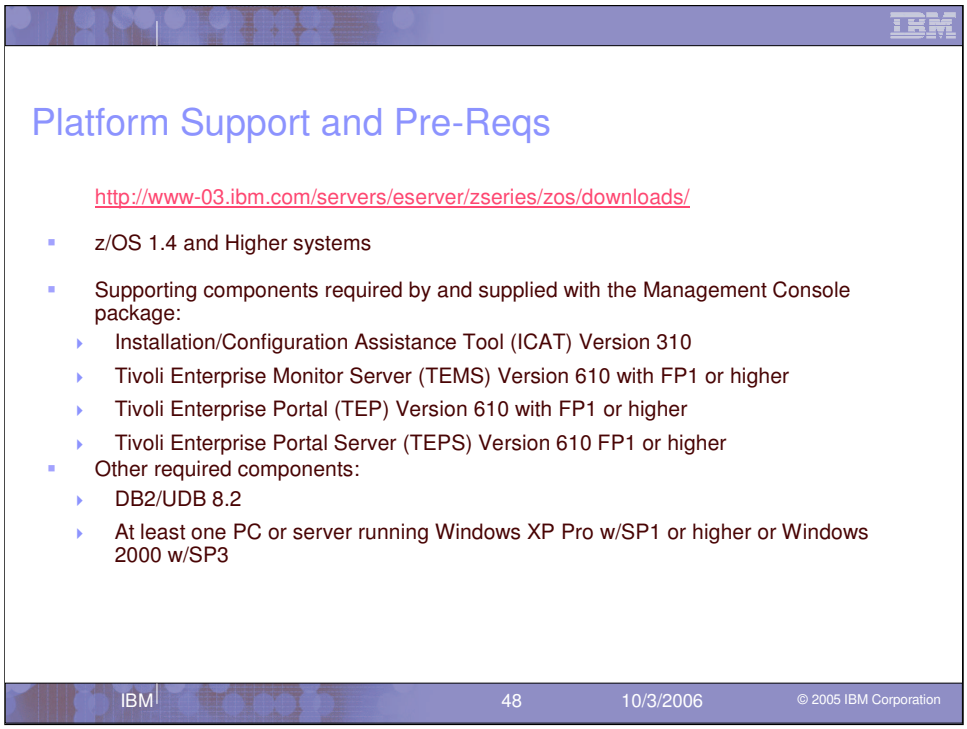
3) Large z Shop training Distributed skilled people on z/OS

4) Any z Shop looking to run an application on System z9 on Linux on z. Put your TEMS, TEPS over on Linux on z.

5) New interface for Health Checker information for any shop.

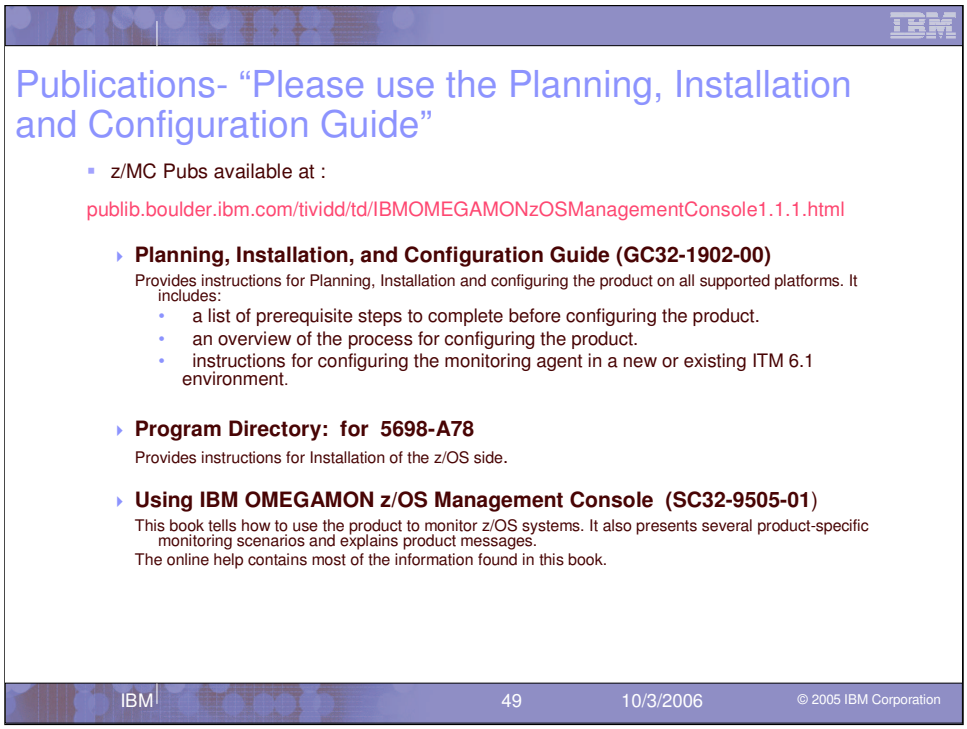


Lets do a quick look at the Install and the Publications of the IBM OMEGAMON z/OS Management Console product.



The product can be downloaded from the z/OS download site. Make sure you have z/OS 1.4 or higher to run the agent on. Then the zMC SMP/e package contains a FMID for Installation/Configuration Assistance Tool 3.1.0 (ICAT), The CL/Engine V190, the z/OS Tivoli Management Server (TEMS) V360, and the zMC Agent 1.1.1.

The Distributed packages needed are: DB2/UDB 8.2, Tivoli Enterprise Portal (TEP), Tivoli Enterprise Portal Server (TEPS) and the OMEGAMON z/OS Management Console 1.1.0 application. Also TEMS for other platforms besides z/OS is provided too.



There are many parts to the install. It is important to plan your install before you proceed. Read the Planning, Installation, and Configuration Guide manual and use the Program Directory too. Did I mention it was important to read and use the Planning, Installation, and Configuration Guide manual?

Now lets move on to discuss the new features in the OMEGAMON XE on z/OS 3.1.0 product.

The link to the manuals is provided so you can download them too.

Follow Program Directory for z/OS

From the web site:

z/OS Downloads – TEMS and zMC Agent

Read Me – HL111.README.txt

OMEGAMON z/OS Mgt Console V1.1.1 in pax format

Maintenance – PTF's

Program Directory

Workstation Downloads

- **IBM OMEGAMON z/OS Management Console Data Files for z/OS CD-ROM electronic image in .zip format**
  LCD7-0907-01.zip (194.2MB)
- **IBM OMEGAMON z/OS Management Console Data Files for z/OS CD-ROM electronic image in .tar format**
  LCD7-0907-01.tar (160.4MB)
- **IBM Tivoli Monitoring Services on z/OS CD-ROM Vol 1. w/FP1 (Windows) electronic image**
  LCD7-0789-01.zip (351MB)
- **IBM Tivoli Monitoring Services on z/OS CD-ROM Vol 5. w/FP1 (Linux on zSeries - Red Hat and SuSE) electronic image**
  LCD7-0836-01.tar (515.9MB)

DB2/UDB Download

DB2 UDB Enterprise Server Edition 8.2: Windows CD-ROM electronic image
LCD7-0901-00.zip (424.4MB)

DB2 UDB Enterprise Server Edition 8.2: Linux for zSeries CD-ROM electronic image
LCD7-0890-00.tar (344.8MB)

DB2/UDB is included as part of the zMC product use for your zMC use.

What you need for TEP/TEPS on Windows:

1)DB2 UDB Enterprise Server Edition 8.2: Windows CD-ROM electronic image
LCD7-0901-00.zip (424.4MB) unzip then use setup.exe

2)IBM Tivoli Monitoring Services on z/OS CD-ROM Vol 1. w/FP1 (Windows) electronic image
LCD7-0789-01.zip (351MB) unzip and use in windows directory – setup.exe

3) IBM OMEGAMON z/OS Management Console Data Files for z/OS CD-ROM electronic image in .zip format
LCD7-0907-01.zip (194.2MB) unzip and use setupwin32.exe

Please do the Install/Configure in this order using the manual

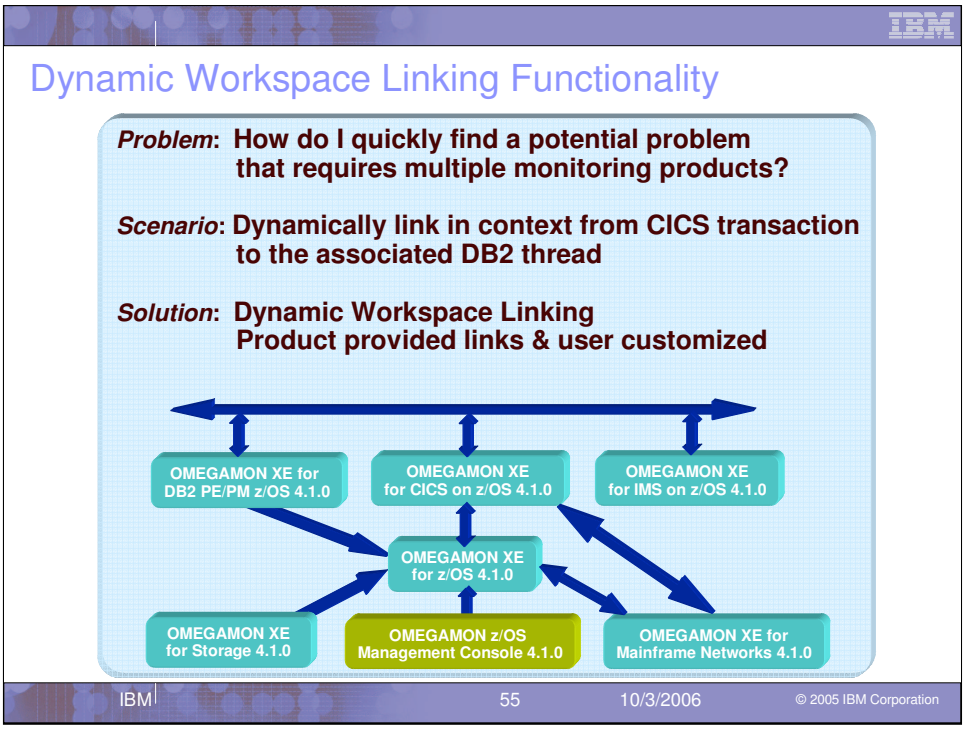
Remember to Register for Product Support

zMC 4.1.0 – new release

Next release coming: 1Q2007

More Sysplex Level – CF details,duplex, policy
More Availability Information – USS Processes/Users
Lpar Cluster information
Dynamic Workspace Linking – OMEGAMON XE for z/OS

Need – Beta Sites – see me



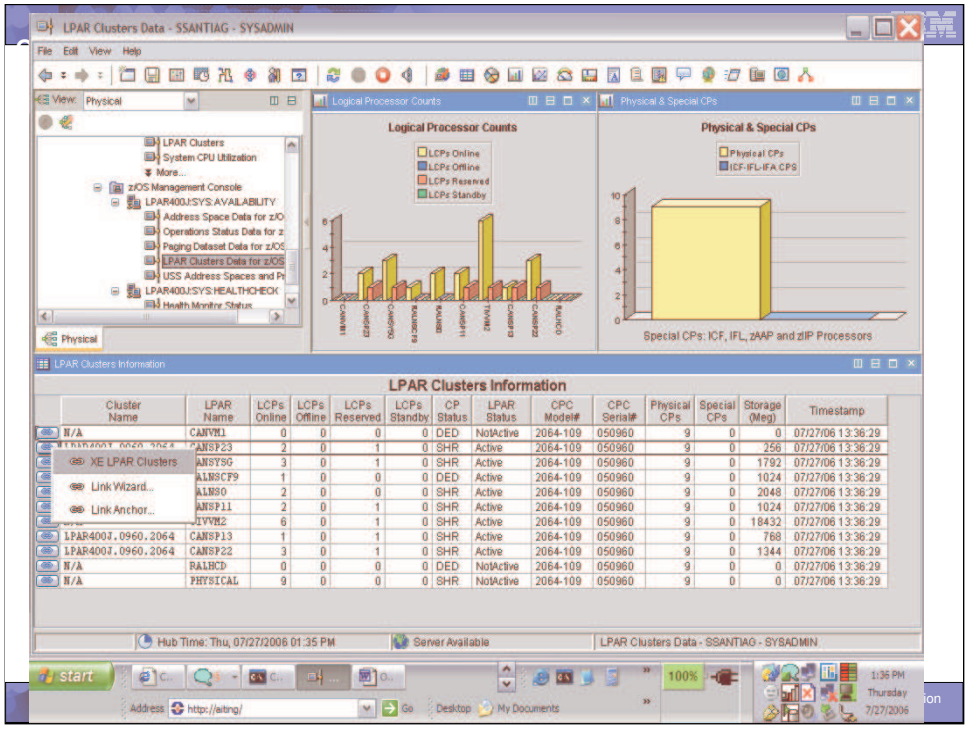
Dynamic Workspace Linking (DWL) is a new feature available in the OMEGAMON 4.1.0 products that provides for intelligently linking between different OMEGAMON products to help reduce problem resolution time.

The problem stated in this slide is focused on quickly isolating where a problem is happening.

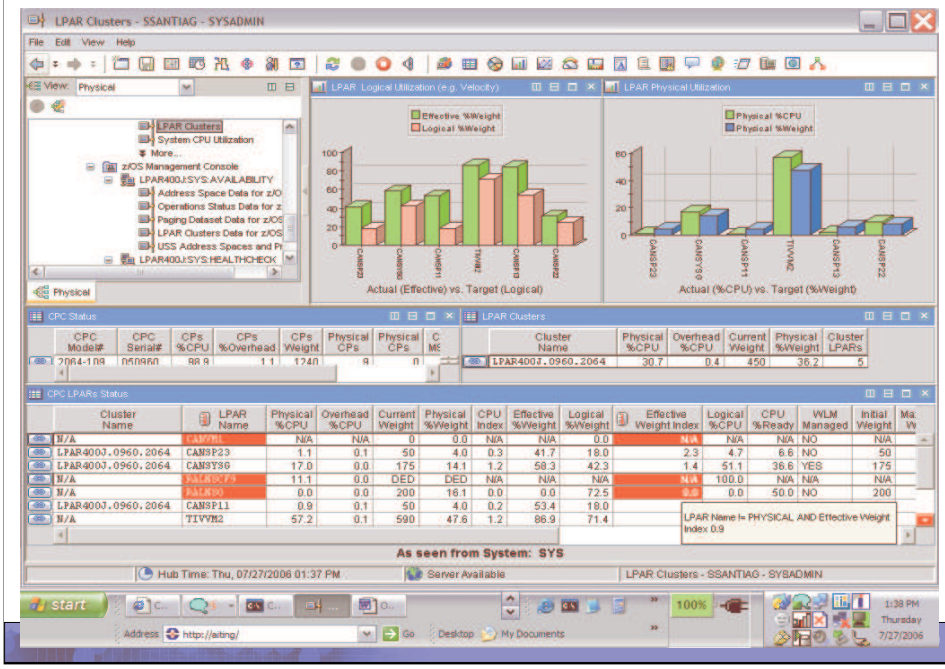
A typical scenario to find a problem is stated in the scenario: link from a CICS transaction that has poor response time to the associated DB2 thread to determine if DB2 is causing the response time issue.

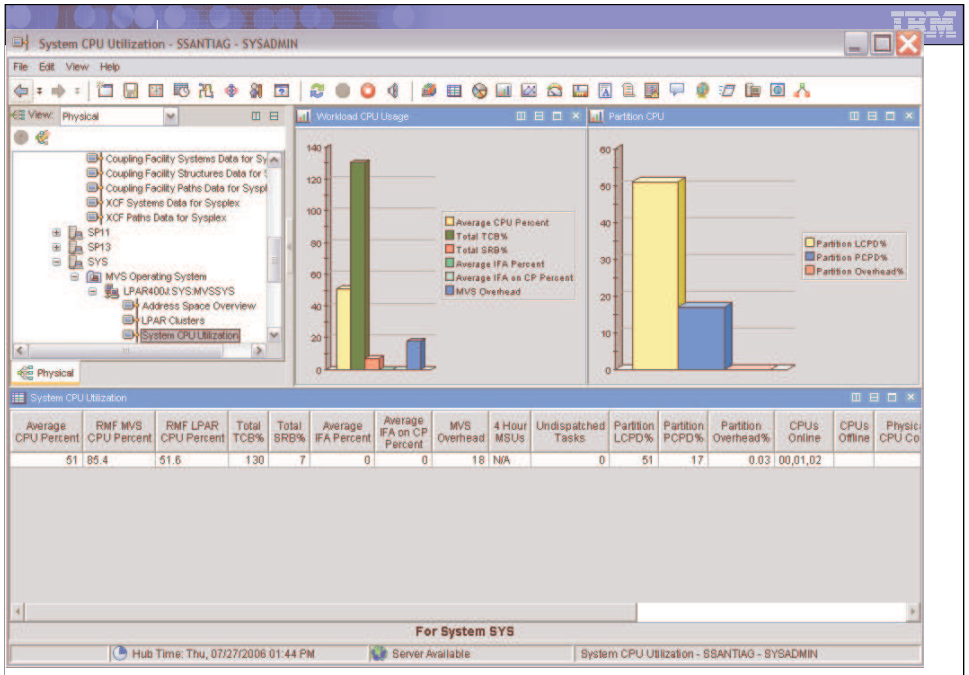
Solution: DWL can be used to quickly link between OMEGAMON XE on CICS to OMEGAMON XE on DB2 to isolate and resolve the response time issue.

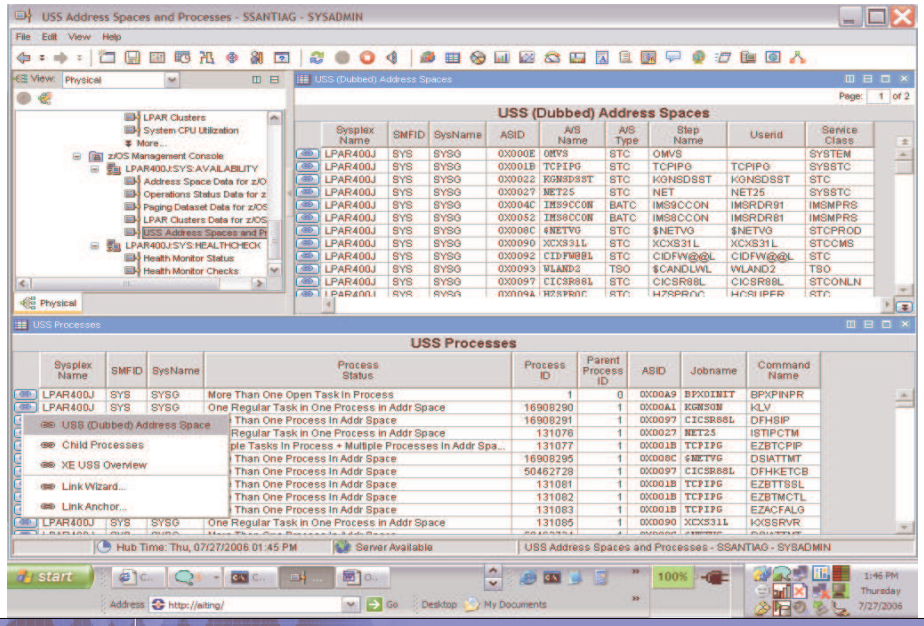
The diagram shows the various DWL links provided with the OMEGAMON products and customers can also create custom links.

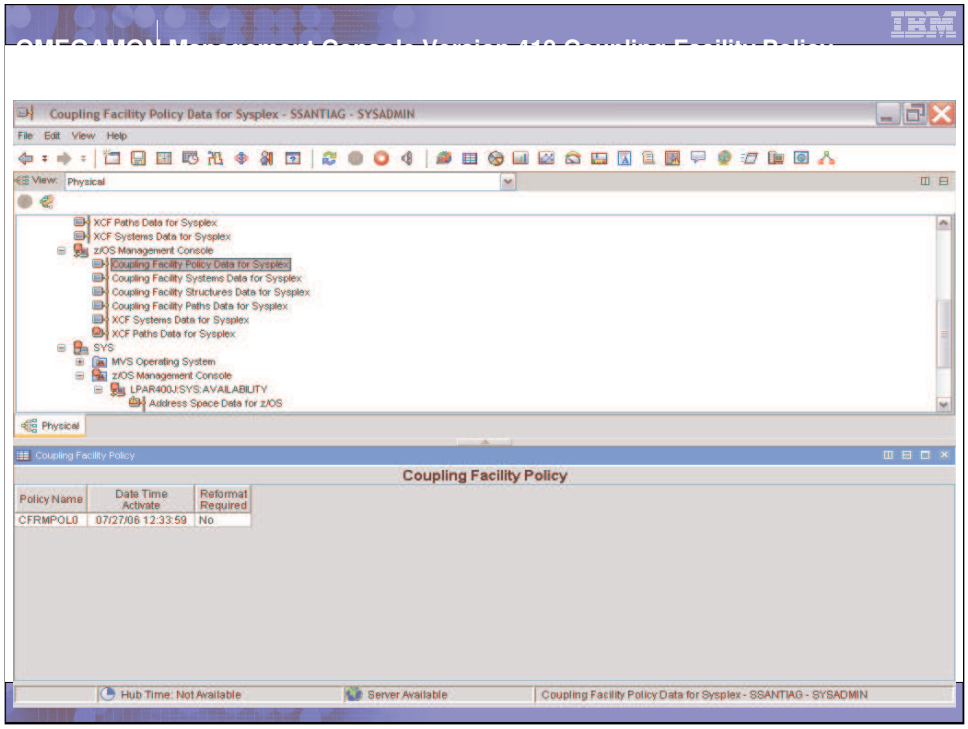

LPAR Clusters Data - SSANTIAG - SYSADMIN
File Edit View Help
View: Physical
LPAR Clusters
System CPU Utilization
More...
z/OS Management Console
LPAR400J.SYS.AVAILABILITY
Address Space Data for z/O
Operations Status Data for z
Paging Dataset Data for z/OS
LPAR Clusters Data for z/OS
USS Address Spaces and Pr
LPAR400J.SYS.HEALTHCHECK
Health Monitor Status
Physical
Logical Processor Counts
Logical Processor Counts
LCPs Online
LCPs Offline
LCPs Reserved
LCPs Standby
Physical & Special CPs
Physical & Special CPs
Physical CPs
ICF-IFL-IFA CPS
Special CPs: ICF, IFL, zAAP and zIIP Processors
LPAR Clusters Information
LPAR Clusters Information
Cluster Name
LPAR Name
LCPs Online
LCPs Offline
LCPs Reserved
LCPs Standby
CP Status
LPAR Status
CPC Model#
CPC Serial#
Physical CPs
Special CPs
Storage (Meg)
Timestamp
N/A CANVM1 0 0 0 0 DED NotActive 2064-109 050960 9 0 0 07/27/06 13:36:29
CANSP23 2 0 1 0 SHR Active 2064-109 050960 9 0 256 07/27/06 13:36:29
ANSYSG 3 0 1 0 SHR Active 2064-109 050960 9 0 1792 07/27/06 13:36:29
ALNSCF9 1 0 0 0 DED Active 2064-109 050960 9 0 1024 07/27/06 13:36:29
ALNSO 2 0 0 0 SHR Active 2064-109 050960 9 0 2048 07/27/06 13:36:29
ANSP11 2 0 1 0 SHR Active 2064-109 050960 9 0 1024 07/27/06 13:36:29
LVVM2 6 0 1 0 SHR Active 2064-109 050960 9 0 18432 07/27/06 13:36:29
LPAR400J.0960.2064 CANSP13 1 0 1 0 SHR Active 2064-109 050960 9 0 768 07/27/06 13:36:29
LPAR400J.0960.2064 CANSP22 3 0 1 0 SHR Active 2064-109 050960 9 0 1344 07/27/06 13:36:29
N/A RALBCD 0 0 0 0 DED NotActive 2064-109 050960 9 0 0 07/27/06 13:36:29
N/A PHYSICAL 9 0 0 0 SHR NotActive 2064-109 050960 9 0 0 07/27/06 13:36:29
XE LPAR Clusters
Link Wizard...
Link Anchor...
Hub Time: Thu, 07/27/2006 01:35 PM
Server Available
LPAR Clusters Data - SSANTIAG - SYSADMIN
start
Address http://aiting/
Go
Desktop
My Documents
100%
1:36 PM
Thursday
7/27/2006

Linked-to OMEGAMON XE on z/OS LPAR Clusters workspace (showing OM XE

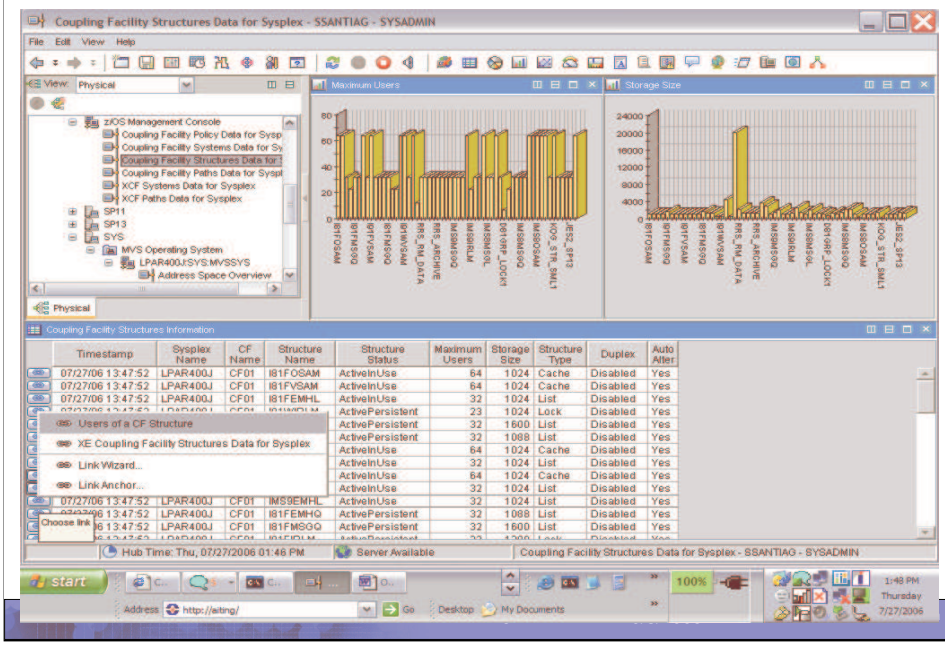




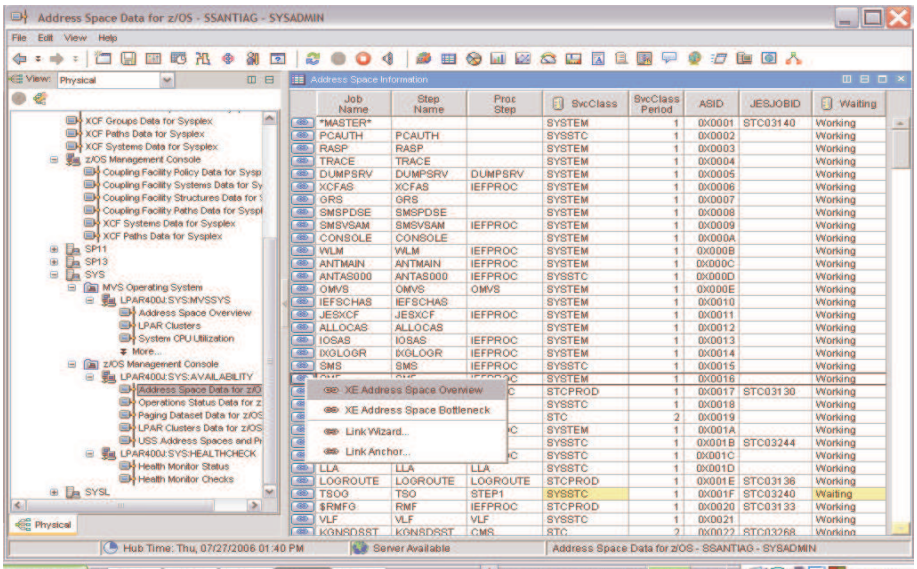


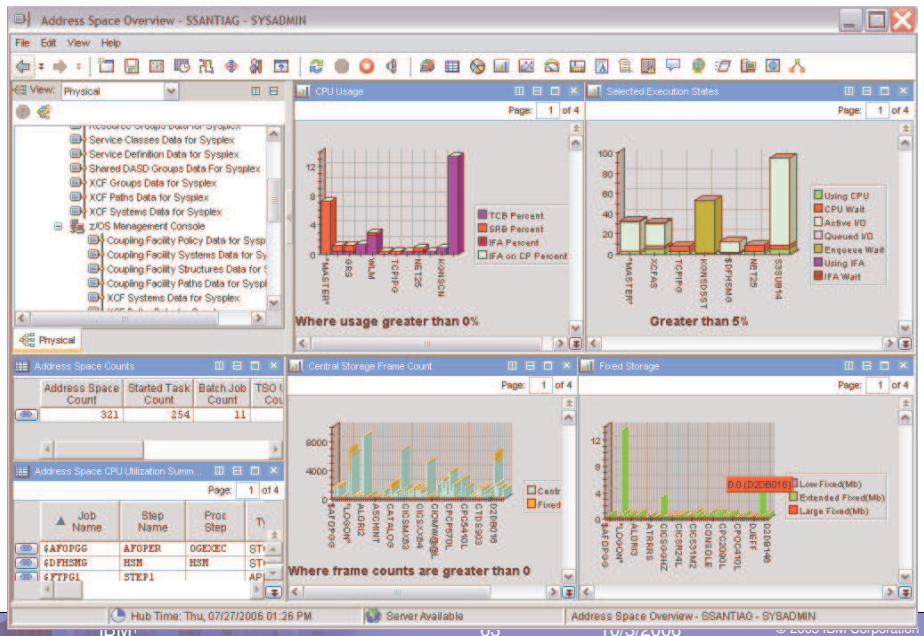

Coupling Facility Policy Data for Sysplex - SSANTIAG - SYSADMIN
File Edit View Help
View: Physical
XCF Paths Data for Sysplex
XCF Systems Data for Sysplex
z/OS Management Console
Coupling Facility Policy Data for Sysplex
Coupling Facility Systems Data for Sysplex
Coupling Facility Structures Data for Sysplex
Coupling Facility Paths Data for Sysplex
XCF Systems Data for Sysplex
XCF Paths Data for Sysplex
SYS
MVS Operating System
z/OS Management Console
LPAR400J:SYS:AVAILABILITY
Address Space Data for z/OS
Physical
Coupling Facility Policy
Coupling Facility Policy
Policy Name
Date Time Activate
Reformat Required
CFRMPOL0
07/27/06 12:33:59
No
Hub Time: Not Available
Server Available
Coupling Facility Policy Data for Sysplex - SSANTIAG - SYSADMIN

OMEGAMON Management Console Version 410 Coupling Facility Structures



OMEGAMON Management Console Version 410 Address Spaces workspace




Address Space Overview - SSANTIAG - SYSADMIN
File Edit View Help
View: Physical
Service Classes Data for Sysplex
Service Definition Data for Sysplex
Shared DASD Groups Data For Sysplex
XCF Groups Data for Sysplex
XCF Paths Data for Sysplex
XCF Systems Data for Sysplex
z/OS Management Console
Physical
CPU Usage
Page: 1 of 4
TCB Percent
SRB Percent
IFA Percent
IFA on CP Percent
Where usage greater than 0%
Selected Execution States
Page: 1 of 4
Using CPU
CPU Wait
Active I/O
Queued I/O
Enqueue Wait
Using IFA
IFA Wait
Greater than 5%
Address Space Counts
Address Space Count
Started Task Count
Batch Job Count
321
254
11
Address Space CPU Utilization Summ...
Page: 1 of 4
Job Name
Step Name
Proc Step
$AFOPGG
AFOPER
OGEXEC
$DFHSMG
HSM
HSM
$FTPG1
STEP1
Central Storage Frame Count
Page: 1 of 4
Where frame counts are greater than 0
Fixed Storage
Page: 1 of 4
Low Fixed(Mb)
Extended Fixed(Mb)
Large Fixed(Mb)
Hub Time: Thu, 07/27/2006 01:26 PM
Server Available
Address Space Overview - SSANTIAG - SYSADMIN

Summary

- z/OS Systems Management
  - New Face on z/OS
  - What is the OMEGAMON z/OS Management Console (zMC)?
  - Why you should test drive zMC
- OMEGAMON z/OS Management Console
  - Getting going with zMC
  - Installation information
  - Product Publications