### Improving Problem & Incident Management

IBM Tivoli OMEGAMON XE Monitoring











### Agenda

- OMEGAMON XE: What's available today
- OMEGAMON XE v4.10: New announcements for the latest in monitoring
- IT Service Management Solutions
- Summary







# OMEGAMON XE: What's Available Today?





### System z Monitoring for Operating Systems & Performance

Past Product	Transition	Current Product	Value Proposition and <i>Notes</i>
OMEGAMON XE for OS/390			
OMEGAMON XE for Sysplex	<b></b>	OMEGAMON XE on z/OS	Merges XE & Sysplex into single package.  To provide z/OS R1.7 support day 1.
OMEGAMON XE for Cryptographic Coprocessor		Shipped as 3.1.0	
OMEGAMON XE for USS		OMEGAMON XE for USS	Understand and manage performance of USS, an enabler of many applications and subsystems (WAS, TCP/IP, SAP)
OMEGAMON XE for Linux on zSeries		ITM for Linux on z	Planning on a new XE converged product in 2006
OMEGAMON for VM		OMEGAMON for z/VM	
OMEGAMON DE for OS/390	<b>——</b>	OMEGAMON DE on z/OS Shipped as 3.1.0	Integrated performance dashboard for all zSeries systems and subsystems.





### System z Monitoring For Middleware And Databases

Past Product	Transition	Current Product	Value Proposition and <i>Notes</i>
OMEGAMON XE for DB2 on z/OS	1	OMEGAMON XE for DB2	Best-of-breed DB2 monitor from combination of OMEGAMON XE and DB2 PE. Extended DB2 V8
DB2 PE		Performance Expert on z/OS Shipped as 3.1.0	support. DB2 and DB2plex monitors in a single package.
OMEGAMON XE for DB2 on z/OS		OMEGAMON XE for DB2	Best-of-breed DB2 monitor from combination of
DB2 PM		Performance Monitor on z/OS Shipped as 3.1.0	OMEGAMONXE and DB2 PM.
OMEGAMON XE for CICS			
OMEGAMON XE for CICSplex	<b>-</b>	OMEGAMON XE for CICS on z/OS (Aug. 2005)	Exploitation of CICS Transaction Server V2.3 and the upcoming V3 CICS Dispatcher. CICS and CICSplex
CICS PM (Plex and non-Plex)		Shipped as 3.1.0	monitors in a single package.
OMEGAMON XE for IMS			
OMEGAMON XE for IMSplex	<b></b>	OMEGAMON XE for IMS on z/OS (Dec. 2005)	Integration with IMS Tools. IMS and IMSplex monitors in a single package. Provides shared Queues support. IMS V9 exploitation.
IMS PM (Plex and non-Plex)	J	Shipped as 3.1.0	educes support. IIIIO 17 exploitation.
CICS Performance Analyzer	<b>—</b>	CICS Performance Analyzer	Insight for performance tuning and planning and managing capacity.
IMS Performance Analyzer		IMS Performance Analyzer	Comprehensive performance analysis and tuning help for IMS TM and DB.



### Monitoring For Storage And Mainframe Networks

Transition	Current Product	Value Proposition and <i>Notes</i>
<b>—</b>	OMEGAMON XE for Storage Shipped as 3.1.0	Provides discovery, monitoring and management of z/OS attached storage devices and files across the enterprise. Tracks capacity and usage changes over time enabling capacity management.
<b></b>	IBM Tivoli Storage Optimizer (ITSO)	Provides competitive storage administration functions.
OMEGAMON XE for Mainframe Networks  ITM for Network Performance	OMEGAMON XE for Mainframe Networks (Nov. 2005)  monitoring helps users understand ar network performance throughout the datacenter.  Utilizes the Comm Server NMI API for performance	Comprehensive Mainframe TCP/IP and SNA network monitoring helps users understand and manage network performance throughout the entire
		Utilizes the Comm Server NMI API for high
	Transition	OMEGAMON XE for Storage Shipped as 3.1.0  IBM Tivoli Storage Optimizer (ITSO)  OMEGAMON XE for Mainframe Networks



### Monitoring For Distributed Systems, Databases, Applications

Past Product	Transition	Current Product	Value Proposition and <i>Notes</i>
OMEGAMON XE for Windows Servers	)		
OMEGAMON XE for UNIX			
OMEGAMON XE for Linux on Intel and zSeries	<b>—</b>	IBM Tivoli Monitoring (ITM)	IBM Tivoli Monitoring provides monitoring for essential system resources to detect bottlenecks and potential problems, and to automatically
OMEGAMON XE for OS/400		(ITM)	recover from critical situations. Provides automated out-of-the-box best practices
IBM Tivoli Monitoring		Shipped as 6.1.0	
Universal Agent	J		
OMEGAMONXE for SAP R/3	}_	ITM for Applications (mySAP, Siebel)	Provides monitoring for SAP and Siebel applications to detect bottlenecks and potential
ITM for Applications	J	Shipped as 6.1.0	problems, and to automatically recover from critical situations. Provides automated out-of-the box best practices.
OMEGAMONXE for Distributed Databases	}_	ITM for Databases	Provides monitoring for database resources to detect bottlenecks and potential problems, and to
ITM for Databases	J	Shipped as 6.1.0	automatically recover from critical situations. Provides automated out-of-the-box best practices.
ITM for Message and Collaboration		ITM for Messaging and Collaboration	Automates critical Notes activities that consume a Notes administrator's time: system profiling, configuration and deployment, network management, and error recovery.
IntelliWatch for Unix and Windows		IntelliWatch for Unix and Windows	



### Composite Application Management

Past	Product	Transition	Current Product	Value Proposition And <i>Notes</i>
TMTP (Dist &	z/OS)	}	ITCAM for Response Time	IT CAM for RTT identifies and isolates performance problems using detailed transaction traces to isolate problems and proactively monitor end user response times to ensure SLAs are met.
ETEWatch			Tracking Shipped as 6.0	
Web Segment	Analyzer	<b></b>	ITCAM for RTT (2006)	WSA support will be added to ITCAM RTT during 2006
OM XE for WE	BI (Dist & z/OS)	}		Enables quick diagnosis of problems within the
OM XE for WM	MQ (Dist & z/OS)		OMEGAMON XE for	WebSphere Business Integration infrastructure
OM XE WICS	(Dist only)		Messaging	Renamed OMEGAMON XE for Messaging
ITM for Busin	ess Integration	<b></b>	OM XE for Messaging	ITMfBI DBCS capability available in XE during 2006





### **Event Correlation and Automation**

Past Product	Transition	Current Product	Value Proposition and <i>Notes</i>
System Automation for z/OS	<b></b>	System Automation for z/OS	SA z/OS is the primary System z automation and high
System Automation for Multiplatforms		System Automation for Multiplatforms	availability solution.  Tivoli will continue support and enhance AF/OPERATOR,
AF/OPERATOR	<b></b>	AF/OPERATOR	AF/IRM and OMEGACENTER Gateway bases to ensure customer investments are protected and no change of
OMEGACENTER Gateway	<b></b>	OMEGACENTER Gateway	automation platform is forced on users.
AF/REMOTE	<b></b>	AF/REMOTE	Complements SA and AF solutions by remotely managing data centers and alert notifications
AF/IRM (Service)	<b></b>	AF/IRM (Service)	Provides a full suite of pre-coded automation applications to extend automation capabilities and provide support for custom REXX automation scripts
Tivoli NetView for z/OS	-	Tivoli NetView for z/OS	Comprehensive set of tools for maintaining complex, multivendor, multiplatform networks and systems from a single point of control
Tivoli Enterprise Console (TEC)	<b></b>	Tivoli Enterprise Console (TEC)	Root cause analysis via system, network, application, security event collection, filtering; correlation to help in problem ID

<sup>\*</sup> AF/Advanced Notification is a 3<sup>rd</sup> Party Product available from Proxima





### **Business Service Management**

Past Product	Transition	Current Product	Value Proposition and <i>Notes</i>
Business Systems Mgr (TBSM)	-	Business Systems Mgr (TBSM)	Helps IT operations teams to maximize their effectiveness by aligning their resources (staff and technology) to the priorities of the business.
Service Level Advisor (TSLA)		Service Level Advisor (TSLA)	Helps enterprise customers simplify the definition, measurement, and reporting of service level agreements
Decision Support for z/OS	-	Decision Support for z/OS	A flexible reporting tool that can correlate systems performance data to help improve the economic performance of the IT investment.



# OMEGAMON XE v4.10: New announcements for the latest in monitoring





### New Releases of IBM Tivoli Products

All new product releases are planned for GA during 4Q06 except as noted

#### **Monitoring**

#### IBM Tivoli OMEGAMON XE

- z/OS V4.1.0 (First Quarter 2007 availability)
- CICS on z/OS V4.1.0
- ▶ IMS on z/OS V4.1.0
- ▶ DB2 Performance Expert on z/OS V4.1.0
- ▶ DB2 Performance Monitor on z/OS V4.1.0
- Mainframe Networks V4.1.0
- Storage on z/OS V4.1.0
- > z/VM and Linux V4.1.0
- IBM OMEGAMON z/OS Management Console V4.1.0 (First Quarter 2007 availability)
- Installation and Customization Assistance Tool (ICAT) V3.1.0 a component with OMEGAMON products
- Tivoli NetView for z/OS V5.2 Sparkler Release
- Web Access v1.3 for InfoMan Sparkler Release





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#### Application Management

- IBM Tivoli Composite Application Manager (ITCAM)
  - WebSphere V6.1 and ITCAM for J2EE V6.1
  - > SOA V6.1
  - Response Time Tracking V6.1 (Available now)
- IBM Tivoli Performance Modeler V2.3

#### **Automation**

- IBM Tivoli System Automation
  - z/OS 3.1 sparkler for TWS integration
  - Multiplatforms v2.2
- Tivoli Workload Scheduler
  - z/OS v8.2 sparkler for TSA integration
  - > z/OS v8.3

#### Storage

IBM Backup and Restore Manager for z/VM V1.2.0

#### **Security**

Tivoli Federated Identify Manager for z/OS v6.1 (Available now)



### Major New Common OMEGAMON Capabilities

- Delivered CCMDB TEP Discovery Library Adapter
- Added Globalization to Group 1 languages
  - French, German, Italian, Spanish, Portuguese, Chinese (simple & traditional),
     Japanese, Korean
- Extended Interoperability via Dynamic Workspace Linking
  - intelligently link to other workspaces using the context available at the time of link execution to reduce problem resolution time
- Added zIIP monitoring by OMEGAMON XE on z/OS & XE on DB2 PE/PM on z/OS
  - Day 1 support via service for OMEGAMON XE z/OS and DB2 PE/PM V3.1.0 via PTF and enhanced support in 4.1.0
  - zIIP address spaces, service classes, LPAR data, DDF server thread data, workloads eligible for zIIP that are running on standard CPUs





### Major New Common OMEGAMON Capabilities (cont'd)

- Extended Tivoli Data Warehouse (TDW) with support for Pruning and Aggregation
  - ▶ Automatic deletion of data and consolidated reporting by groups, dates, etc.
- Added IBM Support Assistant
  - Plug-ins to improve product support
- Added Problem Determination Guides
  - Help customers diagnose and solve operational problems
- Support for Agent Versioning added
  - Multi-product version support enable incremental deployment of OMEGAMON 4.1.0 products
- IBM Customization Assist Tool (ICAT) enhanced to simplify SMP/E and Run Time Environment (RTE) installation and deployment





### Dynamic Workspace Linking Functionality

**Problem:** How do I quickly find a potential problem

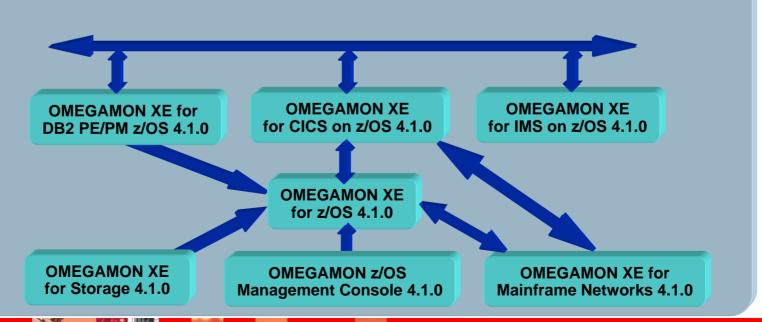
that requires multiple monitoring products?

Scenario: Dynamically link in context from CICS transaction

to the associated DB2 thread

Solution: Dynamic Workspace Linking

Product provided links & user customized





### OMEGAMON XE 4.10 – Enhancing the Portfolio

### New Release Objectives

#### Customer improvements and satisfaction

- Globalization
- Exploitation of new OS and middleware releases
- Extended capabilities

#### Portfolio Simplification

- Candle Management Workstation and OMEGAMON II continued movement to XE
- Merging of functionality in product suites where it makes sense

#### Integration

- Dynamic Workspace Linking
- Launch in Context with TSLA, TBSM and others
- Tivoli Data Warehouse pruning and aggregation

#### Serviceability

- Problem Determination Guides
- ICAT enhancements





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### OMEGAMON XE on z/OS v4.10 Highlights

zIIP processor usage and reporting – back fit in v310 as well (June)

- Basic RMF III launch, optional RMF collection for CF data
- Integration:
  - Linking from OM DB2 to OM z/OS (enclave), DWL to OMEGAMON XEs, and z/OS Management Console (zMC)
- I/O rate by address space from CUA
- Real Storage information from CUA
- Tape drive situation support
- z/OS Exploitation
  - CF structure duplexing reporting
  - HiperPAV support
  - Plex wide zAAP support
- Merging of OM XE for USS into OM XE on z/OS



### OMEGAMON XE for CICS on z/OS v4.10 Highlights

#### Continued CICS TS Support

- URIMAP summary, global counts and details for CICS web clients
- Web Service analysis reports for Web Service Details, Virtual Host Detail, Pipeline Detail, Document Template Detail
- Business Transaction Services (BTS) support for long running processes, type, name, container, activity
- Recovery Manager UOW reporting for application performance tuning
- Enqueue pool details for recovery
- ▶ Enterprise Java analysis reporting and Enterprise Java analysis report, Request model

#### Dynamic Workspace Linking

- ▶ CICS Transaction -> DB2 Thread, CICS Transaction Analysis data,
- DB2 Thread Exception Detail report, Shared Temporary Storage queue data -> CF Structures Data for Sysplex workspace, Log Stream Analysis data -> Coupling Facility Structures Data for Sysplex workspace
- CUA Migration to XE SLA and ATF
- Integration with CICS PA



### OMEGAMON XE for IMS on z/OS v4.10 Highlights

#### TRF reporting improvements

capability has increased precision expanding transactions to the millisecond Availability 4Q2006

#### DL/I call reporting for full function and Fast Path WFI regions

 Accumulation of all call types issued by an application during transaction processing and the number of each call type issued by an application during transaction processing

#### Migration from classic

Region occupancy %s has been added to Dependent Region statistics

#### HALDB support

▶ DB summaries, partition details, VSAM / OSAM statistics

#### DBCTL detailed thread reporting for monitoring activity

Allows detection and prevention of application bottlenecks and response time problems.

#### Enhanced IMS Connect reporting

- Provides summary of transaction performance, details about every transaction processed and auto-discovery of IMS Connect tasks
- Product provided Dynamic Workspace Links (DWL) to other OMEGAMONs (DB2 and CICS) have been added for greater integration





### OMEGAMON XE for DB2 PM/PE on z/OS v4.10 Highlights

- Support for zIIP processor usage
  - New DB2 Top Ten Volume reports for the System z9 platform
- DB2 version 9 day one support
- Enhanced Thread Overview
  - Show additional LOCK information and Changed Pages in all Group Buffer Pools
- DWL for enclave to OMEGAMON XE on z/OS, OMEGAMON XE for CICS on z/OS and OMEGAMON XE for IMS on z/OS.



### OMEGAMON XE for Storage on z/OS v4.10 Highlights

#### New storage toolkit for DFHSM and DFDSS functions

- Database administrators can quickly and easily create commands or schedule actions to maintain and administer DASD storage via the TEP
- Top ten volume reports
- New dataset attribute database
  - Granular and versatile reporting capabilities at the dataset level that can be administered via the new storage toolkit function
- New problem solving workspaces adding to your problem determination capabilities
  - Intelligent situation analysis
- Integration:
  - DWL to other OMEGAMON XE on z/OS
  - Launch of Total Productivity Center (TPC)



### OMEGAMON XE for Mainframe Networks on z/OS v4.10 Highlights

#### New performance reports

VTAM buffer pool and address space workspaces and SNA information

- Enhanced FTP records
  - Provided by the z/OS Communications Server Network Management Interface resulting in performance improvement
- TN3270 server session workspaces provide performance and availability metrics for systems running z/OS version 1.8
- Advanced historical reporting
  - Available using both new Tivoli Enterprise Portal workspaces and raw SQL queries against the Tivoli Data Warehouse database
  - DBCTL detailed thread reporting for monitoring activity allowing the detection and prevention of application bottlenecks and response time problems
- Enhancements to Enterprise Extender (EE) reporting, reporting as in the previous release, but also High Performance Router (HPR) connections that do not flow over EE connections, using the HPR wildcarding function available through the z/OS version 1.8 NMI.
- DWL to OMEGAMON XE on z/OS and NetView on z/OS for greater integration.





### OMEGAMON XE for z/VM and Linux on zSeries

- Combined offering to monitors z/VM and Linux on System z
- Provides workspaces that display
  - Overall System Health
  - Workload metrics for logged-in users
  - Individual device metrics
  - LPAR Data
- Composite views of zLinux running on VM
- Leverages the VM Performance Toolkit



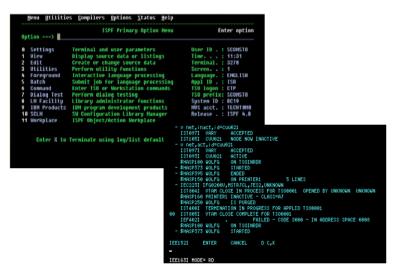






### Modernizing the "Face" of z/OS

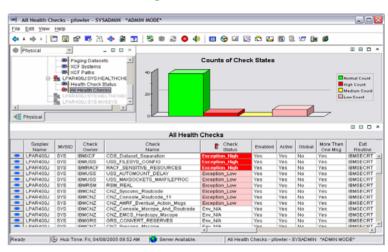
### The way it's been



### 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

#### The way it can be



- ✓ 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





## Simplifying z/OS Operations Using OMEGAMON and Tivoli Enterprise Portal Technology - New management console

#### **Value**

- Simplify z/OS management for the new generation of IT professionals
- Automating, eliminating, and streamlining tasks
- Easily upgradeable to full OMEGAMON solutions

#### **Capabilities**

- Task oriented approach with GUI front end
- z/OS Health Checker data plus Tivoli Monitoring Services base capabilities
  - Expert Advice
  - Take Action

Configuration status metrics for z/OS resources displayed using Tivoli Enterprise Portal

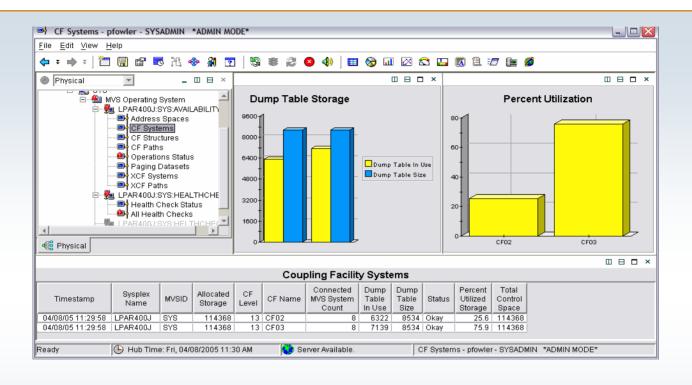
Improved ease-of-use of z/OS management Value-add upgrades to comprehensive Tivoli

Monitoring Services products





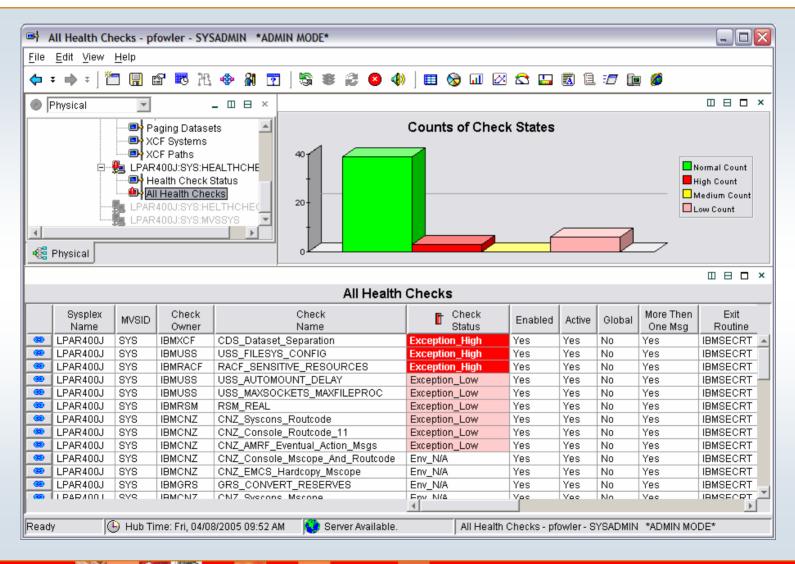
### IBM OMEGAMON z/OS Management Console



- Eliminates memorization of complex DISPLAY commands
- Visualizes status of sysplex resources and Health Checks
- Shipped 1.1.0 December 2005
- Shipped 1.1.1 with ITM V6 support March 2006



### OMEGAMON zMC: Configuration Health Checks



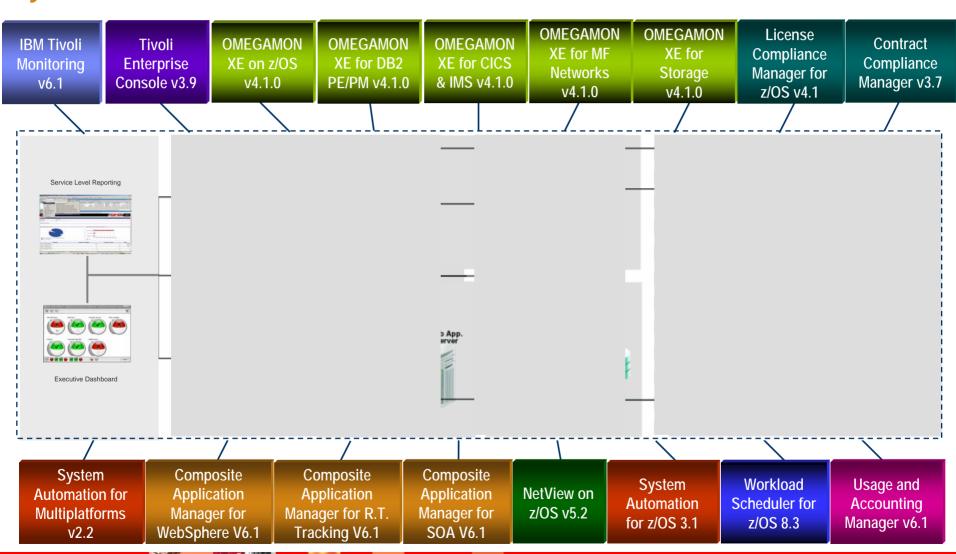


### IBM OMEGAMON z/OS Management Console v4.10 Highlights

- Coupling Facility status extra details and policy name
- Coupling Facility Resource Manager (CFRM) status for contention issues
- LPAR Cluster status details
- Unix System Services dubbed address spaces that are running from a z/OS perspective
- Unix System Services processes running on the system
- DWL to OMEGAMON XE on z/OS for better integration and problem determination



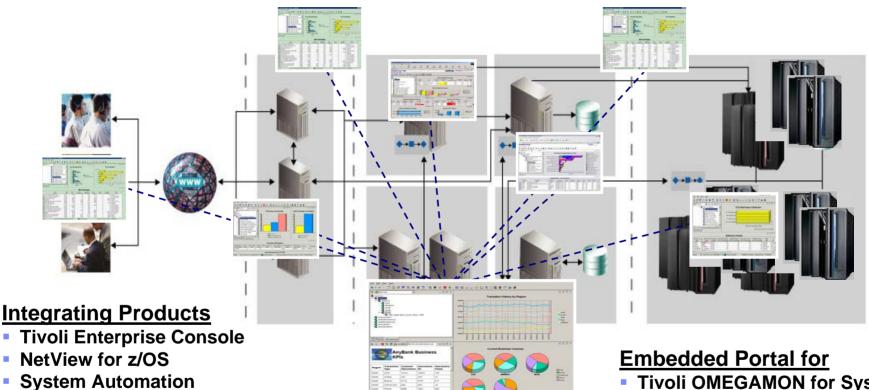
### End to End Management from Tivoli System z Portfolio





### Complete View Of Application Performance

A Dynamic Role-based Policy Workspace for Integrating IT Operations Silos



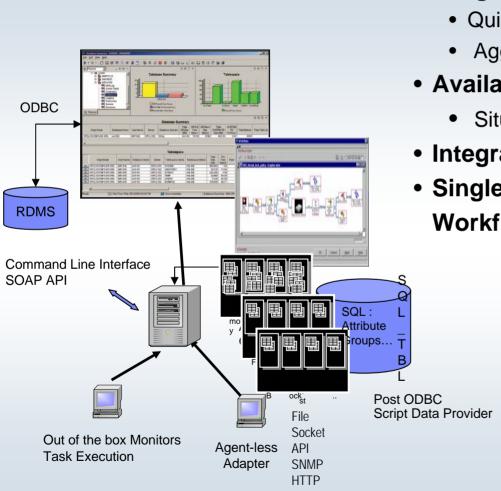
- Tivoli Workload Scheduler
- **Tivoli Monitoring Version 5**
- **Tivoli Service Level Advisor**
- Tivoli Business Systems Manager
- Netcool OMNIbus Active Event List

- **Tivoli OMEGAMON for System z**
- **Tivoli Monitoring Version 6**
- IBM OMEGAMON z/OS **Management Console**
- **Tivoli Composite Application Manager Family**

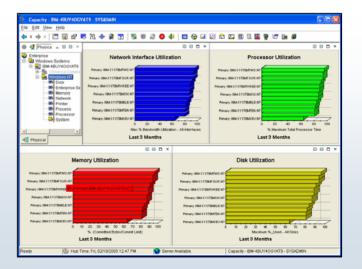




### Tivoli Enterprise Portal – More than Visualization



- Integrated Warehouse
  - Quick Setup with Full Operational Data
  - Aggregation and Pruning
- Available Data Management:
  - Situations, Workflows, Policies
- Integrated Run-book with Expert Advise
- Single Operations Console with Workflow

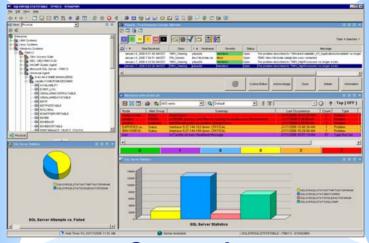




### New Product Releases - Centralized Management

#### Mainframe OMEGAMON

- zliP & zAAP processors
- RMF III integration
- CICS TS 3.1
- CICS JMV statistics
- CICS PA integration
- Enterprise JAVA reporting
- IMS TRF & HALDB reporting
- IMS Connect
- DB2 Connect
- DB2 v9
- SQL PA integration
- Comm Server Network
  Management Interface data
- EE & HPR network reporting
- DFHMS & DFDSS storage adm
- z/VM & Linux reporting
- z/VM PTK integration



### Composite Application Management

- Application topology & transaction info to CCMDB
- Web Services and Configurable Mediation Primitives
- DataPower
- Lotus Workplace, ESB, and Process Server
- Custom MBean Monitoring, Web Session data, Enhanced Memory Analysis
- J2EE applications on JBoss and Tomcat

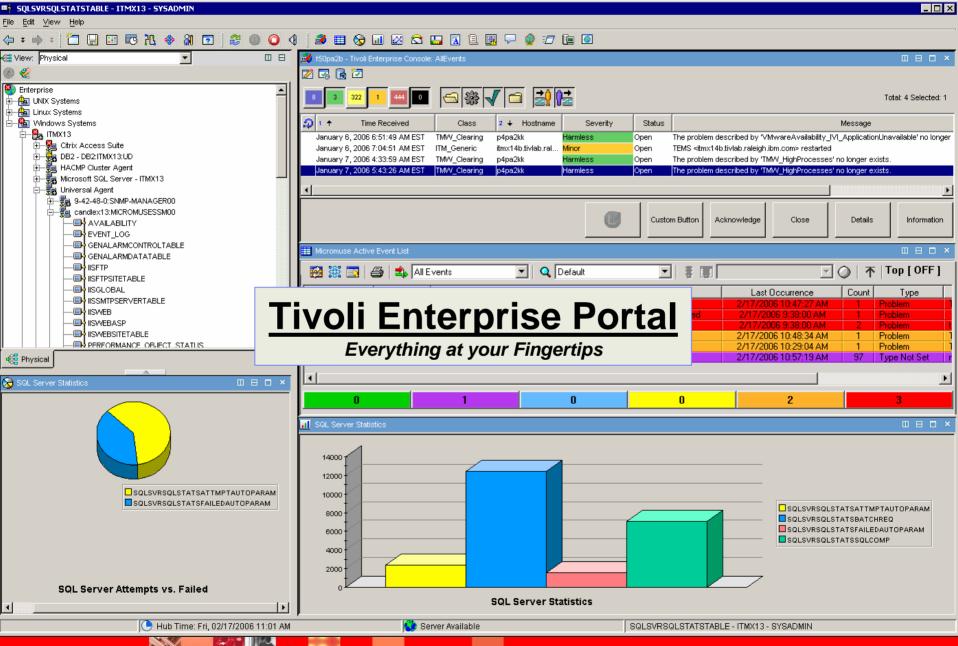
### Distributed ITM 6.1

- UNIX
- Windows
- Linux
- OS/400
- DB2, Oracle, Microsoft SQL, Sybase
- mySAP, Siebel
- HACMP
- Microsoft Exchange
- Microsoft .NET
- Virtual Servers Citrix, VMWARE ESX

End To End Management









### **OMEGAMON Preview Summary**

#### IBM Tivoli is committed to bringing System z solutions that:

- Expand System z capabilities while enhancing its proven strengths
- Reduce the costs associated with operational and systems management

#### Integrate and Interoperate

Maintaining our leadership in enhancing System z hardware and software to integrate and interoperate with new platforms and applications

#### End to End Solutions

 Providing End-to-End management solutions to find and fix problems quickly, leveraging System z and Tivoli solutions

#### ITSM Solutions

 Delivering ITSM solutions that can meet your key IT challenges cost effectively









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