# Improving Availability and Productivity with z/OS Monitoring

*Providing collaboration across your Enterprise*

Kevin Hosozawa, OMEGAMON Product Manager

# OMEGAMON Family provides integrated performance monitoring for improved productivity and availability

**Business Challenge: Need to see across systems and be more proactive to avoid outages**

OMEGAMON family integrated performance monitoring strategy
supports this challenge with standardized user Interfaces
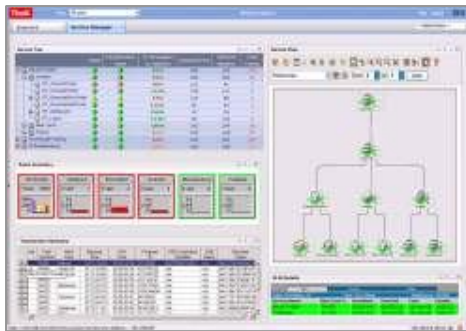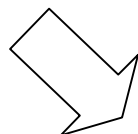


**GUI
(Operations - Monitoring)**
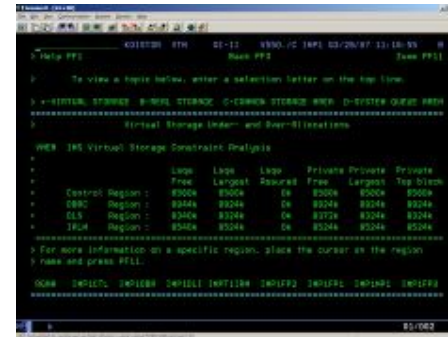


**System z Control Panel
(System Programmers –
Subject Matter Experts)**

*Delivering Operations and Subject Matter Expert views for
faster problem determination and resolution
yielding higher system availability*

# OMEGAMON products collaborate via Dynamic Workspace Linking to quickly track down problems
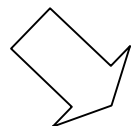
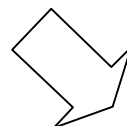**Problem Sensed**

Launch OMEGAMON on z/OS

Dynamic Workspace Linking shares information across OMEGAMON products

Launch OMEGAMON for Storage

**Problem Isolated**

Launch OMEGAMON for Mainframe Networks

*Organizations which applied an integrated approach show superior results compared to organizations which did not*

**Problem Diagnosed**

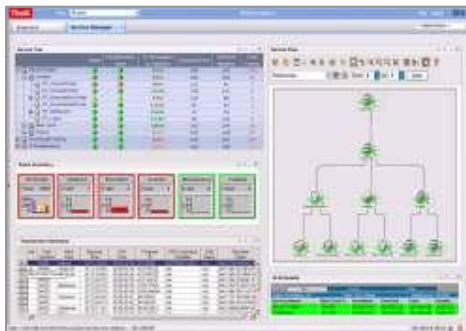# OMEGAMON Launch in Context capability improves collaboration between different types of users

OMEGAMON provides easy to use navigation between users and views

**Problem Diagnosed**
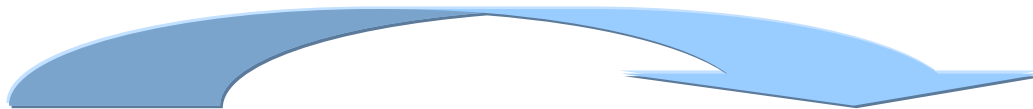
**Problem Repaired**

**GUI**

**System z Control Panel**

Integrate broad range of IT information increasing staff visibility and awareness
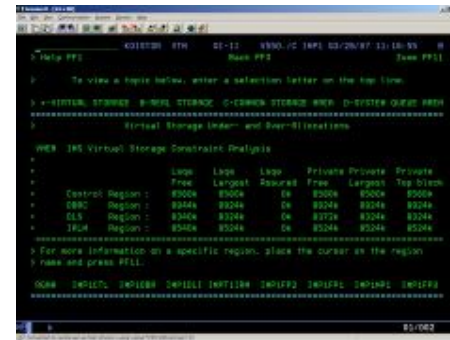
"Launch in Context" provides fast path to SME for quicker problem resolution

# Tivoli integrated performance monitoring creates hierarchical collaboration approach

**Tivoli Business Services Manager (TBSMz)**
Combine information across multiple Tivoli monitors for end-to-end business impact view
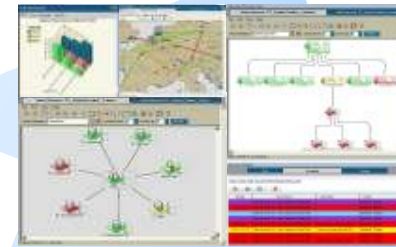
**OMEGAMON DE**
Combine information across multiple OMEGAMONs for IT Management

**OMEGAMON XE Family**
*Tivoli Enterprise Portal GUI*
Consolidating information

**OMEGAMON XE Family**
*System z Control Panel*
Critical focus required by SMEs

**IBM**
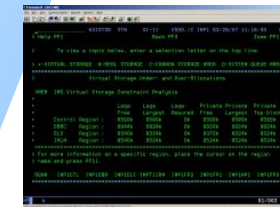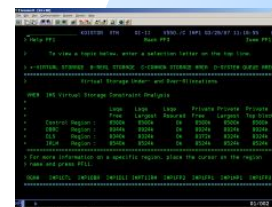
# Tivoli Enterprise Portal (TEP) allows collaboration across z/OS, Storage and Mainframe Networks

| | |
|---|---|
| z/OS Health check | *z/OS Management Console* |
| z/OS & USS | *OMEGAMON XE on z/OS* |
| Network Availability | *IBM Tivoli NetView for z/OS* |
| Network Performance | *OMEGAMON XE for Mainframe Networks* |
| DB2 | *OMEGAMON XE for DB2* |
| CICS | *OMEGAMON XE for CICS* |
| IMS | *OMEGAMON XE for IMS* |
| Storage | *OMEGAMON XE for Storage* |
| WebSphere MQ | *OMEGAMON XE for Messaging* |
| WebSphere Appl Server | *ITCAM for WAS* |
| z/VM & Linux on z | *OMEGAMON XE on z/VM and Linux* |
| Distributed Monitoring | *IBM Tivoli Monitoring (ITM) & ITCAM* |

**TEP**

Tivoli Enterprise Portal

# Optimize performance and availability of z/OS platform with <u>OMEGAMON for z/OS Management Suite</u>

- Supplying visibility to cloud and mobile environments

- Bringing forward an integrated System z view for virtualized, network infrastructure
  - Managed based on key performance indicators (KPIs)

- Increasing Operations staff control of total System z environment with single view of:

  - Network, both SNA and IP

  - System z Storage

  - Operating System

# OMEGAMON for z/OS Management Suite improves ability to manage performance and availability

- Simplifies Problem Source Identification across system
  - Helps navigate from alerts to metrics

- Offers built in historical and trending data and reporting

- Eliminates false alerts

- Matches expert decision making combining thresholds from multiple metrics

- Evaluates combined cross system or subsystem events

- Assists less experienced system administrators by providing guidance and recommendations

- Provides alerting with flexible, optional threshold overrides

# Management Suite provides more complete view of Mainframe environment

- Reduces data collection overhead by leveraging metrics already collected by RMF

- Provides Bottleneck Analysis that pinpoints address spaces competing for resources allowing realignment of priorities

- Identifies looping tasks by calculating a loop index using multiple attributes (e.g. CPU, I/O)

- Provides real-time information on Processor spin-loops

- TSO response time reported at the user id and Service Class level providing monitoring capabilities at a workload and business execution level

- Provides support for IPSec (IKE tunnels, IP filters, Security Associations)

# Mainframe network capability provides valuable network performance information

- **Visibility: View Network Connections and Performance on z/OS**
  - Extensive data and graphical displays of network performance
  - Covers both software and hardware aspects of z/OS data networks (e.g. OSA adapters, TCPIP stack)

*Easily identify and follow problems through the z/OS network and beyond*

- **Control: Enhance Automation through defined situations**
  - Deploy product-provided situations that can generate alerts for many network problems as they occur

*OMEGAMON situations provide shortcuts to problem determination by linking directly to problem areas*

- **Automation: Provide Instant responses to network problems**
  - Enable easy integration between OMforMfN and NetView automation, or take actions directly to address problem management situations

*Fix network problems as they occur without manual intervention*

# Using Management Suite improves overall storage management across z/OS

- Maps impact of storage issues to applications by showing application view of storage utilization, performance, and availability both locally and across systems in a shared DASD environment

- Shows effect of problems with physical disks on applications by identifying logical volumes residing on physical disks which can then be mapped to physical I/O

- Provides ability to self discover resources allocated to critical servers so new DASD will be monitored as soon as it is brought online.

- Provide dataset level access statistics by in real-time providing the ability to closely monitor mission critical datasets

- Identifies cross system workload impacts by calculating true device busy and contention indices to provide comprehensive view in a shared DASD environment

IBM

# OMEGAMON for z/OS Management Suite provides Visibility across entire z/OS Mainframe environment

- Delivers a fully integrated real-time monitoring solution
  - Incorporates alerts and metrics in single user interface
  - Reducing cost of monitoring enterprise
  - Reduced learning curve and intelligent alerting

- Supplies User interfaces for both Operations and SMEs
  - Facilitating communication and reduces time to problem resolution

- Provides basis for powerful Integrated Service Management capabilities
  - Integrating with other service management domains
    - System automation, business service dashboards, service request management, and configuration management

- Most flexible system on the market with displays which can be customized to match the business needs

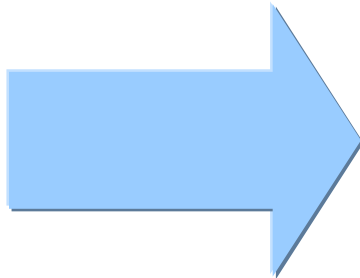# OMEGAMON for z/OS Management Suite provides real business value across z/OS mainframe

| Capabilities | Business Value |
|---|---|
| • Fully integrated with correlation<br><br>• Reduced Problem Source Identification<br><br>• Automation capabilities without extra components | Reduces cost of enterprise wide monitoring and management with a flexible, intuitive, customizable user interface that is useful for SMEs and Operations |
| • Bottleneck analysis shows what is causing response time issues<br><br>• Impact analysis within same product<br><br>• Looping task identification using more metrics | Fast Problem Source Identification (PSI) reducing time to find and repair issues proactively before they become outages |
| • Provides IPSEC support<br><br>• Tightly integrated with NetView<br><br>• Single solution for TCP/IP and SNA | Integration between network monitoring and management allows immediate action to be taken from single user interface |
| • Provides cross-system utilization and contention statistics for true busy<br><br>• Provides dataset level Access statistics by application | Show true utilization across system z and monitor critical datasets in real time providing information at the business application level. |

# OMEGAMON XE for z/OS Management Suite supports enhanced collaboration across System z

Collaboration across z/OS, Storage and Networks

**Integrating Performance KPIs**

- Speed time to problem resolution
- Improved Performance
- Increase System Availability
- Enhance Operational Productivity
- Improve Return on Investment

# Find out more about OMEGAMON for z/OS Management Suite value and visibility capability

- *Gain improved visibility across z/OS system, network and storage*
  - *OMEGAMON for z/OS Management Suite:*

- *Learn more about OMEGAMON at Pulse*
  - *Pulse 2012 Conference*

- *Leverage Integrated Service Management information:*
  - *Integrated Service Management for System z*

- *Take advantage our of FREE self-assessment tool:*
  - *Integrated Service Management Self-Assessment*
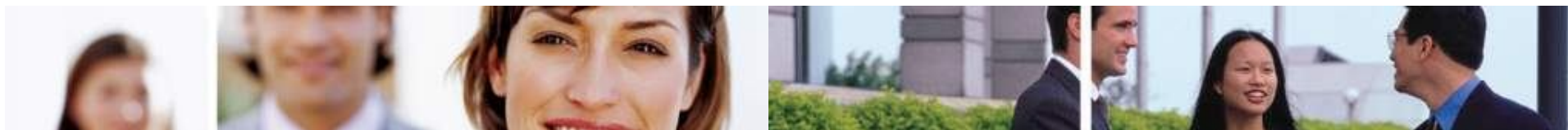
# Thank You for Joining Us today!

Go to **www.ibm.com/software/systemz** and click on events to:

▸ Replay this teleconference

▸ Replay previously broadcast teleconferences

▸ Register for upcoming events