

11792: What's New with System z Monitoring with OMEGAMON

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An Agenda



OMEGAMON family

Something new

redesigning the delivery of software

the new architecture

- Simplification
- The enhanced 3270 ui

Demonstration

Roadmap

OMEGAMON product family has been helping customers monitor System z for 20 years

7 branded products focused on monitoring and availability management across z systems

- *OMEGAMON XE on z/OS v5.1*
- *OMEGAMON XE for CICS on z/OS v5.1*
- *OMEGAMON XE for DB2 PE v5.1.1*
- *OMEGAMON XE Suite 4.2.1*
- *Generally Available - Now*
- OMEGAMON XE for Storage on z/OS
- OMEGAMON XE for IMS
- OMEGAMON XE for Messaging
- OMEGAMON XE for Mainframe Networks
- Used with **IBM Tivoli Monitoring** to provide end-to-end application performance monitoring
- Supports both:
 - Green screen (3270) for rapid response times for system programmers
 - Graphics User Interface (Tivoli Enterprise Portal) for Operations/LOB personnel

Business Leaders are looking at IT to drive business agility and flexibility across their Enterprise



VISIBILITY



CONTROL



AUTOMATION

React with agility to diverse IT landscape

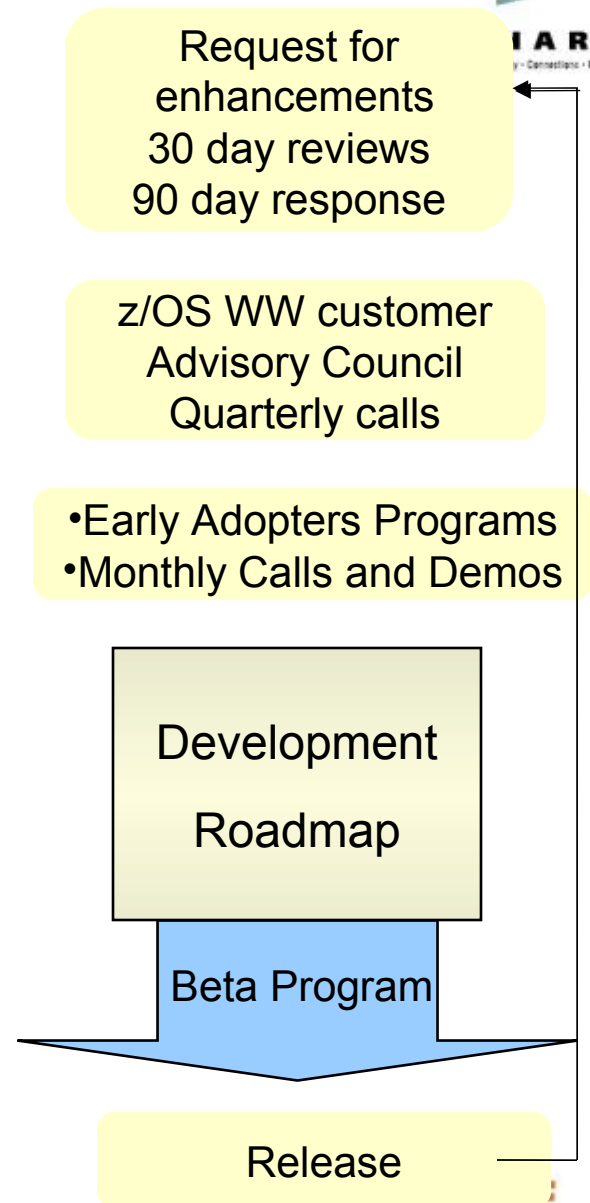
Execute with reduced risk & cost

Achieve desired business outcomes

How we deliver software

Changing How we Develop Software

- Client involvement from the beginning and throughout the development process
 - Over 40 clients throughout North America and Europe
 - Different size IT shops
 - Different customers for each monitor.
- Agile (transparent) development model validates use cases and functions as we go
- Over 100 pieces of feedback driven into the product by monthly reviews and demonstrations.



OMEGAMON customer directed design focused on helping decrease costs and improve usage

Redesigned OMEGAMON Enhanced 3270 User Interface addresses customer requirement to make problem analysis more efficient and effective

System Programmer Driven Focus Areas for Improvement

- **Simplify** Eliminate complexity and frustration
- **Standardize** Align with existing IBM 3270 Applications
- **Integrate** Move from silo monitoring towards composite views
- **Minimize** Reduce footprint, install, configuration, and CPU
- **Modernize** Make the 3270 Interface ‘Best of breed’ – SME focused Problem Solving Scenarios
- **Customize** Personalize User Interface



OMEGAMON XE involves SMEs for faster problem determination and availability management

Customer Driven Development : Subject Matter Experts who use our tools, designing how they want us to provide information to solve today's problems.

As a SME for zOS performance I need a single view sysplex highest consumers of key performance metrics to include at least CPU, I/O, Storage, EXCPT(ENQ), at an enterprise wide sysplex level in a single 3270 screen

As a systems administrator, I need the OMEGAMON on z/OS agents to drive component install in all framework parts so that I can reduce my FTE (full time employment) requirements.

As an SME, I want to have my most useful 25 z/OS performance and availability problem solving scenarios available to use as is and modify as part of the 3270 presentation services so that I can reduce the number of steps in my diagnosis

As a SME for zOS performance I need a single view common storage depletion across an enterprise wide sysplex view in a single 3270 screen which shows me the Enq delay and what resources are affecting it..

As a system programmer I need to see the data from a single plex when linking to a sysplex workspace in a multiplex environment to be able to drill down for problem analysis.

As a systems programmer I would like to see the health checker part of the OMEGAMON on z/OS product which will allow me to maintain one product

Requirements gathered and prioritized by customers

Enhanced Configuration and Maintenance capability with Self-Describing Agents

Faster, easier, less error-prone for improved reliability and productivity

- Eliminate monitoring outages caused by ITM Server recycles
 - Product upgrades/maintenance requires agent or RTEMS recycles only
- Eliminate maintenance upgrade errors:
 - Applies to new installs, staged upgrades, and maintenance
 - Crosschecks and validates version with installed data and framework
 - Avoids inconsistent application data in ITM framework layers
- Self-describing framework extensible to new capabilities
- Eliminates application data DVDs and CDs:
 - No extra distributed installs or upgrades for mainframe-centric customers
 - A tip - get your USS setup right and make sure you have RKCPDEFW allocated at your Hub TEMS.

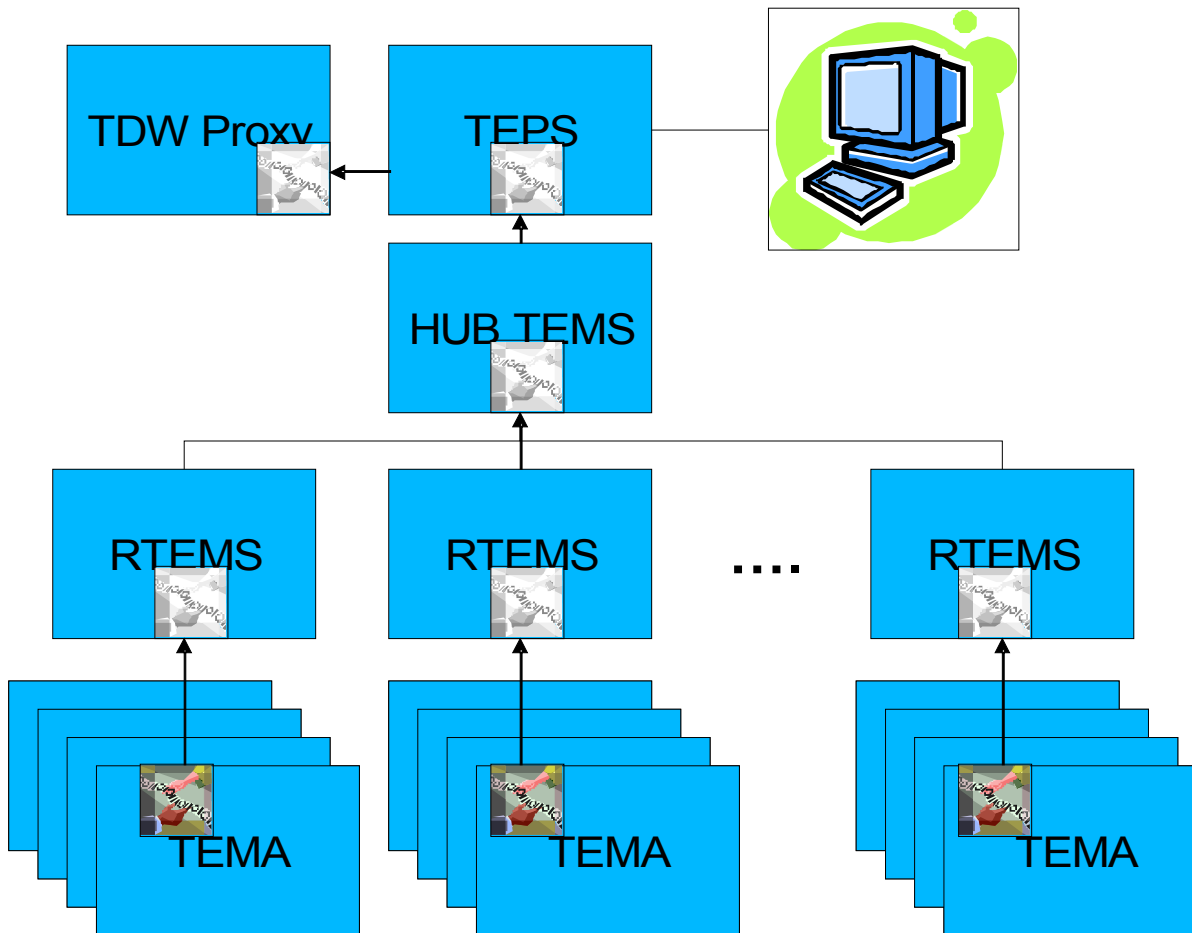


- 80% improvement in FTE requirements
- 60% improvement in time for installation and maintenance
- 30% improvement in time to configure post installation

Leveraging Self-Describing Agents ITM 6.2.3



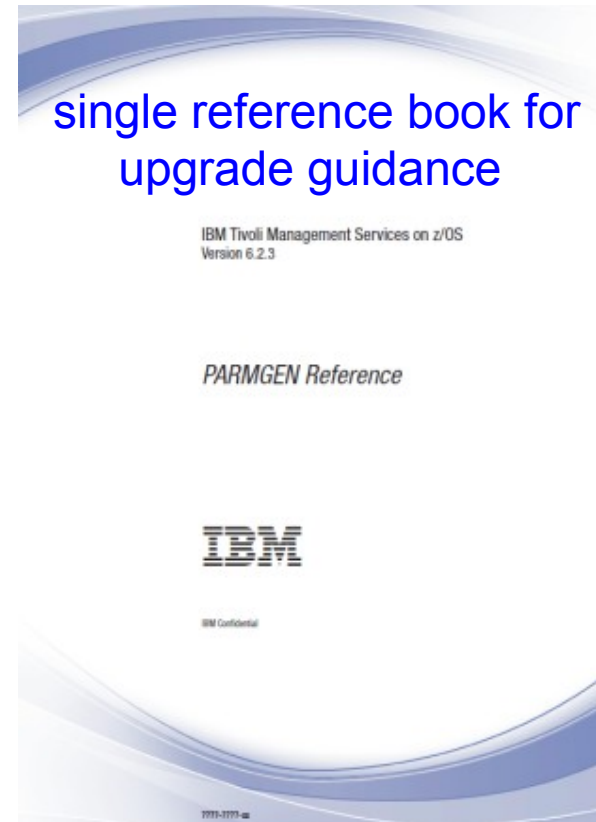
= propagated App Data,
Imbedded in Agent



- App data propagated from agents to ITM servers
- Propagation executed only when a higher version is detected
- New apps, upgrades & updates installed without recycling servers
- PTFs delivers app data with updated agent (always in sync)
- App data includes CAT/ATRs, TEP workspaces, queries, history collection, help, UI extensions (jar files)
- Eliminates install of mainframe data on distributed ITM servers

Simplify Customer Driven improvements with Installation and Configuration enhancements for Parmgen

- Removal of ICAT as the primary way to Install and Configure 1
 - *before -145 ICAT **product-centric** jobs to configure 38 components for 1 LPAR RTE*
 - *now - 8-10 Parmgen **function-centric** jobs to configure components for 1 LPAR RTE*
 - *Customers experiencing over 35% improvement in install and configuration time.*
- Install without need of a distributed server
- Walks you through steps to complete configuration and customize a profile
- Automatically updates hundreds of configuration artifacts according to profile, including Auto-discovery of system values



“I like using the Parmgen approach better than CICAT/ICAT. I find it much easier to make things repeatable...”

14

I like the fact that Parmgen does not overwrite my running members”

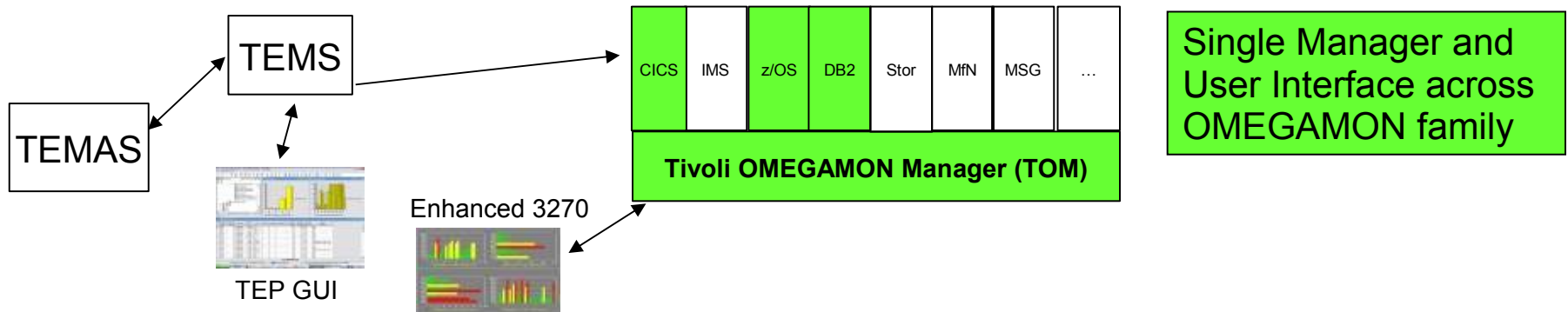
Complete your sessions evaluation online at SHARE.org/AnaheimEval

Typical quotes from early adopters program

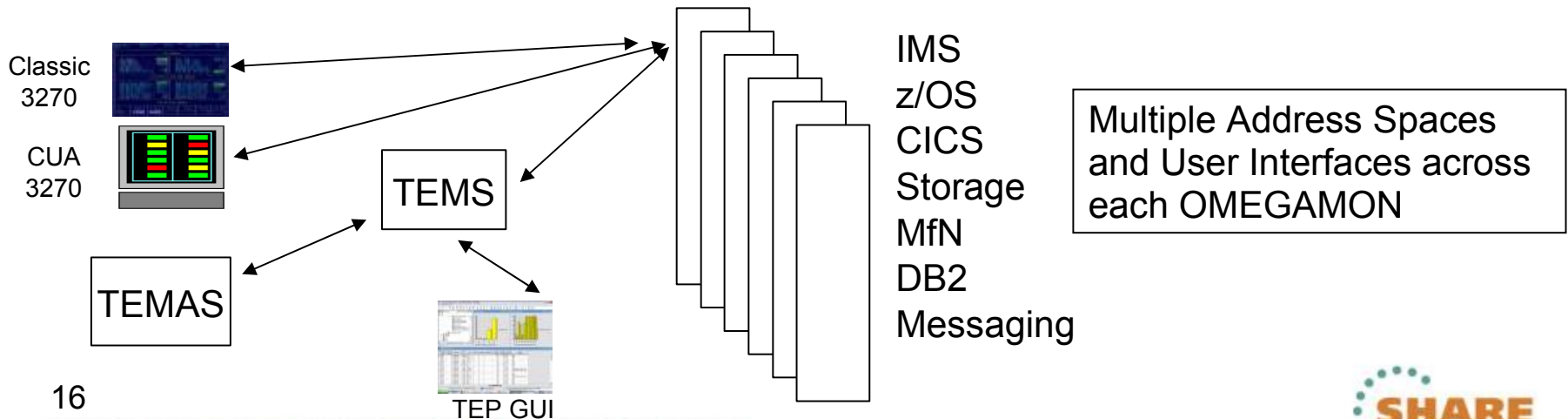
Simplifying the Architecture

Moving to simplified architecture driving decreased resource utilization without lose of current function

V 5.1 Enhanced OMEGAMON Architecture



V 4.2 OMEGAMON Architecture



ISPF like but not ISPF same look, touch, feel for all monitors

The screenshot shows a terminal window with a menu bar (File, Edit, View, Tools, Options, Help) and a status bar (01/26/2012 13:56:42). The main content is a table titled 'All Active CICSplexes' with columns for Name, Regions, Transaction Rate, CPU Utilization, and SOS Regions. The table contains two rows: GAPPLPLX and SYSGPLX. The SYSGPLX row has red background highlighting in the Transaction Rate and CPU Utilization columns. Various UI elements are annotated with callouts:

- Up / Down Left / Right Scroll Controls:** Points to the arrow keys in the table's navigation bar.
- Panel ID:** Points to the 'Command ==>' prompt.
- Subpanel Collapse / Expand Control:** Points to a checkbox in the subpanel header.
- Column Sort Control / Indicator:** Points to a small icon in the first column header.
- Navigation Selection Field:** Points to the first column header.
- Fixed Column Indicator:** Points to a vertical dashed line in the first column.
- Status / Threshold Hilighting:** Points to the red background in the SYSGPLX row.
- Starting Row Selection:** Points to the first row of the table.
- Subpanel Close Control:** Points to the 'X' icon in the subpanel header.
- Auto Update On/Off:** Points to the 'Auto Update : Off' status.
- NAV1 / NAV2 Fields:** Points to the 'Columns 2 to 6 of 19' and 'Rows 1 to 2 of 2' fields.
- Toolbar:** Points to the menu bar.

ΔCICSplex ▽Name	ΔNumber of ▽Regions	ΔTransaction ▽Rate	ΔCPU ▽Utilization	Any SOS Regions	SOS Region
- GAPPLPLX	2	0/m	0.0%	No	n/a
- SYSGPLX	1	0/m	0.0%	No	n/a

Reducing Total Cost of Ownership

Reducing costs for tools. - What is being done



- **Basic understanding**

- are you running zIIPs?
- Costs involved vs giving up GCPs
- Not all the time effective for the total CEC usage

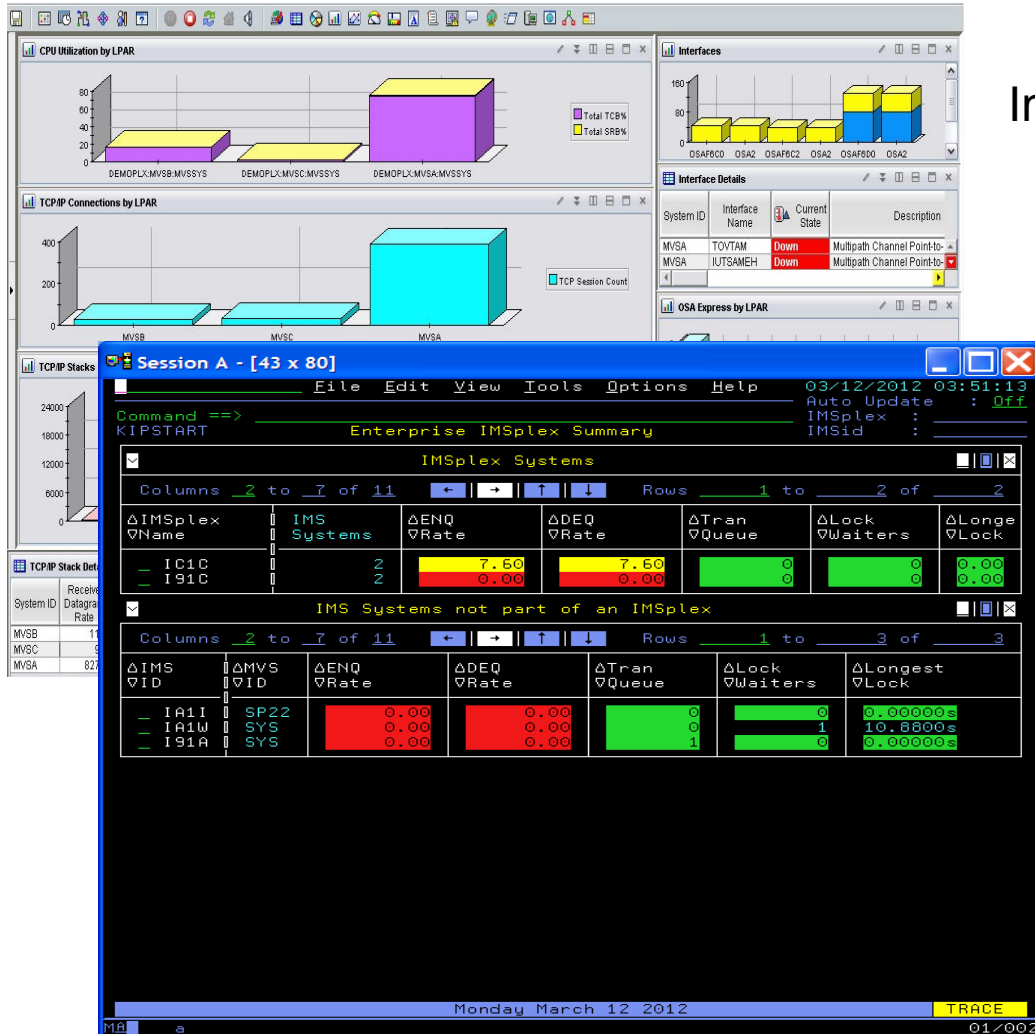
- Lastly, it is sometimes faster to get a small metric from the GCP vs the machine scheduling zIIPs getting a metric and then returning it.

Understanding reducing usage with Specialty processor marketecture

- First the reality
 - CPU consumption of OMEGAMON is different on every LPAR at the same customer at same maintenance level.
 - This is true for **ANY** vendor, the CPU is dependent on the physical resources (DASD, Memory, etc.) and the workload volume (transactions, I/Os, etc.).
 - Its also dependent on which features are enabled and what exceptions are looked at how frequently and # of 3270 users looking at the same data multiple times.

- Vendor Claims - huge savings!!!!
 - Reality - it depends. *it is like comparing apples to starfish.*
 - Currently vendors offer a few products that use zIIPs but have a mix of monitors where the other products don't.
 - Analysis Usage can vary widely for the other monitors.
 - A clear understanding and how often a routine is used is required.
 - If z/OS is low but CICS and IMS are higher where do you end up?
 - *Are you really saving anything over all?*

OMEGAMON V5.1 Family products



Improving the Subject Matter experts view using the enhanced 3270ui
 And still supporting
 End to end views
 with the Tivoli Enterprise Portal

Different UIs to support
 the different IT
 Personas.

Providing the same visibility
 (same view of the problem)
 to multiple IT folks
 while looking at different UIs

Business Agility with improved IT visibility now available with OMEGAMON V5.1 family

Modernized and strengthened OMEGAMON product line for reduced resource usage and faster problem resolution

Increased System Availability with faster problem resolution

- Enhanced 3270 User Interface for SMEs
- Built-in Problem Solving Scenarios

Improved Productivity with simplified information

- Faster Install/Configuration/Maintenance
- zEnterprise monitoring across z196/114 and zBX

Reduced Costs with decreased resource usage

- Usage of zIIP specialty servers
- Simplified OMEGAMON architecture



Individual products include additional capability

OMEGAMON for z/OS provides SMEs with faster problem determination and availability management

Providing what Customers required in the modernized OMEGAMON

- **Simplify monitoring** with ability to view enterprise summary of multiple sysplexes and subsystems
 - Save 50 to 75% of time needed to find problems
- View **Enterprise Summary** of multiple sysplexes
- **Direct navigation** to other OMEGAMON v5.1 monitors
- New CEC and CPU **top consumers views**
- **End-to-end monitoring** from sysplex to lpar to address space
- **Visibility to zIIP** usage with DASD monitoring



Command and Control from Enhanced 3270 User Interface

OMEGAMON for CICS reduces resource usage and speeds finding and fixing hung users

In addition to the OMEGAMON V5.1 family capability:

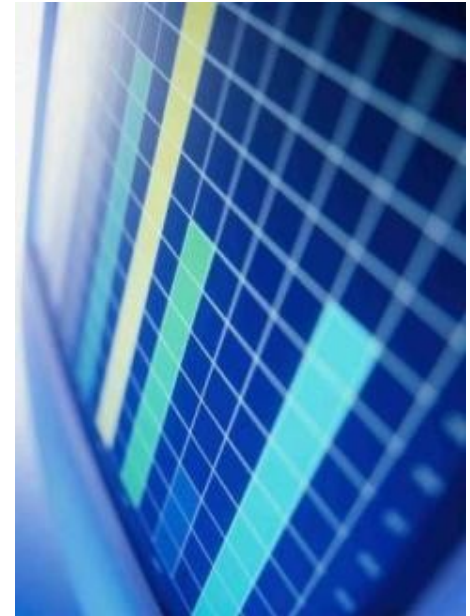
- **Decrease resource usage** by taking advantage of zIIP specialty processor
 - Up to 73% of CICS SLA processing off-loaded
- **Improve availability** with new 'Find' command to easily locate supported resources, such as users, over the entire CICSplex
- Reduce problem analysis times from 90 minutes to 2 minutes
- **Manage using service level analysis** of transactions based on response times with new enhanced 3270 UI
- **Integration of metrics** to CICS Performance Analyzer for reporting
- **Navigation from CICSplex to region** to resource for faster problem identification and resolution



Gain new insight into DB application performance with OMEGAMON for DB2 Performance Expert and Monitor

In addition to the OMEGAMON V5.1 family capability:

- **Visibility into IBM DB2 Analytics Accelerator (IDAA)** delivering query results for ‘Train of Thought’ analysis
 - Maximize your organization's ROI from appliances
- **Quickly and concisely identify** primary contributor to poor distributed application response time with *Extended Insight*
 - Single web-UI display with response time metrics
 - Reduce time chasing down problems that turn out to not be DB2
- **Unlock performance of DB2 Stored Procedures** with new displays
 - Improve performance for multiple applications simultaneously with increased visibility
- **zIIP Enablement of Near Term History** for reduced MIPS



OMEGAMON for IMS improves operator productivity and performance

In addition to the OMEGAMON V5.1 family capability:

- **View Health Summary** of IMSplex and individual IMS regions
- **New issue IMS Commands capability** from e3270ui.
- **MIPS reduction** with Application Trace Facility replacing near term history.
- **Easy navigation** from IMSplex to Region to Resource
- **Faster, Easier Installation** with Parmgen and Self describing Agent support
 - 80% improvement in time for installation and maintenance



Coming Soon!

OMEGAMON for Messaging V7.1 provides ability to view entire MQ environment and quickly take action

In addition to the OMEGAMON V5.1 family capability:

- **New views** of health of Queue Managers, Queues and Channels
- **Enhanced support** for WebSphere MQ v 7.1 and WebSphere Message Broker v 8
- **Increased visibility** outside the z platform for common WebSphere MQ metrics
- **Find command** to easily locate WebSphere MQ resources



Consistent look, touch and feel across all OMEGAMON monitors

Coming Soon

OMEGAMON for Storage - Cornerstone of z/OS Storage Management reducing cost and increasing effectiveness

In addition to the OMEGAMON V5.1 family capability:

- **Increased automation** and reduce cost with Toolkit Take-Action
- **Greater hardware support** with expanded physical hardware monitoring (HDS and STK, IBM and EMC already available)
- **Increase problem management** from Monitor HSM Common Recall Queues
- Additional **analytic capability** from increased historical reporting options
- Ease of use and **increased flexibility** in additional reporting options (GB, MB, TRKS, CYL, etc.)
- **Speed problem resolution** and ease of use based on TEP Work space restructuring



Coming Soon!

Complete your sessions evaluation online at SHARE.org/AnaheimEval

OMEGAMON for Mainframe Networks improves network diagnostics and management

In addition to the OMEGAMON V5.1 family capability:

- **Improved Diagnostics** with decreased CPU utilization
 - Exploiting new callable network management interfaces (NMIs) available with zOS v1.12
 - OSA data collection and display to improve diagnostics, visualization, and CPU usage
- New zEnterprise support with ability to monitor both data and management LANs
- **Improved CPU control** and resource usage with ability to turn data collection on and off:
- **Greater synergy** with IBM Tivoli NetView for z/OS and IBM Tivoli OMEGAMON XE for DB2 Performance Monitor created through in-context links between products.
- **Improved Management** with Take Action commands, NSLOOKUP and TRACERTE added to existing PING and DROP commands.

Coming Soon!



Please Join Us!

***At our new IBM OMEGAMON® v5.1
Proof of Technology in a City near you.***

OMEGAMON Open House



IBM is hosting an Open House for existing and prospective customers of our award-winning System z Service Management software. During this event, customers are invited to explore and exercise the newly enhanced-3270 OMEGAMON products in a **live** System z environment. You will gain first hand experience with a hands on test drive of the latest OMEGAMON v5.1.

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