New Experience with new OMEGAMON

Bart.Gyselinck@be.ibm.com

12 December, 2012

Agenda

- Introduction
- How we deliver software
- New architecture
- Enhanced 3270 user interface
- The main points
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

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

- 7 + 1 branded products focused on monitoring and availability management across z systems

- OMEGAMON XE on z/OS
- OMEGAMON XE for CICS on z/OS
- OMEGAMON XE for IMS
- OMEGAMON XE for DB2 PE
- OMEGAMON XE for Storage on z/OS
- OMEGAMON XE for Mainframe Networks
- OMEGAMON XE for Messaging
- OMEGAMON XE on z/VM and Linux

- 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 SME and Operations/LOB personnel
How we deliver software…
…redesigning the delivery of software

IBM interviewed over 200 customers to understand future monitoring challenges needing to be addressed

2010 NA & European Customer Advisory Council Survey

Top 3 Customer Requirements

- #1 Requirement - Enhance 3270 UI with Problem Solving scenarios
- #2 Requirement - Improve Maintenance
- #3 Requirement - Improve Performance utilizing zIIP

OMEGAMON customer directed design focused on helping decrease costs and improve usage.
Changing How we Develop Software: Transparent Development process.

- 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.

New Architecture...
...simplifying the Installation....
...use of Specialty engines
Moving to simplified architecture driving decreased resource utilization without lose of current function

V 5.1 Enhanced OMEGamon Architecture

V 4.2 OMEGamon Architecture

Simplify Customer Driven improvements with Installation and Configuration enhancements for Parmgen

- Removal of ICAT as the primary way to Install and Configure
- 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...
I like the fact that Parmgen does not overwrite my running members"

Typical quotes from early adopters program
Leveraging Self-Describing Agents ITM 6.2.3

• 30% improvement in time to configure post installation

TDW Proxy  
TEPS  
HUB TEMS  
RTEMS  
RTEMS  
RTEMS

• 60% improvement in time for installation and maintenance

• 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

© 2012 IBM Corporation

Take advantage of zIIP processors

OMEGAMON XE for CICS is able to take advantage of zIIP processors with the release of OMEGAMON XE for CICS 510. When a zIIP processor is available, customers could see general CPU usage reduced up to 70% for SLA (Service Level Analysis) processing.

OMEGAMON XE for DB2 is able to take advantage of zIIP processors with the release of OMEGAMON XE for DB2 510. What V5.10 provides is support for zIIP processor utilization by the tasks that write Near term History. This can be useful because collecting Near Term History data is one of the more costly functions of OMEGAMON DB2.

OMEGAMON XE for z/OS is able to take advantage of zIIP processors with the release of OMEGAMON XE for z/OS 420. A portion of the OMEGAMON XE on z/OS DASD data collection processing is redirected to zIIP where available.

© 2012 IBM Corporation
Statement of direction

- Tivoli plans to discontinue the Tivoli OMEGAMON II® agents and UIs commonly called Common User Access (CUA).
- IBM plans to discontinue OMEGAVIEW, which is comprised of OMEGAMON II agents.
- Tivoli OMEGAMON plans to discontinue Installation and Configuration Assistant Tool (ICAT) and use the Parmgen methodology as the strategic way to install and upgrade the Tivoli OMEGAMON family of products.
- IBM Tivoli OMEGAMON XE will remove Epilog functions.

Enhanced 3270 User Interface…
… and the Enterprise Portal GUI
Enhanced 3270 User Interface creates Enterprise wide view of information across multiple sysplexes:

- Understand transactions across multiple sysplexes
- Color coding to provide ability to find and resolve problems quickly
- Eliminates need to move between multiple screens and monitors

**GUI on a green screen**

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

- Auto Update
- Toolbar
- Panel ID
- Up/Down Left/Right Scroll Controls
- Subpanel Collapse/Expand Control
- Column Sort Control/Indicator
- Navigation Selection Field
- Fixed Column Indicator
- Status/Threshold Highlighting
- Starting Row Selection
- Subpanel Close Control

z/OS-wide sysplex view

CICSplex details views

Understand transactions across multiple sysplexes

Color coding to provide ability to find and resolve problems quickly

Eliminates need to move between multiple screens and monitors

CICSplex creates Enterprise wide view
e3270UI adapts to the screen size definition

Navigating: select via '/' and you get the available Options Menu
Problem Solving scenarios built into **Enhanced 3270 User Interface**

- Displays top 10 consumers for a Sysplex in 8 categories: CPU, Real Storage, Virtual Storage, CSA Storage, ECSA Storage, I/O, Enqueue Conflicts, and Performance Index
Example of quickly finding and fixing z/OS Problem

New E3270UI highlights problems and simplifies resolving them quickly.

Possible Looping Job

In prior releases this would have taken a lot more screen interactions.

Cancel Job
confirmation popup

Scenario: you can also analyze the looping job in detail

- 's' select the sysplex to navigate to the LPAR overview ....
- 's' again to navigate to Address Space overview for the selected LPAR
Scenario: Address Space Overview

Scenario: Navigate to Bottleneck Analysis
Scenario: Navigate to Inspect

Scenario: Inspect Details
Scenario: Take Action for this Job

OMEGAMON Healthcheck Analysis assists in finding and fixing problems quickly and efficiently.

Regularly monitor key IT resources and usage.
4-Hour Rolling Average MSU Statistics

OMEGAMON V5.1 Family products

Improving the Subject Matter experts view using 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
Closers look into the Architecture

ITM v6.23 is required for the enhanced 3270 user interface.

IBM Tivoli Enterprise Portal (TEP) more than an OMEGAMON GUI.

- z/OS Health check
- z/OS Management Console
- IBM Tivoli NetView for z/OS
- OMEGAMON XE for z/OS
- z/OS & USS
- IBM Tivoli XE for Mainframe Networks
- Network
- OMEGAMON XE for DB2 PE/PM
- DB2
- OMEGAMON XE for CICS
- CICS
- OMEGAMON XE for IMS
- IMS
- OMEGAMON XE for Storage
- Storage
- OMEGAMON XE for Messaging
- WebSphere MQ
- Tivoli Decision Support for z/OS
- z/VM & Linux on z
- OMEGAMON XE on z/VM and Linux
- WebSphere Appl Server
- ITCAM for Application Diagnostics
- Distributed Monitoring
- IBM Tivoli Monitoring (ITM) & ITCAM
- Automation
- SA for z/OS
- DFSMS Audit
- Advanced Audit for DFSMSHsm
- Catalog Management
- Advanced Catalog Management for z/OS
- SMF trend analysis Reports
- Tivoli Decision Support for z/OS
ITM and Tivoli Enterprise Portal

- Visualization
- Real time and historical data
- Automated Monitoring and Event creation / Integration
- Integration (e.g.: URM).

Visualization

- Information in table and graph format
- Graph based Dashboards (to start with in the morning)
- Used by different groups in the organization.
  “Everybody” access to same information (improves the communication)
- Integration of data from diverse sources (application monitoring)
- In context linking to information (zooming) from/to information from different sources.

© 2012 IBM Corporation
ITM and Tivoli Enterprise Portal: Historical information: near term & long term

Automated Monitoring via “Situations”

- Situations are:
  - Expressions to set thresholds and generate Situation events. Enabling automated actions.
  - Created using a Situation editor

- Situation events are:
  - Indicators of conditions that require attention.
  - Displayed in different locations in the TEP for identification and can be sent to different destinations.
    - Navigator items.
    - The Situation event console.
    - Icons on a graphic view.
    - Event Management solution (e.g.: EIF messages to OMNibus)
zEnterprise Monitoring in ITM 6.2.3 FP1 GA April 2012

- **Free with ITM!**
- Monitored zEnterprise resources (ensembles, workloads, virtual servers, network, storage, policy) visualized on Dashboards and workspaces.
- Install/Configure **ONE** zEnterprise Monitoring Agent per enterprise
- Runs on Linux for z and x, AIX, Windows
- zEnterprise Monitoring Agent uses common collector API for initial discovery of resources and to collect performance metrics per collection interval
- Situation processing generates events when SLAs are not being met
- Historical reports available for capacity planning, trend analysis and problem determination
- Event management (OMNIbus) with correlation to business services (BSM)

![Diagram showing zEnterprise monitoring integration](image_url)
Quick tour new version …
… highlights of the members of the product family

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
• 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 CICSpex
- **Navigation from CICSpex to region** to resource for faster problem identification and resolution

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
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

---

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
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.

The main points…

… conclusion
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

Dashboards, Events automation and integration
- ITM and the Tivoli Enterprise Portal (TEP GUI)
- Tivoli Data Warehouse and Tivoli Common Reporter
- Information from URM API

Reduced Costs with decreased resource usage
- Faster Install/Configuration/Maintenance
- Usage of zIIP specialty servers
- Simplified OMEGAMON architecture

© 2012 IBM Corporation