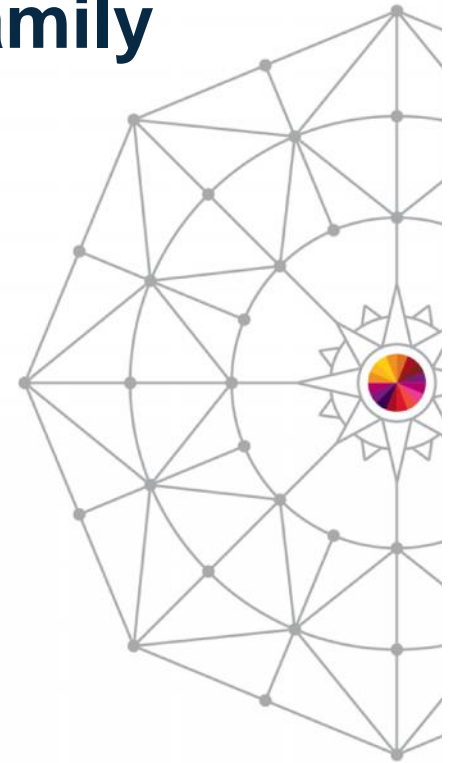# What's New with **OMEGAMON V5 family**

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SHARE in Pittsburgh 2014

Abstract

IBM continues to enhance OMEGAMON based on key customer requirements. Come learn about the upgraded OMEGAMON V5 family, including improved problem solving scenarios, additional historical information and simplified views across zEnterprise® infrastructure. Fully monitor and manage new environments like cloud and mobile with improved visibility and integration of all the application components, no matter where they are running. Because the OMEGAMON products are all built from a common architecture, you get views of all relevant data across zEnterprise, with two views available. You can choose from an operations-user focused GUI, or an enhanced 3270 user interface for subject matter experts. Join us and hear what's new with OMEGAMON V5, including the new OMEGAMON Performance Management Suite, and how OMEGAMON can help make your job easier.

Contents

- Industry observations

- What was announced on July 15th
  - Suites
  - Leveraging Capabilities
  - Individual offerings

- Misc. Items

- Please feel free to ask questions. . . .

Companies continue to use System z to manage fast growing business critical workloads

- 90% of Fortune 500 companies continue to rely on mainframes

- 70% of Enterprise Customers indicate z will play part in **cloud initiatives**

- 85% of business transactions, including **mobile**, processed by mainframes

- 80% of Corporate data resides on mainframe, including **big data**

Why are customers continuing to use System z?
- *Secure mixed-workload management*
- *Best Practices Service Management*
- *99.999% availability and uptime*

System z proven platform to seamlessly address challenges for Mobile and Cloud

Mobile

- Estimates of up to 70% of mobile transactions depend on mainframe back-end
- Volatile workload and demand
- Service levels critical to customer satisfaction

Cloud

- Cloud very dynamic
- Difficult to view impact of cloud (on or off System z) impact on z/OS work

Mainframe critical to support next generation technologies

System z scaling model and security to manage and optimize both

Social, Mobile, Analytics
Smarter Infrastructure

Systems of Record

Systems of Engagement
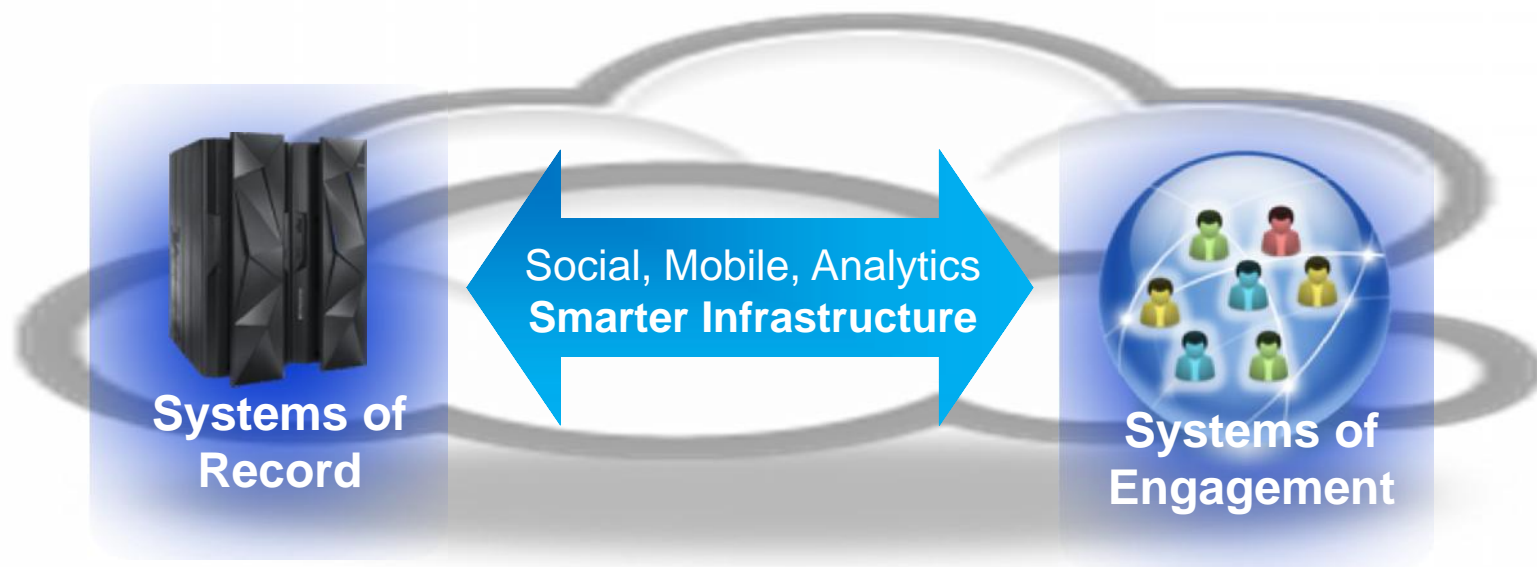
- Business Transactions
- Quality of Service
- Command & Control
- Facts and data "source of truth"
- z/OS

- Mobile and Social
- Dynamic
- Interactions and Collaboration
- Insight, trends, analytics
- Linux on System z

Challenges

IT Budget

- Investment shifting to cloud; expecting to stabilize and significantly reduce costs

- Cost of administering contracts, adjusting sub-cap licensing

- Need to standardize on one tool set, rationalize vendors, solutions

Skills

- Need to extend reach of sys progs/admins with an integrated set of tools

Technology

- Existing monitors may not be current with the platform/subsystem

- Need to integrate z/OS and distributed/cloud monitoring and management

What happens at your site when a problem happens?

- **All sites have different configurations and unique expectations**
  - How do problems get communicated?
  - What type of alerting happens?
  - Are all your teams disparate groups?
  - Do you have "War Room" meetings?
  - How do you Identifying Complex Problems?
  - Are your teams challenged to do more with less?

  - How do you address these issues?

Lack of Integration

So …… What was announced?

**July 15, 2014 Announce**

Suites:

- OMEGAMON Performance Management Suite for z/OS 5.3.0
- Service Management Suite for z/OS 1.2.0
- OMEGAMON for z/OS Management Suite 5.3.0
- Advanced Storage Management Suite for z/OS 2.1

Individual Products:

- OMEGAMON XE for CICS on z/OS 5.3.0
- OMEGAMON XE on z/OS 5.3.0
- OMEGAMON Dashboard Edition on z/OS 5.3.0
- OMEGAMON XE for Messaging on z/OS 7.3.0
- OMEGAMON XE for Storage on z/OS 5.3.0

What is OM Performance Management Suite for z/OS?

IBM Tivoli OMEGAMON Performance Management Suite for z/OS v5.3.0
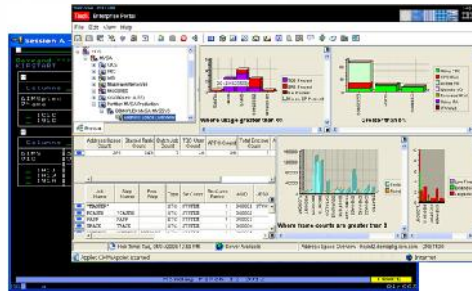
Tivoli OMEGAMON Performance Management Suite for z/OS provides an _integrated solution_ with extensive capabilities to manage on-line and middleware sub-systems like CICS, DB2, IMS WAS on z/OS and the z/OS Operating System, Networks and Storage which supports these capabilities

z/OS Operating System

DB2	CICS / CICS TG	IMS DB/DC	Messaging (MQ)	WAS on Z

Networks (TCPIP / VTAM)

Storage (DASD and Tape)

Complete Subsystem monitoring and management with:

OMEGAMON Performance Management Suite for z/OS

- OMEGAMON XE for DB2 PE V5.2
- OMEGAMON XE for Messaging for V7.3
- OMEGAMON XE for CICS V5.3
- OMEGAMON XE for IMS V5.1
- OMEGAMON XE for z/OS V5.3
- OMEGAMON XE for Mainframe Networks V5.1.1
- OMEGAMON XE for Storage V5.3
- OMEGAMON DE for z/OS V5.3
- ITCAM for WAS Resources V7.1

- Manage System and Subsystems from single view

  - Exploit Enhanced 3270 User Interface

  - Resource monitoring for DB2, IMS, WAS, MQ, Networks and Storage

OMEGAMON Perf Mgmt Suite v5.3

- OMEGAMON Performance Management Suite includes capability to gain ***improved visibility and management*** for z/OS and subsystems
  - CICS, DB2, IMS, Messaging, WAS, Storage, Mainframe Networks

- ***Efficiency and cost saving*** through integration, version 5.3 comes with integrated monitoring with both Enhanced 3270 User Interface and Tivoli Enterprise Portal

- ***Increased problem determination*** capability with Enhanced 3270 User Interface Near-Term-History function

- ***Simplification*** - ordering, pricing and all the components that would ever be needed are included which covers current and future needs as your z/OS environment grows and expands

- ***Reduced time-to-resolution*** of problems with new embedded data function

- ***Lower Cost of Ownership*** with simplified Install/Config with Parmgen enhancements for first time users up to 60% less time and effort

Why OM Perf Mgmt Suite for z/OS?

- Single PID offering that contains the System and Resource level monitoring capabilities needed to Manage z/OS and all key subsystems

One stop shop for all your mainframe monitoring needs

- Simple Pricing metric (z/OS VU's) enabling customers to deploy infrastructure and middleware solutions as needed.

Buy for the size of your environment and you have everything you need

- Provides a price incentive with a single vendor to consolidate all of our z/OS Management needs.

Our solution costs less than what you're spending with your multi-vendor solution today

- Provides a foundation offering for further Analytics and C&SI solutions in the future

Foundation for today and tomorrow

IBM Service Management Suite for z/OS v2.1

Combines monitoring and automation for integrated capability

IBM Service Management Suite for z/OS

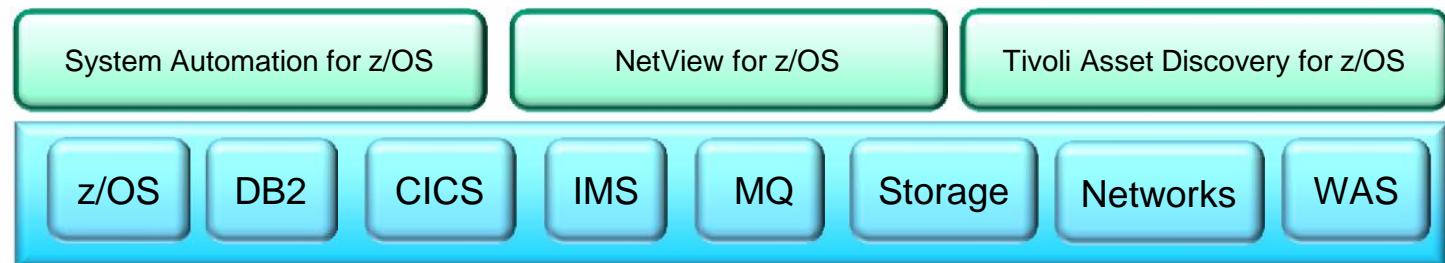| Tivoli Asset Discovery for z/OS	System Automation for z/OS
OMEGAMON Performance Management Suite for z/OS	NetView
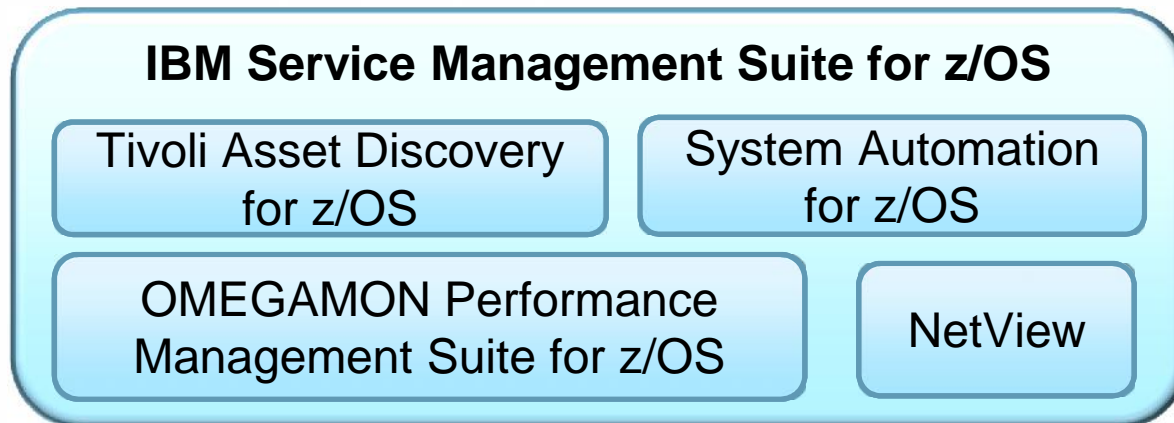
- OMEGAMON and System Automation work together to provide simplified operations and reduced risk

- Exploit TADz to better understand application usage and save license charges and address audits

Service Management Suite for z/OS V1.2

✓ **Provides comprehensive service management capabilities for IBM zEnterprise**

✓ **Simple Pricing metric (One Time Charge PID) to deploy infrastructure and middleware solutions as needed**

System Automation for z/OS	NetView for z/OS	Tivoli Asset Discovery for z/OS

z/OS	DB2	CICS	IMS	MQ	Storage	Networks	WAS

- Single offering that contains capabilities to manage z/OS and all key subsystems

- High Availability & Automated Operations to improve Service Levels and reduce system downtime

- Out of the box policy-based management of looping address spaces to help execute various recovery actions without the need for programming

- Improved Time to Value - 80% decrease in time of System Automation base installation and configuration

- Network & Performance Management to increase efficiency of resources and personnel

Optimization Innovation

Management Suite provides z/OS Operating System, Network and Storage

Don't forget … there is another suite available

OMEGAMON z/OS Management Suite v5.3.0

- 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)

- OM XE on z/OS
- OM XE for MfN
- OM XE for Storage
- OM DE on z/OS

NOTE: Currently there is no trade-up calculator for this offering

IBM Tivoli Advanced Storage Management Suite for z/OS, V2.1

IBM Advanced Storage Management Suite helps you:

- Improve SLA Performance
- Take Better Advantage of Your New Technology
- Reduce Complexity in Your Storage Environment

Addresses:

- Total z/OS Storage environment (DASD and Tape)
- Workload monitoring
- Daily Toolkit functions
- HSM specialty capabilities
- Catalog integrity functions
- Data set allocation resource efficiency
- VSAM management functions

IBM Adv Storage Mgmt Suite:
- IBM Tivoli OMEGAMON XE for Storage, V5.3 (New)
- IBM Tivoli Advanced Reporting and Management for DFSMShsm, V2.5
- IBM Tivoli Advanced Audit for DFSMShsm, V2.5
- IBM Tivoli Advanced Allocation Management for z/OS, V3.2
- IBM Tivoli Advanced Catalog Management for z/OS, V2.6
- IBM Tivoli Advanced VSAM Manager for z/OS, V2.6 (New)

Problem Identification Easier
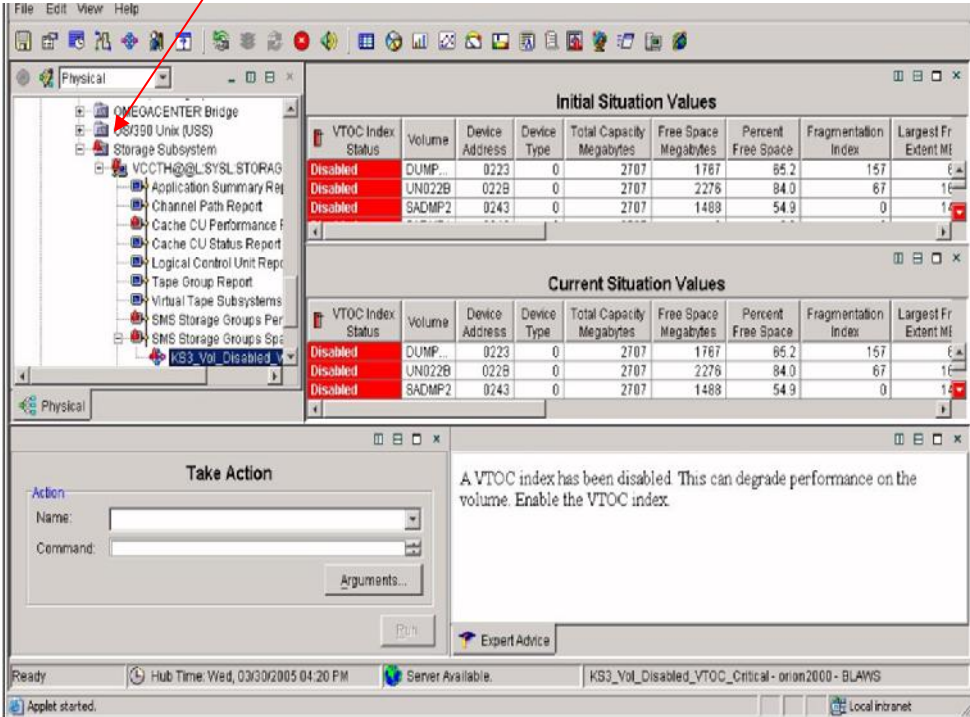
Situations: What are they?

A **situation** is an intelligent alert that can utilize and/or logic to *monitor* a condition or set of conditions that you want to be notified about, which would indicate a potential problem with an identified workload and/or resource
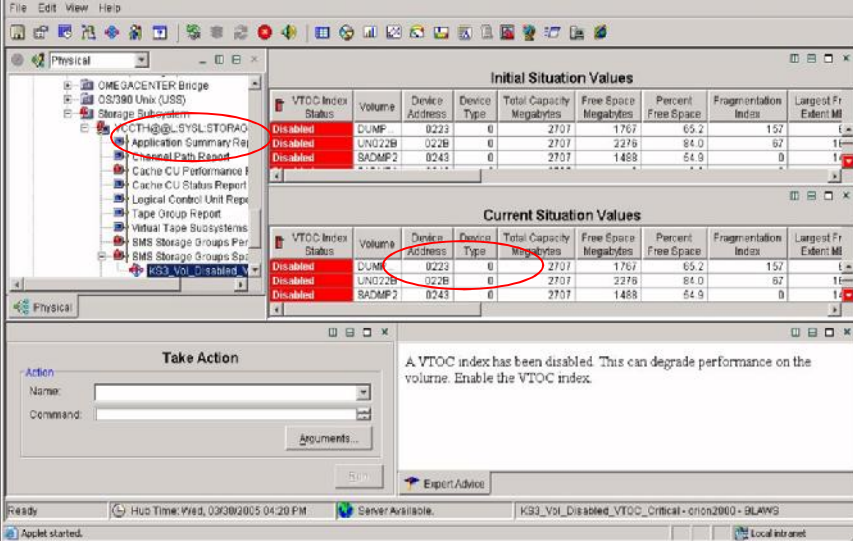
Situations: Why use them?

• Proactively detect and resolve problems before end users report impact.
• Minimize time determining root cause (Alert if stor class=PRILRG and free space < 10% or largest free space < X MBs)
• Create alerts based on multiple conditions ranging from simple to complex
• Customize for specific conditions and environment
• Automate problem resolution using Take Action (reflex automation)

Situation "fires" and you quickly navigate to what triggered the alert

Focus Visibility and Control to Key Areas

Manage by exception – monitor key applications and limit visible information to what is needed

When situations "fire" quickly see what caused the alert, and compare current status of the situation to the initial condition that caused this alert
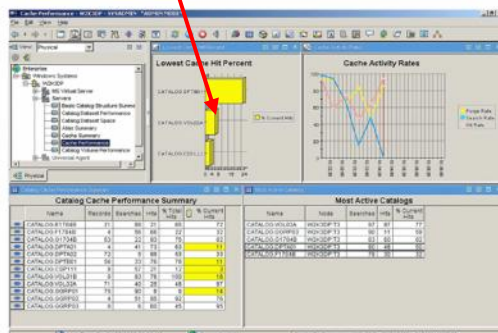
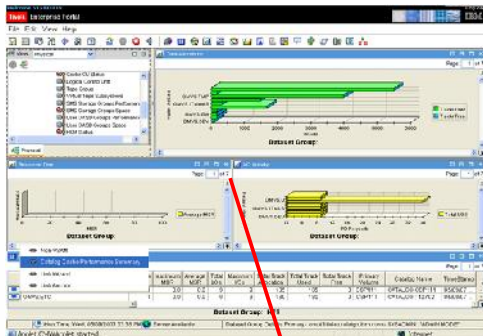Pre-programmed actions can respond automatically to situations – or - Take Action by issuing commands
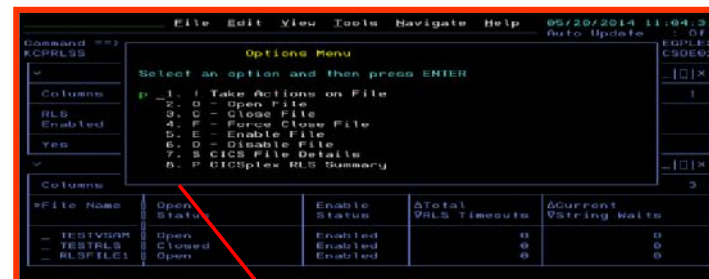
Improve Efficiency with Tool and Process Integration

Seamless integration among tools provides synergy, makes collaboration easy in problem solving and other day-to-day administrative activities

Dynamic Workspace Linking (DWL)

New with v5.3.0's and V7.30 OMEGAMONs Embedded Data capabilities

Fostering Teamwork and Efficiency
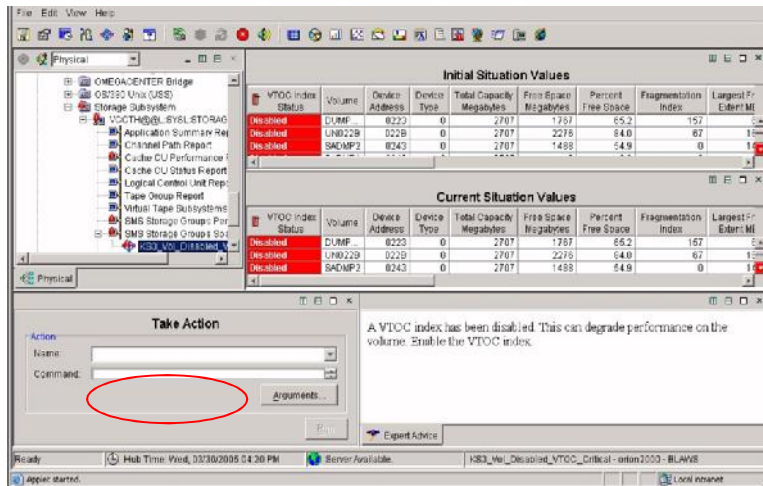
Quickly identify the problem, exploit Expert Advice, and Take action to reduce meantime–to-resolution and knowledge transfer

Separate teams using common tools and processes can collaborate easily on problem determination and resolution, breaking down the silos

Intelligent tooling and knowledge capture reduces 24x7 reliance on experienced "gurus".

Integration at this level:
- Increases ability to identify and address problems
- Fosters greater communication
- Prevents issues from impacting service levels
- Reduces down time and business impact from issues
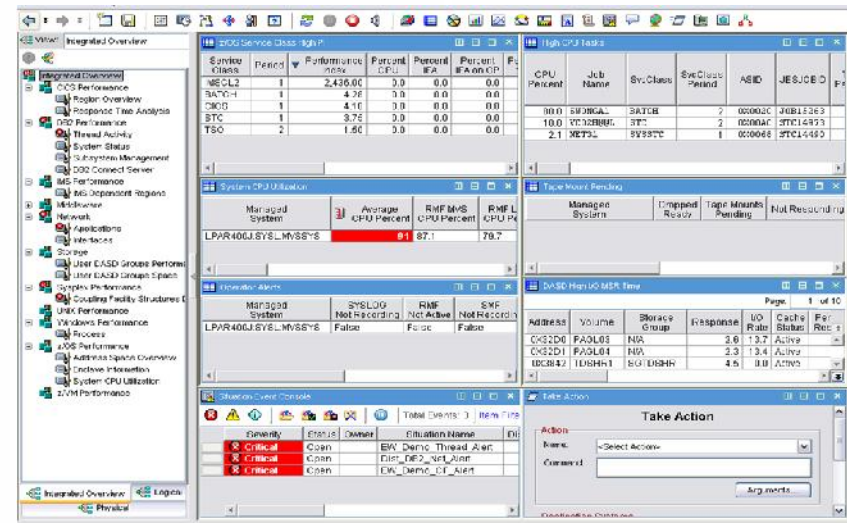
Continue providing capability to establishing a base that addresses higher functions

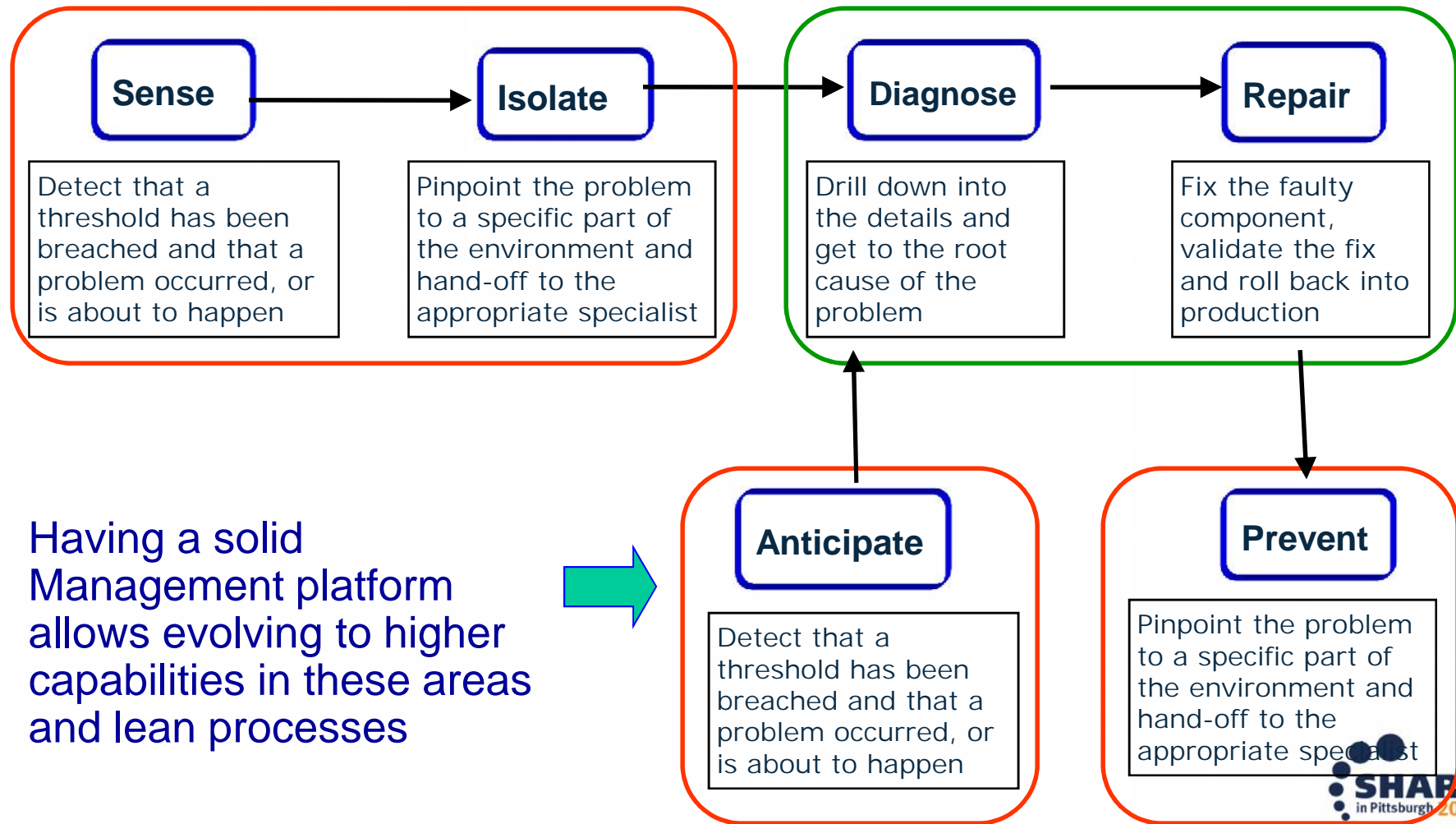| Sense	Isolate	Diagnose	Repair
Detect that a threshold has been breached and that a problem occurred, or is about to happen	Pinpoint the problem to a specific part of the environment and hand-off to the appropriate specialist	Drill down into the details and get to the root cause of the problem	Fix the faulty component, validate the fix and roll back into production

Having a solid Management platform allows evolving to higher capabilities in these areas and lean processes

Anticipate	Prevent
Detect that a threshold has been breached and that a problem occurred, or is about to happen	Pinpoint the problem to a specific part of the environment and hand-off to the appropriate specialist

Maximizing time and personnel

Why the Suites really work for companies

VISIBILITY	CONTROL	AUTOMATION

- *Increase ability to meet SLAs* by managing environment with intelligent alerting
- *Increase staff productivity* through managing by exception
- *Maximize efficiency of staff* with Common Tools and Processes
- *Create collaboration* through tool integration and information
- *Efficiency in doing the day to day management* - Link actions to situations
  - Automate problem responses
  - Capture expert knowledge
  - Common data and KPIs

Breaking down the Silos

Lack of Integration

- Is your environment managed by different teams that do not regularly work together – Integrate information

- When there is a problem, quickly identify the root cause.

Welcome JOBGEN/PARMGEN Integration Screen – New PARMGEN Quick Configuration Mode


```
        Welcome to the z/OS Installation and Configuration Tools for
           IBM Tivoli Management Services (TMS) dependent products

Option ===> _

1. Checklist: System preparation checklists
   Tip: Read/Print Checklists prior to installation and configuration.

2. SMP/E-install z/OS products with Install Job Generator (JOBGEN)

Configure z/OS products with Parameter Generator Workflow (PARMGEN)

Select either option 3 or 4.

3. Quick Configuration: Streamlined configuration options.

4. Standard Configuration: Detailed/Custom configuration options.

5. About joining the community: Service Management Connect (SMC)

Maintenance Level: HKCI310 PTF UA73689 (APAR OA45024 3Q14B Interim Feature)
```

**More streamlined welcome panel:
Type new 3 option for the new
streamlined quick configuration and press Enter.**

Complete your session evaluations online at www.SHARE.org/Pittsburgh-Eval

IBM Confidential

PARMGEN Quick Configuration Mode

for all users, whether you are a new <u>first-time-user (FTU)</u> in PARMGEN or whether you are an <u>experienced subject matter expert</u>!

```
-------- PARAMETER GENERATOR (PARMGEN) WORKFLOW - PRIMARY OPTION MENU --------
Option ===> _
                         Quick Configuration Mode

GBL_USER_JCL:    TDITNT.COMMON.PARMGEN.JCL
RTE_PLIB_HILEV:  TDITN.FTU
RTE_NAME:        LPAR1

Note: Perform steps 1 through 5 in sequence, repeating steps as necessary.
      Enter n (1-5) to perform tasks.
      Enter ns (1s-5s) for detailed job/task status.


              Description                      Job/Label   Status      Date
      -------------------------------------    ---------   --------  ----------

1.    Set up PARMGEN work environment for an RTE.   KCIJPCFG
2.    Customize PARMGEN configuration profiles.     LPAR1
3.    Create the RTE members and jobs.              $PARSE    Enter 3 for details.
4.    Submit batch jobs to complete PARMGEN setup.  SUBMIT    Enter 4 for details.
5.    Perform post configuration steps.             POSTCFG
R.    Reset RTE, Status and Date fields.  (Optional) New RTE

Press F1=Help for more information.   Type U or UTIL to access utility menu.
```

Quick Configuration Mode: Just 4 streamlined steps

REGARDLESS of "QUICKNEW", "QUICKCLONE", "QUICKCONVERT" mode

Common OMEGAMON V5.3 family proven to provide significant cost savings over other monitoring products

Decreasing overall costs
customers could see a **48% reduction in CPU usage***, when comparing just the cost of running OMII (CUA) and OMEGAVIEW vs. the cost of running the ENHANCED 3270ui.

- OMEGAMON has been exploiting zIIP offload for years.

- OMEGAMON offloads routines for OMEGAMON z/OS, DB2, and CICS as well as use of RMF as a data collector further reducing usage

- With version 5.1, OMEGAMON improved performance and reduced CPU usage in each monitor with improvement from 20%-50%* from version 4.2 releases.

Based on internal testing and running similar scenarios on v 4.2 versus v 5.1 .
*Results at your own shops will vary dependent on OM II (CUA) and OMEGAVIEW deployment

OMEGAMON Dashboard Edition for z/OS v5.3

Integration the key to collaboration and efficiency

Working as a team is vital to getting the job done and the same can be said about your systems management information

- **Greater Visualization, Control and Automation -** Integrate management Information from multiple IBM management products on a single workspace for of your enterprise views of IT resources

- **Reduce problem isolation time and correction -** Create consolidated alerts that represent all computing resources servicing your critical workloads to quickly isolate and aviod or correct problems

- **Reduce response times to problems and costs** - Utilize the policy feature to create sophisticated responses to the world class alerting/situations coming from the OMEGAMONs

OMEGAMON XE on z/OS v5.3
z/OS Availability and Performance management Tool

- Overall z/OS Sysplex, LPAR and workload management capabilities providing Availability, Performance, and Workload views to **maximize efficiency and effectiveness**

- *Greater problem determination* for zOS Subject Matter Experts can use the Near-Term-History displays in Enhanced 3270 UI using RMF Monitor III collection to glance back to see the start of performance problems for recent issues.

- *Reduced time-to-resolution* of problems with new improved Enhanced 3270 User Interface workspaces including embedded data from CICS and z/OS for applications monitoring

- *Increased ability to deliver service to your user base* with new zAware information workplaces and alerts through Enhanced 3270UI and IBM Tivoli Enterprise Portal (TEP).

OMEGAMON XE for CICS on z/OS v5.3.0

- OMEGAMON XE for CICS includes capability to gain ***improved visibility and management*** of CICS workloads
  CICS Transaction Gateway new to the Enhanced 3270 User Interface

  - OMEGAMON XE for CICS on z/OS enhancements include;
    - Simplified requirements for JCL changes
    - Increased zIIP enablement
    - Improvements to task history, including CICSplex Application Trace Facility, CICSplex historical task views
    - Embedded data – CICS Messaging, CICS Storage, CICS CICS TG and CICS z/OS
    - Resource Limiting for GDSA and Container storage
  - OMEGAMON XE for CICS TG on z/OS enhancements include;
    - Availability of reports in the Enhanced 3270UI
      - *History, Embedded data etc.*
    - Support for multiple WebSphere servant address spaces

OMEGAMON XE for Messaging v7.3
provides complete solution for MQ and Broker monitoring

- Enhanced 3270 UI for WebSphere MQ Monitoring Enhancements:
  - Support Near-Term-History data from the PDS with historical workspaces to be able to identify changes to metrics over time
  - Provide embedded data capability with other OMEGAMONs to enhance cross-product problem determination and resolution
  - Add Topic Manager data workspaces
  - Improve detail workspaces for queue managers, queues, and channels including tabbed workspace organization and parameter definitional data
  - Add Find command capability to find queue managers
  - Add MQSC display command support to issue any MQSC display or ping command
  - Add Namelist workspace
  - Reduce enterprise-wide query usage in workspaces for improved response time

- Other Enhancements:
  - Include new monitoring attributes from WebSphere MQ v7.x releases for queue managers, queues and channels
  - Provide support for IBM MQ v8 (WebSphere MQ renamed)
  - Provide support for IBM Integration Bus v9+ (WebSphere Message Broker renamed)
  - Add userid attribute to MQ Event data to increase usability of situations
  - Improve performance of z/OS agent queue manager data requests
  - Add dynamic tracing information to the product troubleshooting guide

OMEGAMON XE for Storage on z/OS v5.3
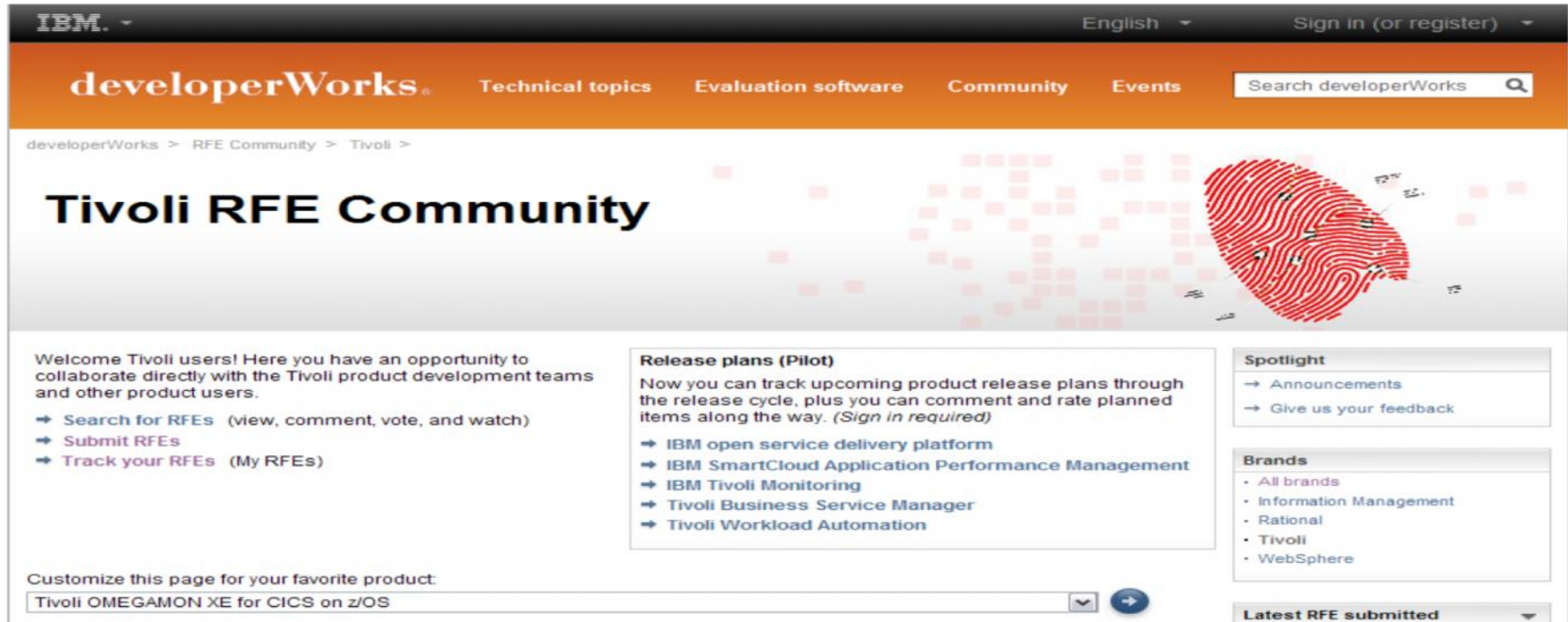## Cornerstone for every z/OS Storage management Tool box!

- Overall z/OS Storage management capabilities provide Availability, Performance, Workload views, and Toolkit functions to **maximize efficiency and effectiveness** for daily z/OS Storage Management functions

- **Reduce resource consumption,** operations Managers will appreciate New Minimal Monitoring Configuration and reduction in Cache and LSpace Collector performance – 20% improvement in CPU collection of data

- **Improve trend analysis and planning -** New Dataset Attribute Group Extraction (DAGX) allows analysis of dataset attribute groups using spreadsheet or other analytics tools outside of Tivoli Data Warehouse for Storage Administrators

- **Increased problem determination capability** with new E3270UI Embedded Data support makes it easier for Storage Admins to combine displays of related information from OM CICS and OM MQ for better cross storage information analysis

- **Reduced Time to Resolution** with new Near-Term-History displays in E3270UI simplifying trending analysis

Tivoli RFE Community

Tivoli RFE Community
   http://www.ibm.com/developerworks/rfe/?BRAND_ID=90

IBM System z Service Management critical for moving to Mobile, Big Data and Cloud

IBM continues to improve z/OS environment to support new technologies

- IBM SmartCloud Analytics – Log Analysis z/OS Insight Packs 1.1.0.1
- IBM Service Management Suite for z/OS V1.2
- IBM Tivoli OMEGAMON Performance Management Suite for z/OS V5.3.0
- IBM Tivoli OMEGAMON XE on z/OS 5.3.0, IBM Tivoli OMEGAMON Dashboard Edition on z/OS 5.3.0, IBM Tivoli OMEGAMON XE for Messaging for z/OS 7.3.0, IBM Tivoli OMEGAMON XE for CICS on z/OS 5.3.0, IBM Tivoli OMEGAMON XE for Storage on z/OS 5.3.0
- IBM Tivoli System Automation for z/OS V3.5
- IBM Automation Control for z/OS V1.1.1
- IBM Tivoli NetView for z/OS V6.2.1
- IBM Tivoli NetView Monitoring for GDPS V6.2.1
- IBM Tivoli Workload Scheduler for z/OS V9.2

Learn More: http://www-01.ibm.com/software/os/systemz/itsm/

Follow us on Service Management Connect:
https://www.ibm.com/developerworks/servicemanagement/z/

And, Mainframe Insights:
https://www-304.ibm.com/connections/blogs/systemz/?lang=en_us

Twitter: @ServMgmtConnect   @systemz   #mainframe   #servicemgmt

THANK YOU!