



***The Modern Mainframe...
At the Heart of Your Business***

IT Service Management



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**Service Oriented Finance Needs to Satisfy
Service Levels For Their Critical Applications**

I must make sure to meet my service levels. With these new applications, it's more important than ever, but the CEO won't increase my budget for operations



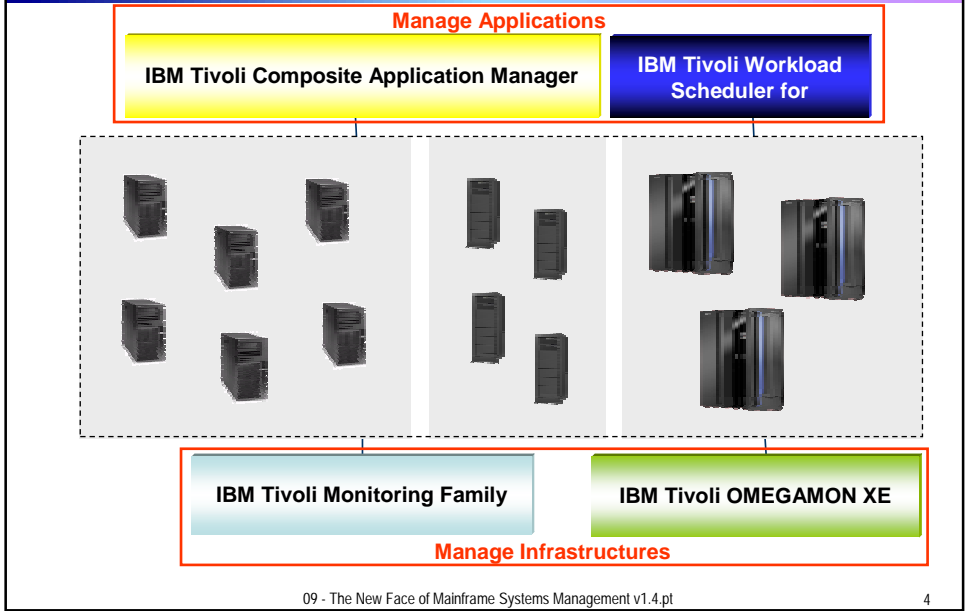
**Service Oriented Finance
Data Center Manager**

**IBM Tivoli can help,
without adding staff**



IBM

End to End Systems Management from IBM



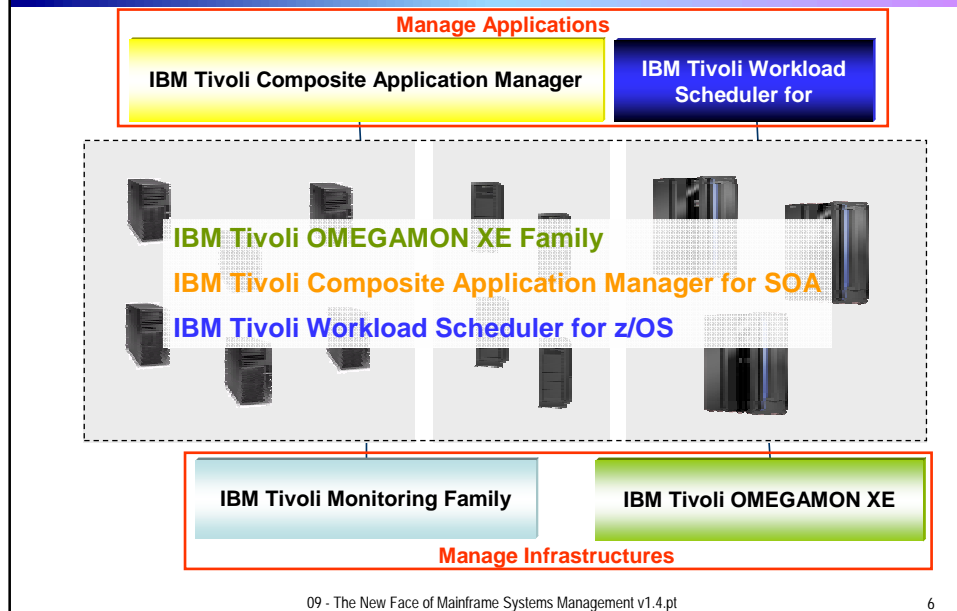
End to End Systems Management from IBM

IBM Tivoli can monitor the breadth of your IT environment

Platforms	Databases	Applications	Business Integration	Web Infrastructure	Messaging & Collaboration	Universal Agent
Unix	DB2 (Z & Distributed)	SAP	CICS	WebSphere (Z & Distributed)	Lotus Domino	Agent-less Adapter URL, SNMP, File, Socket, UDB.... Agent Quick attach API
Windows		.NET (full suite of MS apps)	IMS			
Cluster(s)	Oracle		WebSphere MQ	iPlanet		
Linux	SQL	J2EE	WebSphere MQ Integrator	Apache	Exchange	95+ Custom Packages available for modification
z/VM	Sybase	Citrix		WebLogic		
z/OS	Informix	Siebel				
VMWare		Tuxedo				
OS/400						

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Let's Focus on Some Products for Mainframe Management



Mainframe Management with IBM Tivoli

- **Manage Resources**
 - ▶ Monitor health of the mainframe components and middleware such as DB2 and CICS
 - *IBM Tivoli OMEGAMON XE Family*
- **Manage Web Services**
 - ▶ Monitor web services to identify the source of bottlenecks or failures in services
 - *IBM Tivoli Composite Application Manager for SOA*
- **Manage Traditional Batch Workloads**
 - ▶ Monitor, plan and control the processing of batch workload
 - *IBM Tivoli Workload Scheduler for z/OS*

Manage Resources

How can I intelligently monitor the health of my mainframe and middleware?



Data Center Manager

Let me show you how **IBM Tivoli OMEGAMON XE solution** can help you achieve this!



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Monitoring Solutions for the Mainframe

Operating Systems:

IBM Tivoli
OMEGAMON
XE on z/OS

IBM Tivoli
OMEGAMON
XE on z/VM
and Linux

Networking:

IBM Tivoli
OMEGAMON
XE for MF
Networks

Data Management:

IBM Tivoli
OMEGAMON
XE for DB2
PE on z/OS

IBM Tivoli
OMEGAMON
XE for DB2
PM on z/OS

IBM Tivoli
OMEGAMON
XE for IMS
on z/OS

Host Transaction Processing:

IBM Tivoli
OMEGAMON
XE for CICS
on z/OS

Storage Management:

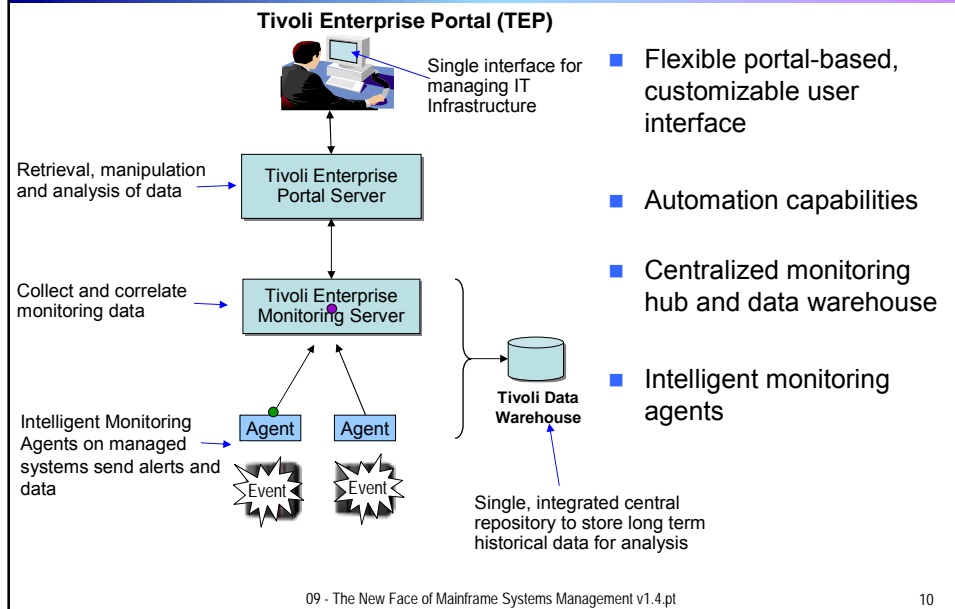
IBM Tivoli
OMEGAMON
XE for
Storage on
z/OS

- Common monitoring services
 - ▶ Robust, centralized monitoring hub and data warehouse
 - ▶ Intelligent monitoring agents
 - ▶ Common portal-based user interface
 - Tivoli Enterprise Portal (TEP)
 - Runs on Linux on the mainframe
- Language globalization
 - ▶ French, German, Italian, Spanish, Portuguese, Chinese (simple & traditional), Japanese, Korean

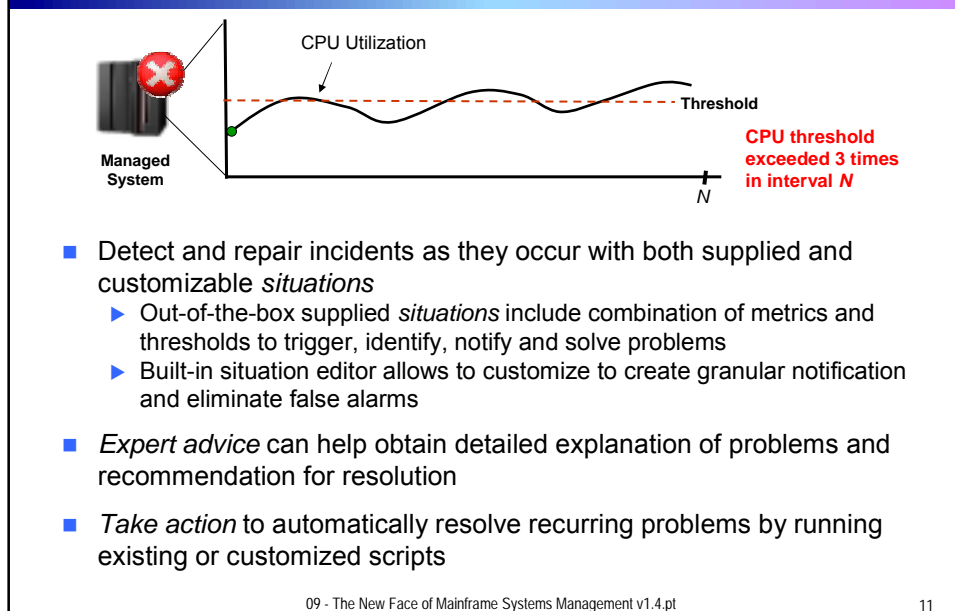
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Common Monitoring Services Complete and Easy to Deploy



Intelligent Monitoring with Situations and Automation



IBM Tivoli OMEGAMON XE Monitoring Solutions

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OMEGAMON
XE for IMS
on z/OS

**We will see three
of these monitors
in action!**

Host Transaction Processing:

IBM Tivoli
OMEGAMON
XE for CICS
on z/OS

IBM Tivoli
OMEGAMON
XE for
Storage on
z/OS

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Monitor z/OS with IBM Tivoli OMEGAMON XE on z/OS

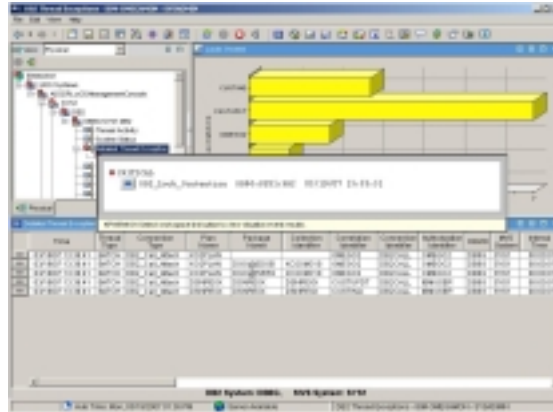
- Monitor key mainframe resources to diagnose bottlenecks
 - ▶ CPU, LPARs, I/O, enqueue, paging, coupling facility, DASD, and more
 - ▶ Manage and tune Workload Manager service classes
 - ▶ zIIP and zAAP processor usage and reporting
- Quickly resolve problems with increased productivity
 - ▶ *Customizable workspaces* help pinpoint performance issues
 - Dynamic workspace linking to other OMEGAMON XE monitors to improve problem resolution
 - ▶ *Situations* - Predefined, customizable out-of-the-box automation situations to respond promptly to problems
 - ▶ *Expert advice* – View advice about an alert. Advice customizable to provide site-specific information
 - ▶ *Take action* - Resolve problems by running built-in scripts or easily create new scripts

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DEMO: Resolve DB2 Lock Conflicts with IBM Tivoli OMEGAMON XE DB2 PE on z/OS

- Monitor DB2 threads
- Raise a *situation* isolating lock conflict between DB2 threads updating customer records
- *Take Action* to issue cancel command to resolve conflict

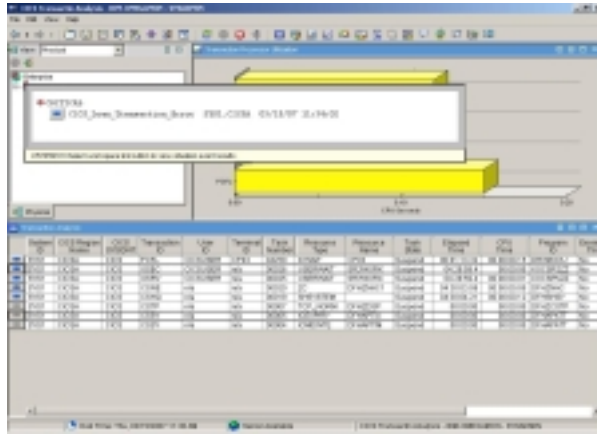


Monitor CICS Systems with IBM Tivoli OMEGAMON XE for CICS on z/OS

- Monitor transaction performance
 - ▶ Identify tasks waiting for specific resources and pinpoint excessive wait times
 - ▶ Identify bottlenecks at record level
 - Monitor virtual storage access method (VSAM) files and identifies record level sharing lock contention
 - ▶ Monitor Java applications using the Java Virtual Machine (JVM) in CICS in addition to CICS dispatcher and TCP/IP connection
- Increase productivity
 - ▶ *Customizable workspaces, intelligent situation definition, Take action and Expert advice*
 - ▶ Dynamic workspace linking with other OMEGAMON XE monitors for quick problem resolution
 - Correlate DB2 threads with CICS transactions to enable quicker problem identification and resolution

DEMO: Resolve CICS Transaction Performance Issues with IBM Tivoli OMEGAMON XE

- Monitor performance of CICS transactions to process car loan
- Raise a *situation* isolating increase in rate of CICS transactions
- *Take Action* to issue cancel command to resolve the problem



Stadtsparkasse München (SSKM)



"The IBM Tivoli OMEGAMON solution at SSKM integrates processes across the enterprise ... Without such an integrated end-to-end view it would be difficult to ensure that processes have the resources they need to run at the highest availability."

— Randolph Sigmund
IT System Architect
Stadtsparkasse München

Business Challenge

To maintain and improve market position in a competitive private banking marketplace, SSKM needed to ensure **maximum availability** of the business critical portals based on IBM zSeries

On Demand Business Benefits

- Integrated processes across the enterprise, creating a single point of control that can detect and identify system problems before they can negatively affect customer facing applications
- Simplified IT management **avoided 10 person staff increase**
- Improved availability of systems and applications demonstrated by **0% downtime in 5 years**
- Increased customer satisfaction

Solution

- IBM Tivoli OMEGAMON XE family

Monitoring Web Services

How about monitoring applications based on Web services/SOA?



Data Center Manager

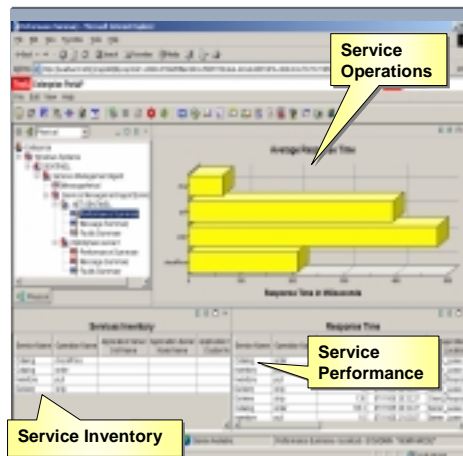
You can do this with IBM Tivoli Composite Application Manager (ITCAM) for SOA!



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Manage Your Services Using IBM Tivoli Composite Application Manager (ITCAM) for SOA

- Isolate web service performance problems
 - ▶ Track key service metrics such as response time, number of messages, message size, faults
- Automation to resolve issues
 - ▶ Built-in and extensible alerts, situations enable powerful automation scenarios
- Integration with WebSphere Service Registry and Repository (WSRR)
 - ▶ Allows for reconciliation of services registered in WSRR with those monitored in target systems by ITCAM for SOA
 - ▶ Forwards status information to WSRR to allow users to select services based on performance and other metrics



Managing Batch Workloads

What about managing batch workloads across my SOA-enabled System z?



Data Center Manager

Let me tell you about **IBM Tivoli Workload Scheduler for z/OS!**

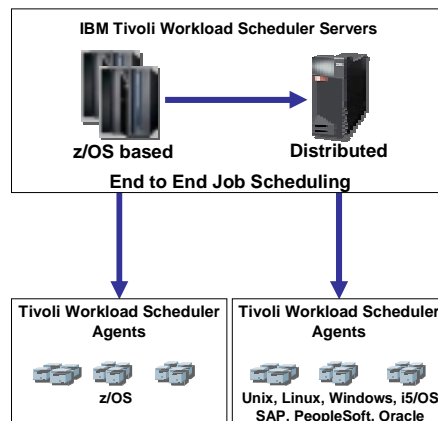


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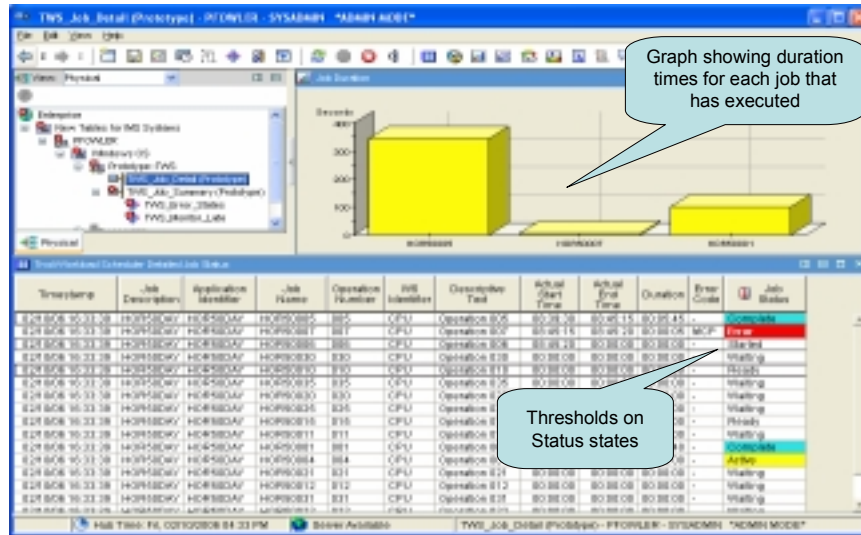
Workload Management with IBM Tivoli Workload Scheduler for z/OS

- Automates, plans and controls the processing of production workload across your environment
 - ▶ Drives workload performance according to business objectives
 - ▶ Dynamic real-time workload automation in addition to calendar and event-based scheduling
 - ▶ Critical path monitoring and integration with System z Workload Manager to reduce delay in a critical batch workload

- Integrates with IBM Tivoli Workload Scheduler (for distributed platforms) to provide a true end-to-end Job Scheduler solution



Details for a Job Description Example – IBM Tivoli Workload Scheduler for z/OS



Summary

With IBM Tivoli solutions, you can keep your business up and running efficiently without adding staff!



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