



IBM Software Group

## Advancing On Demand Business

### IBM's Acquisitions of Candle and Cyanea From A Customer Perspective



## Navigation :

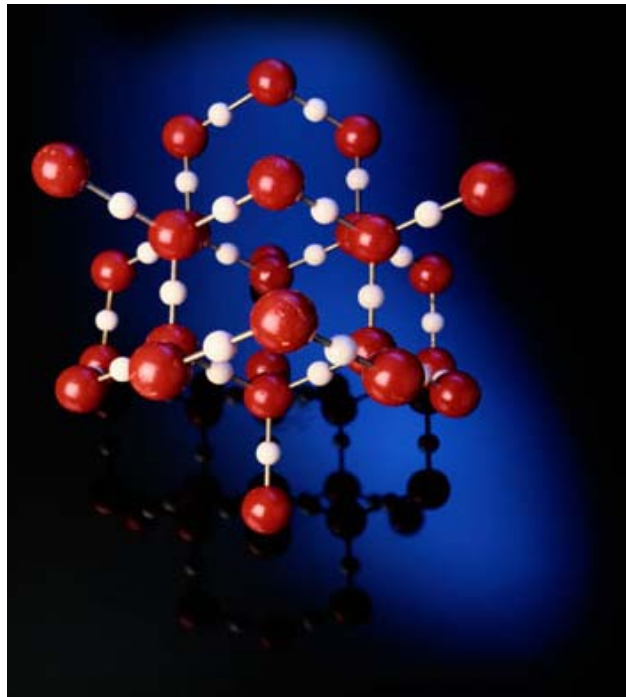
- The “Topics for Today” slide has hyperlinks for navigation:
  - To use a hyperlink, click on the underlined text
  - To go back to the “Topics” slide, click on the arrow



# Today's Topics

- End to End Management Overview and Demonstration
- Tivoli Portfolio and Roadmap Featuring Candle, Cyanea
  - Resource Monitoring  
Monitoring across distributed and zSeries systems
  - Composite Application Management:  
Managing complex applications
  - Event Correlation and Automation:  
Getting to the root of the problem
  - Business Service Management  
Running the business
  - Orchestration and Provisioning:  
Automating Change
- zSeries Software Tooling
- Customer Support
- Summary

Being an on demand business allows you to lower costs, increase revenue and respond quickly to market pressures



An on demand business is an enterprise whose business processes—integrated end-to-end across the company and with key partners, suppliers and customers—can respond with flexibility and speed to customer demand, market opportunity or external threat.

## But technology-driven complexity can become a barrier to On Demand Business effectiveness

*“In the evolution of humans and human society, automation has always been the foundation for progress...”*

*“... the growing complexity of the IT infrastructure threatens to undermine the very benefits information technology aims to provide.”*



***Without new approaches, complexity and costs will continue to rise!***

## And technology complexity is growing beyond the human ability to manage it

*“At current rates of expansion, there will not be enough skilled IT people to keep the world’s computing systems running.”*

*“Finding ways of increasing system efficiency generates problems with more variables than any human can hope to solve.”*

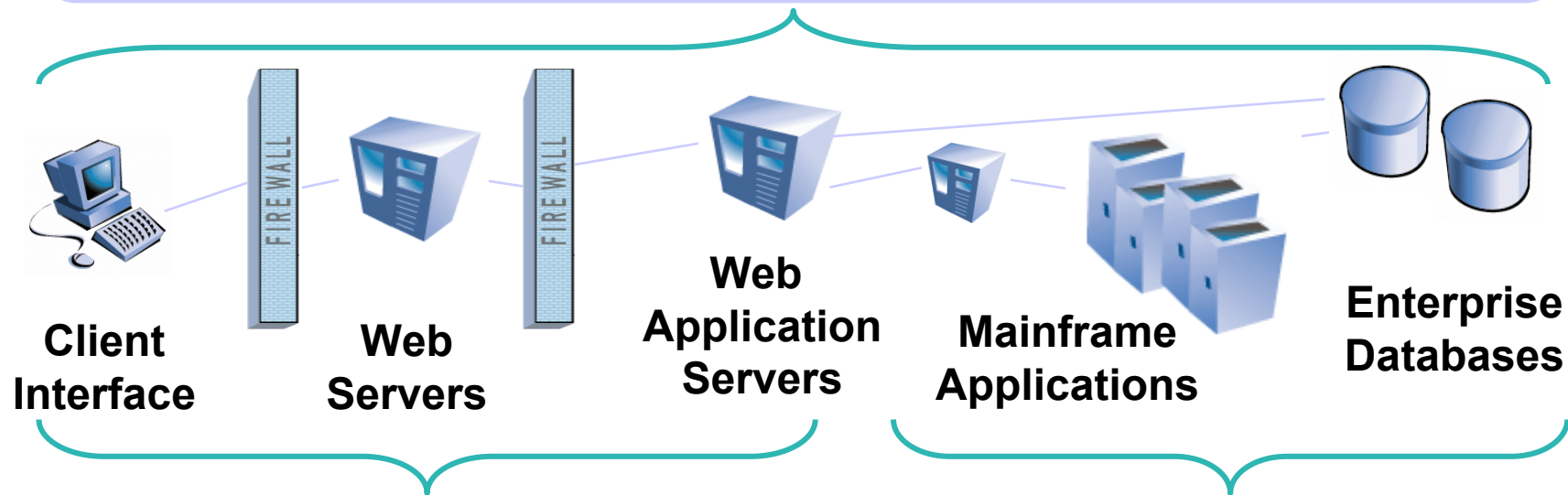


***Without new approaches, things will only get worse!***

# On Demand Business Requires On Demand Management

## End-to-End View

- Transactions: Customer / User experience, Service Levels
- Business and IT processes and applications
- Infrastructure: Web, J2EE, Client/Server, Messaging



## Distributed Resources:

- Resource configuration and change
- Resource availability and performance
- Resource security

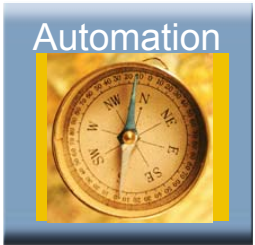
## zSeries Resources:

- Resource configuration and change
- Resource availability and performance
- Resource security

# Tivoli Automates IT Management Processes



Infrastructure Management



- Empower business growth through highly reliable infrastructure
- Decrease TCO through effective administration and optimized operation
- Fulfill Service Level Agreements through alignment with business

*Reduce Costs and Complexity, Improve Service, Increase Business Flexibility*



## Recent Acquisitions

**Reflect IBM's strategy to help our clients build, run and manage applications with seamless integration from development to production.**

### ■ Why did IBM Acquire Candle Corporation?

- Enhance on demand offerings
- Improve end-to-end management offerings
- Add breadth and depth to zSeries offerings
- Established OMEGAMON brand

### ■ Why did IBM Acquire Cyanea?

- Middleware to troubleshoot problems in complex applications
- Make applications that merge data from multiple sources, such as supply chain and ERP applications, more reliable and responsive
- Common technical foundation that address various system manager roles across the application management process

## IBM's commitment to zSeries Management Software

IBM is committed to maintaining the robust IBM and Candle zSeries solutions

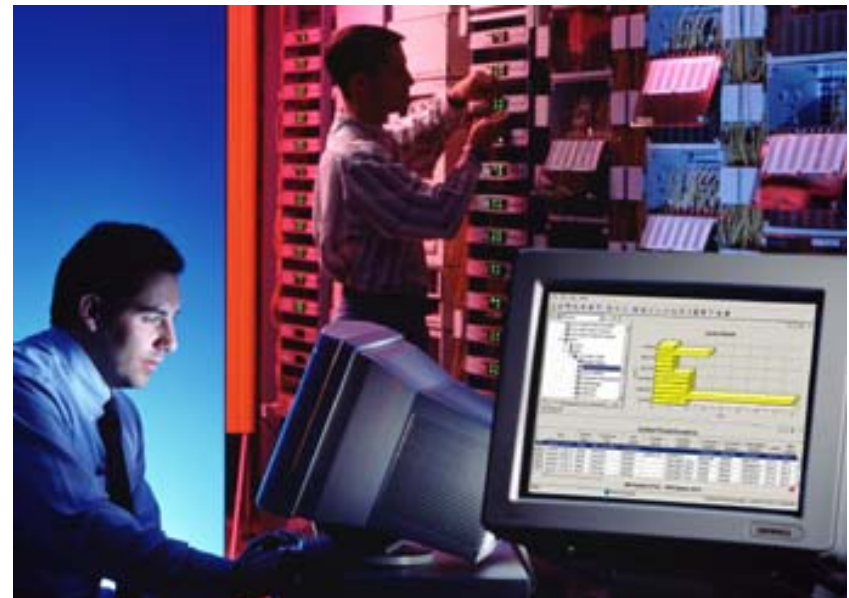
IBM is committed to enhancing zSeries software capabilities & building new solutions

IBM can provide an alternative to a disparate set of solutions from multiple vendors

IBM's investment in zSeries, prior to Candle, includes

- \$300M in Research & Development
- 1000 Developers

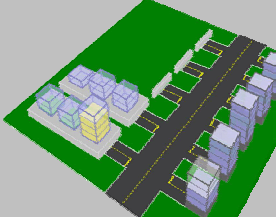


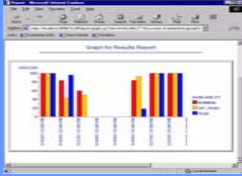
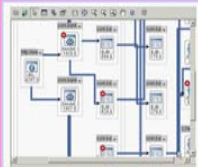



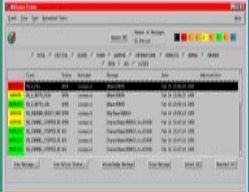


How Much is CA or BMC investing  
in their zSeries Software Solutions?



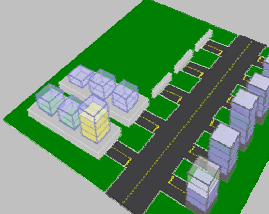


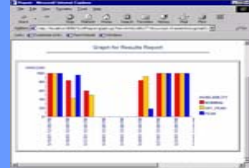
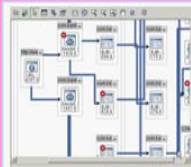





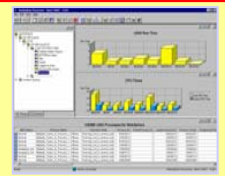
## Candle/Cyanea Enhance Overall Software Group Offerings

<b>Rational.</b>	Performance analysis tools
<b>WebSphere.</b>	Improved MQ Series management tools Message development and editing tools Memory management and leak detection Web site workload analysis
<b>DB2.</b>	DB2 resource monitors DB2 tools
<b>Lotus.</b>	Enhanced monitoring for Domino
<b>Tivoli.</b>	Comprehensive resource and availability monitoring Integrated zSeries management Single dashboard for infrastructure management Automation capabilities Notes configuration and performance tools

# Tivoli Automation Portfolio

<b>Orchestration &amp; Provisioning</b>	IBM Tivoli Intelligent Orchestrator 	IBM Tivoli Provisioning Manager 	IBM Tivoli Configuration Manager
<b>Business Service Management</b>	IBM Tivoli Business Systems Manager 	IBM Tivoli Service Level Advisor 	
<b>Composite Application Management</b>	IBM Tivoli Monitor for Transaction Performance 	<b>“Claret” for Composite Application Monitoring</b> 	<b>NEW!</b>
<b>Event Correlation &amp; Automation</b>	IBM Tivoli System Automation Family 	IBM Tivoli NetView Family 	IBM Tivoli Enterprise Console 
<b>Resource Monitoring</b>	IBM Tivoli Monitoring Family 	<b>IBM Tivoli OMEGAMON Family</b> 	<b>NEW!</b>

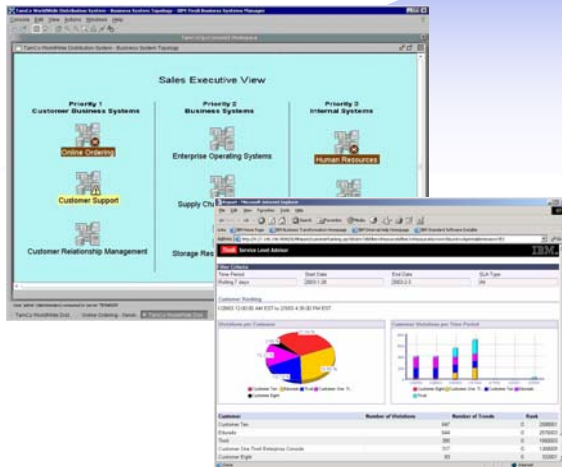
# Tivoli Automation Portfolio

<p><b>Orchestration &amp; Provisioning</b></p>	<p>IBM Tivoli Intelligent Orchestrator</p> 	<p>IBM Tivoli Provisioning Manager</p> 	<p>IBM Tivoli Configuration Manager</p>
<p><b>Business Service Management</b></p>	<p>IBM Tivoli Business Systems Manager</p> 	<p>IBM Tivoli Service Level Advisor</p> 	
<p><b>Composite Application Management</b></p>	<p>IBM Tivoli Monitor for Transaction Performance</p> 	<p><b>“Claret” for Composite Application Monitoring</b></p> 	<p><b>NEW!</b></p>
<p><b>Event Correlation &amp; Automation</b></p>	<p>IBM Tivoli System Automation Family</p> 	<p>IBM Tivoli NetView Family</p> 	<p>IBM Tivoli Enterprise Console</p> 
<p><b>Resource Monitoring</b></p>	<p>IBM Tivoli Monitoring Family</p> 	<p><b>IBM Tivoli OMEGAMON Family</b></p> 	<p><b>NEW!</b></p>

# A More Reliable IT Infrastructure via Integrated Views

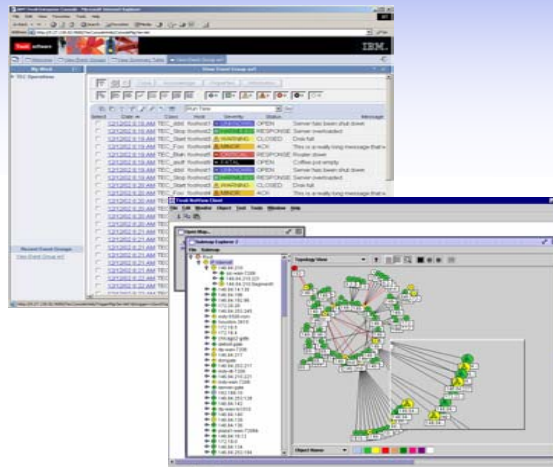


## Business Service Views



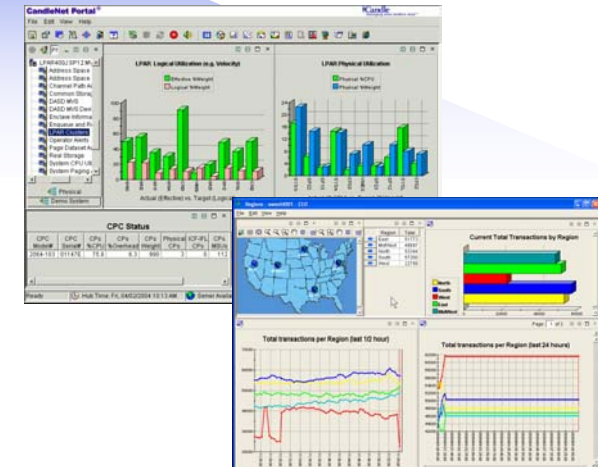
Business Operations  
IT Operations

## Correlated Event Views



IT Operations  
Help Desk

## Resource Monitor Views

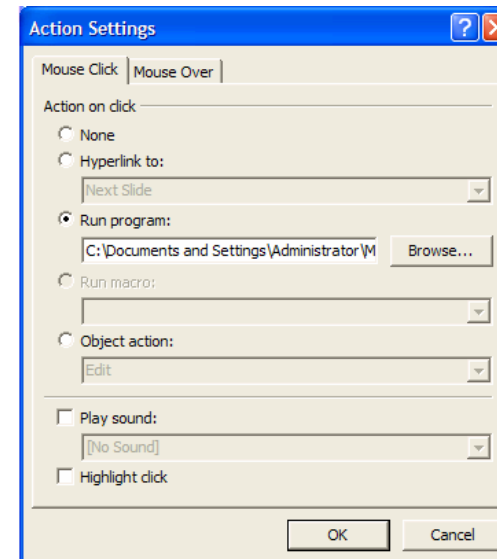


IT Operations  
Resource Administrators

# Integrated Product Demo

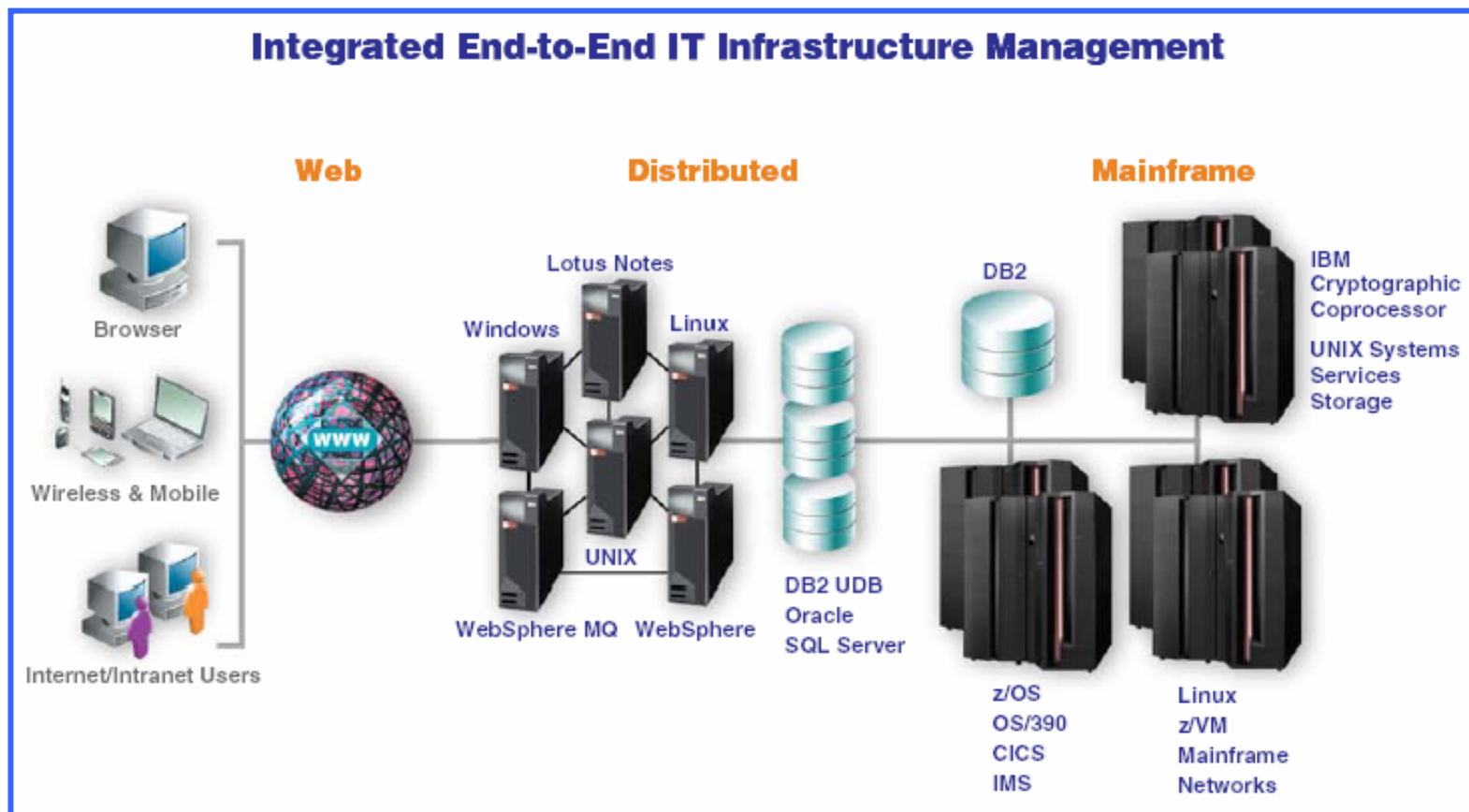
- This demo is the latest way to demonstrate to your customers the value of an integrated approach to managing IT availability and performance. To show this demo:
- Go to the demo web site at:  
<http://ausgsa.ibm.com/~mmmm/public/Candle/demos.html>
- Download the demo entitled “Demo: End-to-End Infrastructure Management self-Running (Camtasia): End-to-End Infrastructure Management.exe (38,713K)”
- Make sure your Windows Taskbar is hidden (right click on the taskbar, then click on “Auto-hide the taskbar”)
- Make sure AUDIO is ON
- Run the demo by clicking on the file

- To add a hyperlink to the next page:
  1. Left mouse click on graphic on next page
  2. On top menu, choose INSERT => HYPERLINK
  3. Click on tab labeled “Mouse Click”
  4. Insure path to demo file is listed in “Run Program”



5. Click OK – then click on the graphic to run demo

# Demonstration: End-to-End Management Challenge







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## Product Roadmaps

*Resource Monitoring*  
*Composite Application Management*  
*Event Correlation & Automation*  
*Orchestration & Provisioning*  
*Business Service Management*  
*DB2 and AIM Tools*

A decorative horizontal banner with a collage of colorful squares and patterns, including a white asterisk, a woman's face, and various abstract shapes.

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## Statement Of Direction And Intent

- All statements of direction or intent are provided for planning purposes only and are subject to revision
  - These charts represent our current goals and objectives
  - Our development teams are now studying the product source code
  - We are listening to customers' views on the future directions of our solutions
  
- Performance data and results described in the following are provided for illustrative purposes only
  - The data and results were obtained in a specific environment
  - Results obtained in a specific customer environment may be different

## Statement of direction regarding pricing terms surrounding entitlement migrations to IBM:

- For most products customers should expect to be migrated to the consolidated/replacement product in the roadmap from either the legacy IBM or legacy Candle offering without paying an additional license fee (trade-up charge) by paying the then-current maintenance for the go-to offering.
- Customers will be able to do this once the go-to offerings are announced, and will be contacted by IBM to migrate beginning with the general availability of the offerings.
- Exceptions to this policy are noted in the roadmap

## Additional points on entitlement migration

- Customer must be current on maintenance - customers not current will have to pay a get-current or maintenance reinstatement fee
- The migration is for the same capacity as currently licensed when converted to the pricing metric announced for the go-to offerings
  - e.g., MIPS > MSUs/Value Units, copy > number of processors, number of processors in the managing server > the number of processors managed, etc.
- Legacy IBM customers must be licensed for the latest available IBM offering - where this is not the case, a trade-up fee may apply
- Legacy Candle customers must be licensed for the latest available Candle licensing (XE or DE in most cases) - where this isn't the case a trade-up fee may apply.

# The OMEGAMON XE Entitlement Program

- OMEGAMON XE provides:
  - Single, powerful systems management interface across multiple resources
  - Personalization via workspaces, local thresholds, and views
  - Management tools to exploit latest zSeries capabilities
- The XE Entitlement Program allows customers that renew their contract for 2+ years to latest OMEGAMON XE Plex release:
  - Limited time promotional offer (thru December 31, 2004)
  - 2-year maintenance commitment extension required
  - Require Candle License Information and International Program License Agreement
- Value to the Customer
  - Latest XE technology (XE plex where available, XE where not)
  - Platform of the future
  - Significant potential savings



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# Resource Monitoring

## *Across Distributed And zSeries Systems*

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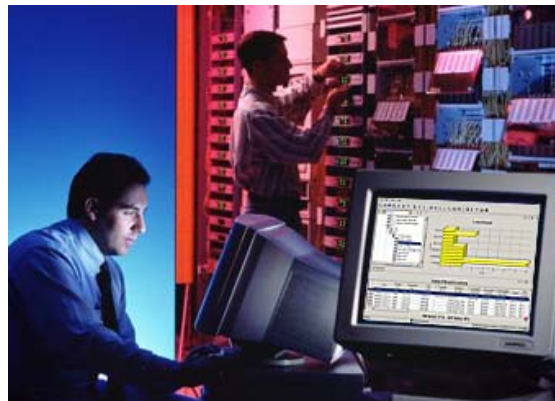
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## Resource Monitoring Speed Problem Resolution

- IBM Tivoli Monitoring Family (ITM)
  - Monitor distributed infrastructure availability and performance
  - Operating Systems such as Windows, UNIX, and Linux
  - Databases such as DB2
  - Messaging and Collaboration (e.g., Lotus Domino)
  - Applications such as SAP R/3, mySAP, and Siebel for eBusiness
- OMEGAMON XE and DE Family
  - Manage enterprise infrastructure better and at lower cost
  - z/OS and Linux on zSeries
  - Databases and Transaction Systems, including DB2, CICS, IMS
  - SNA and TCP/IP Networks, Storage environments
  - WebSphere (WAS, WBI) and BEA WebLogic



## OMEGAMON Broadens IBM zSeries Monitoring Capability

OMEGAMON improves the ability to monitor and manage sophisticated mainframe applications by delivering an integrated management infrastructure for zSeries.

- OMEGAMON XE for z/OS
- OMEGAMON XE for CICS
- OMEGAMON XE for DB2
- OMEGAMON XE for IMS
- OMEGAMON XE for Linux and z/VM
- OMEGAMON XE for Unix System Services
- OMEGAMON XE for Storage on z/OS
- OMEGAMON for Mainframe Networks
- OMEGAMON XE for Cryptographic Coprocessors
- OMEGAMON DE





## OMEGAMON Provides zSeries Monitoring at Bankdata

### Where they started:

Bankdata's main data center includes two IBM Corp. mainframes running on CICS and incorporating an IBM DB2 database for customer accounts. Bankdata faced increased pressure to continually improve performance while containing costs. Bankdata's objective was further complicated by the fact their IT infrastructure grew more complex almost daily due to a growing customer base.

### How they changed:

Bankdata chose OMEGAMON to manage the performance of its data centers.

### What they achieved:

Bankdata has been able to reduce the cost of its development function and improve overall system availability.

The OMEGAMON solution has enabled Bankdata to identify and resolve overall resource issues at the wider data center level, rather than just the system or application level.



Bankdata can now determine if systems peak at the same time, in which case the IT staff may be able to resolve an issue by changing user behavior, adapting an application so resource consumption does not clash with other programs or increasing resources to cope with the peaks.



## zSeries Monitoring for Operating Systems and Performance

Current Product	Transition	Future Product	Value Proposition and Notes
OM XE for OS/390	} →	OM XE for z/OS (Nov. 2005)	Merges XE & Sysplex into single package. Tighter integration with RMF. To provide z/OS R1.6 support day 1.
OM XE for Sysplex			
OM XE for USS	→	OM XE for USS	Understand and manage performance of USS, an enabler of many applications and subsystems (WAS, TCP/IP, SAP...)
OM XE for Linux for zSeries	} →	OM XE for VM and Linux for zSeries (Single Product)	OM XE interface for VM. Red Hat Enterprise Server 3 support Linux under z/VM.
OM for VM			
OM XE for Cryptographic Coprocessor	→	OM XE for Cryptographic Coprocessor	Configuration and performance insight for Cryptographic Coprocessors.
OM DE for OS/390	→	OM DE for z/OS	Integrated performance dashboard for all zSeries systems and subsystems.

**First IBM OM XE release for USS, VM, Linux, Crypto planned in Mar 2006. For all OMEGAMON Products Globalization is targeted for completion on the z-Series platform for 2H2006**

# zSeries Monitoring For Middleware And Databases

Current Product	Transition	Future Product	Value Proposition and Notes
OM XE for DB2 on z/OS		OM XE for DB2 (Sep. 2005)	Best-of-breed DB2 monitor from combination of OM XE and DB2 PE. Extended DB2 V8 support. DB2 and DB2plex monitors in a single package.
DB2 PE, DB2 PM, BPA		DB2 PE/PM/BPA customer pays trade up fee	
OM XE for CICS		OM XE for CICS (Nov. 2005)	Exploitation of CICS Transaction Server V2.3 and the upcoming V3 CICS Dispatcher. CICS and CICSplex monitors in a single package.
OM XE for CICSplex			
CICS PM			
OM XE for IMS		OM XE for IMS (Nov. 2005)	Integration with IMS Tools. IMS and IMSplex monitors in a single package. Provides shared Queues support. IMS V9 exploitation.
OM XE for IMSplex			
IMS PM			
CICS Performance Analyzer		CICS Performance Analyzer	Insight for performance tuning and planning and managing capacity.
IMS Performance Analyzer		IMS Performance Analyzer	Comprehensive performance analysis and tuning help for IMS TM and DB.

For all OMEGAMON Products Globalization is targeted for completion on the z-Series platform for 2H2006



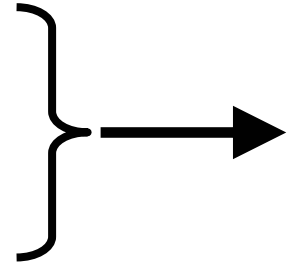
## Exception details to entitlement migration direction where trade-up fee will apply to the following DB2 products:

- For Monitoring for DB2 on zSeries, customers should expect to pay an incremental trade-up fee to move to the new, consolidated offering from either of the predecessor offerings:
  - Customers current on maintenance for the following products should expect to pay a trade-up fee:

IBM DB2 PE, IBM DB2 PM, IBM DB2 BPA, OMEGAMON XE for DB2 on z/OS, OM XE for DB2Plex, OM XE for DB2, OMEGAMON II for DB2 Plex, OMEGAMON II for DB2, **OR** Candle Command Center for DB2
  - Customers current on maintenance for the following products should expect to pay the lowest trade-up fee:

DB2PE, OMEGAMON XE for DB2 for z/OS **OR** OMEGAMON XE for DB2Plex
  - Customers who have both IBM DB2 PE **AND** XE for DB2 on z/OS or XE for DB2Plex and who are current on maintenance for both will not be required to pay the trade-up fee

# Monitoring For Storage And Mainframe Networks

Current Product	Transition	Future Product	Value Proposition and Notes
OM XE for Storage		OM XE for Storage	Provides discovery, monitoring and management of z/OS attached storage devices and files across the enterprise. Tracks capacity and usage changes over time enabling capacity management.
Tivoli Storage Optimizer	 Move to OM XE for Storage		
OM XE for Mainframe Networks		OM XE for Mainframe Networks (Nov. 2005)	Comprehensive Mainframe TCP/IP and SNA network monitoring helps users understand and manage network performance throughout the entire datacenter.
ITM for Network Performance			

# Monitoring For Distributed Systems, Databases, Applications

Current Product	Transition	Future Product	Value Proposition and Notes
OM XE for Windows Servers		<b>IBM Tivoli Monitoring (ITM)</b> (Sep. 2005)	<b>IBM Tivoli Monitoring provides monitoring for essential system resources to detect bottlenecks and potential problems, and to automatically recover from critical situations. Provides automated out-of-the-box best practices</b>
OM XE for UNIX			
OM XE for Linux on Intel			
OM XE for OS/400			
OM XE for Tuxedo			
IBM Tivoli Monitoring			
OM XE for SAP R/3		<b>ITM for Applications (mySAP, Siebel)</b> (Sep. 2005)	<b>Provides monitoring for SAP and Siebel applications to detect bottlenecks and potential problems, and to automatically recover from critical situations. Provides automated out-of-the-box best practices.</b>
ITM for Applications			
OM XE for Distributed Databases		<b>ITM for Databases</b> (Sep. 2005)	<b>Provides monitoring for database resources to detect bottlenecks and potential problems, and to automatically recover from critical situations. Provides automated out-of-the-box best practices.</b>
ITM for Databases			
ITM for Message and Collaboration		<b>ITM for Messaging and Collaboration</b> (Sep. 2005)	<b>Automates critical Notes activities that consume a Notes administrator's time: system profiling, configuration and deployment, network management, and error recovery.</b>
IntelliWatch for Unix and Windows		<b>IntelliWatch for Unix and Windows</b> (Sep. 2005)	
OM Universal Agent		<b>OMEGAMON Universal Agent</b> (Sep. 2005)	



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# Composite Application Management

## Managing Complex Applications



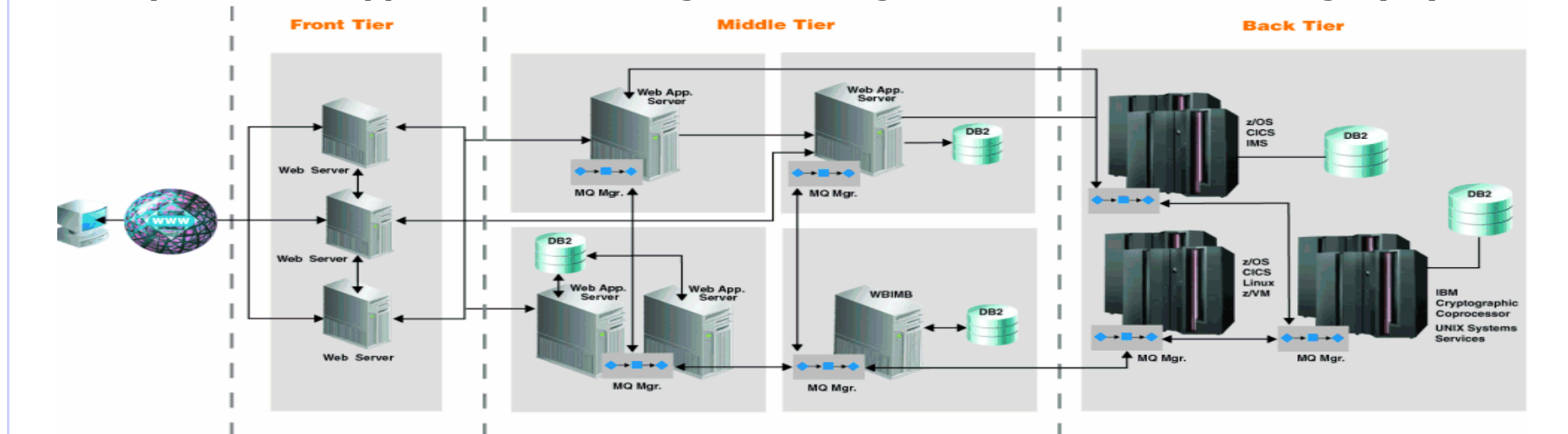
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# The New World of Application Management

## A Composite Web Application, Involving J2EE, Integration Middleware, and Legacy Systems

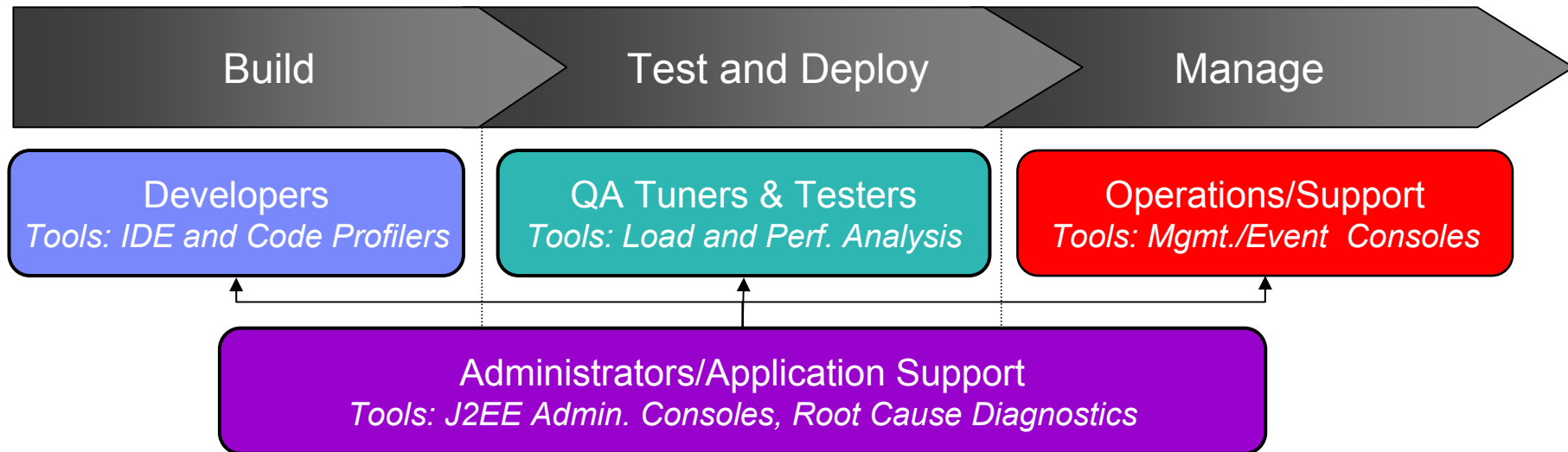


- Business processes increasingly depend on composite applications
- Composite applications are difficult to design, build, test, and manage for high performance and availability
- Traditional stovepiped management processes and tools exacerbate the problem



# The Application Lifecycle: Multiple Roles, Tools, and Challenges

## Application Lifecycle



### Challenges:

- Lack of tools and best practices to avoid or detect problems in development
- Lack of integration of development, performance, and quality tools

### Challenges:

- Complex composite apps cause testing, root cause determination, and configuration challenges
- Lack of integration with testing and administrative tools

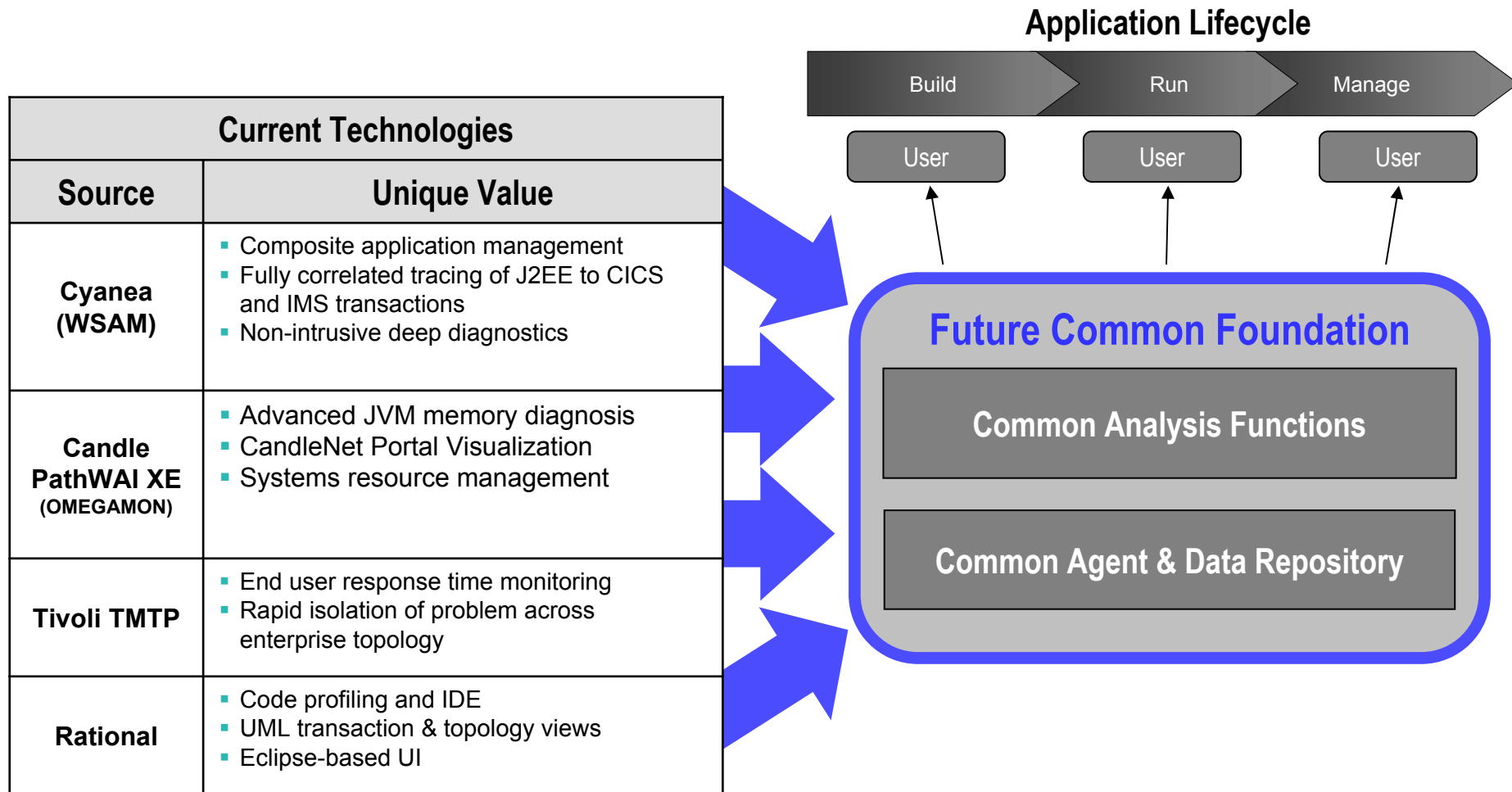
### Challenges:

- Lack of tools, knowledge, and transactional perspective to isolate problems and drive problem resolution
- Must integrate composite app mgmt. with existing tools and processes

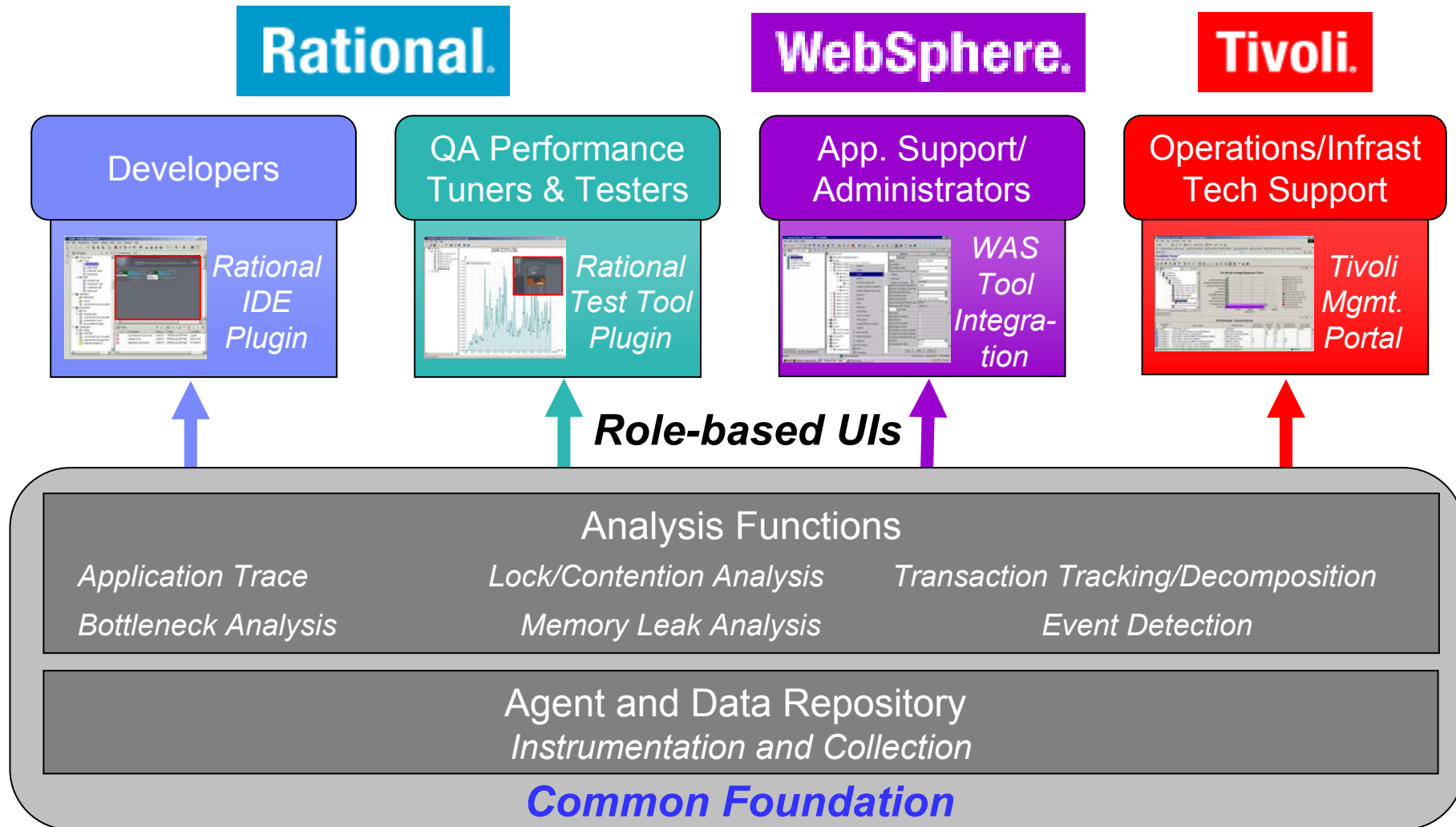
**Responsibility for application performance typically rests with several groups – with varying but complementary roles – using different tools that lack integration**

# IBM Solutions for Composite Application Management

## *Converging Technologies On A Common Foundation*

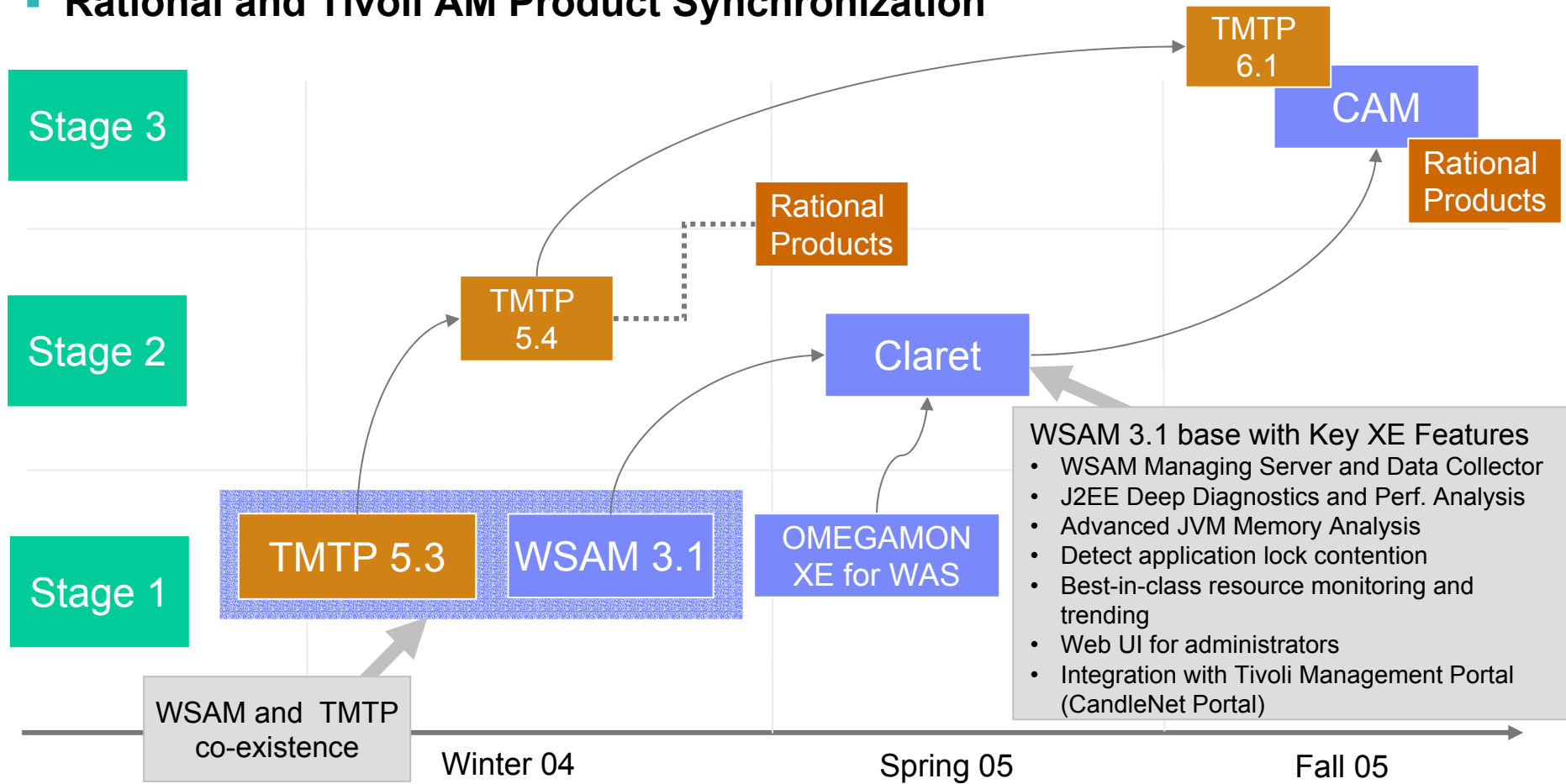


# Common Foundation Supporting Multiple Roles

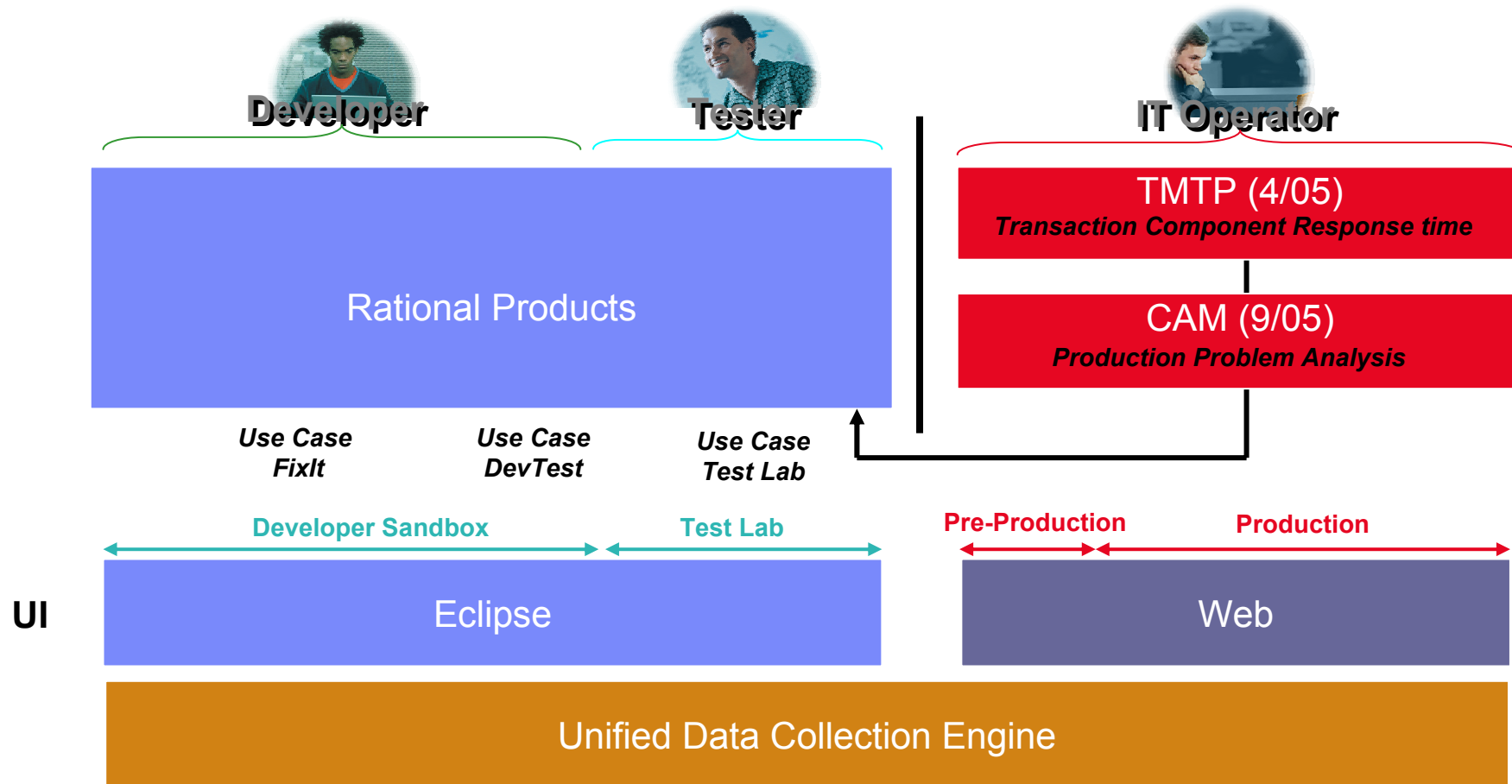


# AM Product Strategy with Rational Products

- Products will converge over 12 month cycle in 3 Stages
- Rational and Tivoli AM Product Synchronization

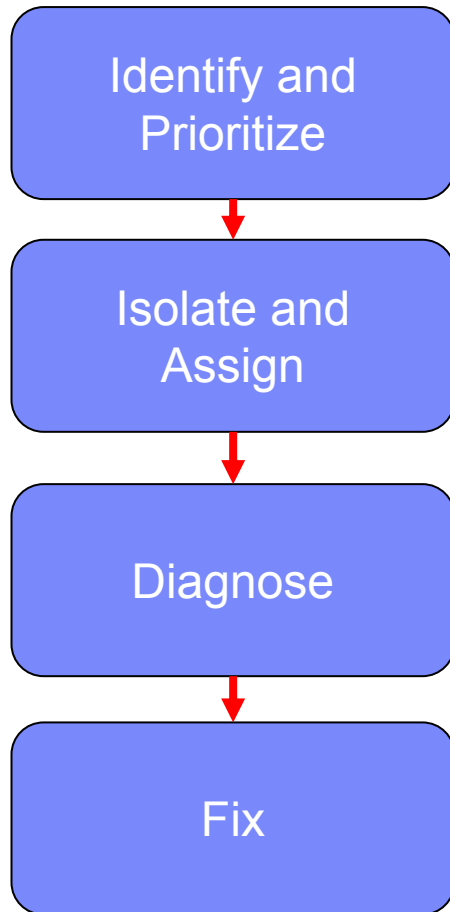


# Rational and CAM Support All Roles Across All IT Processes



# CAM Solutions Improve Problem Resolution Processes

## Problem Resolution Process



## Key Roles in the Process



### Annette – L1 Operator

- Increased ability to fix problems or route accurately without increased skill level
- More efficient access to alert handling procedures



### Bernie – L2 Application Support Engineer

- Responsible for Application Availability and Response Time
- Must isolate problem and assign to right SME quickly



### Jim – L3 Subject Matter Expert

- Wants to receive clear & succinct domain-specific alerts
- Would like access to history and change data to diagnose and fix

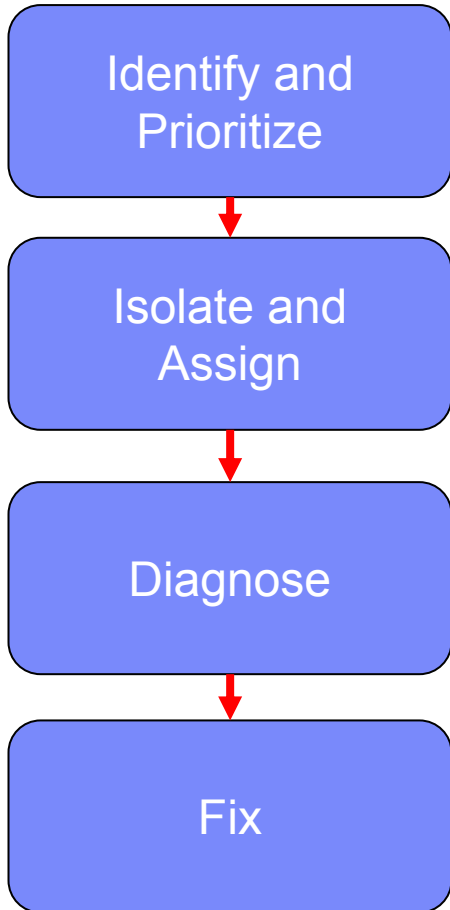


### Rich – Developer





- Responsible for Debugging Production Applications
- Wants access to data from the production system to quickly find the bug and fix it

# Tivoli Products Map to the Roles and Integrate the Processes

## Problem Resolution Process



## Key Roles in the Process

	<p><b>Annette</b> – L1 Operator</p> <p>TMTM</p>
	<p><b>Bernie</b> – L2 Application Support Engineer</p> <p>TMTM</p>
	<p><b>Jim</b> – L3 Subject Matter Expert</p> <p>Claret (Mar. 05) ; CAM (Sept. 05) WSAM (2004)</p>
	<p><b>Rich</b> – Developer</p> <p>IBM Rational Products</p>

## DWP Bank (formerly BWS Bank)

### Where they started:

DWP had deployed a new J2EE banking application running on IBM WebSphere Application Server, using an IMS application to handle back end transactions. During the testing phase of the implementation, the customer's data center noticed that the transactions were occurring more slowly than expected. In order to reach its goal of 200 transactions per second, DWP needed a tool to help analyze and improve rates.

### How they changed:

DWP was able to capture the entire application flow - down to the method level - by using WSAM Profiling. The aggregated information thus obtained enables the bank's developers to study the consumption of CPU resources per application - request by request and method by method. Approximately 20 developers use the tool.

### What they achieved:

WebSphere Studio Application Monitor provides the data center staff with effective and practical functionality required to manage the test and production workloads. By using WSAM, DWP Bank can see transactional data clearly - as far down as the method level, where the sources of performance bottlenecks are found. This ability to go straight to the root cause saves the bank a significant amount of time and effort. Moreover, the tool fits well into the existing IBM WebSphere environment.



DWP Bank (formerly BWS Bank), based in Frankfurt am Main, Germany, is the largest transaction bank in Germany, providing financial market back office services to financial institutions in Europe. The bank's service offerings include securities back office services (full-service and application management services), fund processing services and derivative processing services. It also provides information technology (IT) education, consulting, development, migration and merger services.



# Composite Application Management

Current Product	Transition	Future Product	Value Proposition And Notes
TMTD	}	TMTD (Sep. 2005)	TMTD allows customers to quickly identify and isolate performance problems using detailed transaction traces which isolate problem components and proactively monitor end user response times to ensure SLAs are met.
Web Segment Analyzer Web Response Monitor ETEWatch			
OM XE for WIB	}	"New Product" for Business Integration (Sep. 2005)	Enables quick diagnosis of problems within the WebSphere Business Integration infrastructure
OM XE for WMQ			
OM XE WICS			
ITM for Business Integration			
WebSphere Studio Application Monitor (WSAM)	}	"Claret" for J2EE Application Infrastructure (Apr. 2005 – phase 1) (Sep. 2005 – phase 2)	Enables 2 <sup>nd</sup> and 3 <sup>rd</sup> level technical support staff to quickly analyze and diagnose the root cause of problems. Combines Cyanea's transaction tracking and management capabilities with OM XE's sub-transaction based resource consumption analysis to identify resources affecting performance. Also provides visual and data integration, command and control, console integration, and expert advice capabilities
OM XE for WebSphere Application Server			
OM XE for WebLogic			
ITM for Web Infrastructure			



IBM Software Group

## Event Correlation & Automation

*Getting To The Root Of The Problem*

A horizontal banner with a collage of various images and colors, including a white starburst, a woman's face, and abstract patterns.

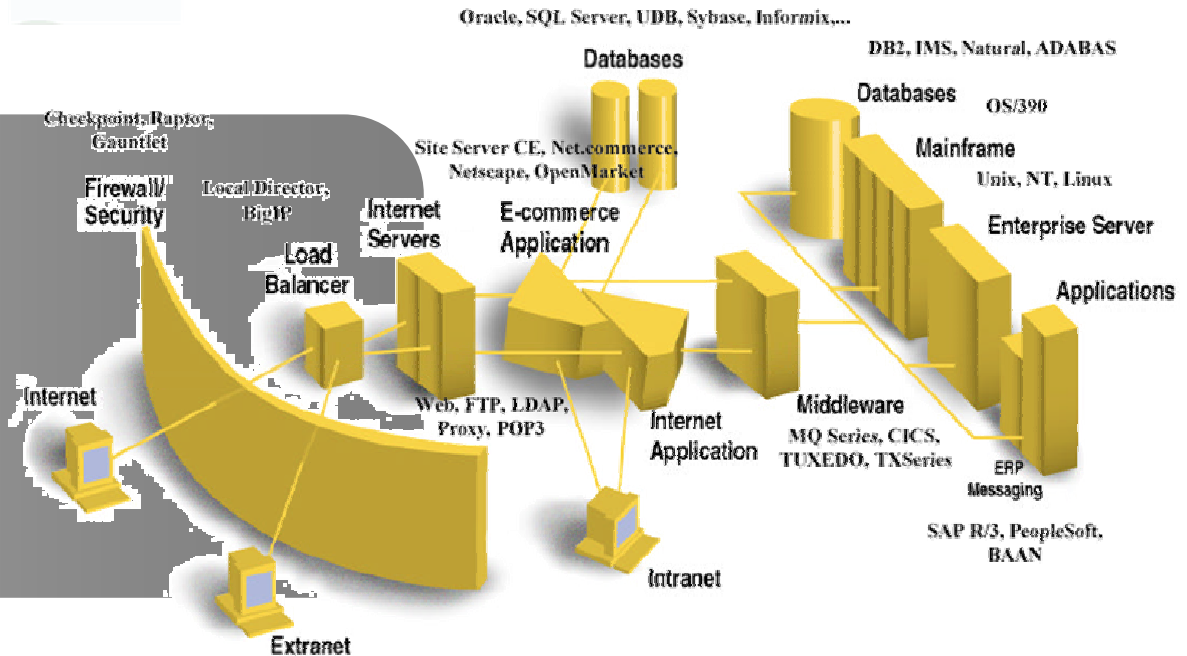
**Tivoli** software

**ON DEMAND BUSINESS™**

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# Event Correlation and Automation

Faults anywhere here almost always result in error symptoms from several of the other technologies supporting the business process



## IBM Tivoli Solutions:

- Determine the **root cause** of problems in the context of the business ... The real issue, and the problem's priority
- **Automate or escalate** the problem .... Take action to keep the workload executing, or escalate to the right "person"

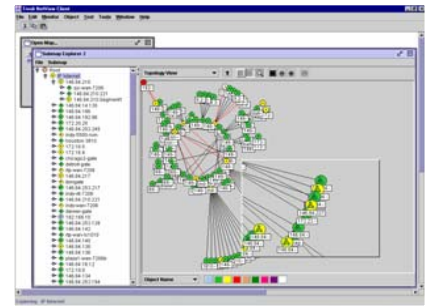
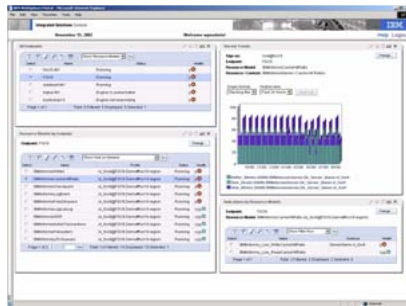
# Correlate Events to Analyze and Identify Root Cause

Time	Source	Severity	Class	Message	Status	ACL	Adapter h...	Adminstr...	Causin...	Causin...	Duration	Event ID	Ext
May 17, 20...	TEC_Tick	Fatal	TEC_Tick	Hello	Open			admni	0	Undefined	0	0	1
May 17, 20...	TEC_Tick	Fatal	TEC_Tick	Hello	Open			admni	0	Undefined	0	0	1
May 17, 20...	TEC_Tick	Critical	TEC_Tick	Hello	Open			admni	0	Undefined	0	0	1
May 17, 20...	TEC_Tick	Minor	TEC_Tick	Hello	Open			admni	0	Undefined	0	0	1
May 17, 20...	TEC_Tick	Warning	TEC_Tick	Hello	Open			admni	0	Undefined	0	0	1
May 17, 20...	TEC_Start	Information	TEC_Start	TEC Event	Open			admni	0	Undefined	0	0	1
May 17, 20...	TEC_Start	Information	TEC_Start	TEC Event	Open			admni	0	Undefined	0	0	1

**Root Cause Event**

**System,  
Middleware, App,  
Security**

**Network events**



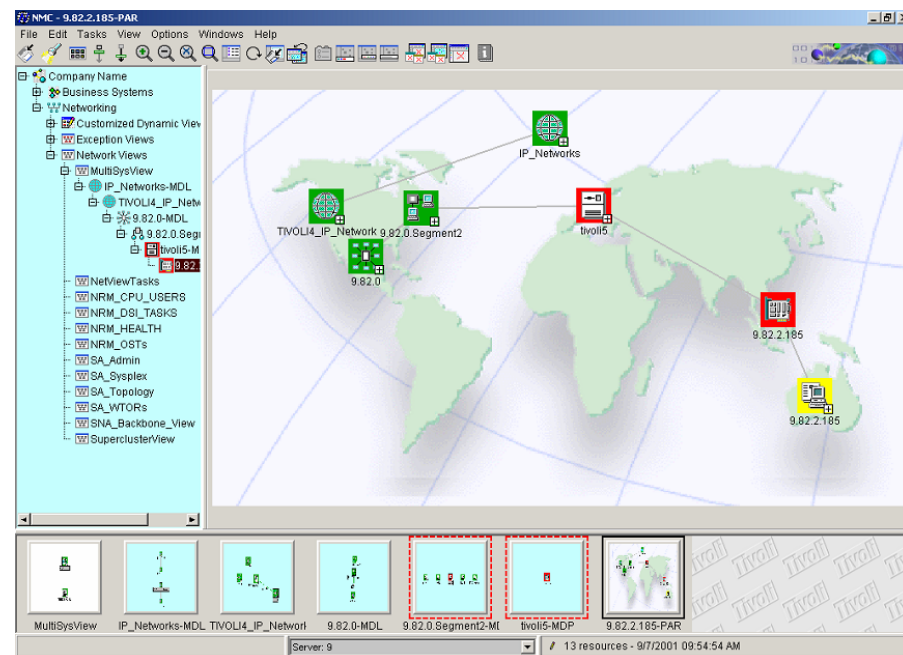
**Tivoli Enterprise Console  
TEC Best Practice  
Correlation Rules**

**IBM Tivoli Monitoring,  
OMEGAMON XE adapters,  
Security Products**

**Tivoli NetView  
Tivoli Switch Analyzer**

# Combined System and Network View with NetView and System Automation for z/OS

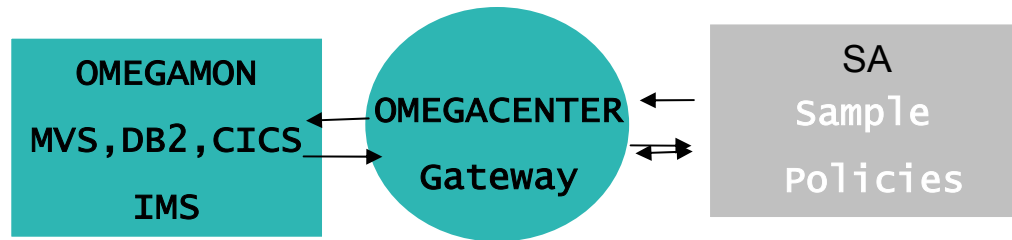
- Combine SNA and TCP/IP network management
- Graphical topology views of network and z/OS systems
- Represent schedule and performance objects
- Network and console automation platform
- Integration with AF/OPERATOR and OMEGACENTER Gateway



## SA – OMEGAMON Integration

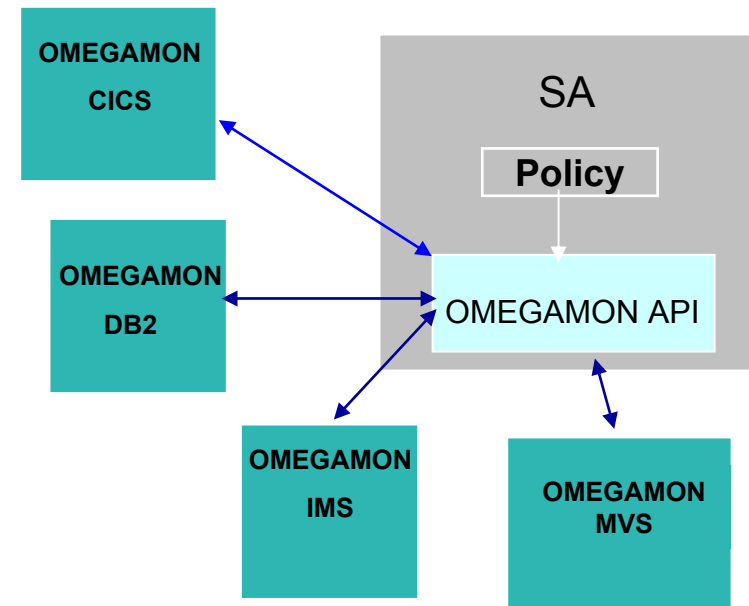
### Phase 1: Integration via OMEGACENTER Gateway (January 2005 via APAR)

- Integrate SA with OMEGAMON via OMEGACENTER Gateway to receive exception alerts
- Initial Integration to provide sample policies for OMEGAMON MVS, DB2, CICS, & IMS.

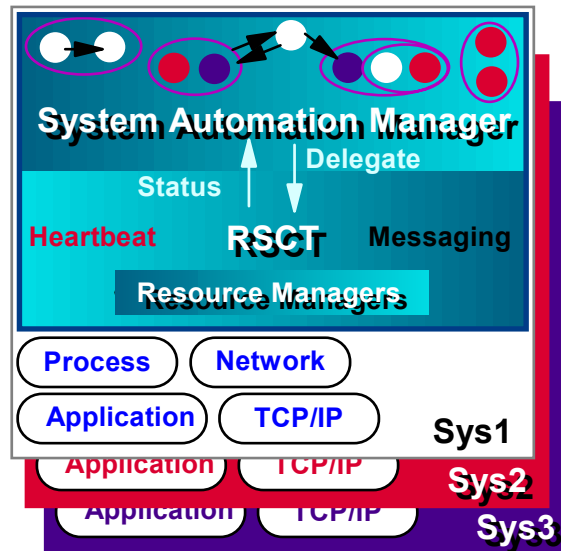


### Phase 2: API integration into SA

- OMEGACENTER Gateway incorporated into an API that will do the following:
  - Establish connection to OMEGAMON
    - Internal LU process.
  - Obtain OMEGAMON exceptions.
    - Filter them by criticality.
  - Send commands to OMEGAMON.
    - These commands can correct situations or possibly notify the operator of the problem.



# IBM Tivoli System Automation for Multiplatform supports AIX, Intel Linux, z/Series Linux



## Manages business application availability by:

- Fast detection of outage through **monitoring**
- Sophisticated knowledge about **application components** and their **relationships**
- **Quick and consistent recovery** of failed resources and whole applications either in place or on another system in a Linux/AIX cluster



# System Automation at DMData

## Where they started:

DMData needed a comprehensive management solution to allow customers to focus on core business issues.

## How they changed:

DMData implemented IBM Tivoli System Automation for OS/390, IBM Tivoli Enterprise Console, IBM Tivoli Business Systems Manager as well as other SWG solutions.

## What they achieved:

*"Standardization and automation are helping us at DMdata to do three things: to implement new customers very fast, to reduce human intervention so we get fewer errors, and to reduce costs, because we don't need to develop anything special for new customers... In the future with standardization and automation we hope to achieve a self-repairing system so we can have an operator-less operation."*

—Britta Ponti  
Project Manager & TBSM Administrator  
DMdata, Denmark



### DMData Achieved:

- 50% growth in customer base over 18-month period
- 50% increase in server resources managed
- 40% increase in server resources per staff member
- 95% reduction in incorrect information or error messages over 2-year period



# Event Correlation and Automation

Current Product	Transition	Future Product	Value Proposition and Notes
System Automation for z/OS	→	System Automation for z/OS	Tivoli will continue support and enhance SA for z/OS and AF/OPERATOR bases to ensure customer investments are protected and no change of automation platform is force on users.
AF/OPERATOR	→	AF/OPERATOR Customer pays trade up fee to purchase SA z/OS	
OMEGACENTER Gateway	→	OMEGACENTER Gateway Customer pays trade up fee to purchase SA z/OS	
AF/REMOTE	→	AF/REMOTE	Manage data centers and receive alert notifications remotely
AF/IRM (Service)	→	AF/IRM (Service)	Provides a full suite of pre-coded automation applications to extend automation capabilities and provide support for custom REXX automation scripts
Tivoli NetView for z/OS	→	Tivoli NetView for z/OS	Comprehensive set of tools for maintaining complex, multivendor, multiplatform networks and systems from a single point of control
System Automation for Multi-Platforms (AIX, Linux)	→	System Automation for Multi-Platforms	Automates system operations, increasing availability and operating efficiency through policy-based management and self-healing.
Tivoli Enterprise Console (TEC)	→	Tivoli Enterprise Console (TEC)	Root cause analysis via system, network, application, security event collection, filtering; correlation to help in problem ID

\* AF/Advanced Notification is a 3<sup>rd</sup> Party Product available from Proxima



IBM Software Group

# Business Service Management

*Running the Business*



**Tivoli** software

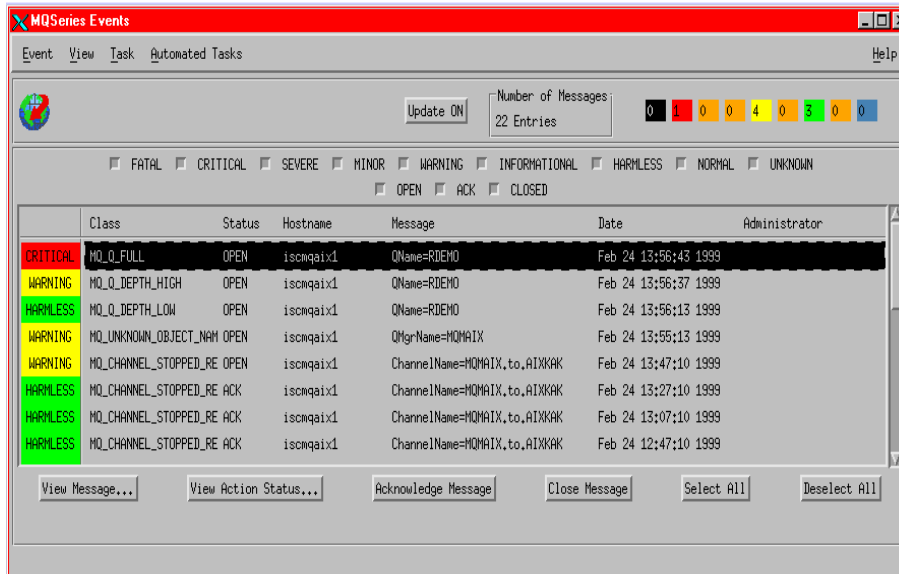
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# Visualize And Prioritize Limited IT Resources IT Decisions Based on Business Priorities

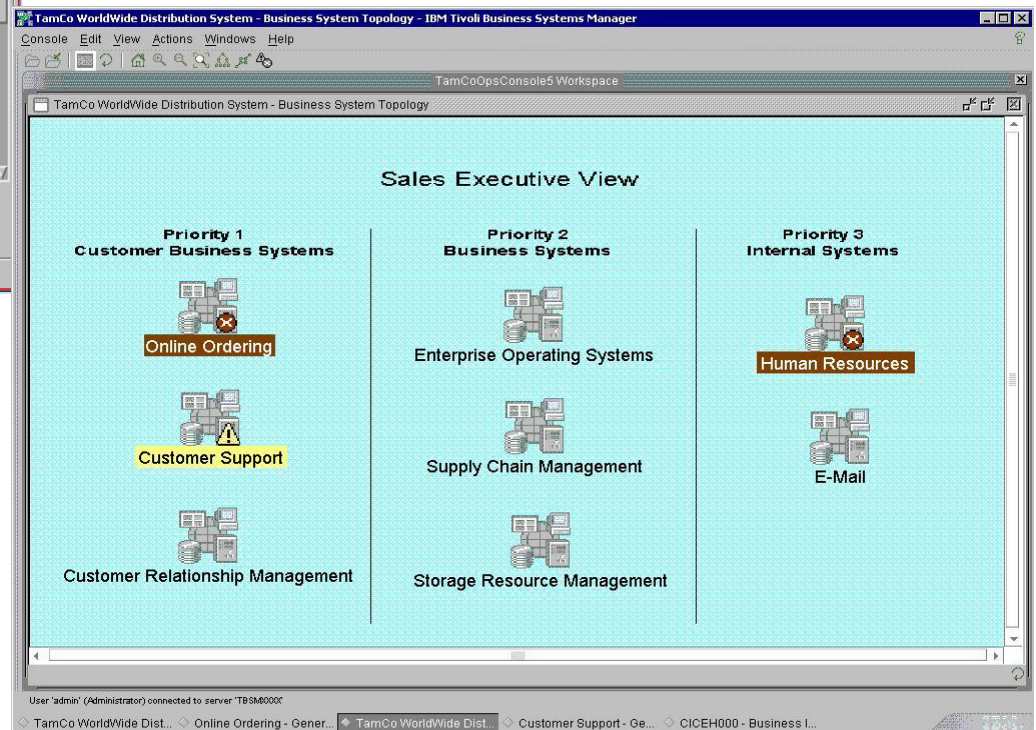
- **Business Systems Manager (TBSM)**

- Manage the infrastructure in terms of business systems
- Prioritize IT problem resolution based on the impact to business performance



↑ *Comprehensive correlation for root cause analysis*

*Business-based management* →



# Tivoli Business Systems Manager Does IT

## Discover

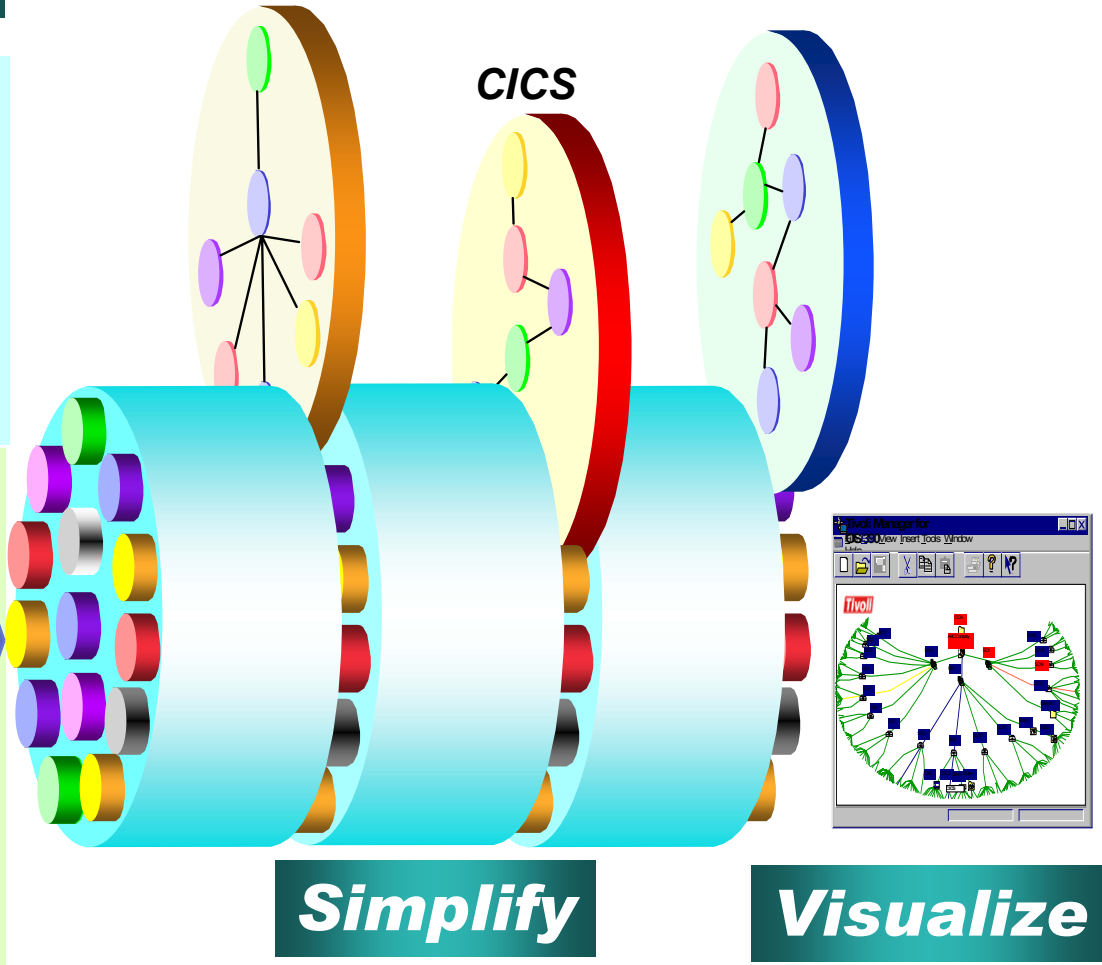
- S/390 z/OS**
- CICS**
- DB2**
- IMS**
- MQSeries**
- WebSphere**
- Batch**
- Tasks**
- IDMS**
- Networks**
- Systems**

## Leverage

- OMEGAMON®**
  - OPS/MVS**
  - SA/zOS**
  - DB2PM**
  - JobTrac®**
  - CA-7®**
  - TWS (OPC)**
  - CICSPLex**
  - NetView**
- 
- TEC**
  - Tivoli Mgr for ...**
  - MQSeries**
  - SAP R/3**
  - Domino**
  - MS Exchange**
  - DB2**
  - MS SQL Server**
  - Oracle**
  - Sybase**
  - PeopleSoft**
  - BEA Tuxedo**
  - MS Msg Que Srv**
  - WebSphere**

## Order Processing

## Head Office



# Establish and Manage SLAs, Communicate Value of IT with Business-level Data Consolidation & Reports

- Service Level Advisor
  - Manage services at a business level
  - Simplify end-to-end SLA management to improve productivity
  - Predict Service Violations before they occur

**Customer Order Status Report By Customers**

Start Date: 9/15/02 12:00:00 AM EDT | End Date: 10/15/02 11:59:59 PM EDT

Maximum rows to display: 10 | 20 | 30 | 40 | 50 |

	9/15/02 to 9/21/02	9/22/02 to 9/28/02	9/29/02
<b>ATM Group</b>			
Critical Web ATM Applications	⊗ 0,56	⊗ 0,24	
Web ATM			⚠ 1,2
Web ATM Applications	⚠ 0,2		
<b>Home Banking</b>			
Human Resources Services			⚠ 0,7
<b>Human Resources</b>			
Home Banking Management		⚠ 3,6	⚠ 0,3

Displayed: 1 - 5 of 5 rows

Legend: ⊗ Critical, ⚠ Warning, ◻ Normal, ◼ Not Active

The first number shown indicates trends. The second number indicates the number of violations. For example, 28,0 indicates 28 trends and 0 violations.

[Configure Status Association](#)

## Business Service Management at Safelite

### Where they started:

Safelite has chosen to evolve from a computing state once defined by a mainframe running multiple monolithic business applications and adopt the paradigms of client/server architecture and Internet-enabled applications. In this way, the company aims to gain a highly flexible IT environment where numerous powerful distributed servers running AIX and Windows NT/2000 systems deliver the mission-critical business applications that its customers now demand. This distributed enterprise environment requires system/process/application management tools that can provide easy and expedient information to the business owners of these applications and, more importantly, to the IT staff responsible for managing the environment.

### How they changed:

Safelite found all of this functionality in an integrated systems management environment based on IBM Tivoli software

### What they achieved:

*IBM Tivoli Service Level Analyzer leverages the data warehouse to manage service levels. Safelite will be able to define any number of custom service levels and assign them to internal departments or customers. The system generates notifications of pending violations, helping the company to avoid breaching any SLAs.*




*IBM Tivoli Business Systems Manager (TBSM) V2.1 also will be installed for business system and workflow dashboard views. TBSM provides an interface for viewing the individual servers and components as lines of business, departments, application view, etc. Once the views are defined, Safelite will be able to assess the impact of any outage and see how it affects other views. The primary applications being monitored with TBSM are IBM WebSphere Business Integration, Oracle Financials and Siebel.*



Trust America's auto glass experts 1-800-800-2727

Auto glass service provider ensures high availability and performance of its IT systems with a Business Service Management solution based on IBM Tivoli Monitoring, IBM Tivoli Enterprise Console, IBM Tivoli Business Systems Manager and IBM Tivoli Service Level Advisor running on Linux

# Industry-leading Business Service Management Continues Unchanged

Current Product	Transition	Future Product	Value Proposition and Notes
Business Systems Mgr (TBSM)		Business Systems Mgr (TBSM)	Helps IT operations teams to maximize their effectiveness by aligning their resources (staff and technology) to the priorities of the business.
Service Level Advisor (TSLA)		Service Level Advisor (TSLA)	Helps enterprise customers simplify the definition, measurement, and reporting of service level agreements
Decision Support for OS/390		Decision Support for OS/390	A flexible reporting tool that can correlate systems performance data to help improve the economic performance of the IT investment.



IBM Software Group

## **Provisioning**

***Configuring Quickly & Accurately***

## **Orchestration**

***Dynamic Adjustments, on demand***

A horizontal decorative banner with a collage of various images including a white asterisk, a woman's face, and abstract patterns.

**Tivoli** software

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# IBM Tivoli Provisioning Solution



## CAPABILITIES:

- Build, deploy, configure, and reclaim servers and associated storage, software, and network resources
- Automates resource setup and configuration (workflows)
- Allows execution of IT processes in a consistent, customized manner, while minimizing errors
- Role-based user identities

## BUSINESS BENEFITS:

- 15-35% reduced capital outlay
- 25-30% reduced staff requirements

## “On Demand” Provisioning

IT Tasks	Automated Process	Manual Time	Automated Time
Identify resource	Resources identified by business process	3 Days	<1 Hour
Software installation	Remote OS install/ software provisioning	5 – 10 Days	<1 Hour
Configure security and network settings	Automated configuration	5 - 10 Days	<1 Hour
Return server to free pool	Automated deallocation	Variable	Automated
<b>Total Time</b>		<b>13 – 23 Days</b>	<b>Half Day</b>

# IBM Tivoli Orchestration Solution

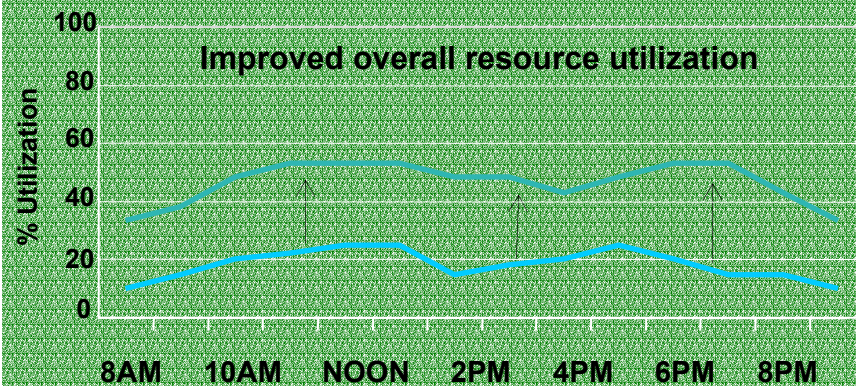


## CAPABILITIES

- Senses conditions, anticipates trends and triggers a response
- Policy-based response to maintain service level objectives despite peak demand
- Three levels of automation for evolutionary adoption: Manual, Semi-Automatic, and Automatic

- **Enforcement of business policies for automated change**
  - Coordination across disciplines
  - Automatic allocation of resources
  - Helps maintain application service levels under peak demands

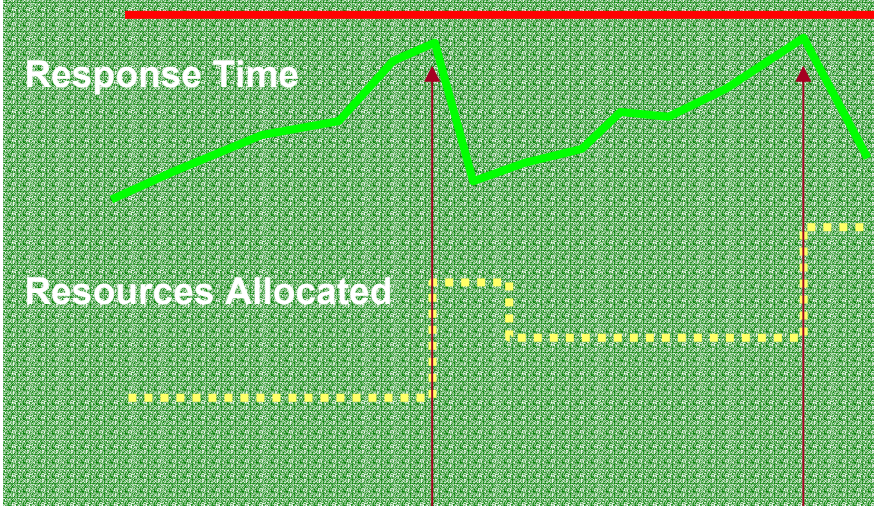
### "On Demand" Orchestration



### Service Level Threshold

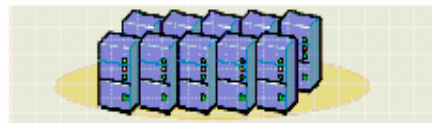
Response Time

Resources Allocated



# Intelligent Orchestration Delivers Business Value

## ✗ Before



100 servers at 20% capacity



100 software licenses



3 administrators



Maintenance Costs \$\$\$\$\$



Add/remove servers in days

## ✓ After



50 servers at 40% capacity



50 software licenses



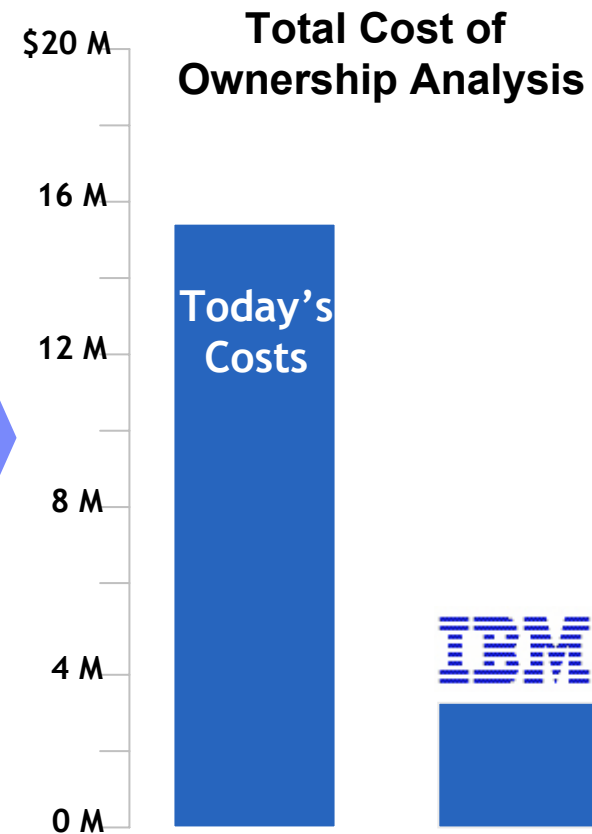
1 administrator



Maintenance Costs \$



Add/remove servers in minutes



ROI: 72% Hard Costs

*(Estimate: based on a 50-server farm over 3 years)*

## IBM and US Tennis Association team up

### Where they started:

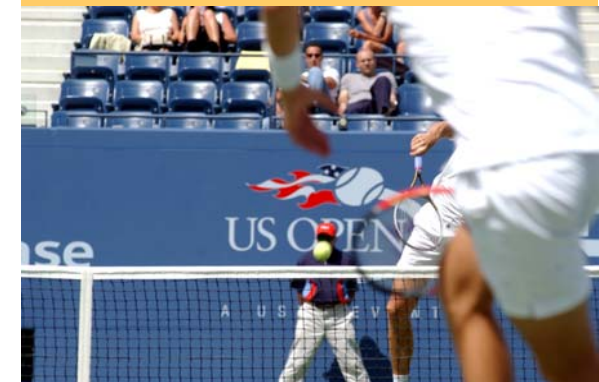
*Increase revenues to fulfill the USTA mission of promoting tennis  
Why On Demand? Providing fans worldwide with a virtual seat to the US Open would help increase interest in the game of tennis and drive revenues. Solution? A hosted technology infrastructure that cost-effectively transforms data into rich content and provides provisioning and intelligent orchestration to ensure that fans can access information on demand*

### How they changed:

Tivoli® Management Software provides extensive application and hardware platform monitoring for the entire events infrastructure. This includes IBM Tivoli Intelligent Orchestrator, which permits autonomic provisioning between different applications, on different servers. Using predictive modeling the system automatically allocates server capacity to where it is needed, helping to improve utilization rates and cost effectiveness.

### What they achieved:

*Improved the fan experience; strengthened worldwide visibility of the USTA mission; increased online sponsorships; increased online merchandise sales; increased site traffic by 18 percent*



"During the US Open, we need to rally the resources of a fully implemented large solution, but without the investment in a fixed infrastructure and the skills that go along with it."

Ezra Kucharz  
Managing Director of  
Advanced Media  
United States Tennis  
Association

# USTA Demo Tivoli\_Intelligent\_Orchestrator at US Open

- This demo is available via CD
- Go to IBM Publications Center website  
<http://www-306.ibm.com/software/tivoli/library/demos/>
- Order “Automation Demo Essentials” CD



## IBM and Tennis Australia serve up an ace

### Where they started:

With more than half a million spectators courtside, nearly 11 million visits to its official Web site and watched on TV in over 170 territories around the world, the Australian Open is Tennis Australia's most visible and strategically important asset. Tennis Australia has only two weeks a year to leverage its biggest asset – the Australian Open. The technology must be highly reliable and resilient, while the needs during this period are over 70 times greater than other times of the year, but the solution also has to be cost effective.

### How they changed:

Tivoli® Management Software provides extensive application and hardware platform monitoring for the entire events infrastructure. This includes IBM Tivoli Intelligent Orchestrator, which permits autonomic provisioning between different applications, on different servers. Using predictive modeling the system automatically allocates server capacity to where it is needed, helping to improve utilisation rates and cost effectiveness.

### What they achieved:

*"For the Australian Open Web site, our goal is to do much more than just provide tennis fans with all the results. We've put to use a wide range of the latest technologies to give visitors a unique, behind-the-scenes perspective of what it's like to experience the Australian Open. We're giving fans around the globe a 'virtual seat' in Melbourne Park - we want fans to feel that they are a part of the Grand Slam action. The Web site adds depth to the overall experience of the Australian Open and significantly expands the tournament's reach for a global audience."*

- Paul McNamee, Chief Executive, Australian Open.



IBM's Australian Open team helped transform the tournament into an on demand business. New technologies used for the Web site back-end infrastructure allowed for a more rich and responsive fan experience, to ensure players, fans and media from around the globe get what they wanted, when they wanted it.

# Federated Department Stores Respond to Need for Speed and Flexibility

## Where they started:

Federated decided to link multiple selling channels - Web-based, in-store, direct mail and call-center-based - with its legacy inventory and fulfillment systems and geographically dispersed fulfillment centers. The solution supports seamless integration of front-end e-commerce and backend legacy applications, and provides centralized inventory and product description files. By leveraging a common set of business rules, it enables retailers to integrate new channels more quickly and efficiently.

## How they changed:

Tivoli® Management Software provides extensive application and hardware platform monitoring for the entire events infrastructure. This includes IBM Tivoli Intelligent Orchestrator, which permits autonomic provisioning between different applications, on different servers. Using predictive modeling the system automatically allocates server capacity to where it is needed, helping to improve utilisation rates and cost effectiveness.

## What they achieved:

- 24x7 real-time inventory monitoring, enabling fast and accurate order fulfillment to improve inventory "turns."
- 50 percent (projected) reduction in development and support costs from reusable components.
- Ability to respond faster to new opportunities and add new channels.
- Flexible pricing structure for controlled, predictable costs.



With increasing competitive pressures, more demanding consumers and shrinking profit margins, retailers are tiring - some even retiring - from the chase. Knowing that the future promises an even more frenzied pace, it's time for retailers to consider trading in common practices for on demand processes that provide the speed and flexibility needed to stand out in a crowded retail marketplace.

## IBM Demo WebSphere\_DB2\_Orchestrator at Federated Department Stores

This demo is the latest way to demonstrate to your customers the value of orchestration. To show this demo:

1. Go to Tivoli Software Demos External Website

<http://www-306.ibm.com/software/tivoli/library/demos/>

1. Under Orchestration choose the demo titled:

“WebSphere and DB2 Orchestration at Federated Department Stores”

2. Download Flash demo (11551 KB)
3. Make sure your Windows Taskbar is hidden (right click on the taskbar, then click on “Auto-hide the taskbar”)
4. Make sure AUDIO is ON
5. Run the demo by clicking on the file



**Federated**  
DEPARTMENT STORES, INC.



## Orchestration & Provisioning Continues Unchanged

Current Product	Transition	Future Product	Value Proposition and Notes
Intelligent Orchestrator (TIO)		Intelligent Orchestrator (TIO)	Helps boost server-to-administrator ratios by automatically triggering provisioning, configuration and deployment of a solution into production. Helps improve service levels by constantly monitoring resources and requirements for anticipated peak workloads and then triggering the appropriate response in accordance with business priorities.
Provisioning Manager (TPM)		Provisioning Manager (TPM)	Uses workflow technology to automate manual tasks of provisioning and configuring servers, operating systems, middleware, applications, storage and network devices.
Configuration Mgr (TCM)		Configuration Mgr (TCM)	Software distribution module enables you to rapidly and efficiently deploy complex mission-critical applications to multiple locations from a central point. Inventory module lets you automatically scan for and collect hardware and software configuration information from computer systems across your enterprise.
License Manager (TLM)		License Manager (TLM)	Help companies achieve a total software asset management solution, enabling planning, management and optimization of enterprise wide software assets



IBM Software Group

## zSeries Software Tooling

*IBM's Commitment To Your Success Continues*

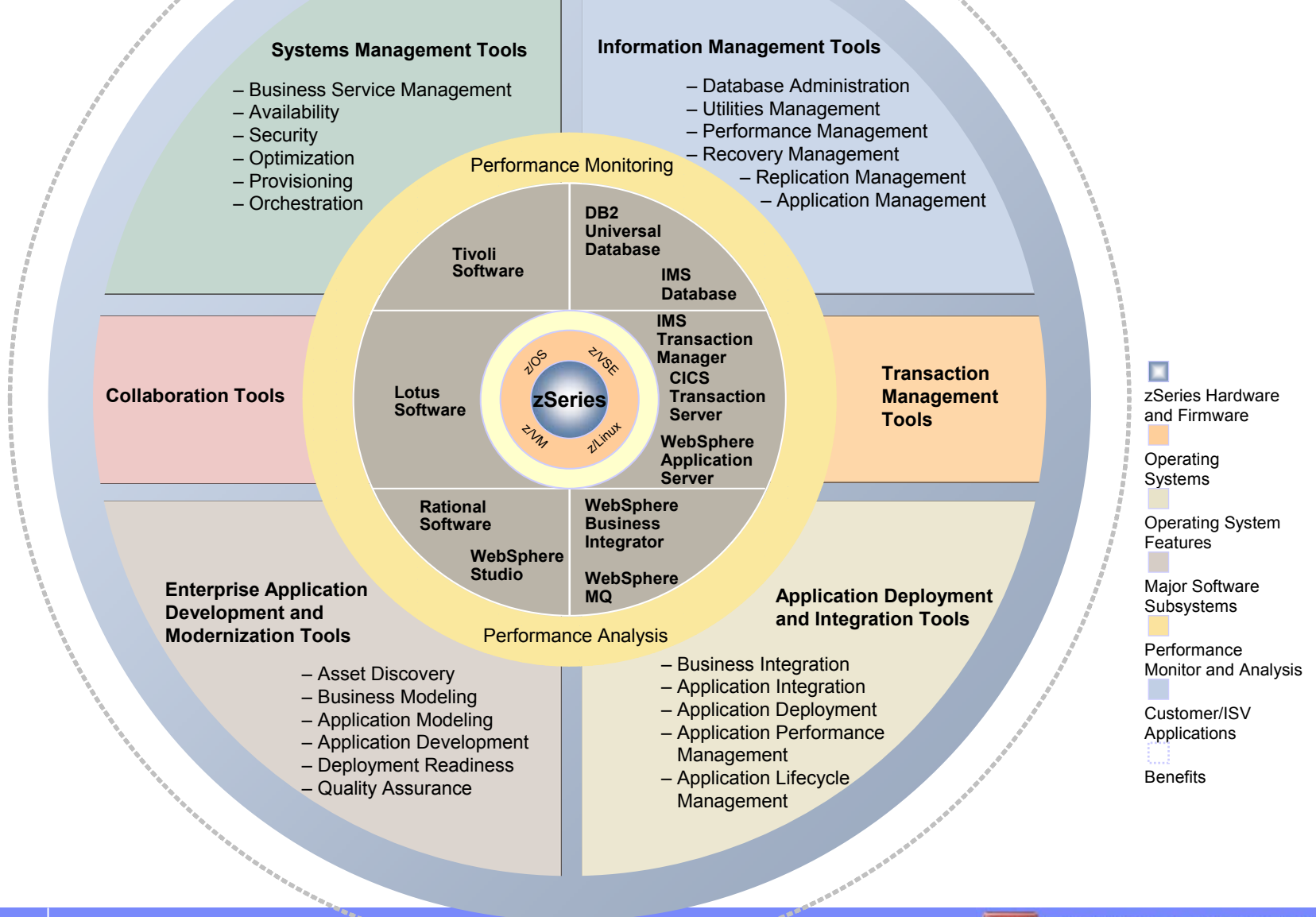
A horizontal banner with a collage of various images and colors, including a white asterisk on a yellow background, a woman's face, and abstract patterns.

**Tivoli** software

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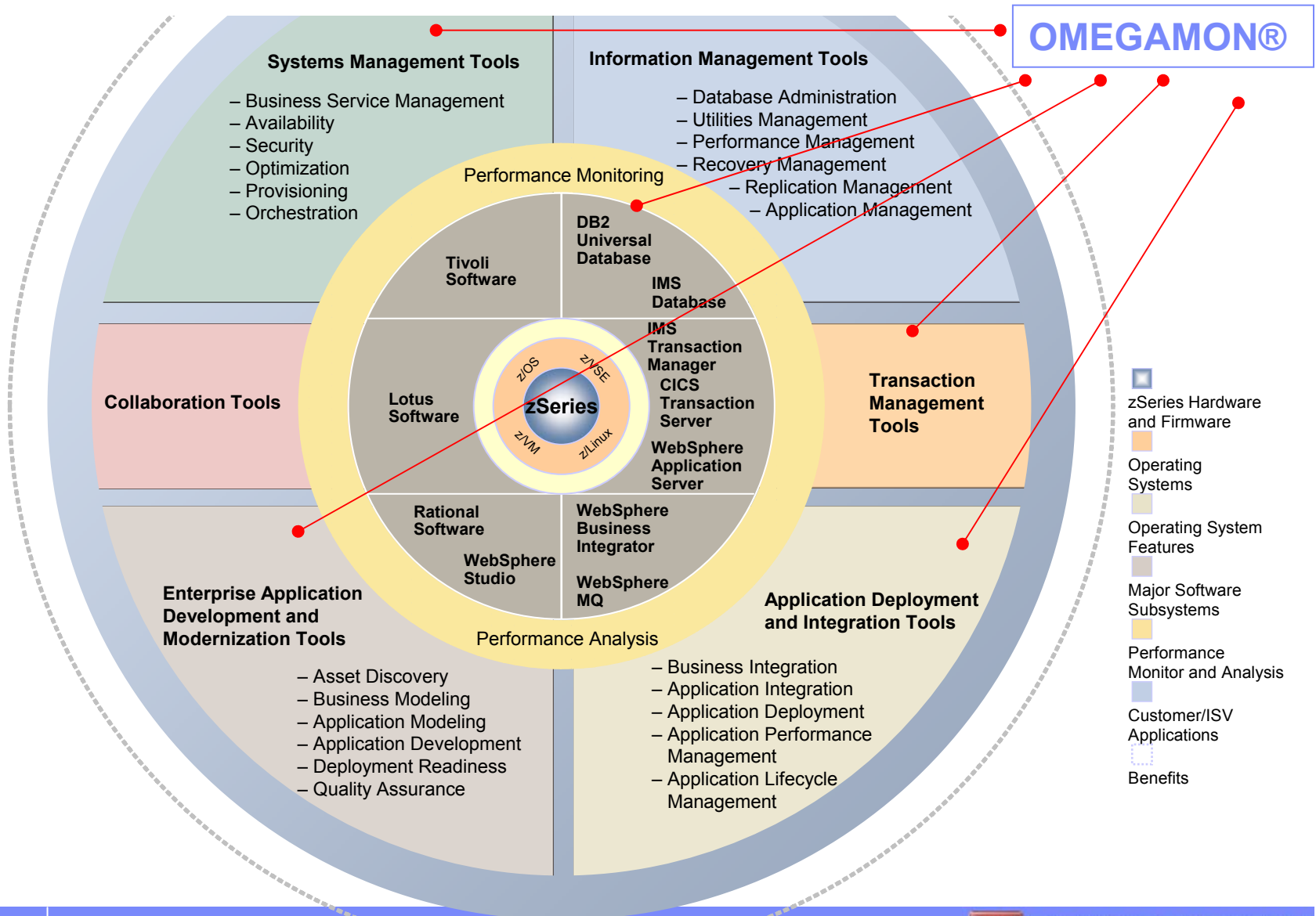
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# The IBM zSeries Software tools portfolio, with the addition of the OMEGAMON portfolio of tooling, now offers a complete suite of affordable mainframe tools



# IBM and Candle offer a complete suite of affordable zSeries Software tools

## Enhancing the role of zSeries in on demand business



# zSeries Software Tools Value Proposition

**IBM believes that by licensing IBM's tools, many customers can realize a substantial savings over the current cost of other tools**

**“PD Tools provided required features, reduced implementation complexity and maintenance cost by 50%”**

Transportation Industry 2Q2002

**PD Tools offered functionality the existing tools did not provide. IBM Support improved product service levels and yielded savings of \$800K over 3 years**

Health Care Industry 1Q2002

**“Migration to IMS DB Tools took 8 weeks including planning & implementation, and was completed with no impact to services and no additional headcount”**

European Solution Provider, 2002

**Competitive Pricing**

**Attractive Flexible Ts & Cs, Version Support**

**Leading Edge Technology**

**Migration Services to Reduce Risk**

**Broadest breadth of tools**

- Data Management
- Application Development
- Systems Management

**Deliver Leading edge Technology**

- Self-healing
- Self-Managing
- Autonomic

**Support products at availability Enable on Demand computing**

**Migration Services**

## zSeries – z/OS DB2 Brand Tools

Current Product	Transition	Future Product	Value Proposition and Notes
DB/WORKBENCH for DB2 & DB/QUICKCHANGE for DB2		DB2 Administration Tool for z/OS & DB2 Object Restore for z/OS	Improved DB2 administration and restored dropped objects functionality
DB2 Administration Tool for z/OS & DB2 Object Restore for z/OS			
DB/QUICKCOMPARE for DB2		DB2 Object Comparison Tool for z/OS	Improved object comparison & synchronization functionality
DB2 Object Comparison Tool for z/OS			
DB/EXPLAIN for DB2		DB2 SQL Performance Analyzer for z/OS	Extensive SQL analysis and tuning features
DB2 SQL Performance Analyzer for z/OS			
DB/DASD for DB2		TBD	Efficient DASD management for improved DB2 performance
DB/SMU for DB2		TBD	Comprehensive DB2 and Space Management

## zSeries – z/OS AIM Group Tools

Current Product	Transition	Future Product	Value Proposition and Notes
PathWAI Editor for Messages		PathWAI Editor for Messages	Quickly and easily create and modify test messages, unload messages for reuse in regression testing, create queues for load testing
IBM Session Manager		IBM Session Manager	Enables a user at a single 3270 terminal to access applications running on any machine in a network of servers running z/OS or OS/390
CL/SUPERSESSION		CL/SUPERSESSION Customer pays trade up fee to move to IBM Session Manager	Provides a single access point for all zSeries VTAM applications, automates routine keyboard activities, and combines information from multiple applications into a single screen
CL/CONFERENCE		CL/CONFERENCE	Capability to transmit zSeries VTAM application screen to others in a network
Candle Application Service PAC (CASP)		Candle Application Service PAC (CASP)	Reduce complexity and speed execution of MQ applications



IBM Software Group

# Customer Support



**Tivoli** software

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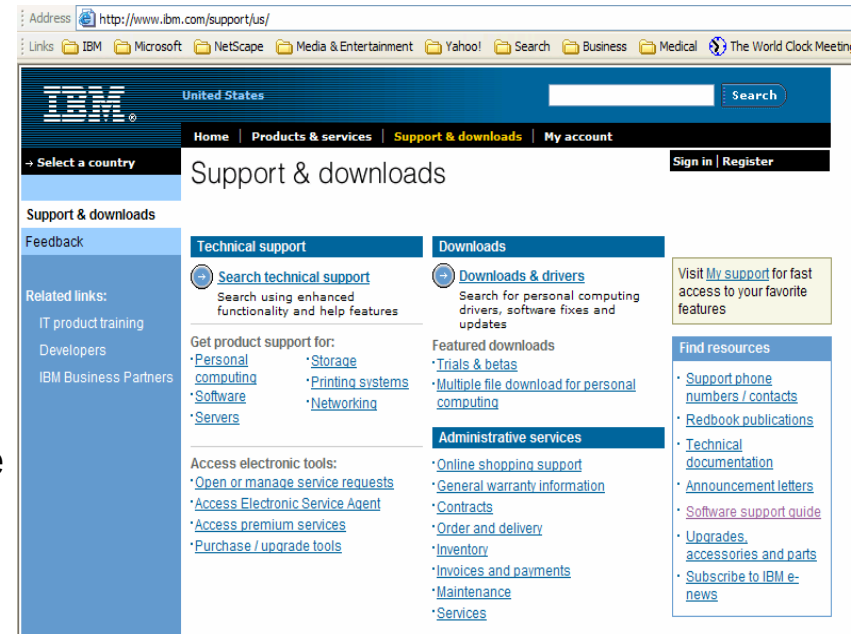


# Customer Support

- Starting October 23rd, 2004, support for Candle products will be provided through IBM Tivoli Customer Support
- Support for Candle products will change to the IBM Tivoli Support Model and follow our established processes
- Your same sales and support teams will continue to handle your account
- Candle customers who are unfamiliar with IBM processes can find descriptions of IBM processes and offerings in the IBM Software Support Handbook found at:

<http://techsupport.services.ibm.com/guides/handbook.html>

- IBM Global Services will continue to support Candle solutions



Tivoli Support  
Toll Free: 1-800 TIVOLI8  
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1-800-237-5511

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# Summary



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# Timeline Summary

## 2H2004

- XE Entitlement Program allows customers to upgrade to OM XE or OM XE Plex
- XE for z/OS Day 1 toleration for z/OS 1.6
  - XE for DB2 and DB2Plex have been combined into single product - XE for DB2 on z/OS
- IMS V9 toleration in OM XE for IMS
  - Add ITM PAC for Sybase
  - Add ITM PAC for, .NET
- ITM PAC SAP R/3 V6.4 toleration
- Add ITM PAC for MS Exchange and Active Directory
- Expanded Topology for Web Servers, DB2, WS, Siebel, CICS and IMS gateways in TMTP 5.3
- Deliver WSAM-TMTP coexistence
- WSAM exploits WebLogic App Server V7 and V8
  - TBSM V3.1 with Executive console, Open status API, enhancements to propagation
- TSLA V2.1 with SLA definition wizards, bulk load existing definitions

## 1H2005

- OTMA and cold queue metrics exploitation in XE for IMS
- Add ITM exploitation of Citrix
- Queue usage details, UDB object repository, backup and re-create MQ objects in XE for WBI
- OMEGAMON XE WAS functions will be added into WSAM to build a single product
- Broaden TMTP capabilities to include CICS and IMS support. Launch in context between TMTP and Claret; incorporate ETEWatch; cluster support.
  - incorporate ETEWatch, into TMTP
- Incorporate cluster support into TMTP
- Phase 1 SA for z/OS-OMEGAMON Integration

## 2H2005

- XE for z/OS, Sysplex Merged into single product; CPU/CSA, RMF enhancements.
  - TMP 4.1 including Linux support
- DB2 PE merge into XE for DB2; DB2 V8 exploitation in XE for DB2
- XE for CICS, CICSplex merge into single product with critical CICS PM functions; exploitation of CICS TS2.3; CICS PM migration tools/services
- XE for IMS, IMSplex merged into single product; APPC, MSC, TRF exploitation
- Merge CS API and EE functions of ITM for NP into XE for Networks
  - XE for Storage: dataset name masking, integration of ITSO functions, ITSO to XE migration
  - Enhanced exploitation of Oracle, DB2, Peoplesoft, Windows/Unix clusters in ITM
- Merge ITM BI, XE for WMQ, WIB and WICS into XE for WBI; WebSphere MQ V6 exploitation
  - Claret Phase 2
- Add Apache, IIS support from ITM WI into Claret
- Merge of TMTP, WSA into single offering.
  - SA for App Ops V2.1; SA for MP V1.3
  - TMP Globalization enablement
  - Phase 2 SA-OMEGAMON Integration

## Summary – Why Tivoli PLUS Candle and Cyanea?

- Further strengthens IBM's on demand Infrastructure Management capabilities
- Offers comprehensive performance management of all major z/Series operating systems and subsystems
- Provides end-to-end transaction monitoring and composite application management
- Integrates data, tools and process automation via common management portal
- Protects your investment in technology and people
- Provides access to IBM world-class, worldwide services and support



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**Thank You!**

**What more can we do to earn your business?**

A horizontal decorative banner with a collage of various images including a white starburst, a woman's face, and abstract patterns.

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