



IBM Software Group

Advancing On Demand Business

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



Tivoli software

ON DEMAND BUSINESS™

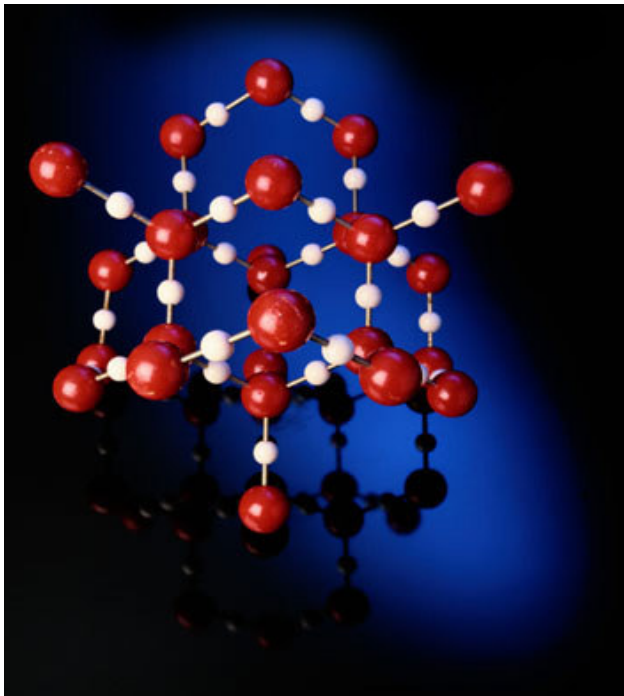
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Today's Topics

- 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
- Future Portfolio Integration
- zSeries Software Tooling
- Customer Support and Business Partner Relationships
- Summary

On Demand Business...



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.

The complexity issue

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 I/T infrastructure threatens to undermine the very benefits information technology aims to provide.”



Without new approaches, costs will also rise!

The complexity issue...

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.”

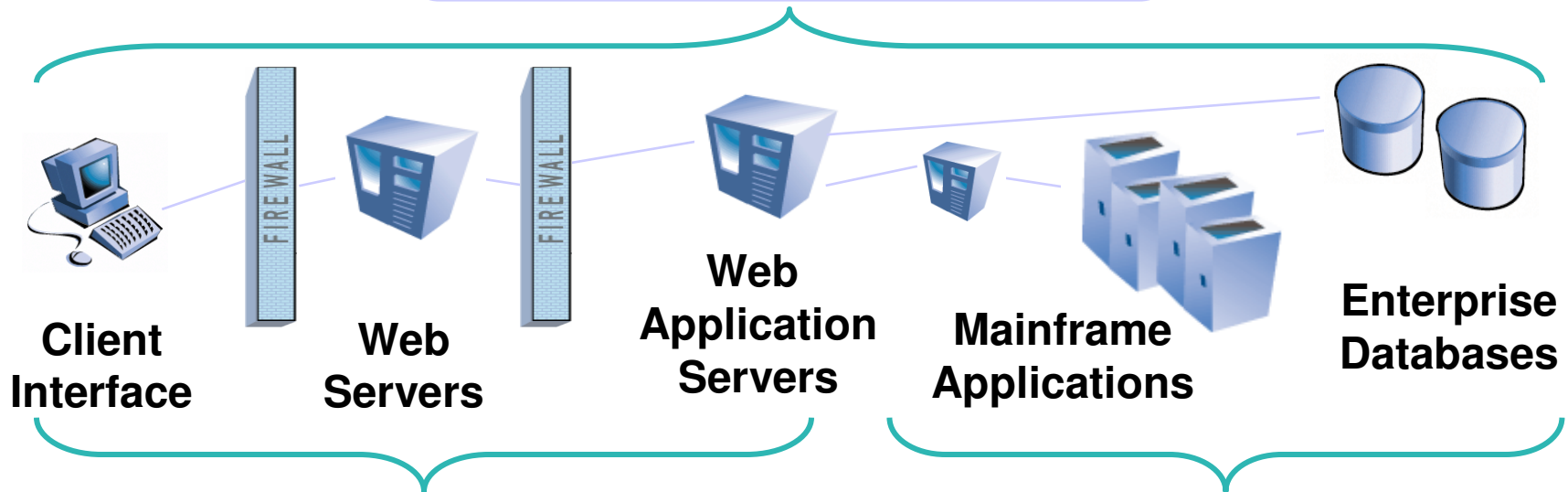


Without new approaches, things will only get worse!

ON DEMAND BUSINESS™ Requires On Demand Management

End-to-End Transactions:

- Customer / user experience
- Business processes and applications
- 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 Management of an On Demand Infrastructure







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




- Address universal customer problems with managing user accounts
- Automate processes for granting/revoking access to resources
- Ensure compliance with corporate and legislative security policies




- Ensure application availability and optimize system utilization
- Improve personnel productivity
- Increase flexibility and decrease complexity through virtualization

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

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

Integrated Product Demo

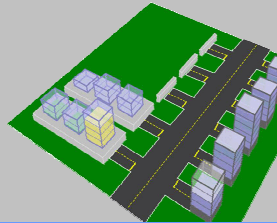
- This demo is the latest way to demonstrate to your customers the value of an integrated approach to managing IT availability and performance. To show this demo:
- Go to the demo web site at:
<http://ausgsa.ibm.com/~mmmm/public/Candle/demos.html>
- Download the demo entitled “Demo: End-to-End Infrastructure 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”)
- Run the demo by clicking on the file

Tivoli Automation Portfolio

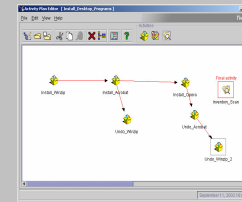
Orchestration & Provisioning

IBM Tivoli Intelligent Orchestrator

IBM Tivoli Provisioning Manager

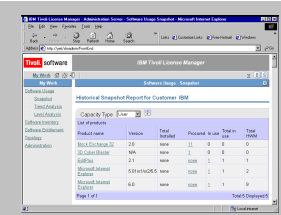


IBM Tivoli Configuration Manager



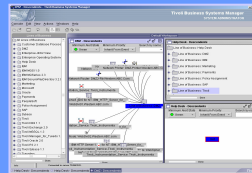
IBM Tivoli License Manager

Isogon

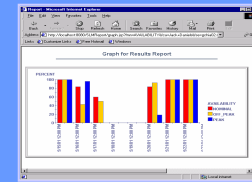


Business Service Management

IBM Tivoli Business Systems Manager

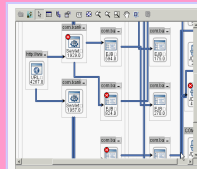


IBM Tivoli Service Level Advisor

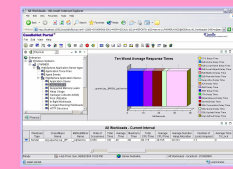


Composite Application Management

IBM Tivoli Monitor for Transaction Performance

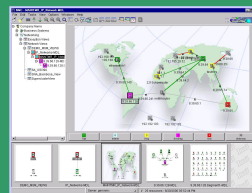


"Claret" for Composite Application Monitoring

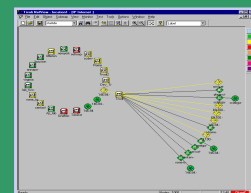


Event Correlation & Automation

IBM Tivoli System Automation Family



IBM Tivoli NetView Family



IBM Tivoli Enterprise Console

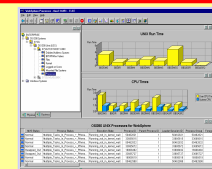
Time	Source	Message	Severity	Details
11/11/2008 10:00:00	IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	Warning	IBM Tivoli Enterprise Console
11/11/2008 10:00:00	IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	Warning	IBM Tivoli Enterprise Console
11/11/2008 10:00:00	IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	Warning	IBM Tivoli Enterprise Console
11/11/2008 10:00:00	IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	Warning	IBM Tivoli Enterprise Console
11/11/2008 10:00:00	IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	Warning	IBM Tivoli Enterprise Console
11/11/2008 10:00:00	IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	Warning	IBM Tivoli Enterprise Console

Resource Monitoring

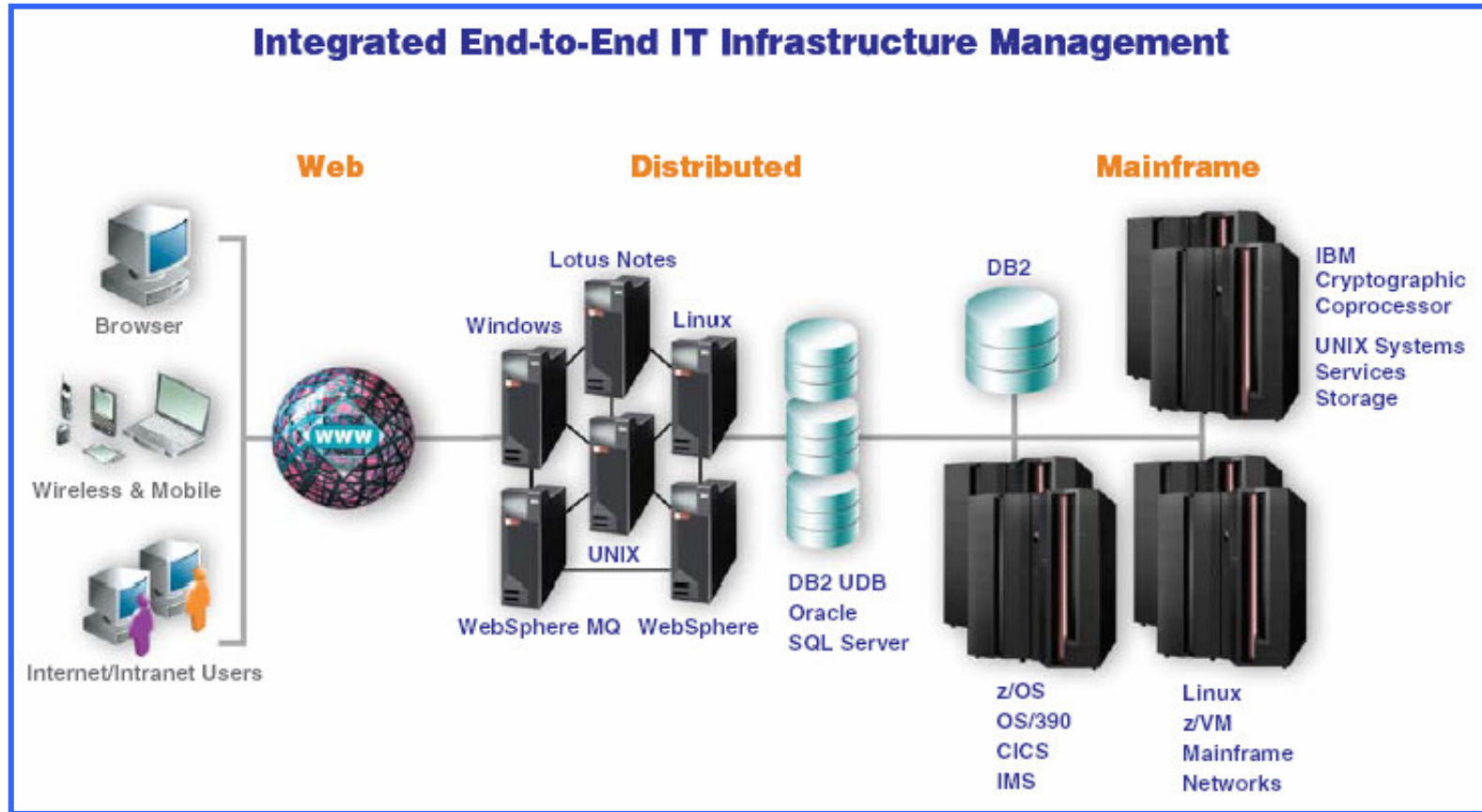
IBM Tivoli Monitoring Family

Resource Name	Resource Type	Resource ID	Resource Status
IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	Warning
IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	Warning
IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	Warning
IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	Warning
IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	Warning
IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	IBM Tivoli Enterprise Console	Warning

IBM Tivoli OMEGAMON Family



Demonstration: End-to-End Management Challenge





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Product Roadmaps

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



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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
 - We hope to have even more detailed plans and precise dates in 3Q
- 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



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Resource Monitoring

Across Distributed And zSeries Systems

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

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Resource Monitoring

- **IBM Tivoli Monitoring Family (ITM)**

- Monitor infrastructure availability
 - Systems, middleware, applications, networks
- Automatically detect and fix problems when/where they occur

- **OMEGAMON Family**

- Suite of robust tools and industry best practices that can speed problem resolution
- Tools that help manage an enterprise infrastructure better and with less cost to your business

- **IntelliWatch Family**

- Targeted at the Subject Matter Experts for deeper analytics and problem solving in the distributed Domino environment

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 for Z/OS



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	Merges XE & Sysplex into single package. Tighter integration with RMF
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 on zSeries (products packaged together)	OM XE interface for VM. Red Hat Enterprise Server 3 support Linux under z/VM.
OM for VM			
OM XE for Cryptographic Co-processor		OM XE for Cryptographic Co-processor	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.

zSeries Monitoring For Middleware And Databases

Current Product	Transition	Future Product	Value Proposition and Notes
OM XE for DB2		OM XE for DB2	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
OM XE for DB2plex			
DB2 PE, DB2 PM, BPA			
OM XE for CICS		OM XE for CICS	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	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

Monitoring For Storage And Mainframe Networks

Current Product	Transition	Future Product	Value Proposition and <i>Notes</i>
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		OM XE for Mainframe Networks	
OM XE for Mainframe Networks		OM XE for Mainframe Networks	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, Applications, Databases

Current Product	Transition	Future Product	Value Proposition and Notes
OM XE for Windows Servers	➔	IBM Tivoli Monitoring (ITM)	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
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	➔	ITM for Applications (mySAP, Siebel)	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.
ITM for Applications	➔		
OM XE for Distributed Databases	➔	ITM for Databases	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.
ITM for Databases	➔		
ITM for Message and Collaboration	➔	ITM for Messaging and Collaboration	Automates critical Notes activities that consume a Notes administrator's time: system profiling, configuration and deployment, network management, and error recovery.
IntelliWatch for Unix and Windows	➔	IntelliWatch for Unix and Windows	
OM Universal Agent	➔	OMEGAMON Universal Agent	



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Composite Application Management

Managing Complex Applications



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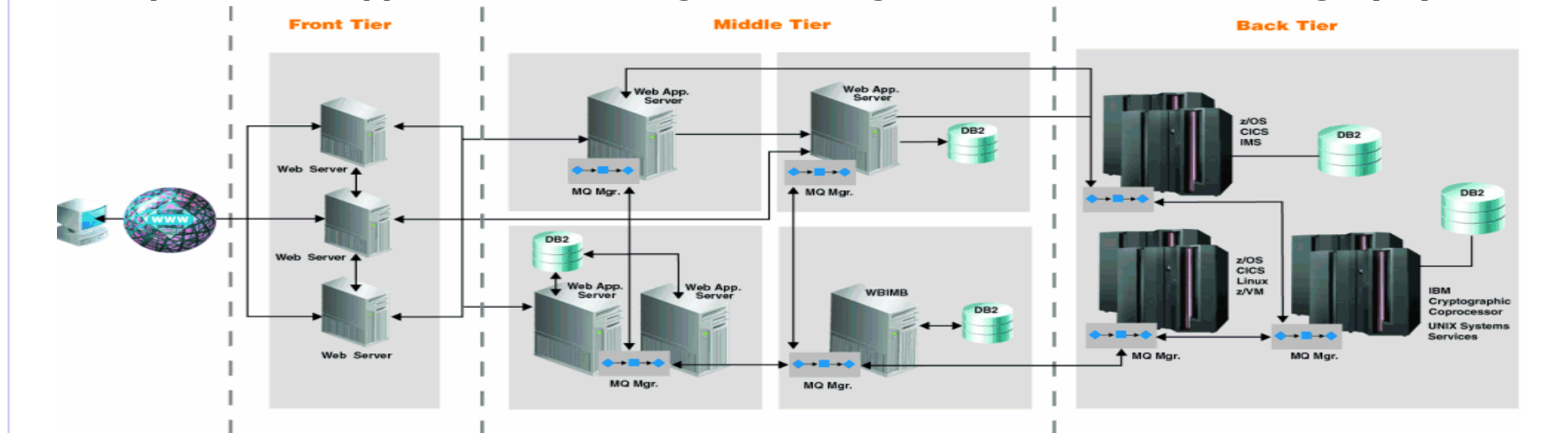
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The New World of Application Management

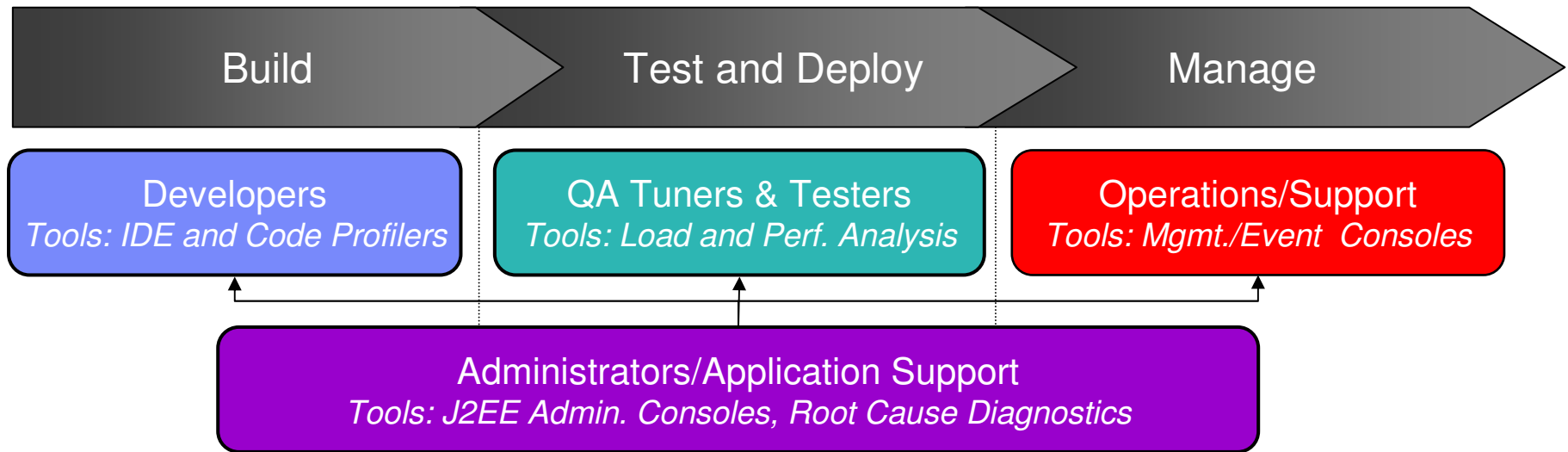
A Composite Web Application, Involving J2EE, Integration Middleware, and Legacy Systems



- 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

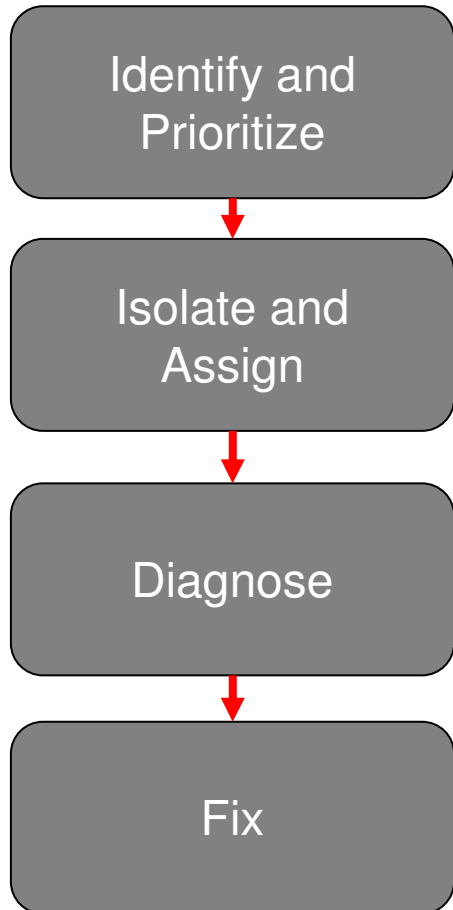
Challenges:

- 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

Traditional Application Management Not Up To Task

Problem Resolution Process



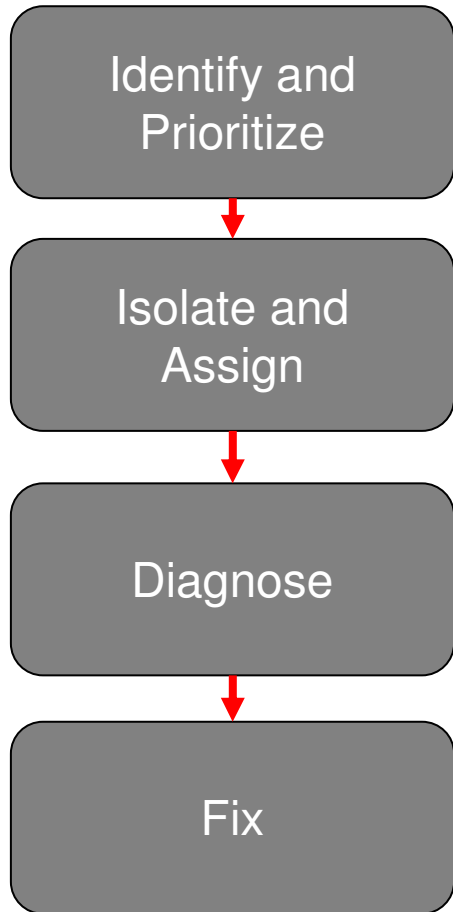
Process Breakdowns

<ul style="list-style-type: none"> • 73% of problems are identified only after user or business manager complaints¹ 	<p>"Traditional low-level systems management tools, while still critical to managing IT operations, do not adequately expose themselves to line of business managers, who now require the higher level view of an end-to-end business application".</p> <p>- Corey Ferengul, Meta Group</p>
<ul style="list-style-type: none"> • 64% of problems take over 4 hours <u>just to isolate</u>² • 38% of companies assign 11 or more specialists to solve an end user problem¹ 	
<ul style="list-style-type: none"> • Diagnostic tools cannot link transaction slowdowns to underlying resources • Unable to recreate production problems 	
<ul style="list-style-type: none"> • 36% of problems not fixed on first pass¹ • Few problems are fixed automatically 	

Sources: ¹Forrester Consulting, February, 2004; ²Ptak, Noel and Associates, November, 2003

Tivoli Offerings: TMTP, WSAM, OMEGAMON XE

Problem Resolution Process



Tivoli Offerings

Tivoli Monitoring for Transaction Performance (TMTP)

Capabilities

- End-to-end transaction performance monitoring
- Transaction response time decomposition

Audience

- 1st Level Support
- Operations
- Application Help Desk

WebSphere Studio Application Monitor, OMEGAMON XE

Capabilities

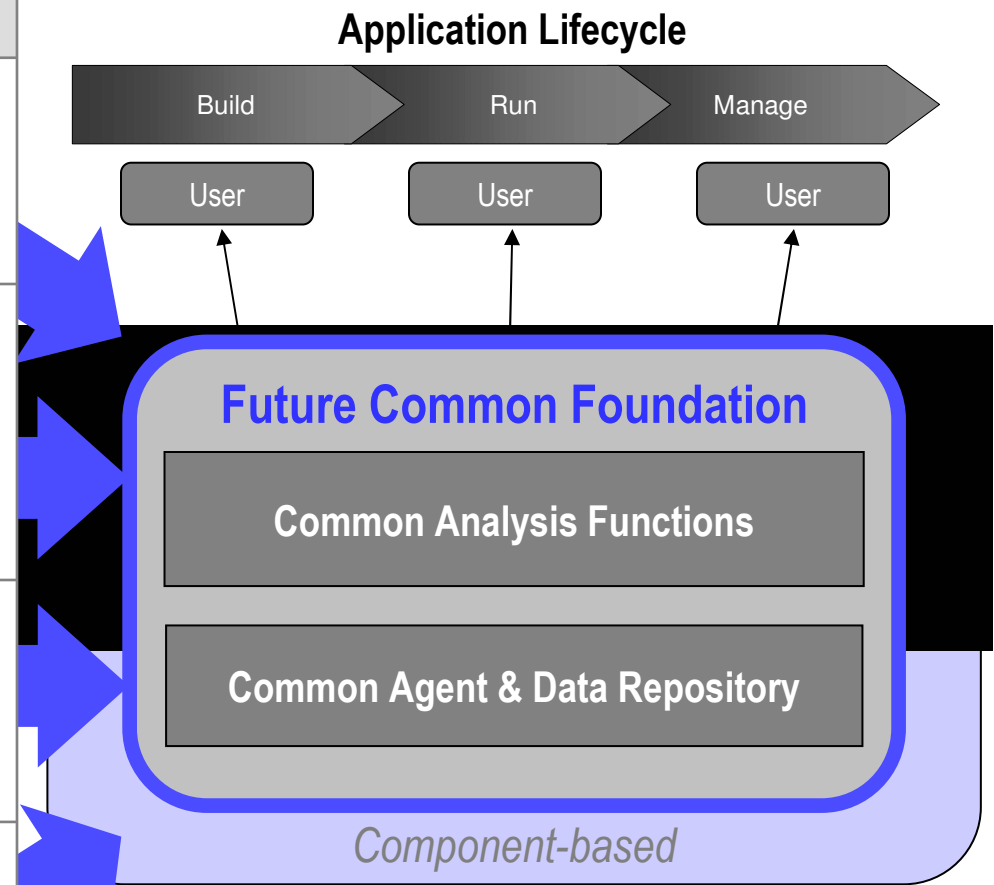
- Transaction/sub-transaction based resource analysis: memory, resource usage, bottleneck analysis, lock contention analysis, etc.
- Automation and expert advice
- Command, control and automation capability
- Visual and data integration; console integration

Audience

- 2nd & 3rd Level Support
- Application Support
- WebSphere/WebLogic tech support
- WebSphere/WebLogic administrators

Converging Technologies On A Common Foundation

Products	Unique Value
Tivoli Monitoring for Transaction Performance (TMTP)	<ul style="list-style-type: none"> Transaction decomposition (J2EE and ARM instrumented applications) Automatic performance base-lining Excellent for cross-J2EE problem isolation
WebSphere Studio Application Monitor (WSAM)	<ul style="list-style-type: none"> Designed for composite application management Transaction tracking for CICS and IMS transactions Non-intrusive detailed application analysis Intuitive, web-based interface
OMEGAMON XE for WAS	<ul style="list-style-type: none"> Bottleneck and impact analysis Integration with other OMEGAMON XE monitors via Tivoli Management Portal Data and visual integration with system-level and transactional performance metrics
Rational	<ul style="list-style-type: none"> Code profiling Generic instrumentation technology UML transaction & topology views Eclipse-based UI .Net



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
TMTP Web Segment Analyzer Web Response Monitor ETEWatch		TMTP	TMTP 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 SLA are met. TMTP works with TSLA to help enterprise customers simplify the definition, measurement, and reporting of service level agreements
OM XE for WIB OM XE for WMQ OM XE WICS		“New Product” for Business Integration	Enables quick diagnosis of problems within the WebSphere Business Integration infrastructure
WebSphere Studio Application Monitor (WSAM) OM XE for WebSphere Application Server OM XE for WebLogic		“Claret” for J2EE Application Infrastructure	Enables 2 nd and 3 rd 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



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Event Correlation & Automation

Getting To The Root Of The Problem

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

Tivoli software

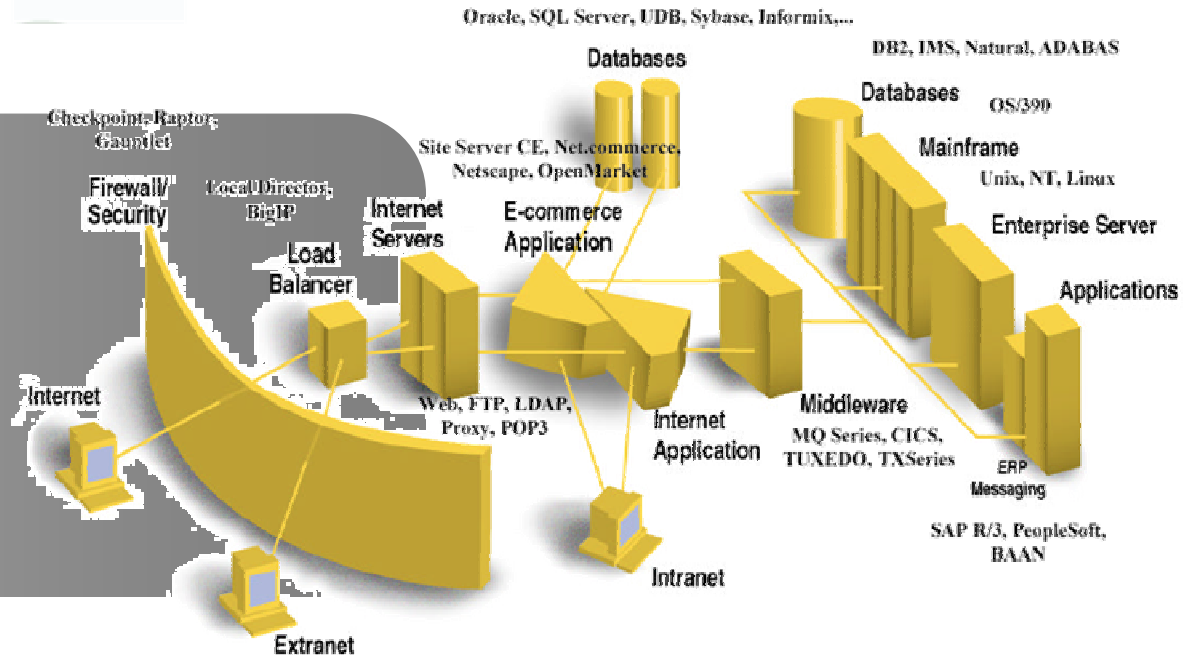
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Event Correlation and Automation

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 for Root Cause with TEC

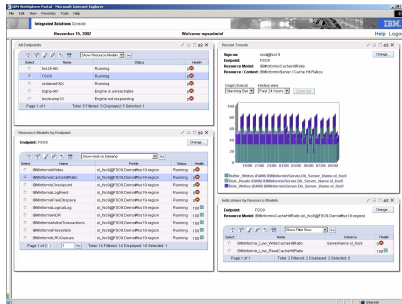
Event Viewer: Group eg1 - event group 1

Severity	Time Rec.	Class	Message	Status	ACL	Adapter h...	Adminstr...	Causin...	Causin...	Duration	opened...	Ext
Fatal	May 17, 20	TEC_Tick		Open	Hello	[admin]				0	0	1
Fatal	May 17, 20	TEC_Tick		Open	Hello	[admin]				0	0	1
Critical	May 17, 20	TEC_Tick		Open	Hello	[admin]				0	0	1
Minor	May 17, 20	TEC_Tick		Open	Hello	[admin]				0	0	1
Minor	May 17, 20	TEC_Tick		Open	Hello	[admin]				0	0	1
Warning	May 17, 20	TEC_Tick		Open	Hello	[admin]				0	0	1
Warning	May 17, 20	TEC_Tick		Open	Hello	[admin]				0	0	1
Harmless	May 17, 20	TEC_start	asmth	Open	TEC Event	[admin]				0	0	1
Harmless	May 18, 20	TEC_start	asmth	Open	TEC Event	[admin]				0	0	1

Root Cause Event

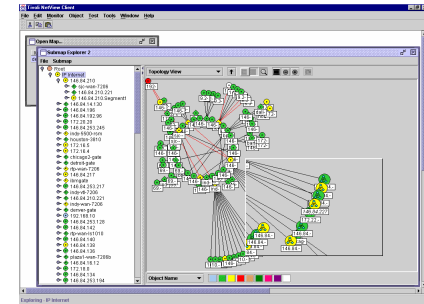
Time Rec.	Class	Message	Severity	Status	Message	ACL	Adapter h...	Adminstr...	Causin...	Causin...	Duration	opened...	Ext
May 17, 20	TEC_start	asmth	Harmless	Open	TEC Event	[admin]			0	Undefined	0	0	1
May 17, 20	TEC_Tick		Fatal	Open	Hello	[admin]			0	Undefined	0	0	1
May 17, 20	TEC_Tick		Fatal	Open	Hello	[admin]			0	Undefined	0	0	1
May 17, 20	TEC_Tick		Minor	Open	Hello	[admin]			0	Undefined	0	0	1
May 17, 20	TEC_Tick		Minor	Open	Hello	[admin]			0	Undefined	0	0	1
May 17, 20	TEC_Tick		Warning	Open	Hello	[admin]			0	Undefined	0	0	1
May 17, 20	TEC_Tick		Warning	Open	Hello	[admin]			0	Undefined	0	0	1
May 17, 20	TEC_Tick		Harmless	Acknowledged	Hello	[admin]		Root_csmn...	0	Undefined	0	0	1
May 17, 20	TEC_Tick		Harmless	Open	Hello	[admin]			0	Undefined	0	0	1
May 17, 20	TEC_Tick		Critical	Open	Hello	[admin]			0	Undefined	0	0	1
May 17, 20	TEC_Tick		Critical	Open	Hello	[admin]			0	Undefined	0	0	1
May 17, 20	TEC_Tick		Unknown	Open	Hello	[admin]			0	Undefined	0	0	1
May 17, 20	TEC_Tick		Unknown	Open	Hello	[admin]			0	Undefined	0	0	1
May 18, 20	TEC_start	asmth	Harmless	Open	TEC Event	[admin]			0	Undefined	0	0	1
May 24, 20	TEC_start	asmth	Harmless	Open	TEC Event	[admin]			0	Undefined	0	0	1

Systems, Applications and Security events



IBM Tivoli Monitoring OMEGAMON XE Event Adapters

Network events



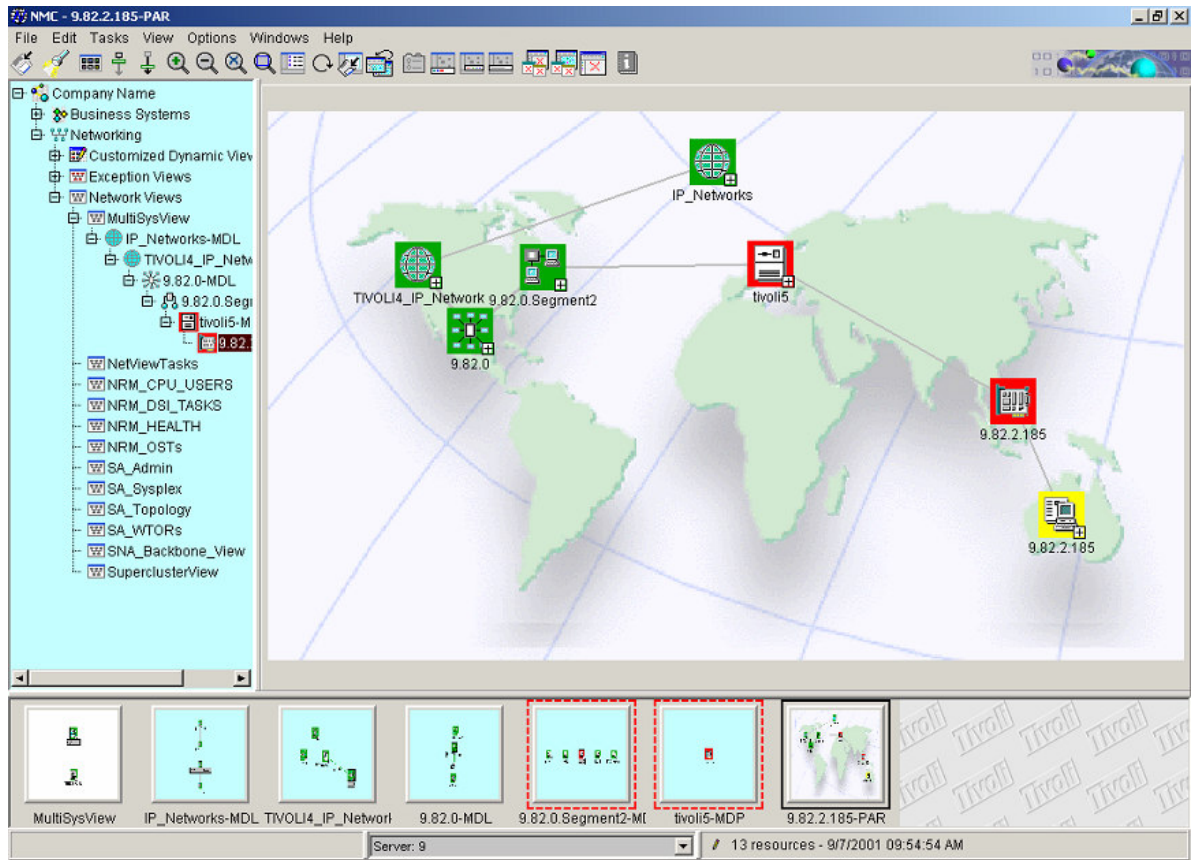
Tivoli NetView Tivoli Switch Analyzer

TEC Best Practice Correlation Rules

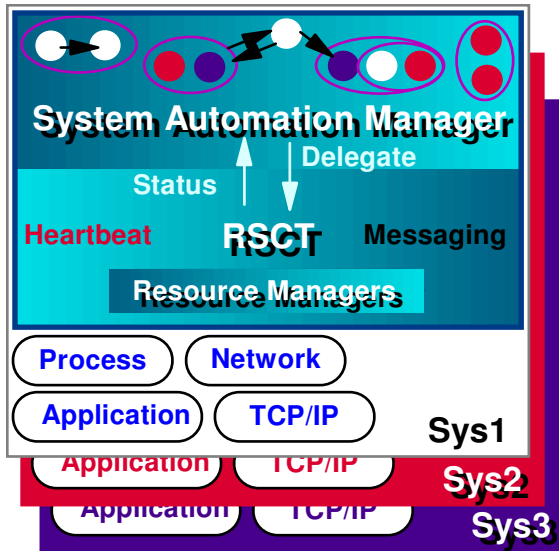


Combined System and Network View with NetView and System Automation for z/OS

- Combined 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



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



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		System Automation	Automates system operations, increasing availability and operating efficiency through policy-based management and self-healing. Includes out-of-the-box automation for IMS, CICS, Tivoli Workload Scheduler, IBM DB2, mySAP and WebSphere
AF/OPERATOR			
OMEGACENTER Gateway			
AF/REMOTE		AF/REMOTE	Manage data centers and receive alert notifications remotely
AF/Advanced Notification *		AF/Advanced Notification *	Augments AF/REMOTE with multiple notification methods
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
Tivoli Enterprise Console (TEC)		Tivoli Enterprise Console (TEC)	Event Correlation and Root cause analysis via system, network, application, security event collection, filtering, and correlation to help in problem resolution

* 3rd party product



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Business Service Management

Running the Business



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

Class	Status	Hostname	Message	Date	Administrator
CRITICAL	OPEN	iscmqaix1	QName=RDEMO	Feb 24 13:56:43 1999	
WARNING	OPEN	iscmqaix1	QName=RDEMO	Feb 24 13:56:37 1999	
HARMLESS	OPEN	iscmqaix1	QName=RDEMO	Feb 24 13:56:13 1999	
WARNING	OPEN	iscmqaix1	QMgrName=MQMAIX	Feb 24 13:55:13 1999	
WARNING	OPEN	iscmqaix1	ChannelName=MQMAIX,to,AIXKAK	Feb 24 13:47:10 1999	
HARMLESS	ACK	iscmqaix1	ChannelName=MQMAIX,to,AIXKAK	Feb 24 13:27:10 1999	
HARMLESS	ACK	iscmqaix1	ChannelName=MQMAIX,to,AIXKAK	Feb 24 13:07:10 1999	
HARMLESS	ACK	iscmqaix1	ChannelName=MQMAIX,to,AIXKAK	Feb 24 12:47:10 1999	

↑ *Comprehensive correlation for root cause analysis*

Business-based management →

- **Business Systems Manager (TBSM)**

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

Sales Executive View

Priority 1 Customer Business Systems	Priority 2 Business Systems	Priority 3 Internal Systems
Online Ordering	Enterprise Operating Systems	Human Resources
Customer Support	Supply Chain Management	E-Mail
Customer Relationship Management	Storage Resource Management	

Tivoli Business Systems Manager Does IT

Discover

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

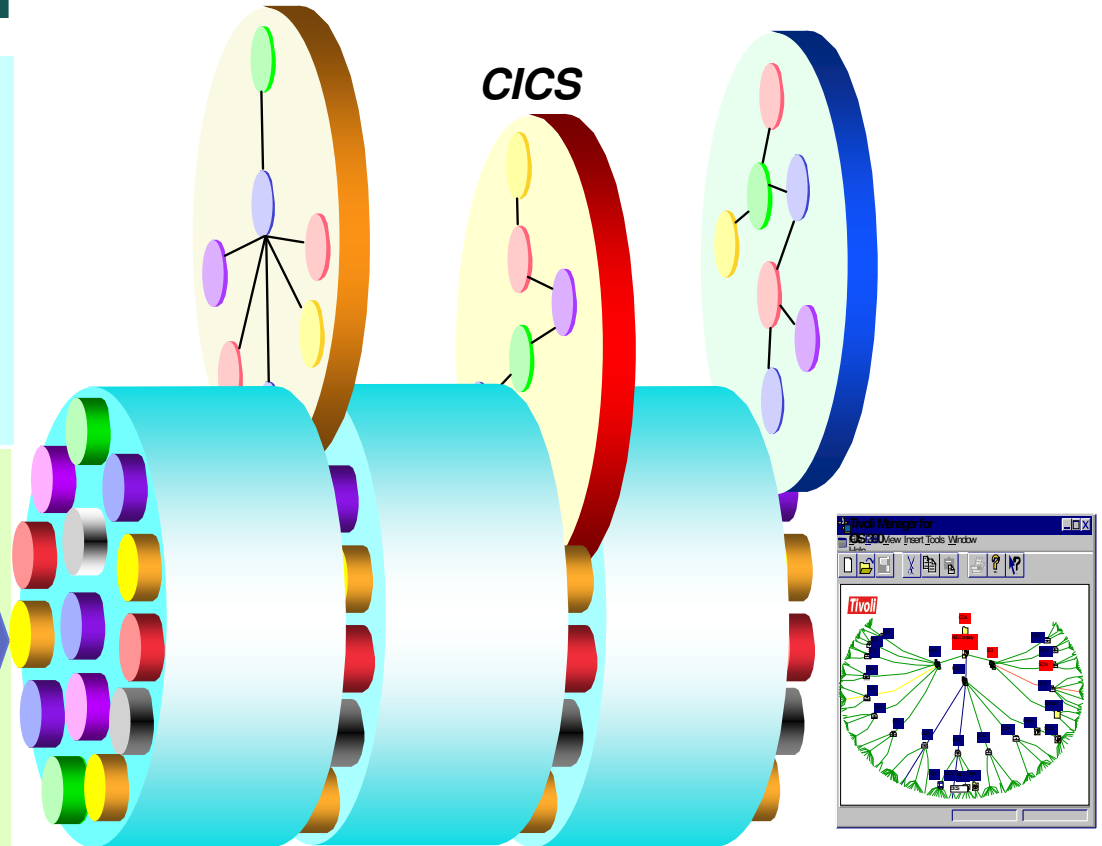
Leverage

- 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



Simplify

Visualize

Establish SLAs For Business Systems, Not IT Resources

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



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 <i>Notes</i>
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.



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Orchestration & Provisioning

Automating Change



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IBM Tivoli Orchestration Solution



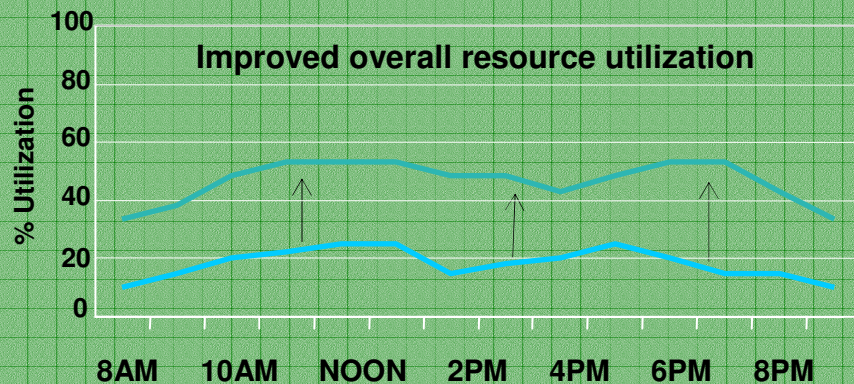
CAPABILITIES

- Senses conditions, anticipates trends and triggers a response
- Recognizes and dynamically responds based on service level objectives
- Helps maximize business velocity by managing alignment of business and IT

Enforcement of business policies for automated change

- Coordination across disciplines
- Automatic allocation of resources
- Helps maintain application service levels under peak demands

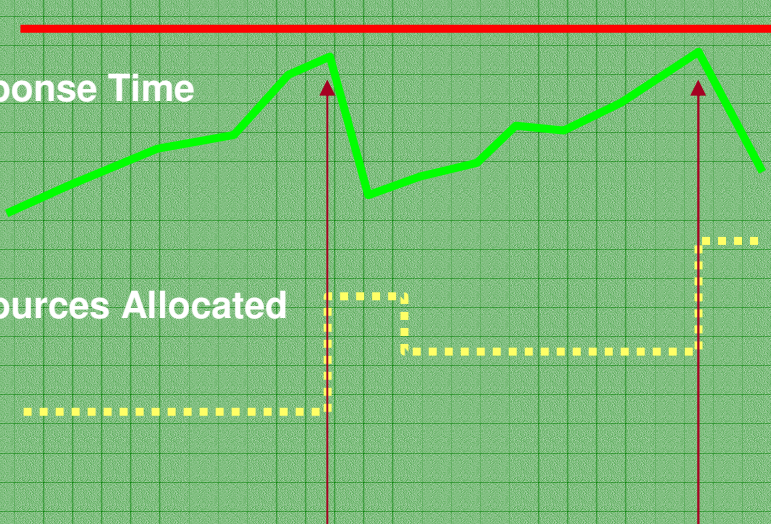
“On Demand” Orchestration



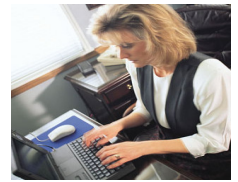
Service Level Threshold

Response Time

Resources Allocated



IBM Tivoli Provisioning Solution



CAPABILITIES:

- Adds, deletes, moves and configures servers, software and network resources
- Automates resource setup and configuration
- Allows execution of IT processes in a consistent, customized manner, while minimizing errors

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
Total Time		13 – 23 Days	Half Day

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 ThinkDynamic Orchestrator, which permits autonomic provisioning between different applications, on different servers. Using predictive modelling 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.

Industry-leading Orchestration & Provisioning and Continues Unchanged

Current Product	Transition	Future Product	Value Proposition and <i>Notes</i>
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



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Future Integration

Tivoli Management Portal Tivoli Data Warehouse



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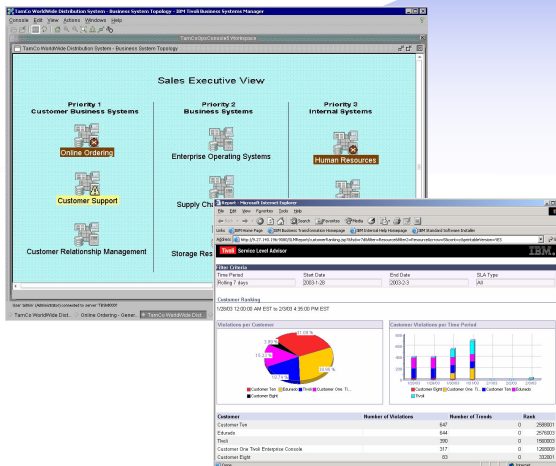
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A More Reliable IT Infrastructure via Integrated Views

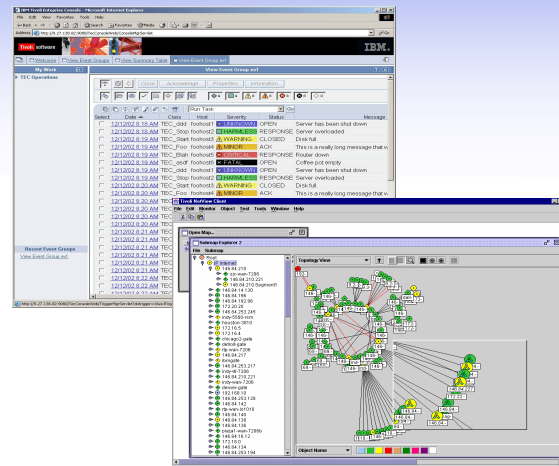


Business Service Views



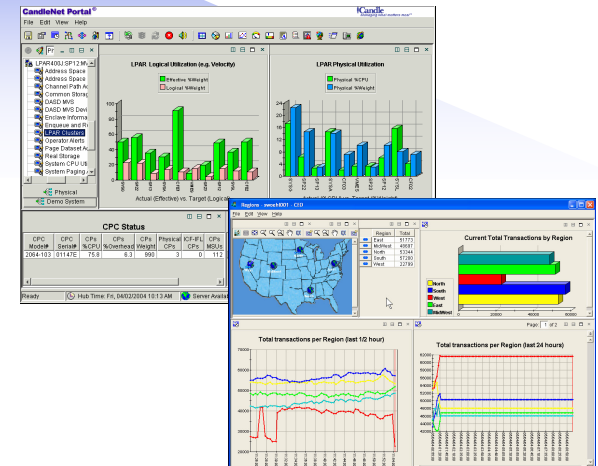
Business Operations
IT Operations

Correlated Event Views



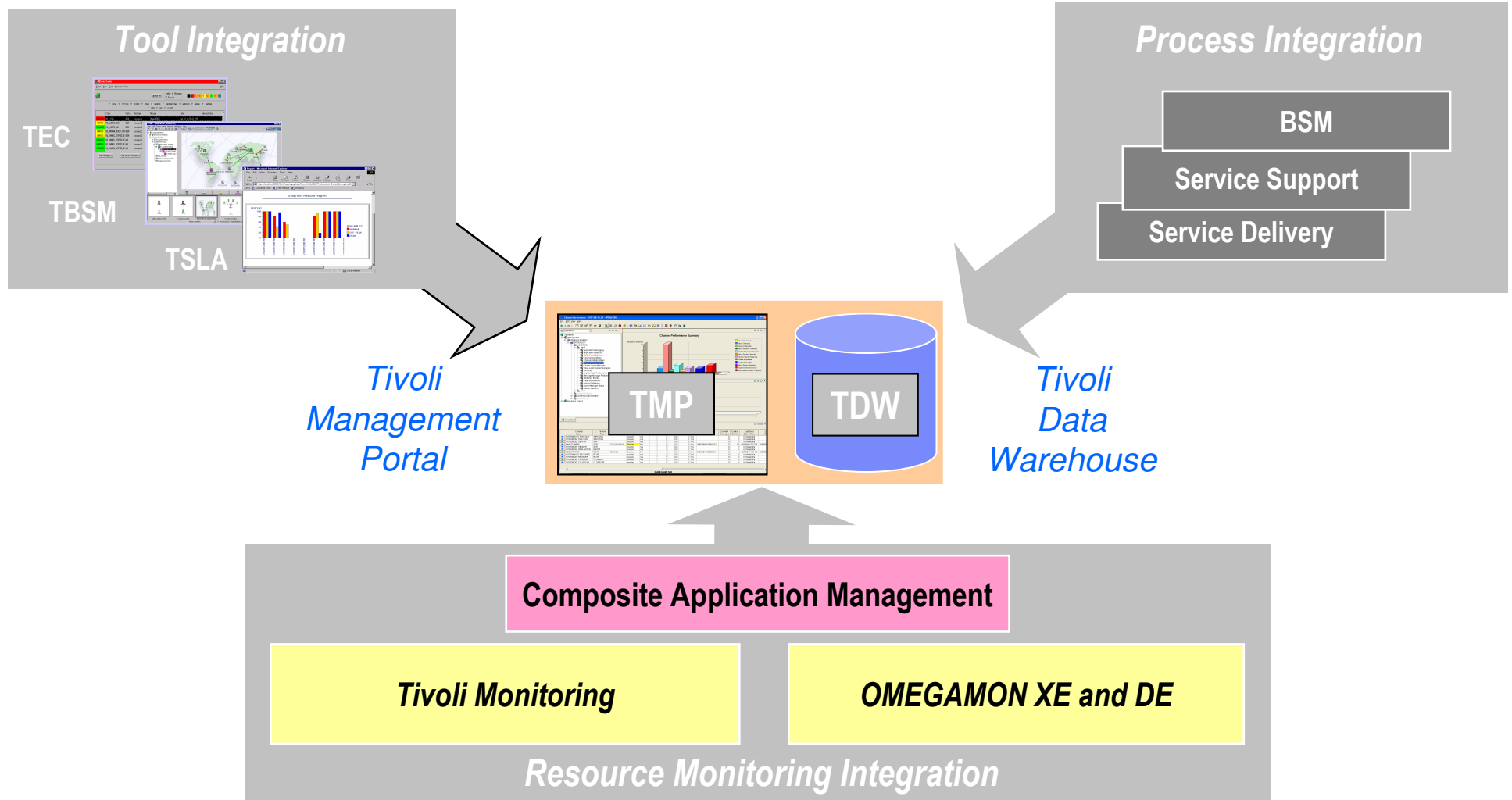
IT Operations
Help Desk

Resource Monitor Views



IT Operations
Resource Administrators

Tivoli Management Portal and Tivoli Data Warehouse Will Be A Focal Point For Tool, Data, And Process Integration





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zSeries Software Tooling

IBM's Commitment To Your Success Continues



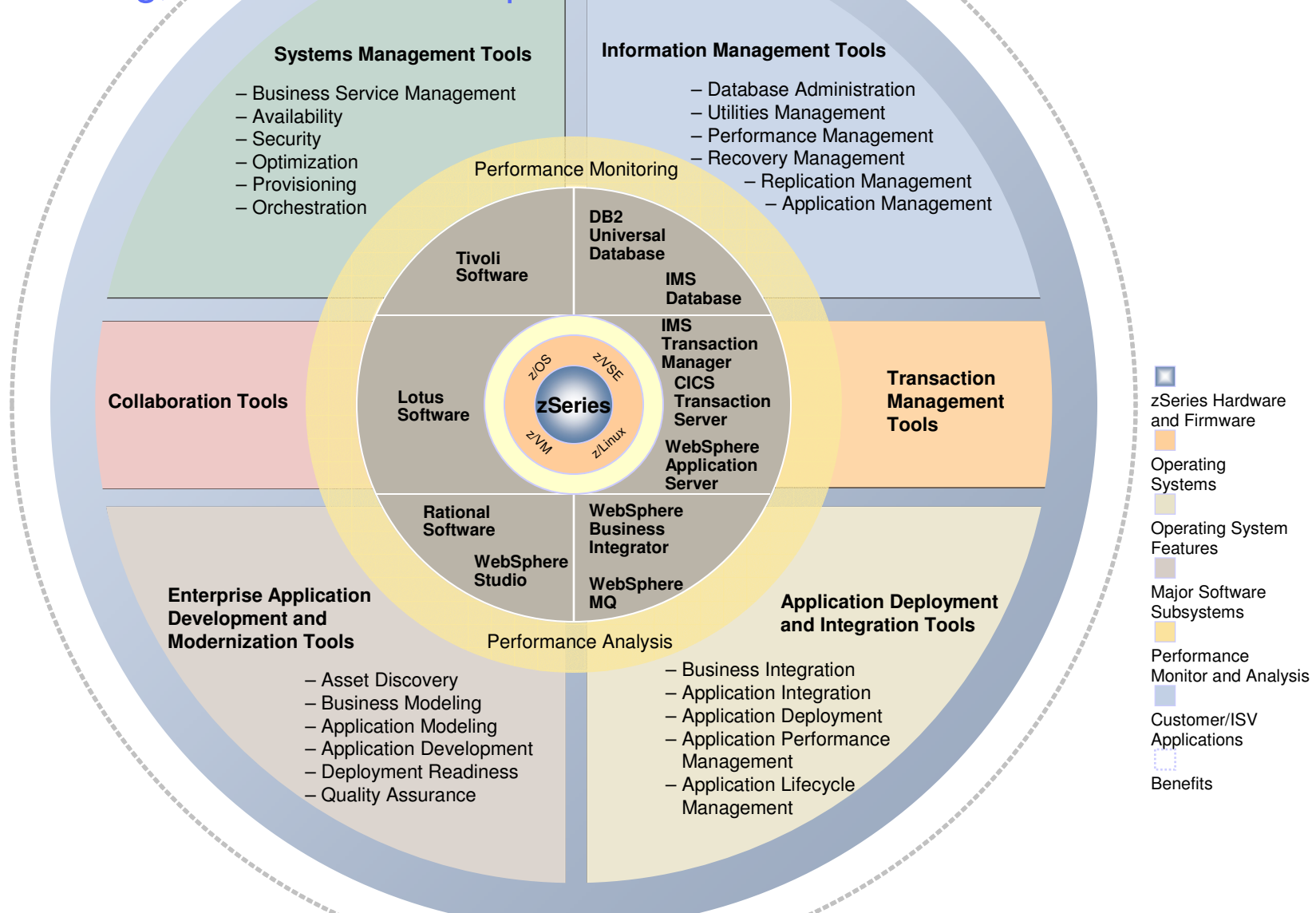
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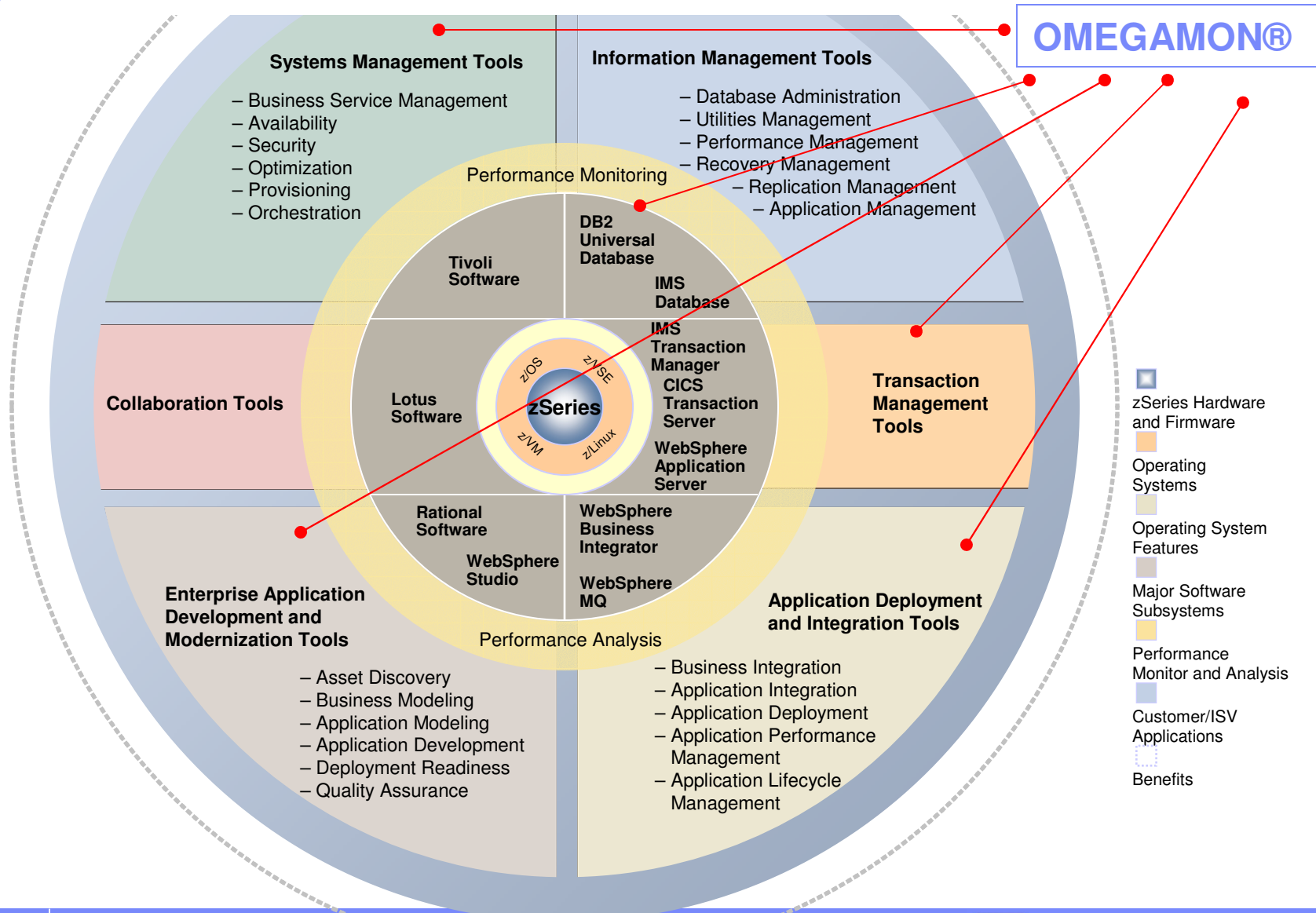
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The IBM zSeries Software tools portfolio, with the addition of the OMEGAMON portfolio of tooling, now offers a complete suite of affordable mainframe tools



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 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 AIM 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	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



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Customer Support



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Customer Support

- IBM is adding significant personnel for customer support of Candle solutions
- Your same sales and support teams will continue to handle your account
- **As of October 22nd, The new French customer support number is the:**

0810 63 10 20

- 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>
- Any changes to IBM or Candle solutions will be communicated through IBM Product Announcements
- IBM Global Services will continue to support Candle solutions

Business Partner Support

- In general, customers can maintain their current business partners
 - Candle partners will be eligible to apply to IBM Business Partner Program
http://www-1.ibm.com/partnerworld/pwhome.nsf/weblook/us_index.html
 - The Candle business partner program will be phased out
 - Candle business partners may choose not to join the IBM Business Partner Program
- IBM Business Partners will receive information and education about Candle solutions in the Tivoli Knowledge Center
 - Can also contact their Business Partner Development Representative
- IBM authorized software distributors will quickly receive instructions on how to provide Candle products to their business partners
- IBM will include new Candle capabilities in ISV Alliance partner relationships

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!



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