



BSM – Focusing Service Management and IT on What Matters Most to Your Customers

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Today's Agenda

- Challenges Facing Today's Operations
- The Visibility Gap
- The Need for Context
- Business Service Management: A Top-Down Approach
- Understanding What Matters Most
- Business Service Dashboards: Visibility & Context
- The Latest in Business Service Management



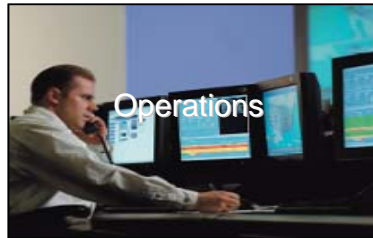
How is success measured in today's environment?



- **Executive Management:**
 - Grow revenue & manage risk
 - Control OpEx & CapEx
 - Maximize return from M&A
 - Maximize shareholder value



- **Lines of Business:**
 - Improve transactional revenue
 - Reduce customer churn
 - Manage operational risk
 - Prioritize business investments



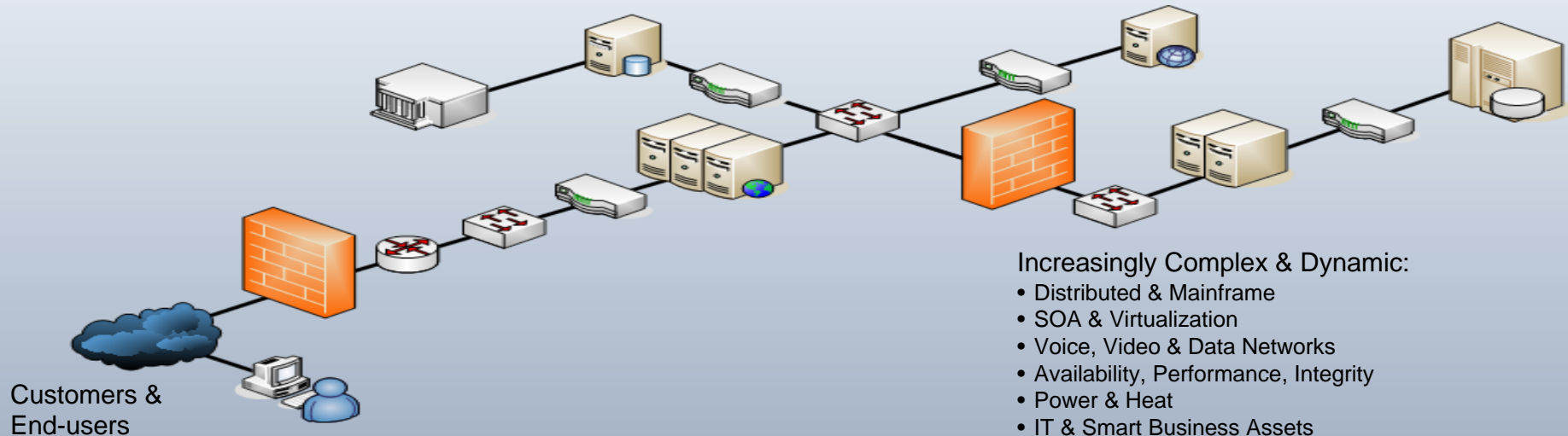
- **Operations:**
 - Ability to support business initiatives
 - Assure quality & deliver against SLA commitments
 - Control Costs: Labor, Infrastructure, Power
 - Manage risk & compliance



Roadblock to Business & IT Success: Service Visibility Gap

Executives, LOBs & Operations require improved visibility into Business Services, Processes & Transactions to make effective decisions.

Business Services, Processes & Transactions



The question is - how do we improve service visibility across audiences?

Operational Transformation is a must...

- Tracking technology, people, and costs in isolation is not enough.
 - Just siloes of information.
 - What does it mean to the business?



- Operational transformation from cost center to business enabler is a must.
 - Drive new Agility, Revenue & Differentiation
 - Role out services more quickly
 - Improve productivity through improved business process efficiency
 - Assure revenue streams & compliance



Context must drive alignment, prioritisation & investment!!

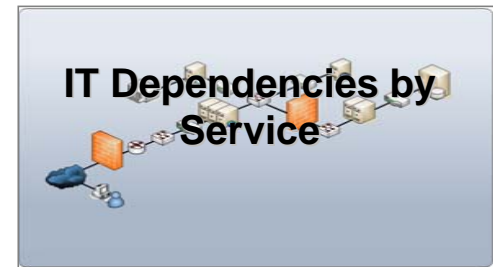
What do we mean by context:

- Business services, processes & transactions
- Revenue or productivity
- Service quality
- Service costs
- Regulatory & compliance



Context: Revenue & Quality

- What are my top business services, processes & transactions in terms of revenue or productivity?
 - Link to customers & revenue
 - End-user productivity
- What are the expectations or commitments for service quality?
 - Availability, Performance , Integrity
 - Internal/external SLA commitments
 - Infrastructure linkage to service quality problems
 - Required investment to assure service quality



Context: Costs & Compliance

- What does it cost to deliver them?
 - Technology – hardware, software, services
 - People – deploying & maintaining
 - Usage – LoB, customer, etc
 - Power – energy
- Are there any regulatory or compliance mandates that should drive priorities?
 - Will problems with business service quality impact shareholders?
 - SOX
 - Basel II
 - Security impact on shareholders, investors, patients, users

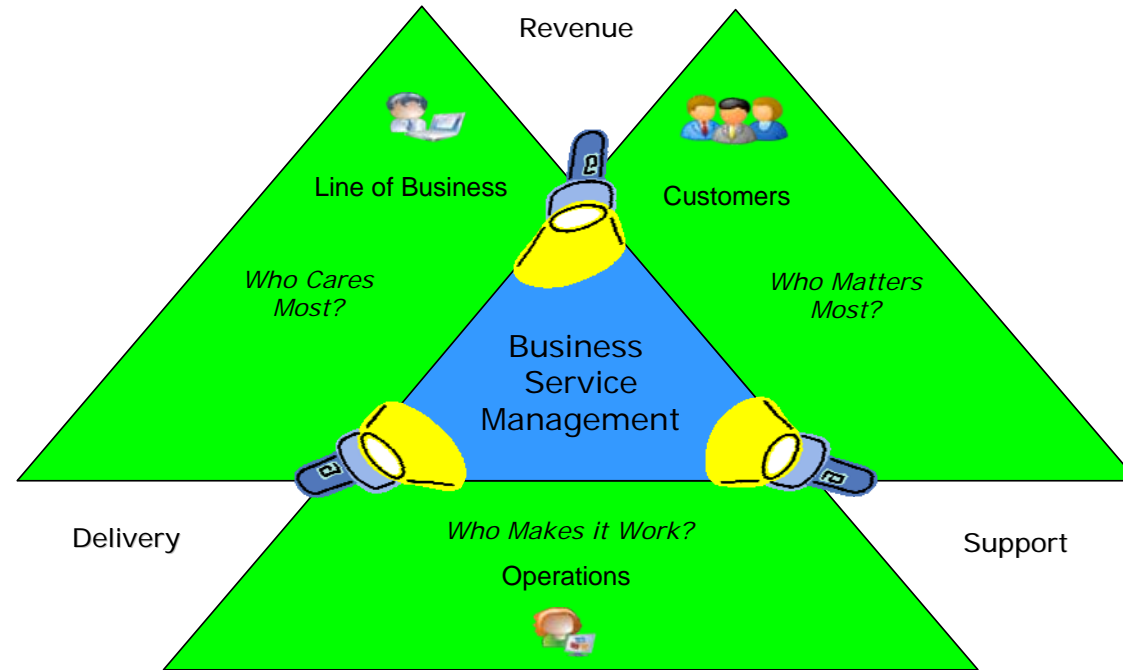


The Role of Business Service Management

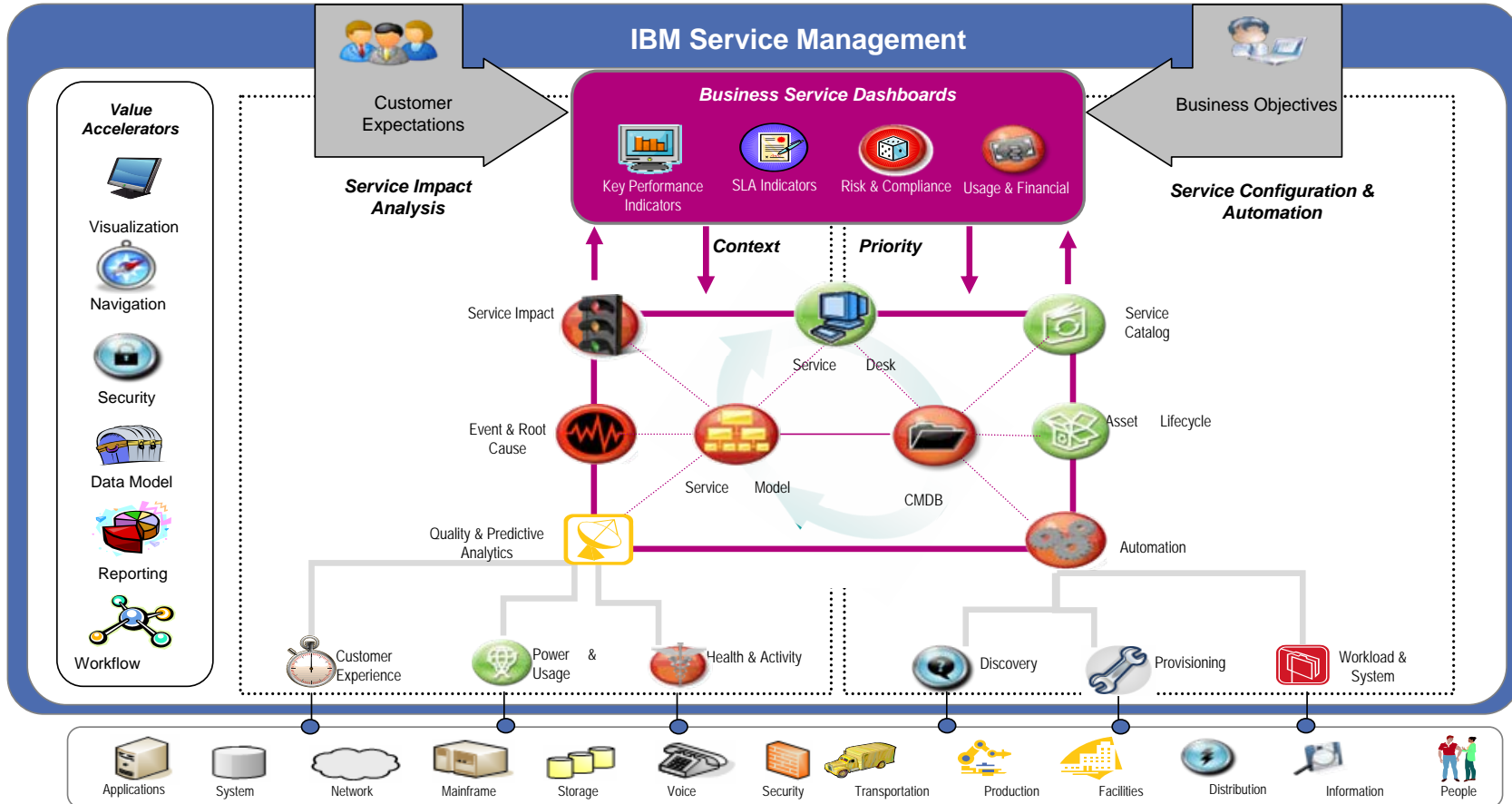
BSM is a top down approach to IT service management which begins with and centers around the ability of IT Operations to measure and continually improve delivery against operational objectives and business commitments as a means of prioritizing and maximizing the positive impact of IT investments and assets on the business.



Understanding 'What Matters Most'



An integrated approach to managing 'What Matters Most'



Business Service Dashboard: Integrated Visibility & Context

Role-based dashboards

- LoB, Operations Mgmt, Operators.
- Customizable/sharing common context
- Launch in context views & automations.
- Realtime & Historical reporting across KPIs, event & performance.
- Web & Mobile Support

Visibility across:

- Services, Processes, Transactions
- Distributed & Mainframe
- SOA & Virtualization

The screenshot shows the Tivoli Business Service Dashboard interface. It features several key components:

- Service Tree:** A hierarchical tree view on the left showing service categories like Customer Service, Mobile Integration, and Online Ordering, with columns for State and Time.
- Service Maps:** A map of the United States showing service locations and regional data.
- Urgent Services:** A table listing services with critical status indicators (red exclamation marks) and last change timestamps.
- Service Model:** A diagram at the bottom showing the relationships between various services and components.
- Event Summary:** A set of six small charts showing counts for All Events (1084), Assigned (1), Escalated (2), Unack'd (1), Maintenance (0), and Ticketed (0).
- Mobile Access:** A mobile phone icon indicating the dashboard's accessibility on mobile devices.

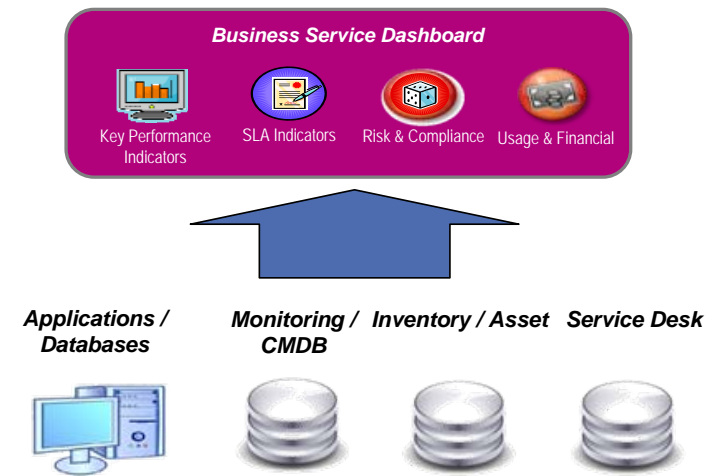


Business Service Dashboard: Integrated Visibility & Context

Service Tree													
	State	Total Users Today	Total Users Last Hour	Avg. User Response Time (sec)	Baseline Response Time (sec)	Current Resp. Time vs. Acceptable (%)	Derived Productivity Gain (min.)	Daily Avail. %	Downtime Today	SLA Penalty	Transactions - Last Hour	Transactions - Last 24 Hours	Tickets - Last 24 Hours
+		452899	29874	1.209 sec.	2.477 sec.	48%	631.0 min. saved	84.146 %	3 hours, 48 min.	\$24730.69	15827.0	283968.0	44.0
+		20534	1065	0.746 sec.	0.149 sec.	500%	10 min. lost	85.027 %	3 hours, 35 min.	\$23354.86	1677.0	30355.0	41.0
+		48477	2978	0.697 sec.	0.568 sec.	122%	6 min. lost	95.743 %	1 hours, 1 min.	\$6640.83	2496.0	71472.0	42.0
+		159778	9128	3.556 sec.	5.924 sec.	60%	360.0 min. saved	93.672 %	1 hours, 31 min.	\$9869.16	11442.0	230836.0	34.0

Measuring & Improving Delivery Against Objectives:

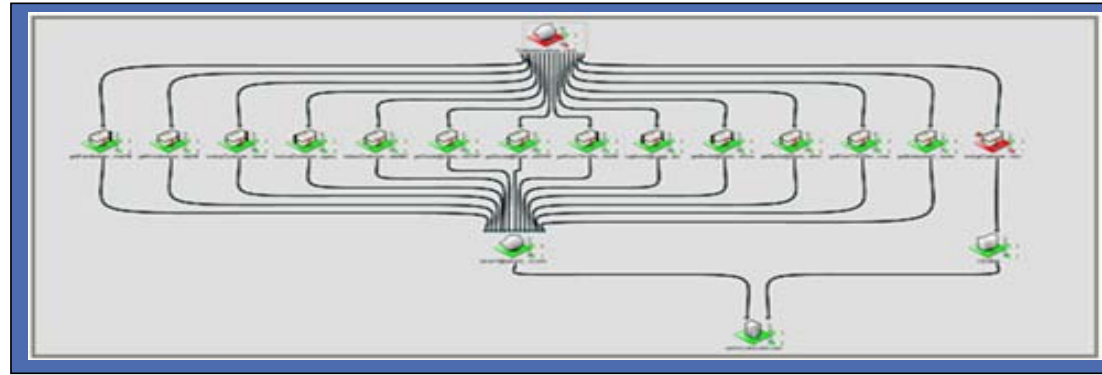
- Key Performance Indicators:
 - E.g. Transactions, Revenue, MTTR, Call Volume
- SLA Indicators:
 - E.g. Customer Experience, Service Uptime, Transaction Rate, Infrastructure
- Risk & Compliance Indicators:
 - E.g. Cobit, ISO, SOX, Basel II
- Usage & Financial Indicators:
 - E.g. Service usage by LOB, Power by Service, IT cost per service



Context: Automated Service Mapping & Maintenance

Real-time Dependency Mapping:

- Discovery tools
- CMDBs
- BPEL
- Asset/Inventory
- Enriched Events



Automated Impact & Root Cause Analysis

- Services, Processes, Transactions
- Predictive Impact & Root Cause
- Physical & Logical Dependencies

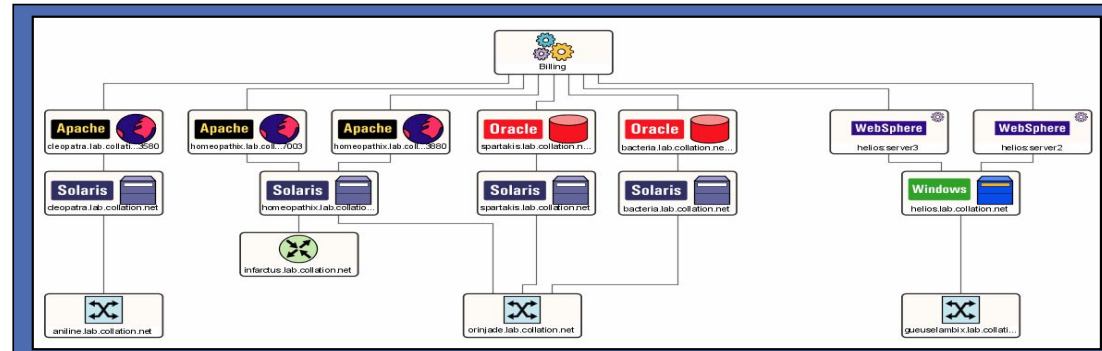
Launch in context to configuration details panels



Cross tier application maps Configuration changes

Breadth of discovery:

- Transactions
- Distributed & Mainframe
- SOA & Virtualization
- Storage
- Network
- Security



Topology Mapping:

- Periodic
- Partial/Full
- Manual

Configuration Details & Change History



Context: Service Oriented Architectures

The screenshot shows the Tivoli Service Manager interface with the following components:

- Service Tree:** A hierarchical view of services including StockTrader, OnlineTrade, Databases, TradeApp, and TradeService.
- Recent Performance History:** A line graph showing quality over time for StockTrader.
- Revenue by City:** A bar chart comparing revenue across five cities: Boston, New York, Chicago, Miami, and Los Angeles.
- Service View:** A diagram showing the relationships between various service components like TradeAppWebServices, Databases, and TradeApp.
- Service Details:** A table showing SLA status for Stock Trader and Tradeapp.

Entity:	SLAStatus_14	View: SLA Status			DataSource: NCOMS	
Service Name	Best Case %	Downtime	TimeLeft	Twin	Penalty	
Stock Trader	99.991	00:03:47s	00:56:12s	12-Aug-08	1538.12	
Tradeapp	97.736	00:05:47s	00:22:15s	18-Aug-08	2404.97	

Drill down to SOA services & servlets

Auto-discovery and mapping of SOA-based business services & processes (BPEL)

Access Business Events, KPIs & views from SOA platforms & middleware

SLA Tracking by service and sub-service components including best case, downtime, penalty...



Context: Virtualised Environments

The screenshot displays the Tivoli Service Manager interface. On the left, a 'Service Tree' shows a hierarchy of services including 'Custom', 'Customers', 'EHR Systems', 'Home Banking', 'Seibel', 'Data Utility', 'Oracle', 'SQLServer', 'Drilldown by Env size', 'Medium', 'Small', 'Intel Utility', 'Unix Utility', and 'pServer P455-1' through 'pServer P455-4'. Below this, another 'Service Tree' shows 'pServer P455-1' expanded to show 'LPAR 1 on pSer...455-1' through 'LPAR 4 on pSer...455-1', and 'pServer P455-2' through 'pServer P455-4'. A third 'Service Tree' shows 'x86 3950-1' expanded to show 'VM 1 on x86 3950-1' and 'VM 2 on x86 3950-1', and 'x86 3950-2'.

The 'Service View' diagram shows three main components: 'WAM Intel Utility', 'WAM_Intel_Utility_Frame', and 'WAM_VMWare_Image'. 'WAM Intel Utility' is connected to 'WAM_Intel_Utility_Frame', which is connected to 'WAM_VMWare_Image'. Below 'WAM_VMWare_Image', four virtual machines are shown: 'VM 2 on x86 3950-2', 'VM 1 on x86 3950-2', 'VM 1 on x86 3950-1', and 'VM 2 on x86 3950-1'. Arrows indicate dependencies between these components.

The 'Service Details' section shows a table of events:

Node	Summary	AlertKey	Class	Manager
EHR1 SQL	Average SQL Query time huge	WAM_SQLServer	Default Class	
EHR1 SQL	Average SQL Query time accepabl	WAM_SQLServer	Default Class	
EHR1 SQL	Average SQL Query time accepabl	WAM_SQLServer	Default Class	

Visualise physical & Logical Partitions on Unix, including LPARs on mainframe.

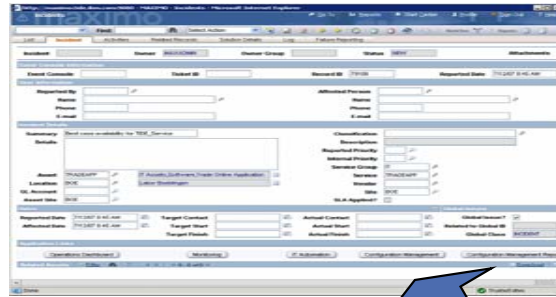
Visualise physical & virtual machines including status from VMWare.

See service-impacting root cause events for prioritized response.

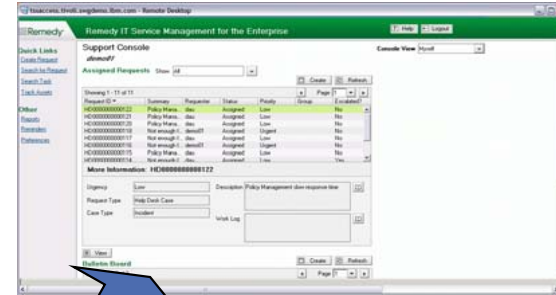


Context: Auto-population of context into Incidents

IBM Service Desk



3rd Party Service Desk

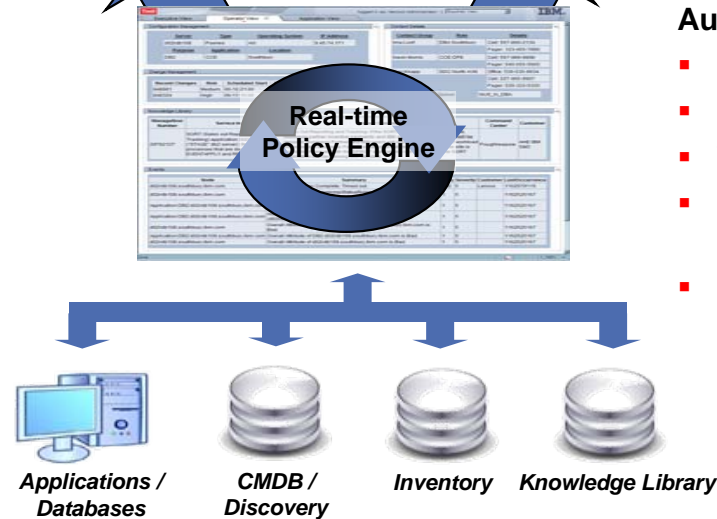


Support staff can:

- Leverage the same contextual intelligence & views as Ops staff
- Log in once and access additional information, from specialized tools.
- Select from their own set of in-context automations.

Automations can include:

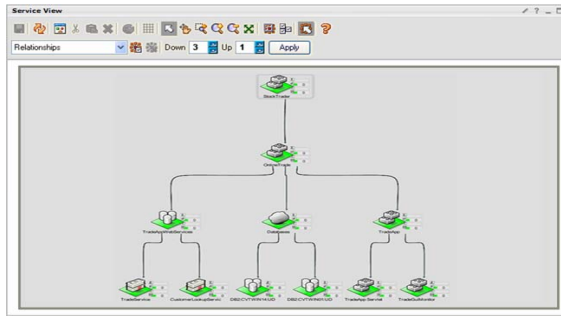
- Log in to configuration items
- Run tests on configuration items
- Trigger automated corrective actions
- Automate change requests or provisioning steps
- Close incidents & autoclear events



Note: Automations can be defined in a way that enforces an organizations specific workflow policies.



Context: Automating Resolution



Service Details

Node	Summary	Root Cause	Manag
TradeApp	Predictive: Rapid Transaction Rate Decline		
TradeApp	Change: New JVM Version Installed		
StockTrader	Business: Trading Volume Below Normal		

3 Rows Matched

- Check Known Error Database
- Launch TEP
- Launch TADDM
- TADDM - CI Detail
- TADDM - Change History**
- TADDM - Application Topology
- TADDM - Physical Topology
- TADDM - Business Application Topology

Configuration Details

General Information

Name: brutus.lab.collation.net
 Type: sys.sun.SunSPARCUnitaryComputerSystem
 Manufacturer: Sun_Microsystems
 Model: SUNW,UltraAX+2
 CPU Speed: 500000000 Hz

Operation System Info

Name: SunOS
 Version: 5.8
 Kernel Architecture: sun4u
 Kernel Version: SunOS 5.8 Generic_108528-27

File Systems

BLAName	Type	Mount Point	Capacity	Available
brutus.lab.collation.net:/usr/home/jwang		/usr/home/jwang		
brutus.lab.collation.net:/	ufs	/	14986	13080
brutus.lab.collation.net:/home/jwang		/home/jwang		
brutus.lab.collation.net:/home/coll		/home/coll		
brutus.lab.collation.net:/home/frish		/home/frish		

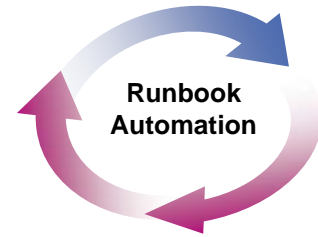
IP Interfaces

Name	FQDN	Network	NetMask	Status
127.0.0.1				0
10.10.50.9	brutus.lab.collation.net			0
192.168.253.2				0

Change History

Type	Component	Change	Date	Attribute	Old	New
ProcessPool	brutus.lab.collation.net:3000:brutus.lab.collation.net:3000	Created	Tue Sep 07 22:21:18 EDT 2004			
Apache	brutus.lab.collation.net:3000	Created	Tue Sep 07 22:21:18 EDT 2004			
ApacheWebContainer	brutus.lab.collation.net:3000:ApacheWebContainer	Updated	Mon Oct 04 23:34:35 EDT 2004	ApacheWebContainer:maxKeepAliveRequests	100	300
ApacheWebContainer	brutus.lab.collation.net:3000:ApacheWebContainer	Updated	Mon Oct 04 23:34:35 EDT 2004	ApacheWebContainer:timeout	300	200
ApacheWebContainer	brutus.lab.collation.net:3000:ApacheWebContainer	Updated	Mon Oct 04 23:54:02 EDT 2004	ApacheWebContainer:maxKeepAliveRequests	300	400
ApacheWebContainer	brutus.lab.collation.net:3000:ApacheWebContainer	Updated	Mon Oct 04 23:54:02 EDT 2004	ApacheWebContainer:timeout	200	100

- Assign Owner
- Email/Page/Message
- Restart App Service
- Restart Server
- Provision
- Open Trouble Ticket



IBM BSM: Top-down Management of What Matters Most

Leading Retail Bank:

“We must be able to understand, in detail, service performance levels experienced by customers at each branch. In other words, we must aggregate service insight from over twenty-five million IT data-points every day. We went to IBM with an idea and our requirements. They helped us understand how to use the solution capabilities to our advantage.”

- Project Manager, Enterprise Operations

Leading Financial Services:

“Before heading down this path, we decided to step back and look at whether we were in a position to deliver what business clients were looking for. We had the basics – monitoring, incident tracking, problem resolution – in place; it was a matter of bringing everything together from a service experience perspective. IBM was the right partner with the right toolset to help us along the path.”

- Manager Enterprise Systems Management

Leading Telecommunications Service Provider:

“By understanding the user experience, we now have a comprehensive view of problems and their causes, rather than a simple alarm or call from a user. As a result, our engineers can immediately begin work to fix a problem.”

- Service Development Manager

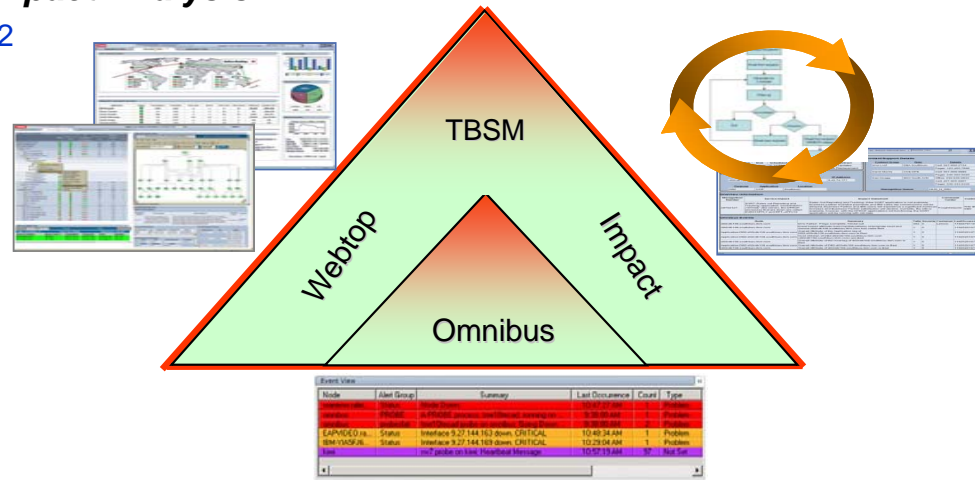


Business Service Management within Tivoli!

IT Optimization with Service Impact Analysis

Tivoli Business Service Manager v4.2

- ✓ Strong market growth with Tivoli BSM solution
- ✓ Scalability +144%
- ✓ New modular architecture
- ✓ Deep System Z value
- ✓ Single Tivoli interface with TIP and TCR



IT Automation with Service Correlation

Tivoli Netcool/Impact v5.1

- ✓ Plug-in engine for increased value in other Tivoli products
- ✓ Processing +350% on same hardware!
- ✓ IT Cost reductions with built in Runbook automations
- ✓ Strong market growth

IT Simplification with Manager of Managers: Tivoli Netcool/OMNIBus v7.2.1

- ✓ Lower TCO, Broader coverage, deeper out of the box knowledge
- ✓ Single Tivoli interface with TIP and TCR for Event Management
- ✓ z/Linux and 32-bit/64-bit platform expansion – faster with same footprint!

Success in simplicity and solution focus!



Tivoli Netcool Service Quality Manager v4.1.1

Broad Service Level Management and Quality Analytics for CSP

1. End to end Service Quality Management

- Near real time and historical analysis and detection of delivered service quality deviations

2. Service Level Agreement Management

- Predict/Forecast/Trend analysis of goal achievement & notification
- External, Internal and partner SLAs

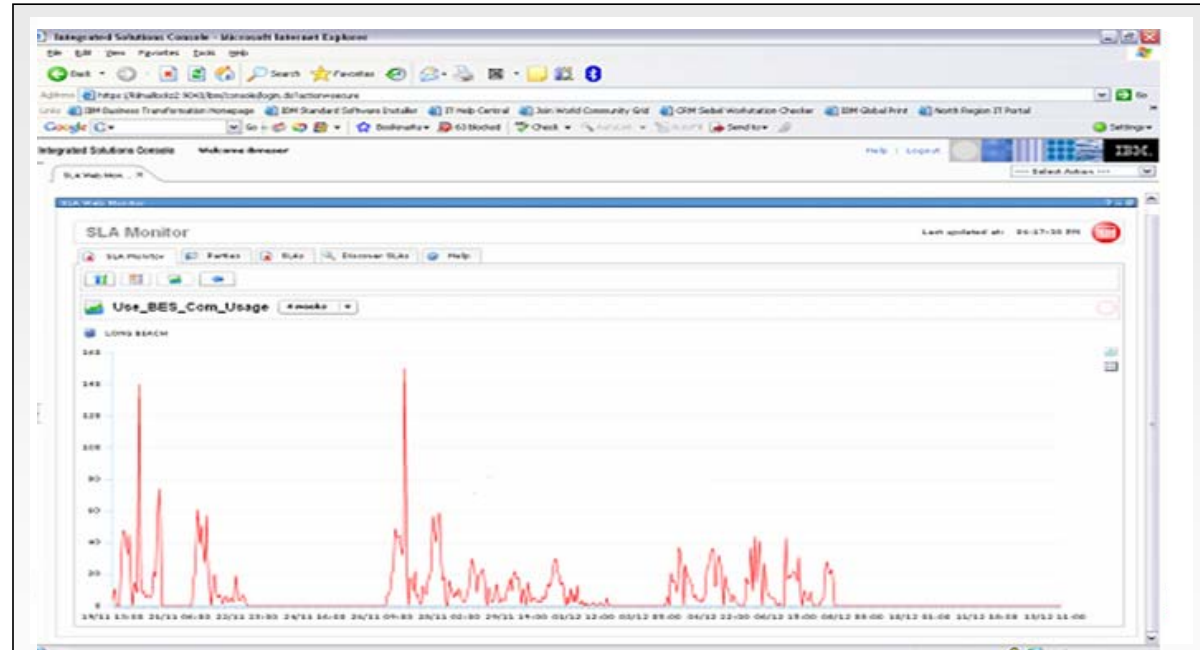
3. Large library of Off the shelf Service Modules

- Allows fast introduction of new service in very cost effective way
- Delivers low cost of ownership as more customers and services are brought under management
- Leverages our service management expertise out of the box

• TNSQM v4.1.1 - Highlights:

- Visual Service Model and SLA Web View
- Enhanced RCA
- Adaptive Thresholding
- Event forwarding to Omnibus
- Support for AIX

GA:
June 2008



Feedback from Major Wireless operator:

By enabling integration of customer-facing and internal operations' business processes, the solution enables the shift from network-centric to customer-centric quality management. TNSQM acts as the centralized business repository that integrates the diverse organizational groups and workflows.



Tivoli Netcool Customer Experience Manager v4.1

Putting Customers at the Center of Service Management

1. Near real time visibility into an individual customer's experience

- Web dashboards with pre-packaged views to suit the needs of the different users within a Service Provider

2. Excel in detecting customer experience issues.

- Acts as an in context launch pad to drive root cause analysis of the end to end service availability and service quality to actually identify the problem causing the service degradation.

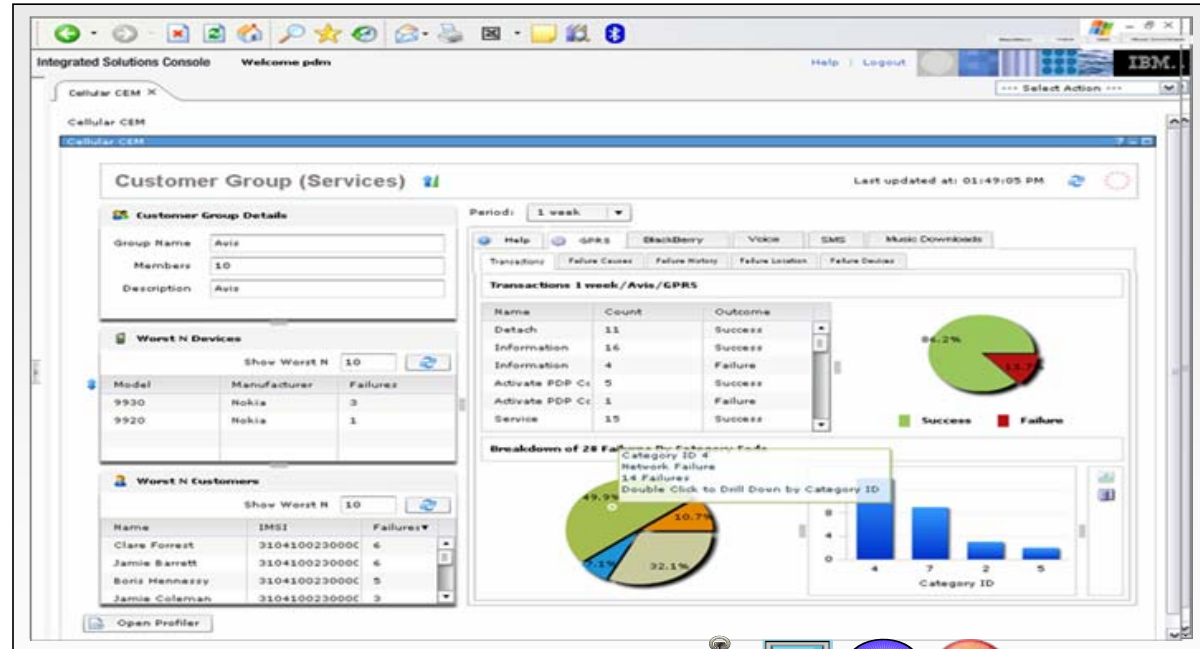
3. Enables CSPs to ensure the customer is the central focal point

- Link customer experience, network performance and service quality to their overall business objectives
 - Customer, Group, Device

• TNCEM v4.1 - Highlights:

- Web based CEM dashboards
- Off the shelf CEM service modules
- Carrier grade scalability
- Advanced quality of experience analytics

GA:
June 2008



Major European Mobile operator:

Over a 2 day period TNCEM discovered revenue opportunities for a large tier 1 carrier for GPRS and UMTS mobile data services.

1100 subs willing but unable to connect due to wrong subscription

7000 subs had the right subscription but could not access the service due to wrong device settings.



Pulse

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Questions?



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