

The IBM logo is positioned in the top left corner of the banner. It consists of the letters 'IBM' in a white, bold, sans-serif font, with a period at the end. The background of the banner is a vibrant red with abstract, glowing white and red lines that resemble a pulse or data flow.

# Pulse

2009

*Managing the World's Infrastructure*



THE PREMIER SERVICE MANAGEMENT EVENT  
April 25, 2009 | Goa, India

## Service Management for a smarter IT

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# Agenda

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- Introduction
- Why Service Management
- Summary
- Discussion



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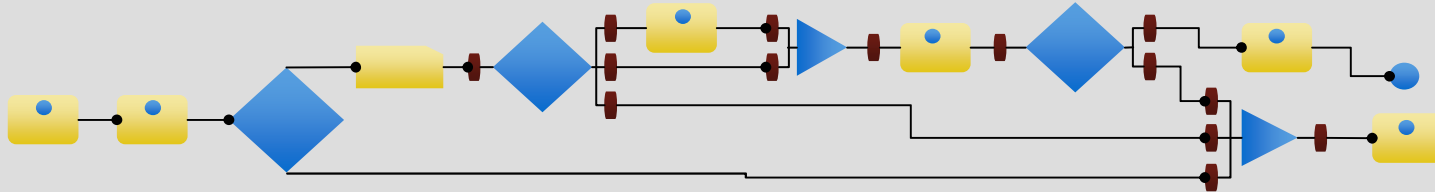
*Managing the World's Infrastructure*



## Introduction

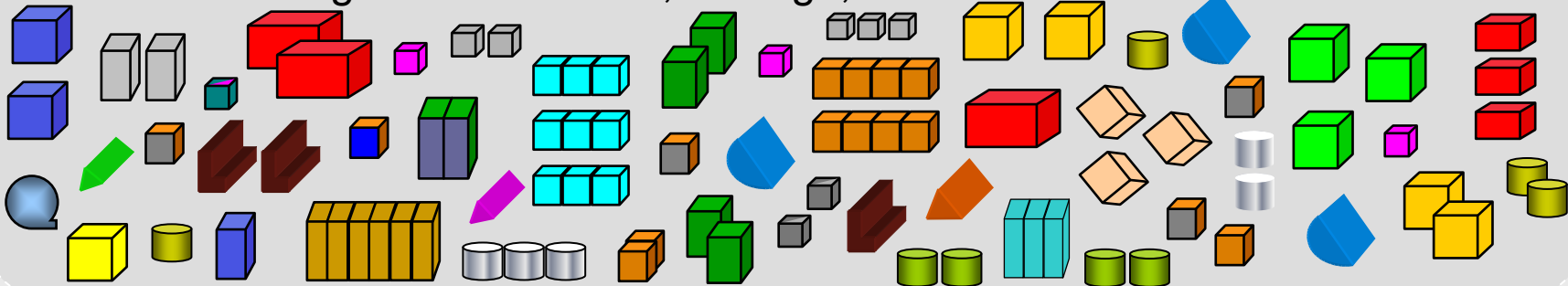
# The IT Complexity Problem

## Business Processes as Services



Topologies of federated services must be mapped onto large numbers of diverse physical and virtual resources

## Sea of Heterogeneous Servers, Storage, Networks and Their Virtualization

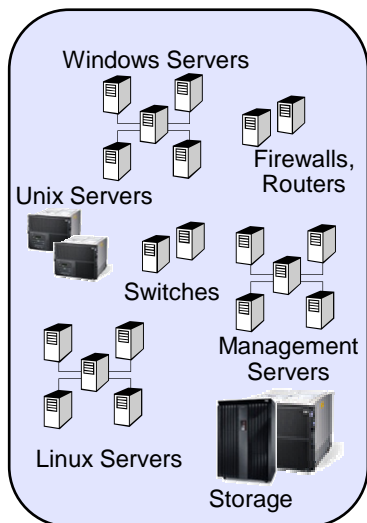


- Businesses spend a large fraction of their IT budgets on data center resource management rather than on valuable applications and business processes
- Data center complexity has reached record levels and is continuing to increase thereby limiting IT improvements and benefits

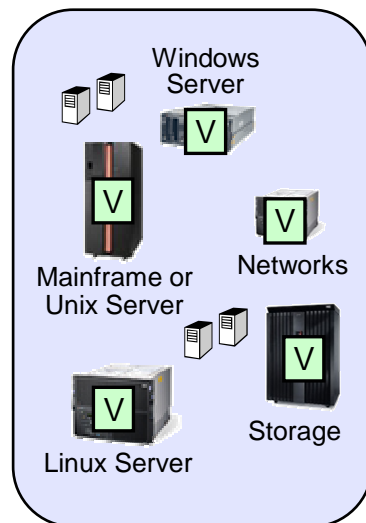
# IT Infrastructure Evolution

IT Simplification

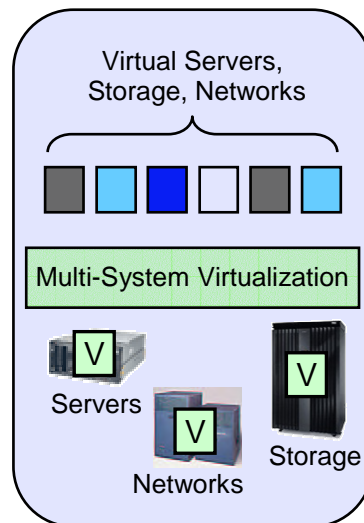
## Scale-Out Sprawl



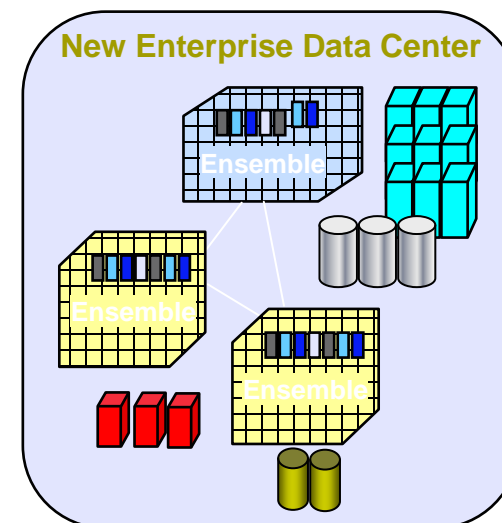
## Physical Consolidation



## Abstraction and Pooling



## Service Orientation, Cloud Services, Integration, ...



### Key Technologies

- Service oriented architecture
- End-to-end service mgmt
- Comprehensive virtualization
- Ensembles & scalable servers
- Converged networks
- Cloud computing services
- Software as a service
- Information as a service
- IT appliances
- Real-time data streams
- Mobile client services
- Virtual worlds

### Top IT Requirements (all are vital)

- **Agility** – rapid deployment, self-service, ...
- **Resiliency** – availability, disaster recovery, ...
- **Security** – trusted computing, surveillance, ...
- **Greenness** – energy efficiency, low impact, ...
- **Low Cost** – TCO (HW, SW, labor, facilities, ...)

# IBM Service Management

**Map Service Dependencies to Infrastructure**  
*How are resources connected to provide business services?*

**Automate Service Operations**  
  
*Are activities efficiently executed when delivering business services?*

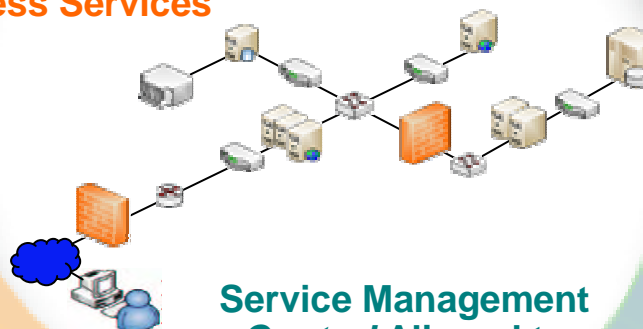
**Monitor Infrastructure Resources**  
  
*How are infrastructure events affecting services?*

**Visibility across Applications, Data and Underlying Infrastructure**

**Process and Technology Automation across Business Services**

**Align Assets and Resources to Business Priorities**  
  
*How are resources being deployed to meet business demand?*

**Understand User Service Experience**  
  
*How are services meeting business user needs?*



**Service Management Control Aligned to Business Priorities**

**Fulfill Service Requests**  
  
*How effectively are requests for services being managed?*

**Provide Business Aligned Dashboards**  
  
*What is the health of my business and the services that support it?*

# Enabling Clients to Deliver Quality Services



Visibility: *See your Business*



Control: *Manage your Business*



Automation: *Improve your Business*





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# Visibility



## Visualization – Approach

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- Setup
  - Service definition by describing components and their dependencies
  - Event consolidation from various feeds; Event standardization
  - Introduced end-to-end monitoring
- Moving up the value chain
  - Service Monitoring; views generated from the service definition
  - Service Availability, leveraging standardized events
- Results
  - “real-time” Service views
  - Monthly Service Reports
  - Business Metrics

# Visualization – Business Views

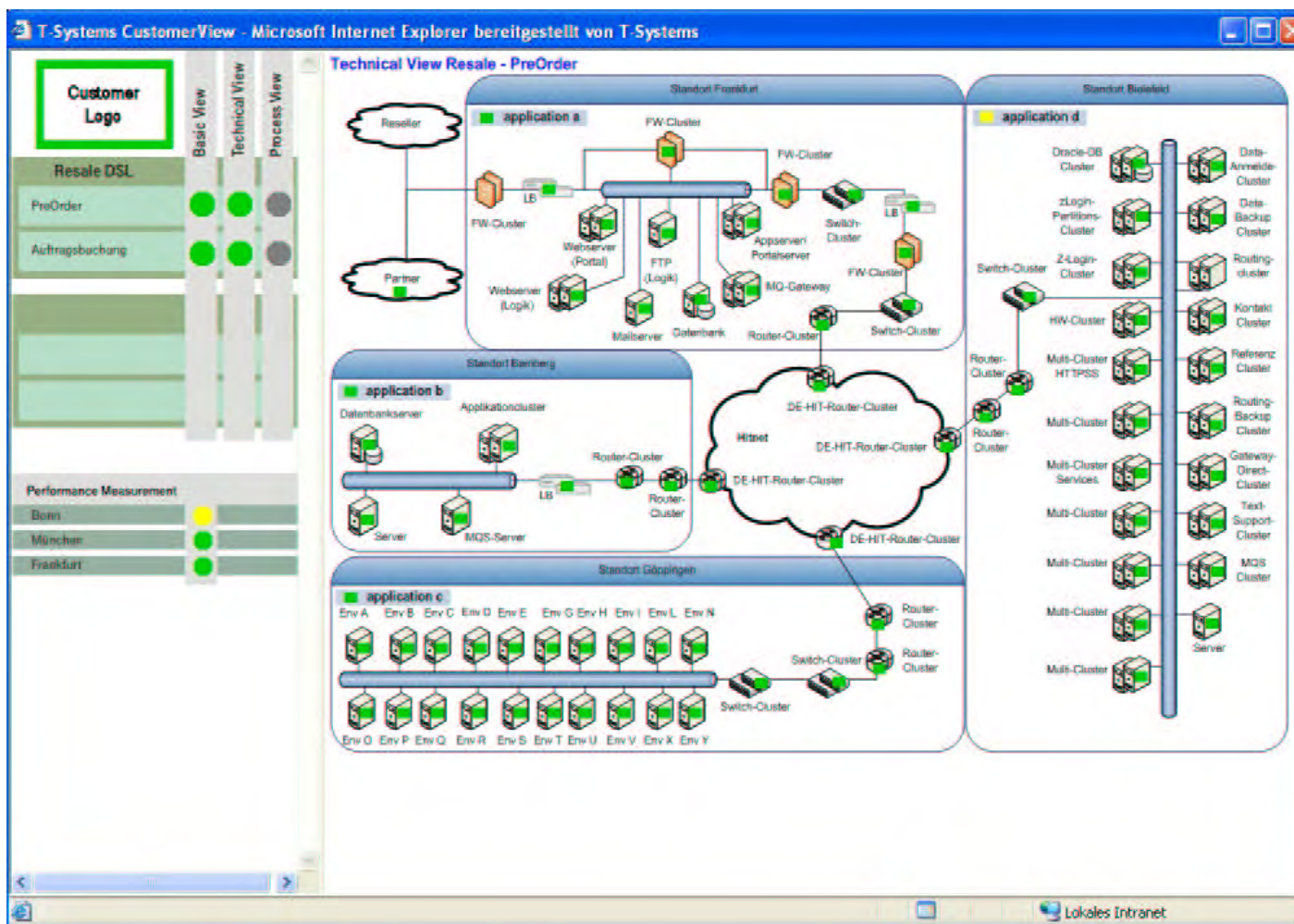
Network  
↓

Storage  
↓

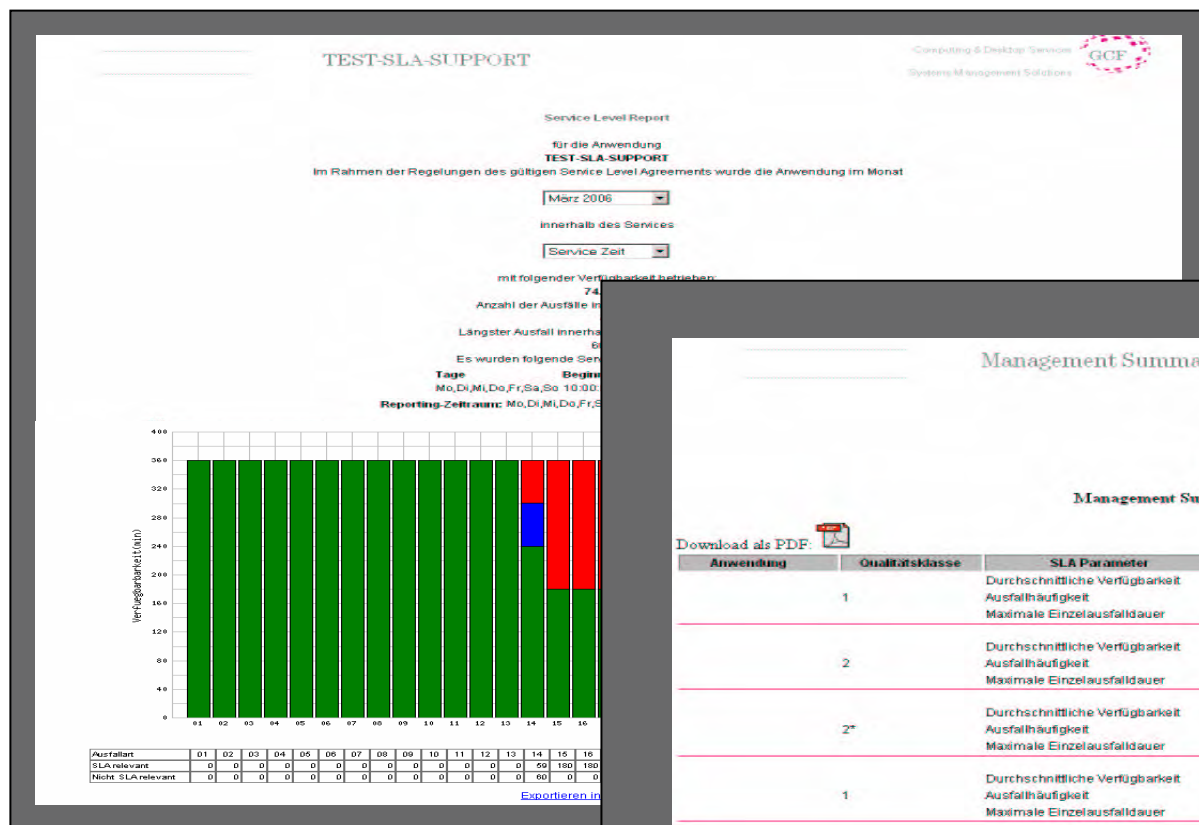
Server  
↓



# Visualization – Topology Views



# Visualization – Reporting



**Management Summary online**

Anzeige für Monat:  
März 2006

**Management Summary SLA Reporting Monat 2006 03**

Download als PDF:

Anwendung	Qualitätsklasse	SLA Parameter	Sollparameter	Toleranz	Istparameter	Ergebnis
1	1	Durchschnittliche Verfügbarkeit	97.00	1.30	100.00	grün
		Ausfallhäufigkeit	3	1	0	grün
		Maximale Einzelausfalldauer	3.25	1.25	0.00	grün
2	2	Durchschnittliche Verfügbarkeit	98.60	0.90	100.00	grün
		Ausfallhäufigkeit	2	1	0	grün
		Maximale Einzelausfalldauer	2.50	1.25	0.00	grün
2*	2*	Durchschnittliche Verfügbarkeit	98.60	0.90	97.57	rot
		Ausfallhäufigkeit	2	1	2	grün
		Maximale Einzelausfalldauer	2.50	1.25	3.79	rot
1	1	Durchschnittliche Verfügbarkeit	97.00	1.30	99.97	grün
		Ausfallhäufigkeit	3	1	3	grün
		Maximale Einzelausfalldauer	3.25	1.25	1.39	grün
1	1	Durchschnittliche Verfügbarkeit	97.00	1.30	99.34	grün
		Ausfallhäufigkeit	3	1	1	grün
		Maximale Einzelausfalldauer	3.25	1.25	1.00	grün
2	2	Durchschnittliche Verfügbarkeit	98.60	0.90	96.60	rot
		Ausfallhäufigkeit	2	1	11	rot
		Maximale Einzelausfalldauer	2.50	1.25	4.98	rot
Digital	1	Durchschnittliche Verfügbarkeit	97.00	1.30	99.36	grün
		Ausfallhäufigkeit	3	1	4	gelb
		Maximale Einzelausfalldauer	3.25	1.25	0.51	grün

# Mash'ing Business and Event Views

Business Units

All Services of a business unit

Idea:

„with 3 clicks to the Problem“



The screenshot shows a monitoring interface for DB services. On the left is a 'Tree' view with categories like 'GF-Personenverkehr' and 'Netz'. The main area displays 'Verfahren BahnDirekt-Buchung' with a grid of components (E2E, Appl, DBStorage, Middleware, Netz, BS&W) and their references. At the bottom, a table lists events with columns for Node, APP\_T, Summary, Ack., FirstOccurrence, LastOccurrence, PSC\_Number, Co., Serial, and Class.

Node	APP_T	Summary	Ack.	FirstOccurrence	LastOccurrence	PSC_Number	Co.	Serial	Class
fmcp1...	BAHN...	E2E_BAHNDIREKT_BUCHUNG: Anwendungst...	Yes	22.08.06 00:48...	22.08.06 00:48...		1	9415725	Topaz
fmcp1...	BAHN...	E2E_BAHNDIREKT_BUCHUNG: Antwortzeiten ...	No	22.08.06 00:59...	22.08.06 00:59...		2	9377056	Topaz
fmcp1...	BAHN...	E2E_BAHNDIREKT_BUCHUNG: Antwortzeiten ...	No	21.08.06 14:54...	21.08.06 14:54...		1	9377714	Topaz
fmcp1...	BAHN...	E2E_BAHNDIREKT_BUCHUNG: Antwortzeiten ...	No	21.08.06 15:06...	21.08.06 15:06...		1	9378521	Topaz

Components of a Service (Application, Network, Middleware etc.)

Events of a Service or a Component



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# Control

# Control

- Why Control?
  - Cost savings
  - Improve stability
  - Reduce risk
- How do I add Control?
  - Control Change
  - Control Service Quality
  - Control Assets
  - Control Access
  - Control Security Compliance



**Control:** *Improve  
your Business*

***Lower costs and  
reduce risks***

# Benefits - Control Change

- Large Retailer
  - Increase the success rate for changes
  - Reduce undesirable side effects from changes
  
- Government Agency
  - Increase reliability
  - Reduced system downtime

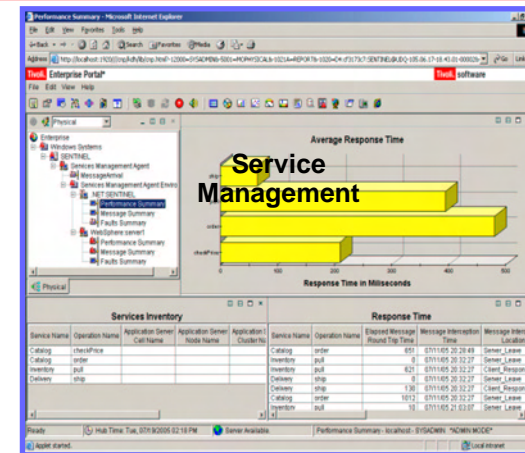
The screenshot displays the IBM Maximo Provisioning Administrator web interface. The top navigation bar includes options like 'Automation Package Developer', 'Compliance Analyst', and 'Deployment Specialist'. The main content area is divided into several sections:

- Inbox / Assignments:** Shows a table with columns for Description, Due Date, Priority, Start Date, and Refresh. A message indicates 'No Assignments found for MAXADMIN'.
- Favorite applications:** Lists Provisioning Computers, Provisioning Groups, Provisioning Task Tracking, and Discovery Configurations.
- Software management applications:** Lists Patch management applications (Patches, Patch Installation, Patch Publishing, Patch Distribution, Windows Update Agent Installation) and OS management applications (Images, Image Deployment, Best Servers, Doct Server Installation, Software Modules).
- Bulletin Board:** A table showing messages with columns for Message, Post Date, Expiration Date, and Viewed?.
- Status of my recent provisioning tasks:** A table showing task details with columns for Task, Status, and Start time. All listed tasks (testDisc\_3021 to testDisc\_3024) are marked as 'Success'.
- Task and compliance KPIs:** Includes sections for My Tasks, My recent failed provisioning tasks, My in-progress provisioning tasks, and My non-compliant computers.
- Data model object finder:** A table for searching objects with columns for Name and Object Type. Objects listed include SoftwareSimulator\_ClusterDomain (DEVICE\_MODEL), Favorite Computers (COMPUTER\_GROUP), Favorite Software (GROUP), Deployment Engine Service Access Point (DEVICE\_MODEL), and SSH Service Access Point (DEVICE\_MODEL).



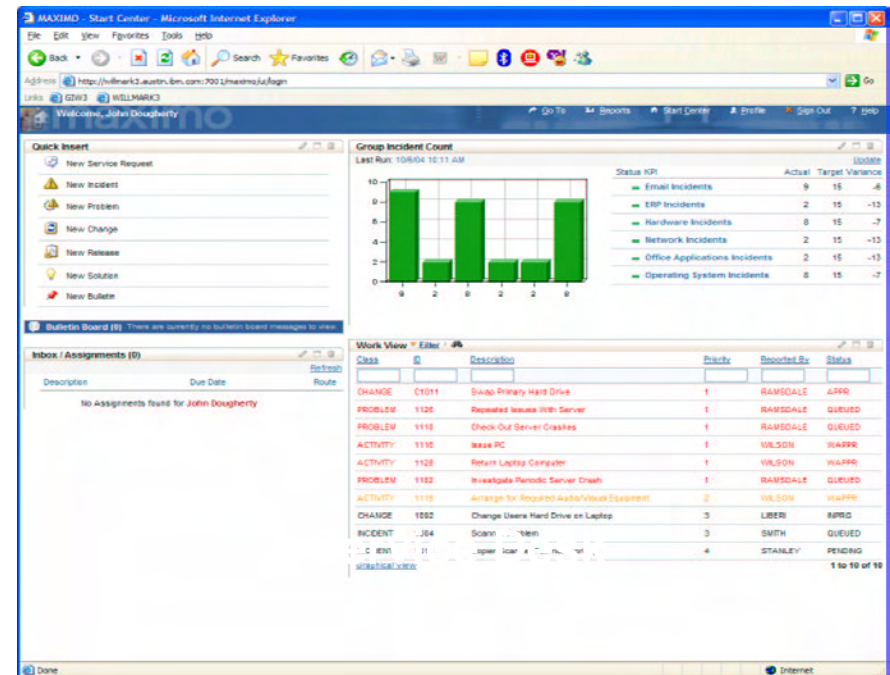
# Benefits - Control Service Quality

- International Bank
  - Provide consistent service as the business grew
- Large Internet Retailer
  - Enhance the user experience
  - Reduce impact from partial service outages
  - Consistent quality
- Insurance
  - Establish attainable service goals
  - Meet service level agreements



# Benefits - Control Assets

- Large Space Contractor
  - Reduced Repair Times
  - Improved Service
- Insurance company
  - Align software spending with business requirements
  - Reduce ongoing maintenance and upgrade costs





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# Automation

# Automation

- Why automate?
  - Cost savings
  - Improve quality
- What can/should I automate?
  - Repeatable
  - Established Policies
    - Event Automation
    - Configuration Automation
    - Process Automation
    - Service Automation
    - Identity Automation
    - Workload Automation
    - Operations Automation
    - Storage Automation

## **Automation**

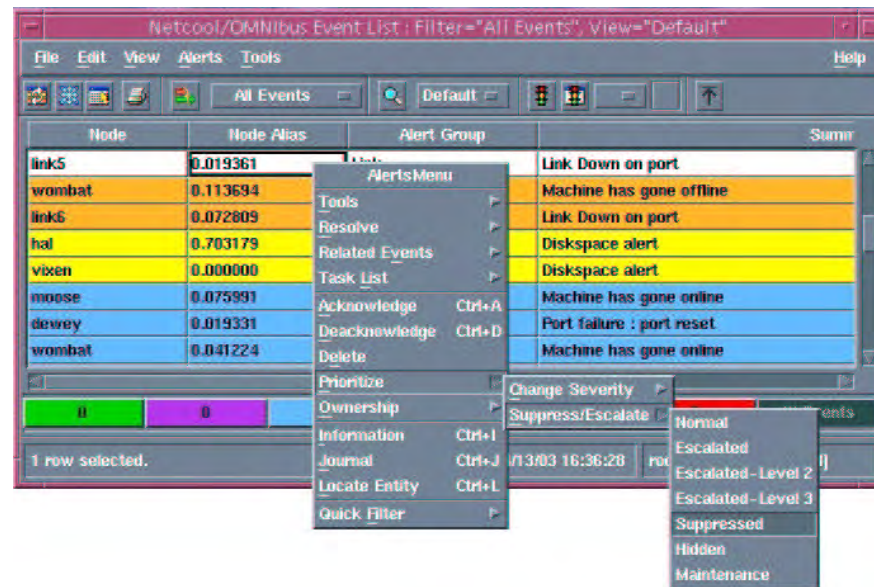
*Eliminate cost and error by automating change, configuration, provisioning, release and asset management tasks.*

**Automation:**  
*Improve your  
Business*

**Lower costs and  
build agility**

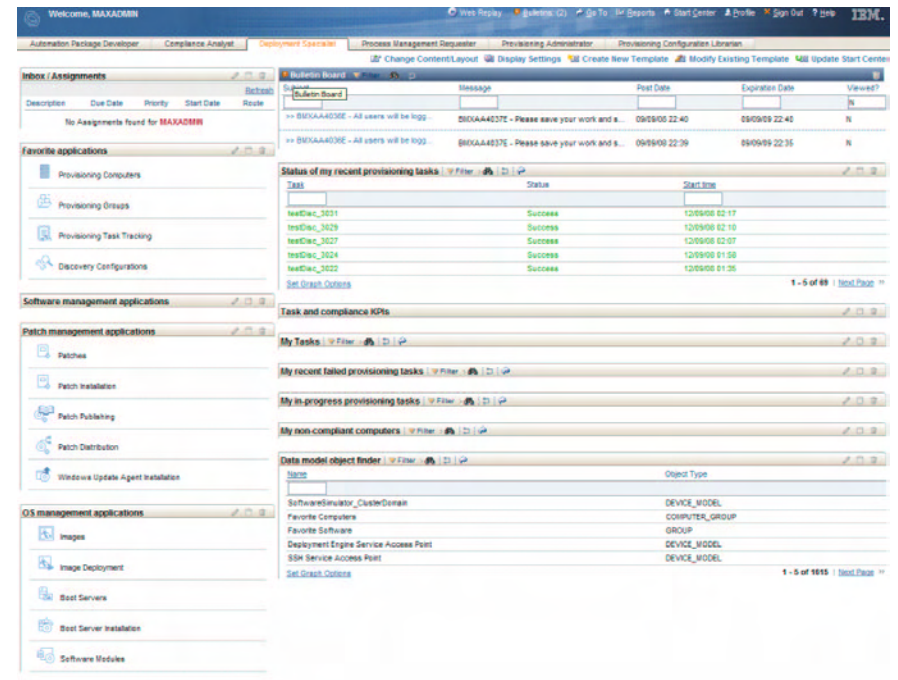
# Benefits - Event Automation

- Commercial Bank
  - ATM outage reporting decreased from 4 hours to 30 seconds
- Automotive Supplier
  - Reduced down time
- Government Agency
  - Reduced time to reply to security alerts
  - Increased compliance



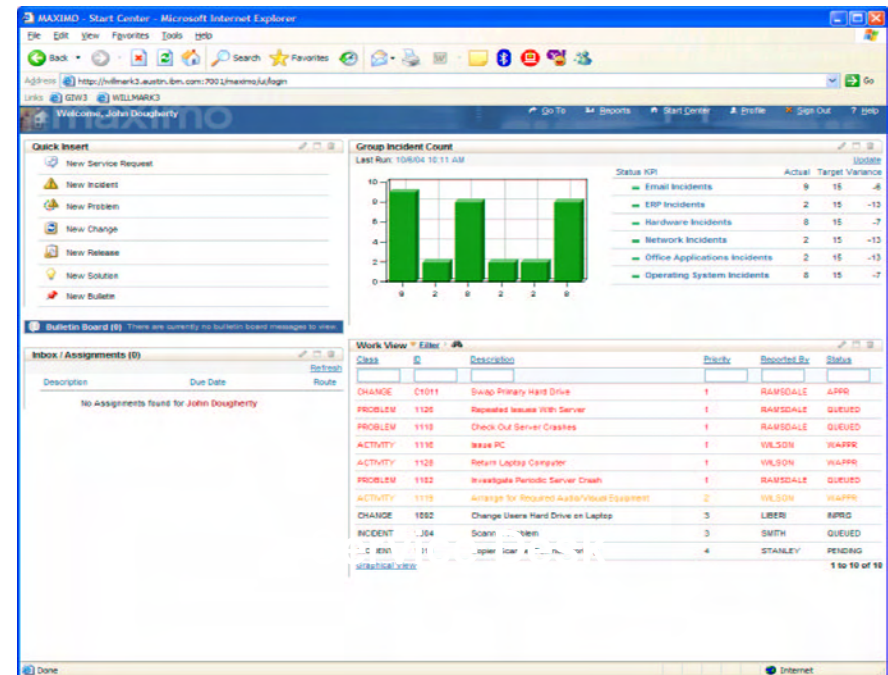
# Benefits - Configuration Automation

- Consumer Electronics company
  - Eliminated resource capacity bottlenecks
- Telco
  - Higher server utilization
  - Reduced software costs
  - Consistent quality
- Insurance
  - Lower overall cost of software delivery
- Education
  - Reduced software licenses
  - Reduced hardware licenses and purchases



# Benefits - Process Automation

- Large Space Contractor
  - Reduced Repair Times
  - Improved Service
- IT Services Company
  - 80% decrease in help desk calls
  - 22% reduction in # of service tickets
  - 10% reduction in incident resolution times
- Media company
  - Request approval time cut from days to 1 hour
  - Enhanced government compliance





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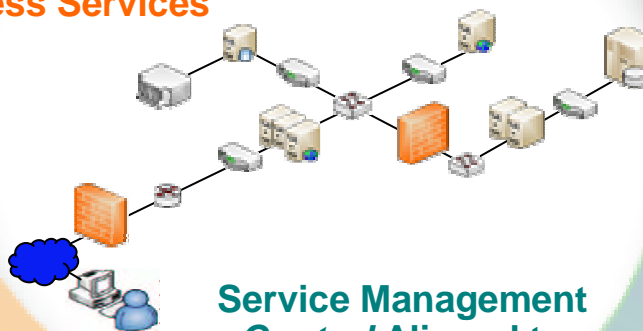
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