Pressure is Building to Transform IT and Business Infrastructures

<table>
<thead>
<tr>
<th>Transportation Assets</th>
<th>Facilities</th>
<th>Production Equipment</th>
<th>IT Hardware &amp; Software</th>
<th>Telco</th>
</tr>
</thead>
</table>

More smart assets.

Greater complexity.

Escalating event volumes.

*Source: IBM Global Technology Outlook*
Everything is Digitizing
The borders between IT and the “real” world are vanishing

Real-time, mission-critical, connected...
Businesses are Buried in Avalanches of Data

Between 36 and 72 quadrillion business events occur every day

Nearly 4 trillion RFID events are emitted every day

190 billion e-mails are sent daily
Industry Specialization Enables the Next Level of Scalability

**Financial services**
- Market data volumes rose by 1750% from 2003-2006
- By 2010 over half of U.S. equities trading will be algorithmic
- 4 billion messages per day will grow to nearly 130 billion by 2010

**Medical imaging**
- 1MB / 2D image in 2004
- 1TB / 4D image in 2007
- 2010: 30% of total world storage

**Wireless communications**
- In India:
  - Wireless lines doubling every two years
  - August 2007 -- 200M wireless lines
- Worldwide: 3 billion mobile subscribers in 2007
Digitalization is Driving Convergence
As boundaries disappear, the management challenge expands

- The growing ubiquity of IT is enabling business to combine all their strategic assets in new and innovative ways.
- Managing in this new world demands the convergence of people, process and technology management across the enterprise.

People, process and technology convergence: the industrialization of IT.
IBM Service Management Steps Up to the Challenge

“Manage whatever is required for a company to deliver whatever is needed”
The Tivoli Two Minute Elevator Talk

Explain why you need management in three simple words:

Visibility
See My Business
Respond faster and make better decisions

Control
Manage My Business
Manage risk and compliance

Automation™
Improve My Business
Lower costs and build agility

Tivoli requires small portion of the elevator ride.
Use remainder of ride to talk about India’s first mission to the Moon!
IBM Service Management: Transforming the Data Center

Fragmented, inefficient islands of computing

Efficient, dynamic and responsive

Initiatives

Consolidation and Virtualization
Energy Efficiency
Service Management
Business Resilience and Security
Information Infrastructure

IBM Service Management provides management support across NEDC
10

Client Example: McCarran International Airport

Client Requirements
Managing asset information in silos across different divisions was increasing costs, hampering compliance reporting and complicating efforts to improve service.

Solution
- Significantly improved technician productivity
- Accelerated resolution of repairs
- Helped reduce IT costs
- Increased revenue through accurate charge-back information
- Helped enhance security efforts and streamline compliance reporting

Benefits
- IBM Maximo Asset Management
- IBM Tivoli Asset Management for IT
- IBM Tivoli Service Request Manager

“By unifying the management of all our IT and operational assets using IBM solutions, we can maintain an industry leadership position and improve quality of service for travelers. IBM asset management software has also helped us realize a higher percentage of recoverable fees and directly improve revenue as a result.”

— Doug Wardle
Enterprise Resource Planning Systems Consultant
McCarran International Airport
1W of application computing requires 27W of power

• Insufficient Cooling and Insufficient Power are key datacenter issues
• Energy costs consume approximately 10-15% of most IT budgets and its rising*

*Source: Springboard research
Transforming Energy in the Data Center

Tivoli Energy Management
Tivoli Software IBM® Systems Director and Active Energy Manager

Data Center Infrastructure Assets

Facility Infrastructure Assets

IT Assets

3rd Party Servers and Storage
Data Center Transformation - Cloud Computing

**INNOVATIVE BUSINESS MODELS**

- End Users / Requestors
  - Government / Academics
  - Industry (Startups / SMB / Enterprise)
  - Consumers

**SIMPLIFIED SERVICES**

- Enterprise Cloud
- Public Cloud

**Key Points**

- New combinations of services to form differentiating value propositions at lower costs in shorter time
- Cloud applications enable the simplification of complex services
- A cloud computing platform combines modular components on a service oriented architecture
- A flexible pool of high performance virtualized compute resources
- Internet protocol based convergence of networks and devices

Source: Corporate Strategy
IBM Service Management Industry Frameworks
Solutions architected for specific industries

Retail Integration Framework
Service Provider Development Environment
Product Development Integration Framework
Information Integration Framework
Payments Framework for Financials Services
Tivoli Industry Solutions
IBM Service Management Industry Frameworks
"Solutions architected for specific industries"

- Retail Integration Framework
- Service Provider Development Environment
- Product Development Integration Framework
- Information Integration Framework
- Payments Framework for Financials Services
- Tivoli Industry Solutions

Logos: CASAS BAHIA, IBM, bharti, STATOIL, WACHOVIA, CenterPoint Energy
IBM Service Management Addresses Client Needs
Solving the critical business problems across the enterprise

IBM Service Management

Best Practices, Methodologies, and Services

Service Management Platform

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you need to manage all your key processes from a single interface?</td>
<td>Determine the process requirements and implement an interface</td>
</tr>
<tr>
<td>Does the health &amp; performance of your applications support your business?</td>
<td>Assess and optimize application performance</td>
</tr>
<tr>
<td>Do you need to manage all of your data, information and storage resources?</td>
<td>Establish data management strategies</td>
</tr>
<tr>
<td>Are your people, applications and data secure?</td>
<td>Ensure security measures for all aspects</td>
</tr>
<tr>
<td>Do you need an energy-efficient datacenter?</td>
<td>Implement green datacenter solutions</td>
</tr>
<tr>
<td>How will you manage SOA?</td>
<td>Develop strategies for scalable, on-demand applications</td>
</tr>
<tr>
<td>Are you sure?</td>
<td>Confirm readiness for SOA management</td>
</tr>
<tr>
<td>Can you visualize &amp; control of all your assets?</td>
<td>Implement visualization tools</td>
</tr>
<tr>
<td>Do you want your asset lifecycle automated?</td>
<td>Automate asset lifecycle processes</td>
</tr>
<tr>
<td>Can you deliver effective network services?</td>
<td>Ensure efficient network services</td>
</tr>
<tr>
<td>Is QoS important?</td>
<td>Ensure Quality of Service is maintained</td>
</tr>
</tbody>
</table>

Visibility | Control | Automation
### Client results

#### Bank of Montreal
- Enables a recovery point objective of zero
- Enables restoration within two hours of a system failure

> “The real benefit to the business is a reduction in risk.”
> 
> Malcolm Sanderson, Bank of Montreal

#### Agrium
- Virtualization increases flexibility
- Clustering improves availability
- New hardware improved reliability, provided higher performance
- Took advantage of new technologies

> “making a significant contribution to the power and price performance of our IT environment”
> 
> Luke Lau, Agrium

#### FDA
- Decreased system downtime, due to 100% visibility into business service to infrastructure relationships
- “FDA was drawn to IBM's CCMDB and CDT capability – to optimize IT processes, by leveraging a topological map of infrastructure components to business applications.”

#### ING
- “Effective identity management helps us maintain our reputation for excellence, protect the security of sensitive, private information and enable our employees to deliver the fast service customers expect.”
## IBM is the Market Leader

### Market Share Leader

**Systems Management**
- #1 in Performance & Availability – IDC
- #1 in Event Automation – IDC
- #1 in Performance Management Software - IDC
- #1 in System Management - IDC
- #1 in Server Provisioning - IDC
- #2 in Mobile Device Management - IDC
- #2 in Operating Systems and Subsystems - IDC
- #2 in Distributed Performance & Availability Management - IDC

**Service Assurance and Network Management**
- #1 in Service Assurance - OSS Observer
- #1 in Event Management - OSS Observer
- #1 in Performance Management - OSS Observer
- #1 in Worldwide Network Availability - IDC
- #1 in Worldwide Telecom Assurance - IDC

**Storage**
- #1 in Archive and Hierarchical Storage Management - IDC

**Security**
- #1 in Identity and Access Management - IDC
- #2 in Security and Vulnerability Management - IDC

### Gartner Magic Quadrant Leadership

- SRM/SAN Management
- Application Management
- User Provisioning
- Web Access Management
- IT Event Correlation and Analysis
- Enterprise Asset Management: Power Generating, Manufacturing and Distribution Utility

### Recent Awards

- April 2008 Tivoli Service Request Manager Named “Leader” in Forrester Wave for Service Desk Management Tools
- 2007 Plant Engineering Magazine Reader’s Award, Silver in Best Maintenance Software category
- 2006 VARBusiness Annual Report Card Award, Enterprise Storage Management S/W
- 2006 VARBusiness Tech Innovator Company of the Year, IBM Tivoli Continuous Data Protection for Files
IBM Service Management

Visibility

See Your Business
Services & Processes

Control

Manage Your Risk
& Compliance

Automation

Build Agility into
Your Operations
Tools to Get You Started Today

IBM Service Management Visibility, Control & Automation Assessment Tool

- Facilitates identifying your service management priorities
  - Visibility
  - Control
  - Automation
- Leverages your existing investments
- Based on a proven approach
- Provides a roadmap to integrated service management that delivers exponential value

Visit [www.ibm.com/tivoli](http://www.ibm.com/tivoli) to access this tool

ITSM Self-Assessment Tool

- Facilitates identifying your service management priorities
- Self-assessment of your capabilities, importance, current levels of automation and governance effectiveness
- Based on a proven approach
- Contact your IBM representative for this self-assessment