

# Best Practices for Data Center Operations and Automation

## Agenda

- New Trends Impacting IT and Interactions with the Business
- How IT Generates Business Value through Service Management
- Increasing Business Value with IBM Tivoli Service Management Center for System z

## Economic Conditions are Forcing IT to Change the Way it Manages Itself, and the Way it Interacts with the Business

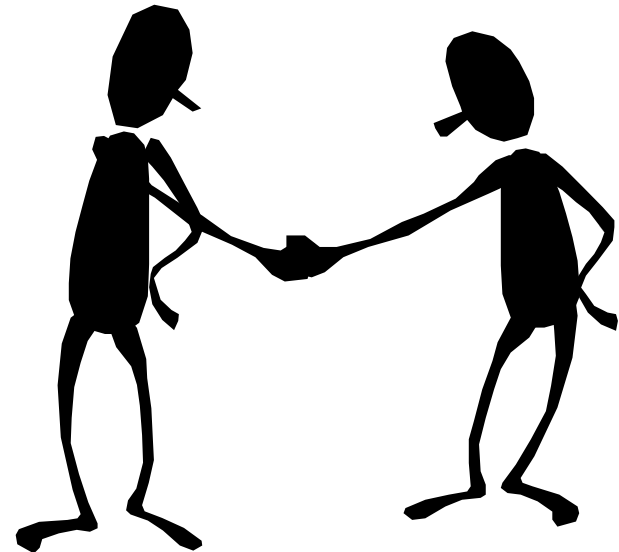
- Convergence of IT and corporate finance
- Convergence of IT and Line of Business strategic planning
- More downward pressure on IT budgets
- More regulatory demands placed on IT



Source: McKinsey 2009

## Increased Business Maturity is Needed for IT to More Effectively Manage Change and Generate Business Value

- Business user's expectations of IT continue to rise
- Many IT organizations lack the business maturity to effectively demonstrate the business value of IT investments
- IT needs to mature from a proactive cost center to a collaborative business partner

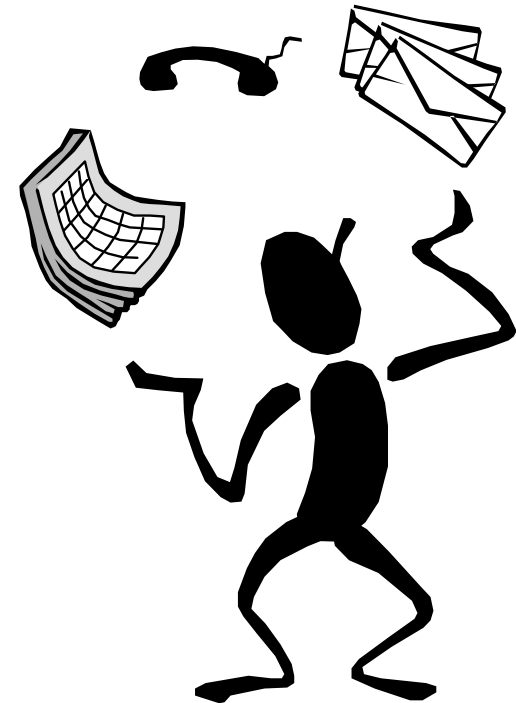


***IT can use its vantage point to act as a catalyst to change the way Business consumes IT resources and services, which leads to maximizing revenue potential while minimizing IT costs***

Source: Forrester Research 2009

# Key Data Center Inhibitors

- Biggest single cost factor in enterprise data centers is staffing cost
- Most errors are caused by human error due to low skills, poor processes, and/or lack of documentation
- Data center operations staff spend most of their time on routine operations, maintenance, and break-fix tasks
- Most enterprises don't have their operations staff working on delivering new IT strategies and systems to add business value
- Turnover remains a critical issue, as most enterprises see many of their skilled people leaving over the next 5 years
- Most enterprises find it difficult to attract and/or retain skilled IT staff to manage their data centers



Source: Enterprise Management Associates 2009

# Agenda

- New Trends Impacting the Interaction Between IT and the Business
- How IT Generates Business Value with Service Management
- Increasing Business Value with IBM Tivoli Service Management Center for System z

# IT Best Practices for Increasing Business Agility and Profitability

- Approach IT initiatives on business terms
  - Understand the business process being impacted
  - Understand the IT management process being impacted
  - Understand the desired strategic and financial impact of the initiative
  - Document and track the initiative's strategic and financial impacts
  - Conduct post-mortem analysis to improve from benchmarked positions
  
- Approach ITIL management processes on business terms
  - Efficiently manage IT-facing management processes
    - IT-facing: How IT manages itself and the execution of business services
    - Examples: Incident and Problem, Change, Release, Provisioning, Business Continuity, and Workload Automation
    - Business value: Increased efficiency of IT resources and assets, increased quality and availability of business services, increased productivity of end users, reduced cost of IT
  - Efficiently manage Business-facing management processes
    - Business-facing: How IT provides transparency for, and manages collaboration with, the business
    - Examples: Financial and Asset, Business Service Performance, Service Catalog
    - Business value: Initiative decisions are based on demonstrable business results after careful cost, benefit, and risk analyses, instead of based on gut feel or political horse trading

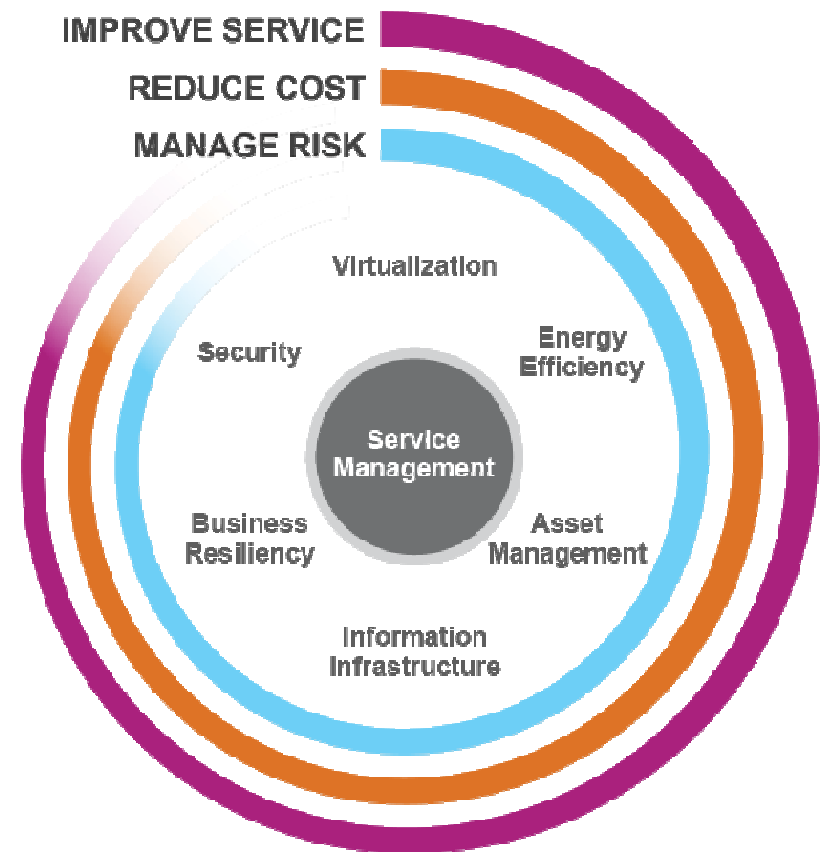
# Agenda

- New Trends Impacting the Interaction Between IT and the Business
- Best Practices: How IT Generates Business Value with Service Management
- **Increasing Business Value with IBM Tivoli Service Management Center for System z**



# IBM Service Management Software

- Through a lights out approach to managing the data center, IT achieves greater governance and operational agility and efficiency
- By providing a deep understanding of service quality, performance, cost structures, and IT asset usage, IT more effectively collaborates with the Business
- Enables IT to
  - Drive down the IT total cost of ownership
  - Focus on IT investment that demonstrably increases business value
  - Change the way business consumes IT resources and services

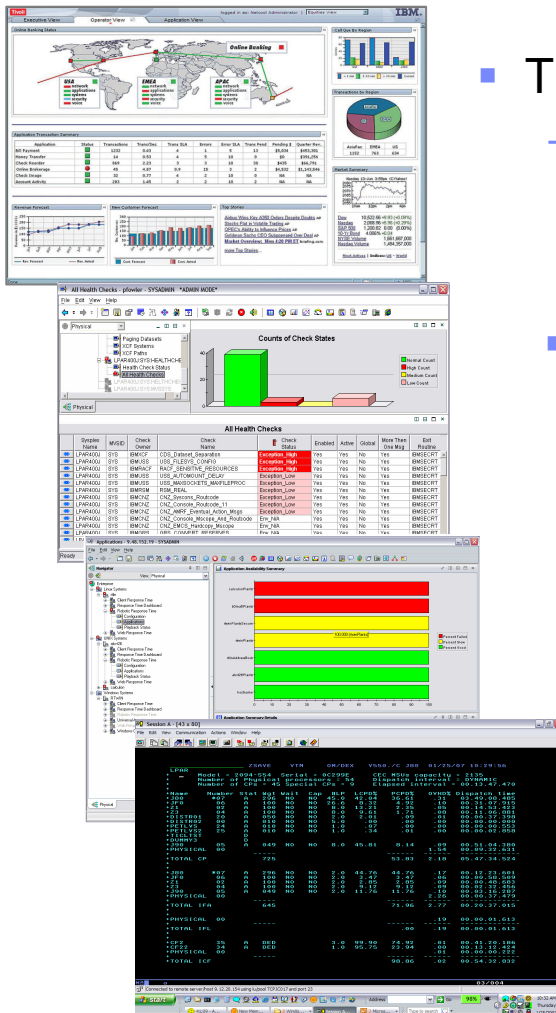


## IBM Tivoli Service Management Center for System z

- A model and best practices for System z clients to adopt IBM Service Management
- Centrally manage enterprise services from System z
- Integrate management processes across the entire business process
- Dynamic infrastructure to respond swiftly to changes

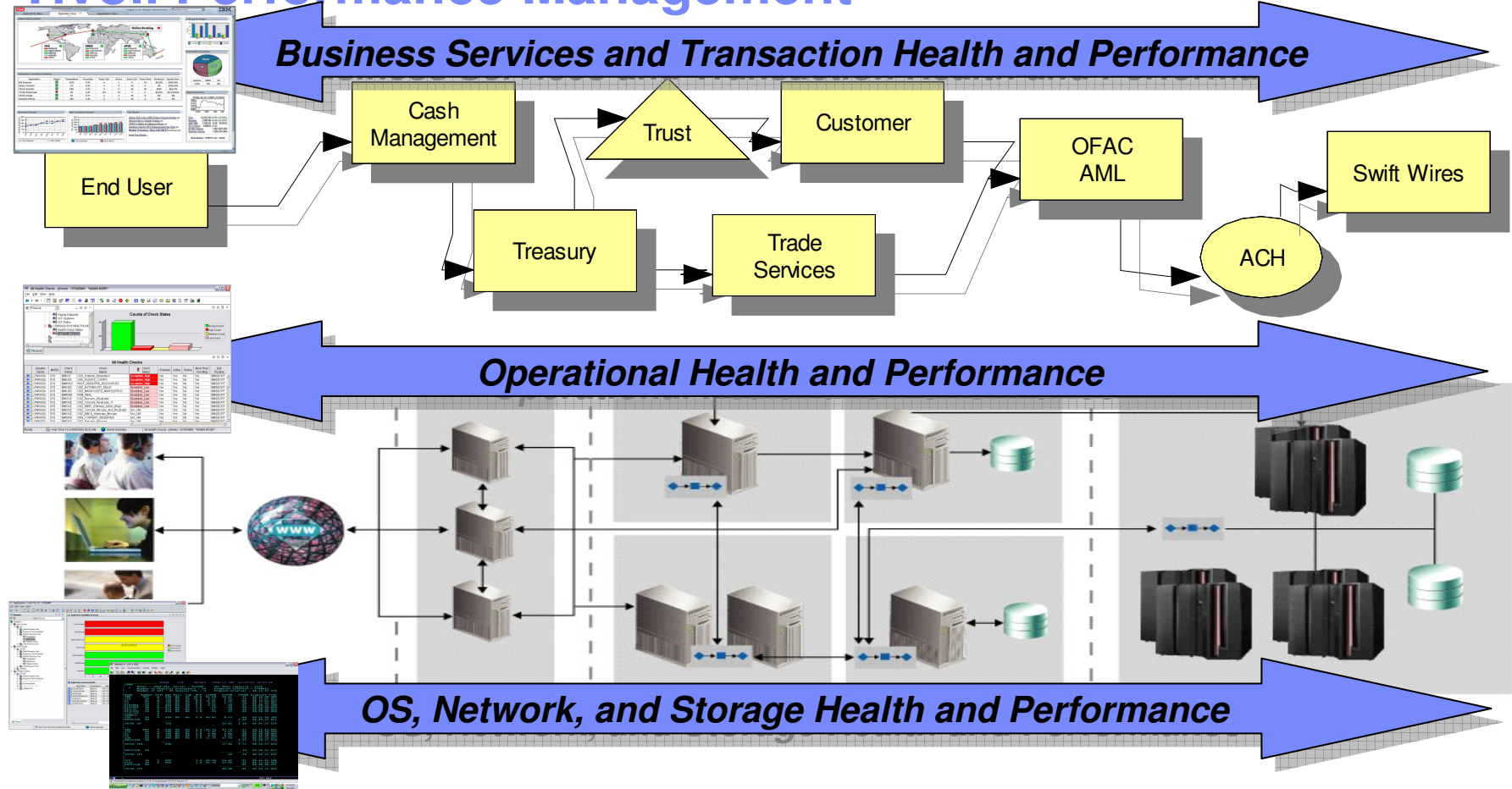


# Reduce Time Spent on Monitoring and Troubleshooting



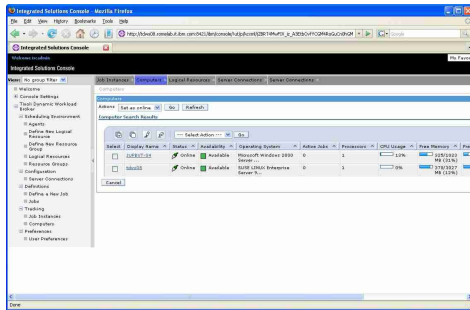
- Tivoli Business Service Manager
  - Provide transparency to the Business on the health and performance of end-to-end business services against service levels and key performance indicators
  
- Tivoli Enterprise Portal
  - Provide transparency to Operations on end-to-end health and performance of transactions, applications, and IT infrastructure
  
- Composite Application Manager family, OMEGAMON family, ITM family, NetView
  - Quickly isolate, diagnose and resolve problems throughout the IT infrastructure

# Reduce Downtime and Increase Service Availability with Tivoli Performance Management

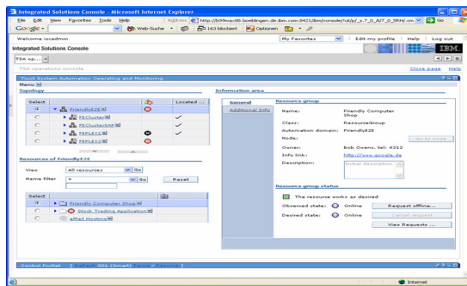


- Proactively optimize the health and performance of business services
- Centralize and standardize incident/problem management
- Rapidly detect, isolate, diagnose, and resolve problems

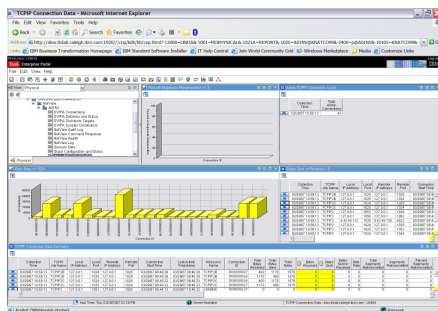
# Reduce Time Spent on Repetitive Tasks



- Workload Automation family
  - Automate end-to-end delivery and optimization of batch workloads across heterogeneous applications and systems

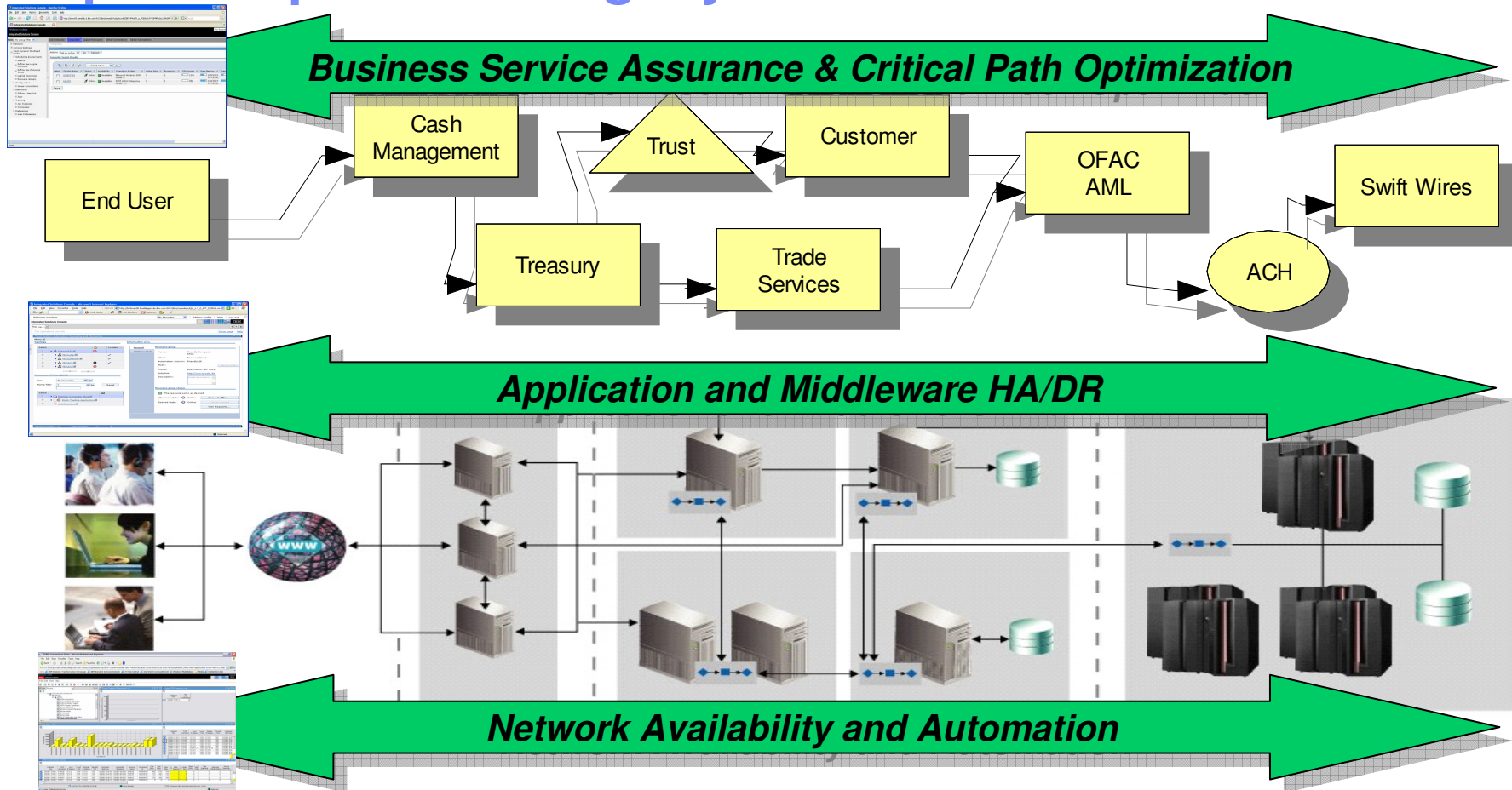


- System Automation family
  - Automate end-to-end application operations and recovery including single applications in clusters, or composite applications across clusters



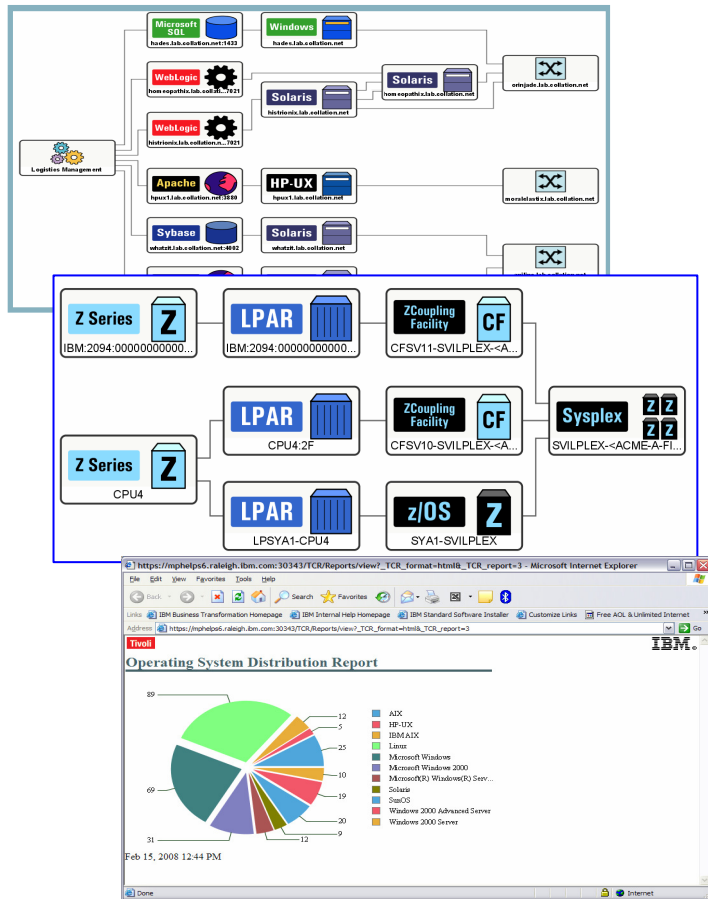
- NetView and OMEGAMON XE for Mainframe Networks
  - Automate network availability and performance monitoring, event filtering, and corrective actions to dynamically improve network health

# Improve Operational Agility with Tivoli Automation



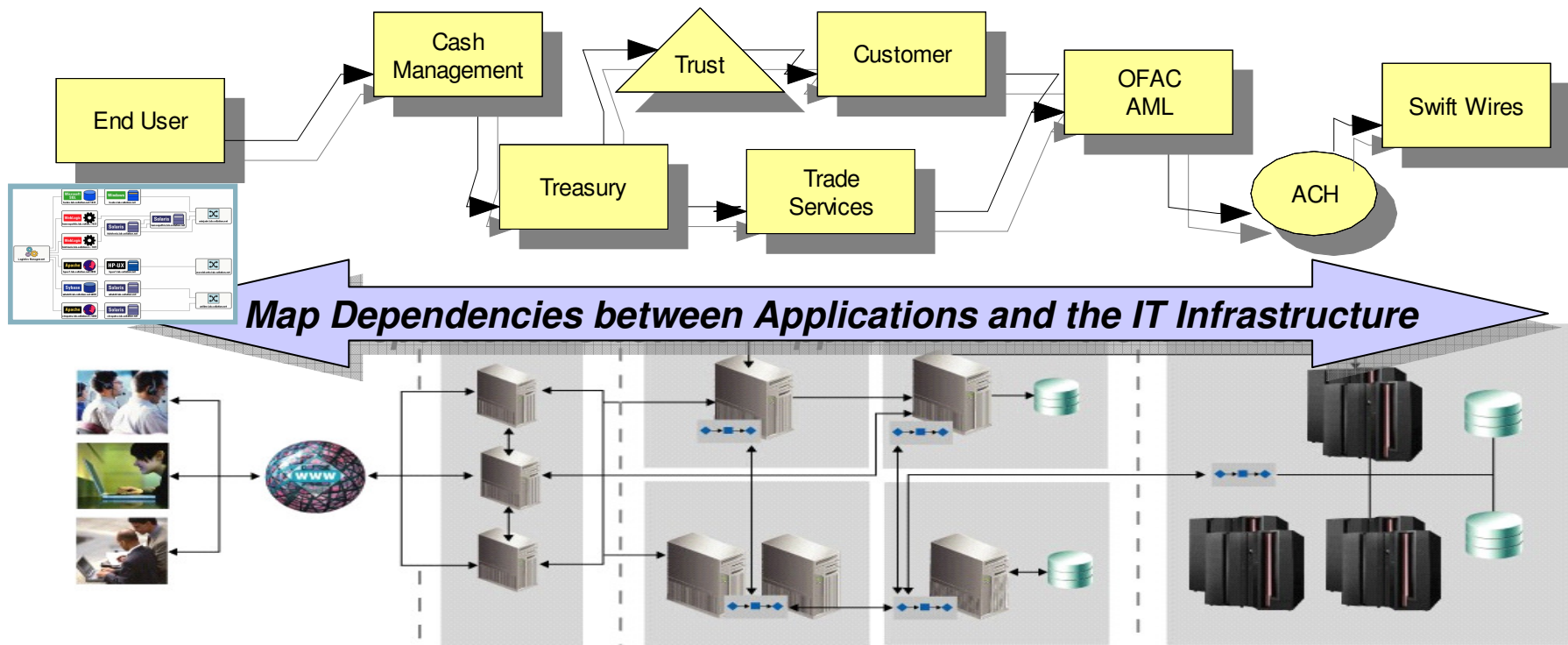
- Proactively manage the critical path of milestone batch services
- Reduce batch windows and optimize IT resource usage
- Reduce application, system, and network downtime

# Reduce Time Resolving Changes in the IT Infrastructure and Improve IT Governance



- Application Dependency Discovery Manager
- Understand what you have
  - Automatically discover and map dependencies between applications, middleware, subsystems, servers, network components, and storage
- Learn how CIs are updated
  - Automatically track and store changes
- Enforce compliance
  - Compare actual configurations against reference masters
- Improve Performance Management!
  - Include CI changes in event correlation
  - Provide topology views and changes to business service performance management

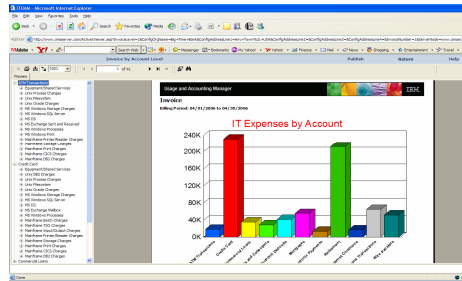
# Proactively Resolve Configuration Changes and Ensure Compliance with Tivoli Automated Discovery



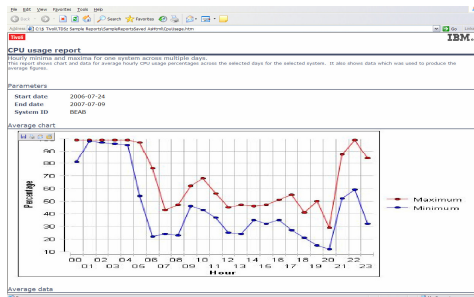
- Generate an accurate inventory of CIs
- Simplify change and configuration management across entire IT infrastructures
- Enforce compliance across the IT infrastructure



# Find Ways to Minimize IT Costs and Ensure IT Projects Add to Business Value

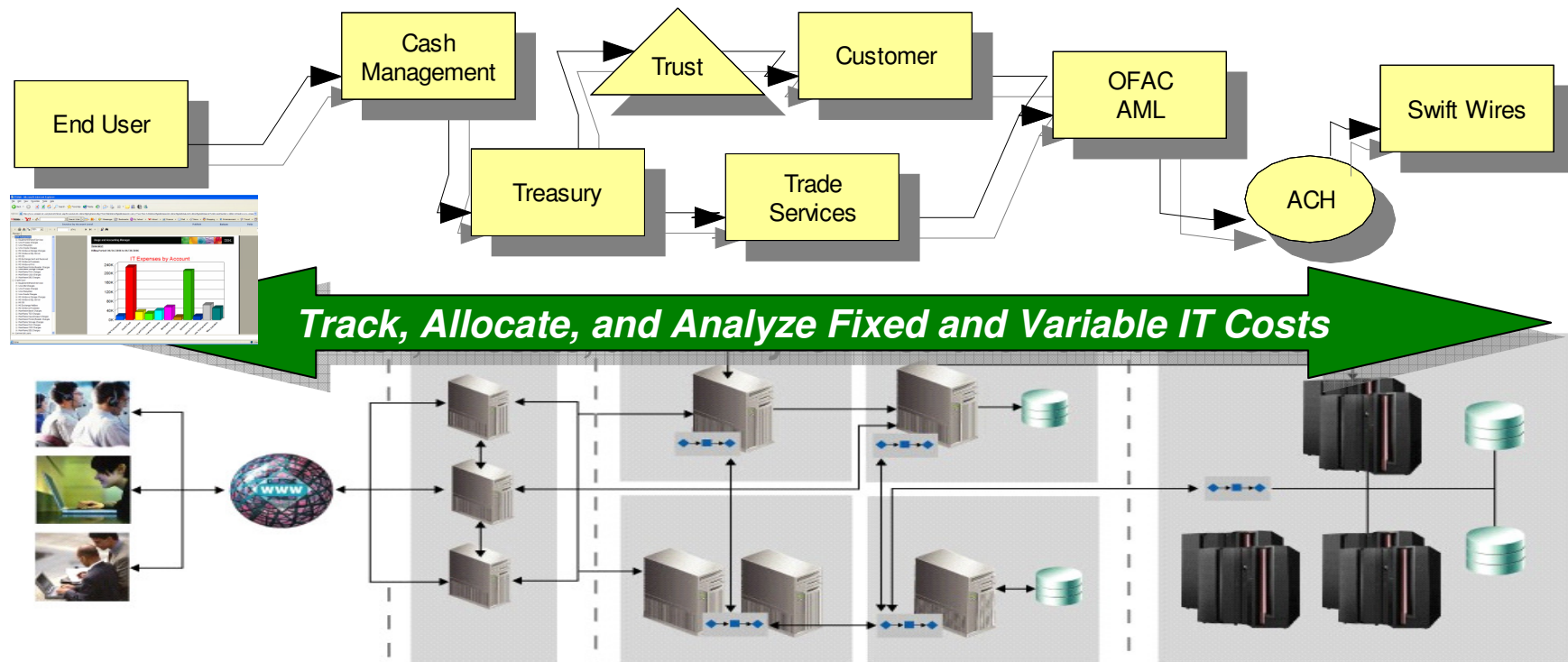


- Usage and Accounting Manager
  - Extend “mainframe-like” granular resource usage and accounting capabilities to distributed computing platforms like UNIX, Linux, and Windows
  - Provide transparent asset usage and cost information to consumers for all IT resources
  - Optimize fixed and variable costing methods for shared services



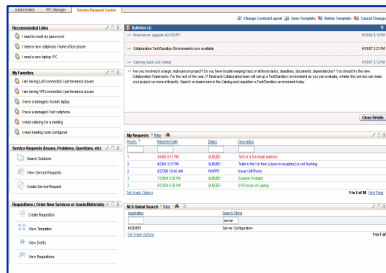
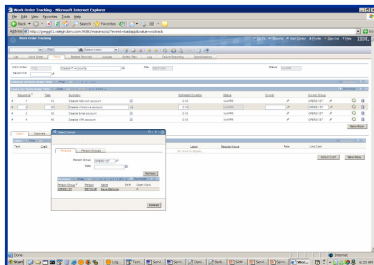
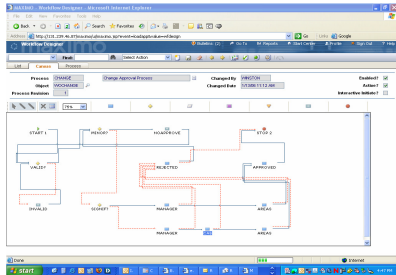
- Decision Support
  - Provide granular resource usage and accounting capabilities for consumers of System z services

# Leverage Cost Transparency to Manage Demand and Lower Business Costs with Tivoli Financial Management



- Determine who consumes IT assets to better allocate costs
- Provide detailed management reports to business units
- Analyze which trade-offs to make between costs and service levels
- Leverage cost transparency to ensure design decisions impact business profitability
- Fully recover the cost of IT projects

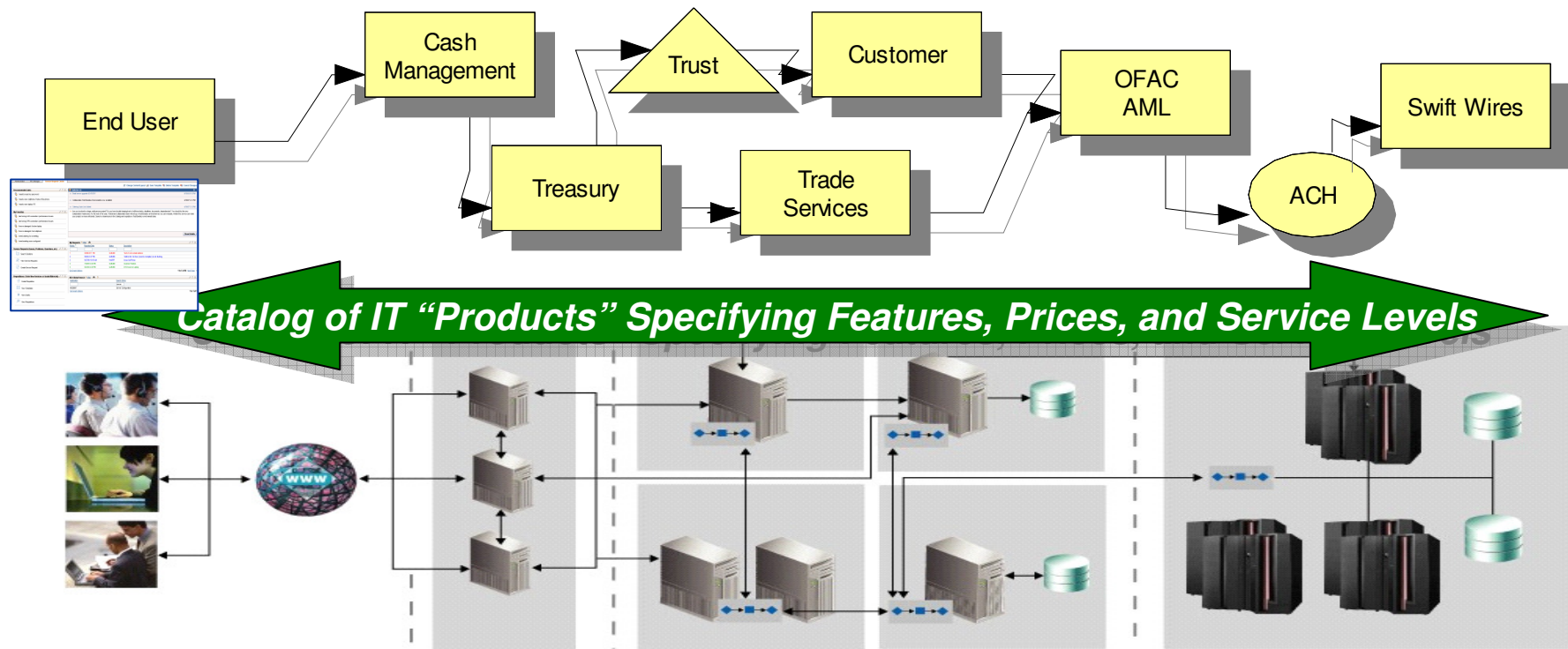
# Let the Business Know What it's Buying



- Service Request Manager
- Reuse existing services
  - Full transparent catalog of services for consumers of IT services and resources
- Simplify administration and maintenance of complex catalogs
  - Full supply chain management throughout the life of a service



# Gain a Comprehensive Cross-Enterprise View of Demand and Business Drivers with Tivoli Service Management



- Ensure the right amount of capacity is in place to meet business demand
- Determine what to charge for different tiers of service quality
- Assist the business in generating accurate usage forecasts

## AOK: Automation for Availability, Continuity, and Productivity

- Business need
  - Revamp an overburdened IT infrastructure to support high employee productivity while complying with laws requiring retention of customer data for up to 30 years
  - Computing systems were straining to keep up with growth of new customers and growing pool of customer data
  - Sought improved uptime and continuity protection for data, DB2 database, and SAP business applications
- Solution
  - High performance application environment designed for reliability and ease of management
  - Tivoli NetView for z/OS, Tivoli System Automation for z/OS and Application Manager, and GDPS
- Benefits
  - Improved business productivity from higher availability of data, middleware, and applications
  - Improved IT productivity from a more controlled and automated application environment
  - Reduced business risk due to improved reliability and effective disaster recovery



- AOK
  - Germany's largest health insurance company, with more than 25 million policy holders

## Swiss Re: End-to-End Service Management Based on ITIL v3

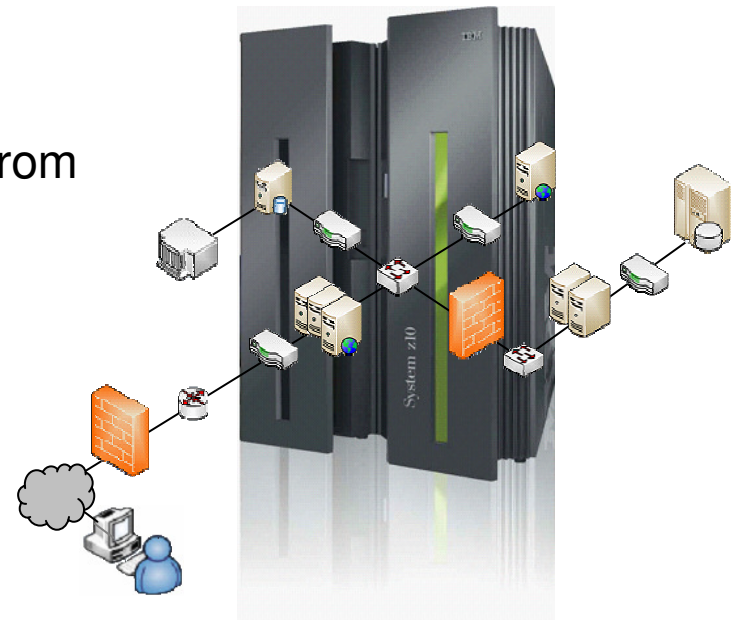
- Business need
  - Provide agents with uninterrupted access to critical information to build customer service and sales
  - Manage organic and acquired growth by moving from a siloed, manual approach in managing key IT processes to an end-to-end service management model
  - Standardize, automate, and align IT processes with business needs
  - Improve scalability and quality of business services while reducing IT complexity and ensuring compliance
- Solution
  - End-to-end IBM Service Management solutions
  - Tivoli OMEGAMON and Monitoring, Tivoli Enterprise Console, Tivoli System Automation, Tivoli Change and Configuration Management Database, Tivoli Release Process Manager, Tivoli Provisioning Manager, and Tivoli Asset Management for IT
- Benefits
  - Achieved 99.999% service availability while reducing IT operating costs
  - Reduced problem resolution time from several days to less than one day
  - Align software delivery with business requirements to accelerate development and deployment of new services
  - Improved understanding of application components and dependencies, and potential impact of changes on other applications and infrastructure components
  - Resolve conflicts for between 200 – 1,000 IT infrastructure changes each weekend
  - Standardize management processes with audit trail enable compliance with country-specific regulations and pan-European regulations



- Swiss Re
  - World's largest health and life reinsurer offering financial services products operating in more than 30 countries

## Leverage System z to Improve Service Management Across the Business

- IBM Service Management enables IT to
  - Focus on IT investments that increase business value
  - Shift time spent on “supply-side” activities to “demand-side” activities to increase business innovation and reduce total cost of ownership
- IBM Tivoli Service Management Center for System z enables IT to
  - Manage cross-enterprise business services from System z
  - Seamlessly integrate management services across business delivery processes and IT resources
  - Transform to cloud and green infrastructures



*Thank You*