



# Improving IT Systems Manageability Through Improved and Enhanced Technologies

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***VP, Autonomic Computing***

The Future runs on System z



# Agenda

- **Aligning Business Requirements with Information Technology**
- **IBM Service Management**
  - Visibility. Control. Automation.™
- **IBM Tivoli Service Management Center for System z**
  - End-to-End Solutions
    - Service Fulfillment Monitoring and Measurement
    - Change and Configuration Management
    - Incident and Problem Management
    - Business Continuity Management
    - Security Management
    - IT and Enterprise Asset Management
    - The Green Data Center
  - System z Customer Case Studies
    - Monitoring
    - Automation

## Forrester Said it Best



"IBM continued its path of IT service management to one of service management, which is **different than anything else currently out there**. **IBM's goal is to truly manage the IT service, with the focus on providing the company with a strategic advantage** and using its supporting technology to do just that. Its integration efforts and acquisitions (e.g., MRO) focus on a new face of IT service management — much aligned with the ITIL V3 just recently introduced. IBM is also promoting the integration of IT and other enterprise shared services."

*- Evelyn Hubbert, Forrester Research, IT as Just Yet Another Shared Service, January 7, 2008*

# Quantitative and Qualitative Business Success



## Business performance:

- Ensure business service revenue
- Improve system and application availability by 5%
- Decrease likelihood of internal security breaches and data theft by 10 to 15%

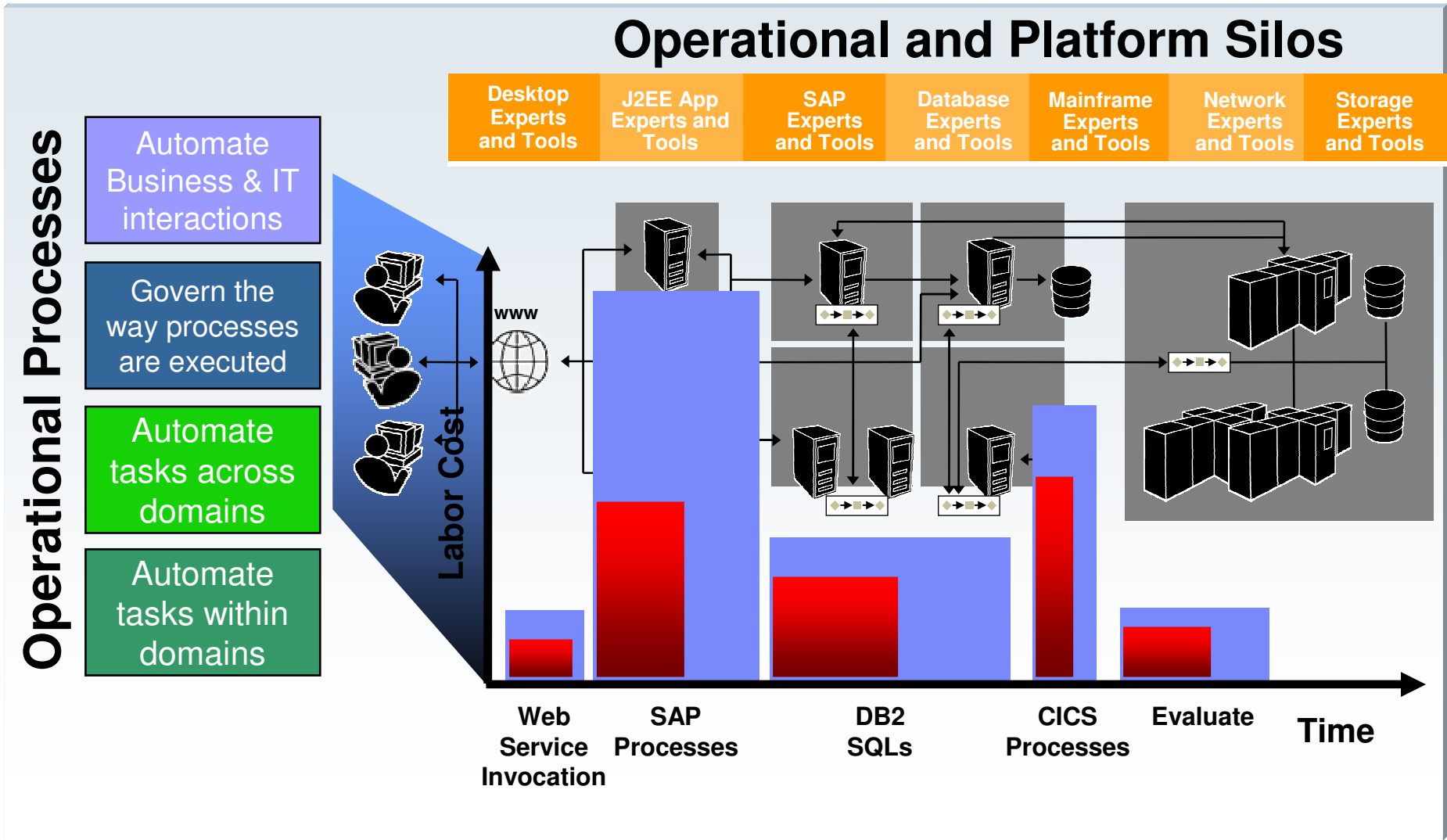
## Operational performance:

- Reduce problem identification and resolution from several days to hours
- Reduce computing resources by 25%
- Reduce IT staff costs associated with Incident & Problem management processes by 10%

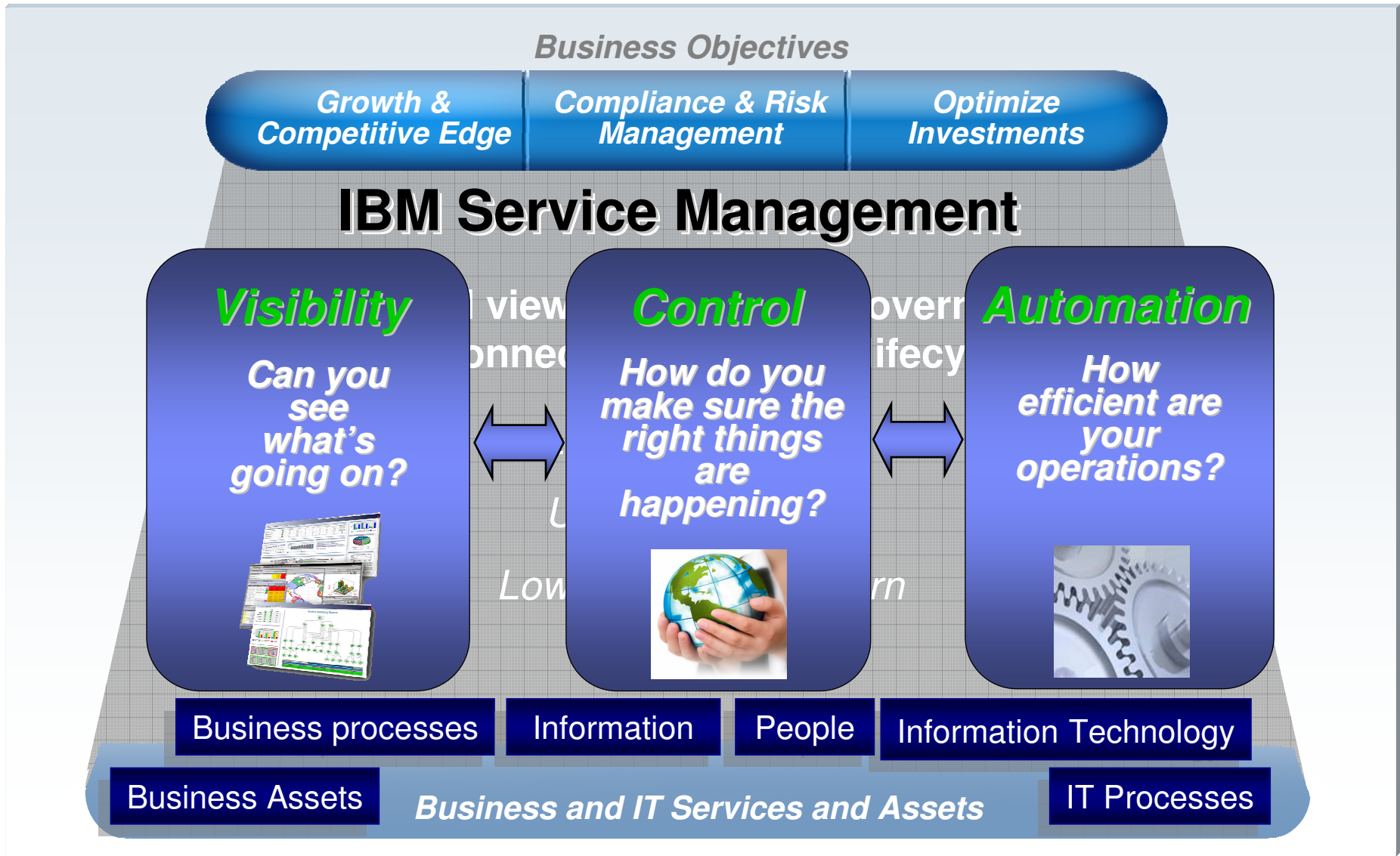


*Enterprises are under pressure to deliver results, and the cost of poor service can be staggering*

# Operational and Platform Silos

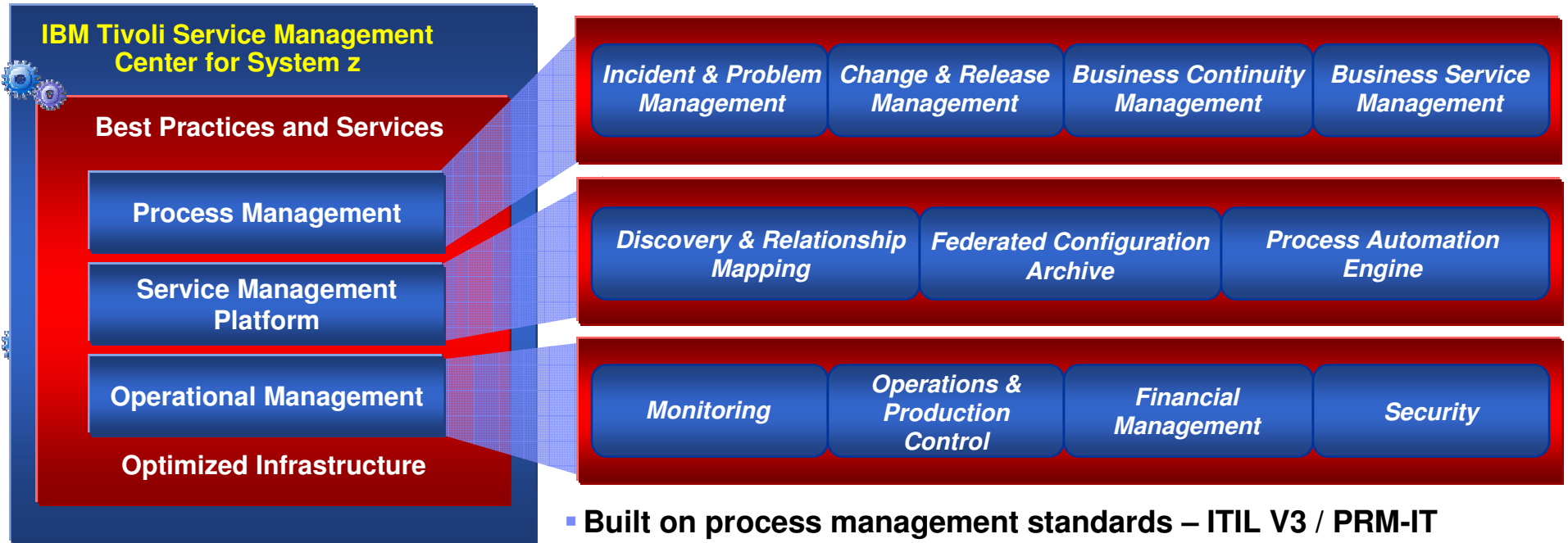


# Aligning Business Objectives with IT

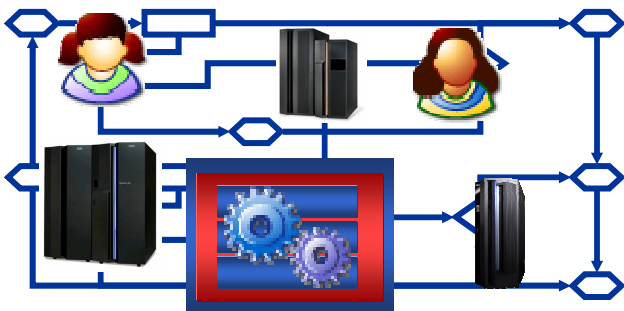


# IBM Tivoli Service Management Center for System z

*Enabling clients to strategically use their System z as an integrated, enterprise-wide, hub for the efficient management of business and IT services*

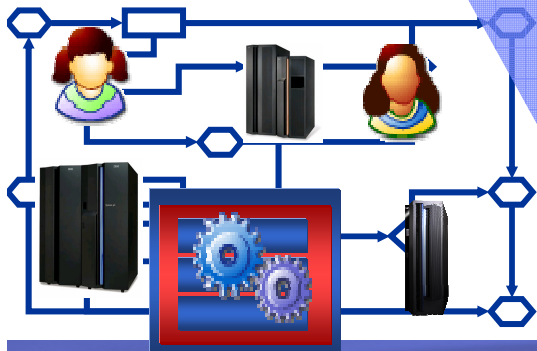
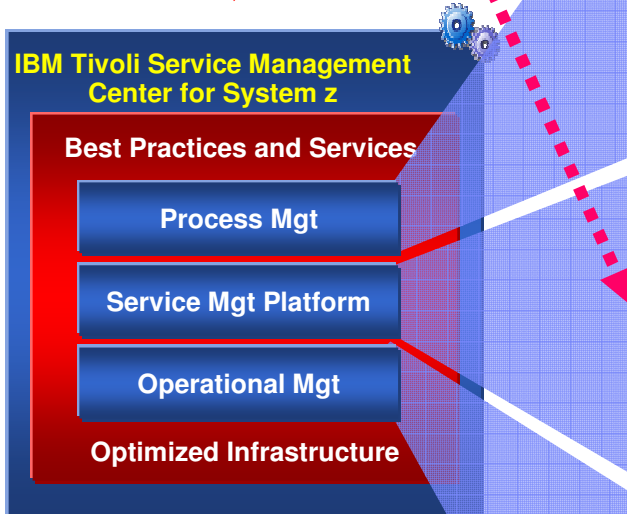


- **Built on process management standards – ITIL V3 / PRM-IT**
  - Delivers maximum value and flexibility
- **Built on SOA foundation**
  - Better integration with IBM and non-IBM applications
  - Seamless version to version upgrades of customizations
- **OMPs that support OASIS, SNIA, RDMA and other open standards**
  - Delivers richest capabilities and domain specific automation



# Introducing IBM Tivoli Service Management Center for System z

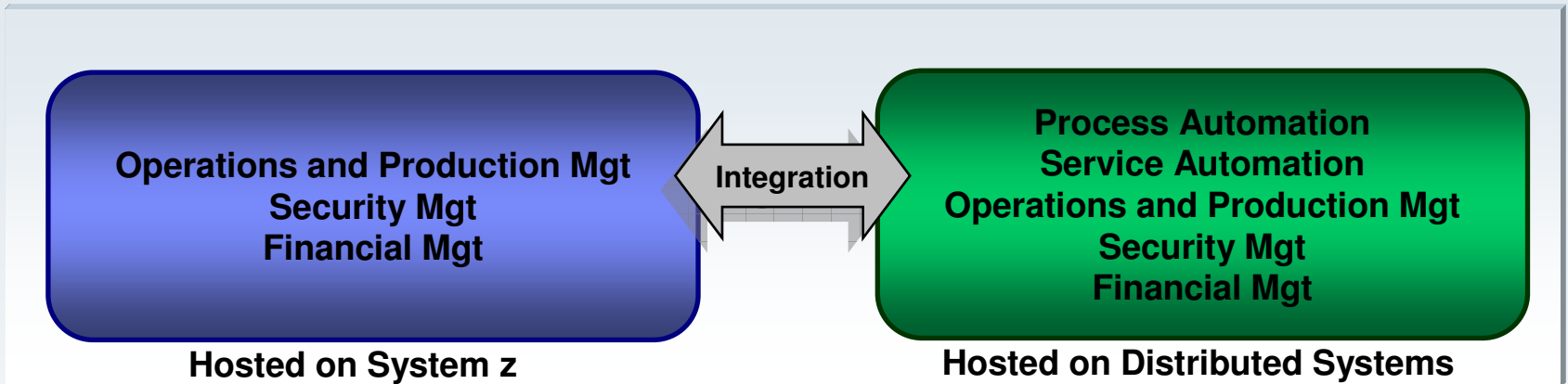
*Enabling clients to strategically use their System z as an integrated, enterprise-wide, hub for the efficient management of business and IT services*



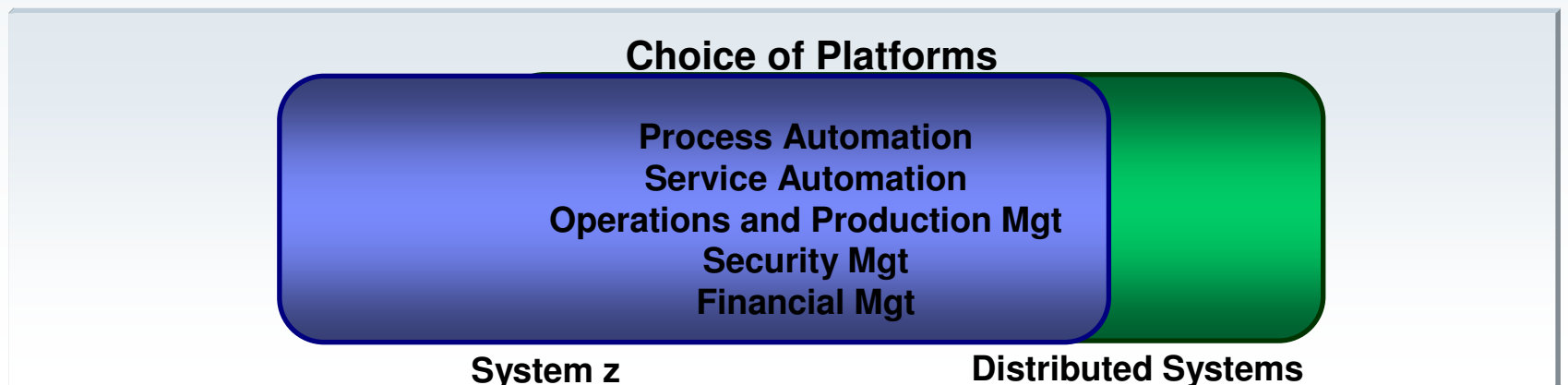


# Flexible Approaches to Service Management

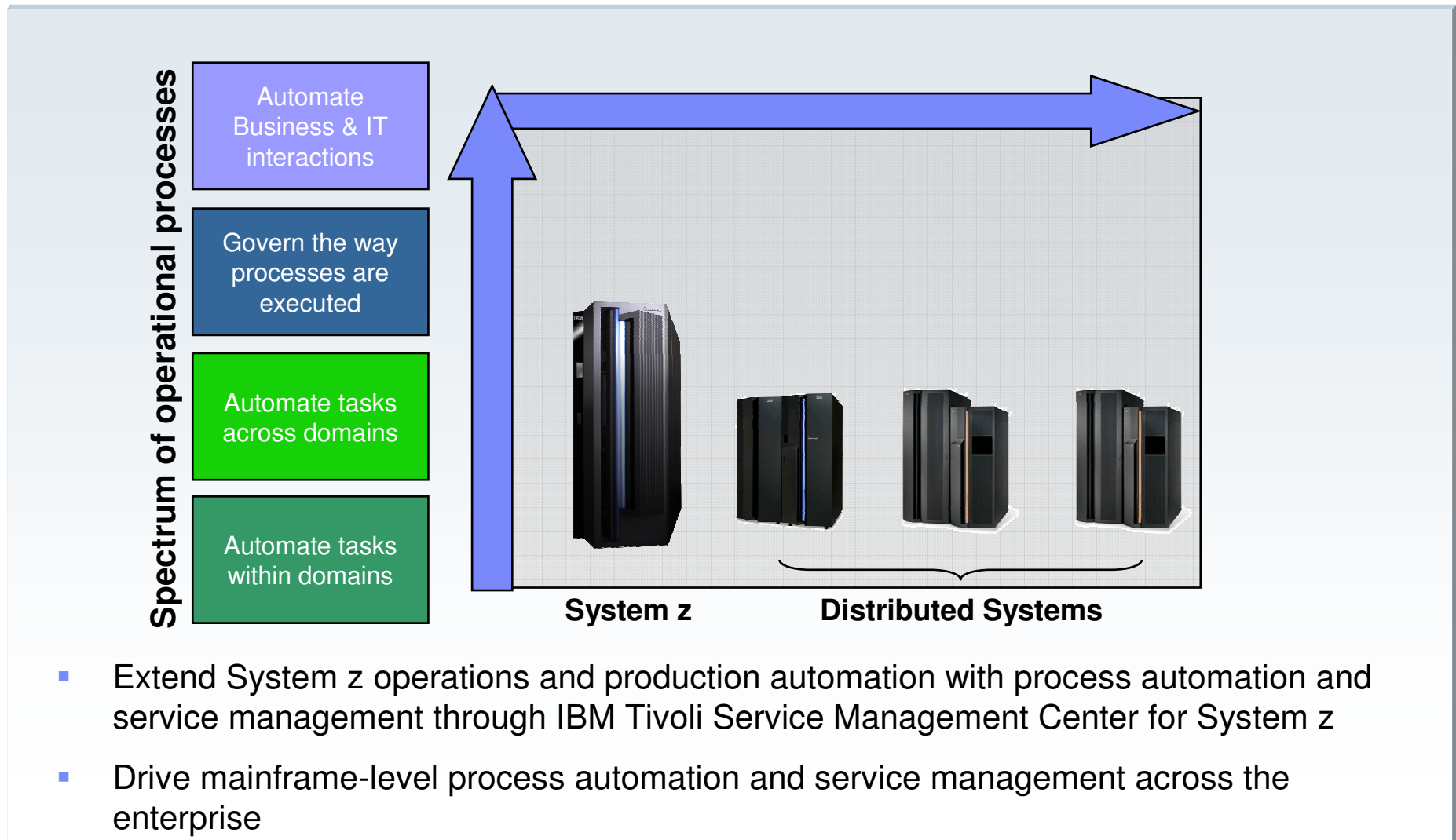
- Traditional service management implementation:



- IBM Service Management implementation:

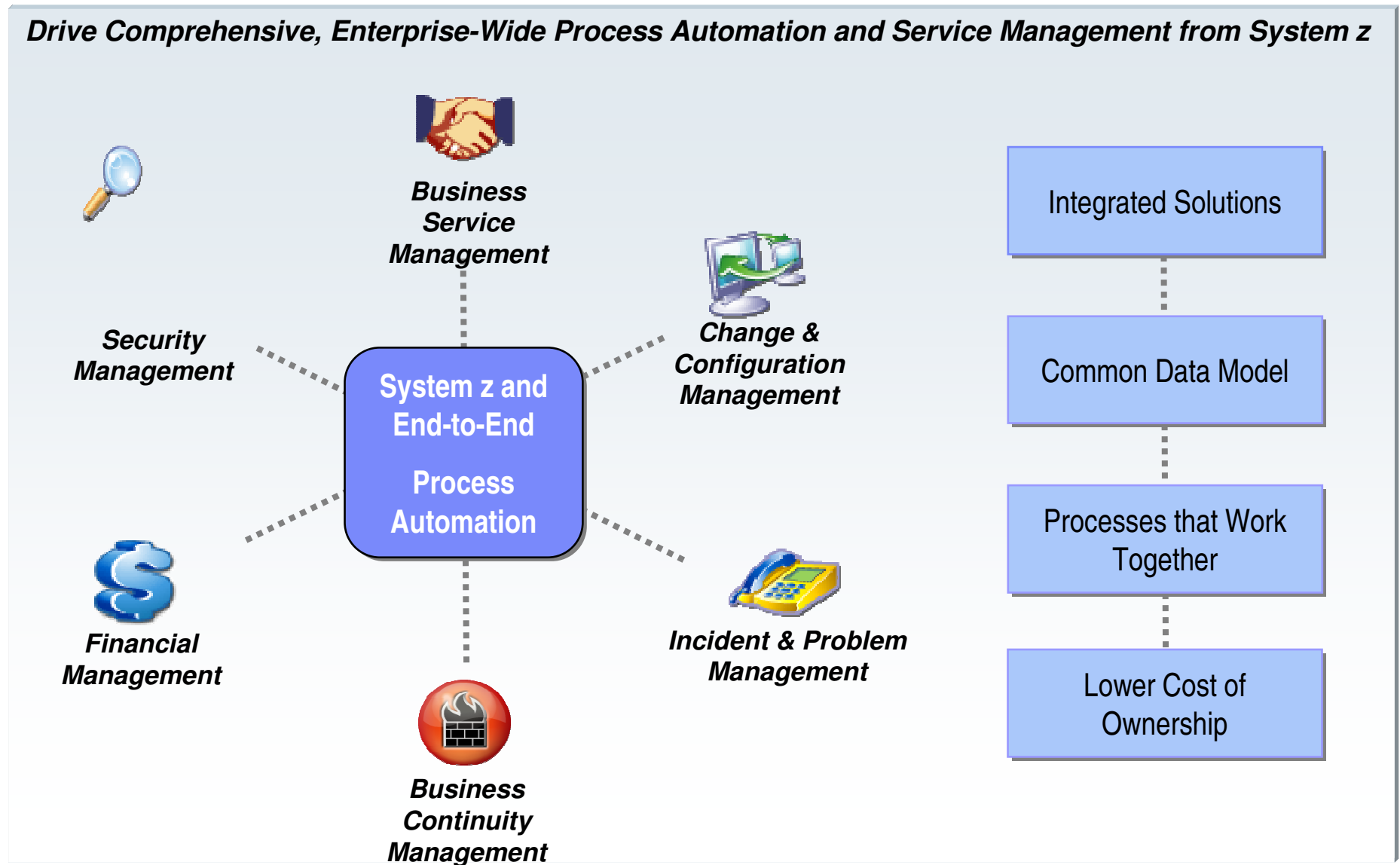


# System z: Service Management Architected for Flexibility



# End-to-End Process Automation and Service Management Hub on System z

*Drive Comprehensive, Enterprise-Wide Process Automation and Service Management from System z*



# E2E Solution – Business Service Delivery Performance

## Business Challenges

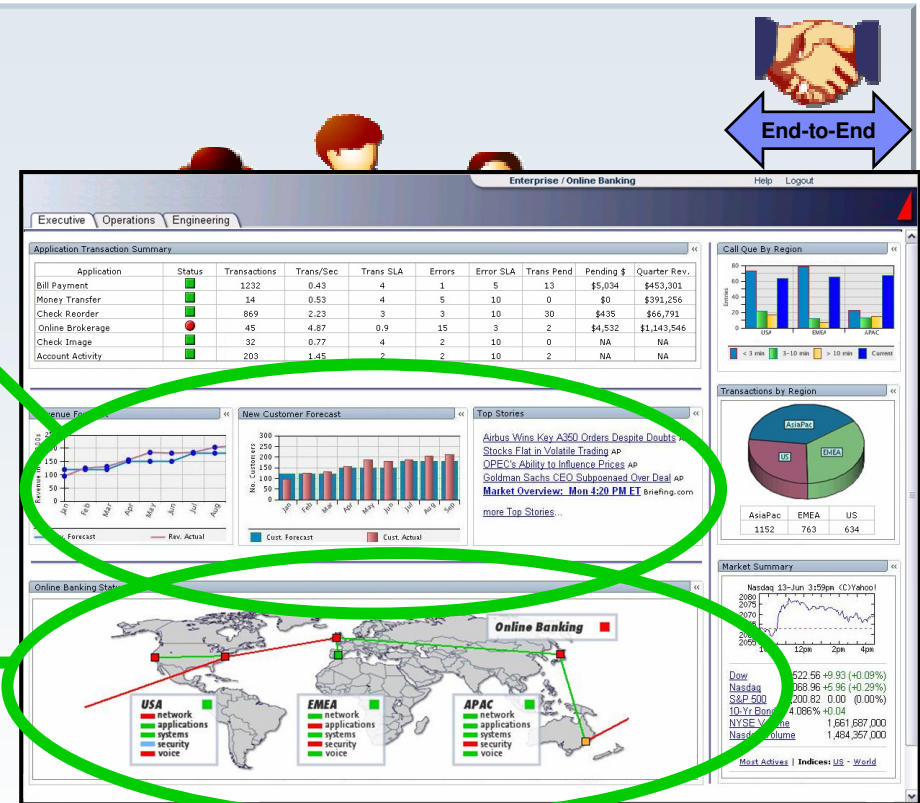
- Accountable for the quality of business services
- Limited visibility of the impact of process-related events

## IBM Tivoli Service Management Center for System z Solution

- Historical and predicted business service performance against service levels and key performance indicators
- Monitor, track and measure the impacts of process-related events against business service plans and schedules

## Business Benefits

- Real-time visibility of business service performance
- Direct linkage of IT assets and process-related events to business service performance and key performance indicators
- Direct linkage of IT assets and events to business service delivery, execution and impacts



Middleware, Systems and Network Performance

# E2E Solution – Change and Configuration Management

## Business Challenges

- Non-standardized change management
- Inability to assess the impacts of planned changes on business service delivery
- Inability to schedule planned changes at a time that minimizes the impact on business services

## IBM Tivoli Service Management Center for System z Solution

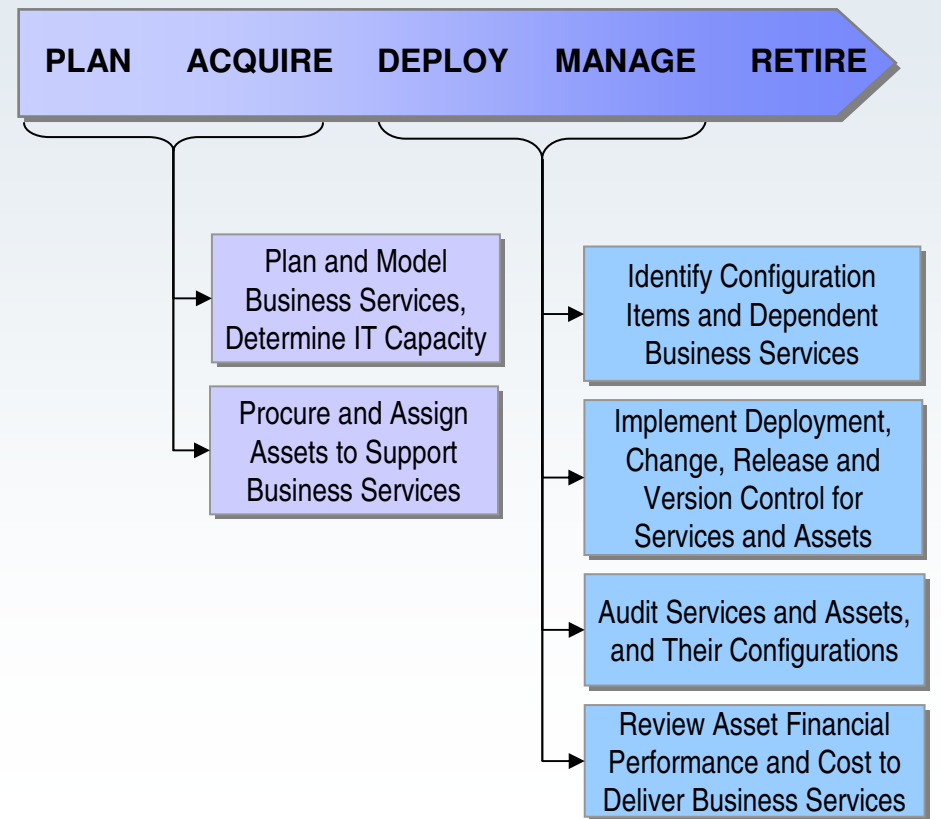
- Single point of control to request, model, schedule and execute planned changes on business services and IT assets
- Provides knowledge of the impact of changes on business services and IT assets

## Business Benefits

- Improved control over business service and IT asset lifecycles
- Reduced labor costs
- Reduced disruptions from manual errors by 25% or more
- Improved overall IT efficiency



## Integrated Business Service and IT Asset Lifecycles



# E2E Solution – Incident and Availability Management

- **Business Challenges**

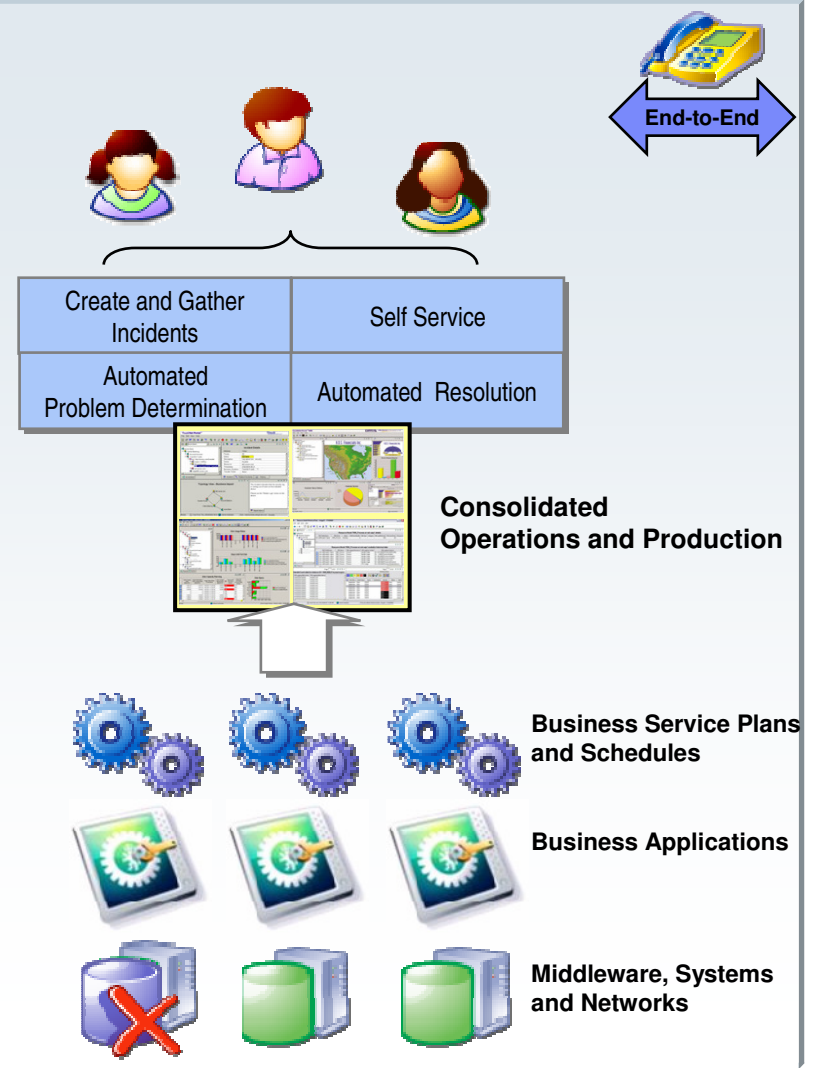
- Constantly reacting to user-generated trouble tickets
- Difficulty filtering and prioritizing critical events from a flood of daily events, and reducing resolution times

- **IBM Tivoli Service Management Center for System z Solution**

- Consolidated view to filter and correlate critical events BEFORE they become a problem to users and customers
- Automated trouble ticket generation, with contextual information and event correlation provided to the right experts
- Automated recovery processes to adapt IT assets and business service schedules and delivery
- Automated critical path analysis for milestone business services

- **Business Benefits**

- Reduced trouble ticket generation by 22%
- Reduced mean times to resolution by 10% or more
- Improved user and customer satisfaction



# E2E Solution – Business Continuity Management

- **Business Challenges**

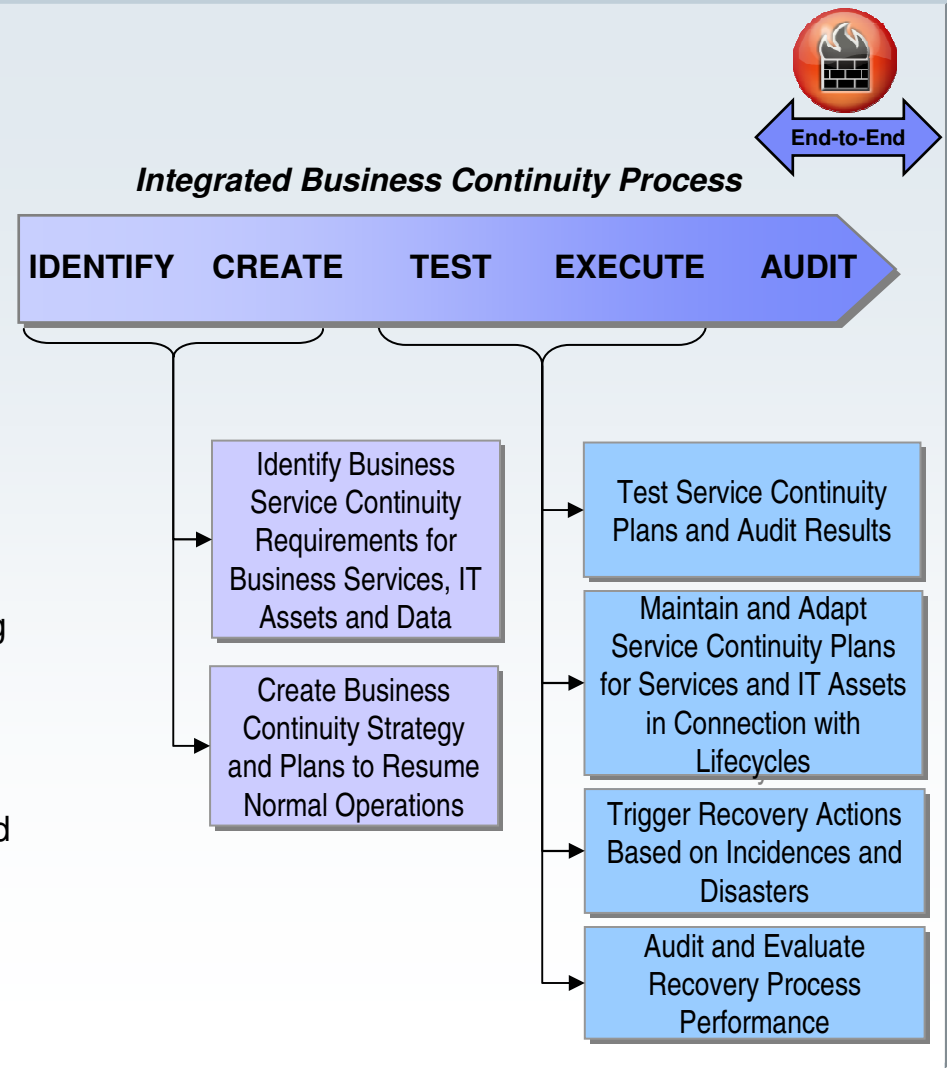
- Accountable for the delivery of business services without the tools to properly identify, implement and test recovery plans and processes
- Difficulty notifying people of the scope and impact of outage situations

- **IBM Tivoli Service Management Center for System z Solution**

- Provides pre-defined flow of tasks to develop and implement business service, IT asset and data recovery strategies and plans
- Provides guidance analyzing outages including impact and scope assessment, and recovery, approval and notification processes

- **Business Benefits**

- Improved ability to systematically plan, test and execute recovery processes based on scope and impact on business service delivery
- Improved enterprise preparedness and insurance against incidences and disasters



# E2E Solution – Security Management

## Business Challenges

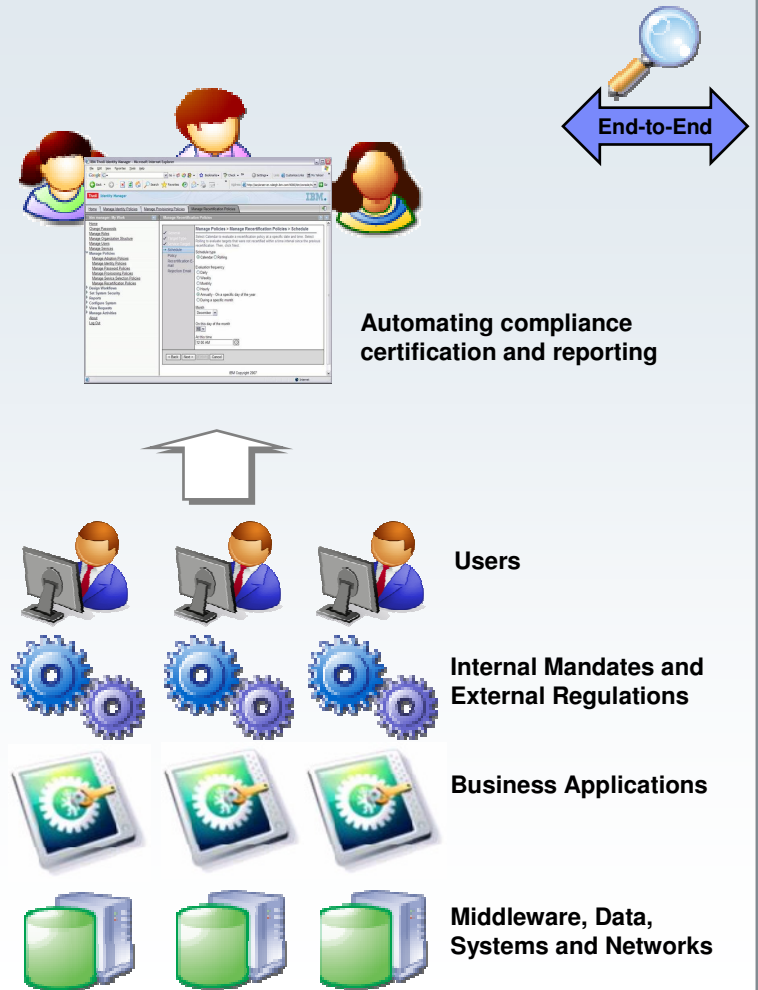
- Accountable for validating and demonstrating audit and compliance capabilities without tools

## ■ IBM Tivoli Service Management Center for System z Solution

- Comprehensive audit and compliance management
- Identity and access management
- Automatic detection, collection, analysis and alerting of security-related events and threats from RACF, applications, data and systems

## ■ Business Benefits

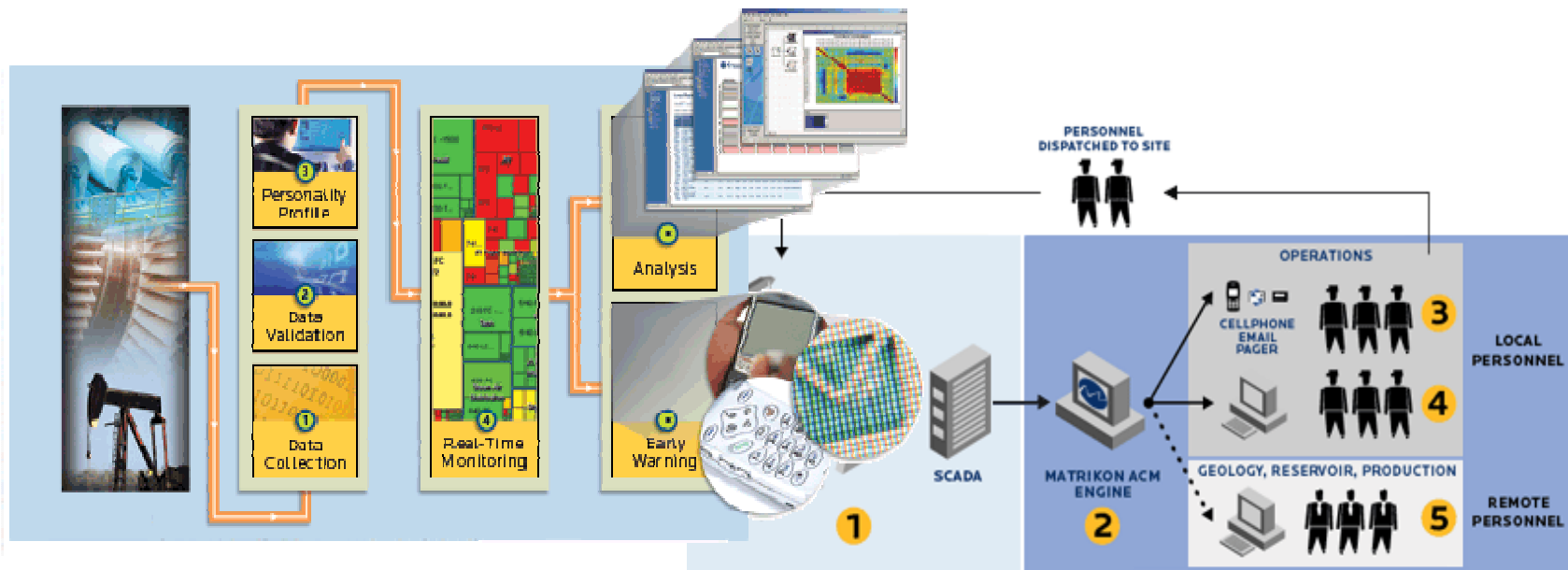
- Improved security administration and audit compliance
- Improved overall IT efficiency





# E2E Solution – IT & Enterprise Asset Management

*Exploiting asset and workflow management in industry specific solutions*

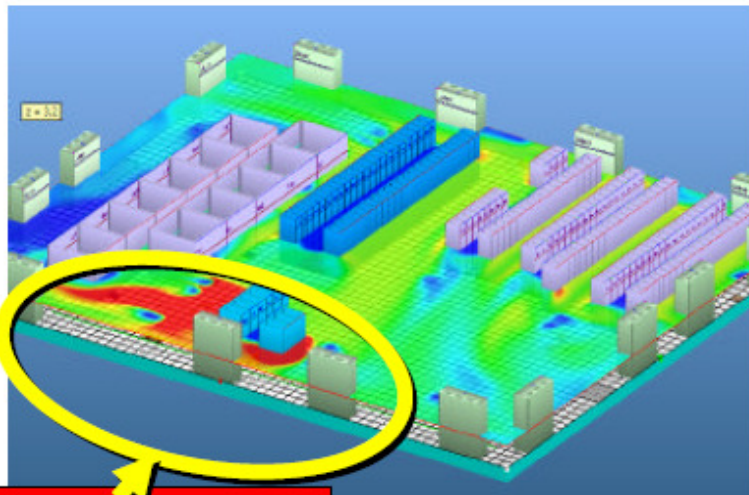


- Focus is no longer simply on assets, but on assets in a service context.
- Intelligent asset management applies principles of IT Service Management to ensure assets are not just controlled, but are delivering the value they were purchased for.
- Tivoli's integration of Maximo asset management and workflow and dashboard visualization enables a new generation of asset management implementations focused on service optimization.

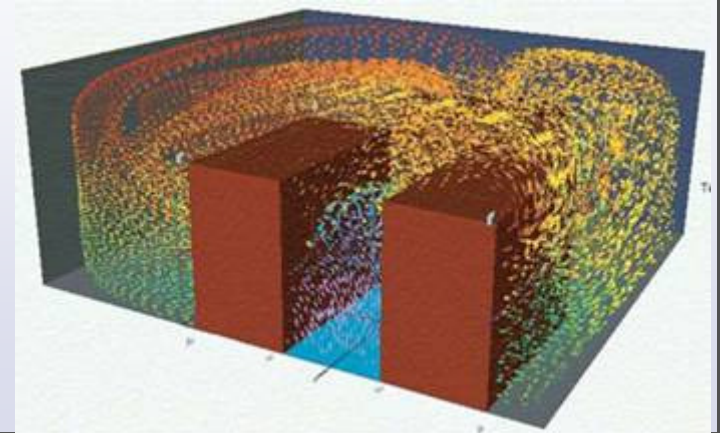
# Active Power Management

–Leveraging Tivoli & Maximo Integration on Power and Cooling Issues

- Older data center floors not designed to handle the heat load of current blade servers
- Virtualization increases CPU load and heat load
- Racks create hot spots
- Denser racks consume the total energy rating allowable in a data center
- Recirculation of hot exhaust air, detrimental to the performance of computers, cannot be eliminated with barriers above the racks.

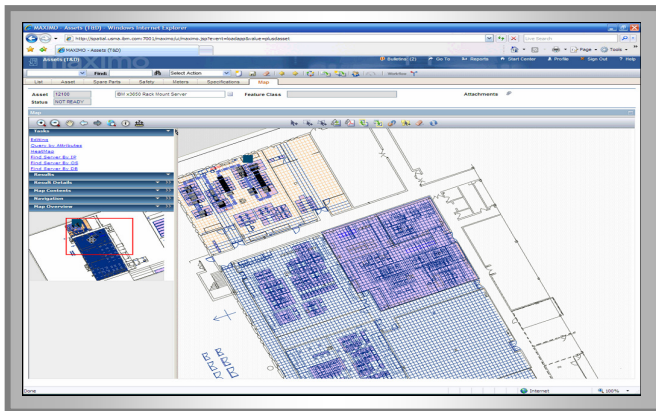


*Computer simulation of ambient air flow*



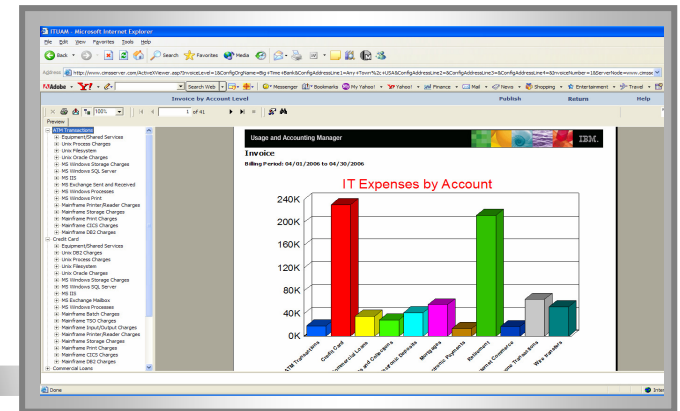
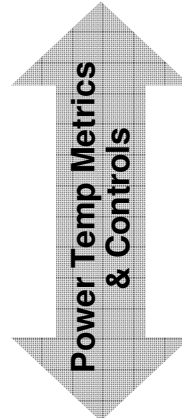
# System z in the Green Data Center

## ITM Green Energy Agent: Augment performance data with power and temperature data



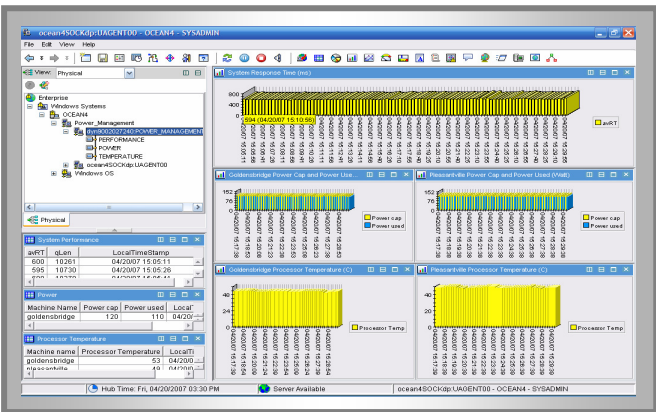
### Maximo Spatial

- Thermal and configuration data
- Display alert conditions



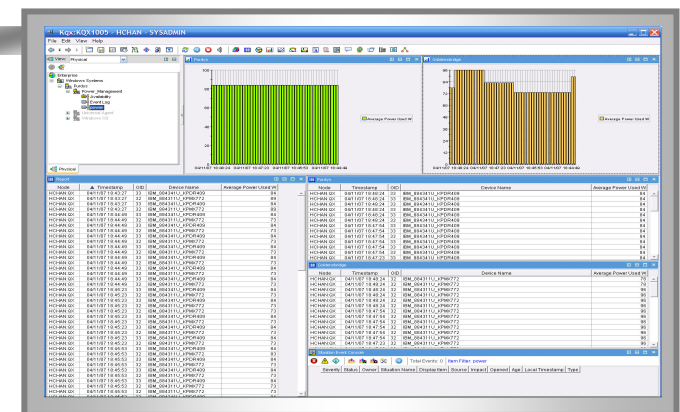
### IBM Tivoli Usage and Accounting Mgr

- Track consumption
- Chargeback



### Tivoli Enterprise Portal

- Configure & display alert conditions
  - Thermal (power caps), performance
- Automate workflow for alerts



### IBM Tivoli Business Service Mgr

- Ensure service levels maintained
- Optimize energy consumption

# Case Study - European Insurance Company

## ■ Challenge

- Business growth led to increased complexity and heavier transaction loads
- IT resources not aligned with business priorities
- Problem resolution taking days

## ■ Solution

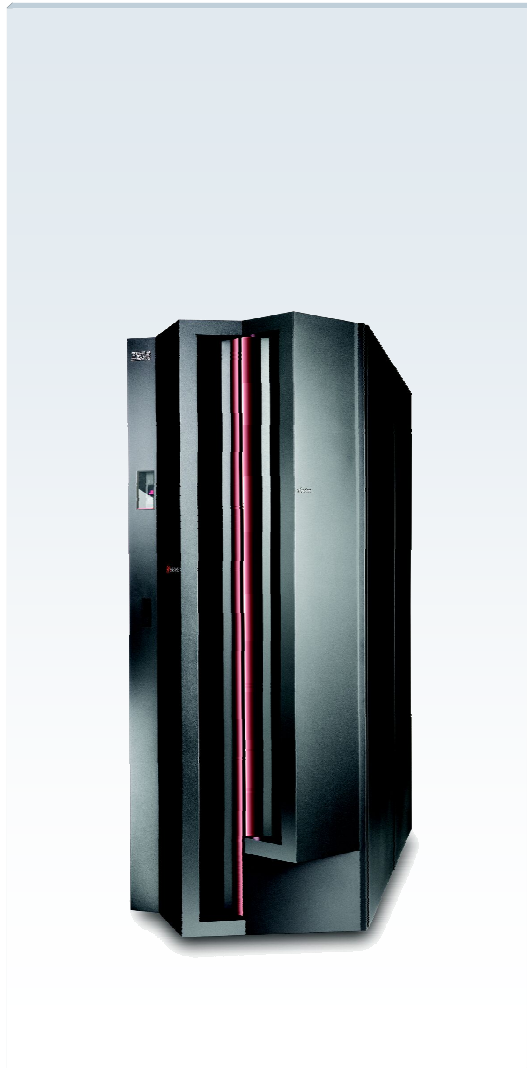
- Tivoli Netview for z/OS, Tivoli OMEGAMON Suite for z/OS, Tivoli System Automation for z/OS
- Automated discovery of TCP/IP networks
- Topological displays
- Event correlation and management
- Monitoring of health and performance

## ■ Benefits

- Problem resolution reduced from days to less than a day
- Problem backlog eliminated
- Availability improved to 99.999%
- Redeployment of resources to future development



## Case Study – North American Financial Company



- **Challenge**

- Myriad of scheduling applications
- Expensive licensing for scheduling software
- Specialized skills required

- **Solution**

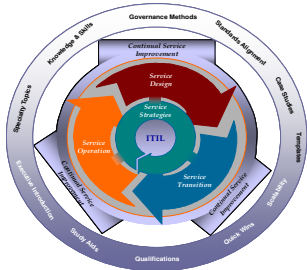
- Tivoli Workload Scheduler for z/OS
- Coordination of more than 200,000 jobs/day

- **Benefits**

- Eliminated costly software licenses
- Reduced maintenance and skill required for operations
- Enabled data center consolidation, driving further benefits

# Process Automation Maturity

*Tivoli enables customers to deliver automation at all levels of process maturity*



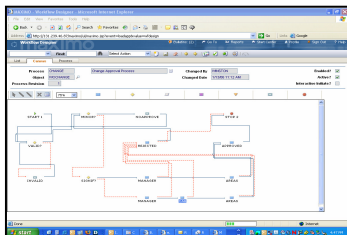
**ITIL V3 and (PRM-IT)**

**IBM's ITSM** model PRM-IT expands beyond ITIL V3 and maps to COBIT and CMMI



**IBM Tivoli Unified Process (ITUP and ITUP-C)**

**Tivoli** process workflow model and tool for IT Service Management uses the same **modeling and publishing tools** as **RUP** to create client specific operational process models



**Business-aligned workflow, data modeling and visualization**

**Create** solutions using common workflows, data and visualization, automate client specific workflows across multiple tools aligned to business services and activity management

## Customer and Analyst Accolades



“EMA feels that IBM has an **outstanding service management strategy and portfolio** to enable improved collaboration and organizational automation by linking the CMDB with best practice workflows.”

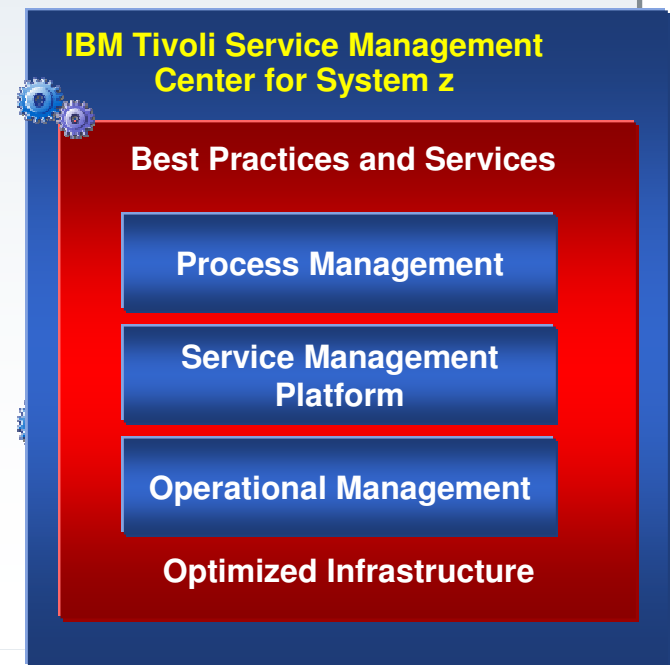


***“By unifying the management of all our IT and operational assets using IBM solutions, we can maintain an industry leadership position and improve quality of service for travelers. IBM asset management software has also helped us realize a higher percentage of recoverable fees and directly improve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

***— Doug Wardle, Enterprise Resource Planning Systems Consultant  
McCarran International Airport***

## IBM Service Management and System z Advantages

- **Integrated solution to automate services, processes and operations**
  - Leading Standards-Based Technology
  - Integration of IT and Enterprise Assets
  
- **Full System z and end-to-end platform support**
  - Unified Platform
  - End to End Management
  
- **Lower cost of ownership**
  - Upgradeability and Ease of Configuration
  - Built on Industry Best Practices





# Getting Started

- **Learn more about IBM Service Management**  
<http://www.ibm.com/itsolutions/servicemanagement>
- **Perform IBM Service Management self assessments**  
<http://www-306.ibm.com/software/tivoli/features/it-servmgmt/resources/self-assessment-tool.html#top>
- **Download the IBM Tivoli Unified Process**  
<http://www-306.ibm.com/software/tivoli/governance/servicemanagement/itup/tool.html>
- **Contact your IBM Software Sales Representative**

*Thank You*