

IBM System z Software Premier Executive Briefing Event



IBM Integrated Service Management for System z
– Changing the Economics of Service Delivery

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Director of Tivoli Service Availability and Performance
Management Portfolio

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In today's economic environment, customers are telling us they face three key service management demands

- **Higher service expectations**
 - Improve efficiencies across the business
 - Ability to respond to new opportunities quickly
- **Rising cost pressures**
 - Shorten ROI, remove complexities
 - Add value now – Payback in less than a year
- **New risks and threats**
 - Increase collaboration, but in a protected way
 - Support anywhere, anytime access for smarter devices



Integrated Service Management (ISM) provides a holistic approach to manage these demands

VISIBILITY



See the service & infrastructure

CONTROL



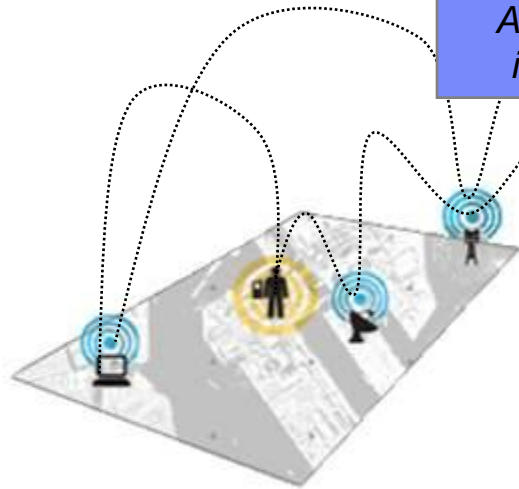
Manage risk & compliance

AUTOMATION

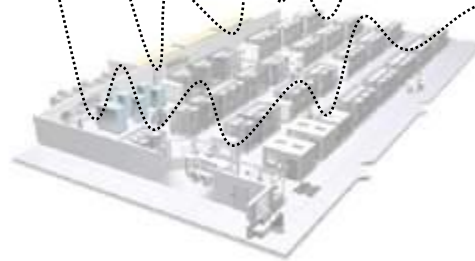


Optimize service delivery

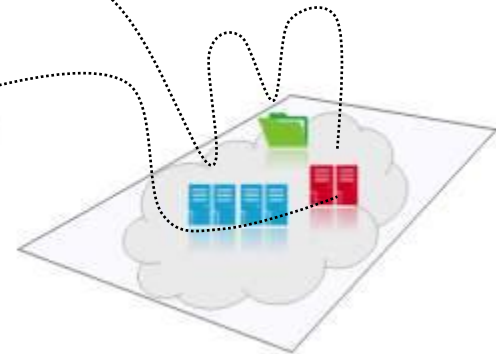
Across the interconnected business infrastructure and service chain...



Interconnected users and smart devices



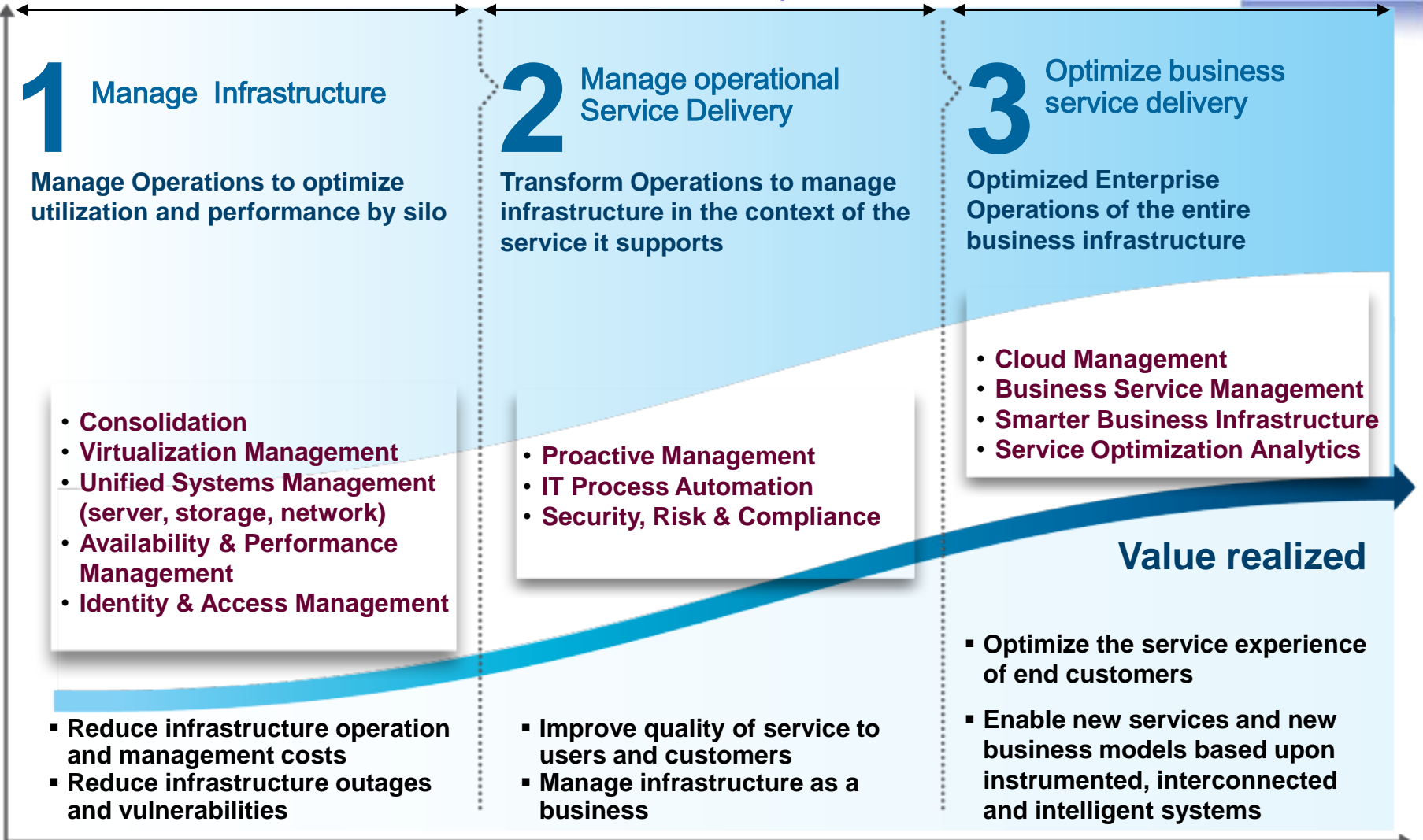
Highly virtualized, service-oriented architectures



Private & public delivery options, like Cloud & SaaS

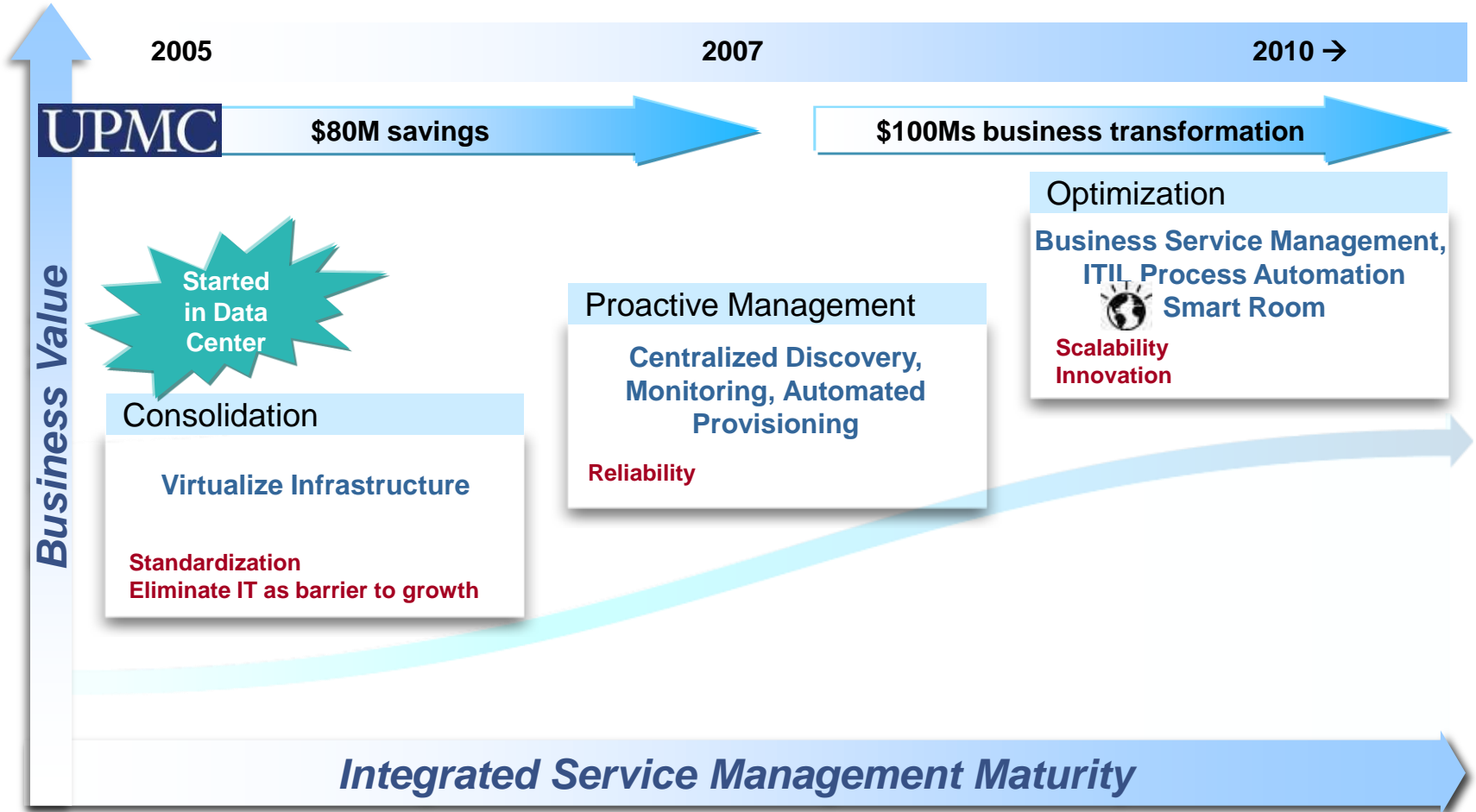
for
Data Centers

ISM as a progression can help you move to an optimized business service delivery model



University of Pittsburgh Medical Center journey

Providing & financing health care while exceeding targets for quality, cost & efficiency



\$8B / year, 50K Employees, 20 hospitals
Recognized for transplantation, cancer, neurosurgery, psychiatry, orthopaedics and sports medicine

ISM for zEnterprise: Focused solutions providing targeted value for increased agility and flexibility



Visibility

- Tivoli Application Management
- Tivoli Asset and Financial Management



Control

- Security
- Cloud and Lifecycle Management



Automation

- Tivoli Application Reliance
- Batch Modernization

Integrated Service Management



Monitor and manage application performance and availability of Business Services



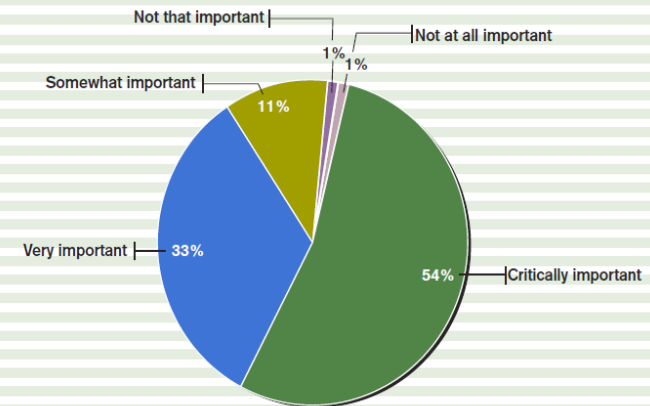
VISIBILITY

Tivoli Application Management for zEnterprise

- Create Agent-less discovery and mapping of interdependencies between applications, middleware, servers and network components
- Enhance End-To-End Application transaction tracking and deep dive analysis capability feeding up to a business view console
- Provide visibility to the status of your applications and alerting when performance doesn't meet expectations

Importance of Application Services

How important are application services in your environment?



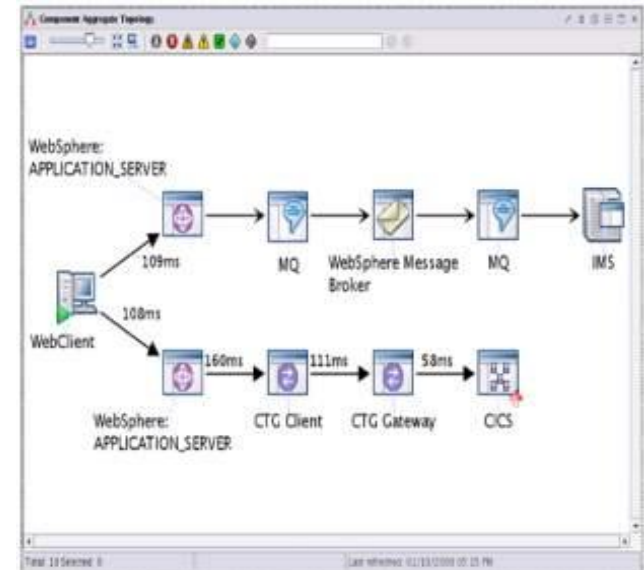
Data: InformationWeek Analytics Application Performance Management Survey of 320 business technology professionals

- Tivoli Business Service Manager
- OMEGAMON XE for CICS, DB2, Messaging and z/OS
- ITM and ITCAM for App Diagnostics, Transactions, Apps, SOA

Tivoli Application Management provides visibility to speed problem resolution and increase availability

Business Value:

- Improve productivity with single point of control
- Usage of analytics to manage heterogeneous platforms
- Simplifies and speeds up problem resolution
- Discover, isolate, diagnose and take action
- Reduce mean time to repair, reduce risk and lower costs



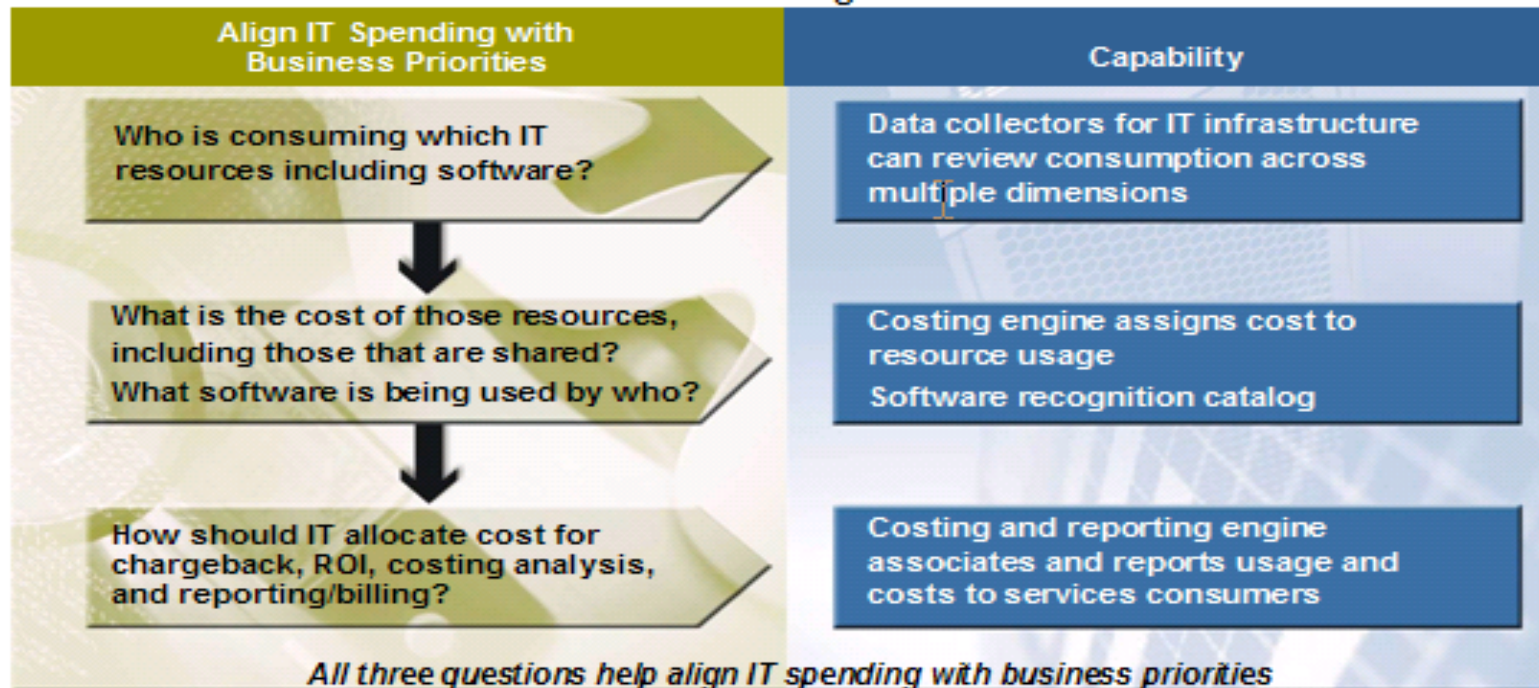
Tivoli Application Management for zEnterprise

- Ability to view, monitor and manage applications for physical and virtual machines
- Alerting capabilities for early detection of costly slow downs or outages
- **Reduce incident and capacity mgmt costs by 39%**



Provide centralized asset and cost visibility for shared business and IT resources

Tivoli Asset and Financial Management for zEnterprise

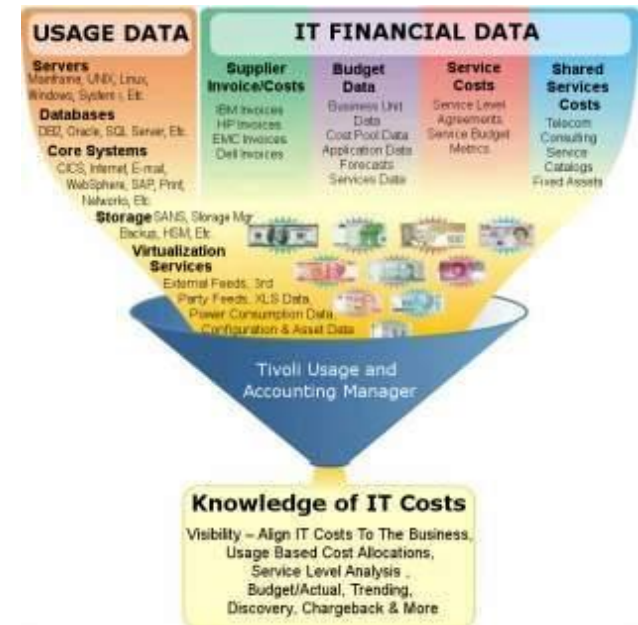


- Tivoli Usage and Accounting Manager (TUAM)
- Tivoli Asset Management for IT (TAMIT)
- Tivoli Asset Discovery for z/OS (TADz)
- Tivoli Decision Support for z/OS (TDSz)

Asset and Financial Management will be key for auditing and cost management

Business Value:

- Provide visibility of costs to determine profitability across lines of business, products and services
- Present an understanding of costs to help justify expenses and future investments
- Enable IT organizations to align costs with business objectives



Tivoli Asset and Financial Management for zEnterprise

- Visibility into software usage and compliance across heterogeneous resources
- Greater efficiency of resource usage
- Central view and management of requirements and costs
- **Reduce asset management costs by 77%**

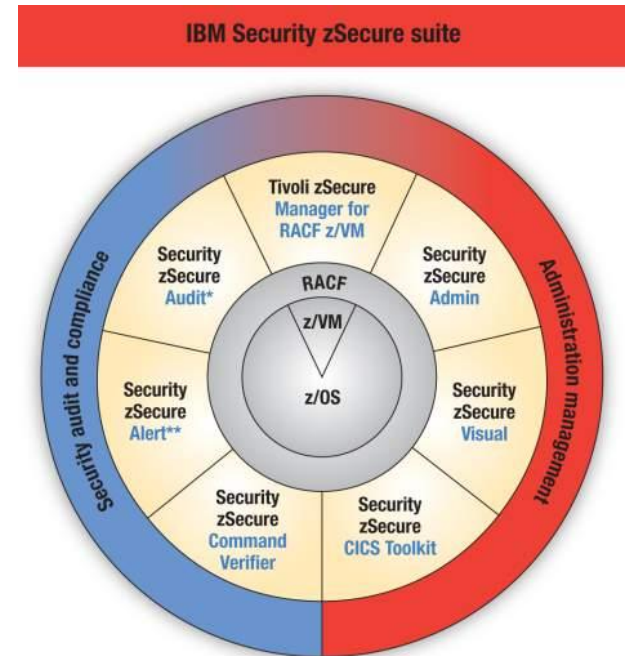
Enterprise Security Hub across production systems and consolidated virtual system workloads



CONTROL

Tivoli Security for zEnterprise

- Administer your mainframe security while helping reduce administration time, effort, and costs
- Monitor for threats by auditing security changes that affect z/OS, RACF, and DB2
- Increase capabilities in analyzing data from the mainframe for z/OS, RACF and DB2
- Provide auditing results in an efficient, streamlined manner for full enterprise-wide audit and compliance reporting
- Enforce Security Policy Compliance from a central source



*Also available for ACF2™ and Top Secret®

**Also available for ACF2

- Tivoli zSecure suite and Tivoli Security Management for z/OS
- Tivoli zSecure Manager for RACF z/VM
- Tivoli Federated Identity Manager for Linux on z
- Tivoli Access Manager Family

IBM Tivoli Security provides key customer capabilities in heterogeneous zEnterprise Cloud environments

Business Value:

- Simplify and automate routine security administrative tasks and decentralize administration control
- Require less training and frees up administrators for more important tasks.
 - **75% reduction in incidents that affect business and customer outage**
 - **98% reduction in time to mitigate incidents**
- Reduce costs and improve service with Identity and Access Controls
 - **Ability to reduce turn-on time for new users from 10 days to less than 24 hours**
 - **Up to 35% in reduced help desk calls**
 - **Up to 52% lower administrative costs**
- Support compliance efforts.
 - **Save up to 70% in security audit costs**



Norwich Union improved efficiency and reduced errors with security simplification



Business Challenge:

- Needed to facilitate compliance with identity and access management initiatives
- Needed strategic, robust solution to keep up with high demand for security and audit reports, and with often-complex security requests

Software Solution:

- IBM Tivoli zSecure Admin, enables efficient RACF administration with fewer resources
- IBM Tivoli zSecure Audit for RACF automatically analyses and reports on security events and exposures

Business Results

“IBM Tivoli zSecure software gives us a simple, powerful way to comply with identity and access management initiatives, and to assure auditors that preventative, detective and corrective controls are installed.”

Phil Secker, Security Support Manager, Norwich Union

Requirement for managing service delivery and provisioning for Cloud



Cloud and Lifecycle Management for zEnterprise

Deliver benefits thru standardization, automation and virtualization of services

- Achieve visibility and control in the cloud environment with service automation, provisioning, management, security and change
- Tailor your cloud environment to business and workload requirements
- Provide Service usage for financial accounting



- Service automation (Tivoli Workload Scheduler /System Automation)
- Provisioning (Tivoli Service Automation Management)
- Monitoring and management (OMEGAMON)
- Security (zSecure)
- Financial accounting (Tivoli User and Accounting Manager)

IBM Solution Edition for Cloud Computing provides a framework for delivering cloud on System z

Delivers a service automation management infrastructure for cloud computing on System z

- Quicker time to value - IBM services creates the private cloud framework on System z at the customer location and provides user training
- Easier implementation - cloud computing management software from Tivoli for automating and maintaining workloads in a cloud
- Greater efficiency - System z with z/VM & Linux provide the foundation to centralize, standardize & virtualize cloud computing workloads

Benefits:

- **Faster ROI**
- **Self service access to mainframe assets**
- **Reduced operations and labor expenses**
- **Internet scale**
- **Rapid provisioning of workloads**
- **Enterprise qualities of service for cloud workloads**

- Tivoli Service Automation Manager (TSAM)
- OMEGAMON XE on z/VM and Linux
- Tivoli Usage and Accounting Manager (TUAM)

Universita di Bari

Innovative Cloud Solutions

Wine Market

Support for 60 wineries to determine demand and get best market price

Fish Market

Electronic fish auction for fishermen while on boats

MoniCA

Logistics solution tracks and collects data real time

**Solution Edition
for Cloud
Computing**



Solve community challenges

BENEFITS to Clients

Cloud computing allows multiple organizations to tap into heavy-duty computing power at minimal cost.

It lowers the barrier for local businesses to benefit from this technology.



**UNIVERSITÀ
DEGLI STUDI DI BARI
ALDO MORO**

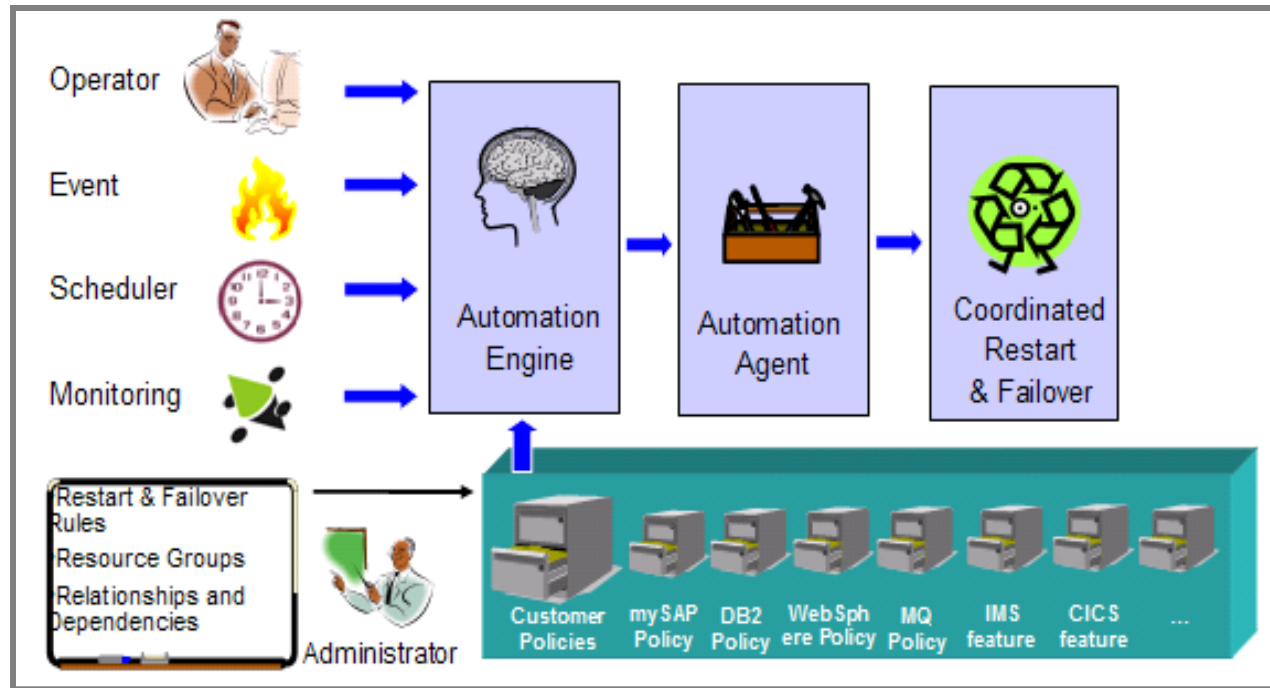
Universita di Bari, established in 1924, is developing cloud-based solutions for a consortium of companies and universities from five regions of southern Italy.





Optimize availability and resiliency of multi-tier, composite application environments

Tivoli Application Resilience for zEnterprise



- System Automation for z/OS, Multiplatforms, Application Manager
- System Automation for Integrated Operations Management
- Tivoli Workload Scheduler

Tivoli Application Resilience improves productivity and availability across an enterprise

Business Value:

- Maximize financial benefit and positive business reputation by maintaining the availability of customer facing applications
- Provide automation and application high availability regardless of platform or environment
- Reduce budgetary pressure while accepting additional workload by providing consistent actions/build organizational knowledge



Tivoli Application Resilience for zEnterprise

- Automated high availability and disaster recovery operations across multi-tier environments
- Central view and management of critical business processes
- **Increase productivity by about 70%**

FIDUCIA banks take advantage of System z system automation for increased business availability



Business Challenge:

- Improve availability in their mainframe environment by adding a system automation solution
- Reducing the risk that unplanned outages could threaten availability

Software Solution:

- Tivoli System Automation for z/OS provides policy based automation capabilities
- NetView automated operations so that System z can run almost completely unattended

Business Results

- ***Helps to ensure high availability in case of faults or outages***
- ***Centralizes system administration and message management***
- ***Enables smooth integration with other Tivoli products***

"The IBM system automation solution helps us deliver the high-availability services our customers expect." FIDUCIA IT AG

Provides single point of governance with fit-for-purpose batch

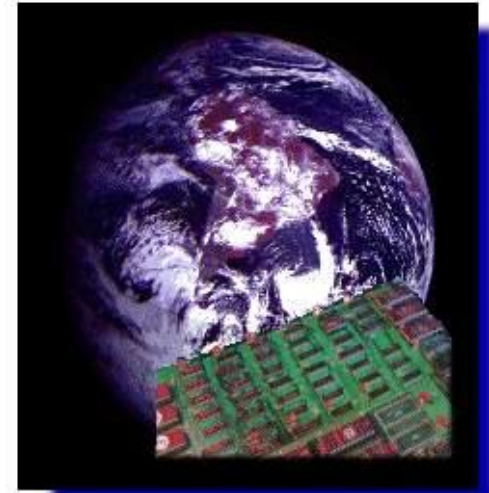


AUTOMATION

Batch Modernization for zEnterprise

Balancing batch and online processing for better business efficiency

- Allows mixed end-to-end applications served by heterogeneous resources that includes System z and distributed
- Requires no rewriting/transforming of applications, but rather reusing, integrating new and traditional, and run applications where they best fit
- Implements an end-to-end heterogeneous model with Tivoli Workload Scheduler focused on fit-for-purpose deployment



- Tivoli Workload Scheduler
- Tivoli Workload Scheduler for z/OS, Applications

Batch Modernization provides workload optimization and maximizes batch/online flexibility

Business Value:

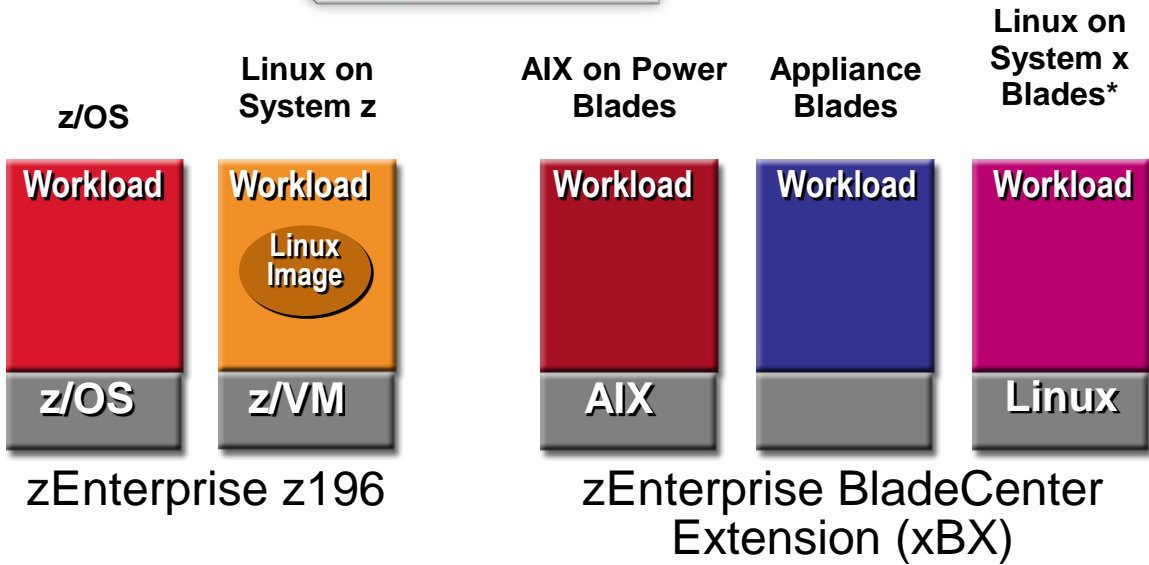
- Increased productivity by running batch jobs across heterogeneous resources from a single management console.
- Manage dependencies and maintain central point of control across platforms from single console.
- Decrease downtime with parallel processing and policy-based execution of heterogeneous workloads
- Minimize TCO and disruption for managing distributed workloads in mainframe-centric mode
- Simplify updates with reuse of processes and procedures already in place

Fit-for-purpose

Adapt to a fit-for-purpose distribution of workloads



zEnterprise provides broadest architectural support for virtualization



Unified Resource Manager

Fit-for- Purpose Strategy

- Assign workloads to the environment that best satisfies requirements

Integrated Service Management

- Visibility
- Control
- Automation

Achieves overall lowest cost per workload

Integrated Service Management for zEnterprise

Providing improved economics for heterogeneous enterprise environments

zEnterprise Value

- Linux image on z196 obtained for as little as \$1 per day
- zEnterprise can manage over 100,000 Virtual Machines
- Compared to a z10, Linux workload on a z196 has up to 60% more performance at 30% less cost



+

Tivoli Value



- Improve performance and end-to-end view of data center.
- Gain visibility into utilization to improve availability
- Reduce complexity by consolidating consoles
- Decrease time to process common service requests
- Minimize errors by automating manual processes
- Respond faster to business needs, improve agility and lower costs

zEnterprise with Integrated Service Management provides built-in ability to manage your virtual environment

- Manage heterogeneous virtualized environments with one tool set
- Integrated virtual and physical server platform management
- Simplify virtual machine management and relocation across all IBM server families

Integrated Service Management

Service and Platform Management Across Heterogeneous Environments

**z/OS
z/VM**

1987-IBM
announces LPAR
on the
mainframe

Power

2004-IBM intro's
POWER
Hypervisor™ for
POWER™
server

X-86

2008 – IBM
expands x86
virtualization to
support multiple
hypervisors

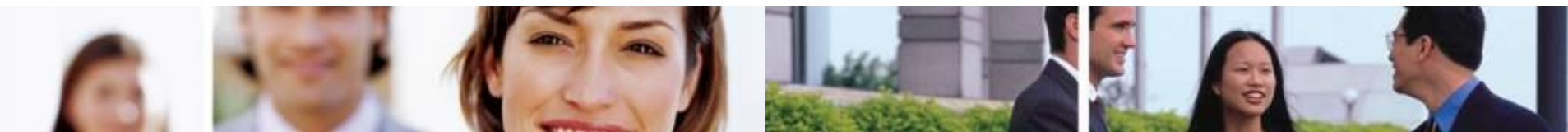
Unified Resource Manager

Server, Network and Storage

Providing Smarter Computing Intelligence and Insights to enable better workload optimization

IBM can help you assess where you are today, and keep up with where industry is going

- *Join IBM Academic Initiative to enhance staff productivity:*
 - [Training on Integrated Service Management and System z](#)
- *Receive ISM for zEnterprise information updates on a regular basis:*
 - [IBM Software Newsletter](#)
- *Leverage Integrated Service Management information:*
 - [Integrated Service Management for System z](#)
 - [Service Management Strategy & Design](#)
- *Take advantage our of FREE self-assessment tool:*
 - [Integrated Service Management Self-Assessment](#)





Thank
You