IBM Integrated Service Management for System z

Changing the Economics of Service Delivery

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IBM's Integrated Service Management approach provides capabilities to optimize a System z environment

- Integrated Service Management will be critical in today's fast changing heterogeneous business environment

- zEnterprise provides improved economics for handling new complex business services

- Integrated Service Management for zEnterprise delivers capabilities for optimizing usage of Smarter Services

Smarter Services are transforming industry business models

Smarter Services

Innovative business and IT services that leverage <u>instrumented, interconnected and intelligent assets, devices and information technology</u> to improve the end user experience, while dramatically driving down cost and risk.

Smarter services are disruptive by design because they transform the way services are delivered, enabling unique and often entirely <u>new industry business models</u>, previously not possible.

Smarter
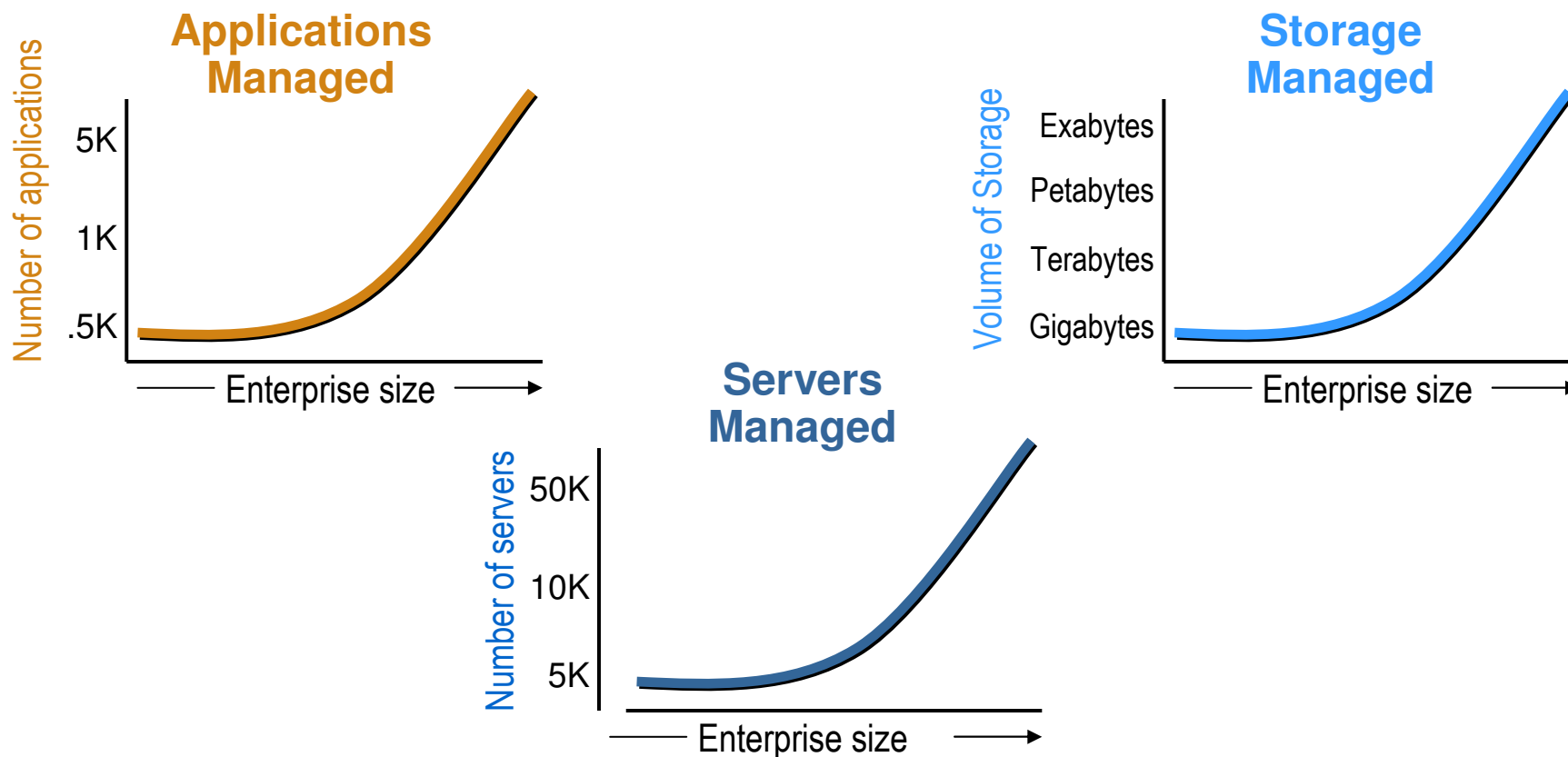Banking
Services

Smarter
Government
Services

Smarter
Energy
Services

Smarter
Cloud
Services

Better management of Smarter Services across your enterprise can provide new market opportunities

70% of IT budgets today are consumed by maintaining existing operations vs. evolving to meet new business challenges and market opportunities

Applications Managed

Number of applications: 5K, 1K, .5K
Enterprise size

Storage Managed

Volume of Storage: Exabytes, Petabytes, Terabytes, Gigabytes
Enterprise size

Servers Managed

Number of servers: 50K, 10K, 5K
Enterprise size

In today's economic environment, clients are telling us they face three key service management demands:
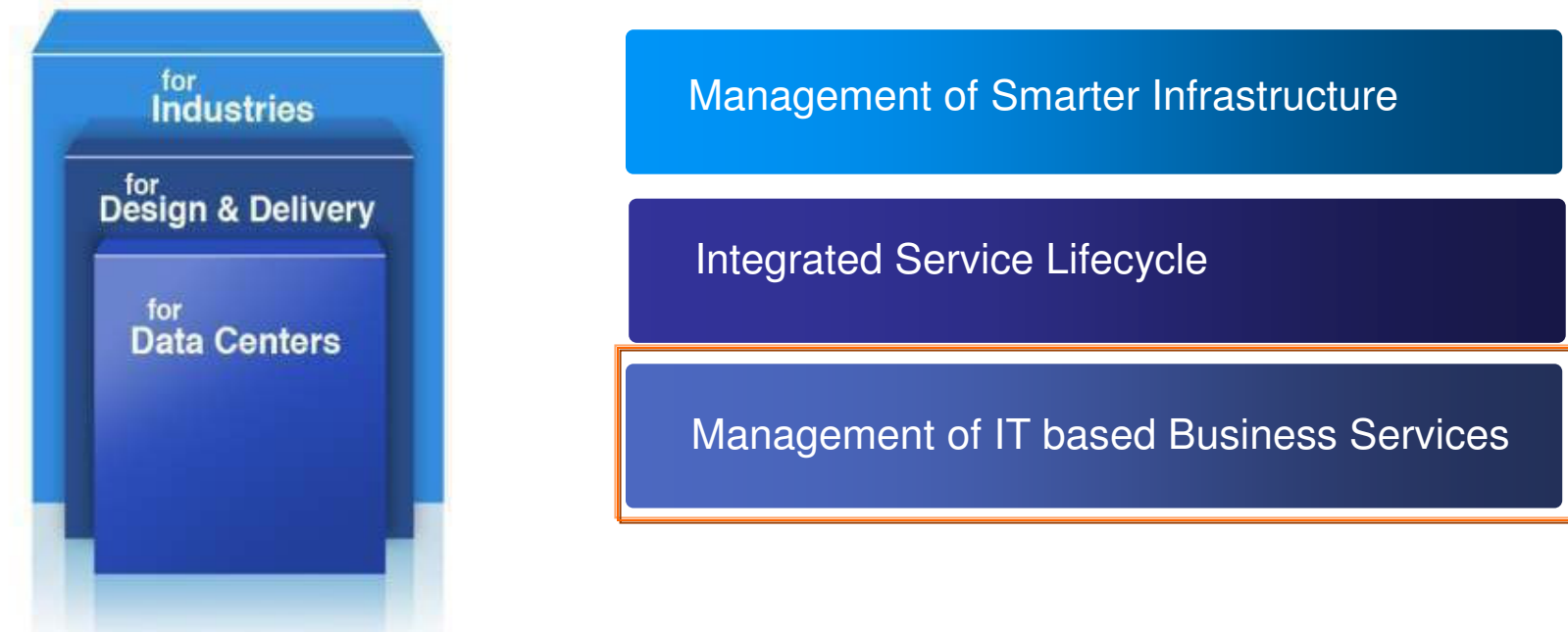
- **Higher service expectations**
  - Improve efficiencies across the business
  - Ability to respond to new opportunities quickly

- **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) can mitigate business risk and drive faster ROI

ISM provides an single end-to-end enterprise vision

Integrated Service Management

for **Industries**

for **Design & Delivery**

for **Data Centers**

Management of Smarter Infrastructure

Integrated Service Lifecycle

Management of IT based Business Services

With System z focused at the Data Centers

Integrated Service Management (ISM) for System z provides Enterprise-wide Service Delivery

Integrated Service Management

Capabilities:
- Software
- Systems
- Best Practices
- Expertise

Support for:
- Infrastructure
- People
- Processes

providing

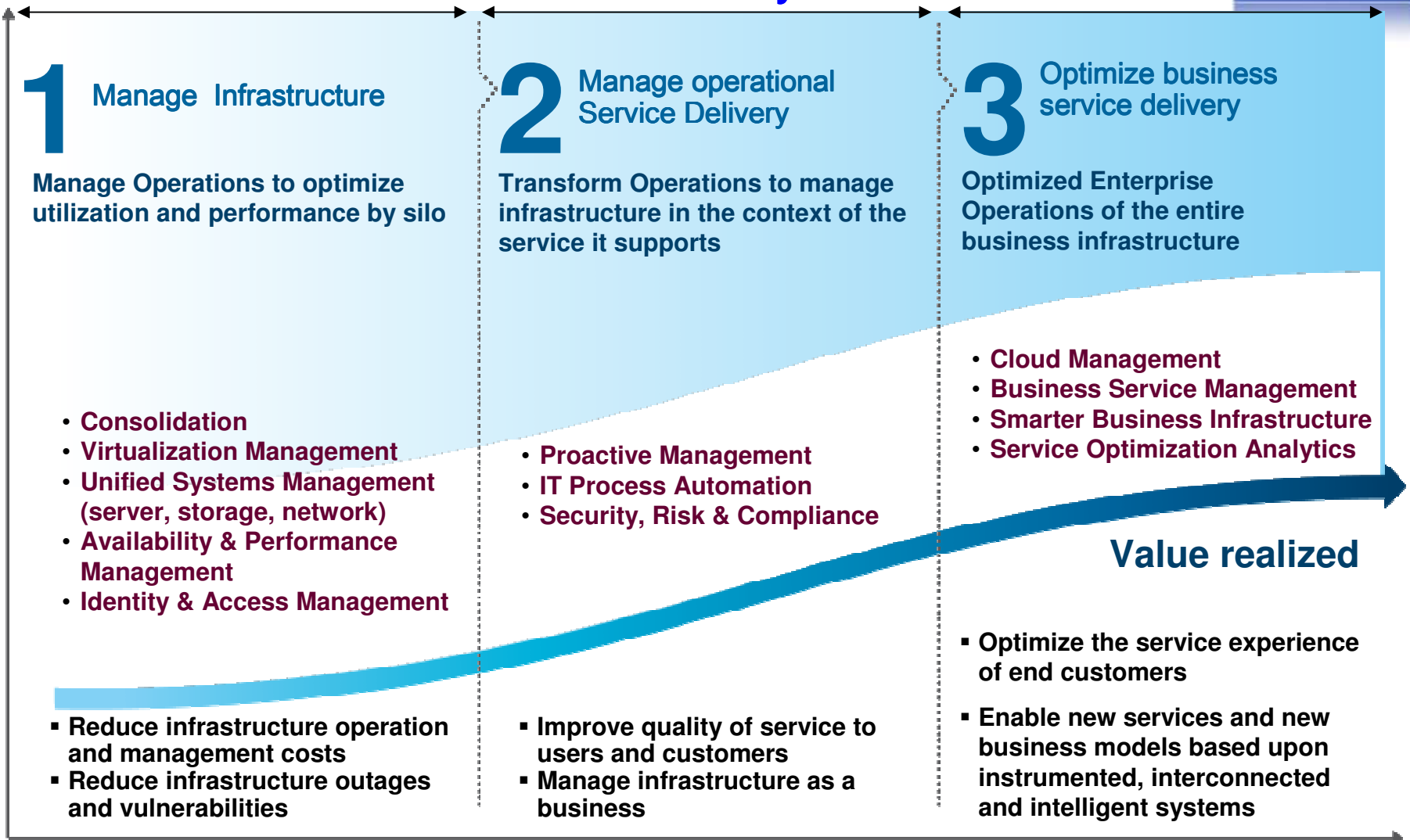**End-to-end VISIBILITY to provide understanding**

CONTROL to reduce costs

AUTOMATATION to improve efficiency and accuracy

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

for Data Centers

1 Manage Infrastructure

Manage Operations to optimize utilization and performance by silo

2 Manage operational Service Delivery

Transform Operations to manage infrastructure in the context of the service it supports

3 Optimize business service delivery

Optimized Enterprise Operations of the entire business infrastructure

- **Cloud Management**
- **Business Service Management**
- **Smarter Business Infrastructure**
- **Service Optimization Analytics**

- **Consolidation**
- **Virtualization Management**
- **Unified Systems Management (server, storage, network)**
- **Availability & Performance Management**
- **Identity & Access Management**

- **Proactive Management**
- **IT Process Automation**
- **Security, Risk & Compliance**

Value realized

- ▪ **Optimize the service experience of end customers**
- ▪ **Enable new services and new business models based upon instrumented, interconnected and intelligent systems**

- ▪ **Reduce infrastructure operation and management costs**
- ▪ **Reduce infrastructure outages and vulnerabilities**

- ▪ **Improve quality of service to users and customers**
- ▪ **Manage infrastructure as a business**

University of Pittsburgh Medical Center journey
Providing & financing health care while exceeding targets for quality, cost & efficiency

UPMC

2005　　　　　　　　　　**2007**　　　　　　　　　　**2010 →**

UPMC　　**$80M savings** →　　　**$100Ms business transformation** →

Optimization

Business Service Management, ITIL Process Automation Smart Room

Scalability Innovation

Started in Data Center

Proactive Management

Centralized Discovery, Monitoring, Automated Provisioning

Consolidation

Reliability

Virtualize Infrastructure

Standardization
Eliminate IT as barrier to growth

Business Value

Integrated Service Management Maturity

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

System z gives IBM clients Competitive Advantage

*e.g., in Banking and Financial Services … System z clients, on average, realize: ***

49% more income per employee for retail banking

48% less IT spend per employee for deposits

31% less IT spend per customer loan

65% less IT spend as a percent of revenue for credit card services

18% less call center IT costs as a % of expenses

65% less cost per teller transaction

Based on an analysis of actual IT spend and business performance, comparing companies with greater than average mainframe mix vs. less than average mainframe mix.

--* *Dr. Howard Rubin, CEO and Founder Rubin Worldwide*

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

IBM zEnterprise extends System z
Best in Class Systems and Software Technologies

The world's fastest and most scalable system:
IBM zEnterprise™ 196 (z196)

Ideal for large scale data and transaction serving and mission critical applications

Scale out to a trillion instructions per second:
IBM zEnterprise BladeCenter® Extension (zBX)

High performance optimizers and appliances to improve integration and reduce cost

Unified management for a smarter system:
IBM zEnterprise Unified Resource Manager (zManager)

Unifies management of resources, extending IBM System z qualities of service end-to-end across workloads

z196 delivers up to 60% faster performance per core than z10 for new workloads.

ISM for zEnterprise ensures service quality and integrity across hardware and software

for Data Centers

ISM extends across all zEnterprise service management layers

Integrated Service Management

Providing

Service Lifecycle Management	Higher Quality Lower Risk	
Platform Management	Productivity Savings	
Systems & Hardware	CapEx Savings	

VISIBILITY   **CONTROL**   **AUTOMATATION**

zEnterprise Unified Resource Manager (zManager)

Consolidation & virtualization on zEnterprise

Workload-optimization on zEnterprise
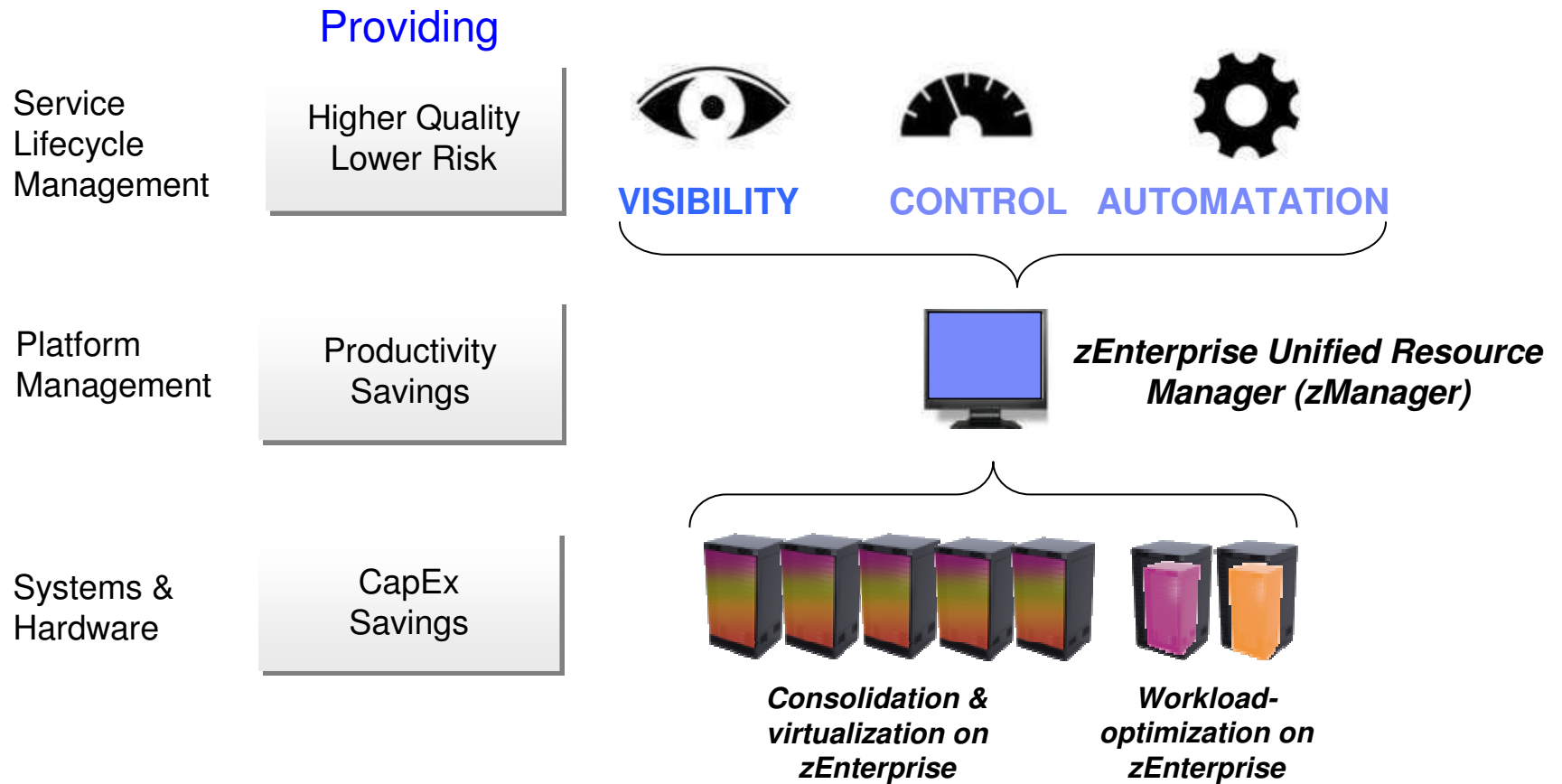
Monitor and manage application performance and availability on zEnterprise

VISIBILITY

Tivoli Application Management for zEnterprise

Business Value:

- Improved productivity with single point of control to manage business service policies across domains

- Usage of analytics to manage heterogeneous platforms

- Simplifies and speeds up problem resolution for higher system availability

- Discover, isolate, diagnose and take action to ensure application performance meets SLAs

- Reduce mean time to repair, reduce risk and lower costs

Bank of Russia saved $400M/yr by reducing payment processing costs 95% consolidating onto System z

Business Challenge:

- Variety of local payment processing systems running on more than 200 distributed servers in 74 data centers across 11 time zones
- Significant challenges in terms of operational efficiency, technical support, and security.

Software Solution:
- WebSphere MQ, WebSphere MQ for z/OS, Tivoli OMEGAMON for z/VM

Business Results:

- *Payment processing costs have been reduced by 95 percent, saving US$400 million per year.*

- *Workload for technical staff has been reduced by 85 percent*

orporation

Enterprise Security Hub across production systems and consolidated virtual system workloads

CONTROL

Tivoli Security for zEnterprise

Business Value:

- Simplify security administration and provisioning:
  - Reduce administration time, effort and cost
  - Quick response time enabling agile business processes
  - Reduce training time needed for new administrators
- Automate audit, monitoring and compliance:
  - Pass audits more easily, improve security posture
  - Save time and costs through improved security and incident handling to manage risk

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 on zEnterprise

AUTOMATION

> **Cloud and Lifecycle Management for zEnterprise**

System z has supported virtualization for years and is perfect platform for cloud

Deliver Cloud benefits thru standardization, automation and virtualization of services

Business Value:

- 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

Smart Analytics Cloud in the IBM Corporation

> *Our commitment to informed decision making led us to consider private cloud delivery of Cognos via System z, which is the enabling foundation that makes possible **more than $20M savings over 5 years**.*
>
> – IBM CIO Office

Business Results:

- Consolidating 20+ multi-product, departmental BI deployments to Cognos 8 BI on System z

- Deploying private cloud self service to support 200,000+ users across global workforce

- 56% cost savings per user (grows with volume)
  - $7,775,767 – Infrastructure cost savings realized with z10 technology
  - $2,558,525 – Business Intelligence Competency Center (BICC) cost savings

> *"What IBM has done is come up with a perfect application for a private cloud."*
>
> *– John Webster, CNET, Nov. 18, 2009*

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

Linux

z/VM

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.

Press release: http://www-03.ibm.com/press/us/en/pressrelease/32051.wss

A look ahead…
Integrated Service Management and zEnterprise

Integrating heterogeneous environments – its what we do!

- **Automating workload deployment to the zEnterprise heterogeneous environment according to desired service objectives**

  - Query, create, & delete workloads and associated policy for virtual servers, storage and network

  - Optimize placement of workload elements based on platform capabilities and cost

    - Capacity, energy utilization, security, performance or availability

Bridging application and business services capabilities across heterogeneous workload context for visibility, control and automation

Integrated Service Management for zEnterprise
Providing improved economics for heterogeneous enterprise environments

Integrated Service Management

for Industries

for Design & Delivery

for Data Centers

IBM Advantages

✓ Visibility. Control. Automation™ with *SINGLE POINT OF CONTROL across heterogeneous platforms*

✓ *Reduced cost with consolidated management of IT infrastructure*

✓ *Improved productivity with lower training and maintenance requirements*

✓ *Integrated, consolidated auditing, reporting and financial control*

✓ *Smarter Services 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