



# 2007 System z Summit

DESTINATION z





# Aligning End to End Management, Security and Costs with Enterprise Business Services

Al Zollar

General Manager, IBM Tivoli Software

Mark Lynch

Tivoli Usage and Accounting Manager

**DESTINATION z**



# Today's Agenda

- *IBM Service Management: Enabling organizations to improve efficiency, increase business value and grow*
  - **AI Zollar**
  
- *Accurately Aligning System z Costs with Enterprise Business Services*
  - **Mark Lynch**
  
- Recap and session wrap up
  - **AI Zollar**

**Tivoli.** software

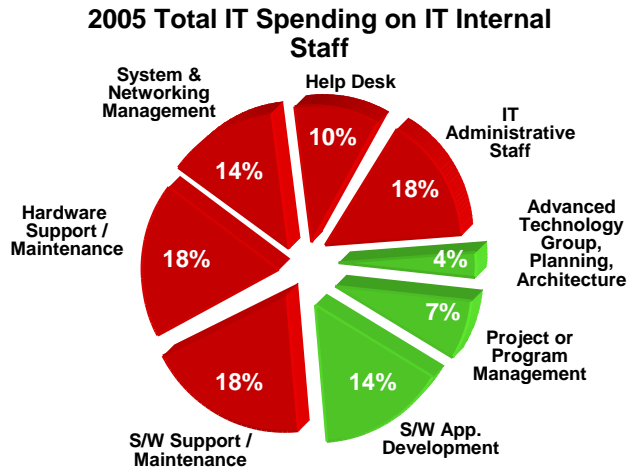


**The IBM Mainframe.**

Building on the past, defining the future.

# Challenges with IT Effectiveness and Efficiency

Labor continues to comprise over 70% of IT Operations spending:



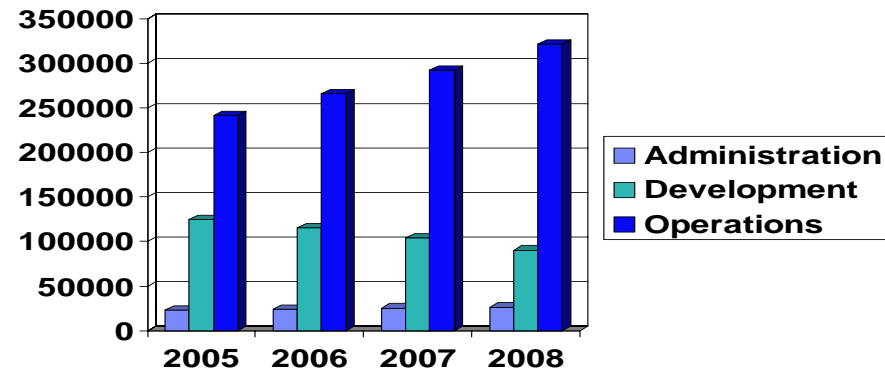
IT Operations spending not aligned with Business Objectives:

- Overall IT budgets grew smaller than corporate revenues in 2006 – requiring improved IT efficiency to meet demand
- 77% of firms rated improving IT efficiency as the most important operational priority in 2006
- IT Operational Labor spend will be \$260B in 2007

IT Organizations cannot keep pace with change and complexity

- 85% of problems are caused by IT making changes to the environment
- SOA, Virtualization and composite applications increase complexity
- Customers become the IT Systems Test Team
- Complexity exposes lack of integration across IT organizations

Increases in operations expenses take away from new innovation



# The Business Cost of Poor Service Can be Staggering

**FT.com**  
FINANCIAL TIMES

**FRONT PAGE – COMPANIES AND MARKETS:  
Software bug hits electronic trade at LME**  
By Kevin Morrison, Commodities Correspondent  
Financial Times, Nov. 07, 2006

**khou.com**

**Cingular users dropped during  
system failure in Galveston Co.**  
08:28 AM CST on Thursday, February 15, 2007

**THE WALL STREET JOURNAL.**

June 23, 2006  
**Glitch Locks Ameritrade Users  
Out of Their Trading Accounts**  
By Gaston F. Ceron

**denverpost.com**

**CHAOS: Voting Extension Denied Amid Massive  
Computer Problems in Colorado**  
By George Merritt and Jeffrey Leib, Denver Post Staff Writers  
November 07, 2006

**Air-traffic system outage grounds flights  
Planes nearly came too close together; glitch  
causes Miami delays**  
Associated Press  
Updated: 3:30 p.m. ET Dec. 5, 2006



November 24, 2006  
**Wal-Mart website shuts down  
on Black Friday morning**  
By CNN's Katy Byron

**abc NEWS**

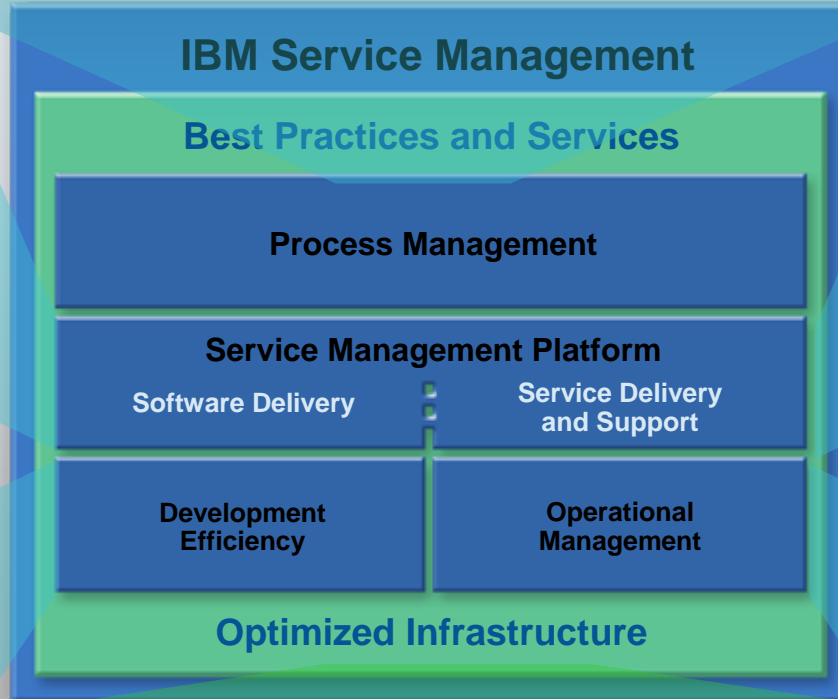
**iTunes back to normal after  
holiday traffic quadruples**  
ABC News: December 28, 2006

**CNN Money.com**

# Delivering Value with IBM Service Management

*Architected to clarify prioritization and improve efficiency*

**Enable service priority and leverage best practices:**  
 Process management supports organization alignment with business goals



**Bridge silos and reduce friction:**  
 Provides a collaborative team-based software delivery platform to reduce friction

**Visibility to information & service context:**  
 Service delivery and support platform serves as the foundation for automation

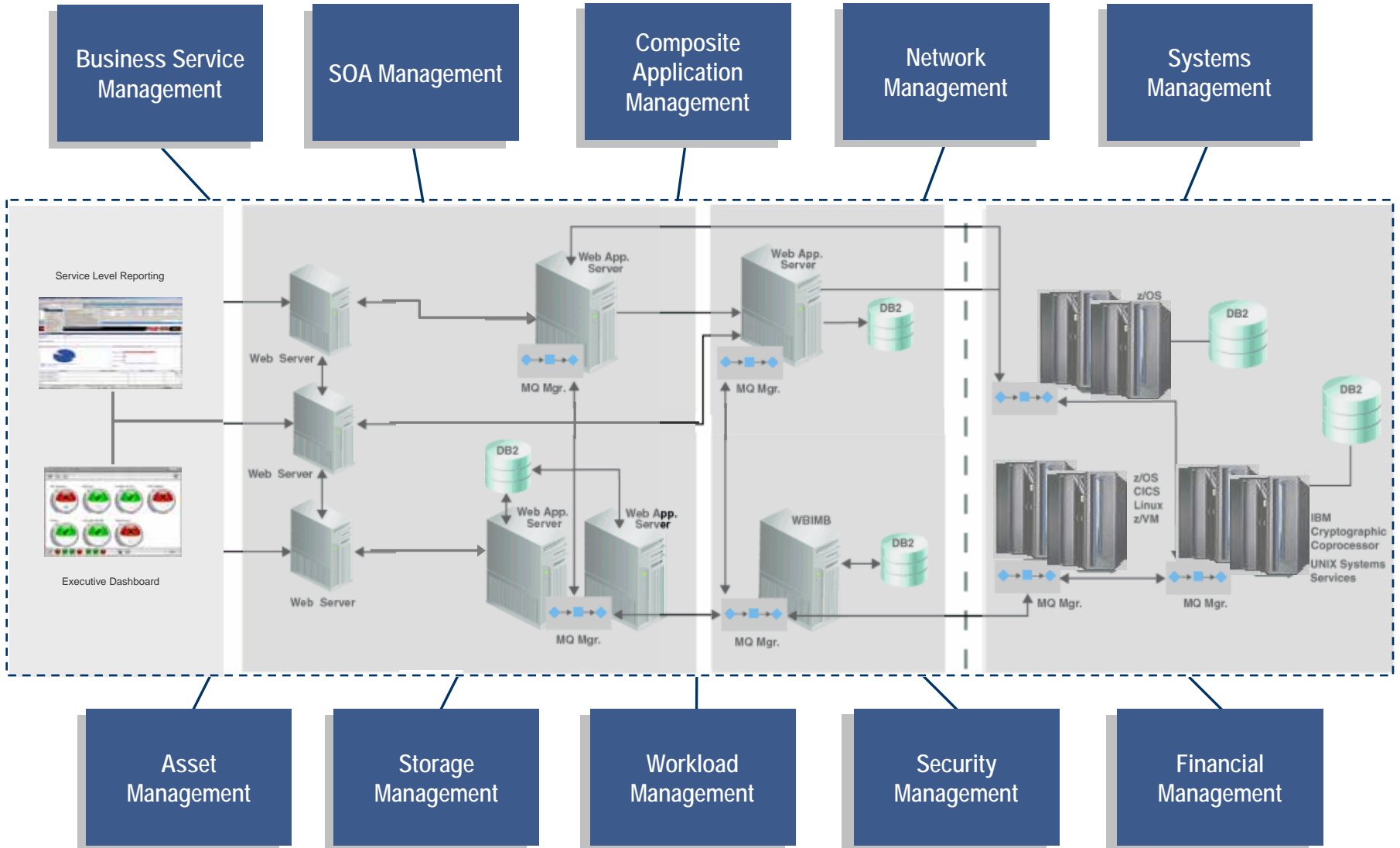
**Accelerate tasks and improve effectiveness:**  
 Automate development and delivery tasks

**Receive service context:**  
 Operational management products deliver task level automation

**Gain insight, establish best practices:**  
 Identify opportunities for added efficiency, business value and growth

**Optimize IT:** flexible, reliable, available, and secure infrastructure

# End to End Enterprise Management from Tivoli



# IBM Tivoli System z Business: Strong and Growing

## Highlights of key customer deliveries since we last met:

### Availability solutions

- Complete upgrade to the OMEGAMON, ITM and ITCAM portfolios featuring:
  - Globalization for the worldwide user community
  - Enhanced infrastructure services and installation experience
  - Comprehensive operations support across the portfolios based on the Enterprise Portal
  - Out of the box cross product integration delivering more seamless navigation experience

### Security solutions

- Brought the Identity Management solution to the z/OS platform
- Enhanced the security configuration and administrative experience
- Provided practical governance and compliance capabilities

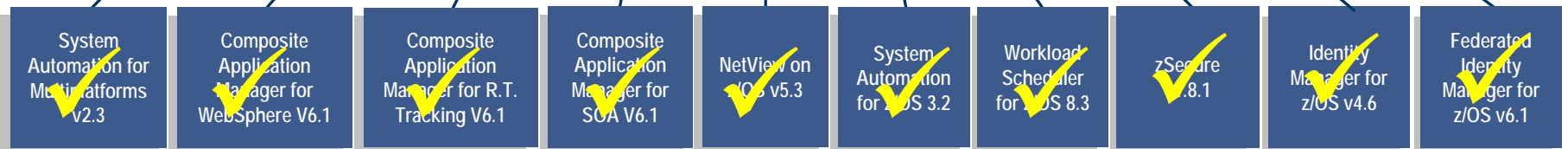
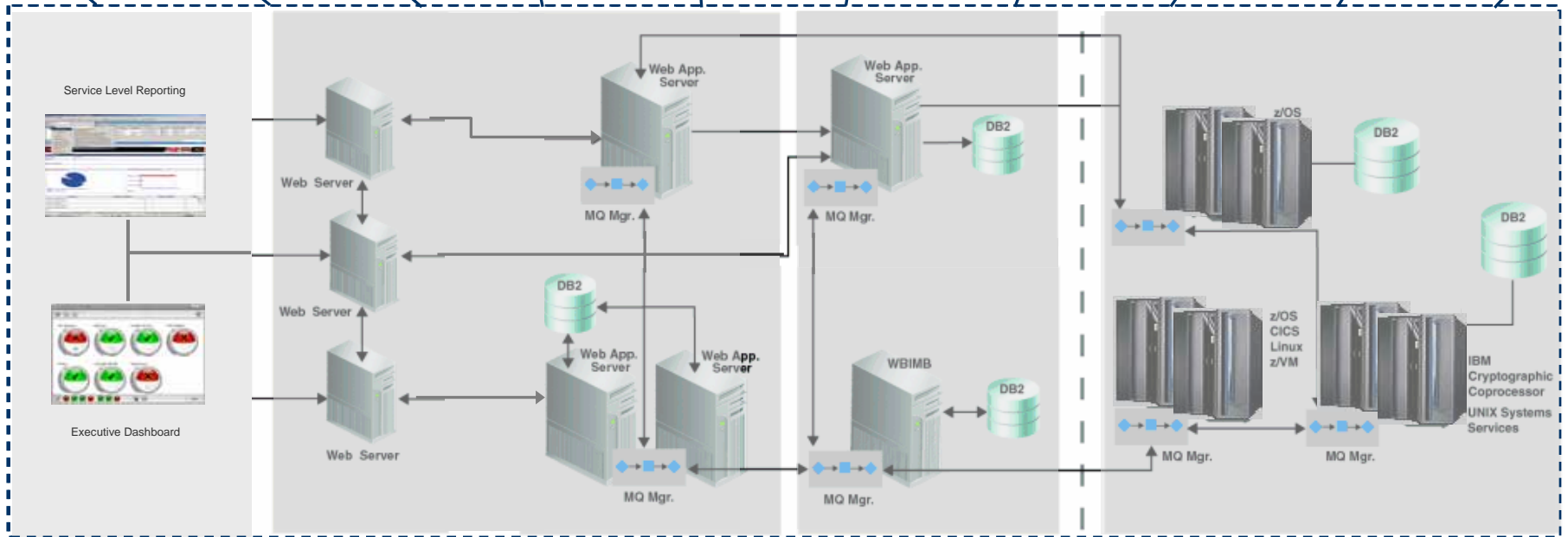
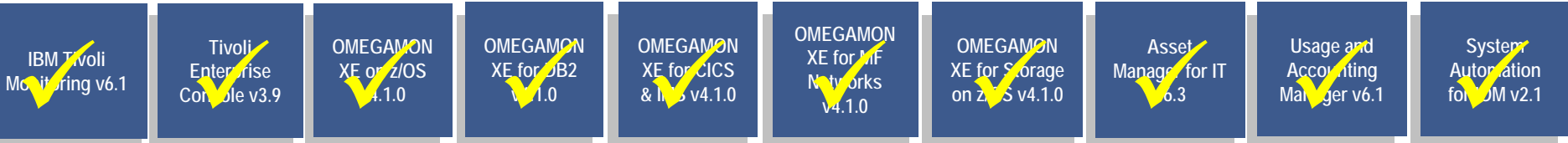
### Business Service management solutions

- Expanded Asset Management beyond IT
- Revitalized Business Service Management with new technology and more powerful visualization
- Provided the tools and capabilities for identifying and gaining control of the costs of IT



# End to End Enterprise Management from Tivoli

## System z Inclusive



# Customers Succeed with IBM Tivoli



## Business Need

Banca March was embarking upon a rapid growth strategy, which included a 30-branch expansion, and its systems would not accommodate such growth

## Solution for Growth

Banca March revamped its infrastructure, choosing the powerful IBM DB2 for z/OS V8 data server running on an IBM eServer zSeries 900.

In addition to implementing a suite of IBM DB2 tools, Tivoli OMEGAMON XE for DB2 Performance Expert, Tivoli OMEGAMON XE for CICS, and Tivoli Workload Scheduler for z/OS are used to optimize the performance and help ensure Banca March gets the most out of its IT investment



## Business Need

Mayo Clinic's use of disparate software tools to manage its systems resulted in incompatibility with the applications. They were spending valuable time and resources getting them to function properly and realized they needed a solution that would support their growth, reduce costs and help the clinic operate more efficiently.

## Customer Benefits

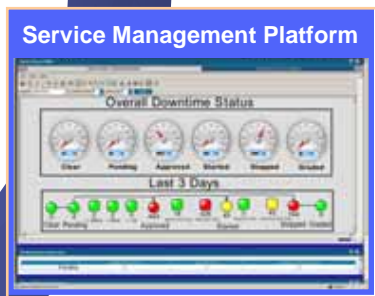
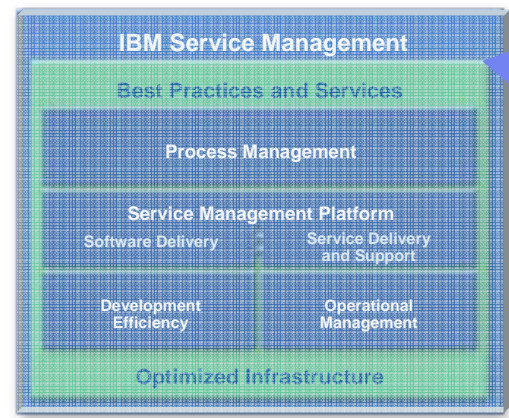
Mayo Clinic turned to IBM for their solution. Using IBM System z9 Enterprise Class servers, zIIP technology and Tivoli for their monitoring and management needs, their environment now provides the interoperability and flexibility to meet their business needs.

# IBM Service Management: Delivers the ability to help customers answer three critical questions



## 1. What's happening with the infrastructure?

- Server monitoring
- Storage monitoring
- Network monitoring
- Data monitoring
- Application monitoring

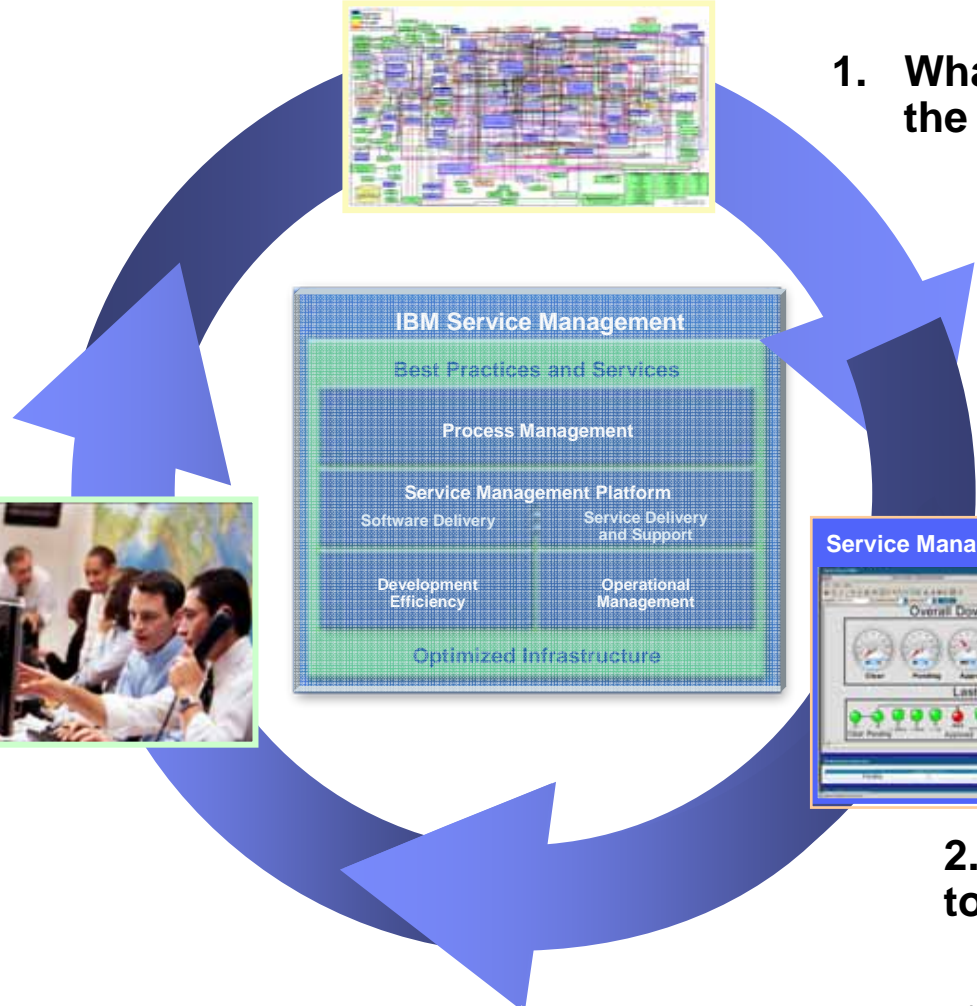


## 2. How does this relate to the business service?

- Dashboard
- Business service management
- Service level management
- Infrastructure and application discovery and mapping

## 3. What actions do we take?

- System reconfiguration
- Data restore
- User identity provisioning
- System and application restart
- Infrastructure deployment



# Business Dashboard: Single Effective Management Interface\*

The screenshot displays the Tivoli Business Dashboard interface. At the top, there is a navigation bar with 'Tivoli', 'Service View', 'Desktop', 'Go', and 'Logout' buttons. The main content area is divided into several sections:

- Service Tree:** A hierarchical tree view on the left showing regions like DESERT MOUNTAIN, GREAT LAKES, MOUNTAIN MIDWEST, TEXAS, and their sub-branches. Each node has a green status indicator.
- Realtime Business Indicators:** A large table on the right showing key performance indicators for each region and branch, including Online, Offline, INV. Offline, and various transaction times (TT, ART).
- Realtime Service Health Indicators:** A smaller table below the Service Tree showing the health status of specific services (AU\_01185, AU\_05728, AU\_07611).
- Service Details:** A section with tabs for SLA, Events, and Rules. Below this is a detailed table of service performance metrics for a specific region (OREGON / CLARK CC).
- Performance Detail Information:** A table showing granular performance data for each service instance, including ReportTime, Online/Offline status, and various performance metrics.

Annotations with arrows point to these key areas:

- Realtime Business Indicators:** Points to the top table of regional KPIs.
- Realtime Service Health Indicators:** Points to the table of service health status.
- Service Detail Information:** Points to the detailed service performance table.
- Performance Detail Information:** Points to the granular performance data table.

\* from a Leading North American Retail Bank

# Service Visualization – Insight into Business Service Status

Real-time, business-relevant KPIs and metrics

Real-time and historical reports on how the service is impacting business

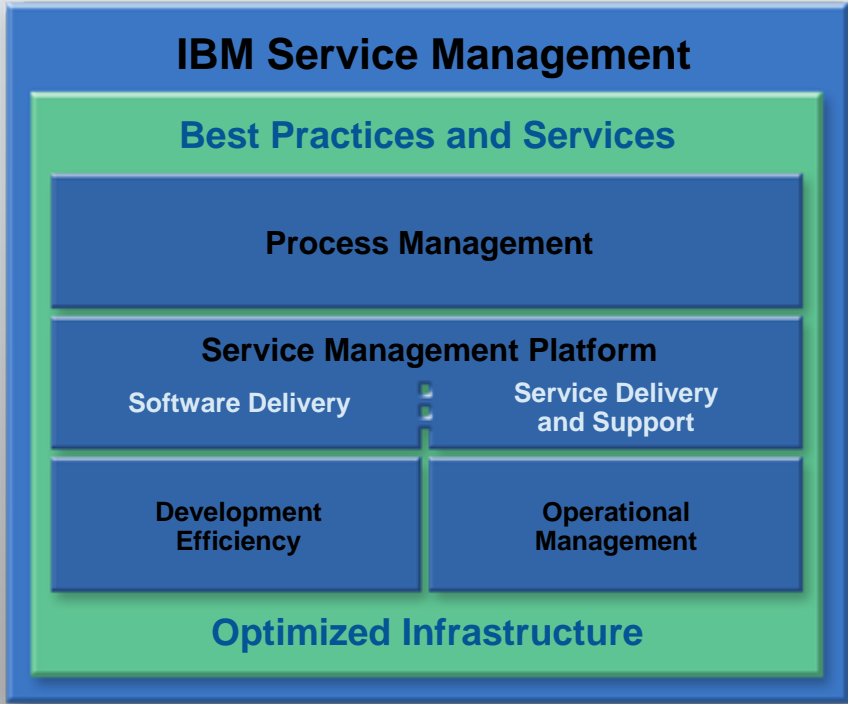
Current status of key services that drive business

Metrics and data integrated from external sources to aid in decision-making



*Make better decisions based on the overall status of key business services*

# Delivering Customer Value with IBM Service Management



# Extending Client Value Across Management Disciplines



## Service management for converged networks



Network management



Network performance and wireless

## Service deployment



Automated provisioning



Service delivery and support



Change and configuration management

## Service asset management



Software asset management



IT asset management and enterprise asset management

## Governance and security



Software usage metering



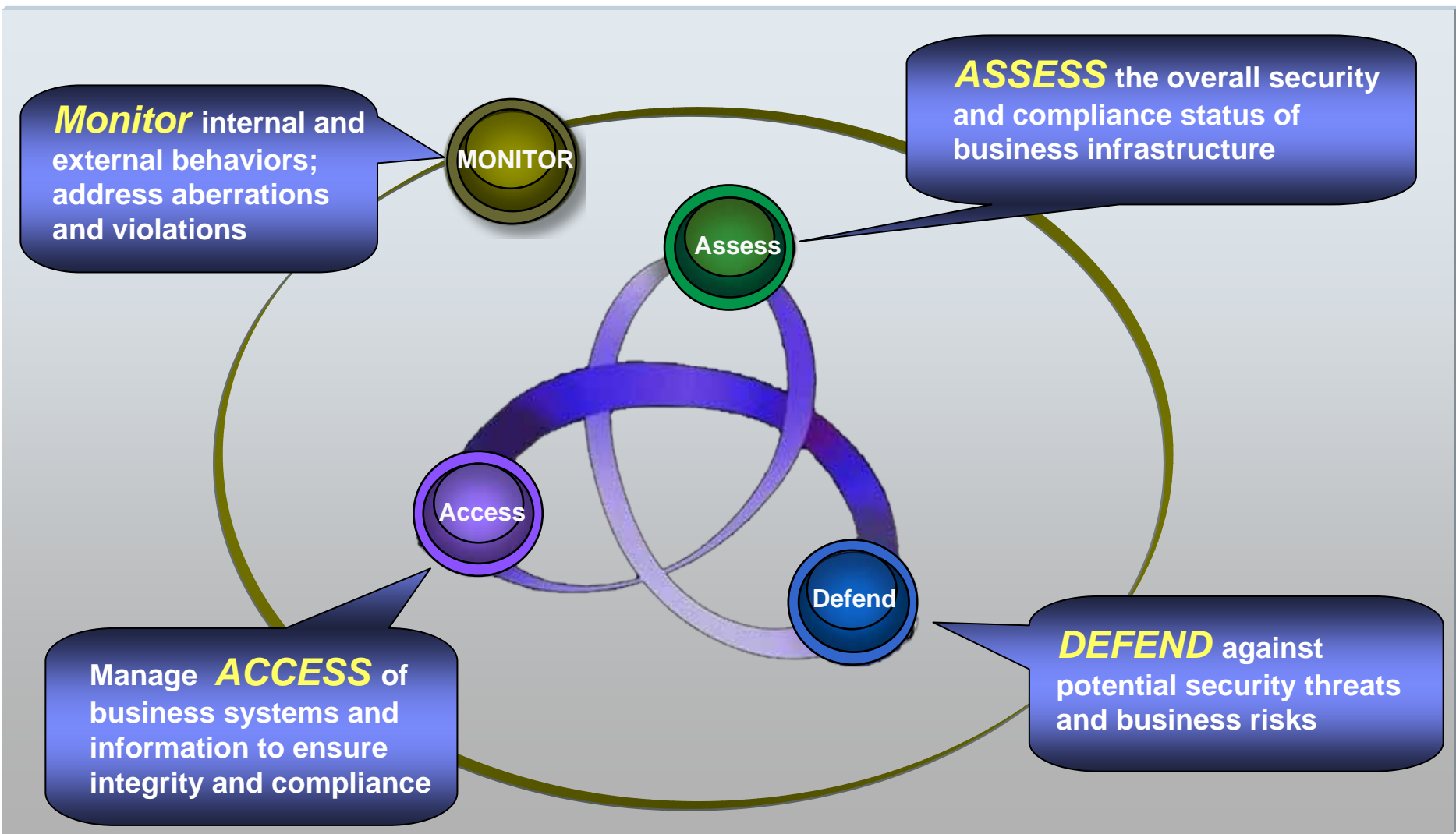
Administration and compliance



Internet security

# IBM's security management vision and strategy

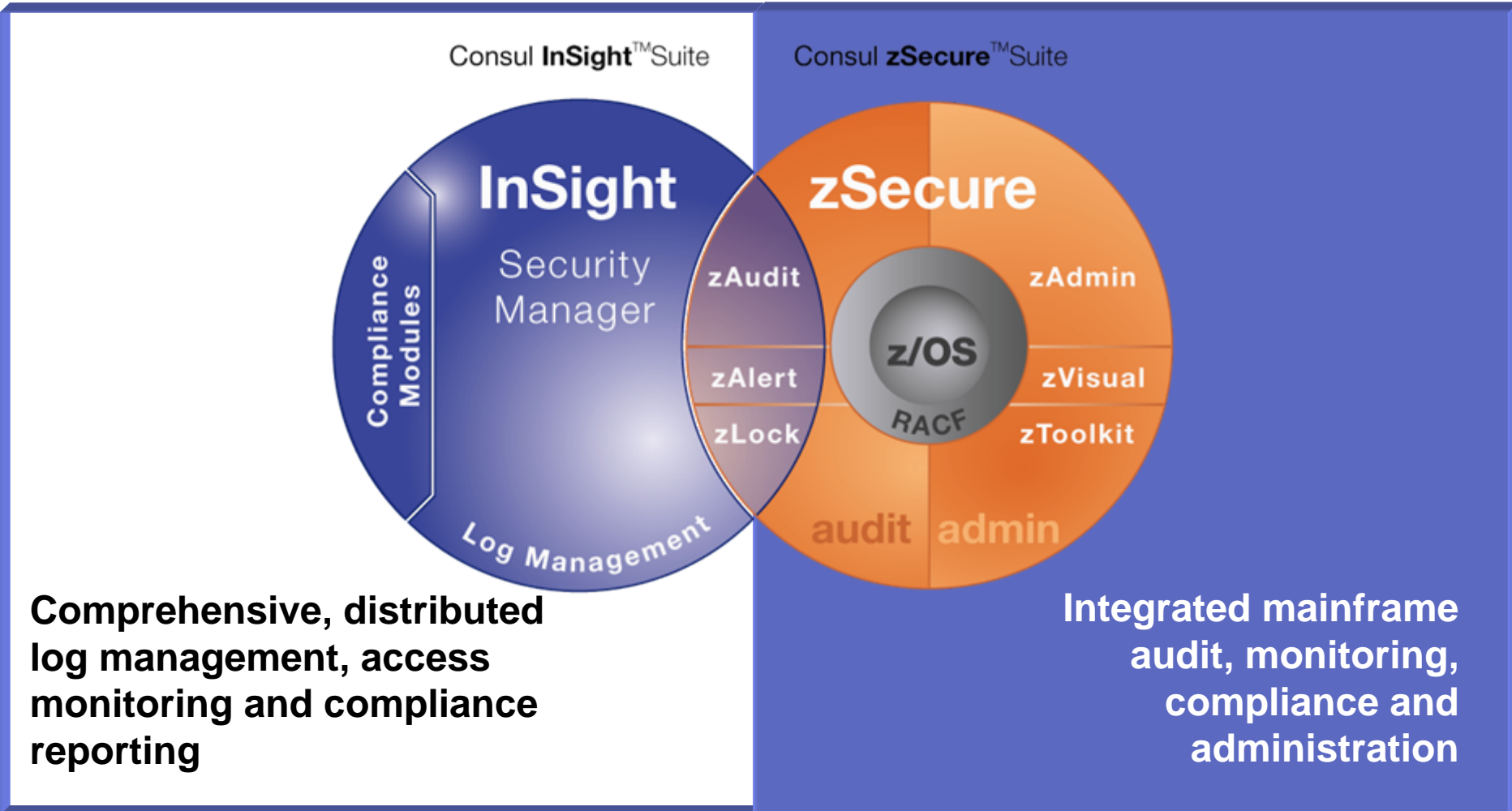
*Preemptive, comprehensive security and compliance offerings*





# Enterprise compliance and administration

*Spanning distributed compliance and mainframe administration*



# Philadelphia Stock Exchange

*Protection, compliance and more with IBM security*



*“We use security audit and compliance solutions from IBM Consul and we are in full compliance with our regulators.”*

*“Our administrators have the keys to the kingdom, which is scary. They need to be monitored. PHLX has policies in place, but if we can’t enforce policies, we might as well throw them away. InSight helps us enforce policies”*

*—Bernie Donnelly, VP of Quality Assurance, The Philadelphia Stock*

## Business Challenge:

- ✓ Protect a national stock exchange from unwanted electronic intruders and internal threats...
- ✓ ... while automating, monitoring and demonstrating compliance with security regulations

## Business Value:

- Enhanced security and visibility;
- Easy auditing and investigations of internal or external malicious or accidental violations;
- Proactive capability to more easily meet future regulations.
- Currently handling 200,000 messages per second inbound and 30,000 messages per second outbound.
- Expected 2007 growth of 500,000 messages per second inbound and 90,000 messages per second outbound

## Actions:

- Deployed automated user monitoring and compliance reporting solution
- Solution is key to data governance and compliance monitoring, auditing and reporting capabilities across mainframe and distributed environments

# IT Financial Management

## Cost-Effective Stewardship of IT Assets and Resources



Continuously reduce the TCO of IT assets throughout their lifecycle



Improve IT service levels to optimize processes and align IT with the business



Reduce the cost of preparing for the inevitable internal and external audits



Optimize software licenses and reduce overbuying



Reduce the cost exposure of unplanned software license compliance payments

### Best Practices for Cost Allocation

<i>Poor</i>	<i>Good</i>
<b>All Costs Allocated to the Mainframe</b>	<b>Actual Usage of Each Resource</b> (mainframe or distributed)
<b>Incremental Mainframe Application Costs Calculated on existing per MIP rates</b>	<b>Calculate Actual Incremental Mainframe Costs Considering Specialty Engines, Pricing Curves, On Demand Capacity, Disaster Recovery, Environmentals, and Labor</b>
<b>Incremental Distributed Application Costs Include Only Production Hardware</b>	<b>Calculations Also Include Software, Development, Test, Disaster recovery, Environmentals, and Labor</b>



# Accurately Aligning System z Costs with Enterprise Business Services

Mark Lynch

Tivoli Usage and Accounting Manager

# What is Tivoli Usage & Accounting Manager?

**A cross-platform software system that determines the cost of providing information services**

**Helps manage IT costs by appropriating costs to an organization's products, services and business functions**

**Tivoli Usage and Accounting Manager (TUAM) software measures, analyzes, reports and bills the utilization and costs of different computing resources – including servers, storage, networks, databases, virtualized environments, messaging and many other shared services**

# IBM Service Management & Tivoli Usage and Accounting Manager

- **What's happening with the Infrastructure?**
  - TUAM tells you who's using the IT resources
  - This is key in today's shared distributed and virtualized environments
  
- **How does this relate to the Business Service?**
  - TUAM tells you the cost of providing the shared IT service
  - How much does it cost to support:
    - Banks: Commercial Loans, Credit Card, ATM
    - Insurance: Claims, Policies, Statements
    - Government: Agencies, Departments, Projects
  
- **What actions do we take?**
  - TUAM's information above may lead to further investment in certain applications or a reduction based on the application's contribution to the business.

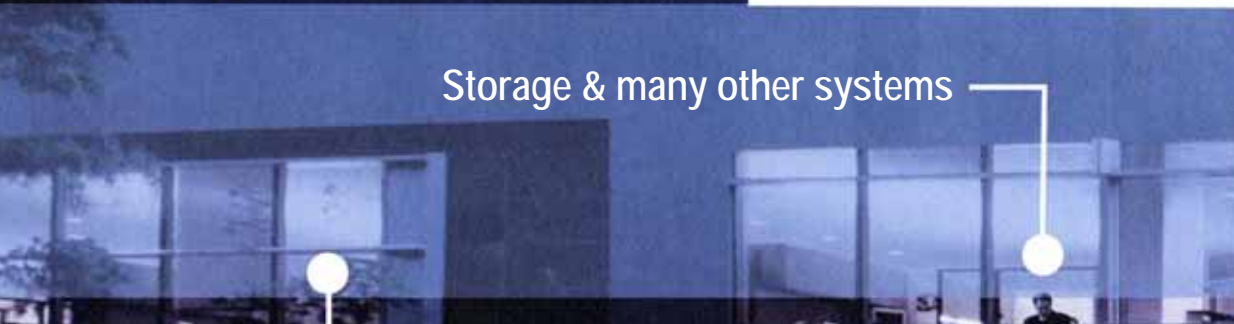
## What problem does it help solve?

*Inability to allocate IT costs, usage, and value*



***IT Departments contain many different platforms, environments, sub-system, and users:***

- **Costly to own, maintain, and operate**
- **With unique record formats and metrics**
- **Ill equipped to discuss services delivered in a business context**

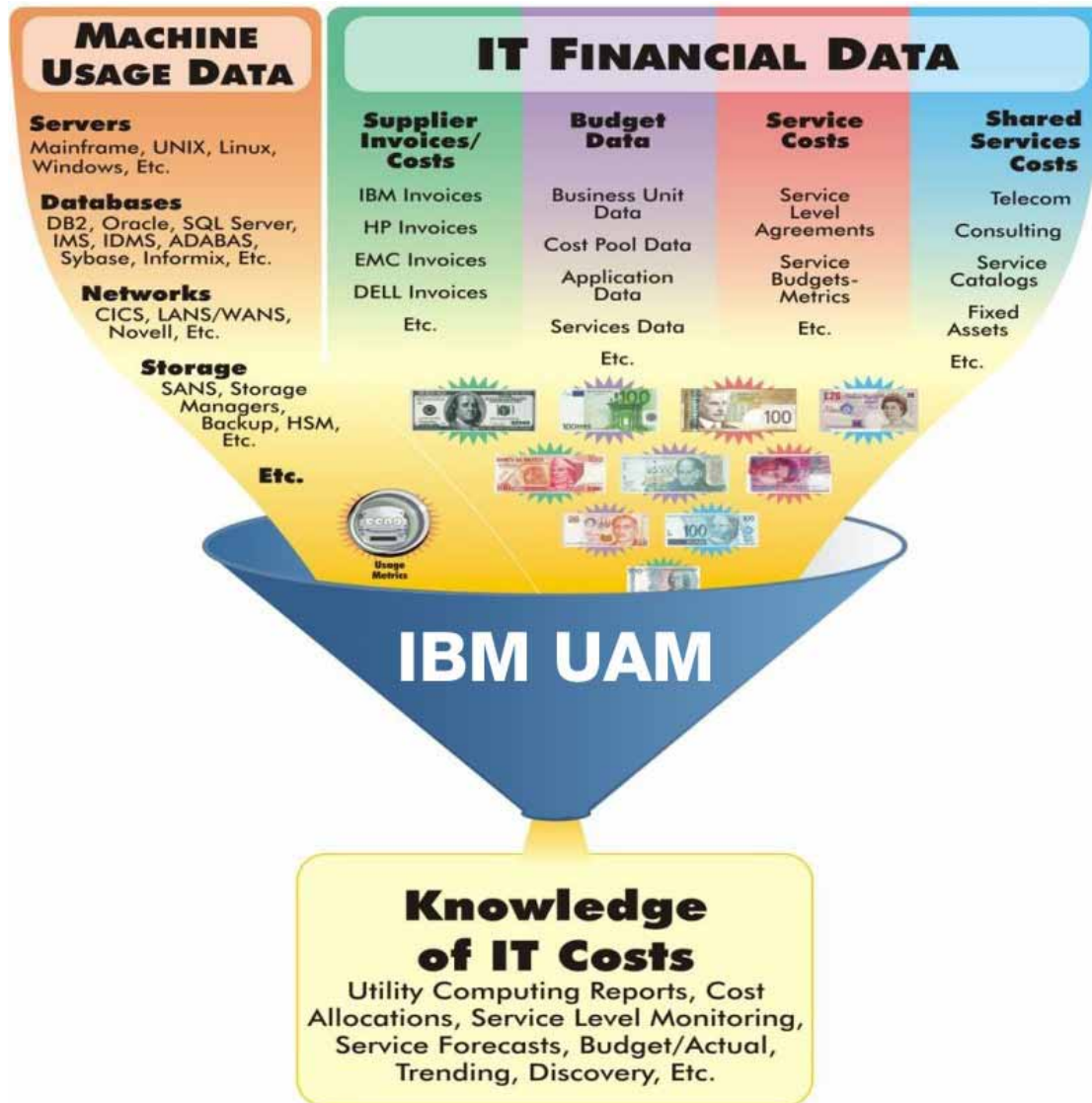


Databases & Networks

Internet & E-Mail

Invoices

# Know what IT costs – The IBM UAM funnel





## Tivoli Usage and Accounting Manager is . . .

- **An integral part of an organization's financial reporting systems**  
(Shared Services, Invoicing, Product Profitability, ERP Integration, Cost Allocations, Activity Based Costing, Resource & Cost Trending, etc.)
- **Used across multiple platforms**  
(Including Mainframe, Unix, Linux, Windows, etc.)
- **Supporting multiple sub-systems**  
(DB2, Oracle, SQL Server, CICS, Virtualization, Web, E-Mail, Networks, Storage, Print Servers, etc.)
- **Internet enabled**  
(Web-Based Reporting & Drill-Down and multiple outputs)



# Tivoli Usage and Accounting Manager Implementations

## Health Insurance Company

CICS/DB2/Batch/TSO & normalization between 2 System Z mainframes. Rolling out TUAM to 168 UNIX and 300 Windows Servers.

Replaced 2 homegrown systems after merger. Corporate finance is the user and owner of the system. Needed better answers for federal audits. TUAM only product to meet all RFP requirements

## Financial Services Broker

z/OS, Linux for System z & Unix/Novell/Windows. Primavera importing for labor accounting. Inventory information, SAN, and telecom.

Doing memo billing now and will move to chargeback in the future

## Aerospace Manufacturer

Both z/OS & distributed. Bill \$18-20M per month across 5,000 cost centers. 40K pieces of hardware. Perform labor tracking, WAN, assessments, and project costs. Feeding SAP GL and using web reporting.

Replaced homegrown system

## State Government

z/OS, Telecom, UNIX, Windows, Labor, Oracle, SQL Server, & Exchange

Wanted to replace multiple billing systems with integrated system and meet government audit requirements

## Tivoli Usage and Accounting Manager helps align IT costs with business goals

- **Improve business unit alignment with business value**
  - Real Usage = Accurate Billing
  - Accountability = Improved services
  - Alignment between business activity and IT costs
- **Lower Infrastructure Cost**
  - Reduced server sprawl
  - Higher utilization
  - Rationalization of resources
- **Continuous Infrastructure Improvement**
  - Understanding costs leads to managing costs
  - Usage comparisons leads to more effective investments



Relating cost to value is essential for sustained business growth.

*You can't manage what you don't measure!*

# Implementation & Services

## ■ Client Implementation

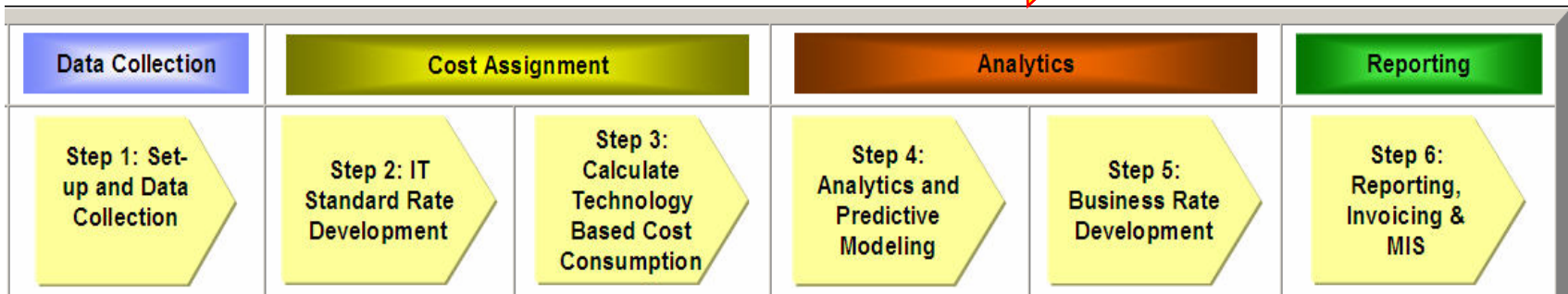
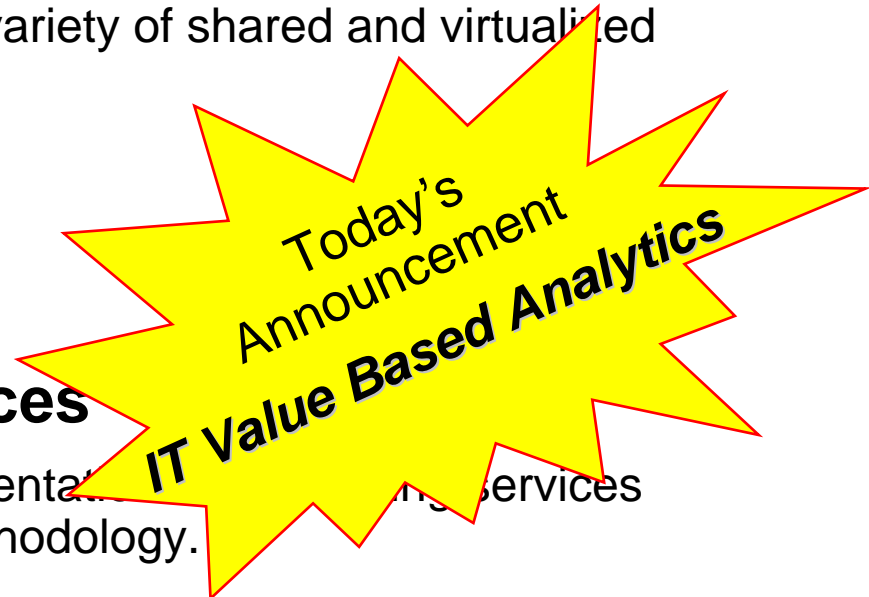
- TUAM is ready to use software that is user installable and can quickly report on usage of a variety of shared and virtualized systems.

## ■ Tivoli Services

- TUAM QuickStart:
- Extended Engagements

## ■ IBM Global Business Services

- Complete end to end implementation and services using an IBM proprietary methodology.





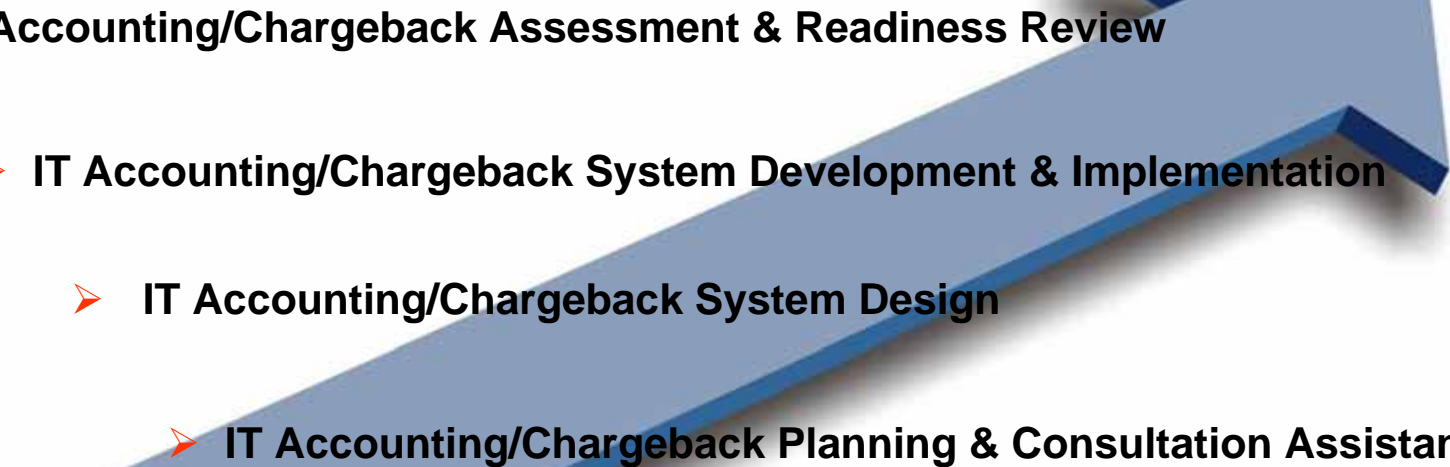
# Review and Wrap Up

Al Zollar

General Manager, IBM Tivoli Software

## Tivoli Usage and Accounting Manager Service Offerings

IBM is announcing several service offerings to help customers accelerate planning, designing, piloting, and implementing an IBM Tivoli Usage and Accounting Manager-based accounting and chargeback system

- 
- **IT Accounting/Chargeback Assessment & Readiness Review**
  - **IT Accounting/Chargeback System Development & Implementation**
    - **IT Accounting/Chargeback System Design**
    - **IT Accounting/Chargeback Planning & Consultation Assistance**

Helps customers accelerate while minimizing project risk

# Tivoli IBM System z Road Ahead

	2Q 2007	3Q 2007	4Q 2007	1H 2008
<h3>1Q 2007</h3>	<b>ISM</b> <ul style="list-style-type: none"> <li>Tivoli Business Service Manager v4.1</li> </ul>	<b>AVAILABILITY</b> <ul style="list-style-type: none"> <li>IBM Tivoli OMEGAMON on z/OS v4.1</li> <li>IBM Tivoli OMEGAMON z/OS Management Console v4.1</li> <li>TSA for z/OS v3.1 (SPE) Sparkler – TEP Integration</li> <li>TADDM v1.1.1 FP2</li> </ul>	<b>AVAILABILITY</b> <ul style="list-style-type: none"> <li>Tivoli OMEGAMON XE for Messaging v6.0.1</li> <li>ITCAM for SOA v7.1</li> <li>ITCAM for Response Time v7.1</li> <li>ITCAM for Web Resources v7.1</li> <li>IBM Tivoli Monitoring v6.2</li> <li>IBM Tivoli Workload Scheduler v8.3 (SPE) IPv6 Compliance</li> <li>IBM Tivoli Workload Scheduler v8.4</li> <li>TSA for z/OS v3.2</li> </ul>	<b>ISM</b> <ul style="list-style-type: none"> <li>Tivoli Business Continuity Process Manager v7.1</li> <li>Tivoli Business Service Manager v4.1.2</li> </ul>
	<b>AVAILABILITY</b> <ul style="list-style-type: none"> <li>IBM Tivoli NetView for z/OS v5.3</li> <li>IBM OMEGAMON for CICS TG on z/OS v4.1</li> <li>Tivoli Workload Scheduler v8.3 (SPE) – Advanced Reporting &amp; Virtual Workstation</li> <li>TSA for MP v2.3</li> <li>TSA for Integrated Operations Management v2.1</li> </ul>	<b>SECURITY</b> <ul style="list-style-type: none"> <li>Consul zSecure v1.8.1</li> <li>IBM Compliance Insight Manager v8</li> </ul>	<b>SECURITY</b> <ul style="list-style-type: none"> <li>IBM Tivoli Federated Identity Manager for z/OS v6.2</li> <li>Tivoli Identity Manager v5.0</li> <li>Tivoli zSecure v1.9</li> <li>Tivoli Access Manager for eBusiness v6.1</li> </ul>	<b>AVAILABILITY</b> <ul style="list-style-type: none"> <li>TSA for MP v2.4</li> <li>Tivoli OMEGAMON XE for Messaging v7.1</li> <li>IBM Tivoli Network Manager IP Edition v3.8</li> <li>IBM Tivoli Network Manager Transmission Edition v5.7</li> </ul>
	<b>SECURITY</b> <ul style="list-style-type: none"> <li>Consul zSecure v1.8</li> </ul>	<b>PROVISIONING</b> <ul style="list-style-type: none"> <li>Tivoli Remote Control v5.1</li> </ul>	<b>STORAGE</b> <ul style="list-style-type: none"> <li>IBM Tivoli Advanced Backup &amp; Recovery for z/OS v1.2</li> <li>IBM Tivoli Advanced Audit for DFSMSHsm v1.2</li> <li>IBM Tivoli Advanced Reporting for DFSMSHsm v1.2</li> <li>IBM Tivoli Advanced Catalog Management for z/OS v1.2</li> </ul>	<b>SECURITY</b> <ul style="list-style-type: none"> <li>Tivoli Identity Manager z/OS v5??</li> </ul>
	<b>STORAGE</b> <ul style="list-style-type: none"> <li>TotalStorage Productivity Center for Replication v3.3</li> <li>IBM Tivoli Advanced Reporting for DFSMSHsm v1.1</li> </ul>	<b>ASSET</b> <ul style="list-style-type: none"> <li>IBM Tivoli Decision Support for z/OS v1.8</li> <li>IBM Tivoli Usage &amp; Accounting Manager for z/OS v7.1</li> </ul>	<b>ASSET</b> <ul style="list-style-type: none"> <li>IBM Tivoli Asset Management for IT v7.1</li> <li>IBM Tivoli License Compliance Manager for z/OS v5.1</li> <li>IBM CCMDB v7.??</li> </ul>	<b>STORAGE</b> <ul style="list-style-type: none"> <li>Tivoli Allocation Optimizer v2.1</li> </ul>
<b>ASSET</b> <ul style="list-style-type: none"> <li>IBM Tivoli Asset Management for IT v6.3</li> </ul>		<b>ASSET</b> <ul style="list-style-type: none"> <li>IBM CCMDB (TADDM) v7.1</li> </ul>	<b>LEGEND</b> <ul style="list-style-type: none"> <li>z/OS Support</li> <li>Linux on z Support</li> </ul>	

# IBM Service Management and System z

- **IBM Service Management: The future of systems management is here today**
- **No better foundation for ISM than System z**
- **In an industry bombarded by constant change, System z remains a effective and efficient platform**
- **Many reasons behind System z's enduring success:**
  - Low total cost of ownership
  - High availability ...resiliency....transactional performance and security
- **We're committed to bringing System z solutions that:**
  - Expand System z capabilities while enhancing its proven strengths
  - Continue to reduce the costs associated with operations and systems management





# The IBM Service Management Difference



- ✓ **Unparalleled Value** - reduces operational labor cost and time, improves asset productivity and quality of service
- ✓ **Proven Architecture** - delivers service excellence and automation through open standards-based SOA and industry-proven technologies
- ✓ **Rich Relational Value** – provides end-to-end automation through seamless integration across processes and operational tasks
- ✓ **Depth & Breadth in Offerings** – covering network management, asset management, service request management and governance
- ✓ **Flexible Adoption Model** - allow customers to become service-centric regardless of their current level of organizational automation