



2007 System z Summit

DESTINATION z





Aligning System z Availability and Costs with Enterprise Business Services

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Topics

- *IBM Service Management: Enabling organizations to improve efficiency, increase business value and grow*
 - Al Zollar

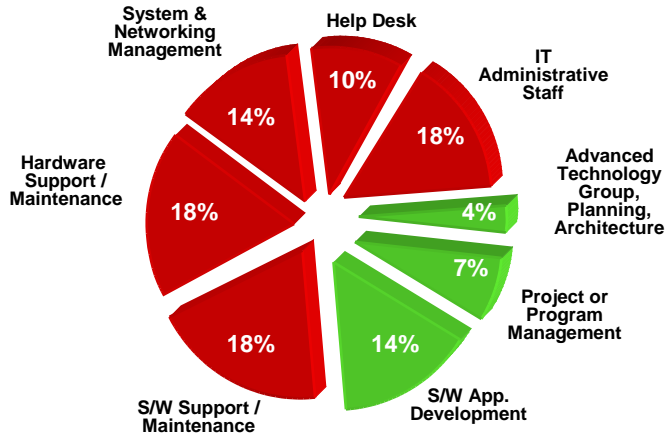
- *Accurately Aligning System z Costs with Enterprise Business Services*
 - Mark Lynch

- Recap and session wrap up
 - Al Zollar

Challenges with IT Effectiveness and Efficiency

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

2005 Total IT Spending on IT Internal Staff



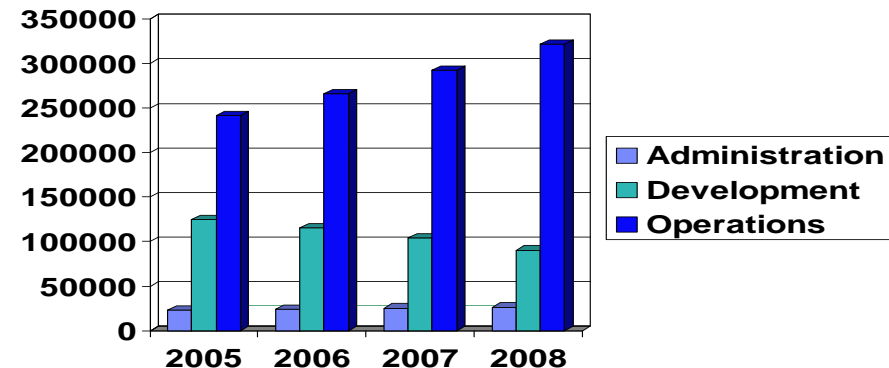
IT Operations spending not aligned with Business Objectives:

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

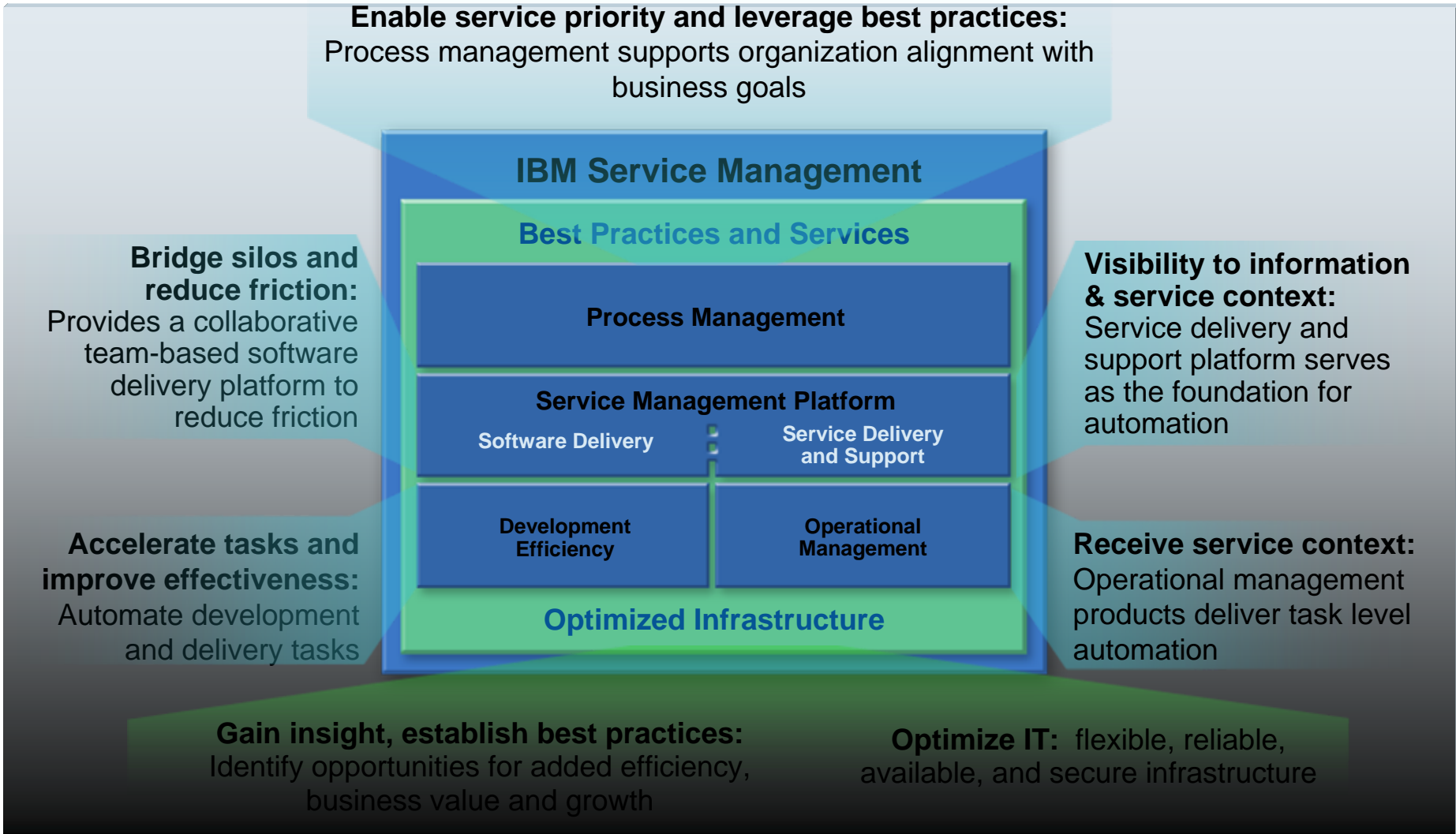
abc NEWS

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

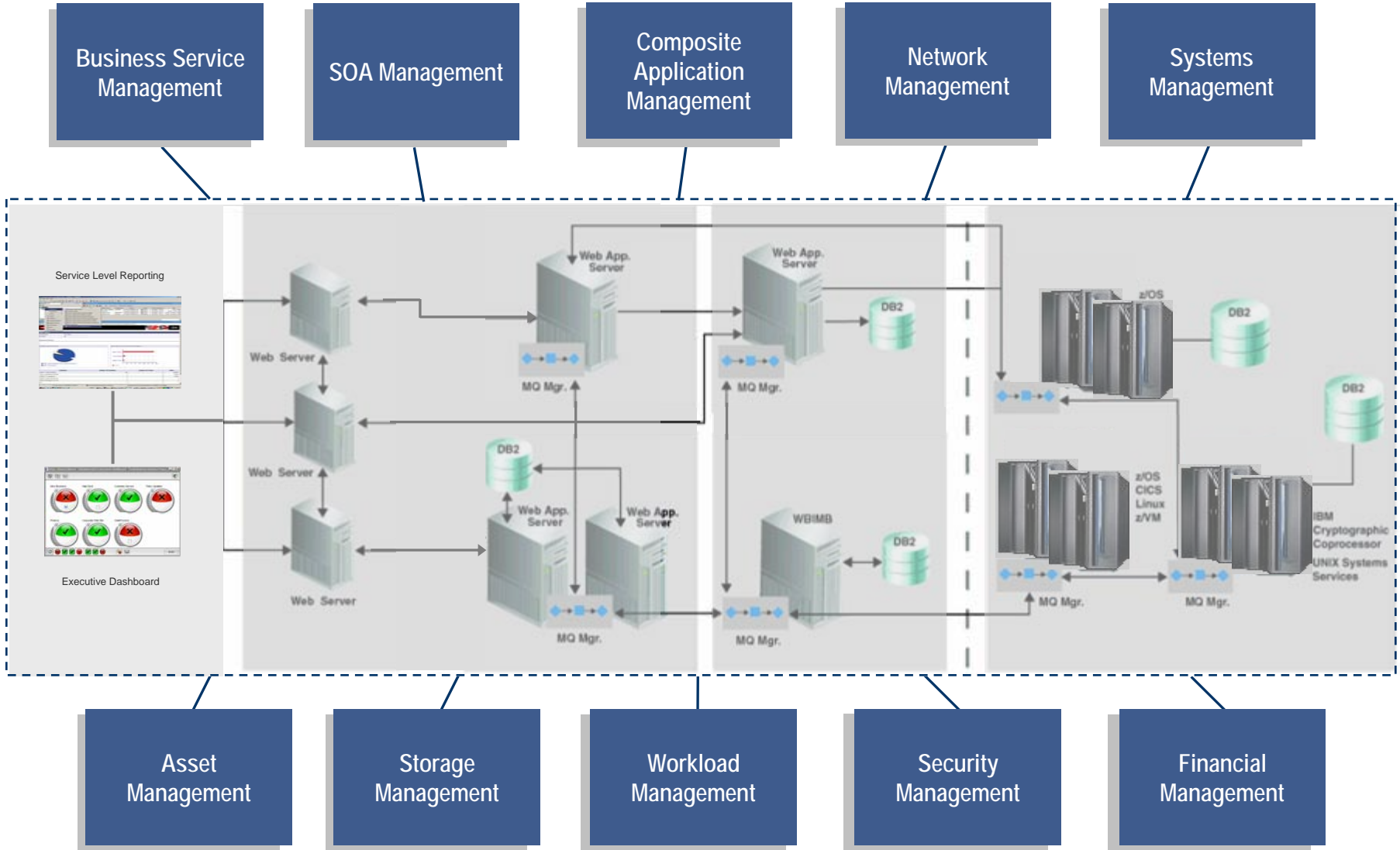
CNN Money.com™

Delivering Value with IBM Service Management

Architected to clarify prioritization and improve efficiency

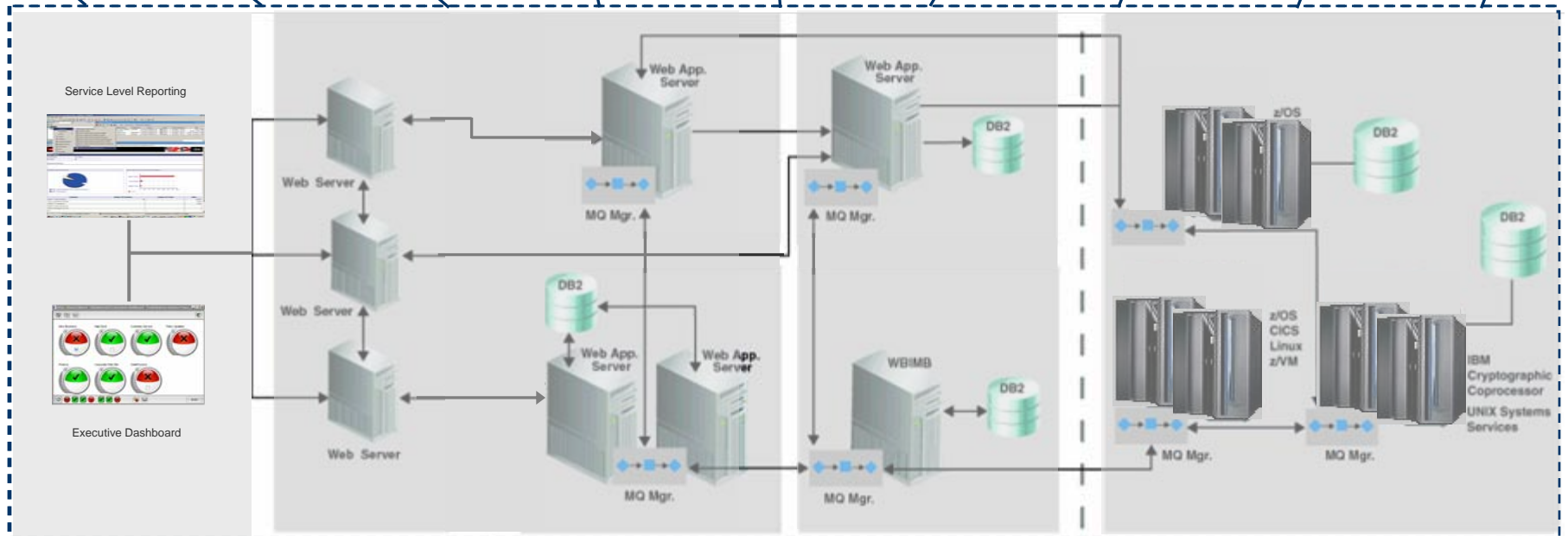


End to End Management from Tivoli®



End to End Management from Tivoli IBM System z Inclusive

- IBM Tivoli®
Monitoring v6.1** ✓
- Tivoli
Enterprise
Console v3.9** ✓
- OMEGAMON®
XE on z/OS®
v4.1.0** ✓
- OMEGAMON
XE for DB2
v4.1.0** ✓
- OMEGAMON
XE for CICS
& IMS v4.1.0** ✓
- OMEGAMON
XE for MF
Networks
v4.1.0** ✓
- OMEGAMON
XE for
Storage on
z/OS v4.1.0** ✓
- Maximo
Asset
Manager v6.2** ✓
- Consul
zSecure Suite
v1.8** ✓



- System Automation
for z/OS v3.1 &
Multiplatforms v2.3** ✓
- Composite
Application
Manager for
WebSphere®
V6.1** ✓
- Composite
Application
Manager for R.T.
Tracking V6.1** ✓
- Composite
Application
Manager for
SOA V6.1** ✓
- NetView®
on z/OS
v5.3** ✓
- System
Automation
for JOM v2.1** ✓
- Workload
Scheduler for
z/OS 8.3** ✓
- Usage and
Accounting
Manager v6.1** ✓

IBM Tivoli System z Business: Strong and Growing

Highlights of what Tivoli has delivered to customer 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

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

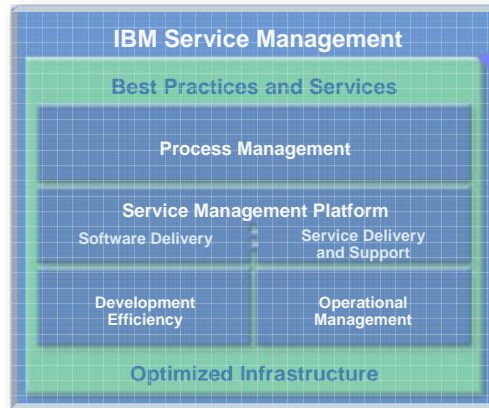


1. What's happening with the infrastructure?

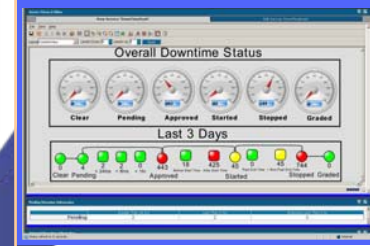
- Server monitoring
- Storage monitoring
- Network monitoring
- Data monitoring
- Application monitoring

3. What actions do we take?

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



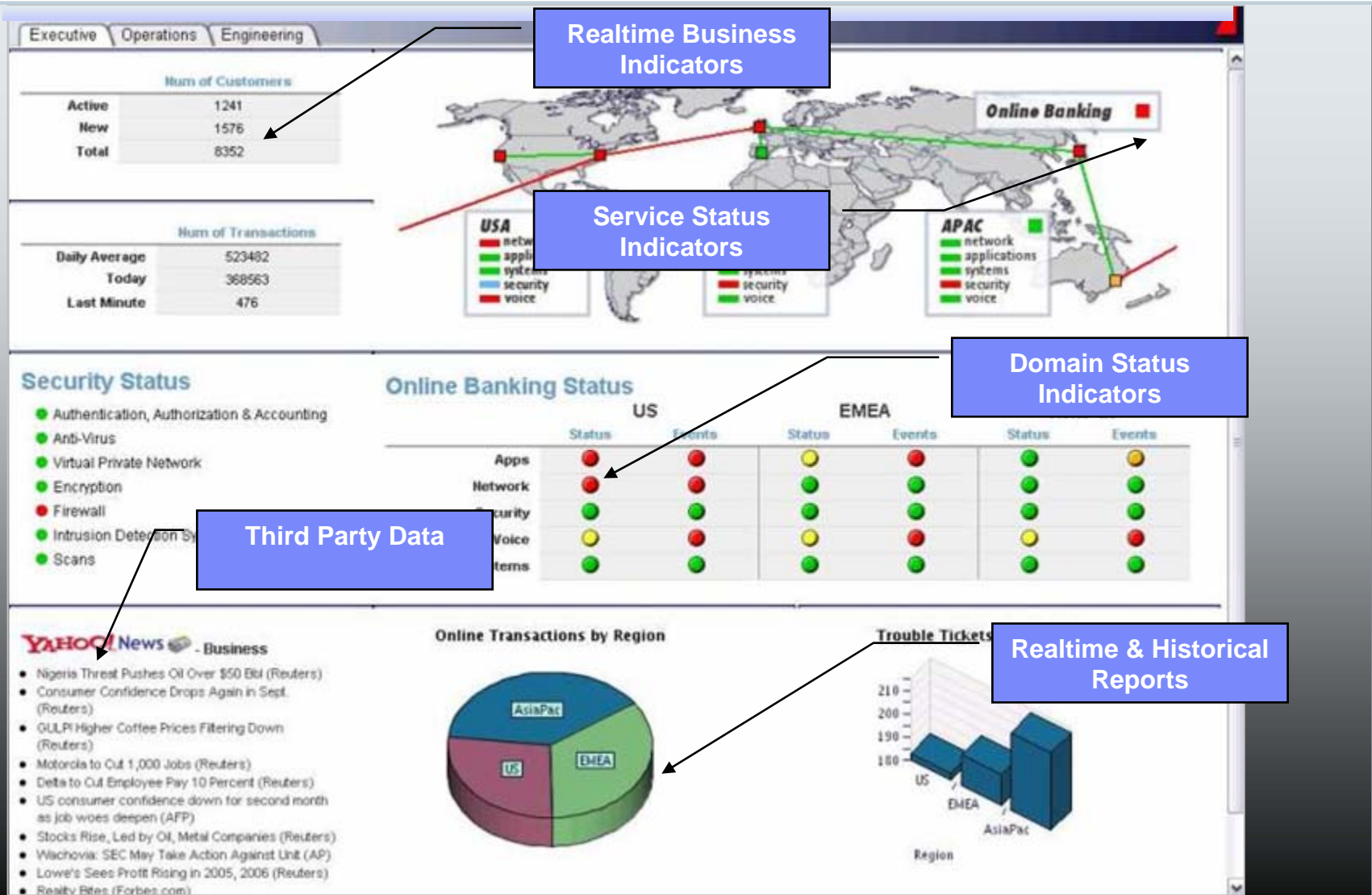
Service Management Platform



2. How does this relate to the business service?

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

Single Effective Management Interface: Business Dashboard



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

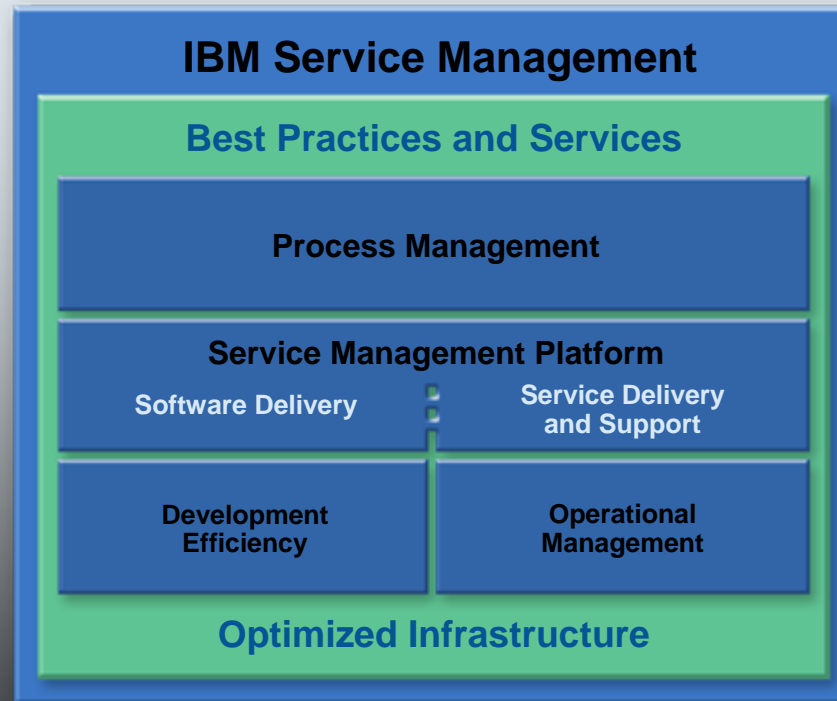
Current status of key services that drive business

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

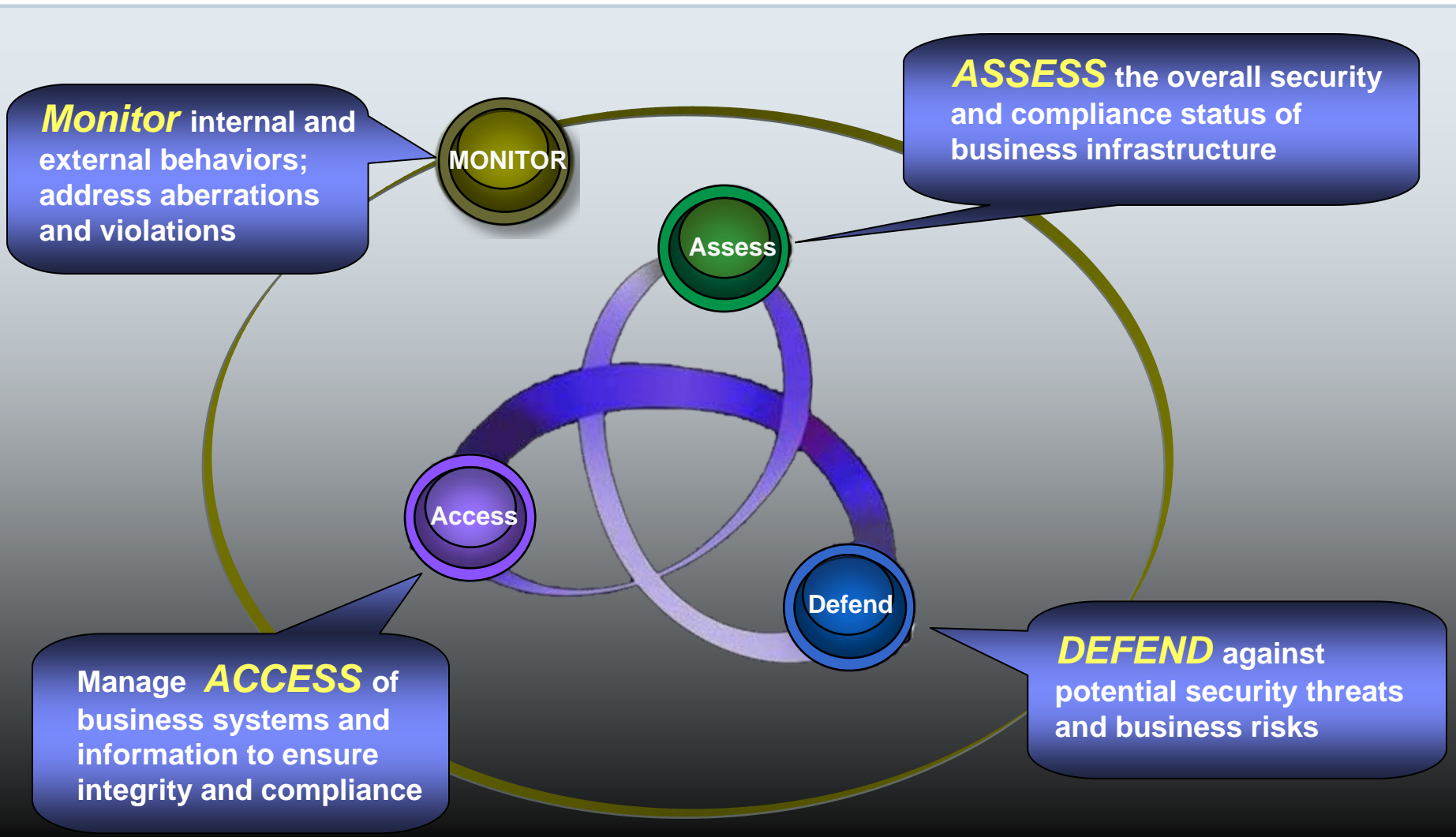


Make better decisions based on the overall status of key business services

Delivering Customer Value with IBM Service Management

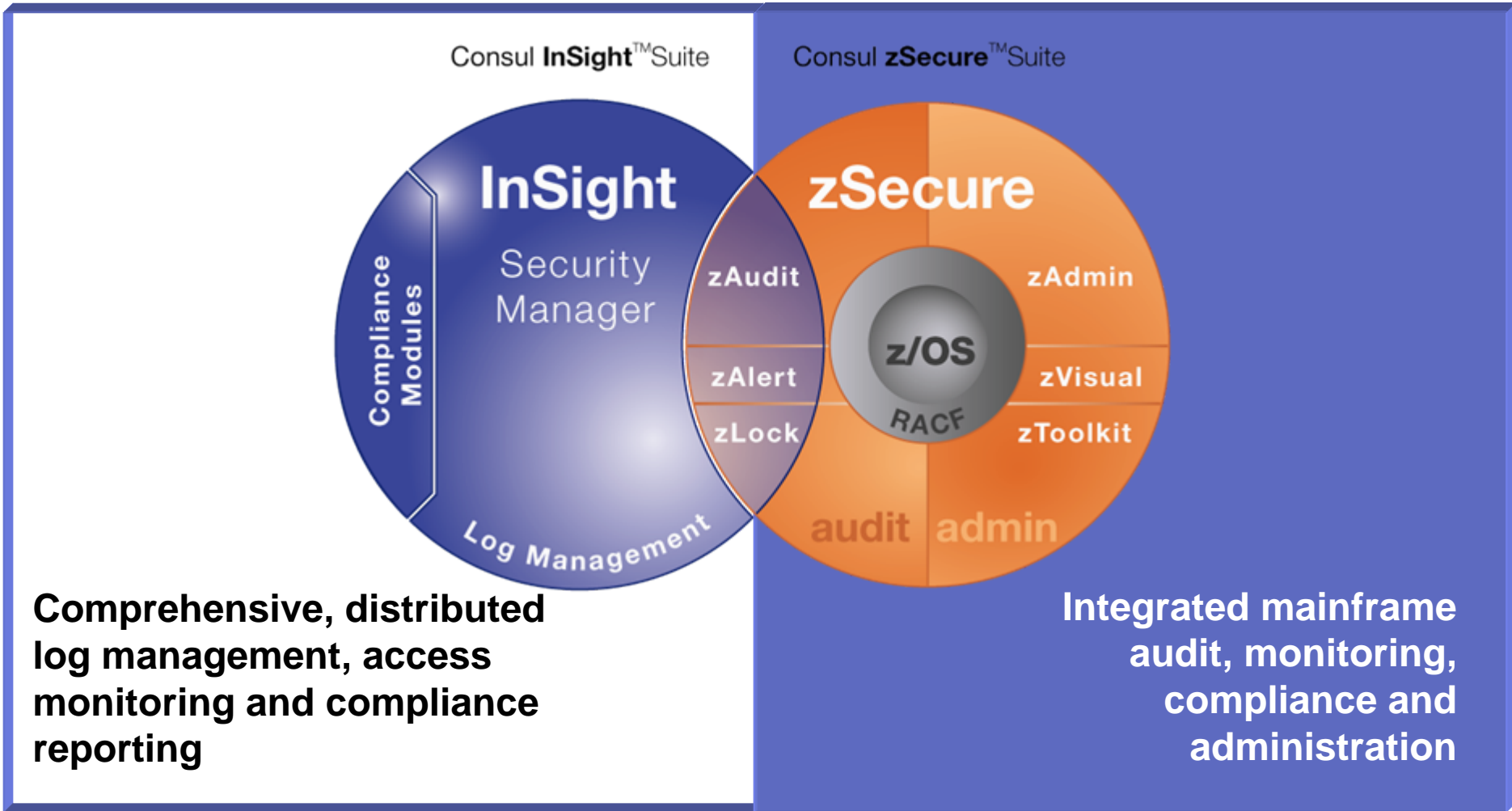


IBM's security management vision and strategy: *Preemptive, comprehensive security and compliance offerings*



Enterprise compliance and administration

Spanning distributed compliance and mainframe administration



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



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?**

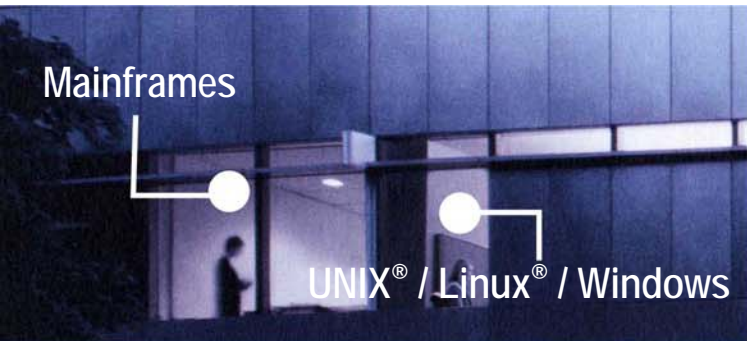
- TUAM tells you the cost of providing the shared IT service
- How much does it cost to support:
 - Banks: Commercial Loans, Credit Card, ATM
 - Insurance: Claims, Policies, Statements
 - Government: Agencies, Departments, Projects

- **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.

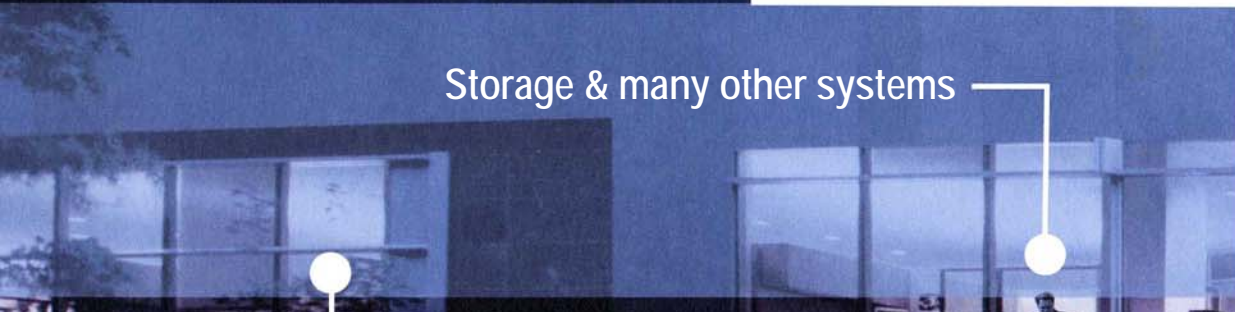
What problem does it help solve?

Inability to allocate IT costs, usage, and value



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

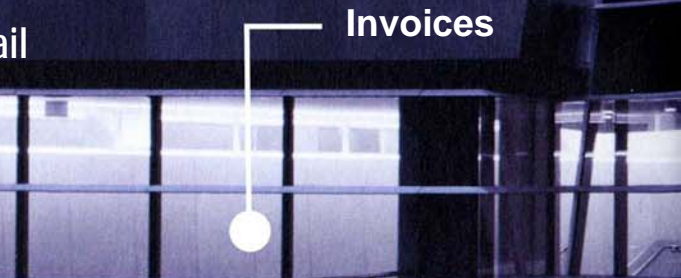
- **Costly to own, maintain, and operate**
- **With unique record formats and metrics**
- **Ill equipped to discuss services delivered in a business context**



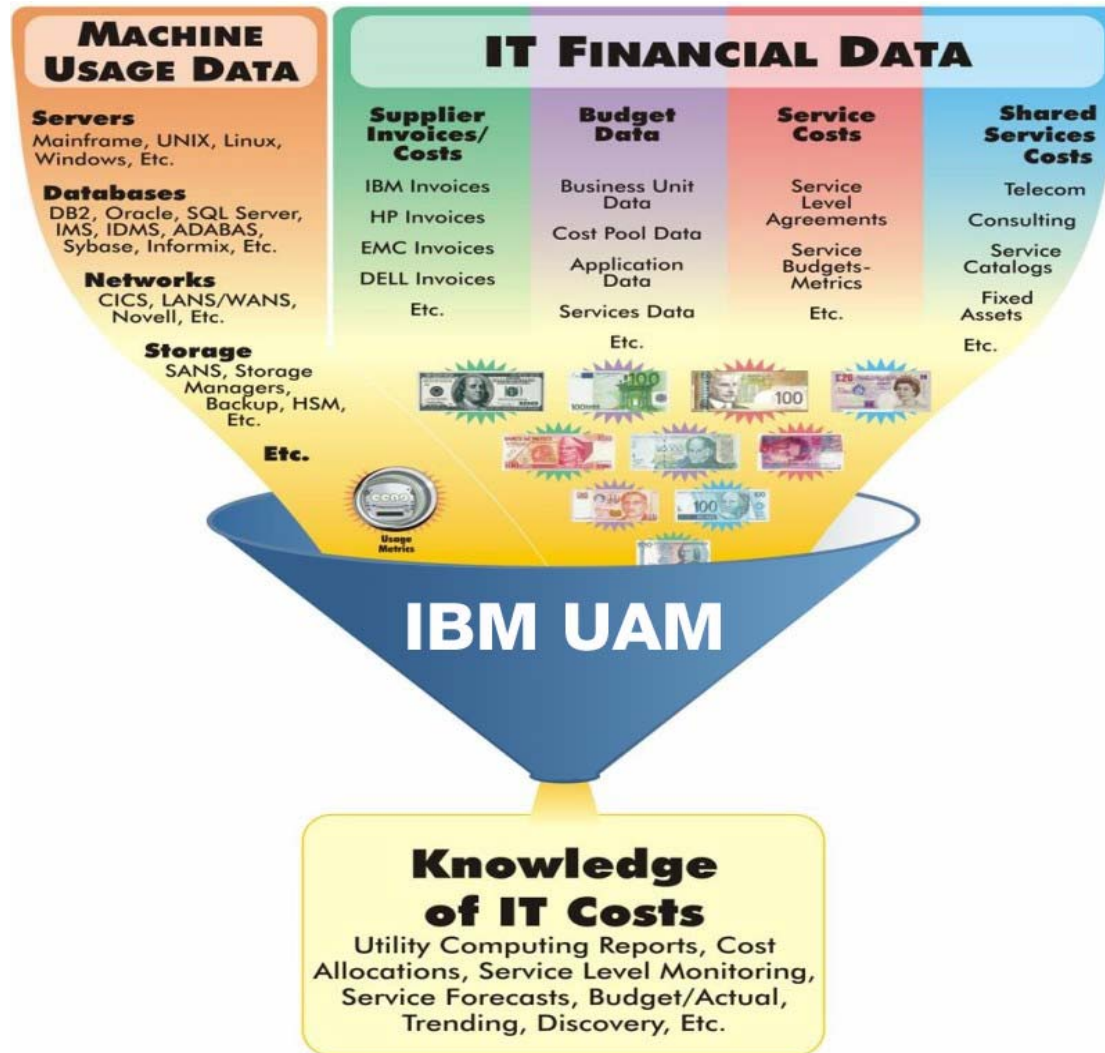
Databases & Networks

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, Microsoft® 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 IBM 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

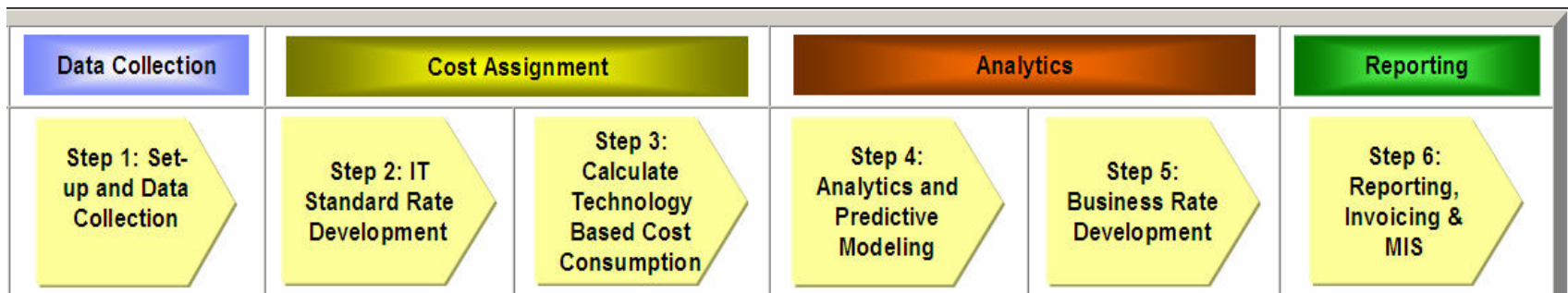
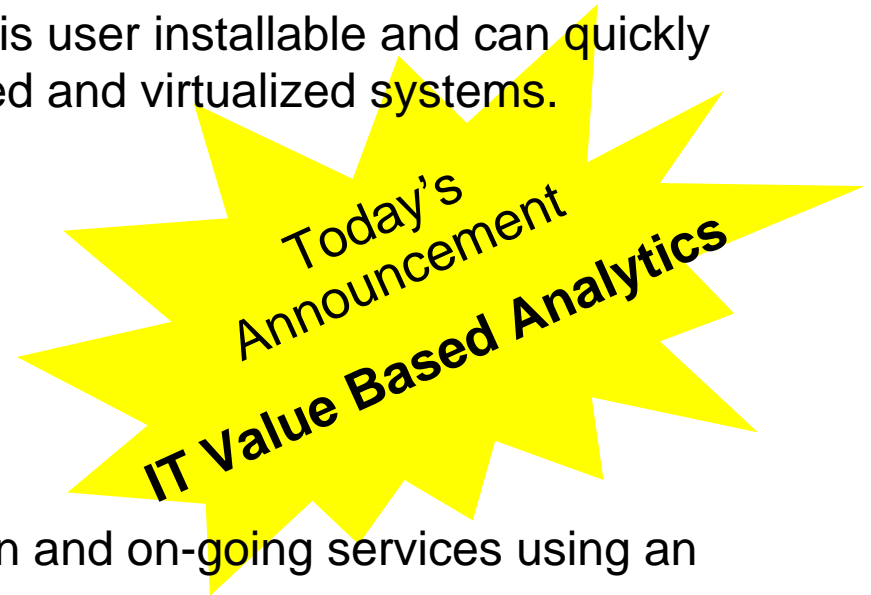
- TUAM is ready to use software that is user installable and can quickly report on usage of a variety of shared and virtualized systems.

■ Tivoli Services

- TUAM QuickStart:
- Extended Engagements

■ IBM Global Business Services

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





Review and Wrap Up

Al Zollar

General Manager, IBM Tivoli Software

Tivoli IBM System z Road Ahead

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

IBM Service Management and System z

- **IBM Service Management: The future of systems management**
- **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
 - 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