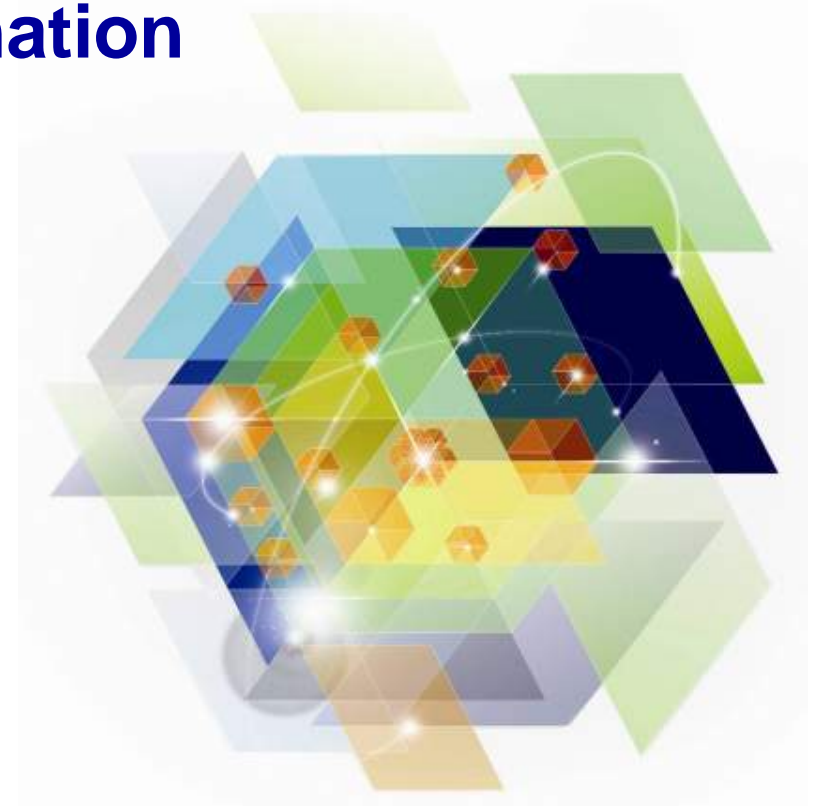




Business and IT Optimization - Enhancing Service Management Visibility, Control and Automation

Dr. Matt Ellis, Vice President
Service Availability and Performance
Management, IBM Software Group

March 21, 2012



IBM System z Service Management focuses on addressing customers today and future requirements

1. Reduce costs, manage risk and improve service with enhanced **Visibility, Control and Automation**
2. Enhance Business Resilience capability for your current environment with **Business Service Management** and **Cloud and IT Optimization**
3. Taking advantage of Dynamic Infrastructure **Business and IT Asset Management** to save money and resources



Integrated service management evolving to support new technologies



VISIBILITY

See and understand you business in real-time



CONTROL

Transform and adopt while limiting risk



AUTOMATION

Achieve greater efficiency & quality by standardizing best practices

Business Services & Assets



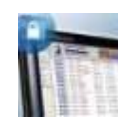
Transitioning to Smarter, flexible infrastructures



Converging Digital & Physical Assets



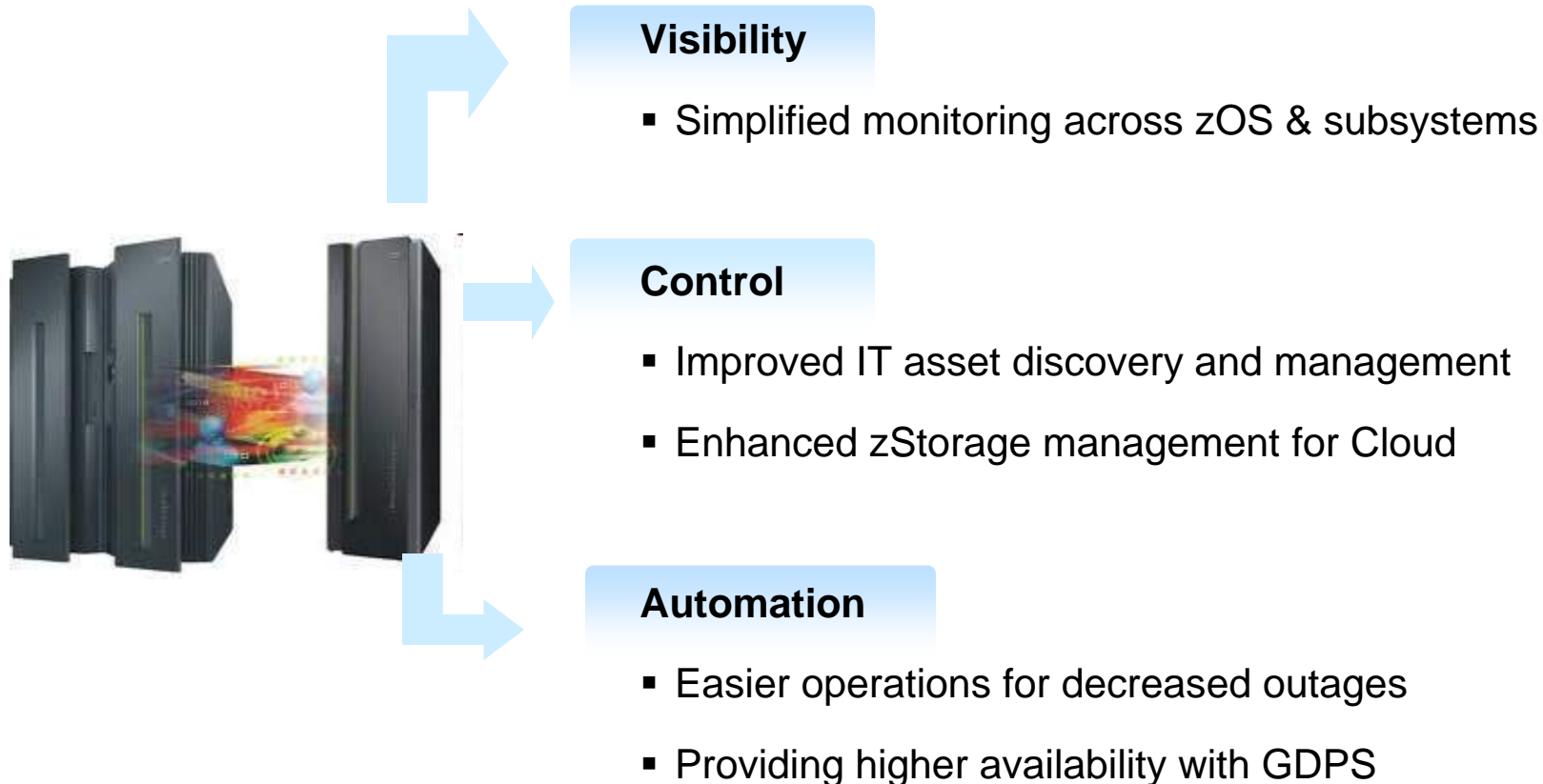
Leveraging Mobile & Web Endpoints



Addressing data growth, threats, & compliance

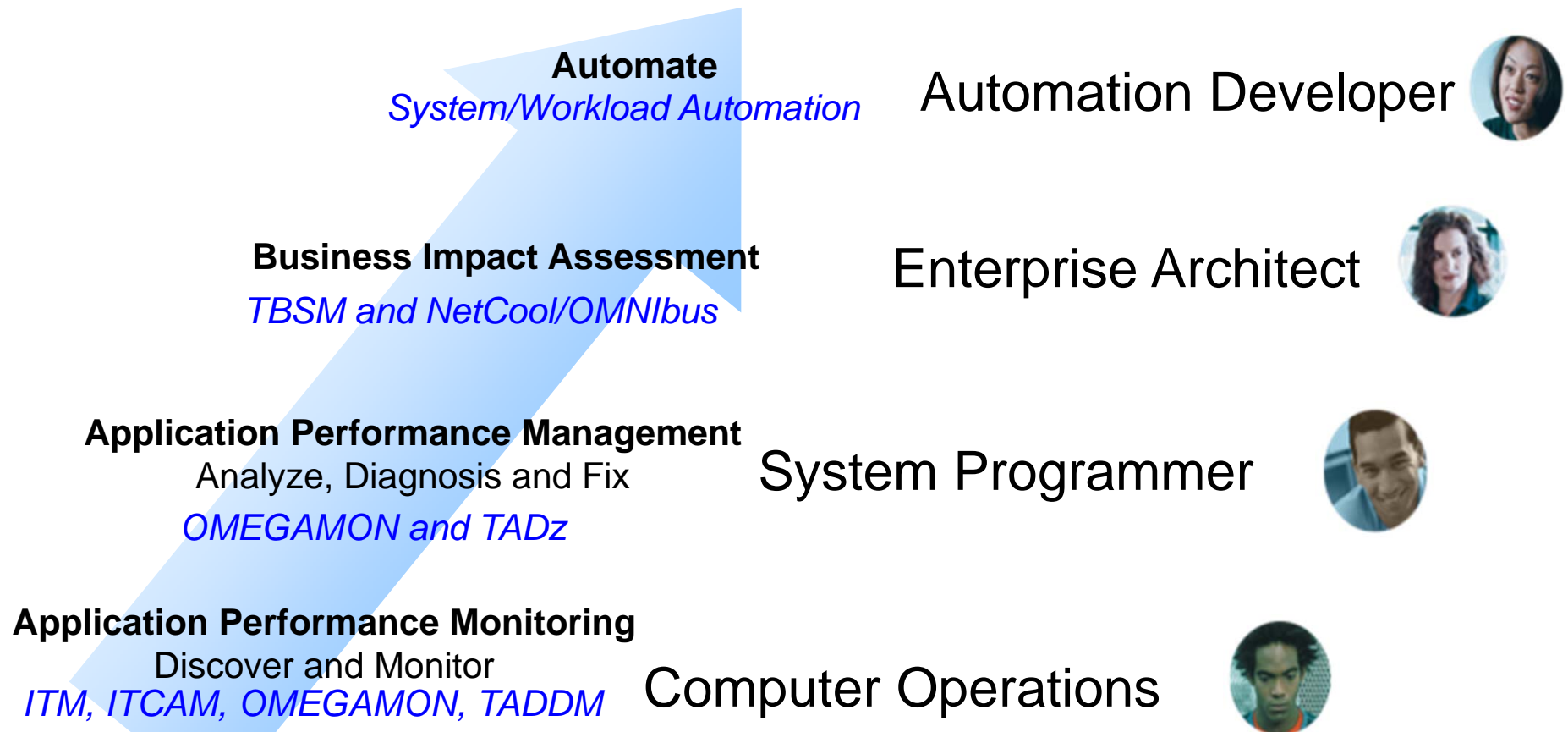
Business Resilience means extracting maximum business value from existing applications and assets

IBM System z Service Management focused on simplification, reduced cost and risk



Business Service Management capabilities provide integrated, hierarchical solution across System z

Collaboration across your Enterprise



Redesigned System z monitoring provides simplified problem determination and reduced resource usage



OMEGAMON V5.1 Product Family

- **Simplify monitoring** with ability to view enterprise summary of multiple sysplexes and subsystems
 - Save 50 to 75% of time needed to find problems
- **Decrease resource usage** by taking advantage of zIIP specialty processor
 - Up to 73% of CICS SLA processing off-loaded
- **Improve availability** with new 'Find' command to easily locate hung users and connections over entire cicsplex
 - Reduce fix times from 90 minutes to 2 minutes



Reduce system and application outages with increased productivity

Based on System, Performance and Beta testing

Analysts already agree that OMEGAMON V5 provides significant value

On OMEGAMON moving to simplified architecture and a common view across multiple domains, Rich Ptak of **Ptak Noel Associates** commented,

“For too long, many IT staff liked working as siloed specialists. If a problem lay outside their silo, they could just toss it over to someone else. But, they can’t live that way anymore”

On OMEGAMON Enhanced 3270 User Interface, Joe Clabby with **Clabby Analytics** commented: *“What you've done to your 3270 interface is kind of a "wow"! ... I love what you've done with it”*



Fiserv supports major growth on existing infrastructure with IBM DB2 solution and OMEGAMON

Business Challenges:

- Global provider of Information Management for financial institutions
- Anticipate clients needs & implement appropriate services & technology solutions

IBM Solution:

- Tivoli OMEGAMON XE for DB2 on z/OS
- IBM DB2 for z/OS

Business Benefits:

- Supports major growth on existing footprint with minimal infrastructure support costs
- Enables five-nines availability to customers
- Enables Fiserv to demonstrate SLA-compliance

Industry: Professional Services

Profile: Fiserv is online innovator and wants to drive customer experiences to make online bill payment easier. Fiserv has automated processes in place that utilizes OMEGAMON for DB2 Performance Monitor to monitor and provide analysis to maximize performance and enhance profitability.



“We use OMEGAMON and the batch reporting extensively,” reports Fiserv DB2 Engineer.

“OMEGAMON is the backbone of our DB2 monitoring”

Bank of Russia: OMEGAMON enabled smooth migration for consolidation of MQ workloads 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
- OMEGAMON for z/VM to ensure performance & capacity

Business Results:

- **Consolidation of payment processing has reduced costs by 95 percent, saving US\$400 million per year.**
- **Staff workload has been reduced by 85 percent**

Business Resilience and high availability on System z with GDPS

Communications, automation, and monitoring components of GDPS continuous availability solution



Business Value

Ensure resiliency and availability of critical business operations with recovery time objective of less than one minute

GDPS Support

Maintain business operations with improved disaster recovery, maintenance, and system outage with active synchronization to external site



- IBM NetView for z/OS V6.1
- Tivoli System Automation for z/OS V3

FIDUCIA banks: System automation to increase availability System z



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

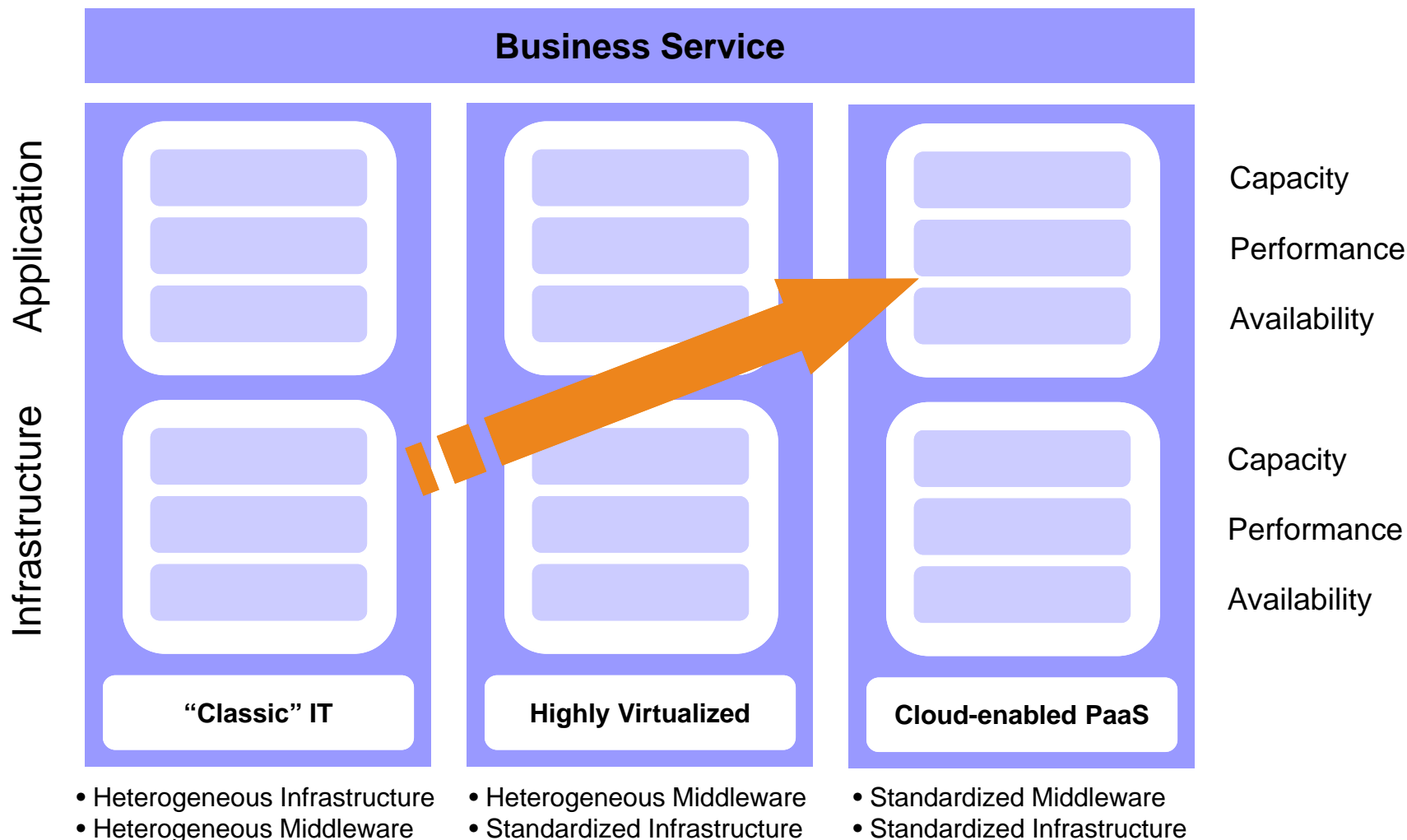
Business Results

- *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

“The Cloud” forces evolution in Operations Management

Shared Infrastructure drives increased focus on Performance & Capacity



Cloud implementations can deliver smarter, more dynamic infrastructure

Cloud computing is a service delivery model that enables the automation of shared computing resources.



Private cloud

IT capabilities are provided “as a service” over an intranet, within the enterprise and behind the firewall.



Hybrid

Internal, on-premise and external service delivery methods are integrated.



Public cloud

IT activities and functions are provided “as a service” over the Internet.

60%

of CIOs plan to use cloud up from 33% two years ago

...the majority being hybrid clouds

System z platform for Private and Hybrid cloud

Move to Dynamic Infrastructure with IBM zEnterprise™ Cloud Starter Edition

- Consolidate zEnterprise IFLs 60% faster at 33% lower price
- Increase energy savings up to 75% ⁽¹⁾
- Spend 70% less on acquisition costs ⁽²⁾
- Boost staff productivity 70% ⁽³⁾ compared to distributed
- Incorporate IBM POWER® and System x for workload optimization
- Monitor and manage with OMEGAMON and Tivoli Provisioning Manager (TPM)



(1) Based on zEnterprise comparison to virtualized x86 alternative

14 (2) Based on three-year acquisition costs for large-scale, enterprise-class workloads

(3) Based on life-cycle management testing of large-scale virtual server environment conducted by IBM

Smarter Physical Infrastructure with Business Asset and Facilities Management

Transportation
Assets

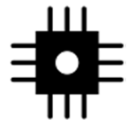
Facilities

Production
Equipment

Infrastructure Communications



Smarter Planet



INSTRUMENTED



INTERCONNECTED



INTELLIGENT

IT Asset Management:

- Visibility, control, and automation across IT and operational infrastructure
- Optimized operational and IT processes to achieve more with less
- Managing both the asset and the service to deliver customer value

Significant System z costs savings with IT asset discovery and management capability

▪ Software license cost optimization

- Discover where applications are being used across Enterprise
- Rationalize which applications/products are no longer required

▪ System z hardware and software savings

- Decrease product license fees based on usage
- Understand usage trends for planning and upgrades
- Safely move workloads across LPARs, knowing who is using what applications

▪ z Software upgrade savings

- Optimize products in Enterprise License Agreement (ELA)



zEnterprise zLinux provides outstanding Assets and Facilities Management capabilities

- Enterprise Asset Management (EAM)
 - Critical application for asset intensive industries
- EAM on System z
 - **Fit-for-purpose platform** with distinct advantages for accounts > 100 users
 - **Significant advantage** vs multiple Intel servers in distributed environment



Modernization, cost avoidance and investment protection with Maximo on System z

Business Challenge:

- Government agency wanted asset management solution for physical assets (e.g. vehicles, equipment)
- Needed to deploy environment to support 5000 users

IBM Solution:

Software

- IBM Maximo Asset Management for System z
- Oracle DB for Linux on System z
- Red Hat Enterprise Linux R10

Servers

- System z10 Server with 28 IFLs

Business Benefit:

- Leveraging unused processors on System z
- Deploy in 1/3 time of x86 servers and no additional energy costs
- Software license charges were \$1 million less on System z
- Disaster Recovery was included in the System z, where it would double x86 costs



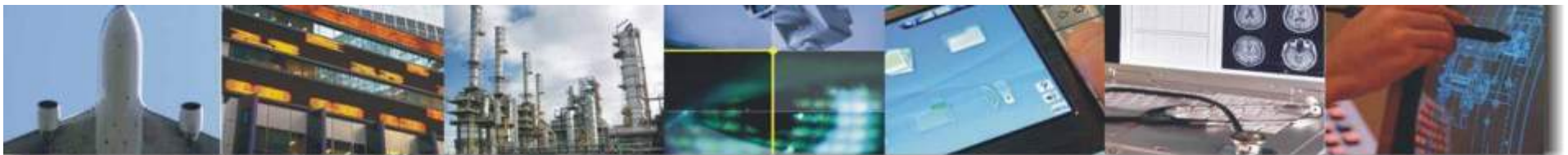
As Enterprises look to reduce costs and decrease risk Service Management innovation will be key

▪ Business/IT drivers

- Increase business resilience for decreased costs
- Create dynamic infrastructure, while reducing risks
 - Support additional compute capability and devices
 - *Hybrid, cloud and mobile*
- Quickly capture, analyze and exploit business knowledge

▪ Visibility/Control/Automation support for these drivers

- Improve visibility and discovery across entire Enterprise
- Increase control of assets while decreasing management costs
- Exploit end-to-end automation to enhance availability and productivity



Gain insight & influence into the future of service management with Service Management Connect

Developing in the open to increase your business agility with System z

- Technical Expert Community
- Best Practices
- Product roadmaps
- Release plans
- Downloads and demos

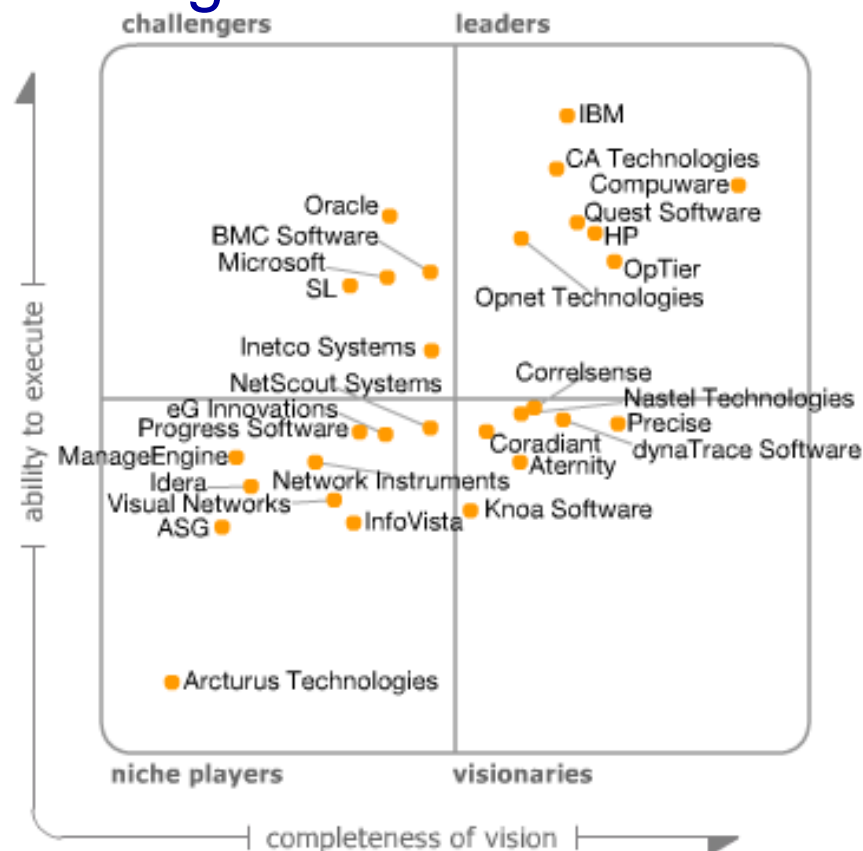


Gartner has recognized IBM as a leader in Application Performance Monitoring

Magic Quadrant for Application Performance Monitoring

Will Cappelli, Jonah Kowall

September 19, 2011



As of September 2011

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IBM Visibility. Control. Automation recognized as industry leading approach to Service Management on System z

VISIBILITY



See your business services

CONTROL



Manage service risk and compliance

AUTOMATION



Optimize business service delivery

- #1 Overall in Systems / Network Management
- #1 in Overall Performance and Availability Mgt.
- #1 Performance Management
- #1 Event Automation
- #1 Network Management
- #1 Output Management
- #1 Archiving
- #1 Identity and Access Management
- #1 Security and Vulnerability Management
- #1 Enterprise Asset Management

IDC Market Share rankings