

# The Cloud makes everything much faster

*With speed comes the need for Visibility and Automation*

**John Kogel**

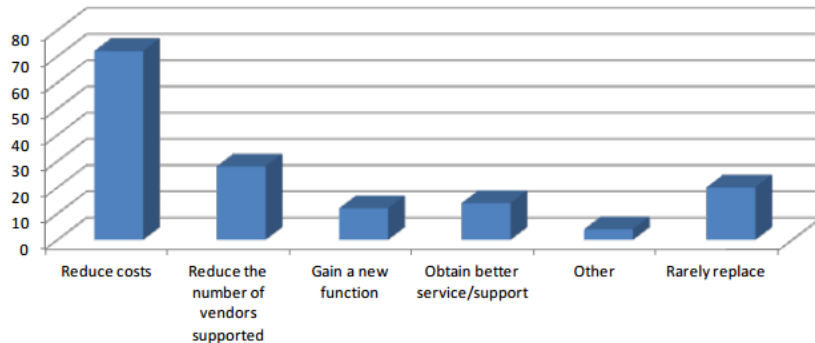
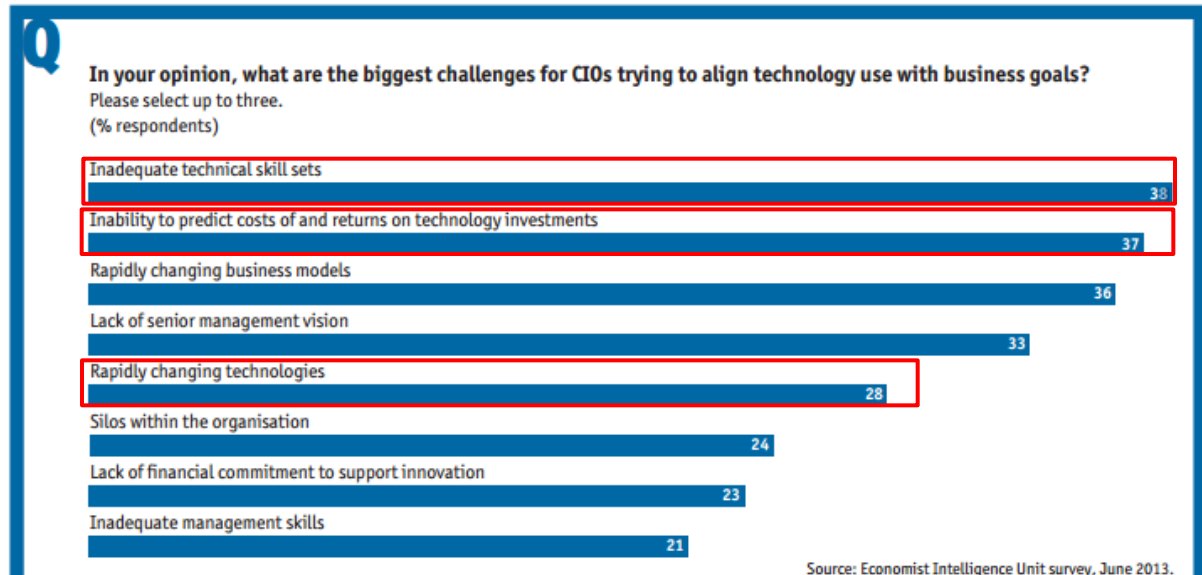
VP of z Systems Management & Optimization



# Client challenges and priorities ...

*What's holding back the CIO of today?*

- Skills
- Cost Predictability
- Speed of change



**Chart 16: What are the most important reasons for replacing mainframe tools and applications?**

*... and it's having an impact on the mainframe*

- Pressure to reduce costs of tools
- Consolidate on vendors
- Ensure tools are fit for purpose

# z13: Reinventing enterprise IT for digital business

## For Mobile

Enterprise Ready Apps  
 Mobile competency centers  
 App Throwdown

## For Data and Analytics

IBM DB2 analytics accelerator  
 IBM DB2 BLU  
 IBM InfoSphere z Systems  
 Connector for Hadoop

## For Trusted Computing

Crypto Express5S  
 IBM zAware V2.0  
 GDPS Virtual appliance



## For Cloud

Custom Patterns for Linux on IBM  
 z Systems  
 OpenSource and KVM  
 PostgreSQL, Node.js

## For Pricing

Large memory  
 IBM Co-location Application Pricing  
 Country MultiPlex pricing  
 z/TPF transformation engine

*Day 1 support: We are ready when you are*

# Security + Agility = Best of both worlds

*z Systems was one of the world's first cloud platforms. z System's influence on our world has been both immeasurable and invisible as the foundation of technological innovations that much of society now takes for granted.*

Today, most of the world's operational systems are mainframe-based.

Mainframes account for **68%** of production workloads, but only **6%** of IT spend.

## SECURITY + AGILITY = CLOUD ON SYSTEM Z IN ACTION.

### City of Honolulu



68% reduction in licensing costs by using a customised cloud on IBM System z and IBM System Storage.<sup>10</sup>

### Nationwide Insurance



“With this new Java™-hosted environment and the way applications are deployed, for me it just makes me feel more confident.”  
– Greg Jorand, Technical Lead, Nationwide Insurance<sup>11</sup>

### YLZ

(Yi Lian Zhong  
Information Technology)



300 million citizens in China whose lives are expected to improve thanks to an online portal for social services built on cloud and IBM System z run Linux as the foundation.<sup>12</sup>



**A 20 percent increase in transactions going through the mainframe has given us extra security and confidence.”**

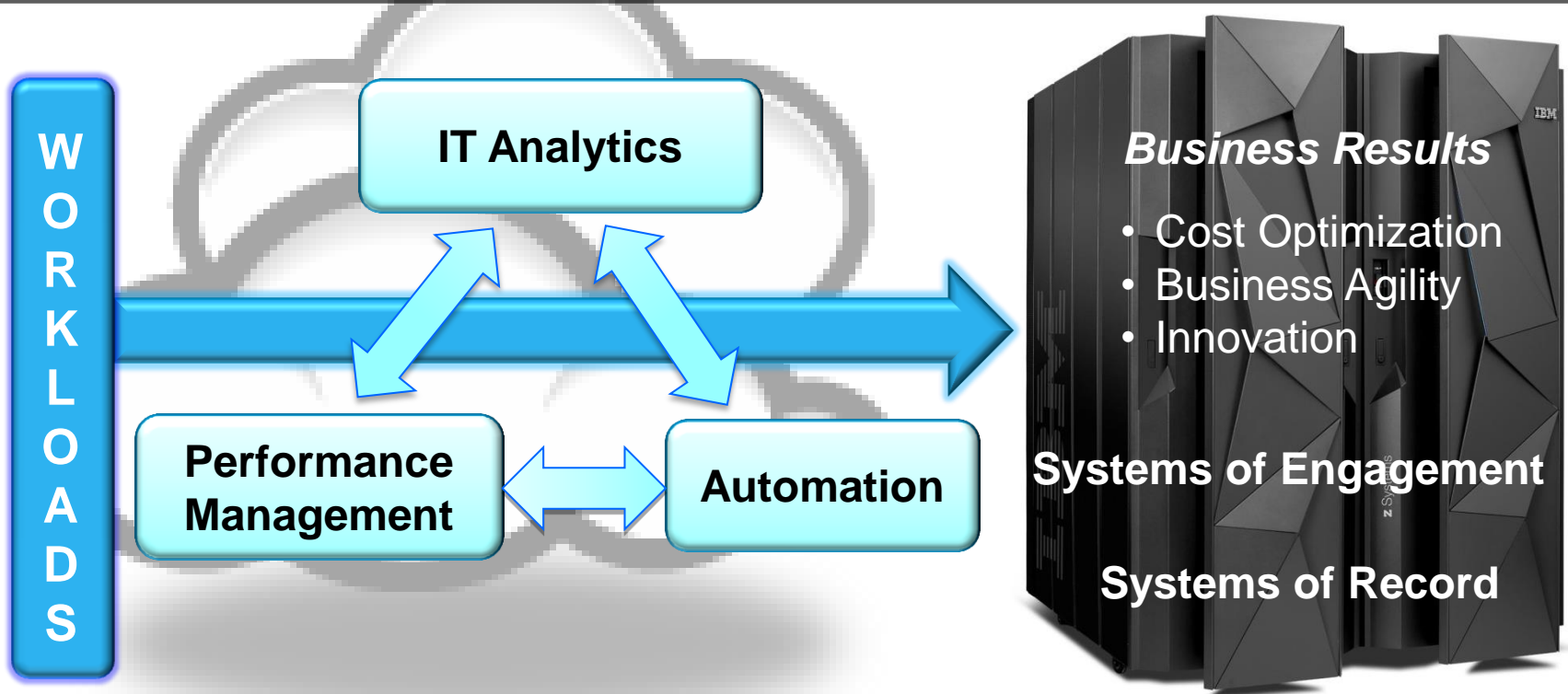
– Byron Young, Applications Services Manager, TUI UK & Ireland<sup>13</sup>

# With Cloud as Workload On-Ramp, Mainframe Systems Management key to driving improved business outcomes

Visibility, Control, and Automation (VCA)

**Stakeholder Dashboards**

- IT Operations
- Development/SME
- Line of Business



# Management Excellence for business agility and optimization

## Common Initiatives

- Consolidation
- Workload pricing
- Improve reliability

### Inefficient Reactive Management

#### 1 Virtualization Optimization

Image Management

Point Products

Infrastructure management

### Integrated Reactive Management

#### 2 Workload Optimized Cloud

Workload Optimized Patterns

DevOps

Integrated Products

Reacting to Events and Problem tickets

Log analysis and integration

### Optimized Proactive Management

#### 3 Cloud Enabled Data Center

Self Service Provisioning

Virtual Room War for Collaboration and speed

Policies and Runbook Automation for Proactive optimization

### Optimized Predictive Management

#### 4 Enterprise Cloud

Fit for Purpose Workloads

Disaster Recovery

Enterprise Security

Analytics for Predictive understanding of risk

What-if Capacity Management

Service Management Suite + Analytics + Cloud → From Reactive to Proactive to Predictive

# Vissensa – Cornering the MSP market with full spectrum hybrid cloud services that meet any client need

## Optimizes performance

for customers by matching the right workload to the right platform

## Competitive pricing

enabled by ultra-efficient IBM hardware, passing savings to clients

## Boosts market share

by giving Vissensa valuable first-mover advantage over other MSPs

## Solution components

### Hardware

- IBM® Enterprise Cloud System
- IBM Flex System®
- IBM Power® System S822
- IBM Storwize® V7000

### Software

- IBM Cloud Orchestrator

### Services

- SoftLayer®



**The transformation:** More companies are seeing the potential benefits of cloud computing – bringing increasingly diverse client needs to the managed services market. Vissensa seized first-mover advantage with a hybrid cloud model that supports an end-to-end scope of Infrastructure, Platform, Software and Solutions “as a Service” offerings, to optimize IT services for any client.

*“IBM understands that hybrid cloud is the future, with them we can address new parts of a growing market.”*  
—Steve Groom, CEO, Vissensa

**vissensa**  
forward thinking

# Positioning Cloud Management Solutions from IBM

## *Modular Capabilities – Common Cloud Management Services*

### IBM Cloud Orchestrator

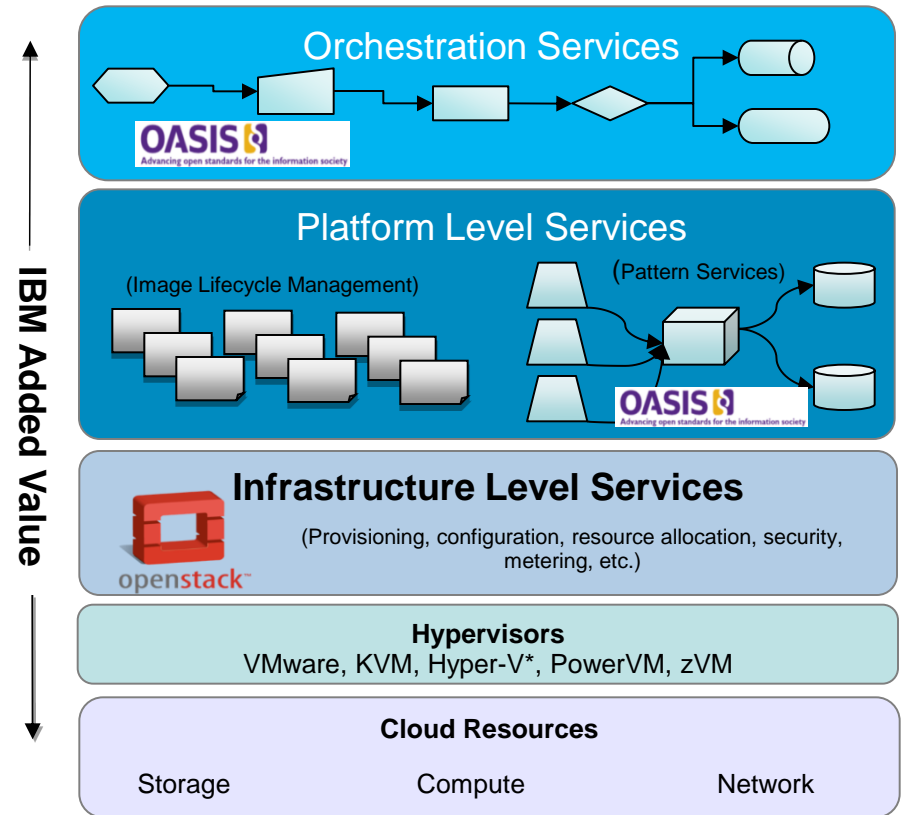
**Enables Infrastructure, Platform & Advanced Orchestration Services:**

- Eases coordination of complex tasks and workflows necessary to deploy applications
- Deploy application topologies or patterns
- Take advantage of the pattern library

### IBM Cloud Manager with OpenStack

**Enables basic Infrastructure Cloud Services:**

- Cloud provisioning and automation based on OpenStack
- Simplified implementation, lifecycle management, resource management, self-service portal, monitoring & metering
- Full access to OpenStack APIs – All IBM server architectures and major hypervisors now available to choose from – runs on z Systems (z/VM)
- Integrated platform management, backed by IBM enterprise-grade lab services and support





# IBM Infrastructure Suite for z/VM and Linux

*Provides management of the z/VM and Linux on z Systems environment*



- ✓ *Visualize*
- ✓ *Monitor*
- ✓ *Automate*
- ✓ *Backup and Restore*

- Eases the adoption of z/VM and Linux on z Systems as a platform for Linux on z workloads, server consolidations and cloud adoption
- Provides a comprehensive suite of products to manage the z/VM and Linux on z environment
- Provides management, administration, automation of the z/VM and Linux on z Systems environment
- Provides high availability through backup / restore for z/VM and Linux on z Systems workloads

# Mobile brings unprecedented challenges

## Time to Market



Best in class time to market adds **60%** to first year innovation sales<sup>10</sup>

## Transaction Volatility



Mobile driven transaction growth to average **35%** annually through 2017<sup>11</sup>

## Information Accuracy



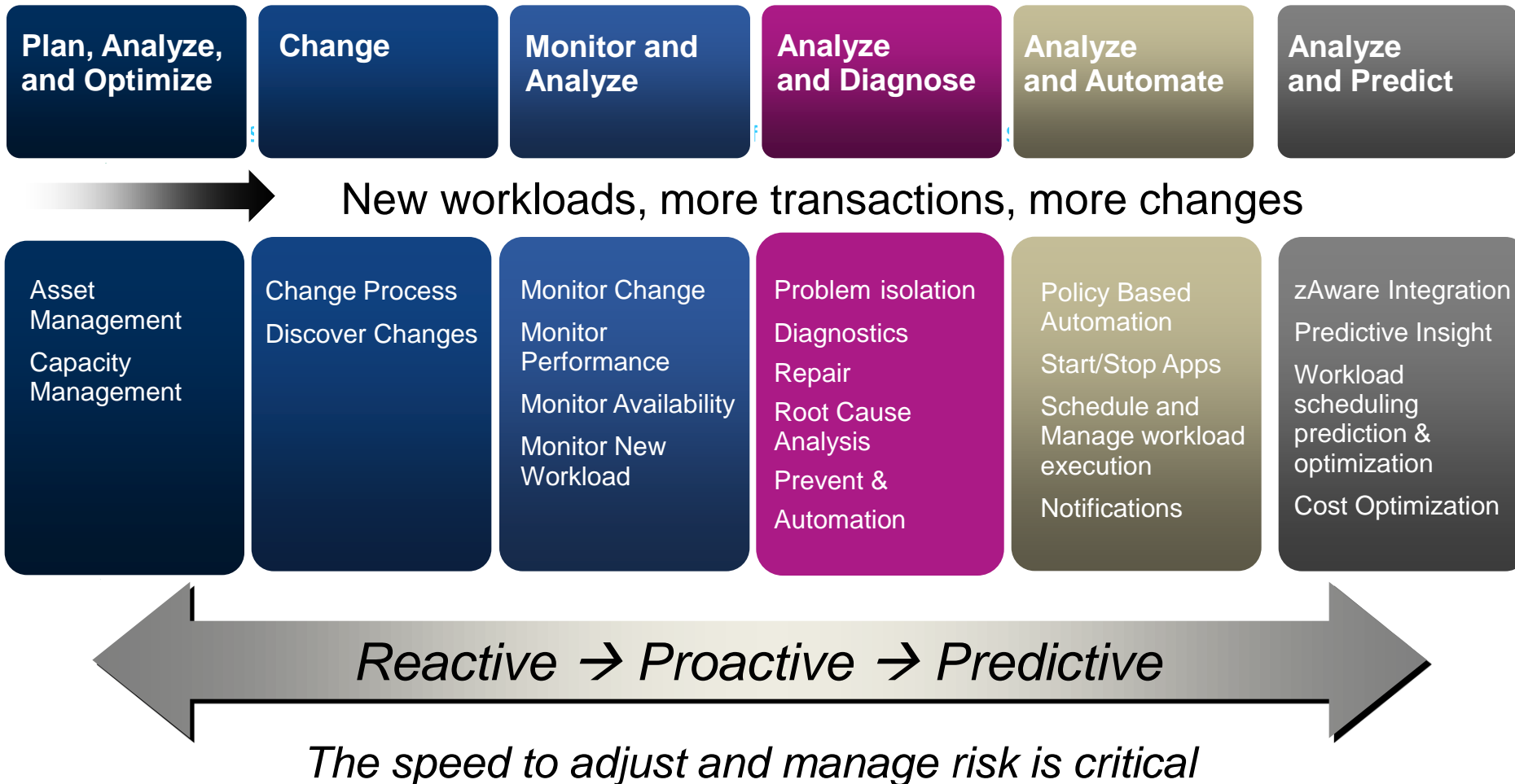
**40%** have gone to a competitor's site after a bad mobile experience<sup>12</sup>

## Response Time



**57%** of mobile customers will abandon a site if they wait 3 seconds+ for a page to load<sup>13</sup>

# Management Excellence for Business Agility and Optimization



# Adding IT Operations Analytics to deliver new insight and decisiveness

## Planning and Optimization:

- Improve Performance across IT Infrastructure

## Problem Management:

- Quickly analyze large volume of log data
- Match Log-files with alerts and metrics

## Predict:

- Pro-Active Outage Avoidance
- Predict Problems before occurrence

Mobile & Cloud Workloads



Gain Service Insights

## *IBM Analytics solutions for z Systems*

### Planning & Optimization

Decision Support  
for z

### Problem Management

Log Analysis z/OS  
Insight Packs  
Operations Insight

### Predict

- zAware integration
- Capacity Management
- Workload Scheduler
- IBM Predictive Insights

# Capacity Management Analytics v1.2

Planning &  
Optimization

- Software costs analysis: Ability for your customer to assist in managing z/OS software costs
- Performance Trending and forecasting analysis
  - Chargeback
  - Service level Management
- What if analysis...
  - If my workload increases in the next 3 months like it has in the previous 6 months, what adjustments will I need to make to resource allocations

**Software Cost Analysis Summary**  
report ran by Anonymous on 2014-06-11 at 01:11:19

**Machine Level Summary**

CPU Serial No	Machine Serial Number	Machine Type and Model	Machine Rated Capacity (MSUs)	Data Start	Data End
4E15	02-94E15	2817 - 709	4884	Apr 8, 2014 0:00	Apr 12, 2014 23:59
BAA6	02-FBAA6	2827 - 704	6477	Apr 8, 2014 0:00	Apr 12, 2014 23:59

**Product Summary**

Product Category	Product Name	Product ID	Product Version	All Machines		CPU Serial No	
				Total Billable MSUs	4E15	BAA6	
IPLA	CICSVR	9555-H91	*	2,131	924	1,387	
		9555-F30	*	2,131	924	1,387	
	9555-H01	NOTUSAGE	0	0	0		
	9555-H02	NOTUSAGE	1,662	14	1,648		
	9555-W05	NOTUSAGE	10	3	7		
WMB	WORKLOADLIFELINE	9597-P44	NOTUSAGE	82	82	0	
		9595-UM4	V2R0	9,020	5,184	3,836	
		9595-T02	*	18,420	4,135	6,078	
MLC	CICS	9595-S97	V4 R2.0	10	0	10	
		9595-Y04	V5 R1.0	4,262	1,648	2,614	
	9595-DB2	10.01.00	13,632	5,744	7,788		
	9595-P97	*	13,632	5,744	7,788		
	9595-234	*	13,632	5,744	7,788		
	9595-P14	*	1,144	0	1,144		
	9595-B22	*	13,632	5,744	7,788		
IMS/ESA	9595-AD3	12.1	780	0	780		

Observed Forecasted Optimized NO99 Products

**Prudential Insurance Company** – optimizes their cost by consolidating performance and capacity planning to Tivoli Decision Support for z.

**GE** – One of the major benefits that GE has seen is the flexibility of the report writing and data collection features that the software provides. GE has been able to act proactively in several areas of its business, making the appropriate decision based upon accurate facts.

# Search for and rapidly analyze logs to accelerate problem isolation, diagnostics, and repair

**Problem Management**  
IBM Cloud Analytics -  
Log Analysis z/OS  
Insight Packs



## Differentiating Capabilities

**Isolate** component error messages from system, configuration, or software logs via rapid indexed search

**Diagnose** issues across various domains including customer session, performance and system faults

**Expert Advice** – links to documentation and operations notes dynamically to log/warning messages or events to resolve problems quickly

## Results

29 hour multi person analysis reduced to 30 minutes with 1 person... 96% improvement in resolution time

*Send us your log and we'll find an opportunity.*



## Delivering Business Results

**Reduce mean time to repair** by identifying and isolating service impacting issues quickly

**Improve service availability** by leveraging expert knowledge of applications and infrastructure

**Built on IBM's leading Big Data platform**

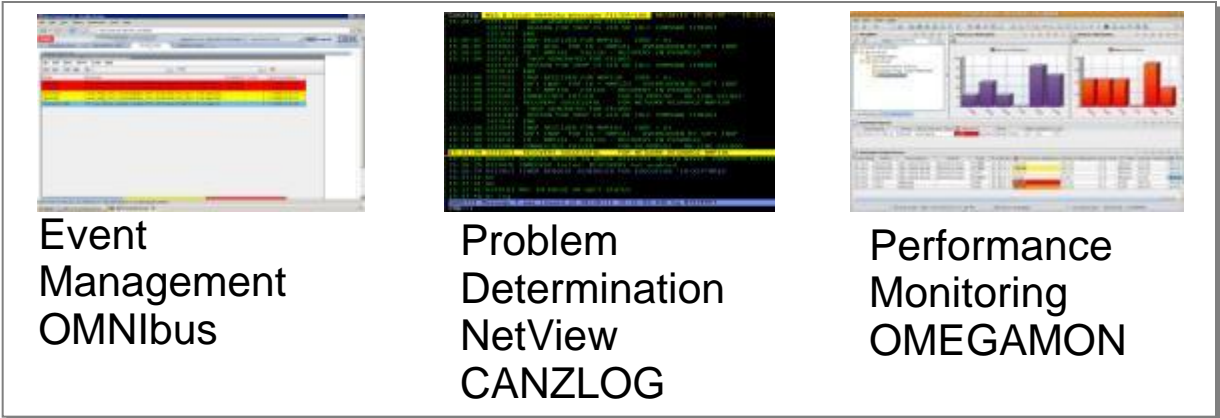
**IBM expertise built-in**

**Download and install in minutes for quick time-to-value**

# Predictive analysis for cloud on z with IBM zAware including anomaly detection and reporting



- Save money ensuring z/OS availability. Highlight potential system health problems which will improve service and reduce business risk.
- Transition to a Problem Management platform with integration to NetView and/or OMEGAMON



IBM zAware



Surface Anomalies

“What’s different today?”

# Tivoli Asset Discovery and Management (TADz)

## *Improve IT ROI by managing and controlling software*

Gartner reports that implementing Asset Management solutions like **TADz**, companies derived cost benefit of 30% in year one and 5% to 10% year on year benefit

- **What's running where, who is using it, and how often...**
- **Decrease number of installed products:**
- **Consolidate number of machines covered by product licenses**
  - Consolidate product usage to LPARs optimal based on billing
  - Consolidate products brought together from outsourcing or company acquisitions
- **Enhance Vendor contract negotiations** – with significant cost savings
  - Coming in 3Q 2015
    - What changed since the last time I ran this analysis
    - Am I at the latest release of my software
    - Are you using what you are running; cost management advisor
- *Get started: Easy to deploy free software checker...*





# Service Management Suite for z/OS V1.2

- ✓ Provides comprehensive service management capabilities for IBM zEnterprise
- ✓ Simple Pricing metric (One Time Charge PID) to deploy infrastructure and middleware solutions as needed



System Automation for z/OS

NetView for z/OS

Tivoli Asset Discovery for z/OS

## OMEGAMON Performance Management Suite for z/OS

z/OS

DB2

CICS

IMS

MQ

Storage

Networks

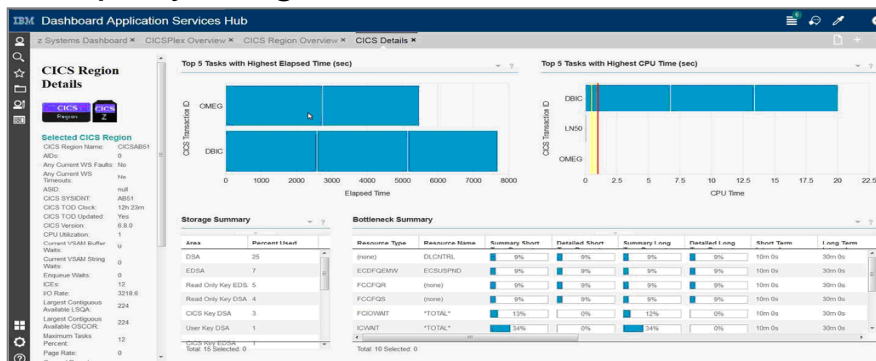
WAS

- Single offering that contains capabilities to manage z/OS and all key subsystems
- High Availability & Automated Operations to improve Service Levels and reduce system downtime
- Ability to visualize and automate your mainframe environment as a single system
- Eliminates boundaries between system and application components
- Network & Performance Management to increase efficiency of resources and personnel
- Tools tightly integrated providing proactive automation, which helps on problem resolution even before an alarm goes off



# Service Management Suite for z/OS V1.3

- ✓ Improved integration between Monitoring, Analytics, and Automation
- ✓ Visualization through an integrated and flexible Web Interface. Simple Dashboard customization and 3<sup>rd</sup> party integration



Beta Today



## Stakeholder Dashboards

- IT Operations
- Development/SME
- Line of Business



System Automation for z/OS

NetView for z/OS

Tivoli Asset Discovery for z/OS

## OMEGAMON Performance Management Suite for z/OS

z/OS

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CICS

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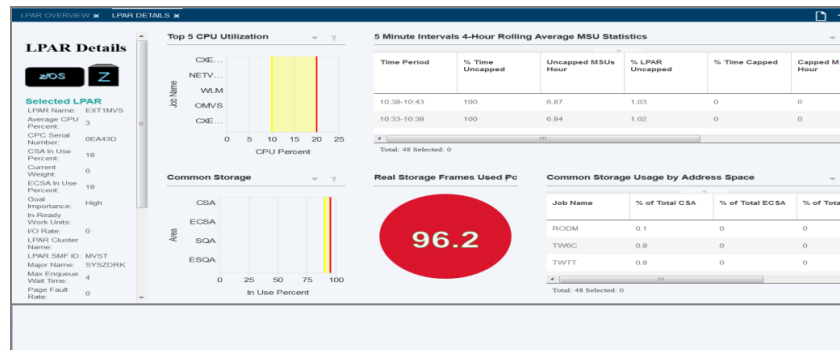
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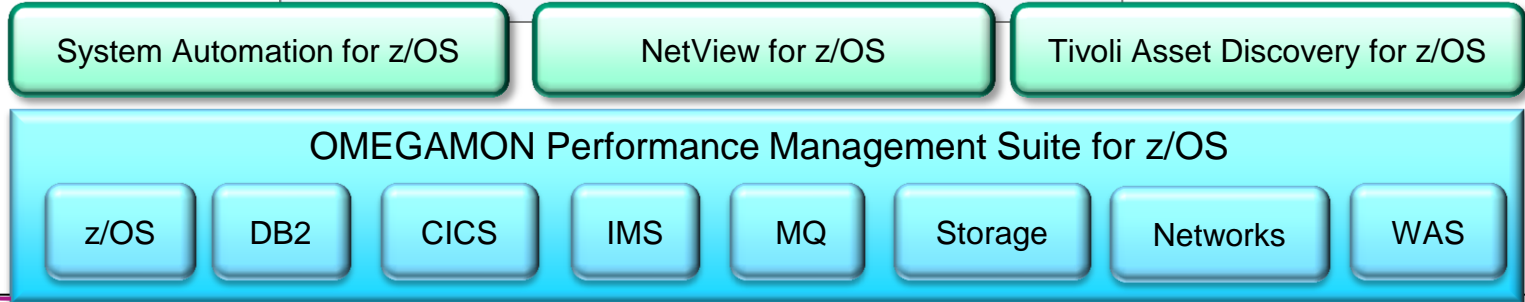
WAS

# New z Systems Management Paradigm.. Hybrid Cloud

Public or Dedicated Cloud



On Premise



## A few numbers to think about...

68 for 6

Mainframes  
account for **68%** of  
production  
workloads, but only  
**6%** of IT spend

32 and 60

Superior cloud  
services at up to **32%**  
lower cost than x86  
and up to **60%** less  
than public cloud  
alternatives

# Service Management Connect

*Connect, learn and share with the z Systems experts*

- Access to the z Systems experts
  - Forums
  - Blogs
  - Wikis
- Videos
- Best practices and white papers
- Submit requirements

- › 250+ z Systems blog entries from the IBM experts
- › 4.5 million hits in 2012
- › 100 featured IBM expert profiles

The screenshot shows the IBM System z Service Management Connect website. At the top, there is a navigation bar with the text "System z" and "Connect Learn Try Share". Below this, a large graphic features a hand pointing at a gear. The main content area includes a welcome message, a "What's hot? What's new?" section with a list of updates, and a "Communities" section listing various service management solutions. A sidebar on the right promotes "IBM Service Engage" with icons for "Simple", "Fast", and "Get Started".

developerWorks > Technical topics > Service Management Connect >

## System z

Connect Learn Try Share

Welcome to the **System z** community, where you can connect, learn, and share with the System z experts.

Join the **System z group** and connect with other members who have an interest in System z. You can also collaborate with the experts by accessing blogs, forums, and wikis listed below.

**What's hot? What's new?**

The new System z solutions simplify enterprise management.

- IBM OMEGAMON Performance Management Suite for z/OS V5.3.0 is available!
- IBM Service Management Suite for z/OS V1.2.0 is available!
- IBM SmartCloud Analytics - Log Analysis z/OS Insight Packs 1.1.0.1 is available!
- IBM Tivoli Workload Scheduler for z/OS V9.2 is available!

**Visit the solutions:**

- IBM OMEGAMON Performance Management Suite
- IBM Service Management Suite for z/OS
- IBM Cloud Management Suite for System z
- IBM SmartCloud Analytics - Log Analysis for z/OS
- Tivoli Workload Scheduler for z/OS

**IBM Service Engage**

1 2 3  
Simple Fast Get Started

Don't wait! Live Demos & Free Trials  
*Stop lallagging and get started!*

IBM Service Engage delivers integrated service management solutions when you need them - at your fingertips, [a click away...](#)

**Communities**

- Application Performance Management
- Asset Management
- Business Service Management
- Cloud/Virtualization Management
- Data Center Automation
- Endpoint Management
- Jazz for Service Management
- Network and Service Assurance
- Process Automation
- Real Estate and Facilities Management
- Software Defined Environments
- Storage Management

**Thank you**

