


# 2013 Tech Summit



Moving to cloud?

System z provides key capabilities for optimizing workloads on Private Cloud





# Cloud implementations that include System z maximize Enterprise flexibility and increase cost savings

## Key Takeaways



- IBM SmartCloud open cross-platform architecture includes System z within a [fit-for-purpose](#) framework
- System z in Cloud optimizes [critical business workloads](#) requiring high availability and performance
- Implement Cloud on System z quickly with [Cloud Ready](#), and easily migrate to [SmartCloud](#) over time

# Improve confidence in System z ability to support new operating models and business requirements going forward

## Technology now #1 on CEO's list

- Huge challenges of social, mobile and cloud
- Innovations required to remain competitive

## Value vs. Cost Pressures

- Managing risks vs. efficiencies
- IT pushed to be more rapid and dynamic
- System z needs modernizing



# As companies continue to exploit System z as platform for business critical applications

- 90% of Fortune 500 companies rely on mainframes
- 70% of Enterprise Customers indicate z will play part in **cloud initiatives**

## Why are customers continuing to use System z?

- Up to 50% savings on applicable IT costs
- Up to 99.999% availability and uptime
- Secure mixed-workload management



## Achieving agility, cost savings and high availability requires:



Visibility



Control



Automation

# IBM helping organizations embrace bold strategies to **Rethink IT and Reinvent Business**

## Smarter Infrastructure



### Optimize with Cloud



*Speeding service delivery from 45 days to 20 minutes*

### Extend to Mobile Devices



*Increasing sales with new promotions from 15% to 75%*

### Deploy Smarter Physical Infrastructures



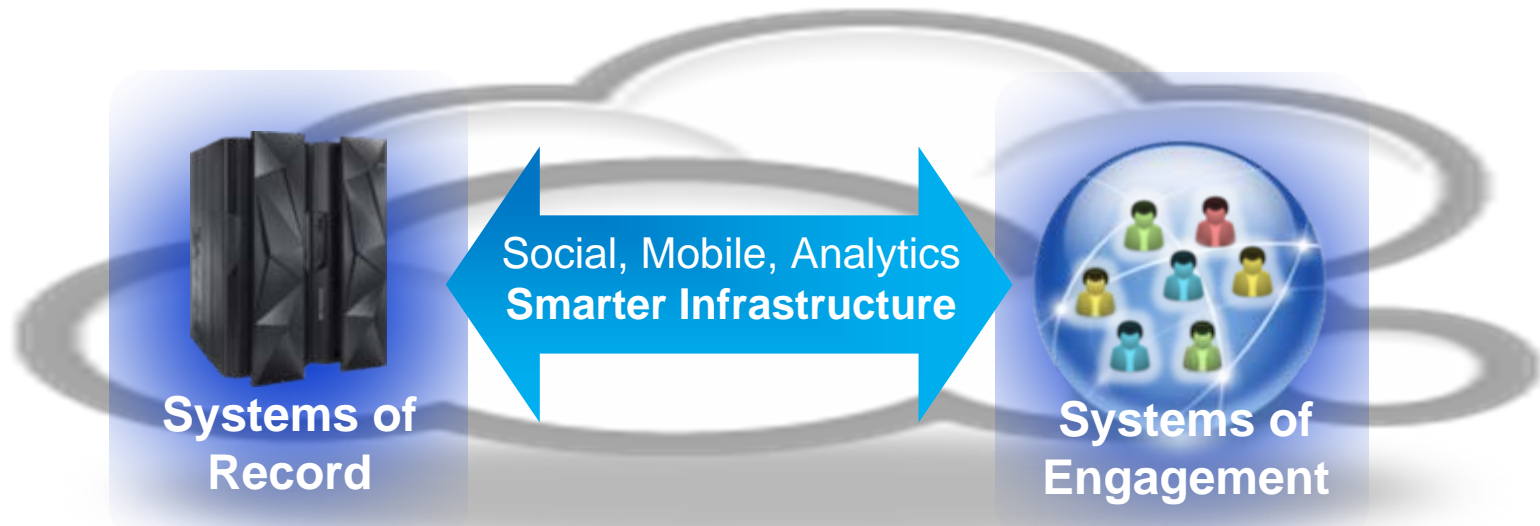
*Recognizing & repairing over 50% of issues before operations impact*

### Protect & Manage Data



*Reducing time it takes to backup critical data by 80%*

# Emergence of next generation architectures in Smarter Infrastructure will include enhancing System z



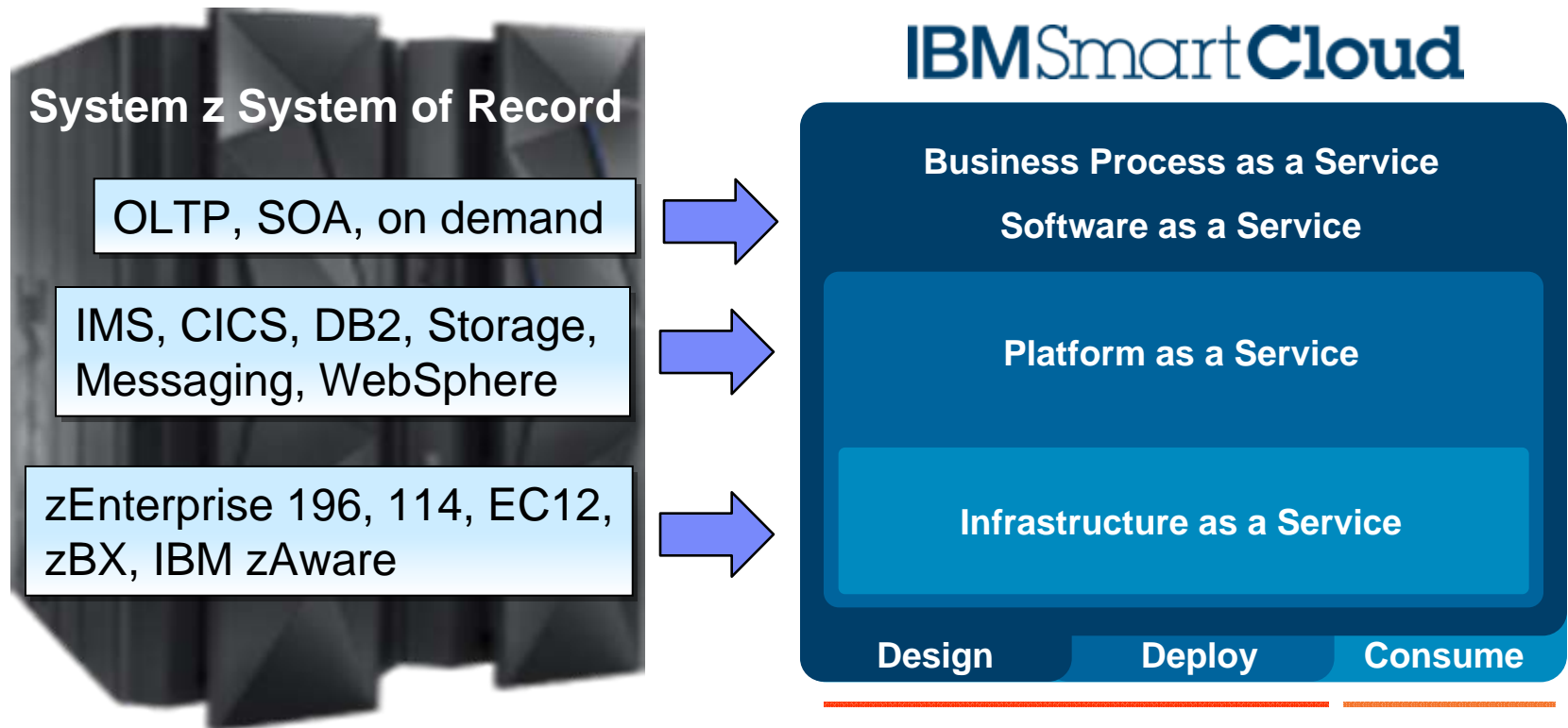
- Transactions
- Command & Control
- Authored content focused on text and graphic docs
- Facts and data mastered in single “source of truth”

- Interactions
- Collaboration
- Community based content primarily with video / audio
- Insight, trends, analytics thru open forums

Both ‘Systems of Record’ and ‘Systems of Engagement’ included in cloud

# System z Systems of Record provides key resources supporting SmartCloud Systems of Engagement

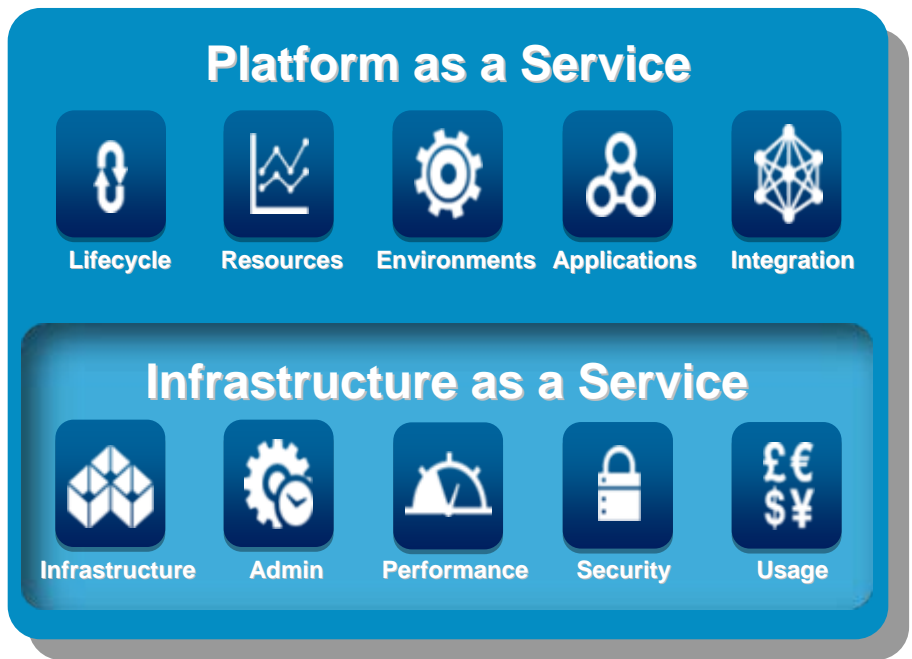
zEnterprise provides value for Cloud workloads, including virtualization, database, security, high availability and high utilization




# IBM provides necessary cross-platform building blocks to achieve savings in Cloud-enabled Data Center


## IBM SmartCloud Foundation

- **Comprehensive** set of offerings
- **Optimized patterns** of adoption
- **Heterogeneous** environment support
- Interoperate based on **open standards**









- Speed infrastructure delivery from 45 days to 20 minutes
- Improve server to administrator ratio from 10:1 to 100:1





# SmartCloud Foundation offer private cloud across platforms with open “fit for purpose” approach

<p><b>z Enterprise secure cloud for data</b></p>	<p><b>Power Systems for compute intensive applications</b></p>	<p><b>System x reduced cost &amp; data → insight</b></p>	<p><b>Pure Systems for workload optimized design</b></p>
			
<p><i>zEnterprise EC12</i></p>	<p><i>Power 770, Power 780, Power 795</i></p>	<p><i>System x eX5, x3640</i></p>	<p><i>Pure Systems</i></p>

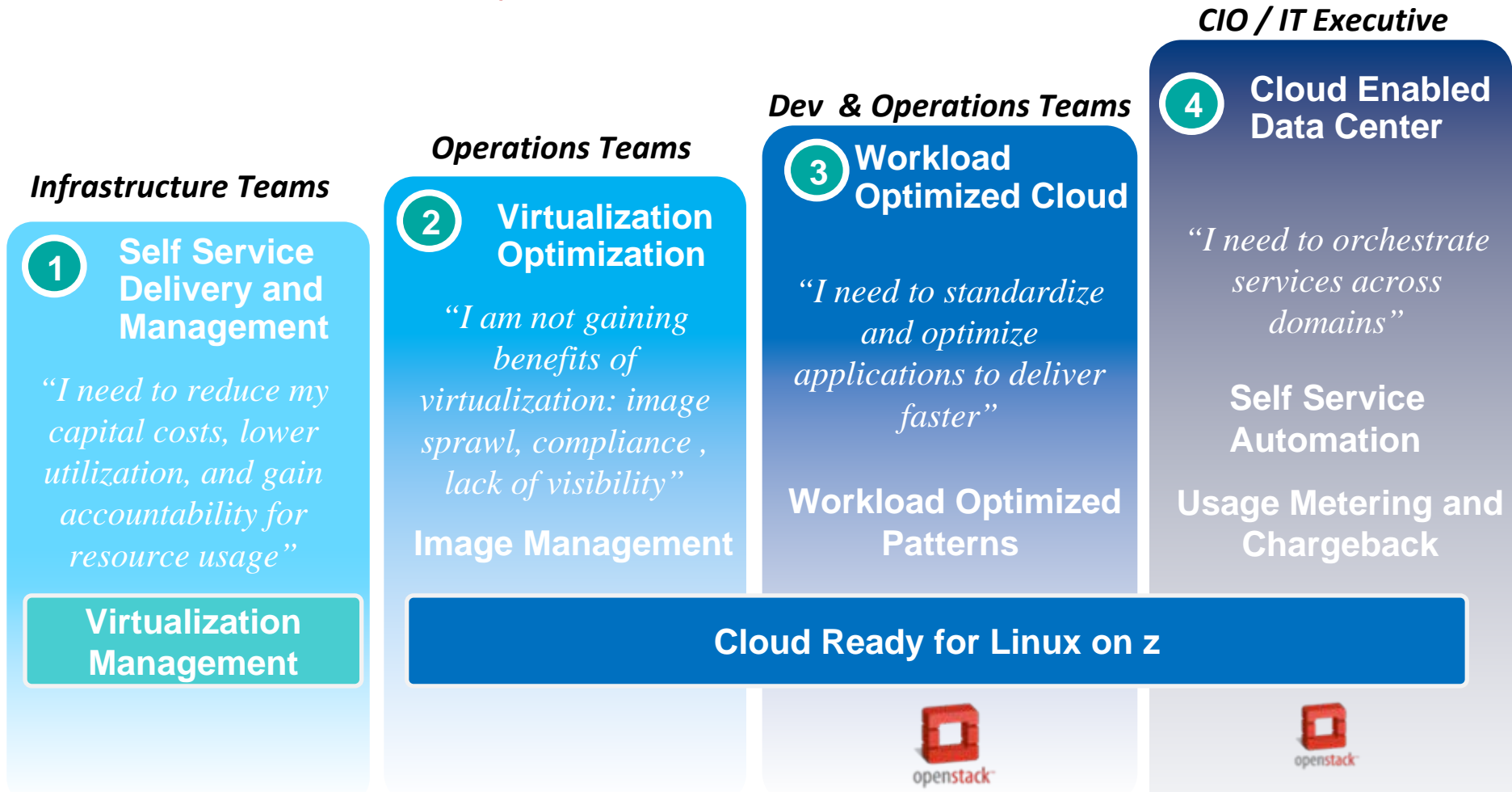
## *Flexibility to choose platform that meets business requirements*

- Management tools are **consistent** and **interoperable** across platforms
- Open standards approach avoids vendor lock-in
- Common tools translate to low learning curve

### Benefits:

- Reduced administration costs and increased staff productivity
- Lower total cost of ownership including software licensing savings
- Decreased risk with improved automation and workload consolidation

# Exploiting Cloud on System z provides significant business value day one and increased value over time





## System z provides key values for workload optimization across cloud implementations

- Automated provisioning from simple VMs to clustered infrastructure applications
- Automated and integrated server lifecycle management for physical and virtual machines across platforms and hypervisors
- Pre-built automation that can be leveraged by customers existing tools



### **Benefits:**

- Client turnaround time reduced per service request from **2 months down to 4 hours**
- Build simple to complex VMs consistently and fast in an automated fashion
- Ensures standardized rollout at large volumes according to enterprises' best practices
  - 7 by 24, highly available and meeting highest security standards



# Quick and easy implementation of Private Cloud on System z with provisioning of images and applications

*Cloud Ready for Linux on System z*

**Cloud Monitoring**

**Service Lifecycle Management**

**Cloud Backup/Recovery**

**Automated Provision/De-Provision**

**Cloud Automation**

***Installation/Configuration support***



**Benefits:**

- Bring up Cloud on Linux on System z in less than a week
- Quickly begin to see value of Cloud on System z



# Enhanced visibility and management for z/VM and Linux applications and resources saving time and money

## Cloud Monitoring



### Increased Performance & Availability

- zVM Live Guest Relocation & Single System Image

### Cloud Health Visibility and Optimization

- Performance and Availability metrics/analytics

### Extensible Cloud Environment

- Business Expansion based on capacity planning
  - Grow without adding hardware

## Client Success

- Cloud service provider **consolidates 59 development & test labs into 6.**
- Increased utilization by **increasing VM density by 58%**



# Holistically govern IT assets and workload lifecycle resources across entire enterprise Cloud

## SmartCloud Control Desk



### Manage cloud services from single console utilizing Service Catalog

- Asset lifecycle management
  - SLA based services and policies .
- Simplified control with intelligent provisioning
- Automate service request handling

#### **Benefits:**

- Minimize outages related to changes within IT Operations by **up to 70%**
- Increase Process Speed and Efficiency by **up to 40%**
- Increase Service quality and responsiveness by **up to 60%**



# Automated Provisioning simplifies end-user access and usage for improved agility and productivity

## Provisioning/De-Provisioning



### Combines infrastructure and platform capabilities

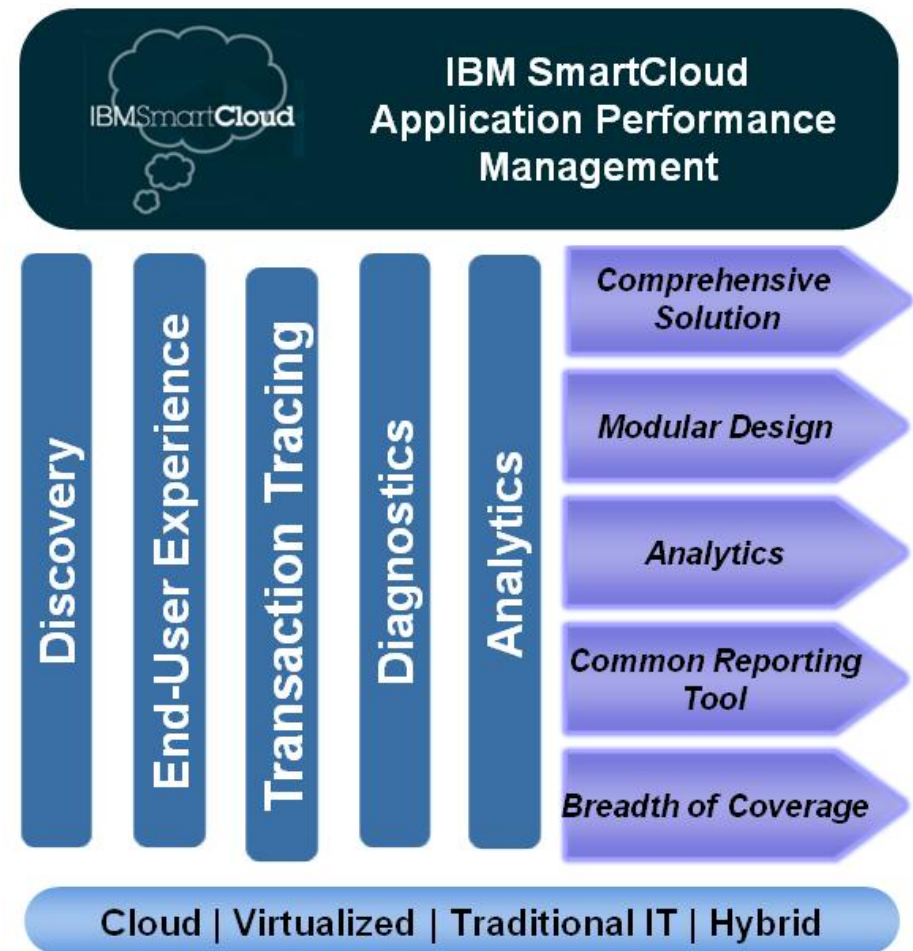
- Deliver elastic workload aware management
- Virtual and physical server optimization
- Dynamically allocating resources
- Enable new delivery and billing options

### ***Benefits:***

- Improve productivity **by 50%** for improved innovation in operations, management and monitoring
- Improve capital utilization **by 75%**, significantly reducing license costs
- Reduce provisioning cycle times from **weeks to minutes**
- Can reduce end user IT support costs by **up to 40%**

# Intelligently manage Cloud infrastructures across heterogeneous platforms

- Comprehensive application/workload solution
- Modular design to get started quickly and add capabilities as needed.
- Analytics to improve capacity utilization and optimize performance
- Common reporting tool, based on Cognos, makes reporting simple and easy to customize
- Single trusted source of information for accurate and fast problem diagnostics
- Entry edition available for mid market clients





# Customers exploiting different approaches to take advantage of Cloud on System z today

## Workload consolidation to Linux on System z

- Reduce administration and capital cost
- Remove inefficiencies due to image sprawl
- Avoid server and workload underutilization across platforms



## Enabling System z to be Cloud Ready

- Get up and running quickly with Installation/Configuration Services
- Provide platform to easily interface to Enterprise wide cloud services



## Creating Peer to Peer Cloud across Distributed and System z

- Provide workload optimization based on business requirements
- Manage from either distributed or z platform



# Government agency modernizing for cost avoidance and investment protection based with Cloud approach

## Business Challenge:

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

## IBM Solution:

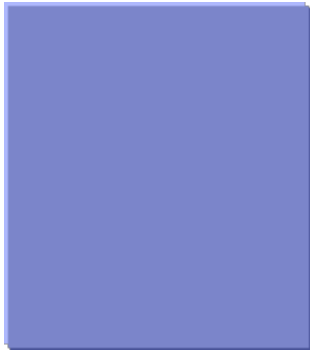
- System z10 Server with 28 IFLs
- Oracle DB for Linux on System z Servers
- IBM Maximo Asset Management for System z



## Business Benefit:

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

# Nationwide Insurance cuts costs with smart workload consolidation on Cloud on System z



## Client Pain Points addressed by solution:

- Need to standardize development in Fit-for-Purpose model
- Reduce complexity of deploying workloads
- Take advantage of best platform that met characteristics
  - Initially across z Linux and x Linux.
- Monitoring and capacity management that spans x, z and p based on SLA

## Solution description:

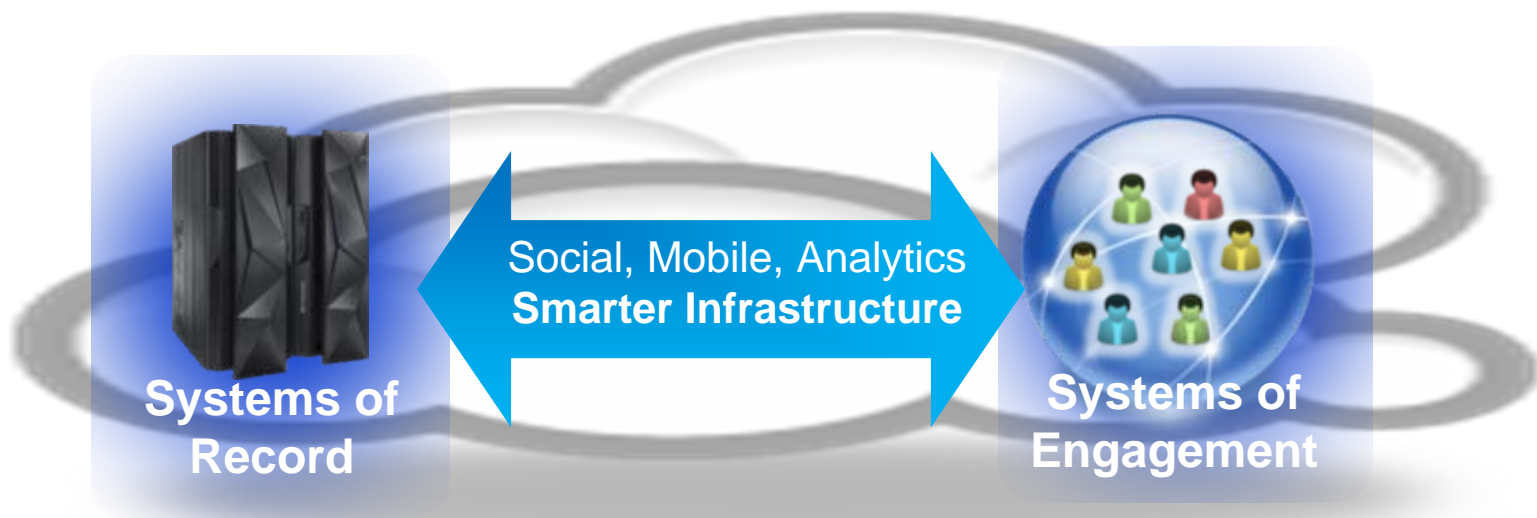
Application Deployment of standardized patterns on an integrated, optimized expert system for faster time to market

## IBM Value Add:

- Patterns to reduce complexity of application development
- Consistent user and admin interfaces across x and z
- Abstraction in elements used to manage platform selection based on customer policies
- Initial platform for cloud delivery with ability to grow

## System z provides cost savings and workload flexibility in Enterprise Cloud implementations

- SmartCloud open standards includes System z within **fit-for-purpose** framework
- Cloud **workload optimization** require z high availability and security
- Implement Cloud on System z today w/ **Cloud Ready** and move to SmartCloud



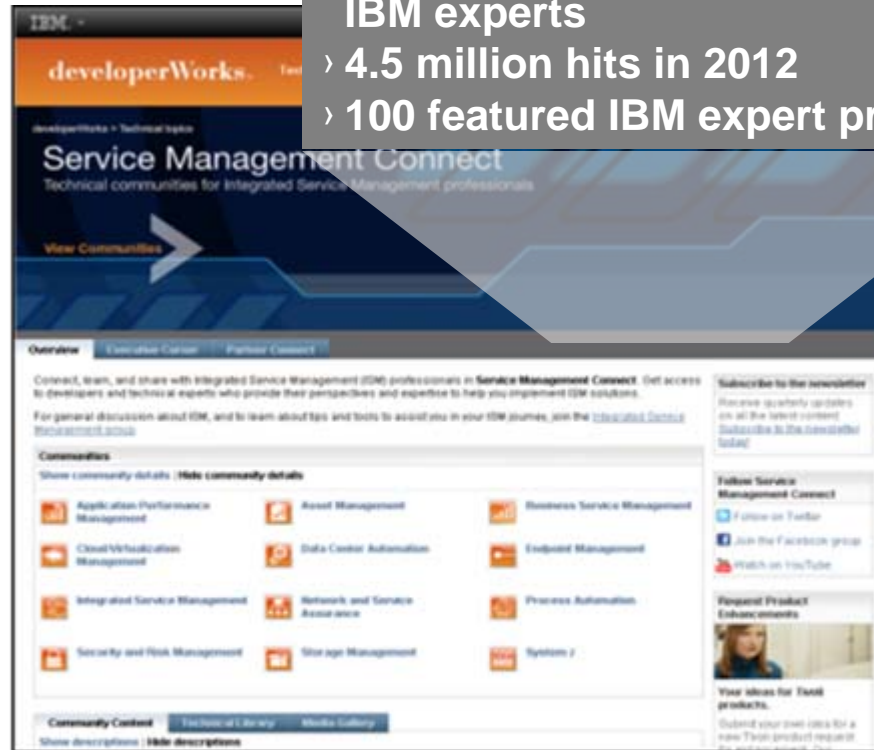


# Learn more with Service Management Connect

*Connecting to future of service management*

- Transparent development
- Product roadmaps
- Code downloads and demos
- Access to System z experts
  - Forums
  - Blogs
  - Wikis
- Best practices
- Submit requirements

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



[Service Management Connect for System z](#)



Thank  
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