Smart Business Development and Test Cloud:

Innovative Solutions for a Testing Environment

Lewis Troke

IBM Service Management Consultant

Pulse2010

The Premier Service Management Event

Managing the World's Infrastructure

Cloud is an opportunity—will you be able to take advantage of it?

- We are in a unique point in the history of the planet and the ability of technology to solve problems and contribute to humanity—technology is enabling a smarter planet

- At the same time, we are faced with myriad challenges to creating the necessary IT infrastructure to move forward—cost pressures, finding talent, security, managing complexity, meeting the expectations of end users

- Cloud computing is a major shift in how we address the challenges of a smarter planet and the dynamic infrastructure that supports it

Why is cloud computing important for Development and Test?

Traditional

High deployment costs to deliver software

- Reduced installation and administration costs
- Lower TCO by improved utilization of software assets

Control and governance chaos in software processes

- Better governance through standardized delivery of services
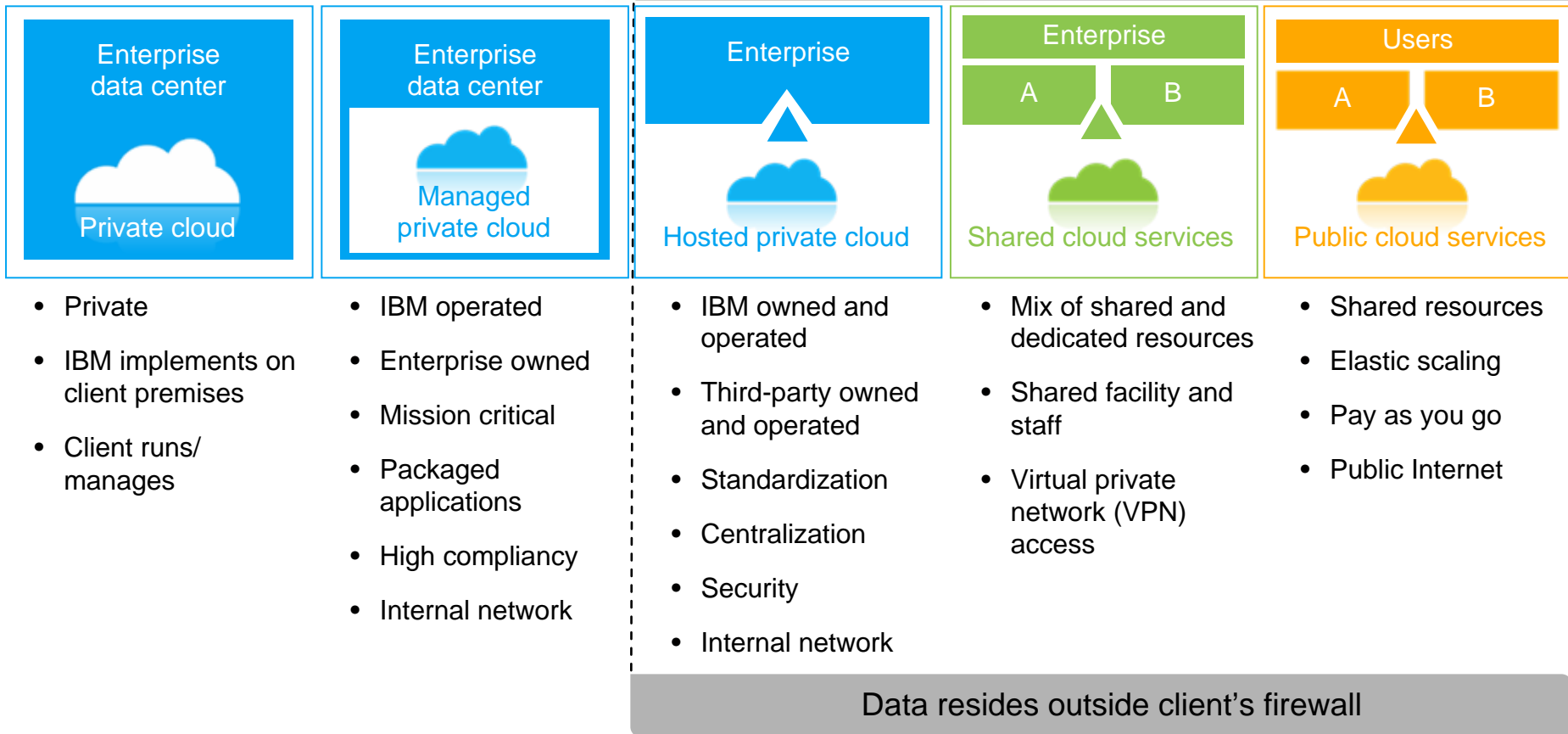- Preconfigured software embodying best practices

Onramp and on-boarding of teams reduces time to software delivery

- Tools can be provisioned in minutes. No download, installation or setup.
- Self-administered portal to access to software resources for a globally distributed team

Cloud deployment models can provide options

Deployment models

Enterprise data center	Enterprise data center	Enterprise	Enterprise	Users
Private cloud	Managed private cloud	Hosted private cloud	A B / Shared cloud services	A B / Public cloud services
• Private • IBM implements on client premises • Client runs/manages	• IBM operated • Enterprise owned • Mission critical • Packaged applications • High compliancy • Internal network	• IBM owned and operated • Third-party owned and operated • Standardization • Centralization • Security • Internal network	• Mix of shared and dedicated resources • Shared facility and staff • Virtual private network (VPN) access	• Shared resources • Elastic scaling • Pay as you go • Public Internet

Data resides outside client's firewall

Cloud computing helps increase business agility and IBM has the choices to fit the organizations needs…

Increase agility

Enable novel integrations and greater optimization for innovative business models and processes that quickly react to change

Development and test

Smart Business on the IBM Cloud	Smart Business Development and Test on the IBM Cloud
Smart Business cloud solutions	Smart Business Development and Test Cloud
Smart Business systems	IBM CloudBurst™ portfolio
IBM Software as a Service	IBM SWG images for Cloud Computing

…Yielding significant business results!

- **Substantially Reduce IT labor cost -** reduce high cost and deployment time of software development and test environment, no installation cost, reduced labor for configuration

- **Eliminate capital expense** and significant software license savings – rapid access to elastic developer and test environment

- Reduce development and test **provisioning cycle times from weeks to minutes** – faster time to market and more time for innovation

- **Improve quality - eliminate 30%** + of all defects that come from faulty configurations – reducing risk and delivering high quality of service

- **Enable more effective development** - preconfigured integrated Rational developer group tools and best practices

- **Improve governance and reduce risk** of large software deployments

IBM Wins 'Best of Interop' Award for Cloud Computing

IBM Recognized for Commercial Test and Development Cloud Service

LAS VEGAS, April 29 /PRNewswire-FirstCall/ -- IBM (IBM) today announced that it has received the prestigious 'Best of Interop' award from InformationWeek Analytics and Interop. **IBM received the only award in the category of Cloud Computing based on its Smart Business Development & Test for enterprises.** IBM was honored at the Interop conference in Las Vegas, Nevada. (Logo: http://www.newscom.com/cgi-bin/prnh/20090416/IBMLOGO)

The Best of Interop Awards recognize some of the world's most innovative technologies across nine major categories, and the winners are selected by award-winning editors and analysts from InformationWeek Analytics. InformationWeek Analytics is one of the leading resources for peer-driven research, providing business technology professionals with the real-world analysis and perspective they need to run better, smarter IT organizations. Interop, part of UBM TechWeb's family of global brands, is a leading business technology event series.

"Since beginning work with clients and partners around cloud computing in 2007, IBM has sought to make this model viable for enterprise and government clients -- clients that cannot compromise on security, compliance and availability," said Kristof Kloeckner, CTO Cloud Computing, IBM. "IBM is honored that our test and development cloud service has been recognized for its focus on teams of developers and for its enterprise-grade security, reliability and control."

"The Best of Interop Awards highlight the outstanding IT vendors of the industry and this year's Best of Interop is particularly exciting because of the strong competition we saw in each category," said Art Wittmann, Managing Director of InformationWeek Analytics. "The selected winners represent innovation in the marketplace and deserve recognition for helping build the energy and growth of today's IT Industry."
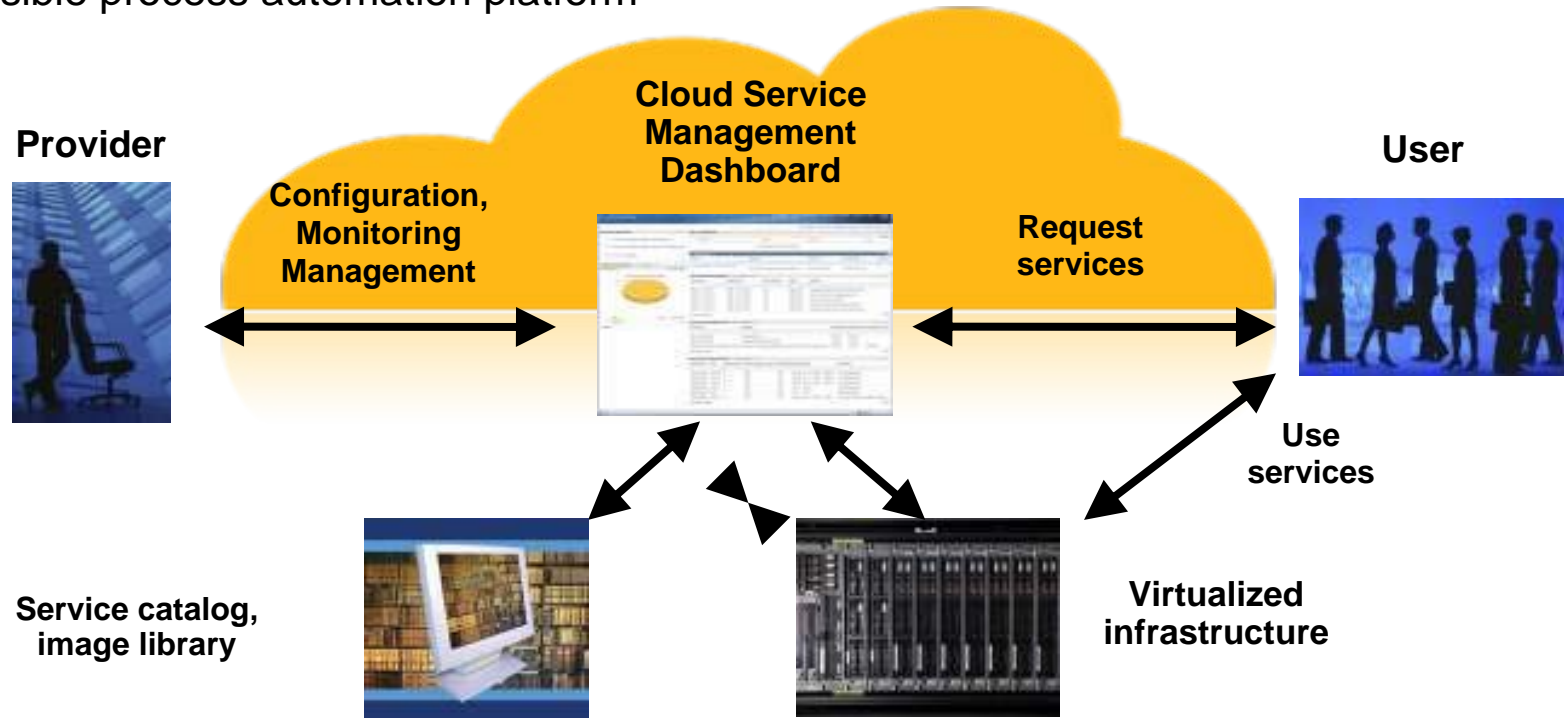
IBM's Smart Business Development & Test, featuring IBM Rational Software Delivery Services for Cloud Computing, allows enterprise clients to expand on internal development and test efforts with rapid access to resources through IBM's secure, scalable cloud delivery model. The average enterprise devotes up to 50 percent of its entire technology infrastructure to development and test, but typically up to 90 percent of it remains idle. IBM has seen that taking advantage of cloud computing within development and test environments can help reduce IT labor costs by 50 percent, reduce provision cycle times from weeks to minutes and improve quality, and in the process, eliminate software defects by up to 30 percent.

For more information about IBM's cloud computing portfolio, research and labs, visit www.ibm.com/cloud

But not all are ready to move to the IBM Cloud. IBM introduces the IBM Smart Business Development and Test Cloud

A private cloud—containing system, storage, network and images—is built at your site and includes:

- A self-service portal for catalog-based requesting of test resources
- A platform that combines service request management, provisioning and change and configuration management for an integrated process
- Extensible process automation platform

Provider

Cloud Service Management Dashboard

User

Configuration, Monitoring Management

Request services

Use services

Service catalog, image library

Virtualized infrastructure

IBM CloudBurst
A Breakthrough in Service Delivery with a fully configured pre-integrated system

- For IT executives seeking a breakthrough in:
  - delivery of service
  - reduction in cost
  - transformation of the data center into a Dynamic Infrastructure

- A product that integrates service management software with servers, storage, and IBM CloudBurst Quickstart services

- "Built for Performance" based on architectures required by specific workloads

- Optimized for test/dev workloads or production implementations

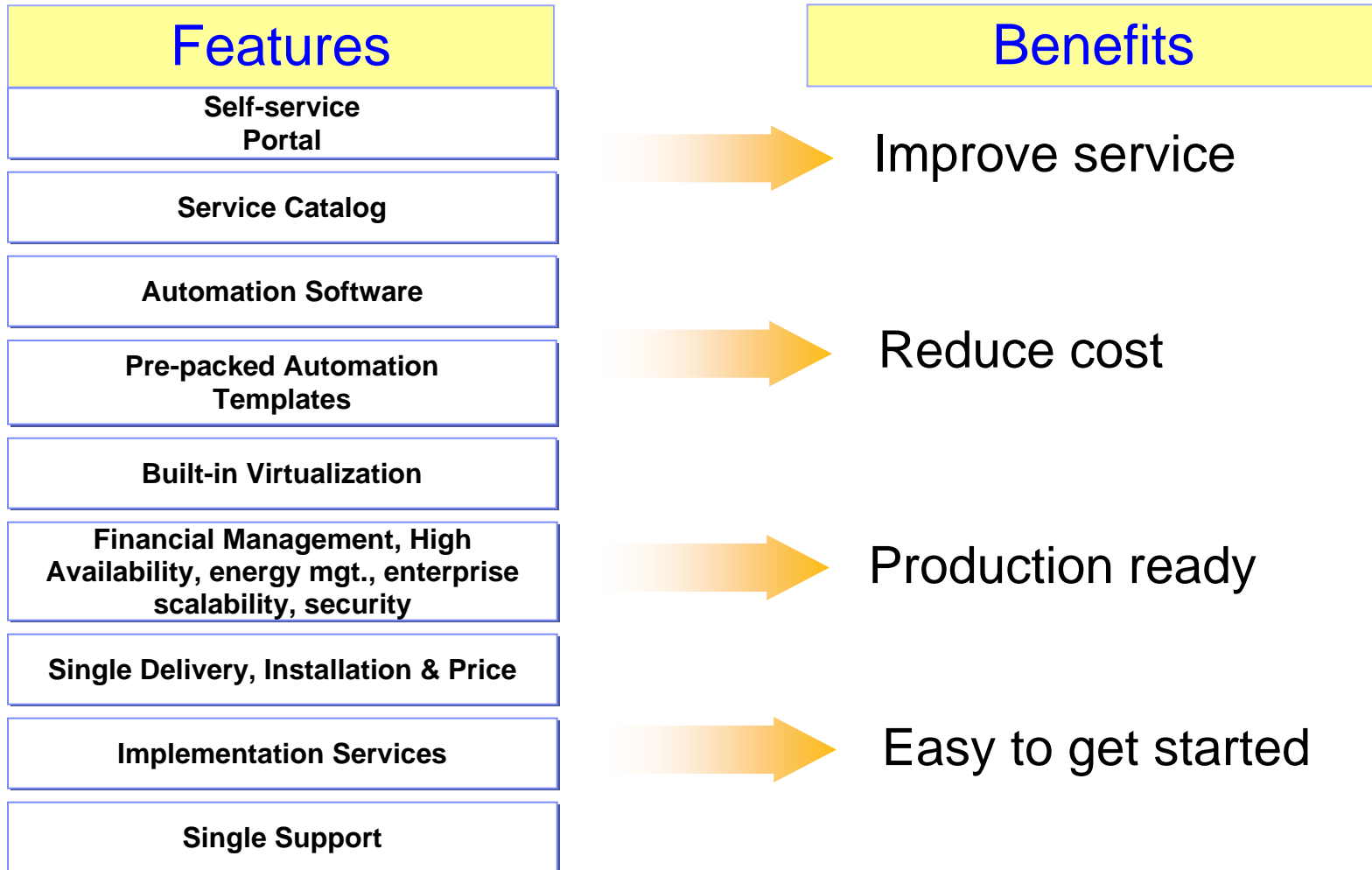- Available with several attractive financing options

IBM CloudBurst

A Breakthrough in Service Delivery with a fully configured pre-integrated system

Customer Benefits:

- Dramatic improvement in time to market

- Provides clients what they need when they need it.

  - Self-service

  - Service delivery in one day, not six weeks

- The lowest per-unit cost

  - True hands-free operation

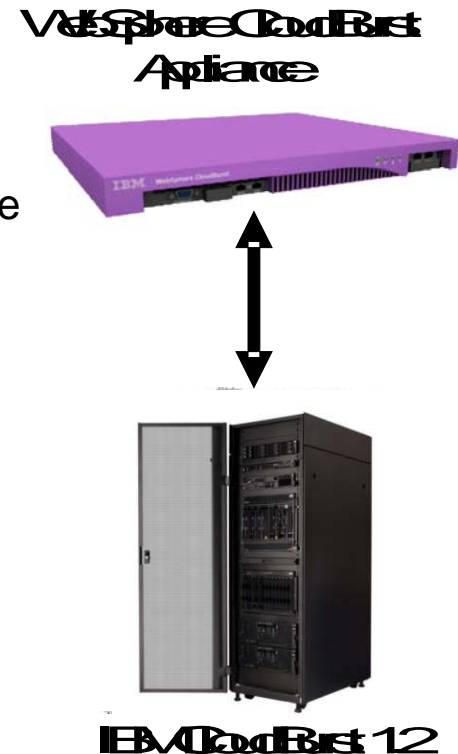 - Elimination of mundane tasks from skilled personnel

IBM CloudBurst delivers from the factory…

Features	Benefits
Self-service Portal	
Service Catalog	Improve service
Automation Software	
Pre-packed Automation Templates	Reduce cost
Built-in Virtualization	
Financial Management, High Availability, energy mgt., enterprise scalability, security	Production ready
Single Delivery, Installation & Price	
Implementation Services	Easy to get started
Single Support	

Enhance your implementation of IBM CloudBurst:
Use it with WebSphere CloudBurst Appliance-A Winning Combination

- **WebSphere CloudBurst Appliance**
  - Provides access to WebSphere virtual images and patterns
  - Easily, quickly and repeatedly creates application environments

- **IBM CloudBurst**
  - Discover patterns by connecting to WebSphere CloudBurst Appliance
  - Request and reserve WebSphere CloudBurst Appliance patterns
  - Initiates deployment of WebSphere application onto IBM CloudBurst

- **Benefits of Using Together**
  - Leverage IBM CloudBurst as an out of the box cloud platform for WebSphere applications delivered by WebSphere CloudBurst Appliance

WebSphere CloudBurst Appliance

IBM CloudBurst

© 2010 IBM Corporation

IBM Software images available in the Service Catalog for Smart Business Development and Test on the IBM Cloud

- Standardized images are loaded into the Service Catalog
- These images can be provisioned by administrators or project team members

Rational. software

- Rational Quality Manager V2.0
- Rational Test Lab Manager V2.0
- Rational Team Concert V2.0
- Rational Build Forge V7.1.
- Rational Build Forge Agent V7.1.1
- Rational Asset Manager V7.2
- Rational Requirements Composer V2.0

Information Management

- DB2 Enterprise
- DB2 Express-C V9.7
- Informix Dynamic Server Developer Edition V11.5

WebSphere. software

- WebSphere Application Server V7
- WebSphere sMash V1.1

Lotus. software

- IBM Mashup Center v2.0
- WebSphere Portal Server and Lotus Web Content Management Standard Edition V6.1.5
- Lotus Domino V8.5.1

IBM SWG Amazon Machine Images on EC2
Pay-as-you-go for IBM Software

- Develop, deploy, and manage applications, paying only for the time and capacity you use, while scaling up or down to accommodate changing needs or business requirements.

- Options available:
  - Bring own IBM licenses to Amazon EC2
  - Utilize development Amazon Machine Images (ISVs only)
  - Leverage production-ready Amazon EC2 running IBM services

Information Management

Lotus software

Tivoli software

WebSphere software

IBM has the services and the strategy to deliver on the promise of cloud computing—and analysts and the press have taken notice

"What IBM is demonstrating is that no matter where an organisation is starting from, it can move the communication and collaboration platform forward to wherever the organisation needs to go: in-house, hybrid or pure-play cloud."[1]

— Quocirca

"The concept of the cloud plays to IBM's historic strengths of high capacity hardware, strong centralized management, and global services, noted Rob Enderle, principal analyst, The Enderle Group. 'In terms of sheer breadth of related products and geographic coverage there are few firms that are even in IBM's league when it comes to concepts like this.'"[2]

— eChannelLine

"IBM is making major strides toward moving its offerings into the cloud."[3]

— Osterman Research

1 Quocirca, "Lotusphere 2010 – consolidation, and setting the future scene," January 19, 2010, http://quocirca.computing.co.uk/.m/2010/01/lotusphere-2010-consolidation-and-setting-the-future-scene.html
2 Liam Lahey, "IBM sticks its head in the clouds," *eChannelLine*, June 15, 2009, http://www.echannelline.com/canada/story.cfm?item=DLY061509-3
3 Michael D. Osterman, "Some thoughts on Lotusphere," *The Osterman Research Blog*, January 18, 2010, http://www.ostermanresearch.com/blog/2010/01/some-thoughts-on-lotusphere.html

There is a clear progression for adopting cloud based application development and test.

Plan and prepare

- **Develop cloud strategy and roadmap**
  - Assess viability of leveraging cloud computing for application dev/test
  - Explore ROI of cloud deployment options

- **Condition existing infrastructure**
  - Determine appropriate interlock points between cloud deployment and existing infrastructures
  - Take best steps based on cloud deployment selected

Pilot and deploy

- **Start with an isolated cloud deployment**
  - Architect and implement low-risk situations most appropriate to provide business impact with minimal business disruption
  - Standardize end user options around the cloud deployment selected
  - Deploy a self-service portal

Extend and evolve

- **Roll out cloud across the enterprise**
  - Enable additional workloads on a private cloud
  - Add new users
  - Use trusted On the IBM Cloud services to supplement business and IT workloads

Our services address very specific criteria—they're not repackaged products and services

Standardized services	Uniform services can be personalized but do not require significant customization
On demand self-service	Users can provision computing capabilities, such as server time and network storage, as needed automatically without human interaction
Rapid elasticity	Capabilities can be rapidly and elastically provisioned to quickly scale up and rapidly released to quickly scale down
Advanced virtualization	IT resources from servers to storage, network and applications are pooled and virtualized
Ubiquitous network access	Capabilities are available over the network and accessed through standard mechanisms that promote use by heterogeneous platforms
Measured service	Cloud systems automatically control and optimize resource use by leveraging a metering capability, allowing resource usage to be monitored, controlled and reported
Flexible pricing	IBM offers utility pricing, variable payments, pay-by-consumption and subscription models

Become part of a smarter planet by taking advantage of cloud today

- Growth of instrumentation, interconnection and intelligence in the world will drive the emergence of IT and business services—and the requirement for service management systems

- New IT consumption and delivery models are very compelling for some workloads today—and will position your enterprise for the future

- IBM offers cloud choices to:
    - Reduce infrastructure and operational costs
    - Accelerate service deployment and return on investment
    - Deliver consistent services

- **If you're ready to take advantage of IBM's cloud leadership:**
    - See how it fits into your business with IBM Cloud Computing Consulting Services
    - Consider a pilot project
    - Contact your IBM representative and visit:
      ibm.com/cloud

    - View the IBM cloud demo:
      youtube.com/user/IBMCloud

Thank you for your time

For more information:

- www.ibm.com/cloud

Contact:

- Lewis Troke, Consultant, WW Service Management Tiger Team
  – lewis@sg.ibm.com