Task Prioritization:
Making Cloud more Rational

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IBM Rational Software

Disruptive technologies are changing how we rely on software to innovate and deliver

Big Data

4 Terabytes of new data each day. And that's just NASA's Earth Science data!

Cloud

70% - rate at which Cloud-based technologies will grow for the next 5 years

Social Business

38 is the average age of a Twitter user. Governments share, listen and engage.

Instrumented Devices

Pentagon's 2015 budget outlined a smaller military more reliant on technology.

Mobile

96% of 18-29 year-olds own a cell phone. Pressure for government to deliver services & information anytime, anywhere.

Connected Systems

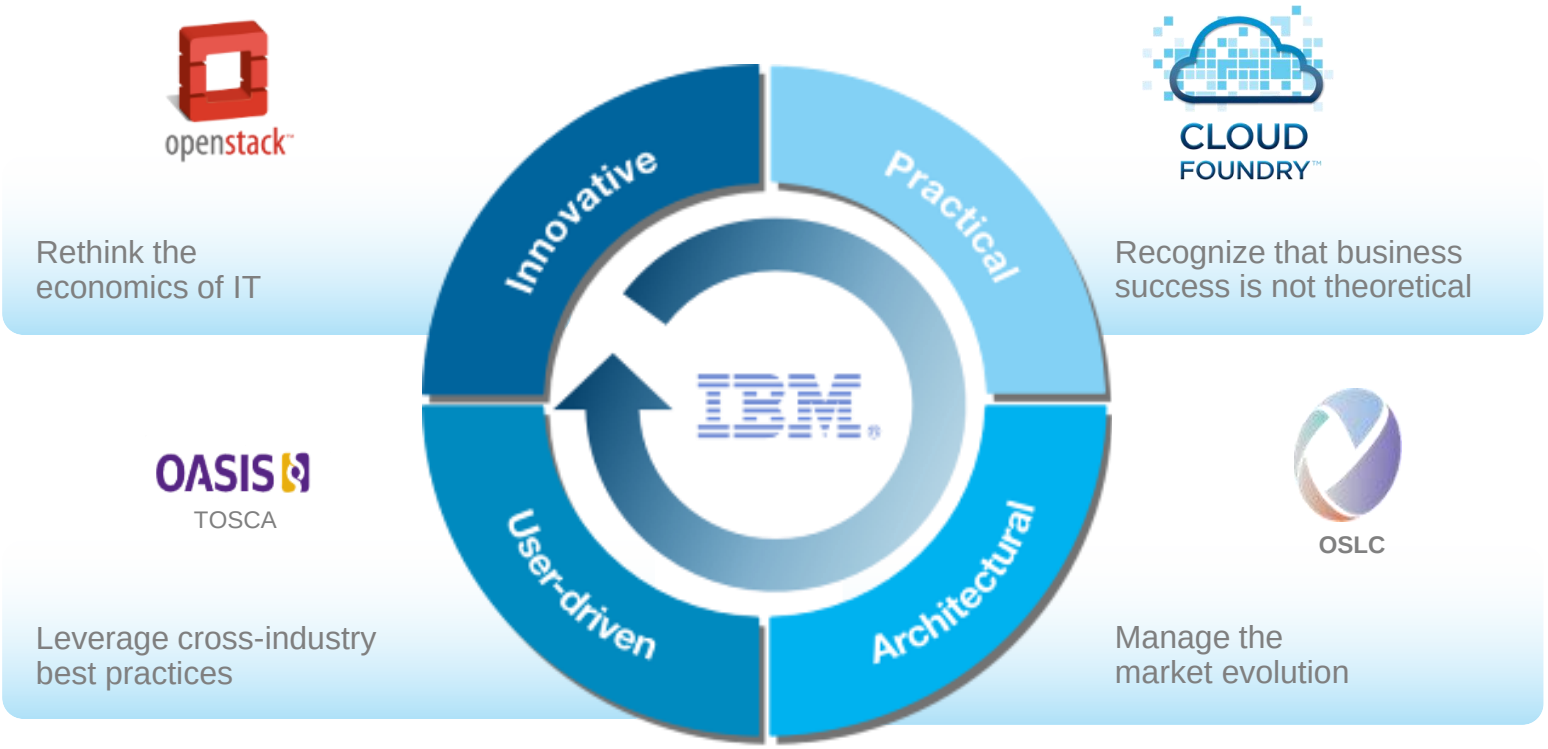
Electronic tolls, public safety systems, transit management made possible through interconnected systems and software

"I want us to ask ourselves every day, how are we using technology to make a real difference in people's lives." – President Barack Obama

IBM's Approach to Cloud is Open

Open Standards Reduce the Cost and Risk of Cloud Adoption

Standards-based. Flexible. Customer-driven.

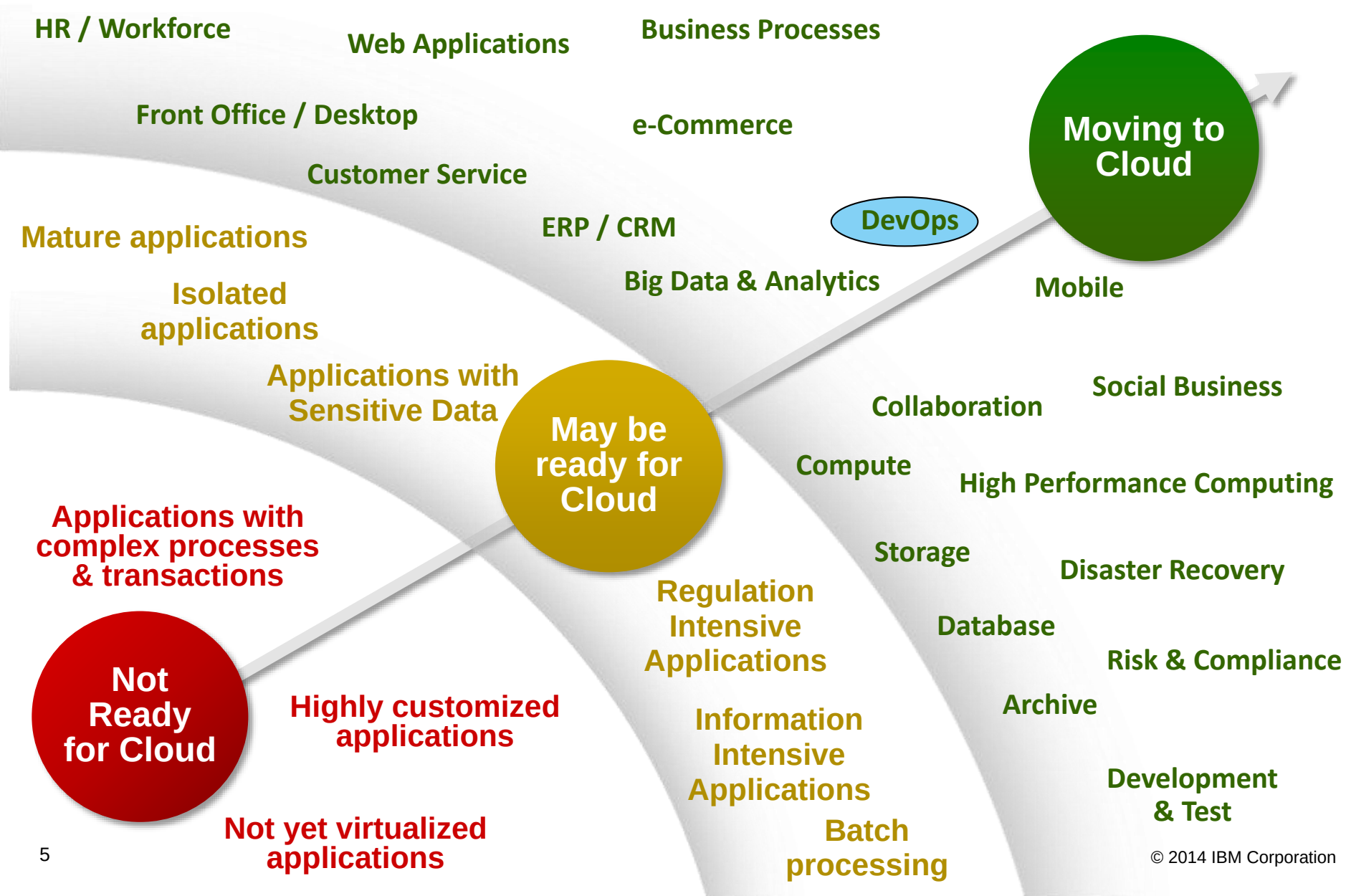


http://www.ibm.com/cloud-computing/us/en/

Agenda

Top Considerations for Moving to the Cloud

- Develop a Cloud Strategy
- IBM example



IBM Cloud Readiness Self Assessment: http://www-01.ibm.com/software/rational/info/cloud-services/self-assessment.html

The cloud you need…

1. Aligns your business and technology for better outcomes

- Understand your application portfolio. What are your core business functions?
- How will the business respond to new and emerging technology? What are the goals?
- What are the budget constraints and the expected cost savings?
- Is your agency or department too silo'd to strategize?

2. Stands up long-term, for multiple projects and programs

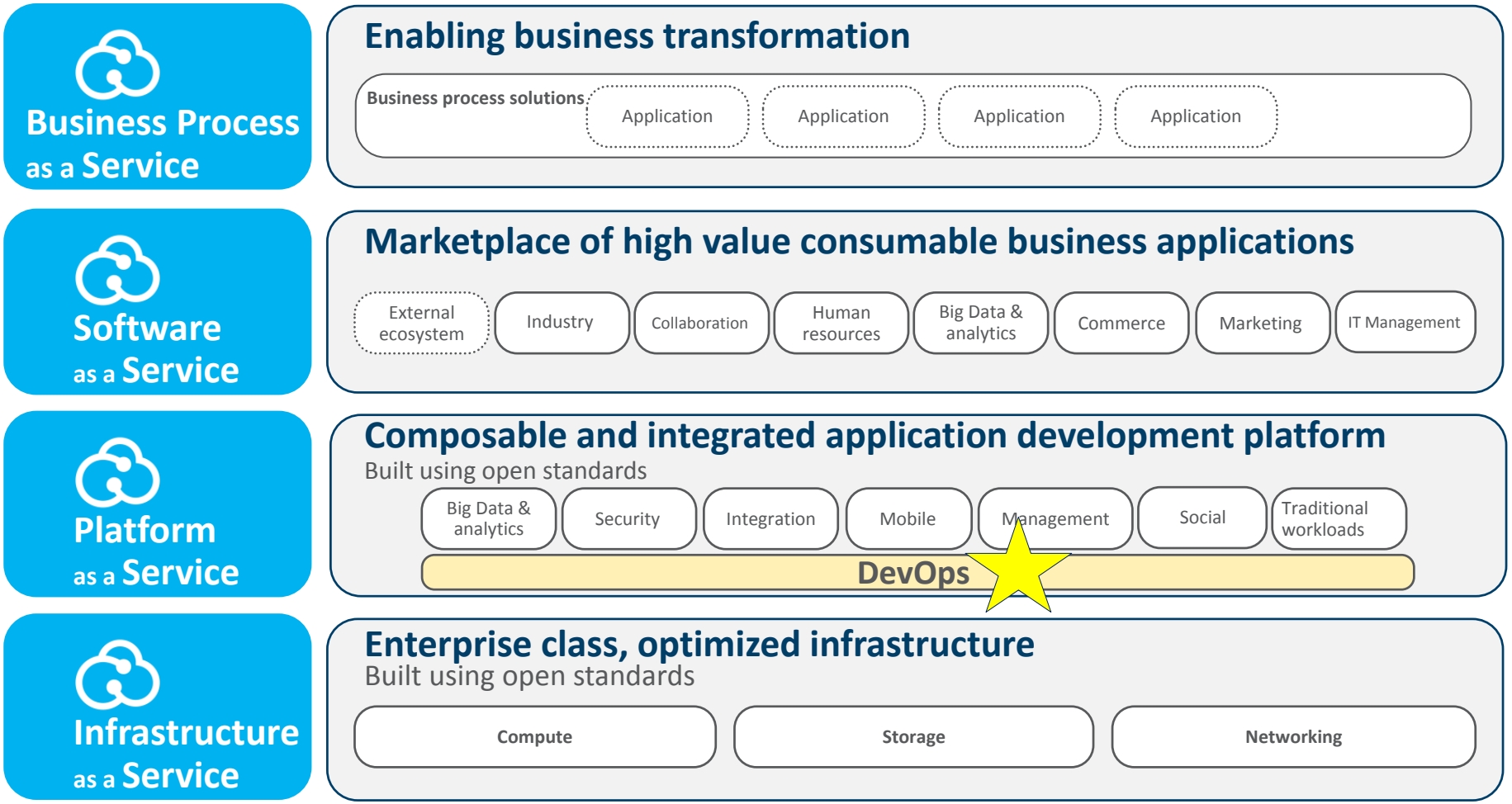
- Evaluate reference architectures; focus on efficiency and flexibility
- Define a fabric of services available across units
- Don't over engineer – use standardized APIs and Clouds with open architectures
- Consider workloads
- Start with IaaS and PaaS

3. Provides a compelling reason to transform

- Ease of collaboration internally, externally – with vendors and SIs
- Cost savings and operational efficiencies reveal "Hidden Factories"
- New operational models that resolve a recurring pain point

IBM Cloud Capabilities

Public. Private. Dynamic Hybrid.
Think it. Build it. Tap into it.



IBM Software Group: We had to Change

Complexity Challenges

- Rapid pace of acquisitions
- Disparate technologies, teams, cultures
- Growing needs for integration

Team Challenges

- Geographically dispersed teams that often include business partners
- Cross-organizational visibility
- Cross-discipline collaboration

Business Challenges

- Need for market experimentation
- Global marketplace with increased cloud presence
- Increasing demands for speed, innovation, predictability, cost & investment performance

Tools Challenges

- Silo'd tools and data
- Adopting new practices and methodologies

How do we become an organization that excels in innovation and speed?

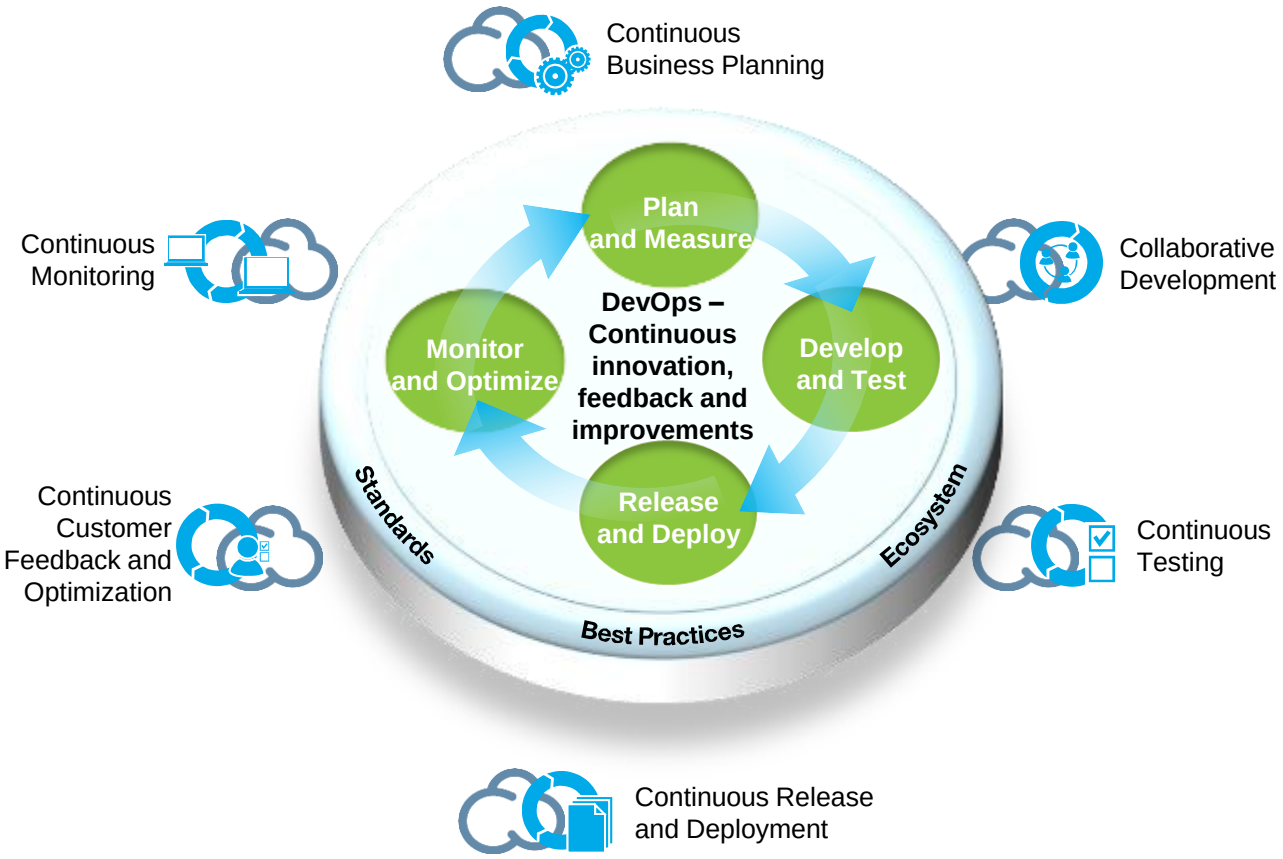
IBM DevOps point of view

Enterprise capability for continuous software delivery that enables organizations to seize opportunities and reduce time to feedback

Accelerate software delivery

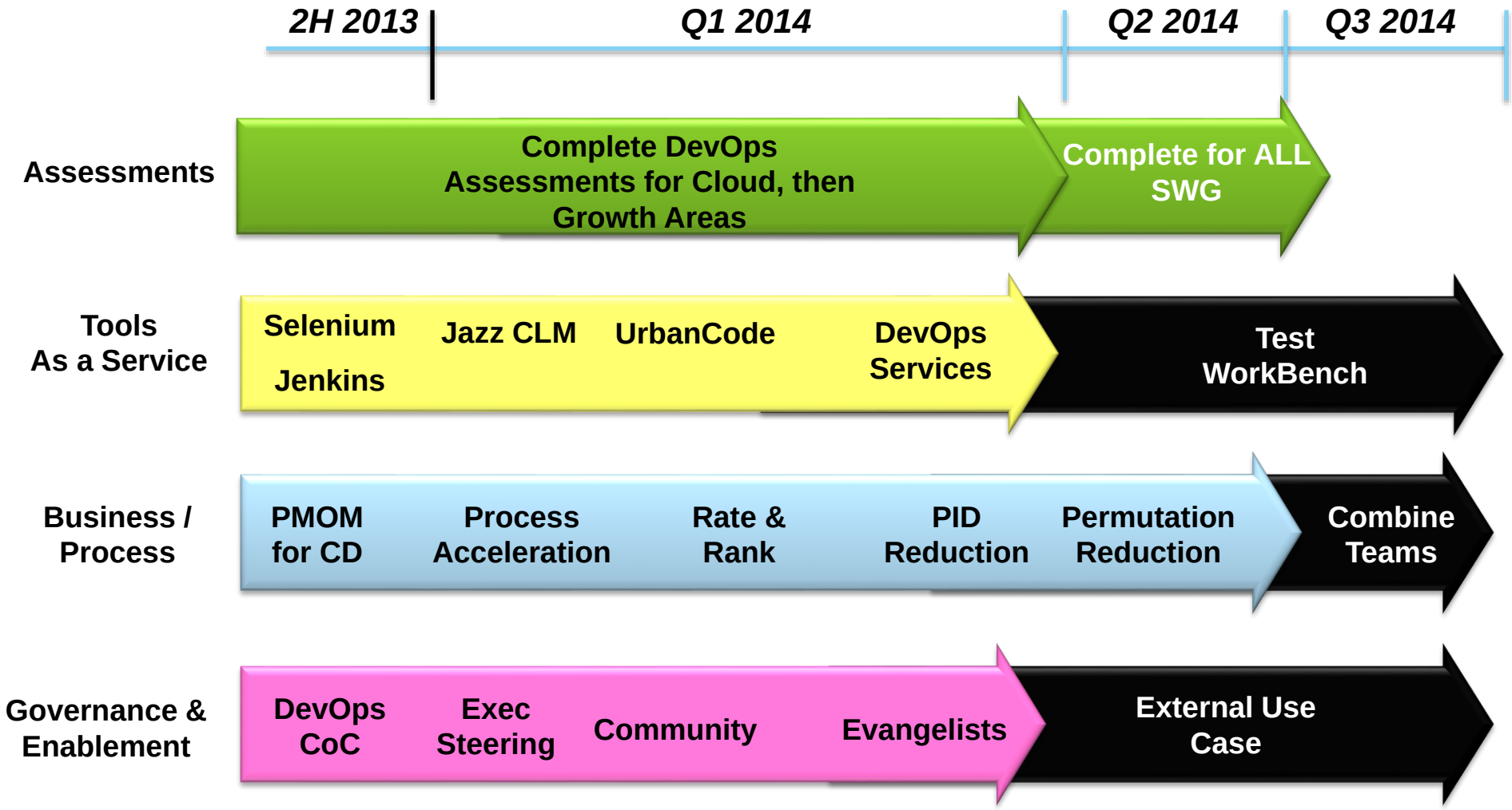
Lower cost with higher quality

Reduce time to customer feedback



Leveraging the Cloud can accelerate an organization's adoption of DevOps practices and processes, and reduce software delivery risk

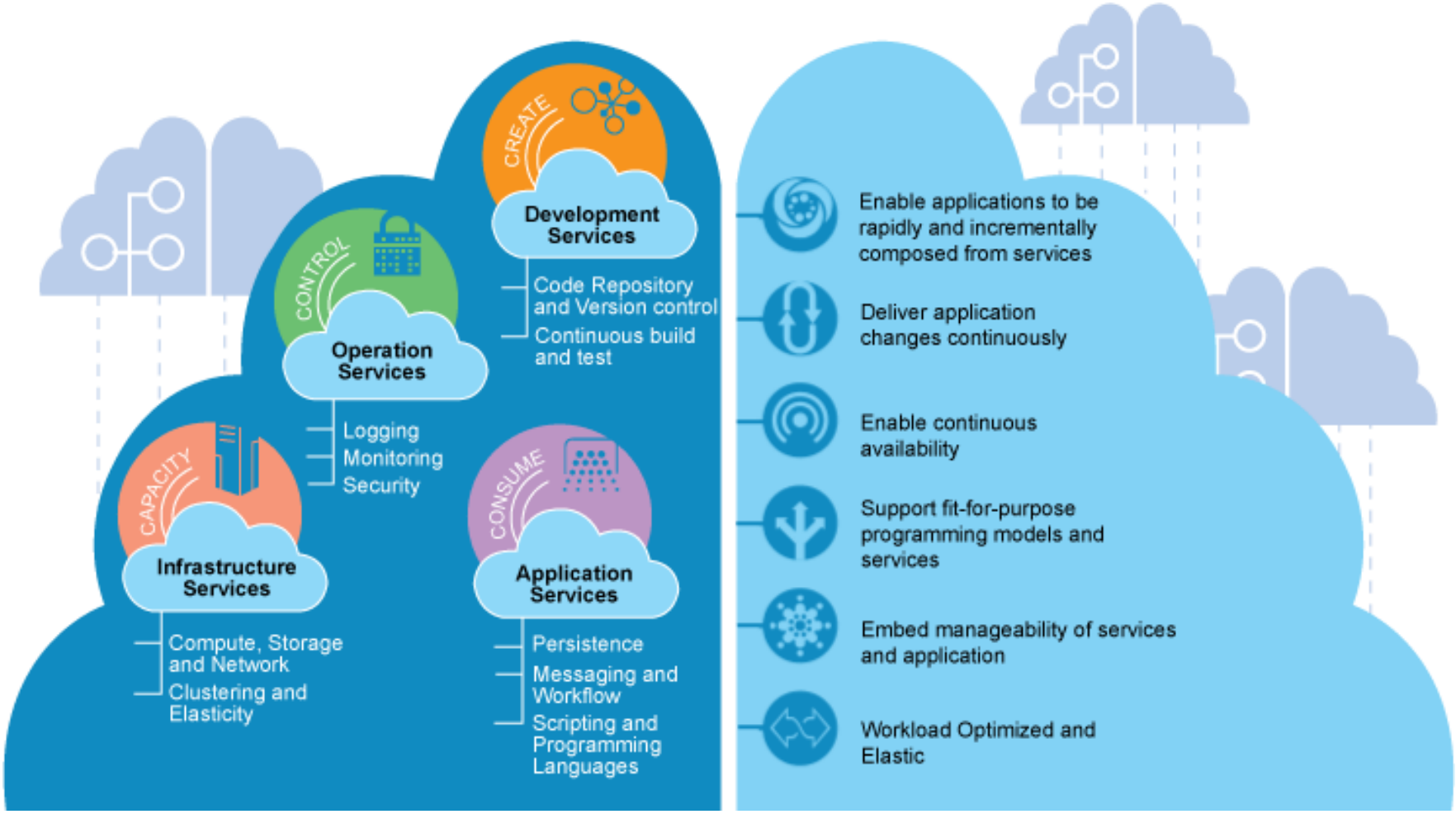
Transforming IBM Product Development



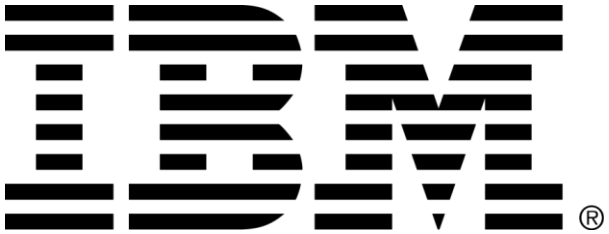
Get ideas into production in days or weeks, get feedback and improve.

BlueMix: IBM's open cloud development platform

Rapidly build, develop, deploy and manage innovative cloud applications



To **learn more** about IBM BlueMix, visit www.ibm.com/bluemix



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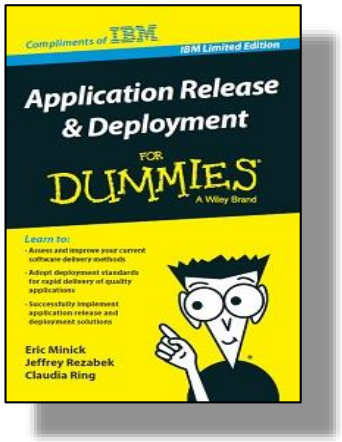
Visit the IBM booth!

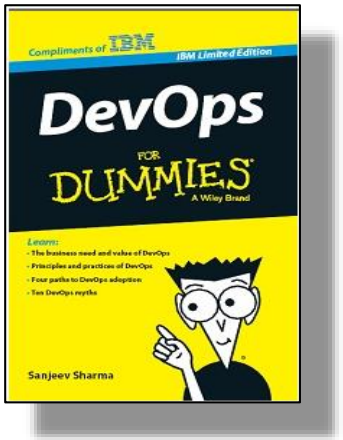
High-Impact DevOps Practices

1) **Expand agile practices beyond development and test** to include clients, business stakeholders and operations to breakdown silos and improve outcomes.
2) **Continuously test using automation and virtualization** to eliminate long backend test cycles and increase quality.
3) **Build a delivery pipeline leveraging tools-as-a-service** that enables developers to commit code, test, and deploy to a production environment in minutes reducing the need for rework and maximizing productivity.
4) **Experiment rapidly by delivering instrumented capabilities** which enable the team to make fact-based decisions and quickly evolve towards an optimal solution.
5) **Create a culture of continuous improvement** leveraging measures of effectiveness and efficiency to ensure you're getting better.

Additional Resources

- *IBM's DevOps Page:* http://ibm.com/DevOps
- *DevOps For Dummies* Book: http://ibm.co/devopsfordummies
- *Release and Deploy For Dummies Book:* http://ibm.co/1bplaQV
- *US CIO's Federal Cloud Computing Strategy*
- *US CIO's 25 Point Implementation Plan to Reform…*
- *DoD's 10 Point Plan for IT Modernization*
- CLM DevOps Blogs: www.jazz.net/devops
- Software Delivery and Lifecycle Patterns
- CLM Dashboard
- IBM's Cloud Marketplace





Cloud computing brings a wide range of benefits:

- *Economical*: Pay-as-you-go approach to IT, in which a low initial investment is required to begin, and additional investment is needed only as system use increases.

- *Flexible*: IT departments that anticipate fluctuations in user demand no longer need to scramble for additional hardware and software. With cloud computing, they can add or subtract capacity quickly and easily.

- *Fast*: Cloud computing eliminates long procurement and certification processes, while providing a near-limitless selection of services. *

Vivek Kundra U.S. Chief Information Officer, DECEMBER 2010 - 25 POINT IMPLEMENTATION PLAN TO REFORM FEDERAL INFORMATION TECHNOLOGY MANAGEMENT