



IBM DevOps Solution: Collaborative Development to Spark Innovation and Integration Among Teams

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We Are at An Inflection Point in the Industry



MOBILE CUSTOMER TARGETING

Card swipe in one store attracts coupons from nearby store – resulting in 109% incremental sales lift



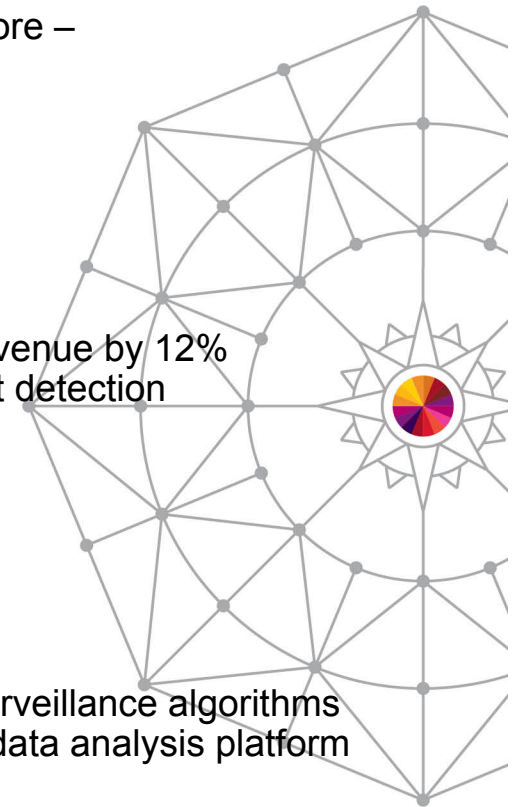
JUST-IN-TIME MAINTENANCE

Global aircraft engine manufacturer increases service revenue by 12% in one year using real-time monitoring and proactive fault detection



FAST BIG DATA ANALYSIS

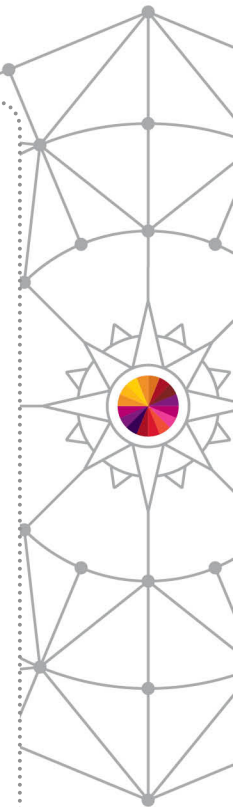
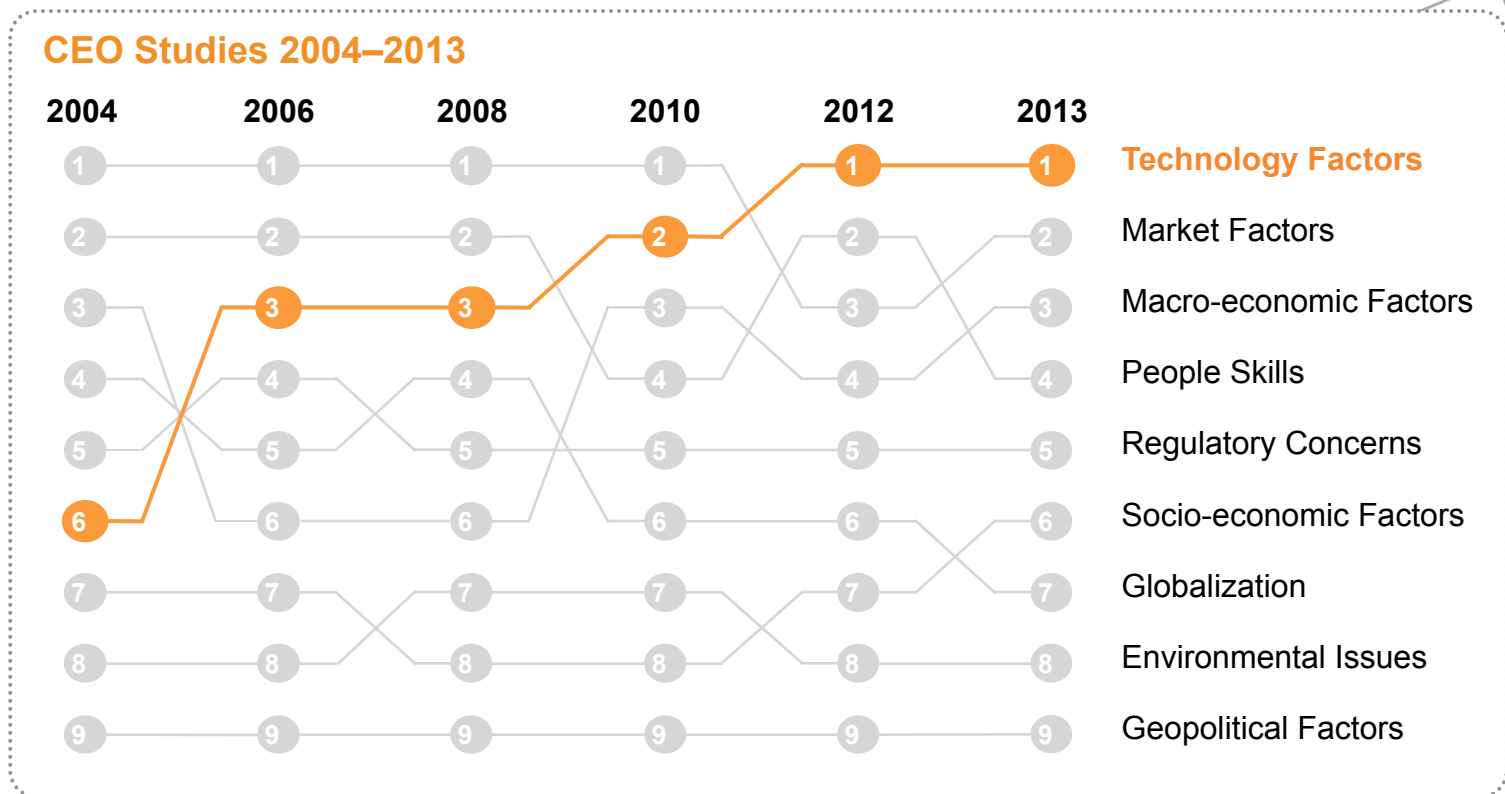
Global stock exchange cuts response times of market surveillance algorithms by 99% while lowering IT resources by 35% using a big data analysis platform



CEOs identify technology as the most important external force impacting their organizations – again



- External forces that will impact the organization



Source: IBM Institute for Business Value, The Global CEO Study 2013. Question: "What are the most important external forces that will impact your organization over the next 3 to 5 years?"

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Software delivery is at the heart of today's top technology trends



Big Data

Insights on new products by more efficiently interpreting massive quantities of data



Cloud

Demand for apps requires fast, scalable environments for dev and test, as well as production



Social Business

Broader set of stakeholders collaborates to deliver continuous innovation and value



Mobile

Modern workforce expects constantly updated software to connect to enterprise systems



Software delivery



Instrumented Products

Industry requirements demand faster response to regulations and standards, with traceability and quality



Intelligent/Connected Systems

Software component in smart products driving increased value and differentiation



A lack of continuous delivery impacts the entire business enterprise in the new reality of “Systems Of Interaction”



Line-of-business

Takes too long to introduce or make changes to mobile apps and services

Operations

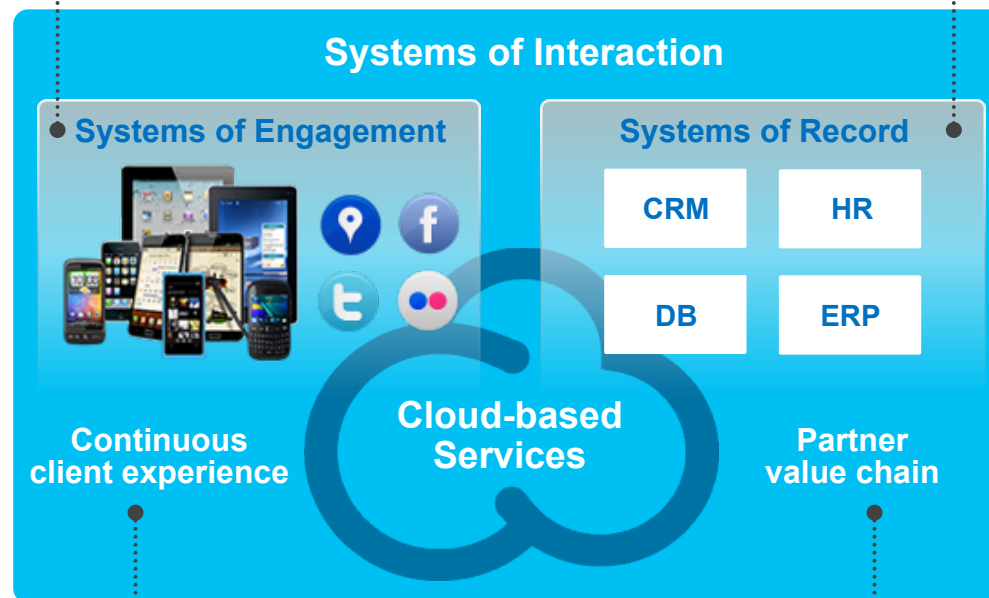
Rapid app releases impact system stability and compliance

>70%

of budgets devoted to maintenance and operations

4-6 weeks

to deliver even minor application changes to customers



>45%

of customers experience production delays

>50%

of outsourced projects fail to meet objectives

Development/Test

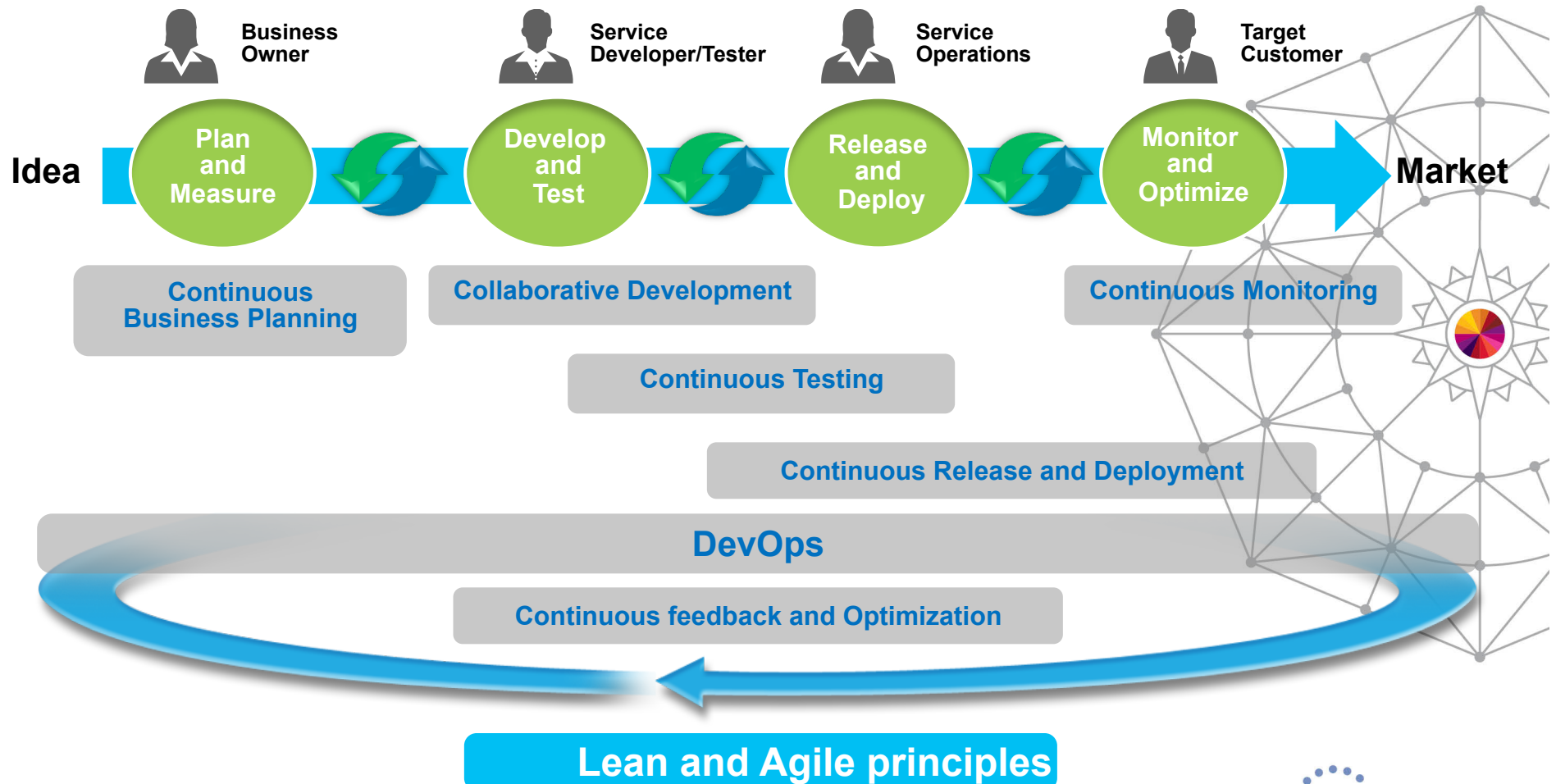
Speed mismatch between faster moving front office and slower moving back office systems, delaying time to obtain feedback

Suppliers

Delivery in the context of agile

DevOps takes a closed-loop approach to application delivery

Extending Lean and Agile practices across the entire software value chain



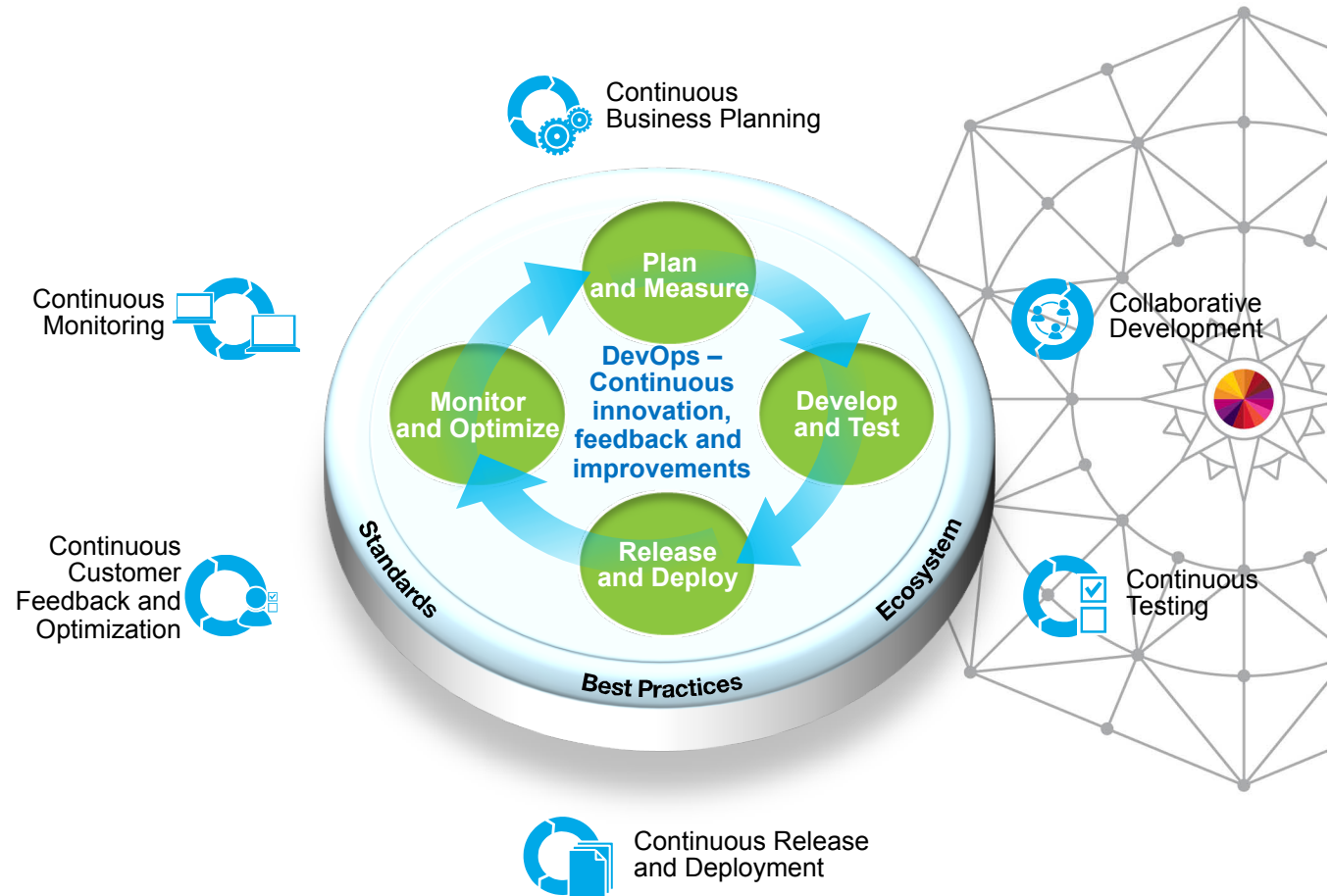
IBM DevOps point of view

Enterprise capability for continuous software delivery that enables clients to seize market opportunities and reduce time to customer feedback

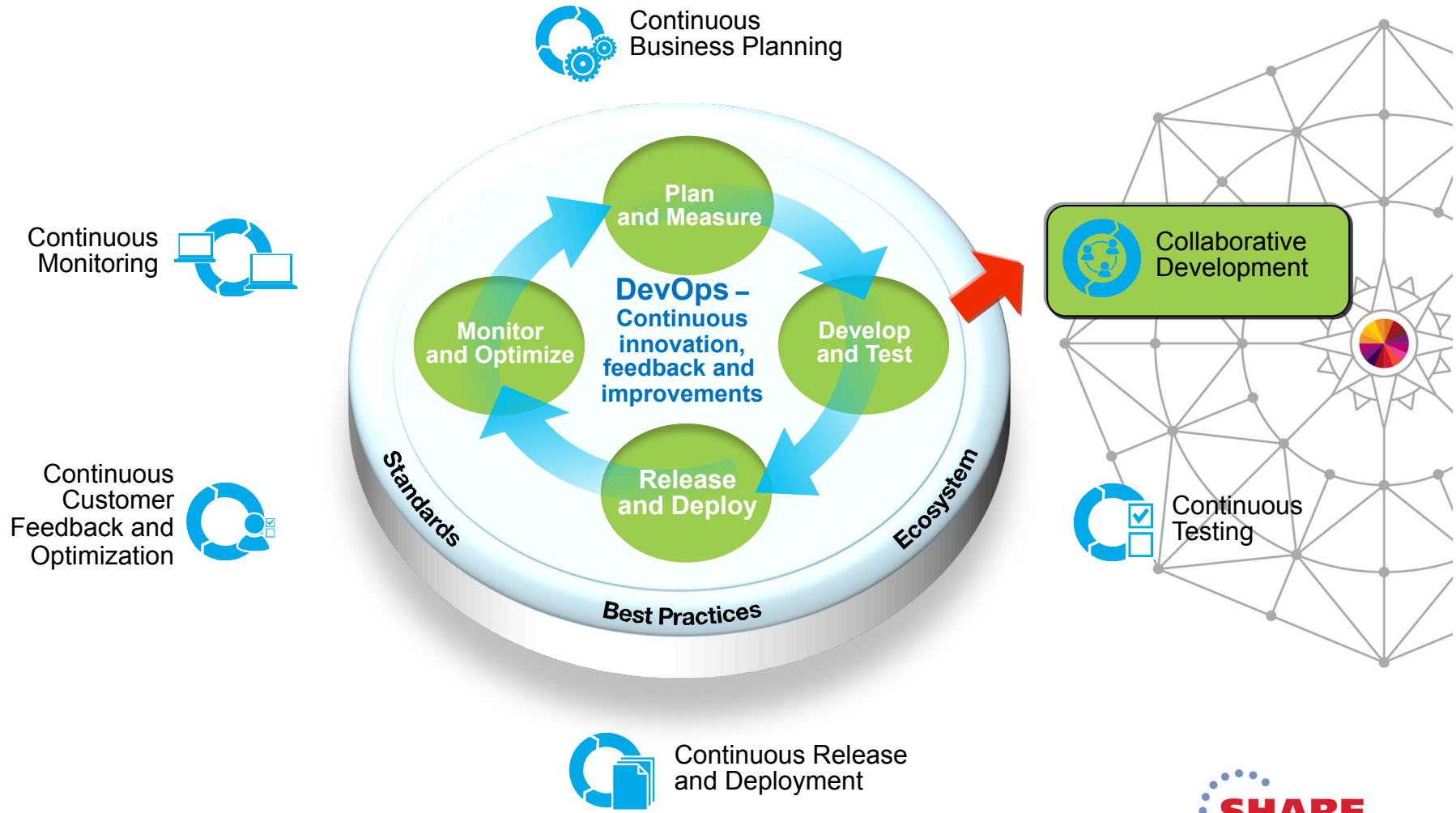
Accelerate software delivery – for faster time to value

Balance speed, cost, quality and risk – for increased capacity to innovate

Reduce time to customer feedback – for improved customer experience



DevOps Adoption Paths and Practices: Develop and Test



Realities can stall software-driven innovation

Complexities in software delivery compounded by market pressures

Complex, Multi-platform Systems and Applications

62% of companies have agile projects requiring integration with legacy systems

Increasing Mandates

2010 Spending in U.S. on governance, risk and compliance was **\$29.8 billion**

Globally Distributed Software and Product Supply Chains

50% of outsourced projects are expected to under perform

Cost Reduction

70% budget locked in maintenance and **37%** of projects go over budget

Unpredictability in Software Delivery

62% of projects fail to meet intended schedule

Changing Requirements and Time to Market

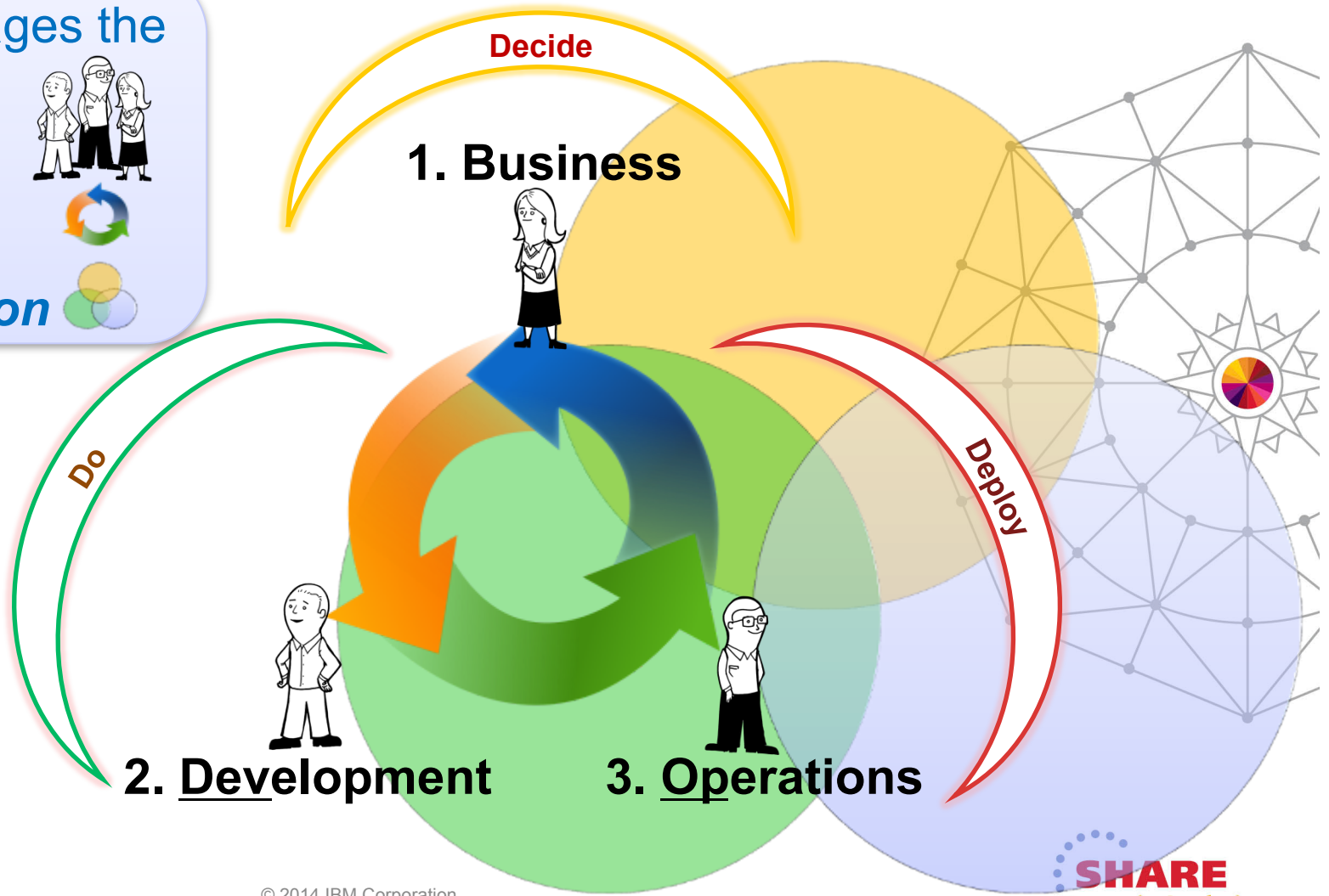
30% of project costs are due to rework and poor execution of requirements

Application Lifecycle Management can help break down the barriers to effective software delivery any team can face...



ALM manages the flow of:

- People**
- Process**
- Information**



What happens if you do nothing?

When failure is not an option...

“What happens if you can’t easily or effectively integrate your most critical software delivery applications?”



“What happens if your deliverable date slips?”



“What happens if you can’t effectively manage product quality before your ship/release?”



***Only 47% are successful, 36% are challenged, and 17% are failures**








Software failures do have impact the bottom line!

What is required to deliver end-to-end visibility across teams, tools and projects?



Five Imperatives for Effective Application Lifecycle Management to improve organizational productivity



-  Maximize product value with **In-Context Collaboration**
-  Accelerate time to delivery with **Real-Time Planning**
-  Improve quality with **Lifecycle Traceability**
-  Achieve predictability with **Development Intelligence**
-  Reduce costs with **Continuous Improvement**





imperatives help answer questions such as these



Can your team(s)...

...find ***all*** the information related to a specific task?

...***instantly*** see the impact of project changes

...see what requirements we're ***implementing*** in a given release/milestone?

...provide a ***single view*** of project health at multiple levels?

It's not all or nothing!

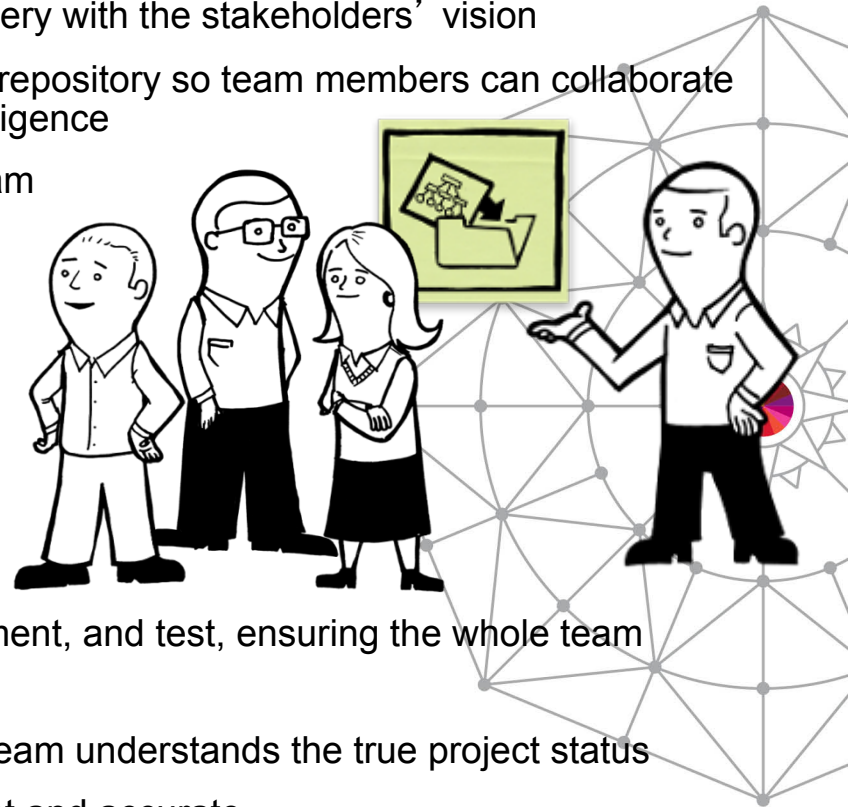
Tackle the ones causing the greatest pain.



In-Context Collaboration improves product value



- Teams can collaborate on and review software development artifacts while **incorporating feedback early and often to continuously** align delivery with the stakeholders' vision
- Provides a **single source of truth** hosted in a shared repository so team members can collaborate effectively around the globe and build a collective intelligence
- Makes **information immediately accessible** to all team members in the context of their work



Real-Time Planning accelerates time to delivery

- Provides a **single plan** that spans requirements, development, and test, ensuring the whole team understands the overall scope of a project
- **Integrates planning with execution** ensuring the entire team understands the true project status
- Allows **everyone to participate** in keeping the plan current and accurate
- Helps teams **respond to the unexpected** in a timely manner ensuring the team stays on schedule

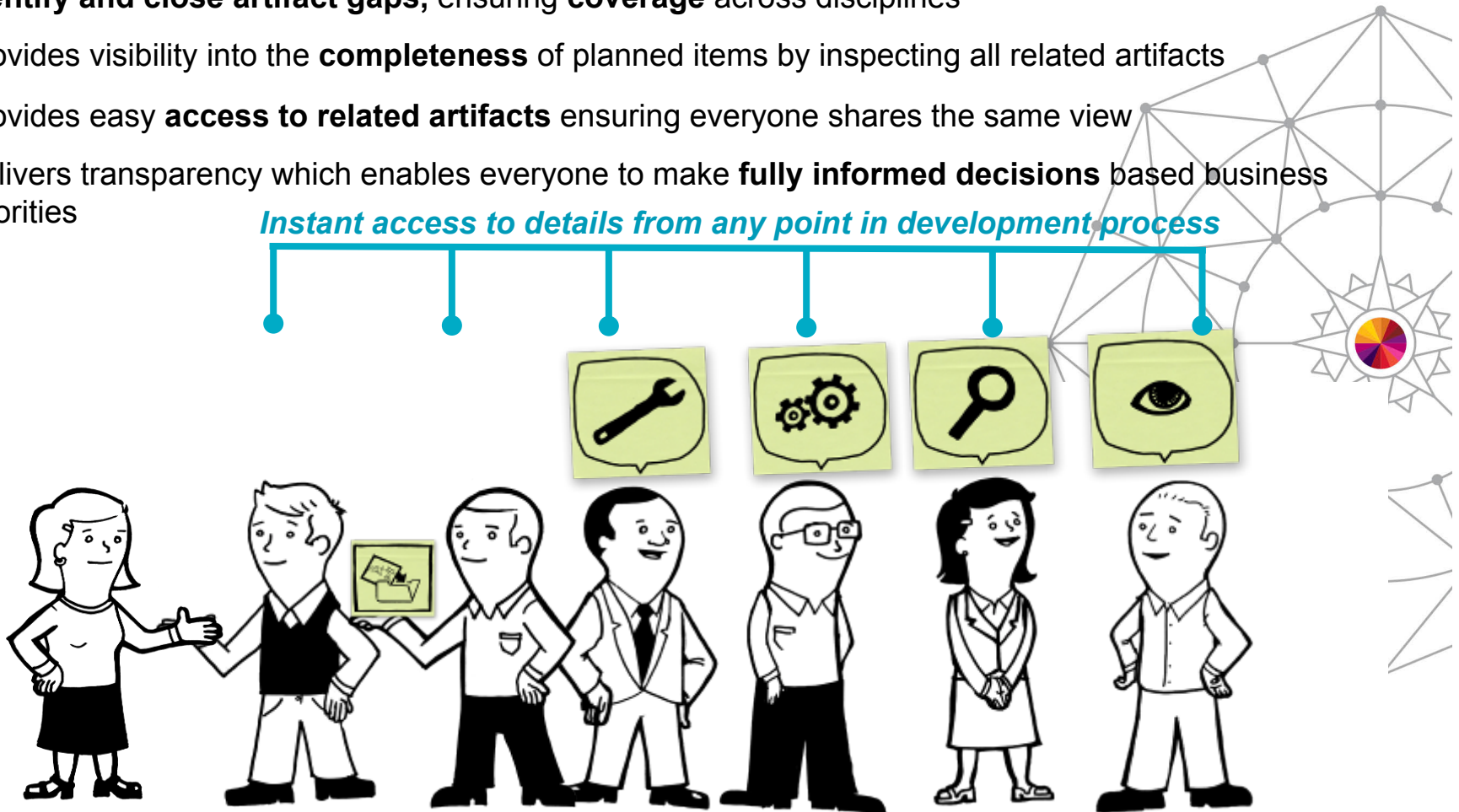


Lifecycle Traceability supports compliance, improves quality



- Establish relationships between software artifacts
- Identify and close artifact gaps, ensuring coverage across disciplines
- Provides visibility into the **completeness** of planned items by inspecting all related artifacts
- Provides easy **access to related artifacts** ensuring everyone shares the same view
- Delivers transparency which enables everyone to make **fully informed decisions** based business priorities

Instant access to details from any point in development process

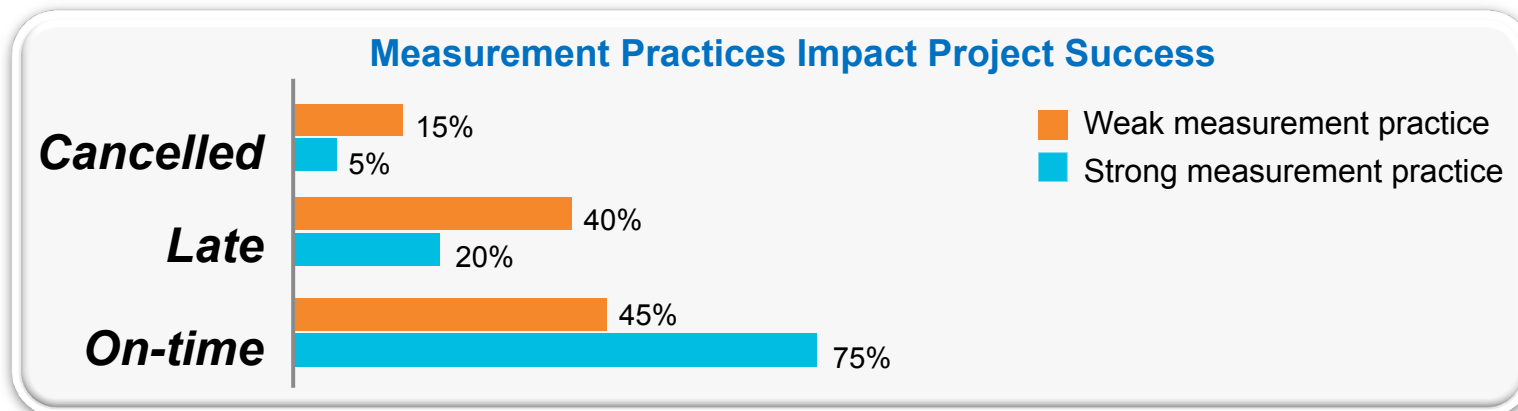




Development Intelligence improves predictability



- Enable **fact-based decision making** to communicate status, monitor progress, diagnose problems, identify corrective actions
- **Steer projects and programs** to deliver on-time
- Apply **Business Intelligence techniques** to software and systems development



Continuous Improvement reduces cost

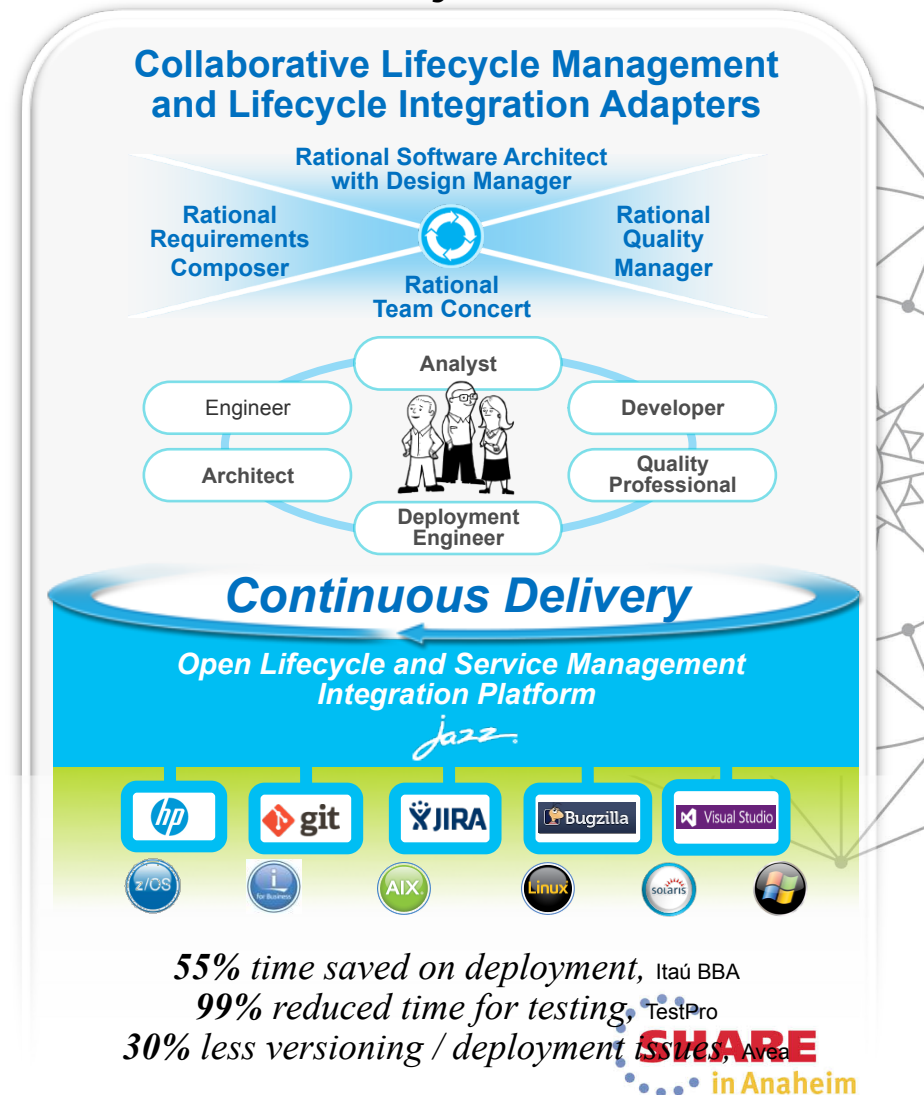
- Improve software delivery through the ongoing **adoption of best practices and automation** to reduce manual, non-creative and error prone tasks
- Promote **incremental improvement of a project** when needed
- Enable breakthrough improvement by **capturing best practices and reusing** across teams
- Allow **everyone to participate** with easy to adopt best practices at your fingertips.

Proven capabilities for accelerating software delivery



Reduce the costs of inefficient, multiplatform software delivery!

- **Focus on the five imperatives** to establish effective ALM
- **Create resilient designs** by involving more stakeholders with integrated design
- **Prioritize entry point;** extend as needs evolve
- **Leverage open Jazz platform** to unify and protect current infrastructure investments
- **Fill in gaps and unify** across diverse lifecycle toolset by integrating ALM tools and Rational capabilities with latest Lifecycle Integration Adapters
 - *Standard Edition*: connects HP, Jira, Git tools
 - *Tasktop Edition*: provides additional use cases; connects Microsoft Visual Studio and Bugzilla tools



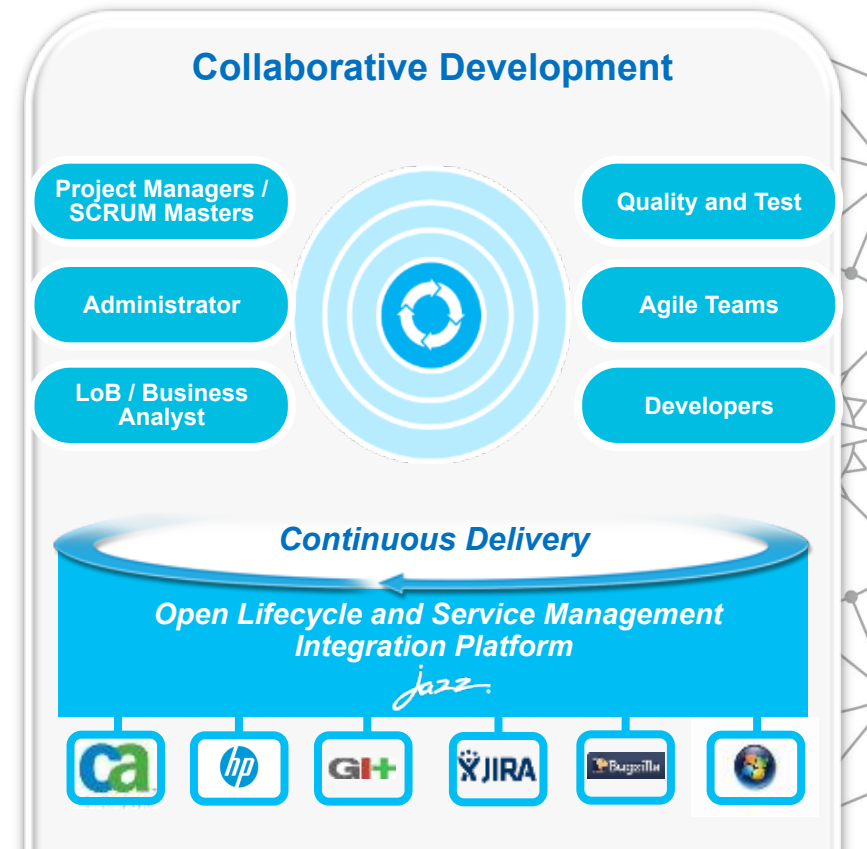
Collaborative Development

Integrated Application Lifecycle Management for all platforms



- Accelerate **time to delivery** with real-time planning
- Improve **quality** with lifecycle traceability
- Maximize **time to value** with in-context collaboration
- Refine **predictability** with development intelligence
- Reduce **costs** with continuous improvement
- ✓ **Manage many sources - JavaScript to COBOL**
- ✓ **Single work item can span technologies & solutions**
- ✓ **Quickens agile adoption on the mainframe**
- ✓ **Integrates existing SCMs and deployment tools**

- IBM Rational solution for Collaborative Lifecycle Management (CLM)
 - IBM Rational Team Concert
 - IBM Rational Requirements Composer
 - IBM Rational Quality Manager



Enabling Agility for Enterprise - CLM

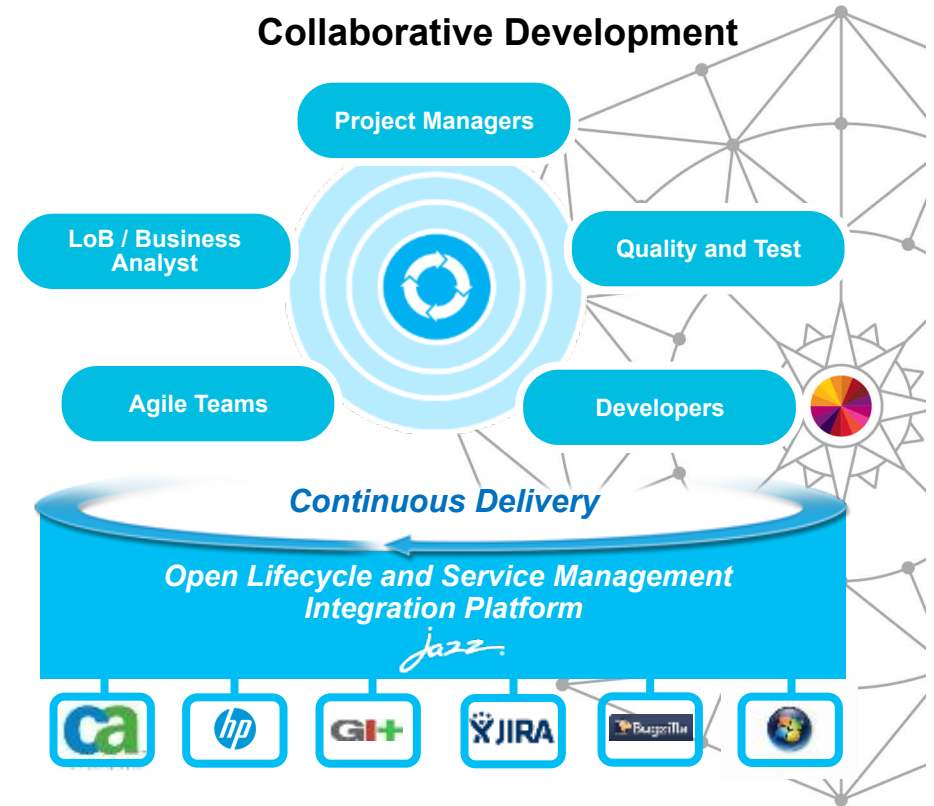
A single, integrated platform for broad IT development needs

Benefit

Unify across diverse environments and needs – Mobile, Cloud, Agile, traditional, and mainframe while freeing up the team by automating manual, time-consuming and error-prone tasks.

Features

- Integrated software design for broader collaboration and traceability, and lifecycle adapters for connecting with third-party tools.
- Optimized support for the IBM Mobile Platform, SAP and IBM WebSphere Application Server
- Integration with Rational Test Virtualization Server, Continuous integration with Jenkins plug-in.
- Extend the value of existing tools with capabilities and compilers optimized for IBM middleware and hardware platforms.
- Connect development and testing with Lifecycle Adapters



- IBM Rational solution for Collaborative Lifecycle Management
 - IBM Rational Lifecycle Integration Adapters
- NEW: CA Clarity and direct Rational Requirements Composer to HPQC synchronizer

Collaborative Development on the Cloud – JazzHub

“No hassle” collaborative development capabilities on the cloud for continuous delivery



Free in 2013 and starting 2014

- Enable the team to achieve collaborative development now!

Easily enable stakeholders

- From plan to delivery of better software and systems in the context of daily work
- Code in the cloud with your choice of IDE, Eclipse, Visual Studio or built-in editor
- Runs on SoftLayer Infrastructure

Easily fork projects

- From where teams may already be working already – like GitHub

Click. Code. Create.

Everything you need to build great software.



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Get free private projects through 2014 if you register at JazzHub by December 31, 2013

Find your rhythm

Simple bug tracking or serious agile team development. Integrated task tracking, planning, dashboards, and source control to fit the way you work.

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Code in the cloud with tools you love... Eclipse, Visual Studio, the built-in JazzHub editor. You can even link to your GitHub repo.

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What's New

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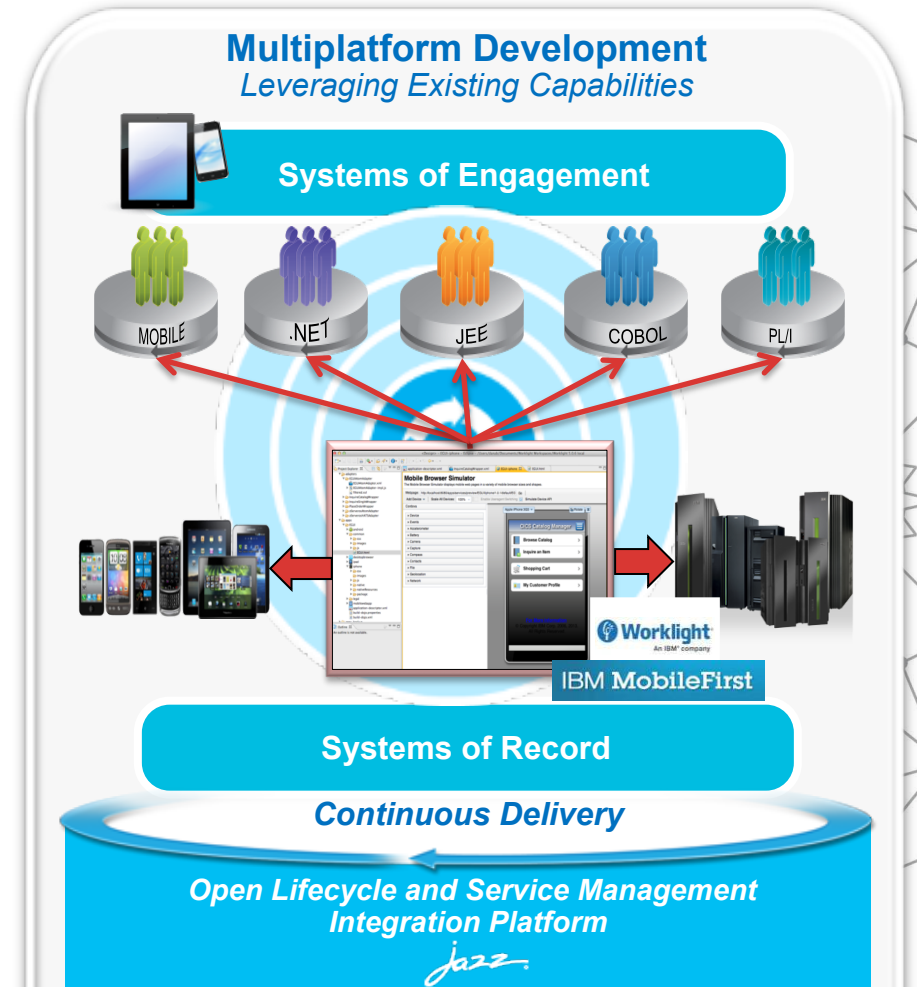
Multiplatform Development

A Common platform for all types of development

- Common Eclipse-based IDEs
- Broad coverage of technologies, languages, and platforms
- Connect systems of record to systems of engagement and apply talent across boundaries while keeping the focus on innovation

- ✓ Modern tools to attract new talent
- ✓ 22-37% improvement in developer productivity¹

- Rational Developer for the Enterprise v9.0*
 - Rational Developer for z V9.0
 - Rational Asset Analyzer
- * Includes IBM Worklight



Rational Developer for the Enterprise: THE Premier Integrated Development Environment for System z & Multi-Platform Development

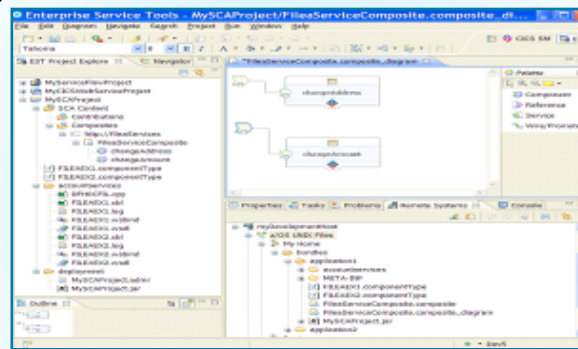


Integration with Team Concert for Lifecycle and Source Management



Rational Developer for System z

A modern IDE for productive development of cross-platform applications written in COBOL, PL/I, ASM, Java, EGL or C/C++ in System z CICS, IMS, DB2, Batch applications



Access to typical System z sub-system functionality in z/OS, CICS, IMS, DB2, WAS



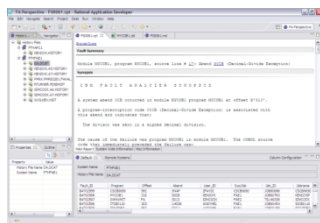
Robust Mobile Development in conjunction with Worklight



Integration with RD&T for flexible access to System z environment



Integration with Fault Analyzer for Dump Analysis



Integration with Asset Analyzer for Application Understanding and Impact Analysis



Integration with File Manager and Fault Analyzer for file and test data handling and Dump Analysis



IBM Mobile Development Lifecycle solution

Meet time to market and user pressures for Mobile



How?

Unify mobile development teams to produce better applications, at mobile speed.

Featuring

- **Deliver mobile applications for multiple platforms** with cross-platform code, build and test support.
- **Meet accelerated time to market requirements** using agile processes with real-time planning to help build and maintain “5-star” mobile apps.
- **Deliver high quality apps** that engage users and meet business objectives with lifecycle traceability to ensure coverage of requirements, development and test.
- **Integrate with enterprise systems** by extending enterprise assets and connecting via IBM Worklight adapters.

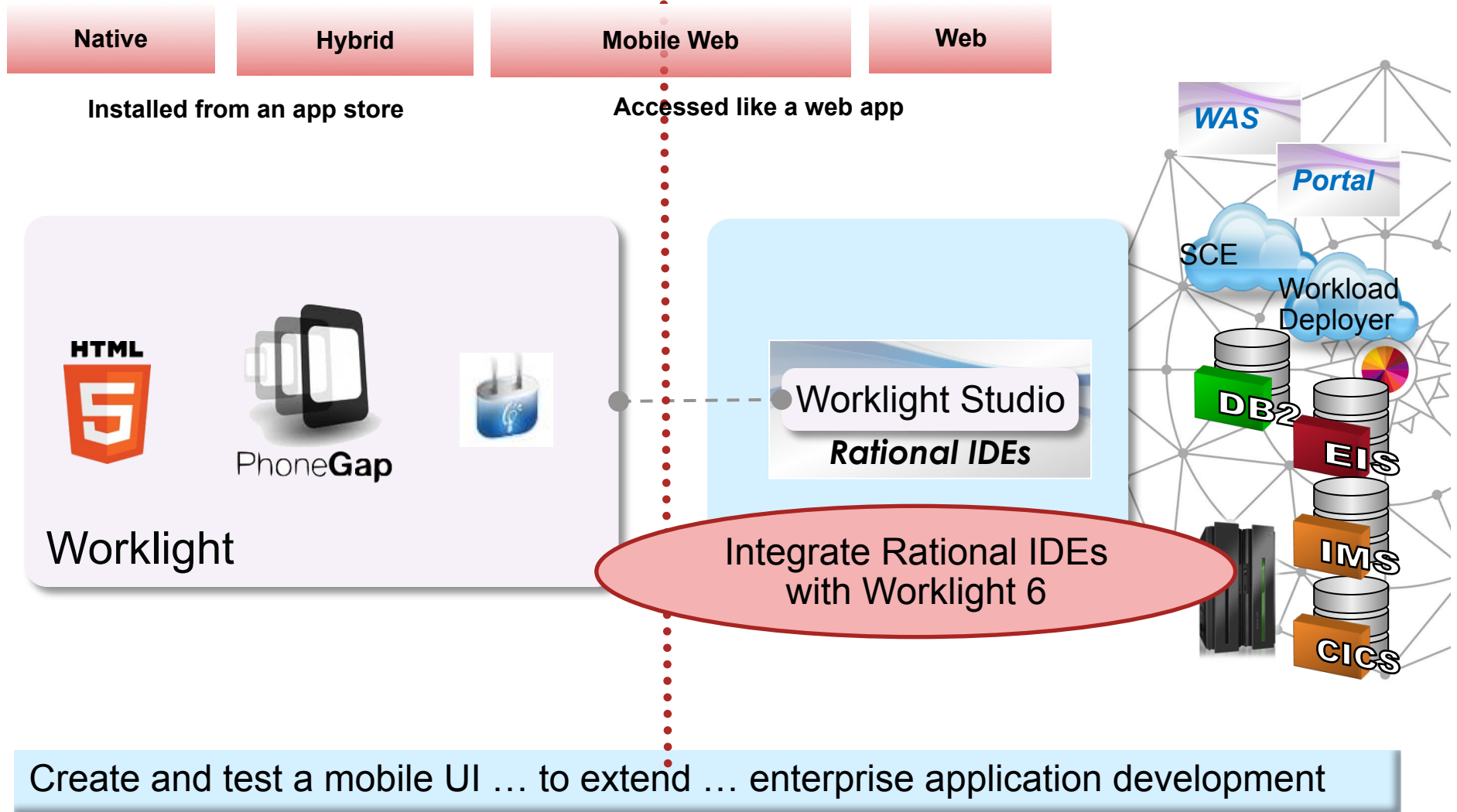
“I can focus on designing an innovative app and depend on my lifecycle capabilities to collaborate with stakeholders from design to done!”

Mobile Developer



- IBM Mobile Development Lifecycle Solution (IMDLS) integrates:
 - An enterprise-grade, standard-based mobile application platform based on IBM Worklight technology
 - A best-of-class collaborative mobile application development platform based on the IBM Rational CLM capabilities
- Mobile testing (sold separately):
 - Rational Test Automation solution: Rational Test Workbench v8.0.1, Rational Test Virtualization Server v8.0.1, Rational Performance Test Server v8.0.1
 - “Mobile Device Cloud” services sold by Business Partners: Keynote Device Anywhere (Rational Quality Manager Integration Adapter), Perfecto Mobile (Rational Quality Manager Integration Adapter)

Worklight Studio included with Rational Developer for the Enterprise

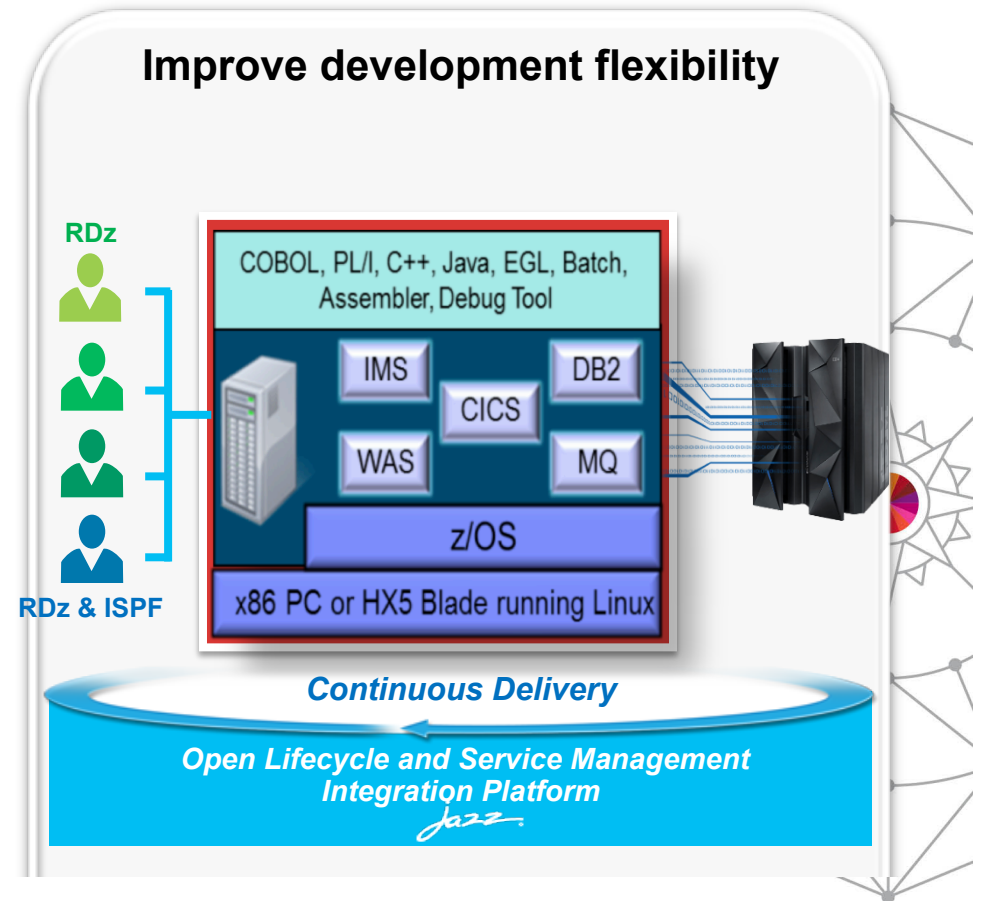


Cost Effective Off-Host Development and Unit Test



Offload testing to reduce MIPS, improve development flexibility

- DevOps will dramatically increase build and test activity
 - Makes it affordable by offloading from System z
- ✓ Liberate developers to rapidly prototype new applications
- ✓ Free up mainframe development MIPS for production capacity



- IBM Rational Development and Test Environment for System z

Nationwide embraces DevOps to drive continuous delivery across platforms and improve speed to market



50% increase in software **quality** over the last three years

90% on-time delivery vs. 60% previously

70% decrease in user downtime

58% of developers moved to industry top quartile in **productivity measures**



“We’re more agile as a business and more responsive to our customers. Collaboration has become an expected part of our culture.”

— **Steve Farley**, Vice President, Application Development Center, Nationwide

DevOps approach speeds IBM Watson solutions to market



Reduced delivery cycles
from nine weeks to three weeks

Compact releases
better matched to customer expectations

Zero maintenance window downtime through continuous availability



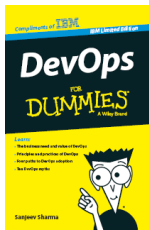
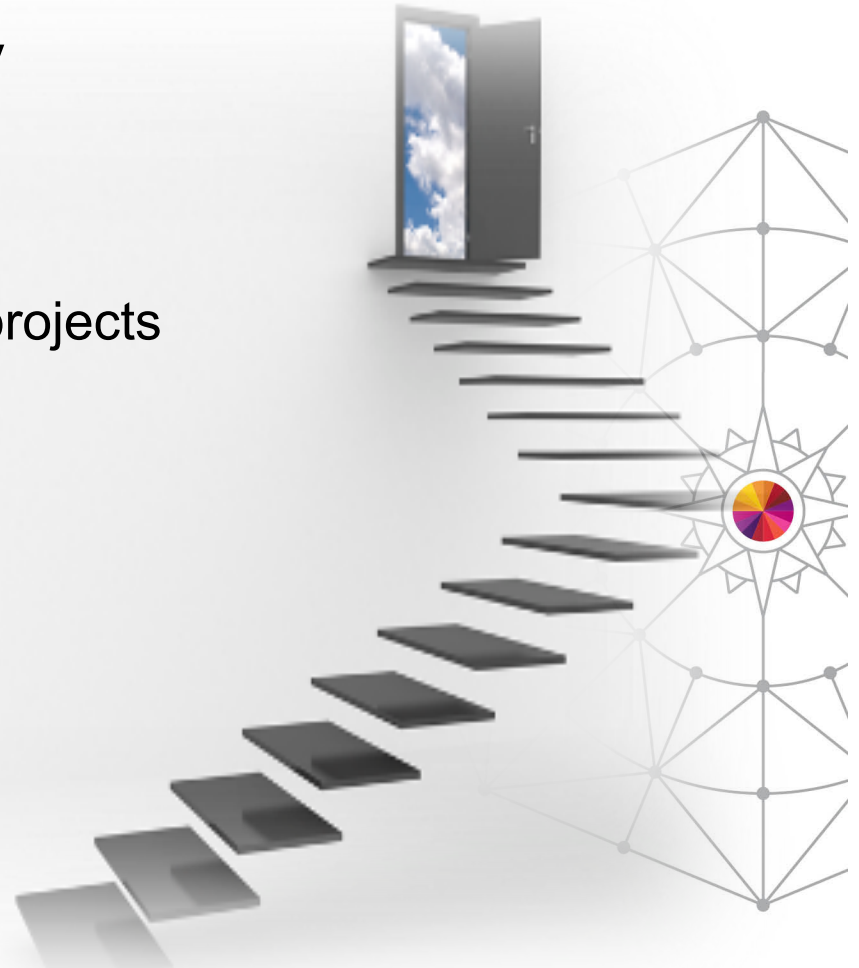
“DevOps helps us achieve continuous delivery and deliver continuous value.”

— Carl Kraenzel, Director of the Watson Managed services group, IBM Distinguished Engineer, IBM

Take Action Now!



- Develop an end-to-end DevOps strategy
- Adopt mobile-first design thinking, and cloud-centric architectures
- Start incrementally on business-critical projects
- Measure and reduce overhead, rework and duplication
- Innovate! It's a great time to be in the technology business
- Get your free guide to faster, continuous software delivery with DevOps



<http://ibm.co/devopsfordummies>

It is not a typo... use .co not .com

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QUESTIONS



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