



# IBM DevOps Strategy Review & Roadmap

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*IBM Software, Rational and DevOps*

# IBM Technical **Summit**

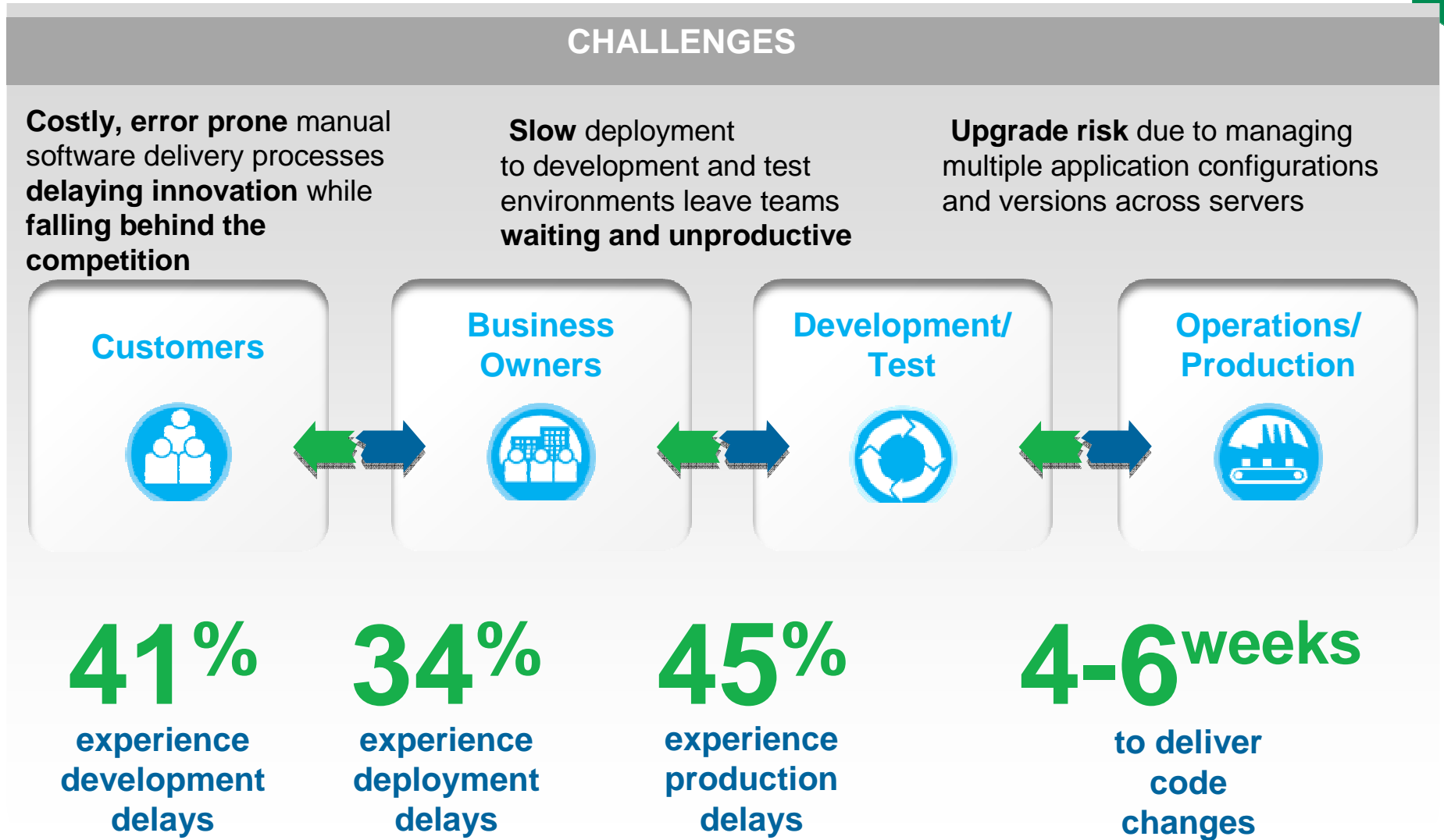




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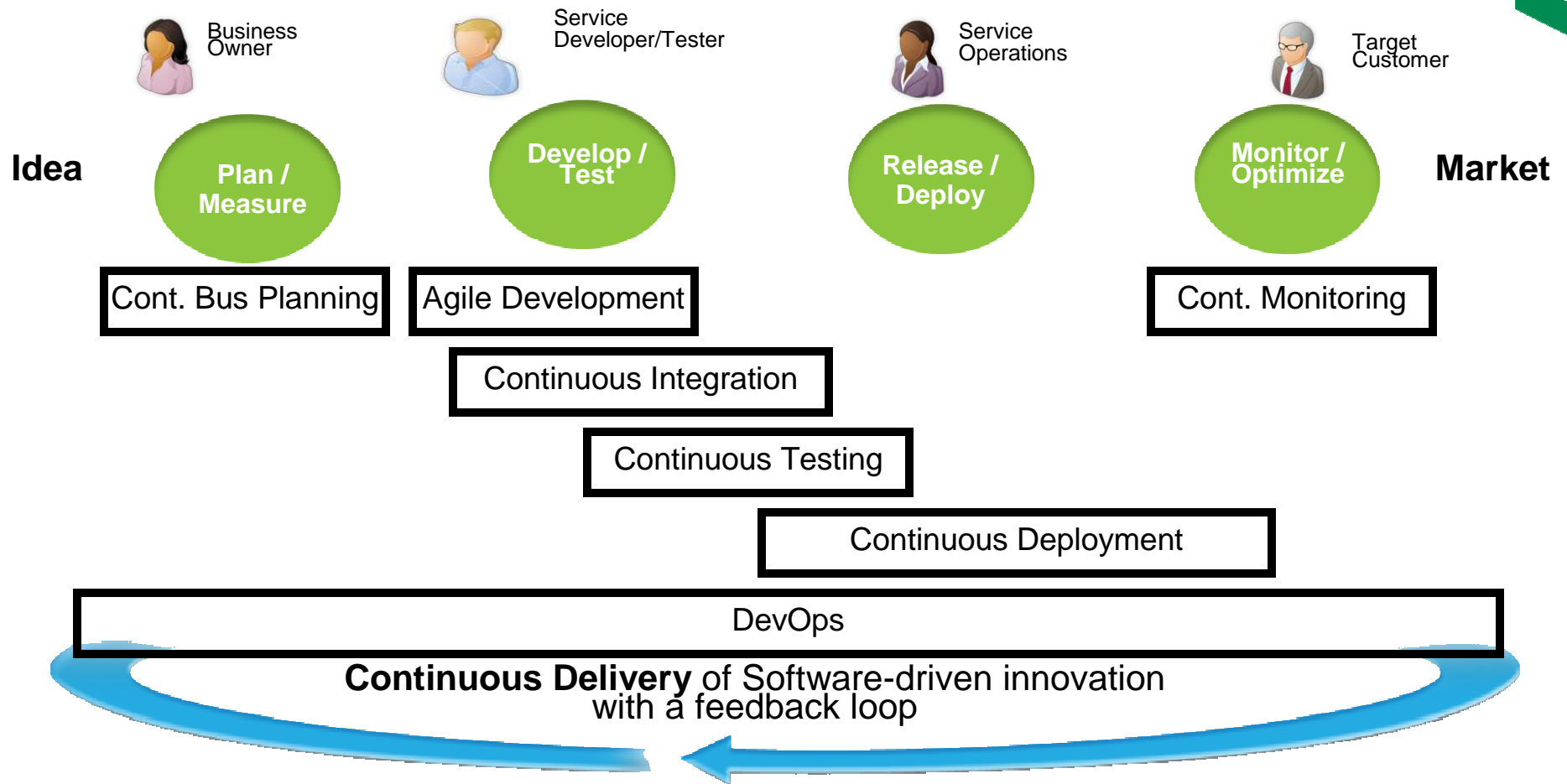
# A lack of continuous delivery impacts the entire business





# DevOps takes an end to end approach to application delivery

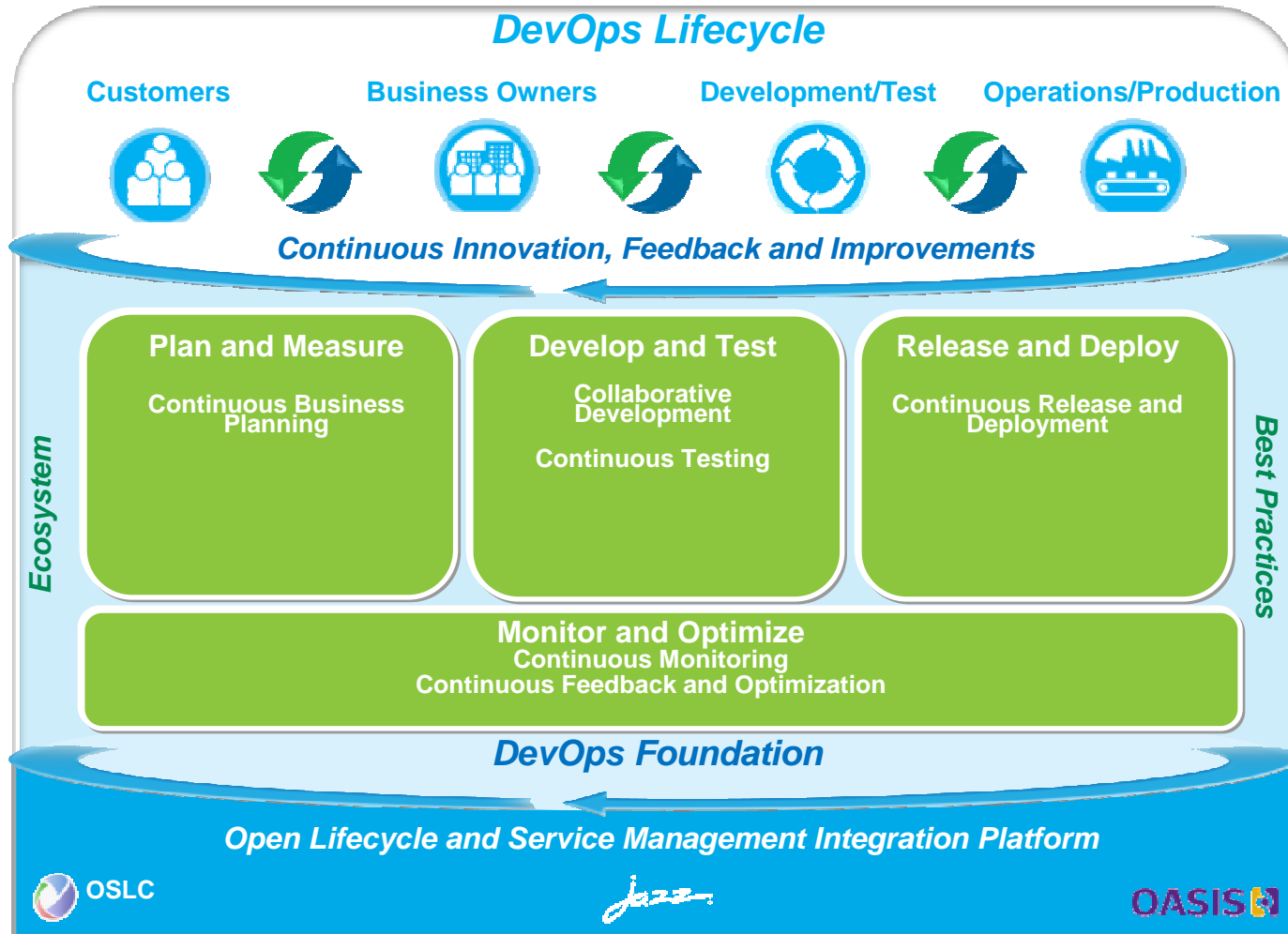
Previous efforts/practices (e.g. Agile) addressed only a subset of the value chain



**Goal: Get ideas into market/production fast, get people to use it, get feedback, learn**



# Capabilities to enable a DevOps approach



## Starting Point: Plan and Measure

What is New: Dashboards and integration capabilities to make better informed decisions.

### Do the right things right

- Attack the high value and high risk items first
- Predict and quantify the outcomes and resources
- Measure honestly with distributions of outcomes
- Learn what customers really want and steer with agility



*“We’ve achieved a 1600% increase in delivery velocity, in 7 months, using a DevOps approach.”*

**John Kosco**  
*Director of IT Operations*

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# Starting Point: Development and Test

Develop & Test

## Unify on an integrated, open platform

- Promote common jargon, tools, processes, data sources among all lifecycle disciplines
- Integrate early and continuously
- Demonstrate integrated behaviors before investing in unit coverage and completeness



*“We’ve seen a reduction in build times from 70 minutes to 17 minutes—that’s a huge advantage for us.”*

**Mark Thornton**  
Director, Software Systems  
and Validation Engineering

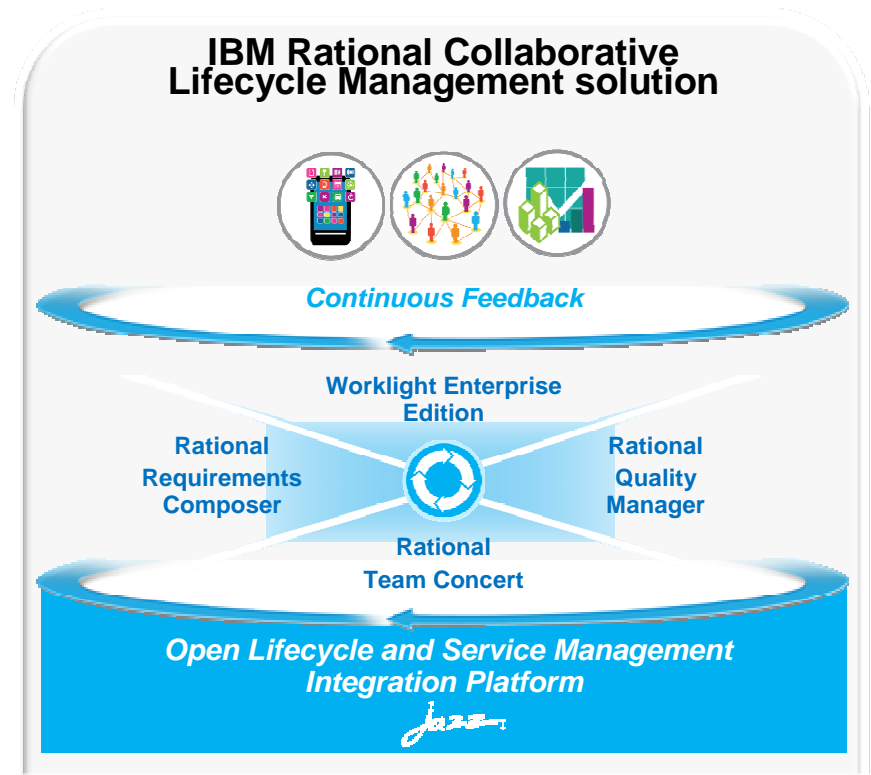
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# Develop and Test: Collaborative Development

Accelerate feedback for Systems of Engagement (SoE) applications



- Speed deployment with high quality
  - Continuous build and test with automation for SoE applications
- Accelerate time to market
  - SoE specific Agile practice guidance and templates applied to mobile and SoE application development
- Extend SoE to the enterprise
  - Enhanced software development team collaboration and mobile application lifecycle integration support
  - Enhanced IBM Worklight adapters to integrate mobile and enterprise systems



*“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® JazzHub

## Self-serve, instant-on, “one stop” for Mobile and Cloud app development

### What’s New

“No hassle” collaborative development capabilities supporting DevOps for continuous delivery

- Simple and easy to use...no need to install, configure or maintain collaborative dev capabilities
- Plan, track, version control, change management, link, test and deploy in the context of daily work
- Stable, secure and stable IDE on the Web on SoftLayer
- Support to easily fork projects from where teams may already be working like GitHub
- Free in 2013 – have the team evaluate collaborative development with a real project

**SOFTLAYER**  
an IBM Company

**NEW** Click. Code. Create.  
Everything you need to build great software.

**JazzHub**  
Make your next project easy.

Explore projects | Create a project

Public or private  
Share your projects or keep them private. You can even link to your GitHub repo.

Develop with freedom  
Create, test, and deploy your code from the cloud. You can even link to your GitHub repo.

Find your rhythm  
Simple log tracking, integrated task tracking, planning, and more. Connect with the way you work.

**JazzHub**  
An IBM sponsored project focused on improving JazzHub. Our purpose is a place to gather feedback, bug reports, ideas, and suggestions to improve the JazzHub service and the commercial and open source technologies it's based on. As such, your contributions here may make their way into JazzHub and other IBM products and services, though we obviously can't commit to that. By collaborating with us here and contributing your ideas and content, you're giving us permission to use them. We look forward to working with you!

**Timeline**

Sprint 2 (Ended Jul 31) | Sprint 3 (Ends Aug 31) | Sprint 4 (Ends Sep 30) | Sprint 5 (Ends Oct 31)

**Track and Plan**

View: Recently Created | Showing 1 - 10 of 14 | Show items assigned to me only

Type	ID	Summary	Status	Creation Date
Issue	3185	Error when clicking the Code tab, Code link, or Check in button	New	Aug 26, 2013 11:26:15 AM
Issue	3138	Confusing error message, hard to recover state after changing Jazz.net password	In Progress	Aug 23, 2013 9:48:13 AM
Issue	3194	"Click here ..." link not working after successful push from Origin	New	Aug 26, 2013 11:58:04 AM

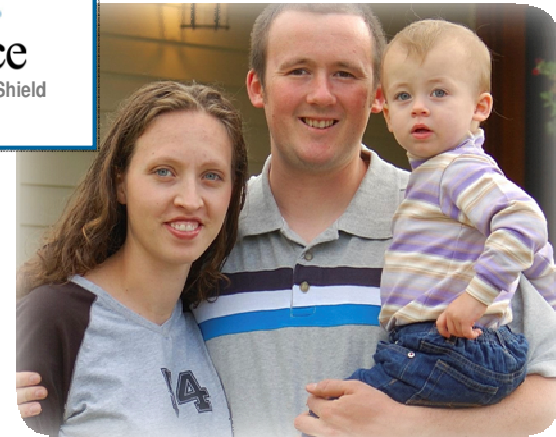
PointSource, an IBM business partner, in the enterprise mobility space, are sharing JazzHub with their clients and built **Mobile Whiteboard app on iTunes for design.**

Free in 2013

## Starting Point: Development and Test

### Quantify software quality insight at faster cycle times

- Virtualize test environments for low-overhead, rapid deployment
- Automate provisioning and regression test suites
- Uncover and resolve critical defects earlier through integration-test driven development
- Quantify quality trends over time



*“Using the Rational tools, three employees can run the required 1,250 tests in less than one week, reducing testing time by 50 percent.”*

**An Doan**  
Software Quality Engineer

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# Continuous Testing

*Test earlier. More often. For less.*



- Delivers mobile test automation
  - Support for popular mobile platforms with simplified visual automated testing
- Accelerates multi-channel testing
  - Execute tests on different mobile platforms and web browsers with a single common solution
  - Compliments IBM Worklight and IBM Mobile Development Lifecycle Solution
- Enhances service virtualization for continuous integration testing and delivery
  - Service virtualization allows easier, less expensive and more thorough testing with virtual services
  - New support for CICS and Java applications

## IBM Rational Test Workbench

**Helps communications service provider increase development productivity by 30%**



## Continuous Delivery

*Open Lifecycle and Service Management Integration Platform*

*Jazz*

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# Continuous Testing: IBM Mobile Quality Assurance



*Continuously deliver high quality mobile applications*

## What's New

- End user feedback and quality metrics available at every stage of development
- App quality assurance in a fragment and complex environment



## Features/Business Value

- **Sentiment analysis** – mine app ratings and reviews to respond to issues before they go viral
- **Evidence-based Prioritization** – Enable business and IT to collaborate on mobile strategy and user experience
- **Over the air app distribution** – get the latest in the hands of testers as soon as it is available
- **Frictionless bug reporting** – spend every minute on testing latest and greatest builds, not the hassles
- **In-app crash reporting** – rapid understanding of why an app fails

## Client Benefits

- **Improve Mobile App Quality** with holistic visibility into user experience, including bugs, crashes, feedback, and user sentiment.



*• "What you are talking about doing is fantastic. You have a very powerful approach here and it will drive a lot of what people will want to do in the market"*

Open Beta

## Starting Point: Release and Deploy

**Accelerate delivery of usable increments for continuous outside-in feedback**

- Provide a continuous delivery pipeline that automates deployments to test and production environments
- Reduce overhead with push-button deployments
- Quantify change stability and measure transparently for compliance



*“Before it took 2 days to deploy a build, with uDeploy and our new processes, it takes us, less than 60 seconds.”*

**Matthew Wilson**  
Director, Consumer Web Operations

# IBM Release and Deploy: Continuous Deployment

*UrbanCode compliments IBM DevOps solution enabling clients to more rapidly deliver software*

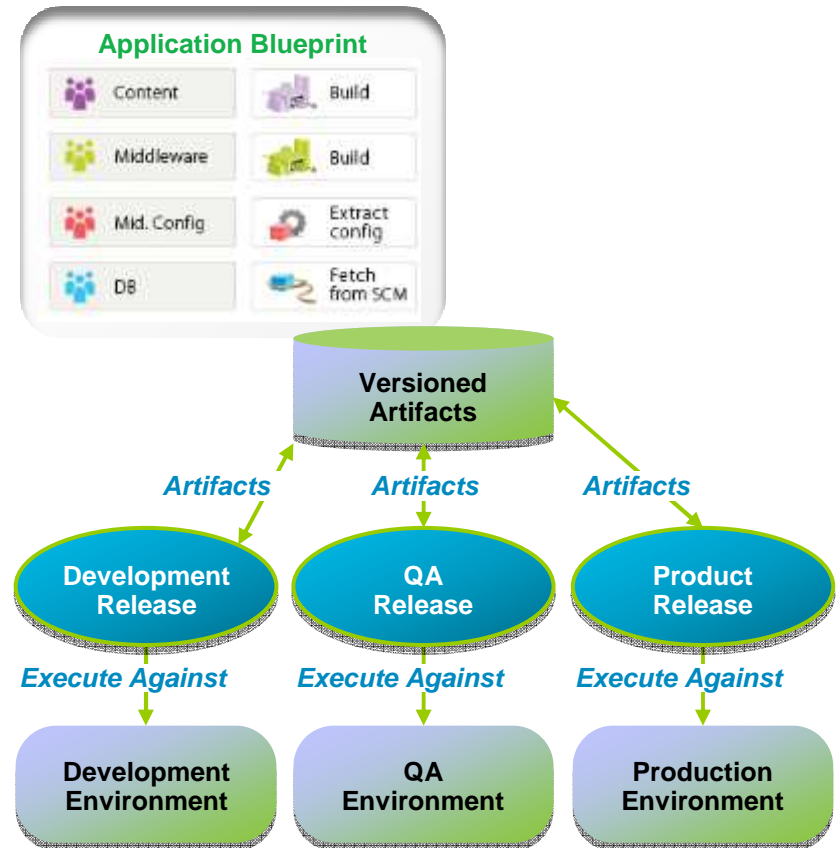


## IBM DevOps solution helps clients:

- **Reduce errors:** Automated software release and deployment
- **Improve productivity:** Push-button deployments for developer and operations
- **Faster time-to-market:** Automated release and deployment with built-in best practices provides
- **Compliance and auditability:** Enforced Security and traceability

**IBM UrbanCode Deploy** orchestrates and automates the deployment of applications, middleware configuration, and database changes into development, test and production environments, accelerating time to market, driving down cost while reducing risk.

**IBM UrbanCode Release** transforms error-prone and chaotic release planning into streamlined release events, replacing spreadsheets with a collaborative solution that eliminates breakdowns in communication enabling more frequent releases at lower risk.





# IBM UrbanCode Deploy v6.0 – Deployment Automation



## What's New

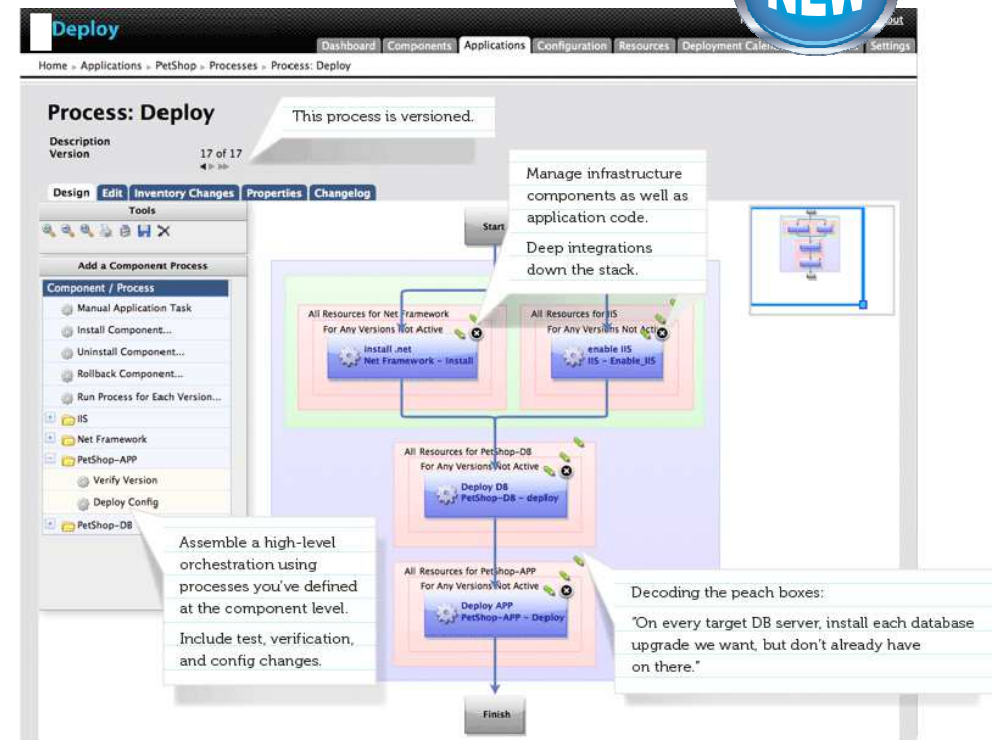
- Automatic deployment of mobile applications to the IBM Worklight Platform
- Support for application deployments to Cloud
- Test virtualization support for application deployment
- Integrations with Application Lifecycle Management solution

## Features/Business Value

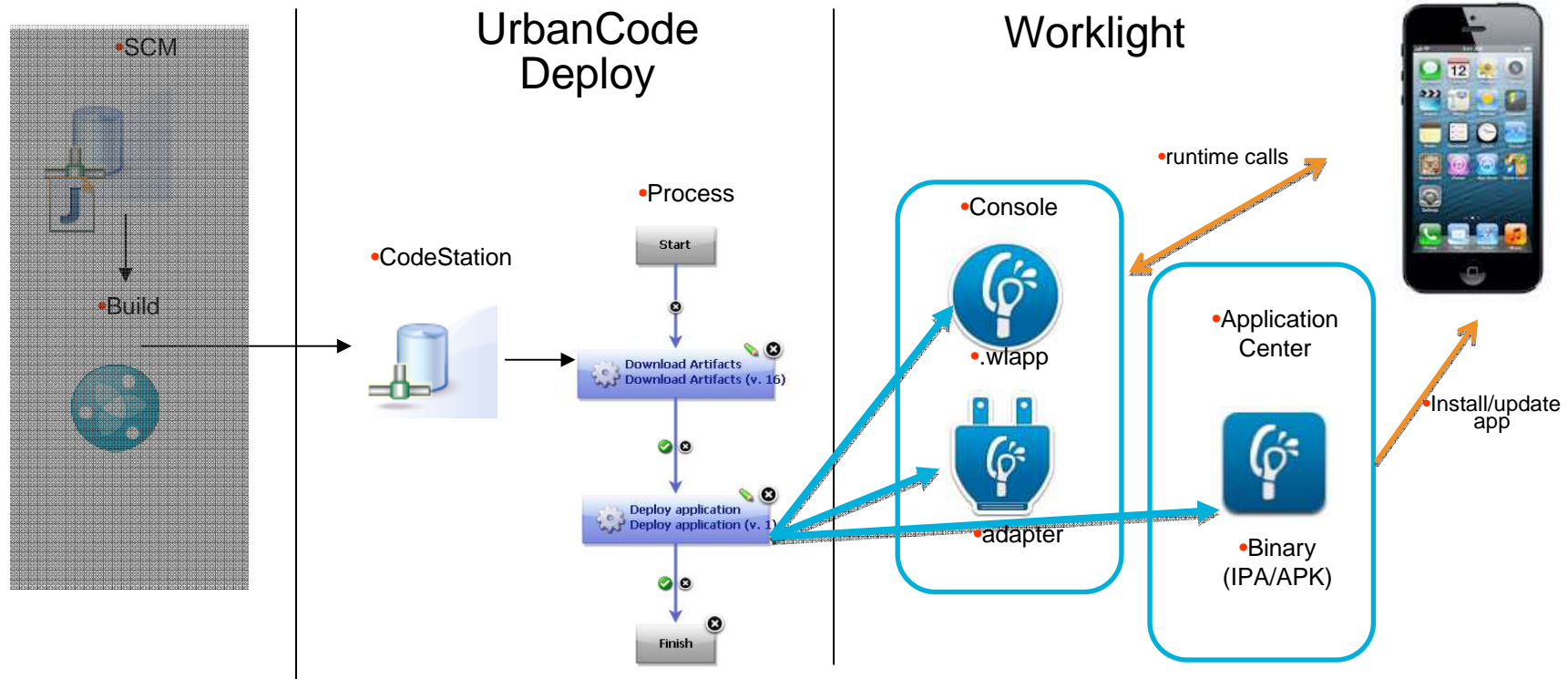
- Automated application deployment and orchestration
- Environment and configuration management
- Store deployment artifacts more securely to enable traceability.
- Middleware configuration management
- Security, approvals and notifications

## Client Benefits

IBM UrbanCode Deploy orchestrates and automates the deployment of applications, middleware configuration, and database changes into development, test, and production environments, accelerating time to market and reducing cost by shrinking manual efforts from days to minutes with automation, while reducing risk by cutting deployment errors by up to 90 percent.



# IBM UrbanCode Deploy *Integration with IBM Worklight*



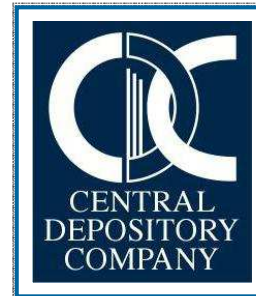
✓ Use App Server, Database and other plug-ins to configure environments and Worklight projects



## Starting point: Monitor and Optimize

### Analyzing the customer experience and their challenges

- Understand client usage context for analyzing customer behavior and pinpointing problems
- Reduce cycle times for continuous client feedback
- Connect developers/operators more directly with user community and client experience



*“Root cause analysis used to average 45 minutes. Now it takes only 5 minutes.”*

**Syed Asif Shah**  
Chief Information Officer

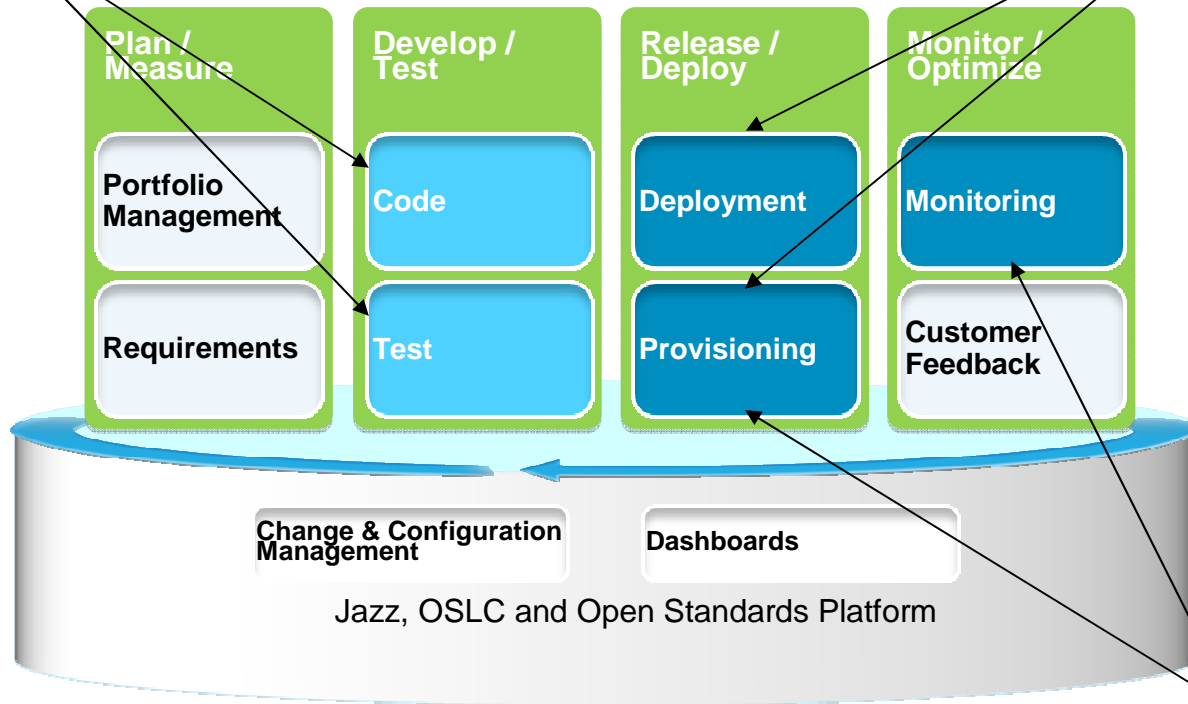
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# Cloud DevOps and capabilities Direction



**Shift-left of cloud-provisioned envs.**  
Self-service provisioning of product-like environment for dev/test team eliminate down-times and reduce roll-backs








**“Full-stack” provisioning and deployment**  
Unified management across application, platform and infrastructure layers

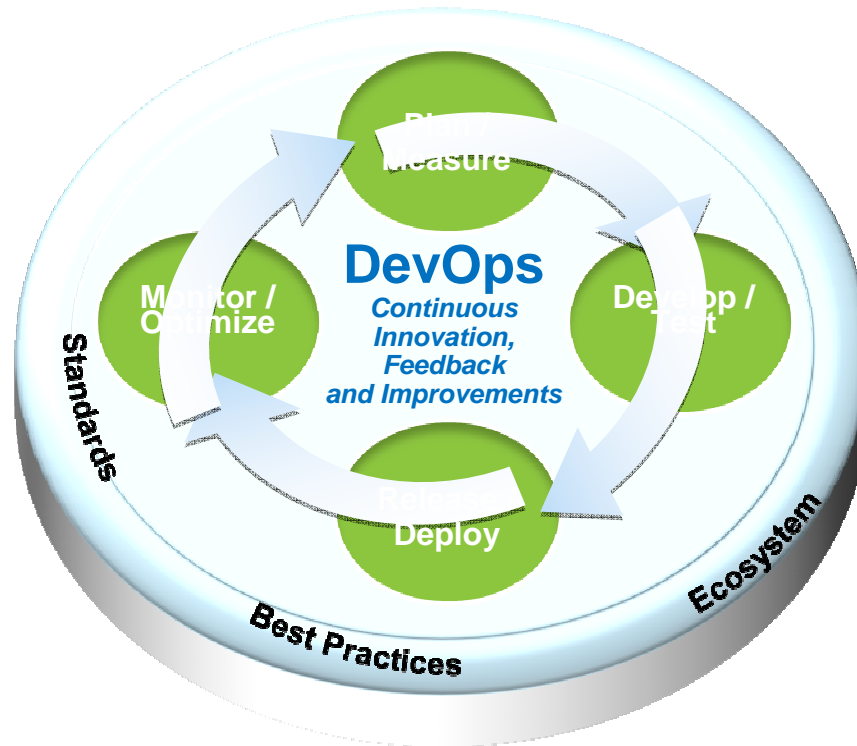


**Self-tuning infrastructure**  
Dynamically provision optimal environment based on real-time system status

# DevOps: Starting points and adoption paths



-  **Angela**  
Business User
-  **Rick**  
PMO/Manager
-  **Dave**  
Business Developer / Data Analyst
-  **Jane**  
Domain Specialized Developer, Tester
-  **Bob**  
Backend Service Developer
-  **Fred**  
Platform Operations
-  **Andrew**  
Infrastructure Operations



*"Continuous delivery results in a closer business-IT relationship and generates more value by increasing the velocity of the feedback loop between customers and companies that serve them" - Forrester*

**Improve client experience** - By speeding the customer feedback loop  
**Accelerate software delivery** - By enabling collaboration across software supply chain  
**Balance speed, cost, quality & risk**- By eliminating waste & automating manual processes



# QUESTIONS

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