



DevOps: enterprise capabilities for continuous software delivery

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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



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



Cloud

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



Instrumented Products

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



Software delivery

Intelligent/ Connected Systems

Software component in smart products driving increased value and differentiation



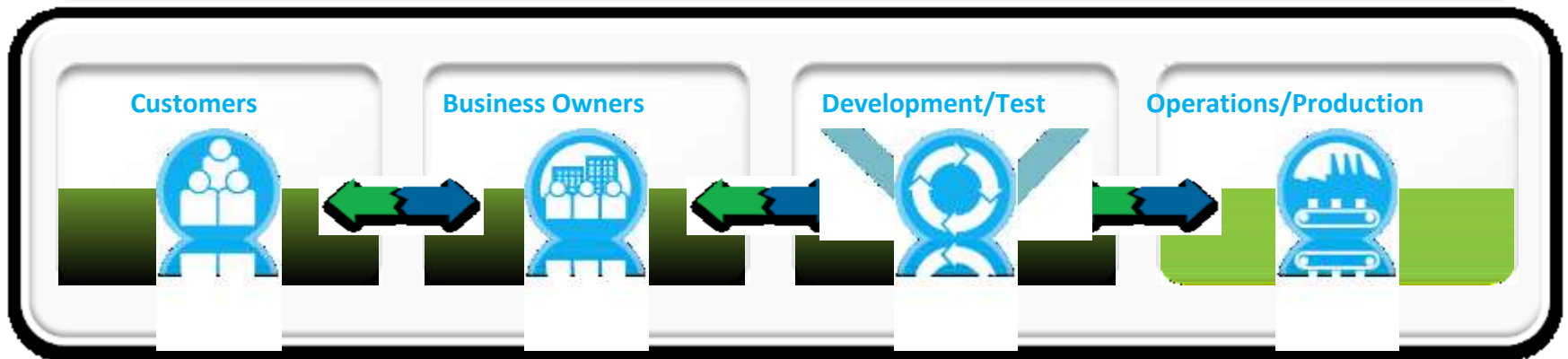
Success requires the ability to manage the software delivery lifecycle

Challenges

Costly, error prone processes

Slow deployments

Risk of instability



Organizations that effectively leverage software innovation outperform their competitors... *yet few are able to deliver it effectively*



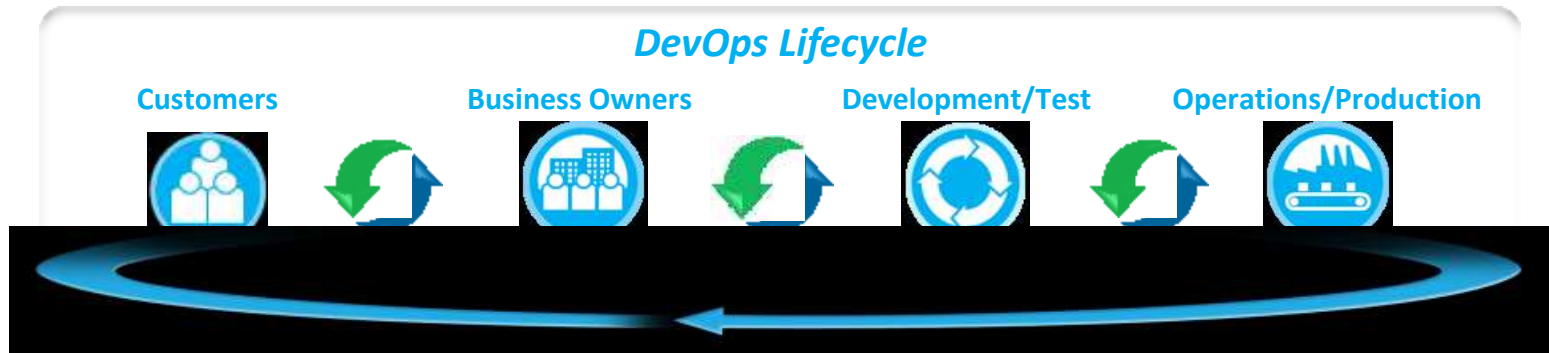
But only...



Source: "The Software Edge: How effective software development drives competitive advantage," IBM Institute of Business Value, March 2013

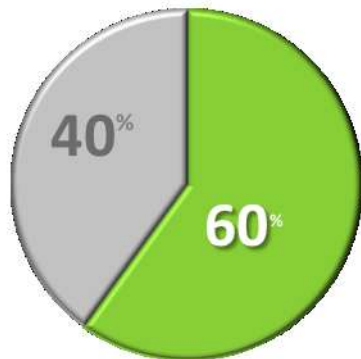
Embrace a DevOps Approach

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

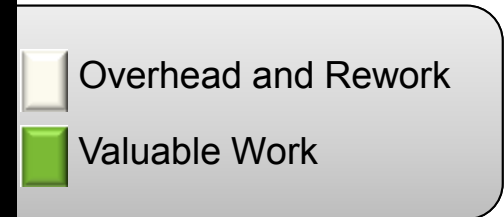
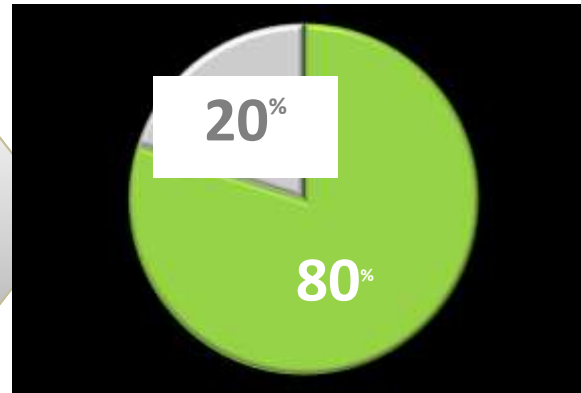


Removing Waste

DevOps shares ideas with Lean such as the removal of waste from business processes



40%



- Waste of overproduction
- Waste of time and resources waiting
- Waste of processes themselves (overhead)
- Waste of poor quality products

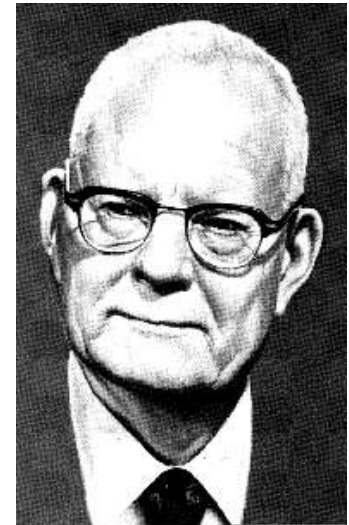


Deming Cycles and DevOps

- **William Deming** – American statistician
- Major influencer of Japanese manufacturing and business
- Famous for **Plan-Do-Check-Act cycle** (Deming Cycle)



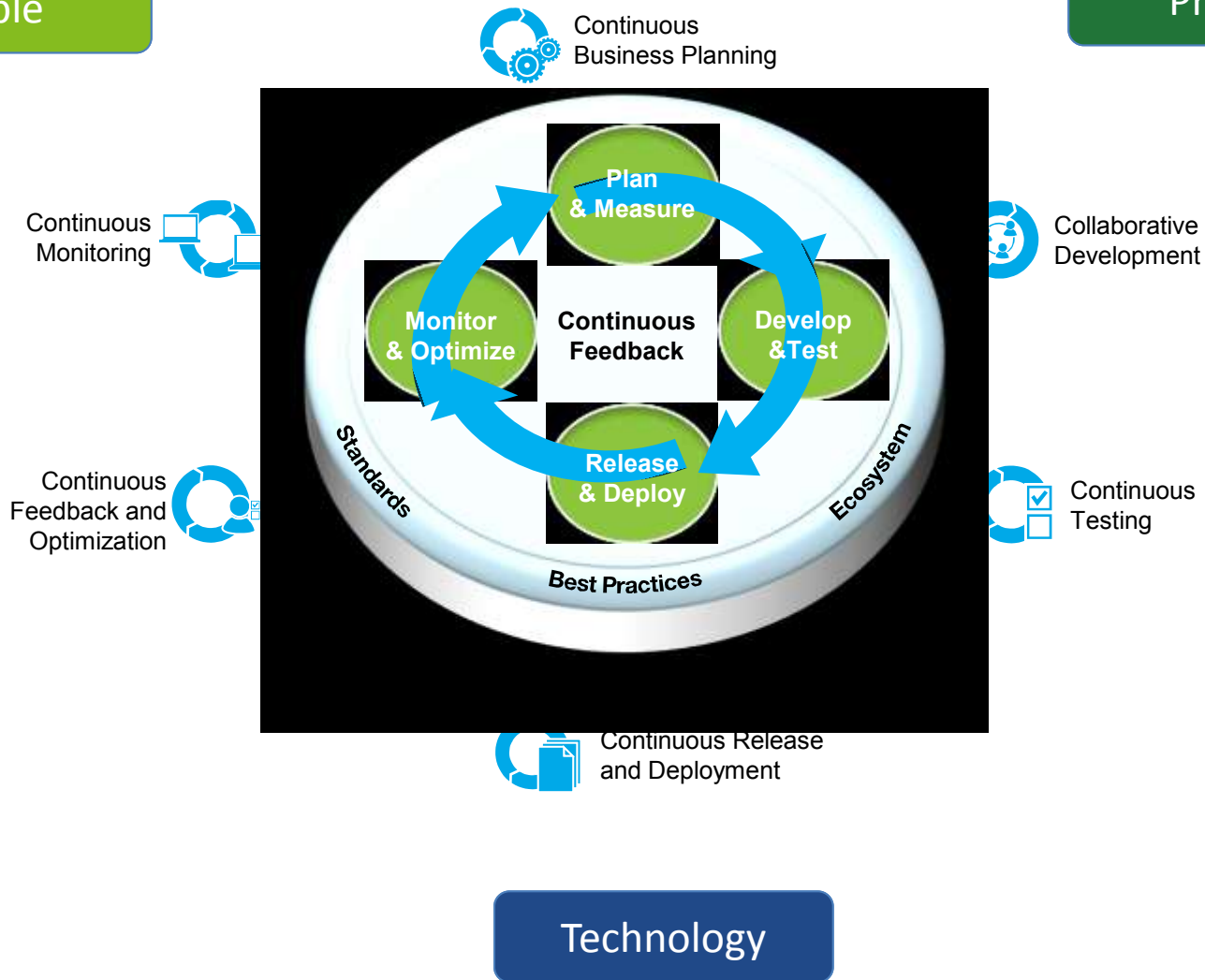
William
Edwards
Deming



DevOps Adoption Paths

People

Process



Technology

Continuous Business Planning

Plan
& Measure



Continuous Business Planning

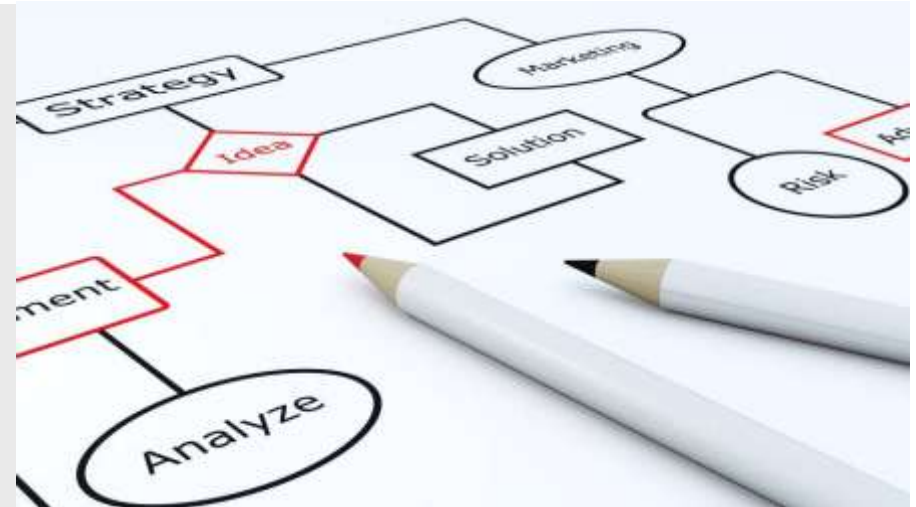
Make more insightful business decisions with improved dashboard and integration capabilities

Synchronized planning and execution

- New scorecard to govern alignment of software execution against business decisions
- Improved visualization, management and Import/Export support for linked data
- Updated “Tips and Tracing” widgets to assist practitioners’ productivity

Project impact and downstream visibility

- Improved traceability relationships between requirements, test, and development artifacts



IBM Rational Focal Point

IBM Rational Requirements
Composer

What's
New

Develop & Test

Collaborative Development



Collaborative Development

Foster productive collaboration with deeper lifecycle integrations

Insight and collaboration across tools

- New Rational Configuration Management bundle
- Enhanced Lifecycle Integration Adapters for HP ALM/Quality Center, JIRA, Git and CA Clarity

Accelerate delivery

- Updated “Welcome” and “Tips and Tracing” widgets improve practitioners’ productivity
- New configurable headings and “1-click” to copy work items from Web UI / Visual Studio
- Lightweight design in Rational Software Architect Design Manager Web UI

Keep agile projects on track

- Advanced Release Burndown report projects and tracks the “ideal” line in Rational Team Concert
- Compliant eSignature and test result audit support



IBM Rational Configuration Management
IBM Rational Lifecycle Integration Adapters
IBM Rational solution for Collaborative Lifecycle Management:

IBM Rational Team Concert

IBM Rational Requirements Composer

IBM Rational Quality Manager

IBM Rational Software Architect Design Manager

What's
New

Collaborative Development – JazzHub

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

Free in 2013

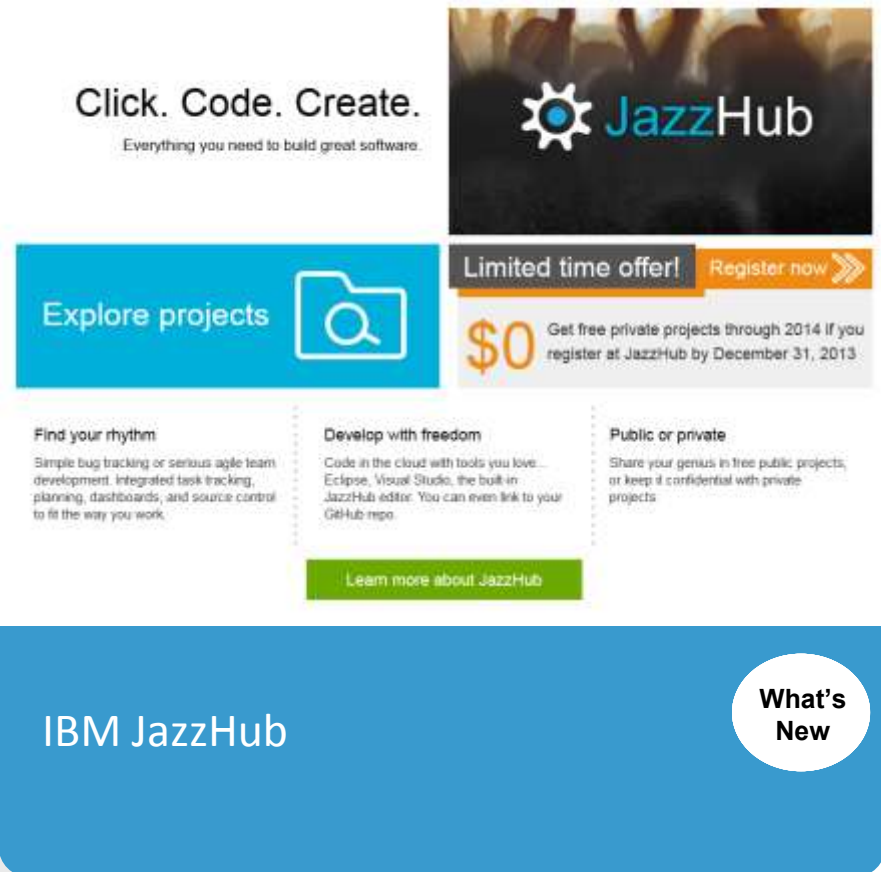
- Enable the team to achieve collaborative development now!

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.

Explore projects

Limited time offer! Register now >>>

\$0 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.

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

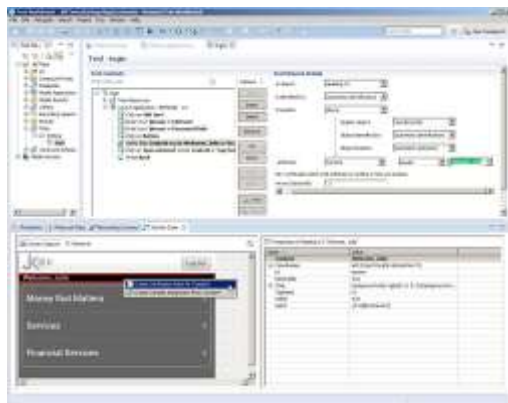
Public or private
Share your genius in free public projects, or keep it confidential with private projects.

Learn more about JazzHub

IBM JazzHub

What's New

Continuous Testing

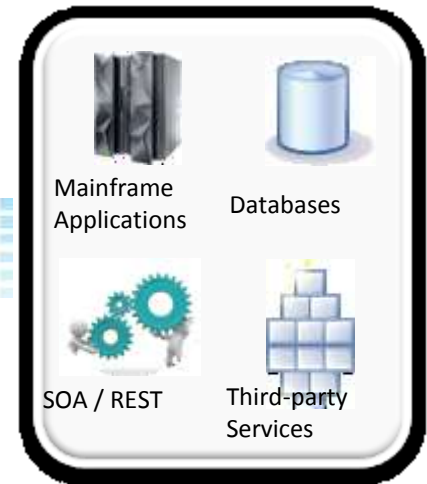


Comprehensive test automation solution

Multiplatform Application Testing



Multichannel, multi-tiered test execution



Virtualized services remove test bottlenecks

Continuous Testing

Enhanced integrations and capabilities to synchronize software testing with deployment and operations

Streamlined application delivery and monitoring

- Integration between IBM Rational Test Workbench and IBM UrbanCode Deploy to automate the provisioning of virtual components
- Integration with Smart Cloud Application Performance Monitoring to better identify and resolve performance issues

Expanded platform support for end-to-end testing, including mobile and mainframe

- Support for Dojo Mobile, web apps, cross platform Worklight hybrid tests
- Support for Parallel Sysplex and zEnterprise EC12, increasing test coverage of mainframe applications

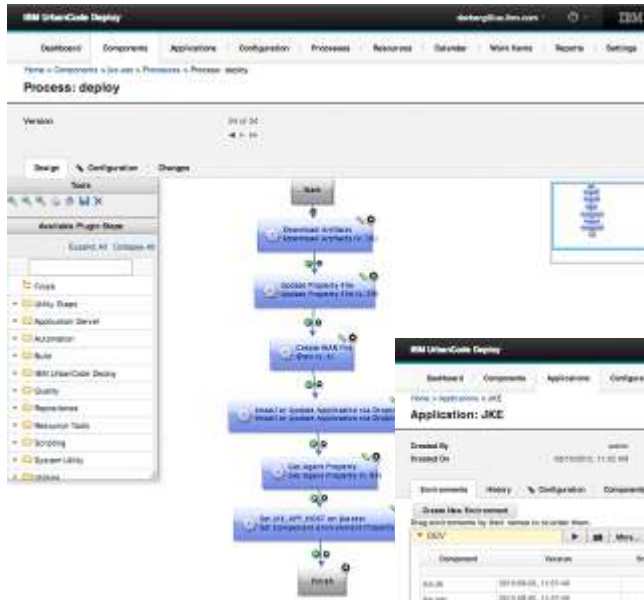


IBM Rational Test Workbench
IBM Rational Test Virtualization Server
IBM Rational Quality Manager
IBM Rational Development and Test Environment for System z

What's
New

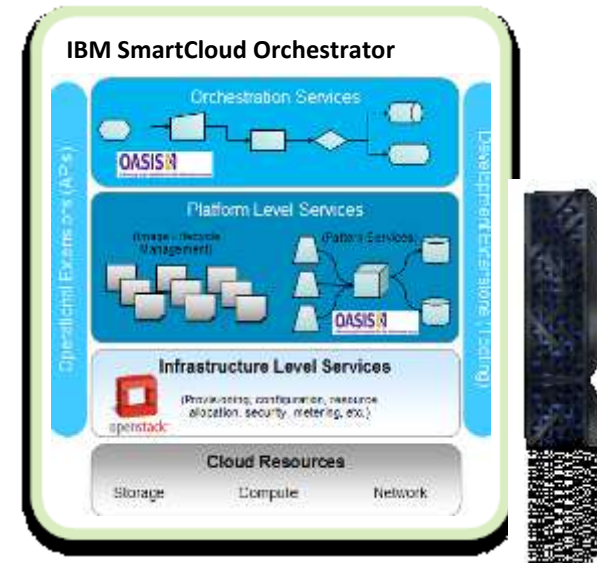


Continuous Release and Deployment



This screenshot shows the details for an application named 'JKE'. It includes a table of components with the following data:

Component	Version	Staged	Properties	Name	Compliance	Actions
IBM JDK	20130920_11.01-02		None 1	None	Compliant 100%	View Request
IBM JRE	20130920_11.01-02		None 1	None	Compliant 100%	View Request
IBM JDK	20130920_11.01-02		None 1	None	Compliant 100%	View Request
IBM JRE	20130920_11.01-02		None 1	None	Compliant 100%	View Request



Continuous Release and Deployment

Greater delivery speed and frequency for complex applications

Simplified deployment automation of mobile and cloud applications

- New automated deployment directly to the Worklight Console and Application Center
- Continuously provision environments and deploy applications to virtualized environments

Making deployment an integrated part of the DevOps lifecycle

- New and improved integrations
 - IBM Rational Team Concert
 - IBM Rational Test Workbench
 - IBM Rational Test Virtualization Server
 - IBM Rational Asset Manager
 - IBM Rational Quality Manager

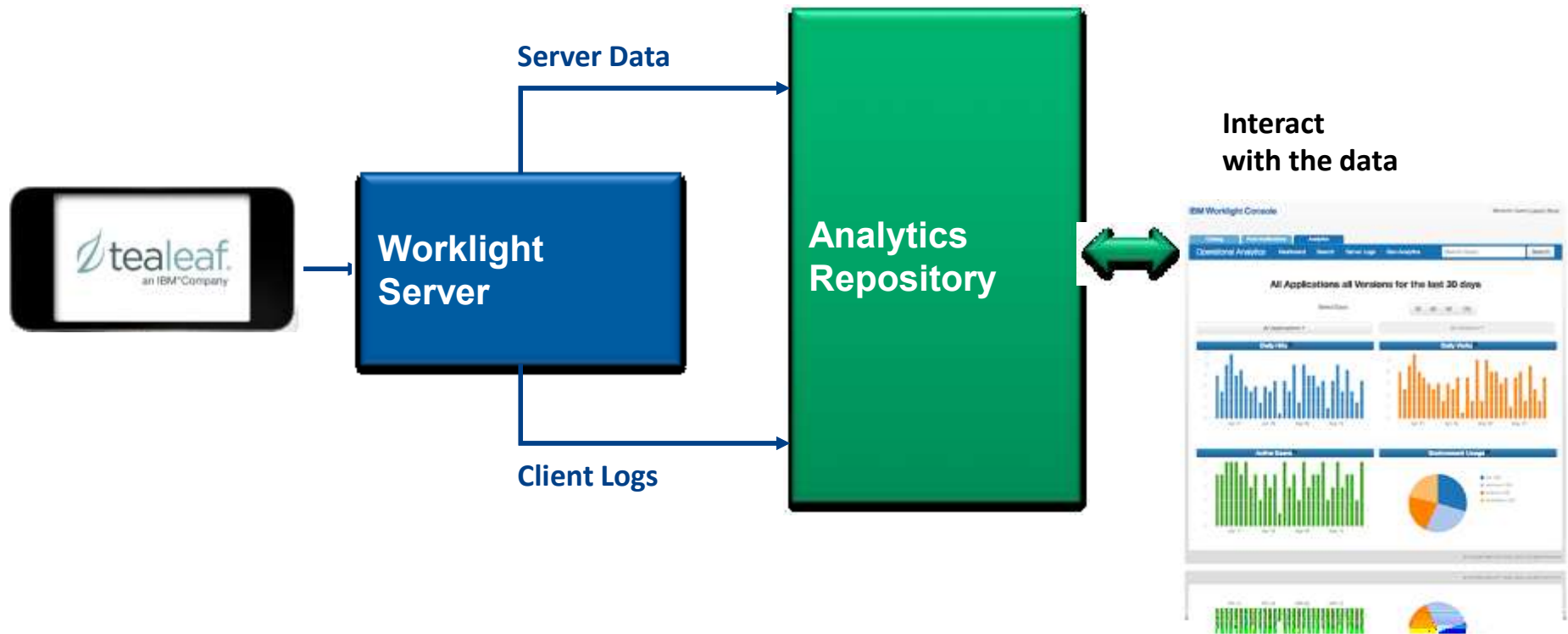


IBM UrbanCode Deploy
IBM UrbanCode Release
IBM SmartCloud Orchestrator
SoftLayer an IBM Company

What's
New

Continuous Feedback and Optimization

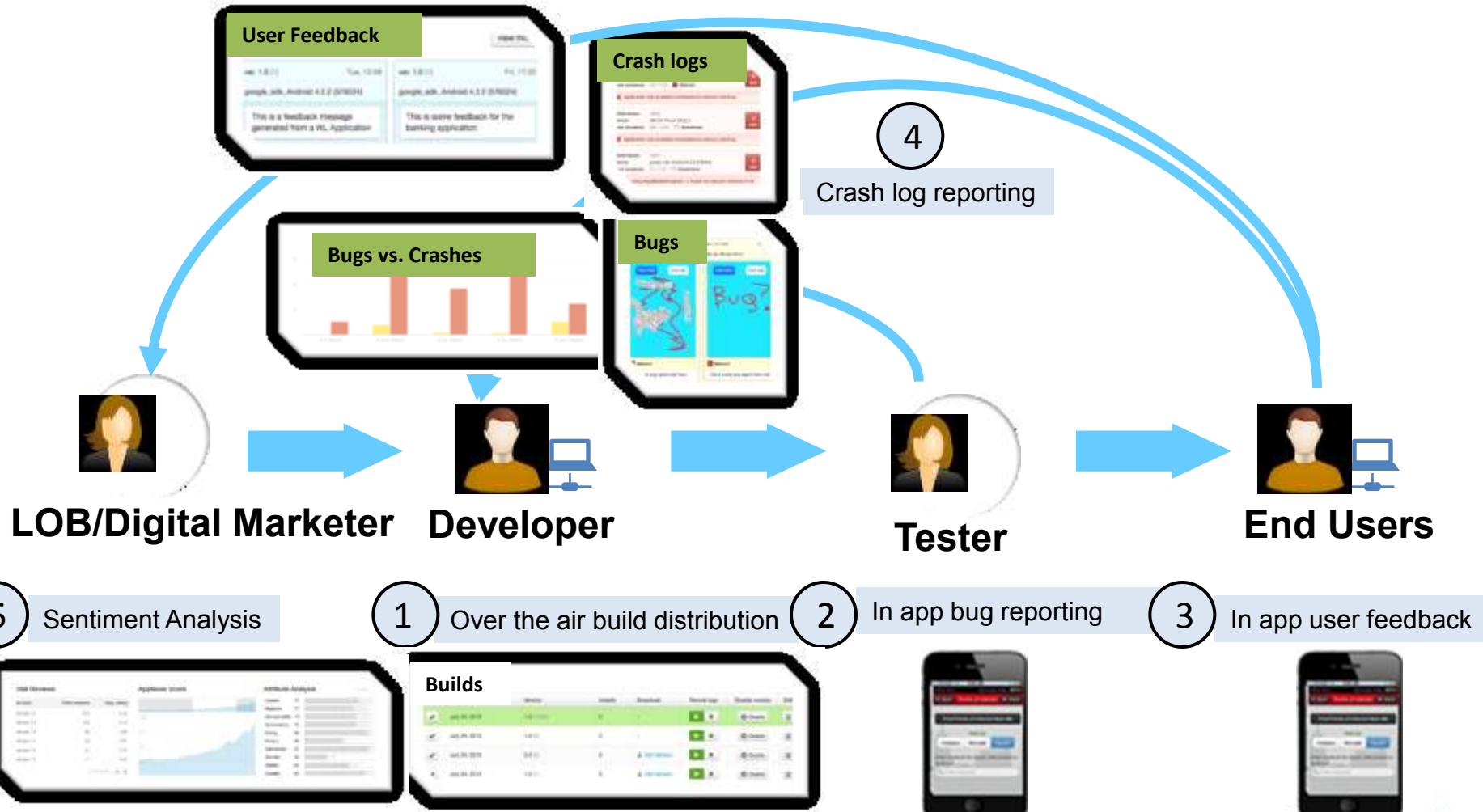
Collect, compress and stream important information



Smarter Mobile Quality Assessment

IBM Mobile Quality Assurance services (beta)

Addresses five key use cases, attacking pain points for all key users



Continuous Monitoring

Settings Application Overview

0 Apps in Critical Status
1 Apps in Warning Status
0 Apps in Unknown Status
0 Apps in Normal Status

SimpleTrade Resources Clients Transactions Events

SimpleTrade - Transaction Dashboard

Transaction Status Summary: 100%
Critical: 0, Warning: 0, Normal: 2

Overall Volume: Bar chart showing volume over time.

Overall Response Time (seconds): Line chart showing response time over time.

Top 10 Transactions:

Transaction	Status	Transaction Volume	Failed (%)	Slow (%)	Response Time (s)	Timestamp
SimpleTrade	Warning	1	0.00	100.00	123.233	37-75
SimpleTrade2	Good	1	0.00	0.00	1.100	37-75

SimpleTrade - Resource Dashboard

Transaction Performance: Response time 60.584s, Requests 2.

HTTP: Web server status Running, Received rate 0.033, Failed requests rate 0.000, Server failure rate 0.000, Failed login rate 0.000.

WAS: Server status Connected, Worst Avg response time (ms) No data available, JVM memory used (MB) 110/152, JRE CPU used (%), DB Cache pool used (%), Heap used (%), Worst request completion (%).

DBS: Instance status Active, DB Invert BP Intratio (%) 98.67%, DB highest failed SQL stmts (%) 0.75%, DB highest table space (%), DB highest sort overflows (%), Sort heap used (%).

MQ: Queue manager status Running, Channel initiator status Running, Command server status Running, High depth queue count 0, DLQ depth 0, WLTQ depth 0, Count of channels not running 0, Count of inbound channels 0, Count of server connections 1, Count of MQ events not reset 0, Critical MQ errors 0.

Continuous Monitoring

New Mobile capabilities to improve service quality by monitoring application performance

Usability, performance, integration

- New for monitoring and mobility, simplified user experience, greater technical domain coverage
- Updated release exposes mobile app performance issues before they impact end users and ensures performance and availability of the entire IBM Worklight mobile application platform infrastructure
- New integrations of IBM Tealeaf qualitative insight of user interactions, with IBM WebSphere Commerce and IBM Worklight



IBM Tealeaf CX
 IBM Tealeaf CX Mobile
 IBM Tealeaf cxImpact
 IBM Mobile Quality Assurance (4Q13 beta)
 IBM SmartCloud Monitoring – Application Insight
 IBM Application Performance Diagnostics

What's
New

The IBM DevOps Approach



**Differentiated and engaging
customer experiences**

**Quicker time
to value**

**Increased capacity
to innovate**

Thank You

2013





Innovate2013

The IBM Technical Summit