



IBM SolutionsConnect 2014

A New Era of Smart

Feb 19-2014 | Sofitel Sukhumvit Grand Ballroom, Bangkok, Thailand



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Testdrive Your Cloud to
Fuel the New "Innovation
as a Service"





Agenda

- Introduction
- IBM DevOps for Cloud
- IBM DevOps Solution Walkthrough
- Customer Success
- What's Next



Software drives today's innovation for a smarter planet
Transforming the way we live, work, and play





The New Era of Systems of Interaction

System z System of Record

OLTP, SOA, on demand

IMS, CICS, DB2, Storage,
Messaging, WebSphere

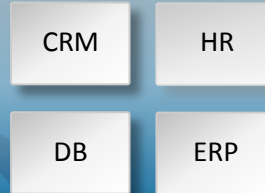
zEnterprise 196, 114, EC12,
zBX, IBM zAware

6 Billion
SmartPhones worldwide

Systems of Engagement



Systems of Record



Cloud-based
Services

200 Billion
*Physical assets with IT
intelligence*



Internet of Things

450 Billion
*Business transactions / day
over the Internet by 2020*

60,000
Cyber attacks every day



Software and systems delivery is undergoing rapid change
Market dynamics and technological innovations create opportunity and challenges

Increased globalization



Complicates collaboration

Technology Explosion



Drives faster demand for change

Disruptive technologies



Adds complexity to cycle times

Software's increasing value in innovation



Demands increased governance

Requires accelerated delivery





Software delivery is critical to success



of companies believe software delivery is important or critical

But only...



leverage software delivery effectively today



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



And a lack of continuous delivery impacts the entire business

CHALLENGES

Costly, error prone manual processes and efforts to deliver software across an enterprise

Slow deployment to development and test environments leave teams **waiting and unproductive**

Upgrade risk due to managing multiple application configurations and versions across servers

Customers



Business Owners



Development/
Test



Operations/
Production



Knight Capital lost **\$440 million in 45 minutes** due to a misconfigured release

New Zealand's biggest phone company, Telecom paid out **\$2.7 million** to some **47,000 customers who were overcharged** after a software glitch

A bad software upgrade at RBS Bank left **millions unable to access money for 4 days**



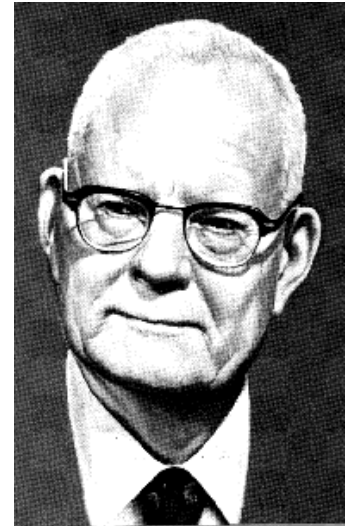
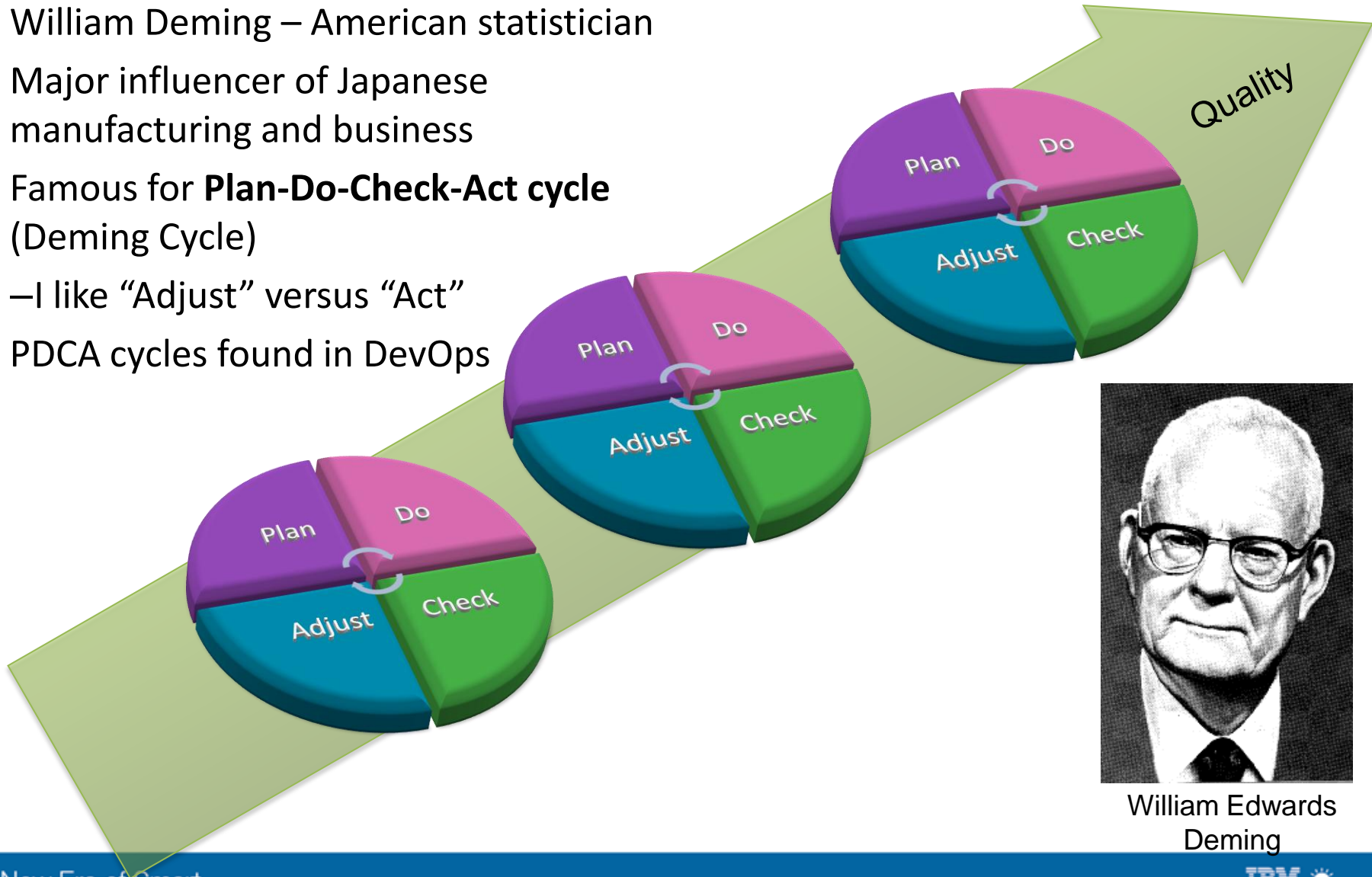
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Deming Cycle

- William Deming – American statistician
- Major influencer of Japanese manufacturing and business
- Famous for **Plan-Do-Check-Act** cycle (Deming Cycle)
 - I like “Adjust” versus “Act”
- PDCA cycles found in DevOps

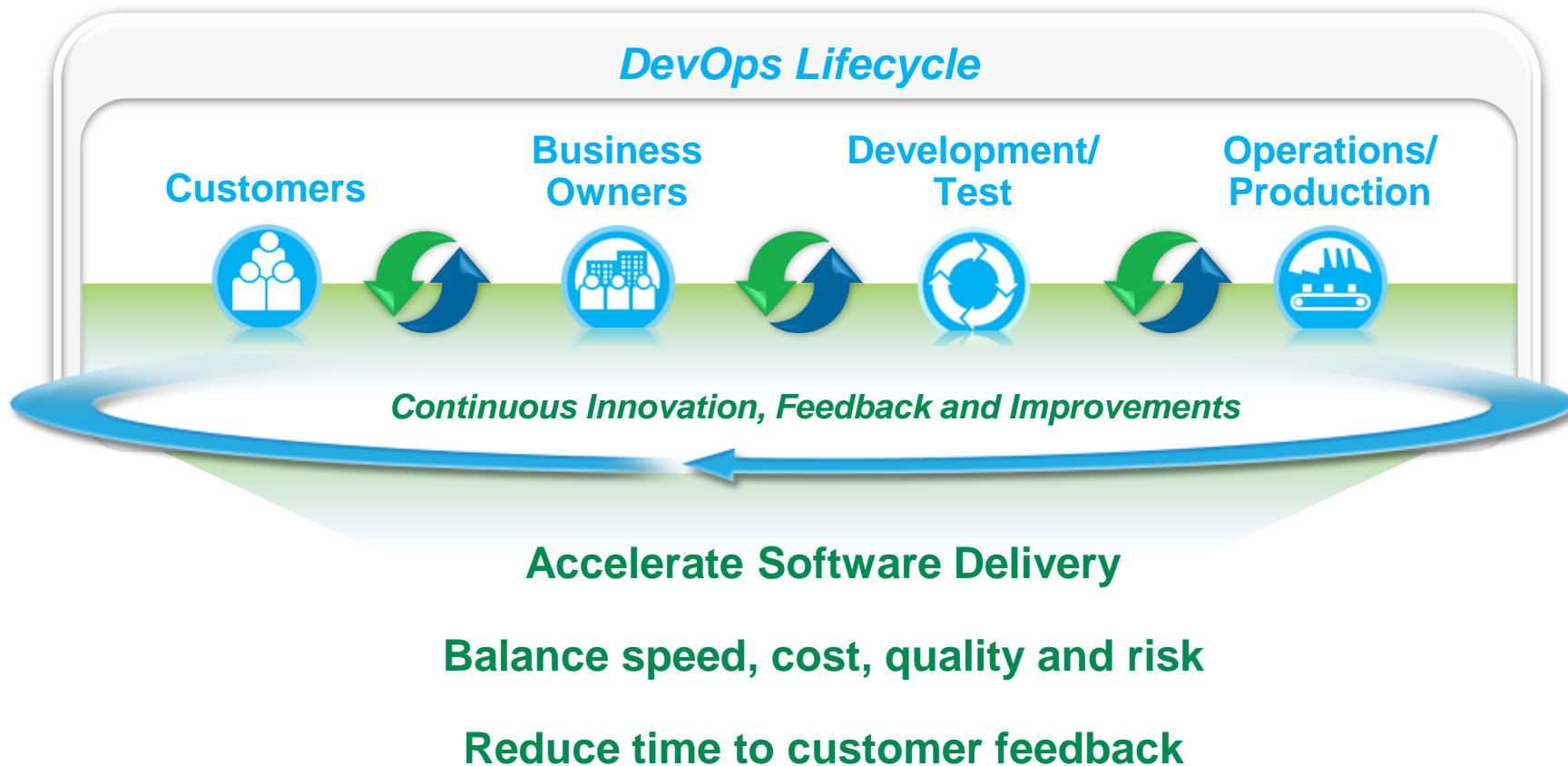


William Edwards
Deming



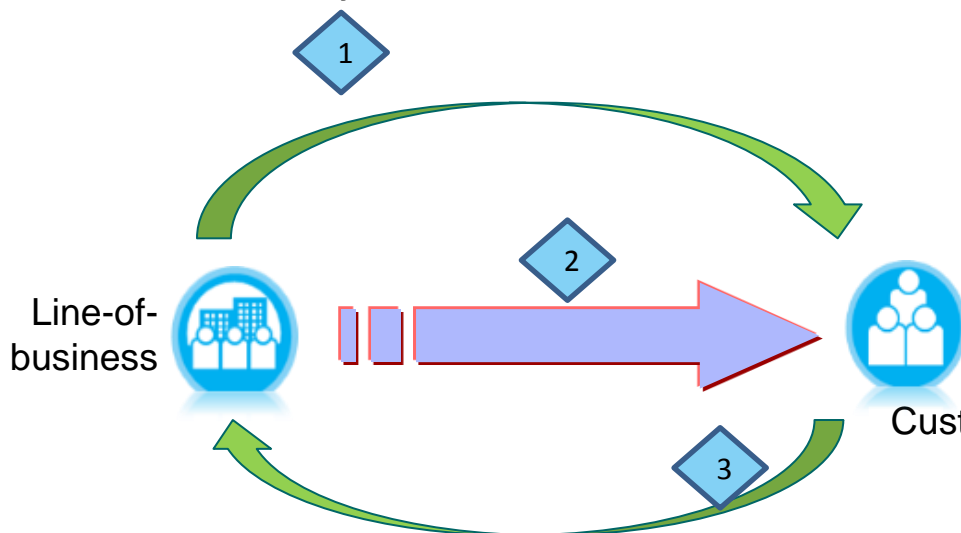
DevOps

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



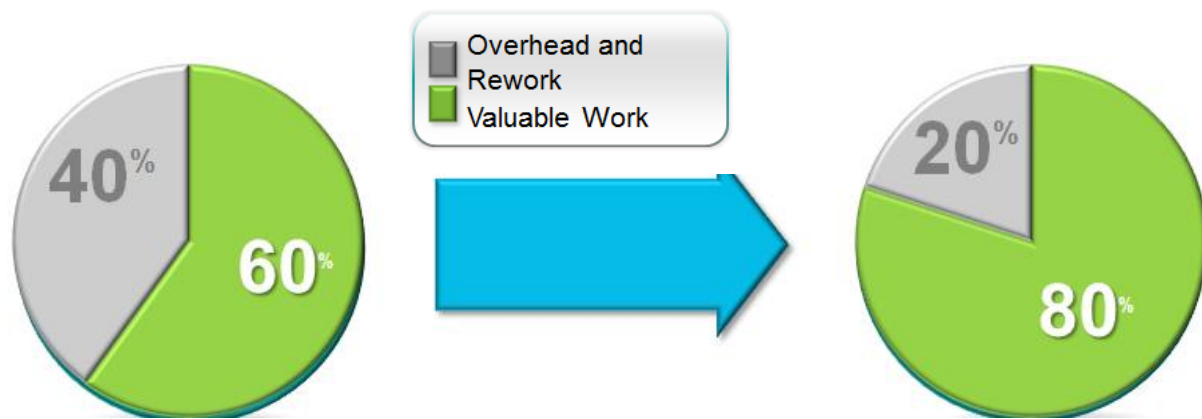


DevOps approach: Apply Lean principles to software innovation and delivery to create a continuous feedback loop with customers



1. Get ideas into production fast
2. Get people to use it
3. Get feedback

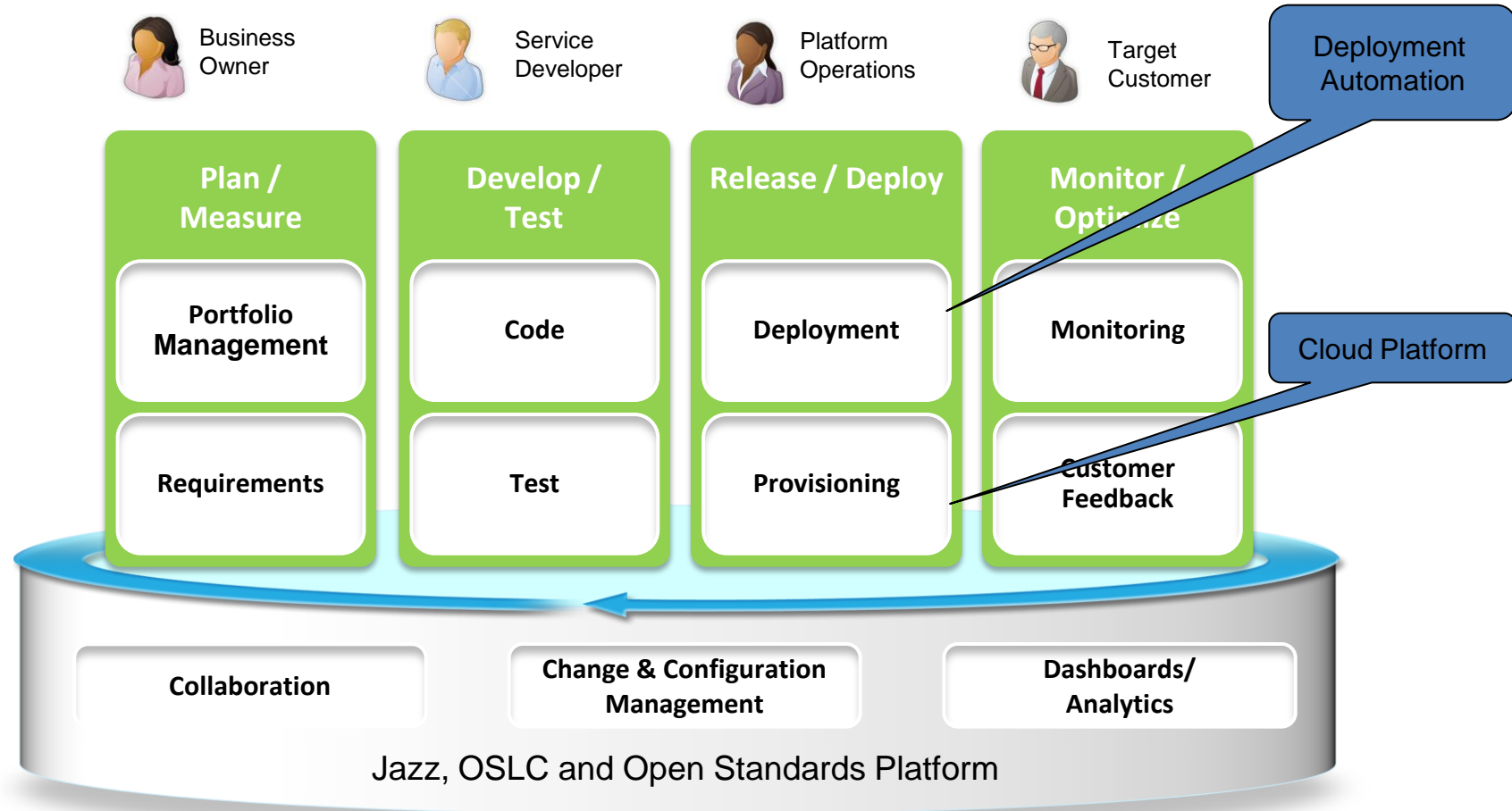
Adopt DevOps approach to continuously manage changes, obtain feedback and, deliver changes to users



Eliminate any activity that is not necessary for learning what customers want



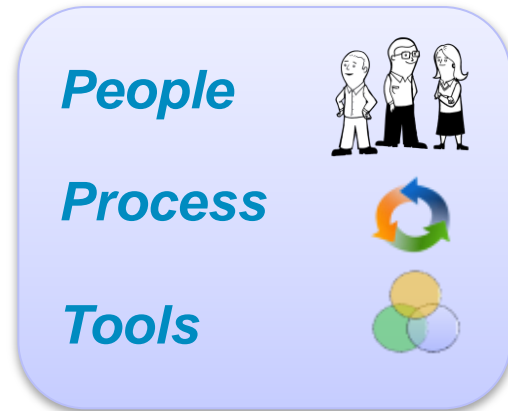
DevOps Solution: Adoption paths, open platform and key capabilities





DevOps Principles and Values

- Develop and test against a production-like environments
- Iterative and frequent deployments using repeatable and reliable processes
- Continuously monitor and validate operational quality characteristics
- Monitor and improve



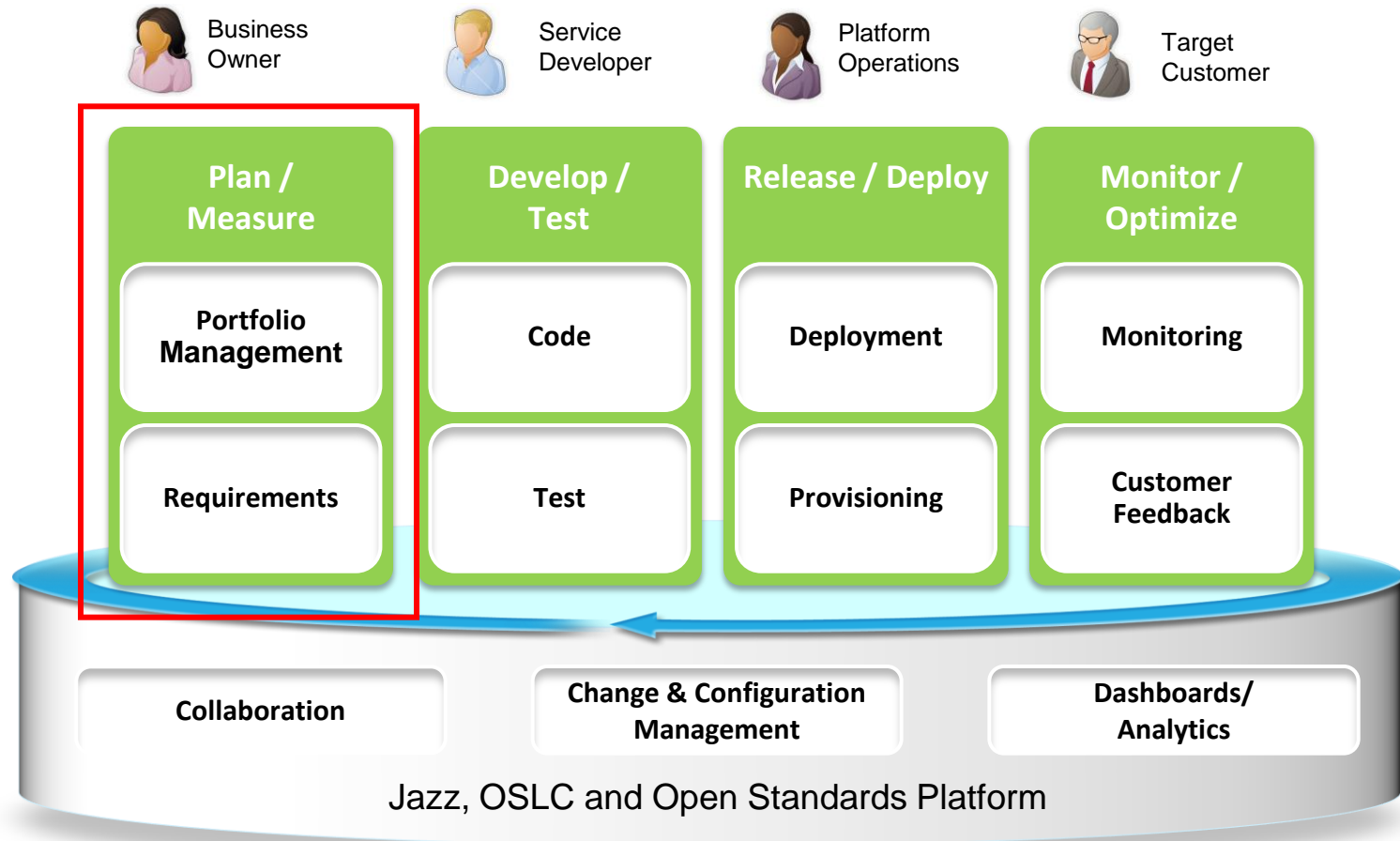


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- Introduction
- IBM DevOps
- **IBM DevOps Solution Walkthrough**
- Customer Success
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DevOps Solution: Adoption paths, open platform and key capabilities





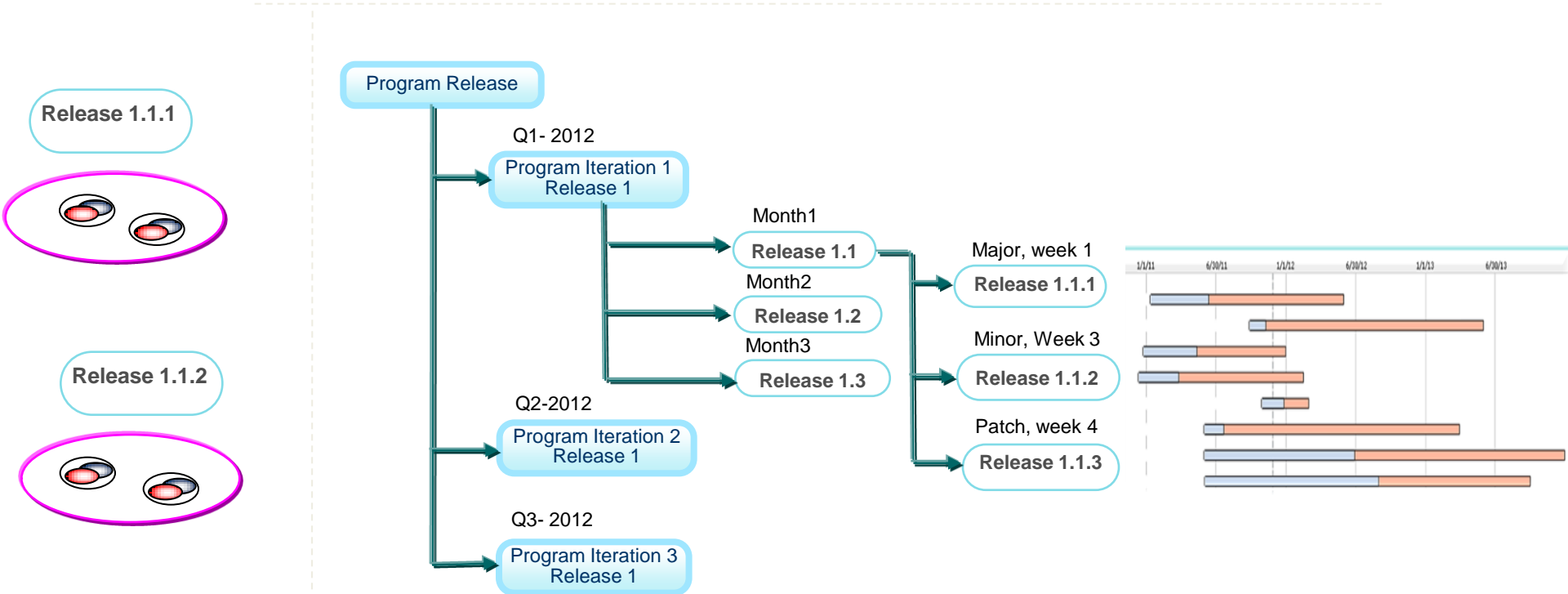
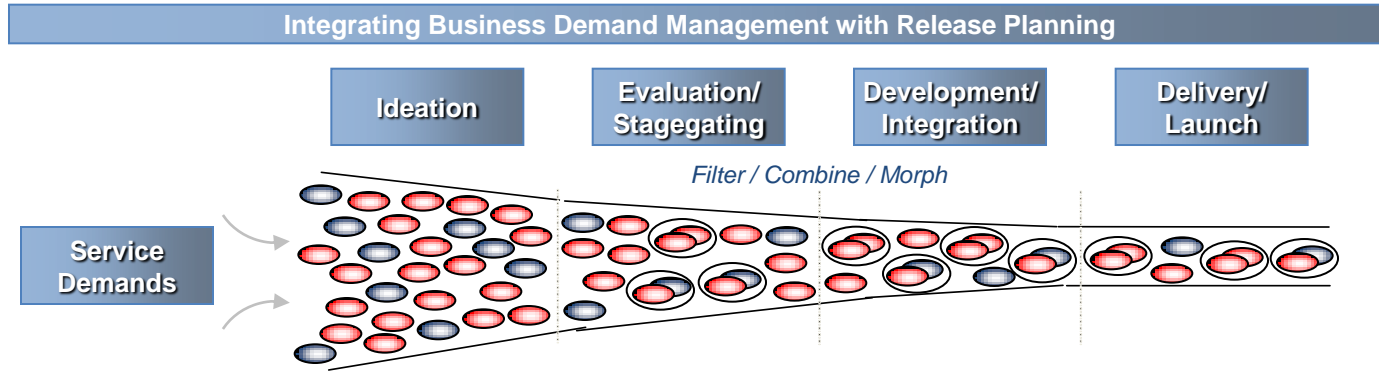
Poll Question 1.

How do you decide which request to work on?

- A. The loudest voice in the room
- B. The team availability
- C. A baseline criteria set



Develop Continuous Pipeline of Innovative Services & Releases





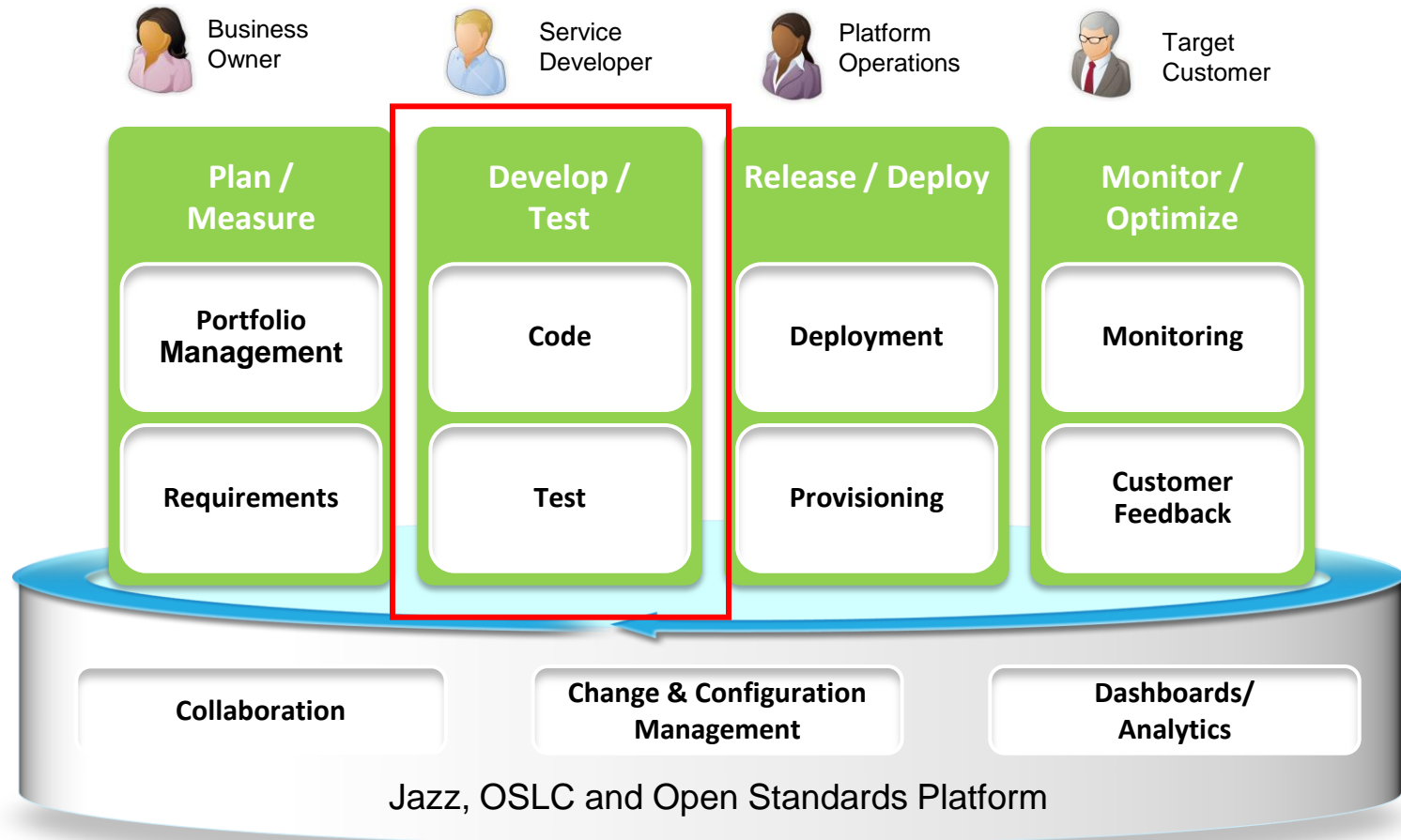
Plan and Measure Demonstration Scenario

A bank is undergoing a major IT transformation to prepare itself for a regional expansion.

- How to capture and prioritize the new business demands amidst current backlog
- How to plan the releases
- How to track release progress



DevOps Solution: Adoption paths, open platform and key capabilities





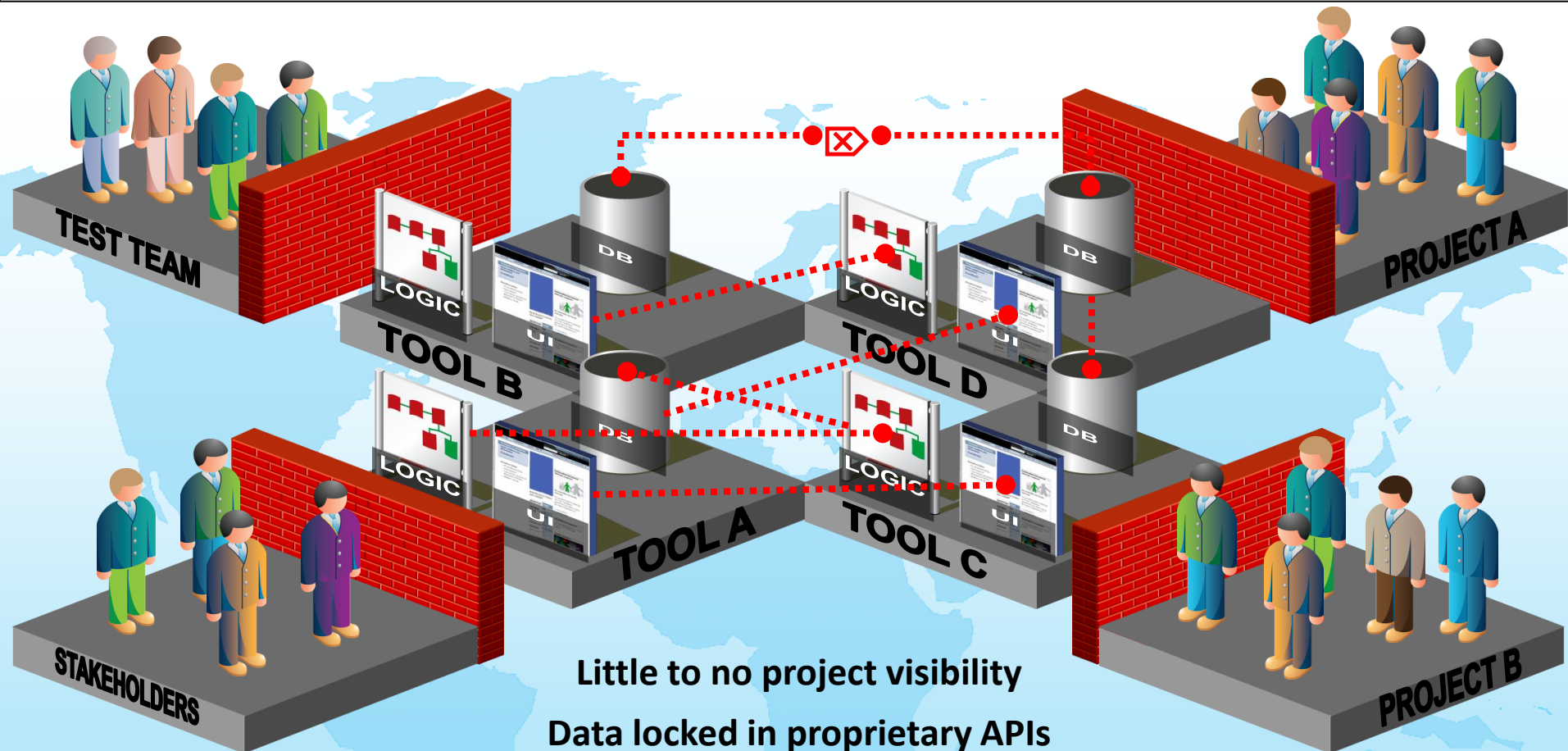
Poll Question 2.

How does the team decides whether the application is good for release?

- A. Gut Feel
- B. When time is up
- C. Test Results



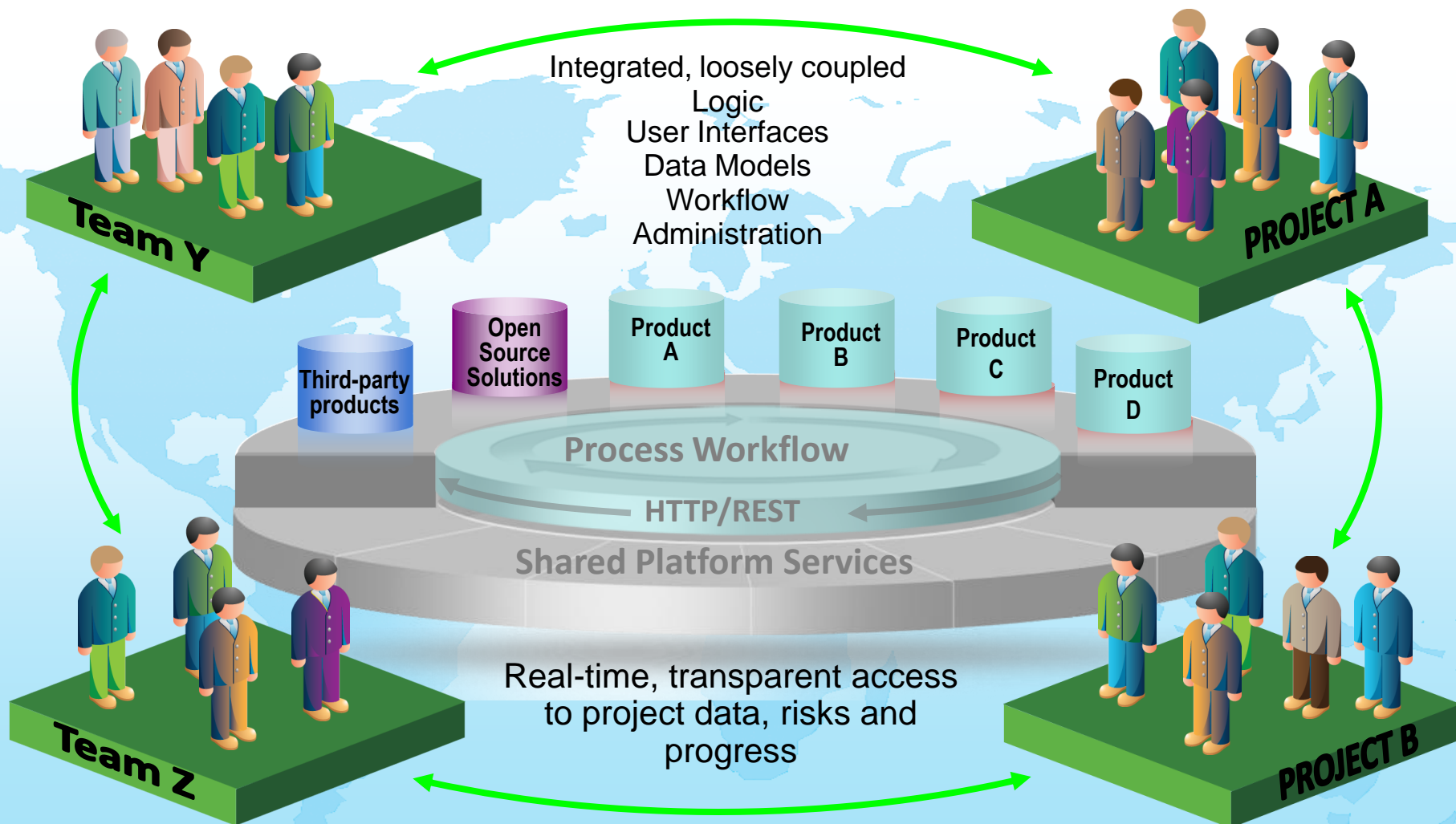
Traditional software delivery environments limit productive collaboration: Islands of People, Process and Information



- Little to no project visibility
- Data locked in proprietary APIs
- Poor process and workflow integration
- High maintenance and administration costs
- Persistent functional, geographic and organizational silos



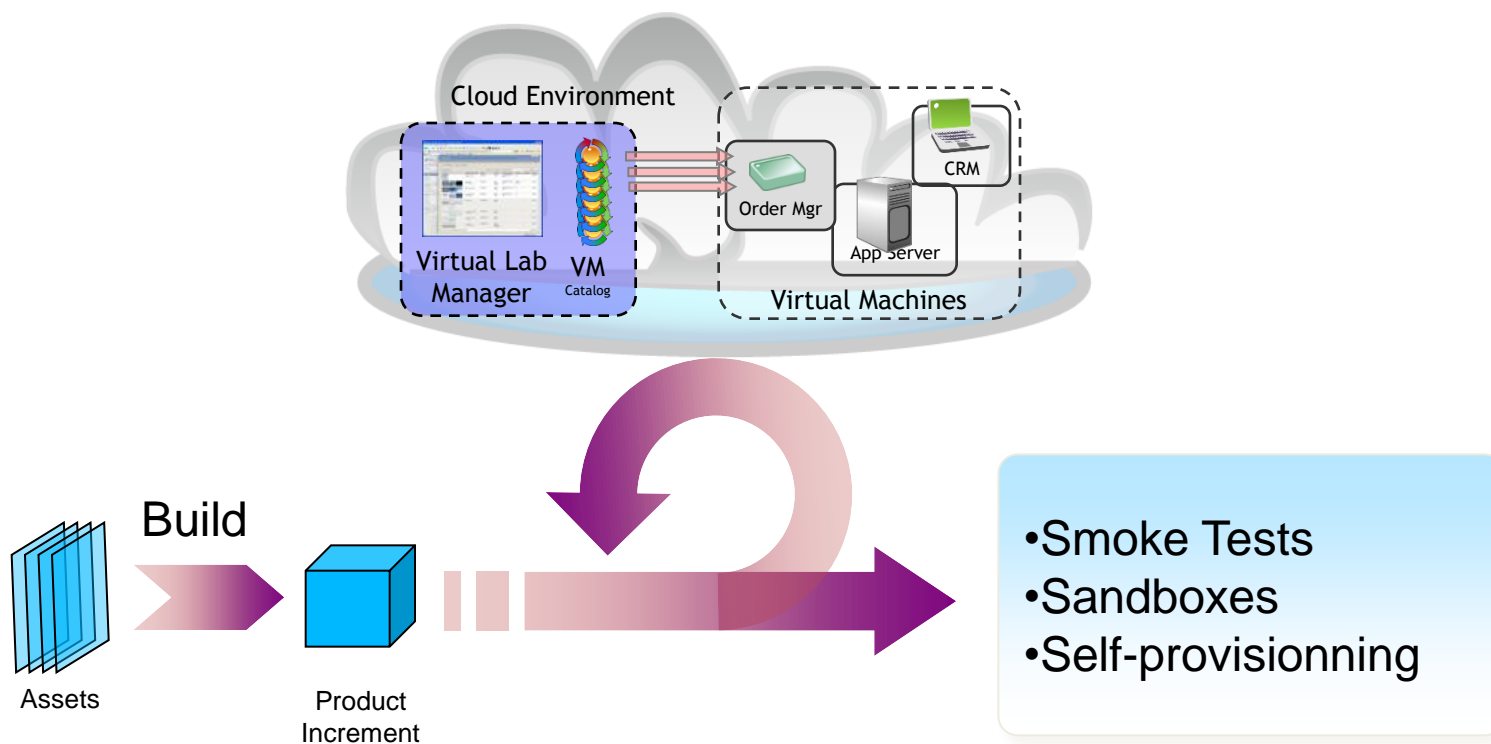
Collaborative Lifecycle Management - A platform for software integration and collaboration





Streamline your process with continuous integration & test

- Avoid time spent installing and configuring software just to discover basic build issues
- Smoke tests can be integrated as part of the continuous integration process through deployment automation and test virtualization
- Regression test results are made available to the entire team to shorten resolution





Develop & Test Demonstration Scenario

A bank IT team consisting of system analyst, developer and tester are collaborating to rollout a release.

- Requirements Elaboration
- Development Progress Tracking
- Test Tracking
- End to end traceability



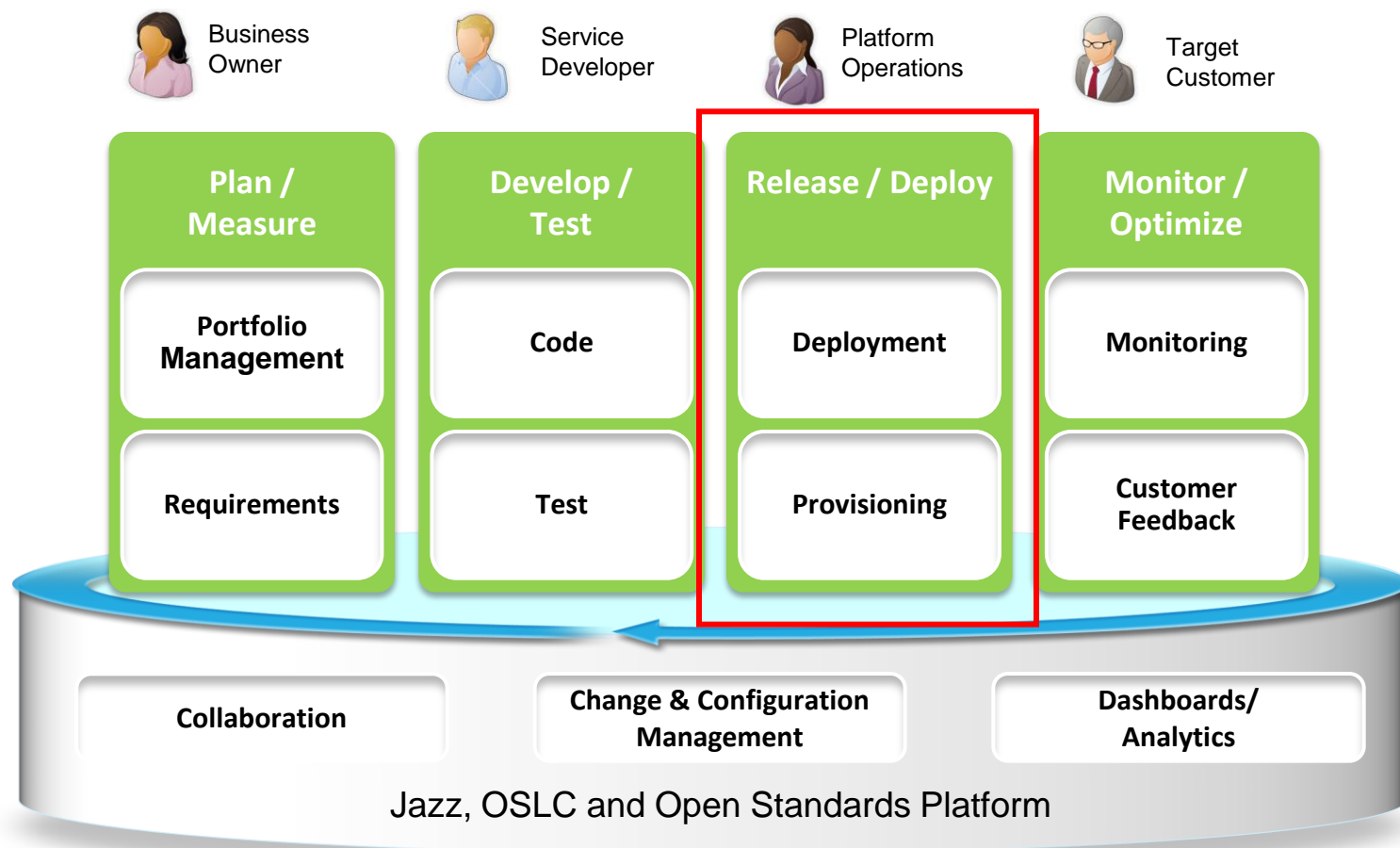
Poll Question 3.

How often do you rollout a new release of application or service?

- A. Once a year
- B. Twice a year
- C. More than 2 times a year



DevOps Solution: Adoption paths, open platform and key capabilities

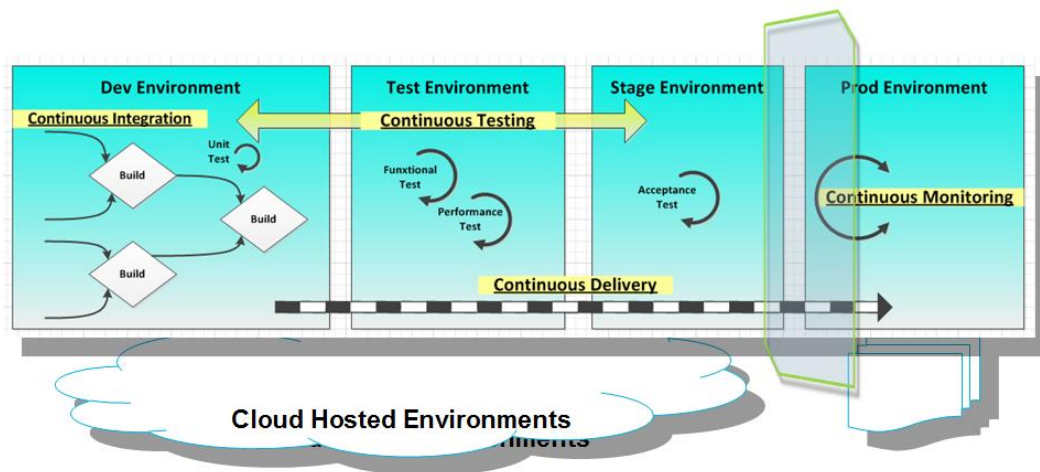




Addressed Cloud Workloads :

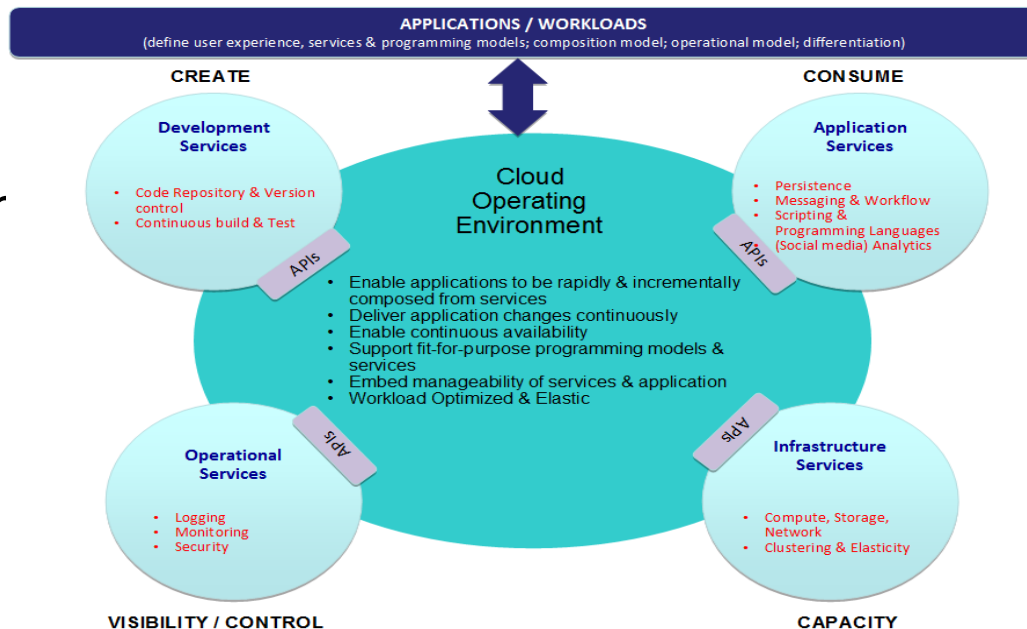
• Dev-Test

- Developer/QA *Self-service*
- Access to Production-like Environments
- Environment and Middleware Configuration Management
 - Infrastructure as Code



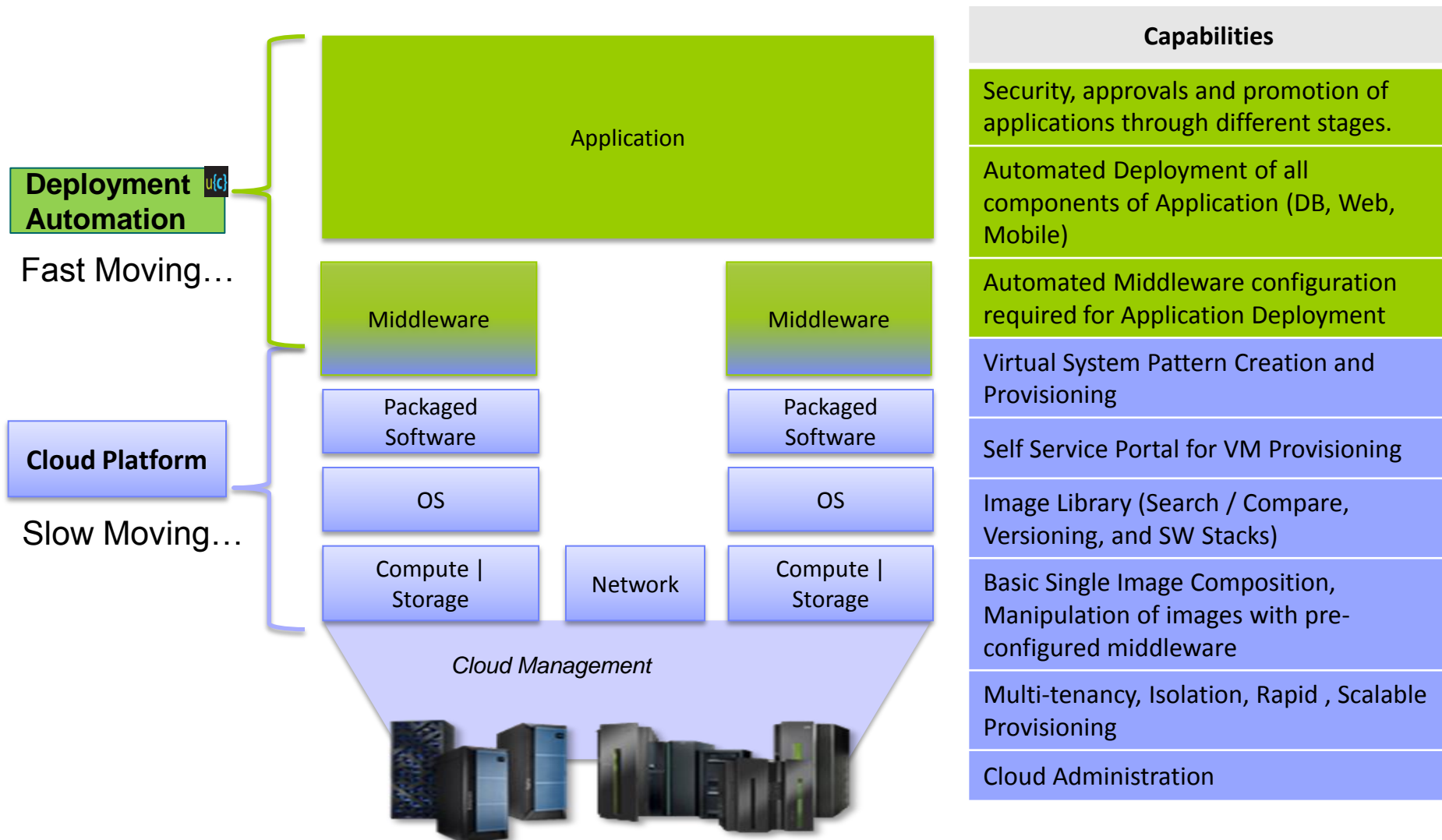
• Cloud Operation Environment

- Expendable Environments
- Promotable Environments





Release Automation : Application Deployment + Environment Provisioning





UrbanCode: Premier Release and Deploy Automation Solution

Enabling clients to more rapidly deliver mobile, cloud, big data and traditional applications with high quality and low risk



IBM UrbanCode Deploy

IBM UrbanCode Release

These designs are versioned.

Super easy drag-and-drop configuration.

Click the pencil icon to do the detailed config of each step.

Moving the artifacts/files/stuff for you to deploy is handled for you. No FTP, network file shares or other craziness required.

Hundreds of built-in steps. (and you can make your own with our open plugin system!)

Home » Scheduled Deployments » eComm 1.3 - Mar:PT-2 at Mon Feb 04 15:00:00 EST 2013

eComm 1.3 - Mar:PT-2 at Mon Feb 04 15:00:00 EST 2013

SEGMENT PLAN NOT STARTED | SEGMENT PLAN IN PROGRESS | **SEGMENT PLAN COMPLETE**

Time Remaining: 00:00:00 | Percent Complete: 100% | Task Count: Failed: 0, Complete: 14, Aborted: 0, In Progress: 0, Skipped: 1, Remaining: 0

Application	Version	Status	Gate
Bill Pay System	None		
Wire Transfer	None		

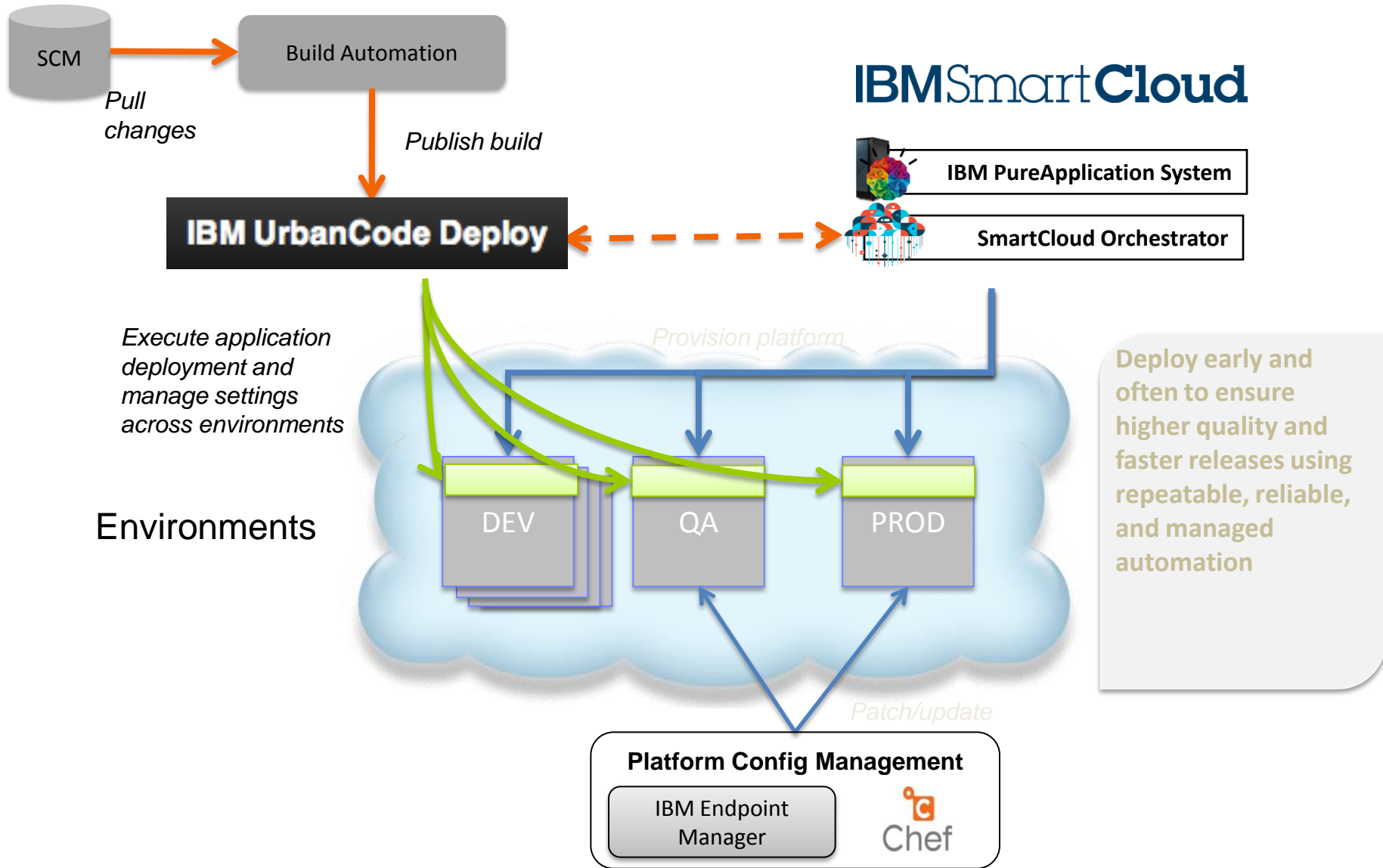
Segments

Middleware Config

Start Time	Duration	Name	Application	Type	Role	User	Actions
2/6/13 9:25 AM	00:15	Convert Databases to use Oracle RAC syntax	None	Manual	Admin	admin	
2/6/13 9:40 AM	00:02	Do something else	None	Manual	Admin	admin	
2/6/13 9:42 AM	00:15	Convert Databases to use Oracle RAC syntax	None	Manual	Admin	admin	
2/6/13 9:57 AM	00:10	Update the database	None	Manual	Admin	admin	

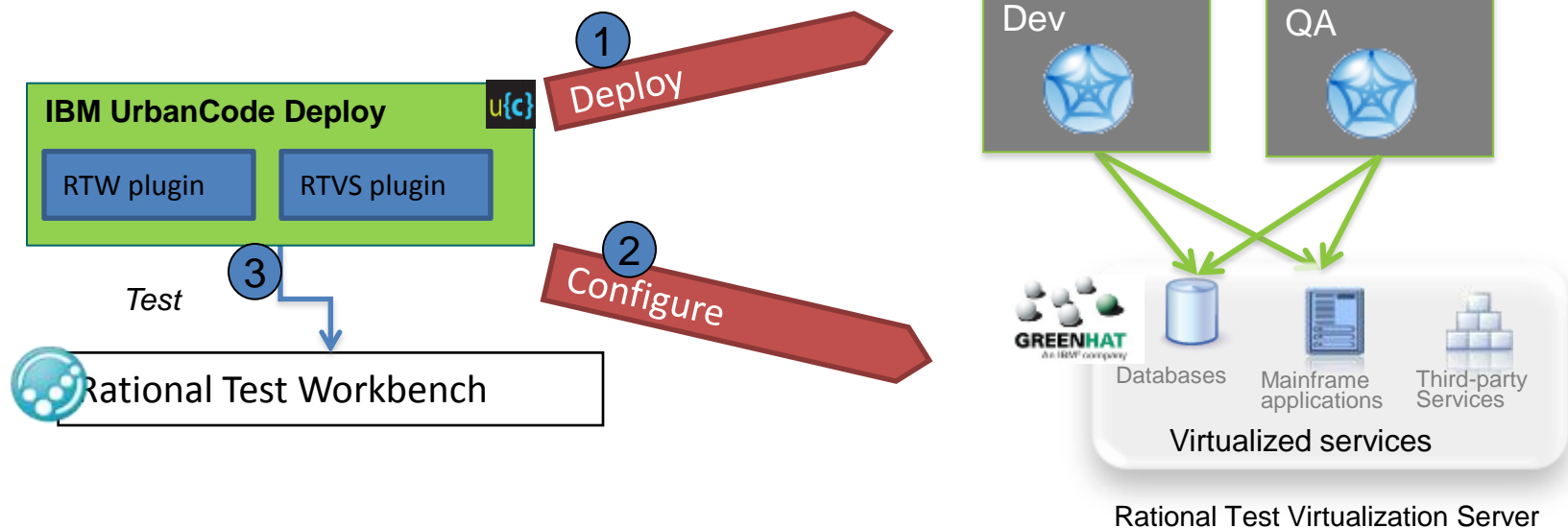


Improve Delivery Lifecycle with Software Defined Environments





Accelerate continuous testing with Service Virtualization



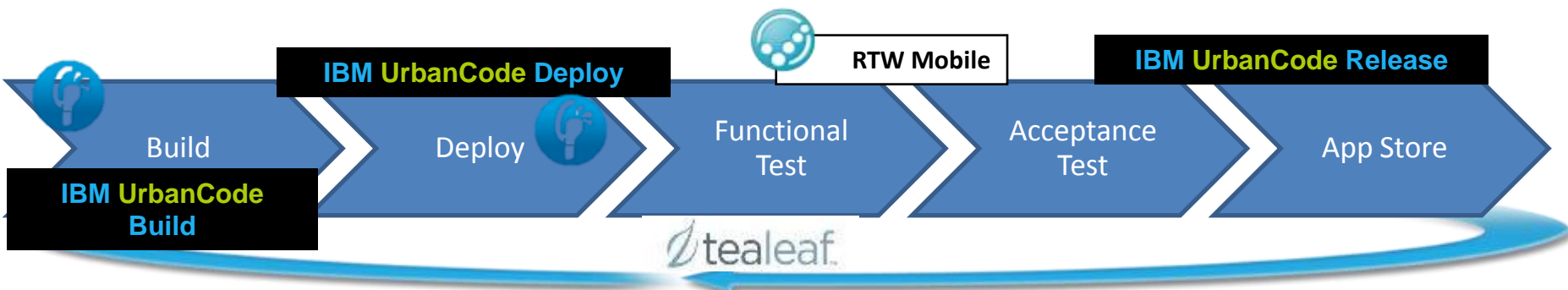
Deploy what is ready, virtualize the rest - Enable continuous integration testing and progressive deployments throughout the software delivery lifecycle for complex applications

Automate the creation of virtual test environments as part of the end-to-end DevOps process Establish a virtual system pattern with automated deployment to standardize and share test environments quickly and easily across projects and teams

Enable an end-to-end Agile software delivery process Increase the frequency of releases by testing earlier in the development cycle and deploying reliably to pre-production and production environments..



DevOps for Mobile

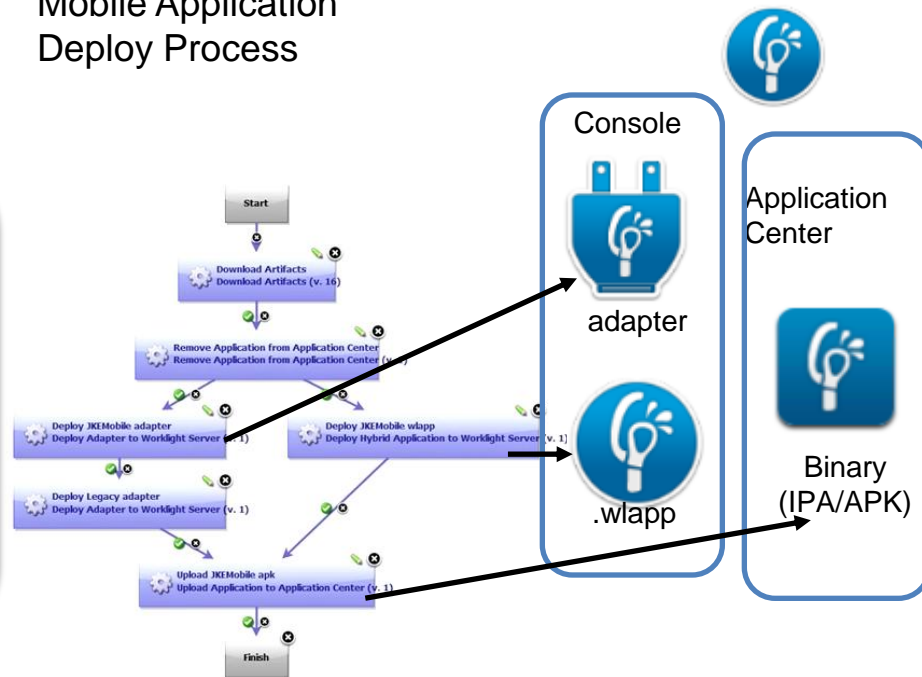


Accelerate delivery of mobile apps focusing on quality and user experience – Automate deployment of Worklight mobile applications as part of end-to-end delivery process.

Continuous Feedback and Optimization using Tealeaf helps monitor user sentiment and usage, letting teams react to poor feedback before it spirals

Mobile Application Deploy Process

Worklight





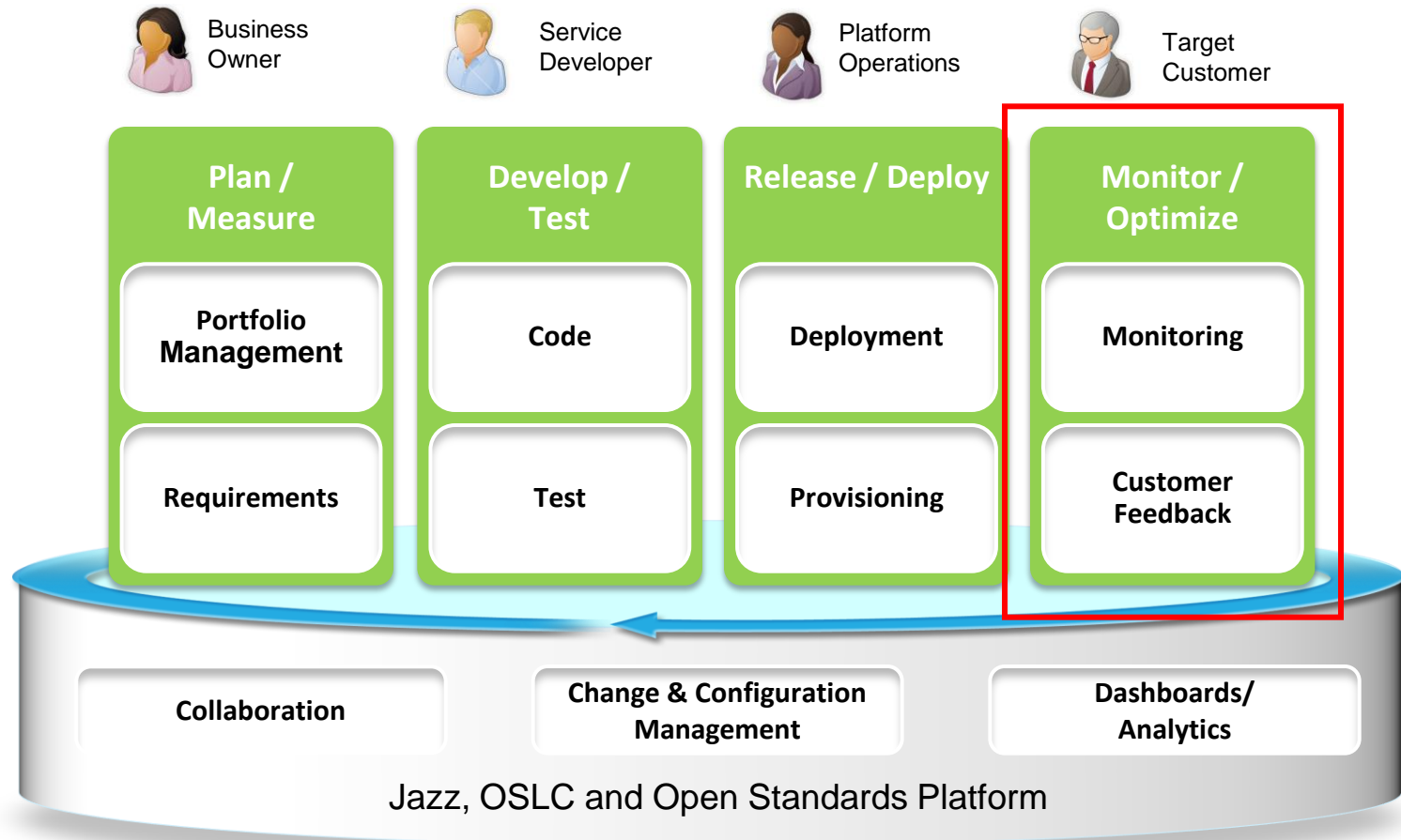
Release & Deploy Demonstration Scenario

An online trading company is governing and automating the deployment of online web application.

- Deployment of application from development to test
- Snapshot of test environment configuration i.e. Golden Image
- Approval of production deployment
- Deployment of application from test to production

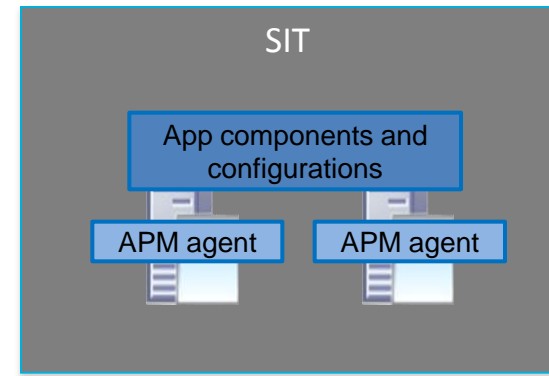
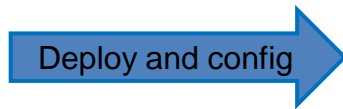
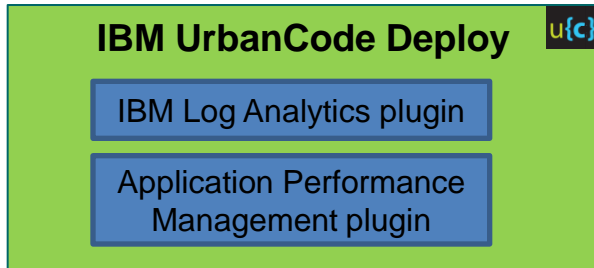


DevOps Solution: Adoption paths, open platform and key capabilities

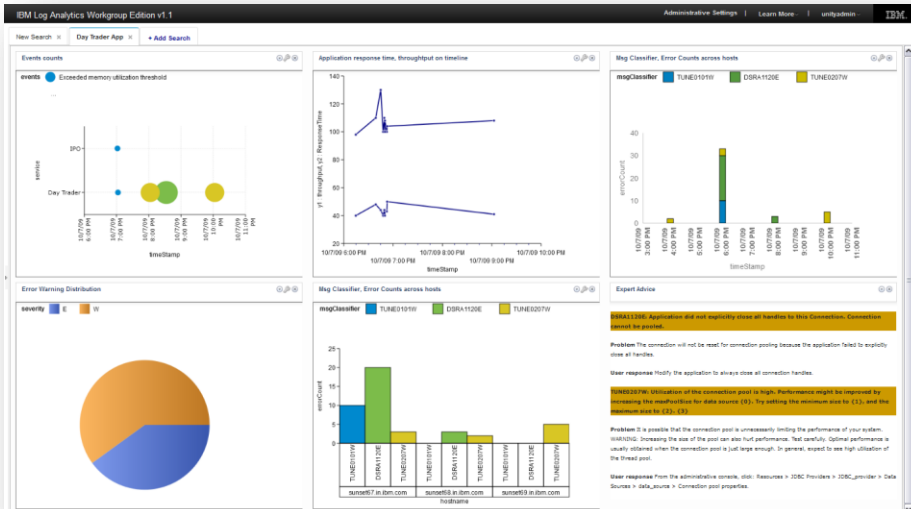




Application Lifecycle Integration – Monitoring & Log Analytics



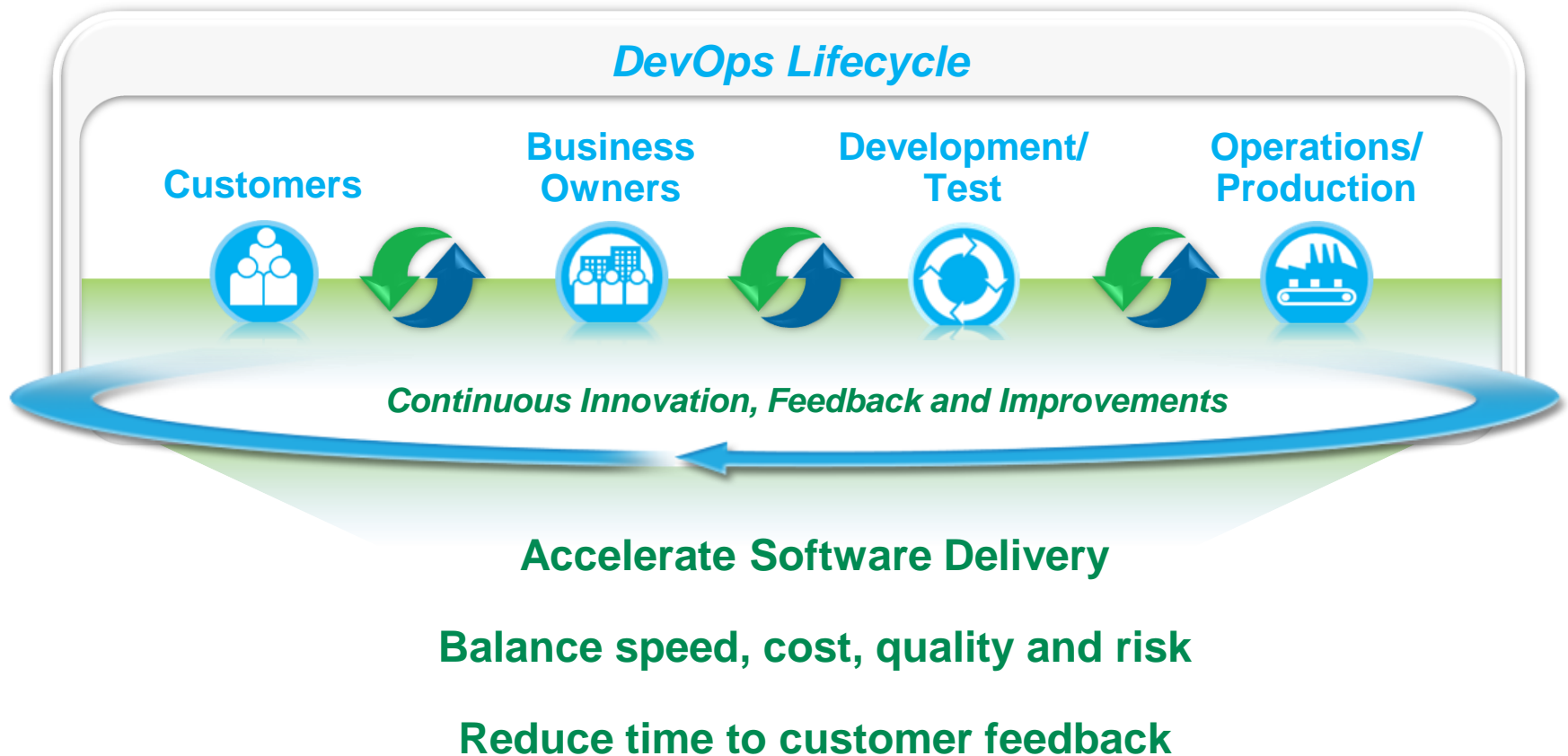
Application Dashboard





DevOps

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Case Study: TIAA-CREF

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



Case Study: WebMD

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



DevOps maturity model

Industry norm

	Plan / Measure	Development / Test	Release / Deploy	Monitor / Optimize
<i>Scaled</i>	<p>Define release with business objectives Measure to customer value</p>	<p>Improve continuously with development intelligence Test Continuously</p>	<p>Manage environments through automation Provide self-service build, provision and deploy</p>	<p>Automate problem isolation and issue resolution Optimize continuously</p>
<i>Reliable</i>	<p>Plan and source strategically Dashboard portfolio measures</p>	<p>Deliver and integrate continuously Manage data and virtualize services for test</p>	<p>Standardize and automate cross-enterprise Automate patterns-based provision and deploy</p>	<p>Optimize applications Use enterprise issue resolution procedures</p>
<i>Repeatable</i>	<p>Link objectives to releases Measure to project metrics</p>	<p>Deliver and build with test Centralize test management Link lifecycle information</p>	<p>Plan departmental releases and automate status Automated deployment with standard topologies</p>	<p>Monitor using business and end user context Centralize event notification and incident resolution</p>
<i>Practiced</i>	<p>Document objectives locally Manage department resources</p>	<p>Manage Lifecycle artifacts Schedule SCM integrations and automated builds Test following construction</p>	<p>Plan and manage releases Standardize deployments</p>	<p>Monitor resources consistently Collaborate Dev/Ops informally</p>



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What's Next ...

- Technical Exploration Workshop
- Assessment Workshop
- Pilot



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Thank You