

Automate Mainframe & Mobile Deployment with IBM UrbanCode Deploy

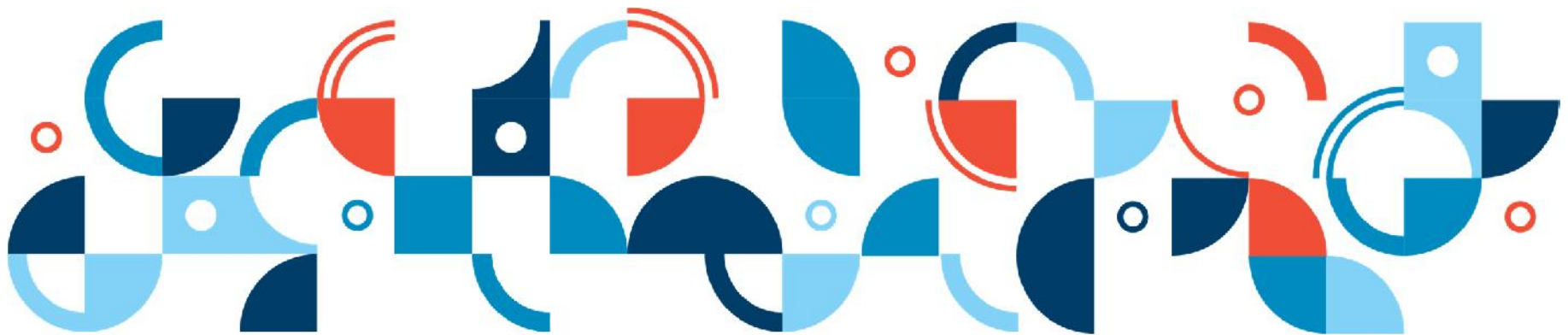
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@RosalindRad



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



Instrumented Products

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



Software delivery



Mobile

Modern workforce expects constantly updated software to connect to enterprise systems



Intelligent/ Connected Systems

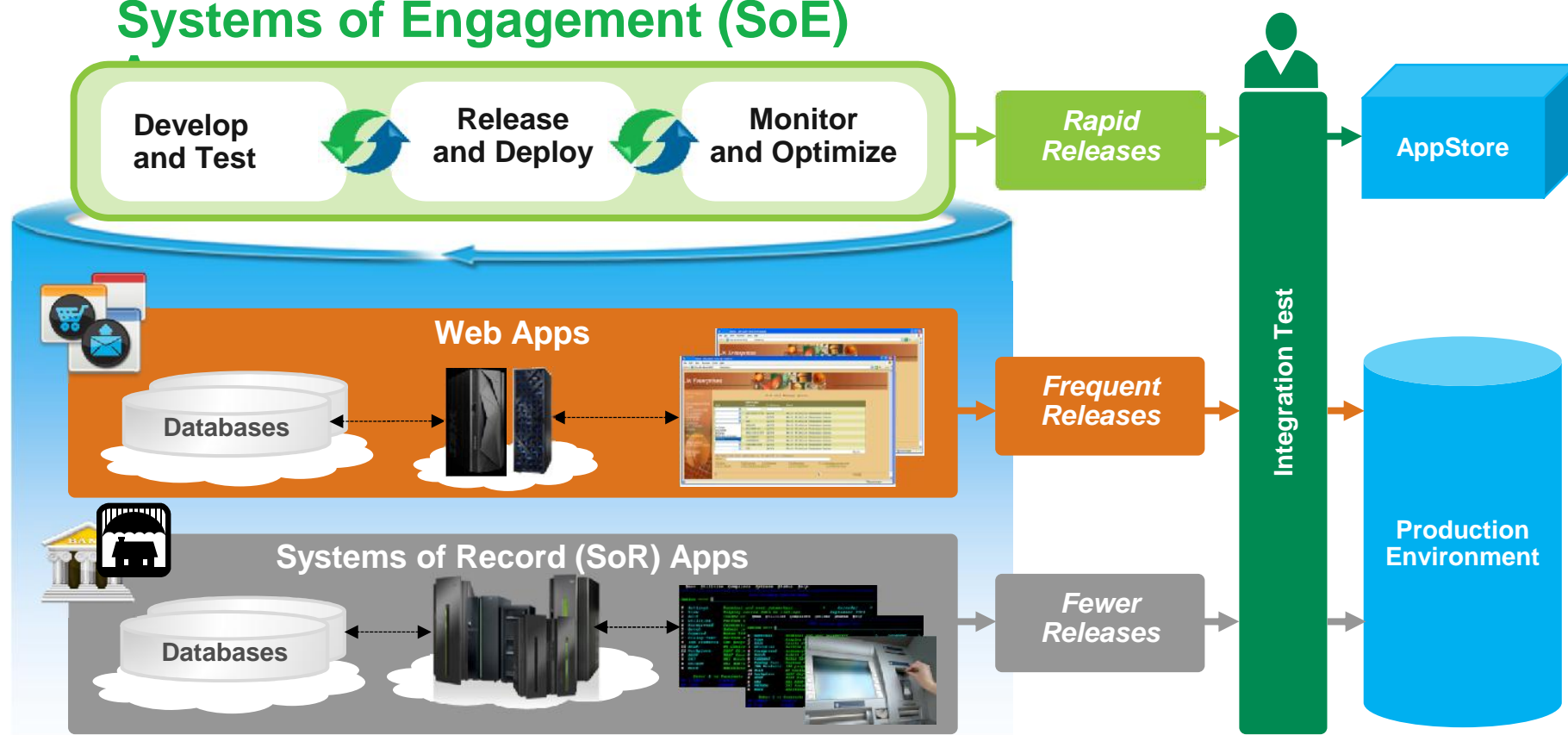
Software component in smart products driving increased value and differentiation

The need: Integrate systems of engagement with systems of record

By bringing together the culture, processes, and tools across the entire software delivery lifecycle – spanning mobile to mainframe platforms



Systems of Engagement (SoE)



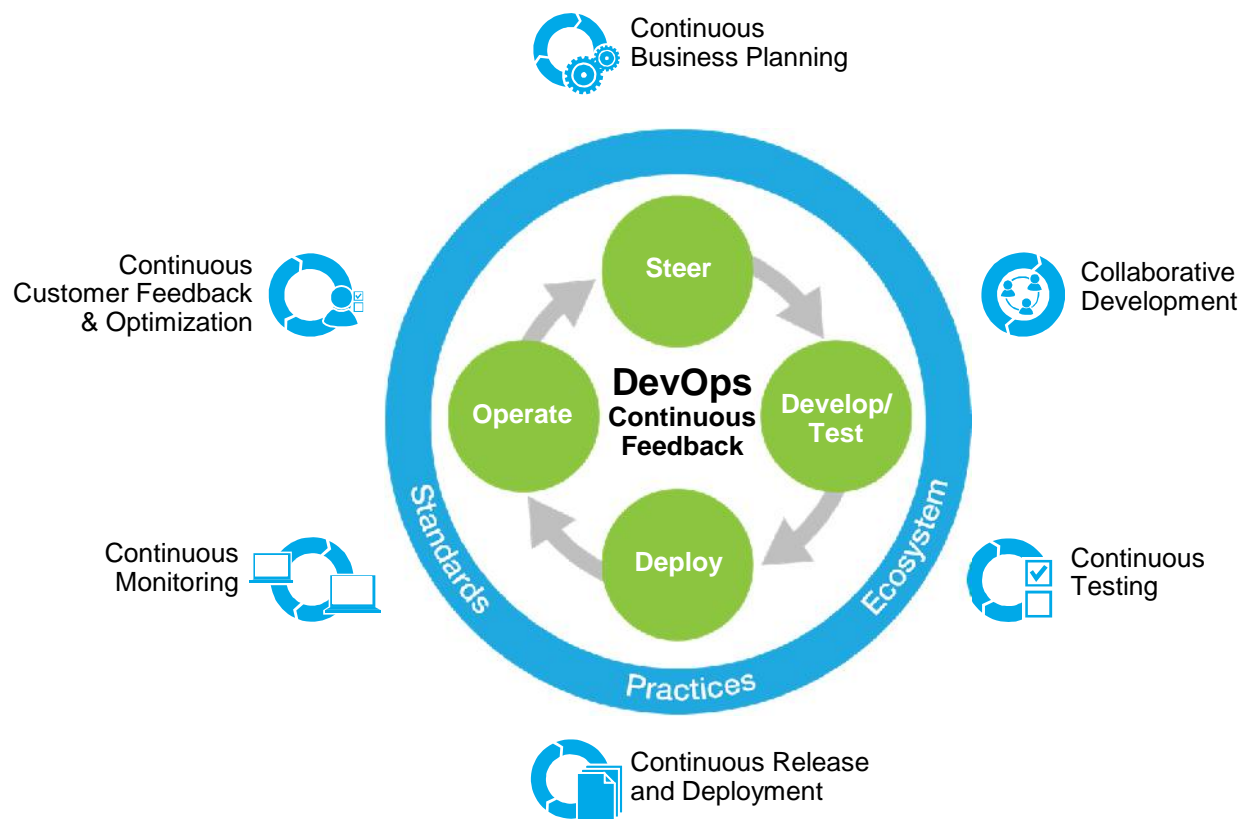
IBM DevOps point of view

Enterprise capability for continuous software delivery that enables organizations 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



Our DevOps POV is resonating with clients and they are delivering measurable business outcomes with DevOps

Lifecycle Integration for DevOps

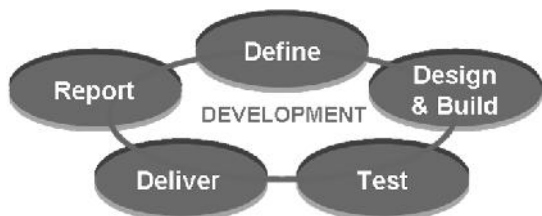
People



Culture
Collaboration
Communication



Process



Management
Accountability
Integration



Technology



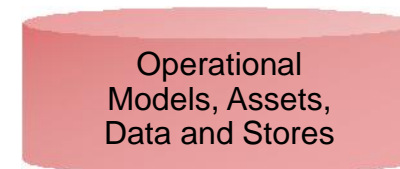
Dev
Tools



Automation
Integration
Visibility

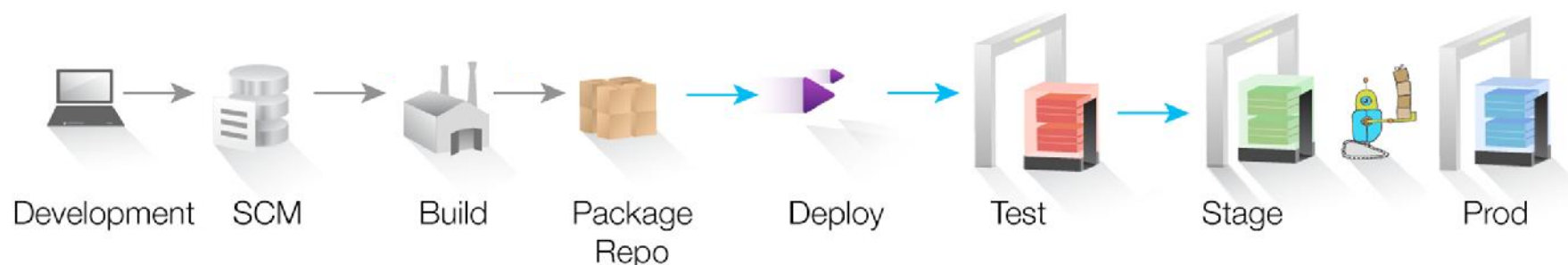


Ops
Tools



UrbanCode for *Release* and *Deployment* automation

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



Drive down cost

Remove manual effort and wasted resource time with push button deployment processes

Speed time to market

Simple, graphical process designer, with built-in actions to quickly create deployment automation

Reduce risk

Robust configuration management, coordinated release processes, audits, and traceability

IBM UrbanCode Deploy automates the deployment of applications, databases and configurations into development, test and production environments, helping to drive down cost, speed time to market with reduced risk.

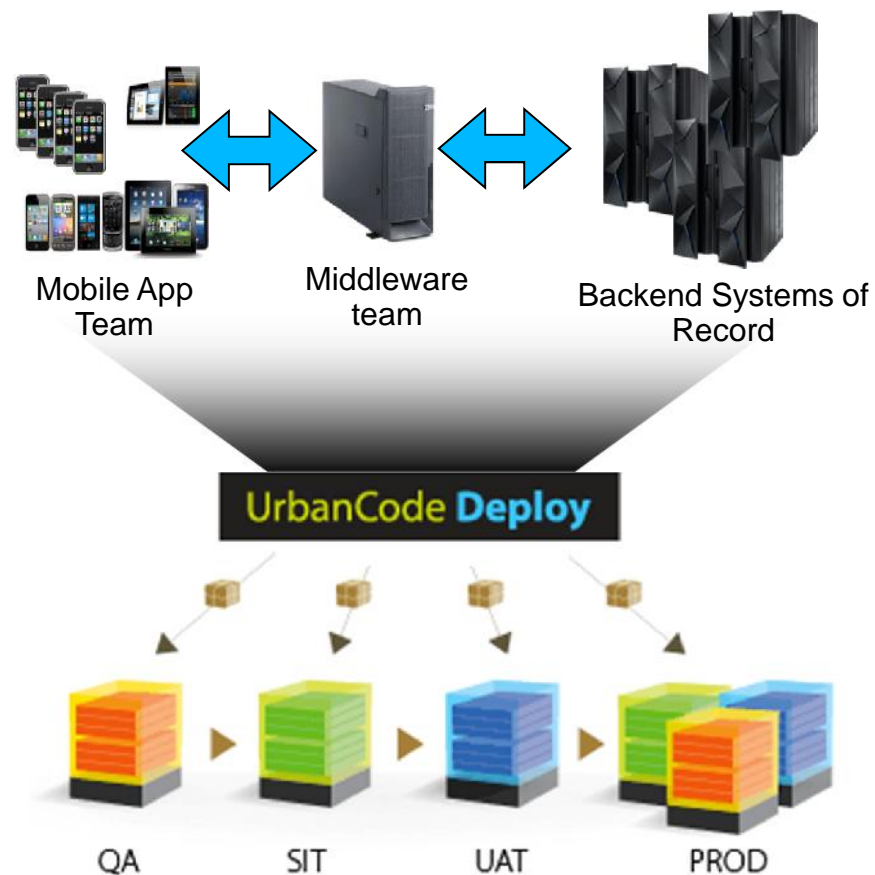
IBM UrbanCode Release is an intelligent collaboration release management solution that replaces error-prone manual spreadsheets and streamlines release activities for application and infrastructure changes.

<https://www.ibmmdw.net/urbancode/>

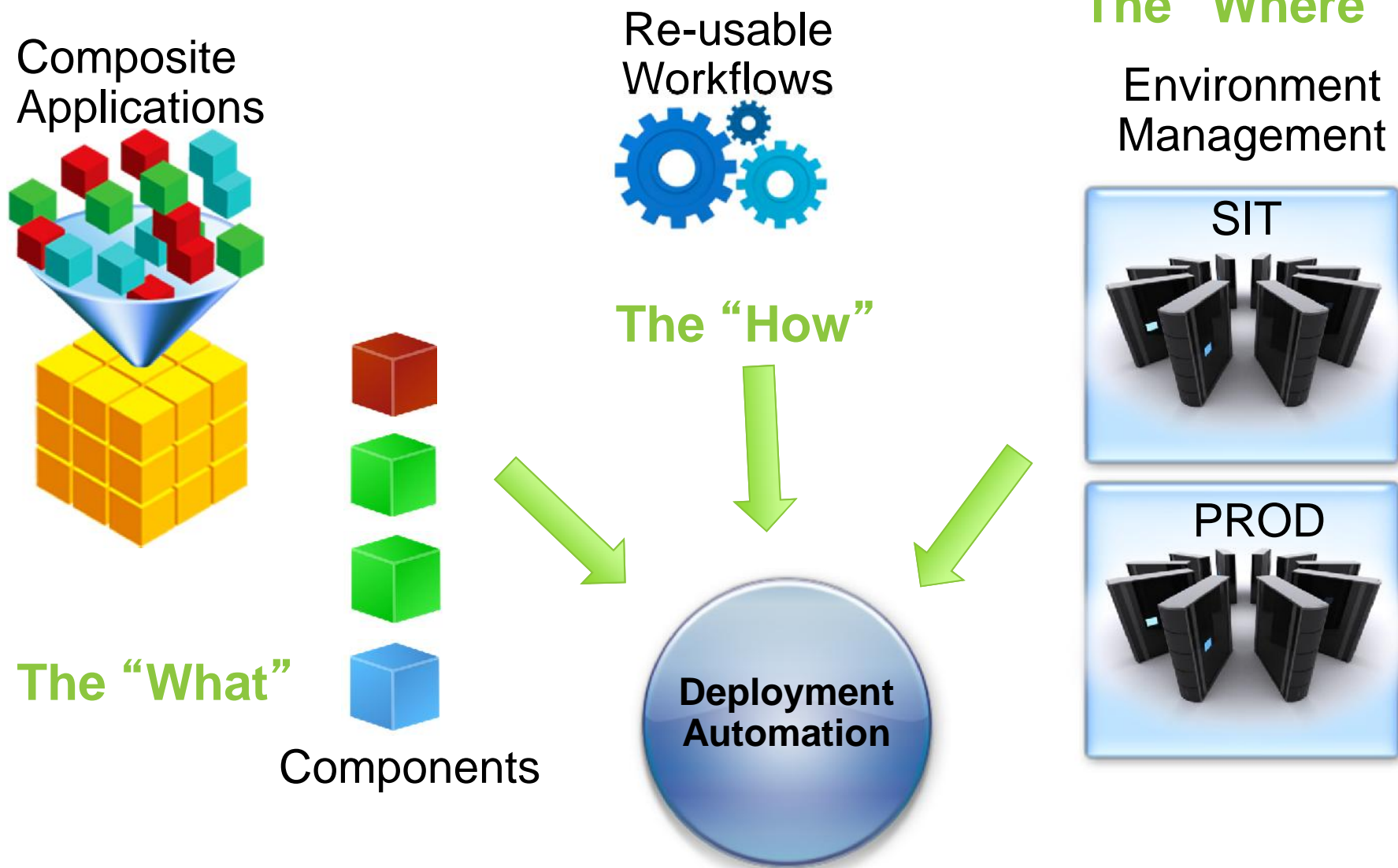
Multi-Platform Application Deployment Automation

Visibility and automated control of your application deployment process

- Manage application components and versions
- Manage configurations across all environments
- Offer secure 'self-service' capabilities
- Increase transparency
- Ensure governance and compliancy



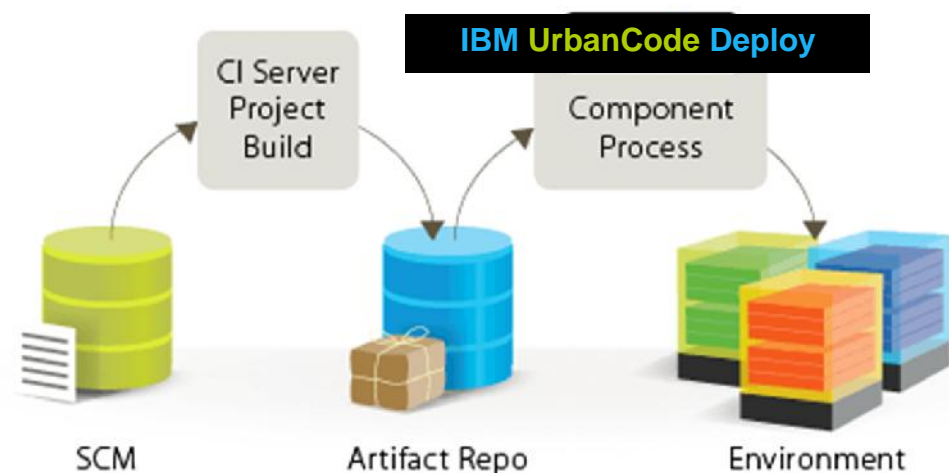
Intuitive and Scalable Model Driven Deployment



IBM UrbanCode Deploy

Application deployment automation

- Manage application components and versions
- Manage environment configuration from dev/test through production
- Ensure compliance
 - Audit history
 - Quality gates
- Easy to use process designer
 - Automate and reuse deployment processes
- Automates deployment to existing and new resources
- Environment Inventory
 - What is deployed where?



Enterprise quality and scale

Key Features

Application: JPetStore

Created By: admin
Created On: 09/22/2013, 02:05 PM

Environments: DEV, UAT, PROD

Component	Version	Snapshot	Properties	Status	Compliance	Actions
DEV Environment (Compliance: 3 / 3)						
JPetStore-DB	1.0	Version 1	Version 1	Active	Compliant (1/1)	View Request
JPetStore-APP	1.0	Version 1	Version 1	Active	Compliant (1/1)	View Request
JPetStore-WEB	1.0	Version 1	Version 1	Active	Compliant (1/1)	View Request
UAT Environment (Compliance: 0 / 0)						
No components have been installed to this environment. Refresh Print						
PROD Environment (Compliance: 0 / 0)						

Intuitive Deployment Model

Environment Configuration Management

Rich Drag-and-Drop Workflow Designer

Distributed Deployment Automation

Deployment Inventory

Process: Deploy

Version: 2 of 2

Design | Configuration | Inventory Changes | Changes

```

    graph TD
      Start --> DeployAPP[Deploy APP  
Install JPetStore-APP]
      DeployAPP --> DeployDB[Deploy DB  
Install JPetStore-DB]
      DeployAPP --> DeployWEB[Deploy WEB  
Install JPetStore-WEB]
      DeployDB --> Finish
      DeployWEB --> Finish
  
```

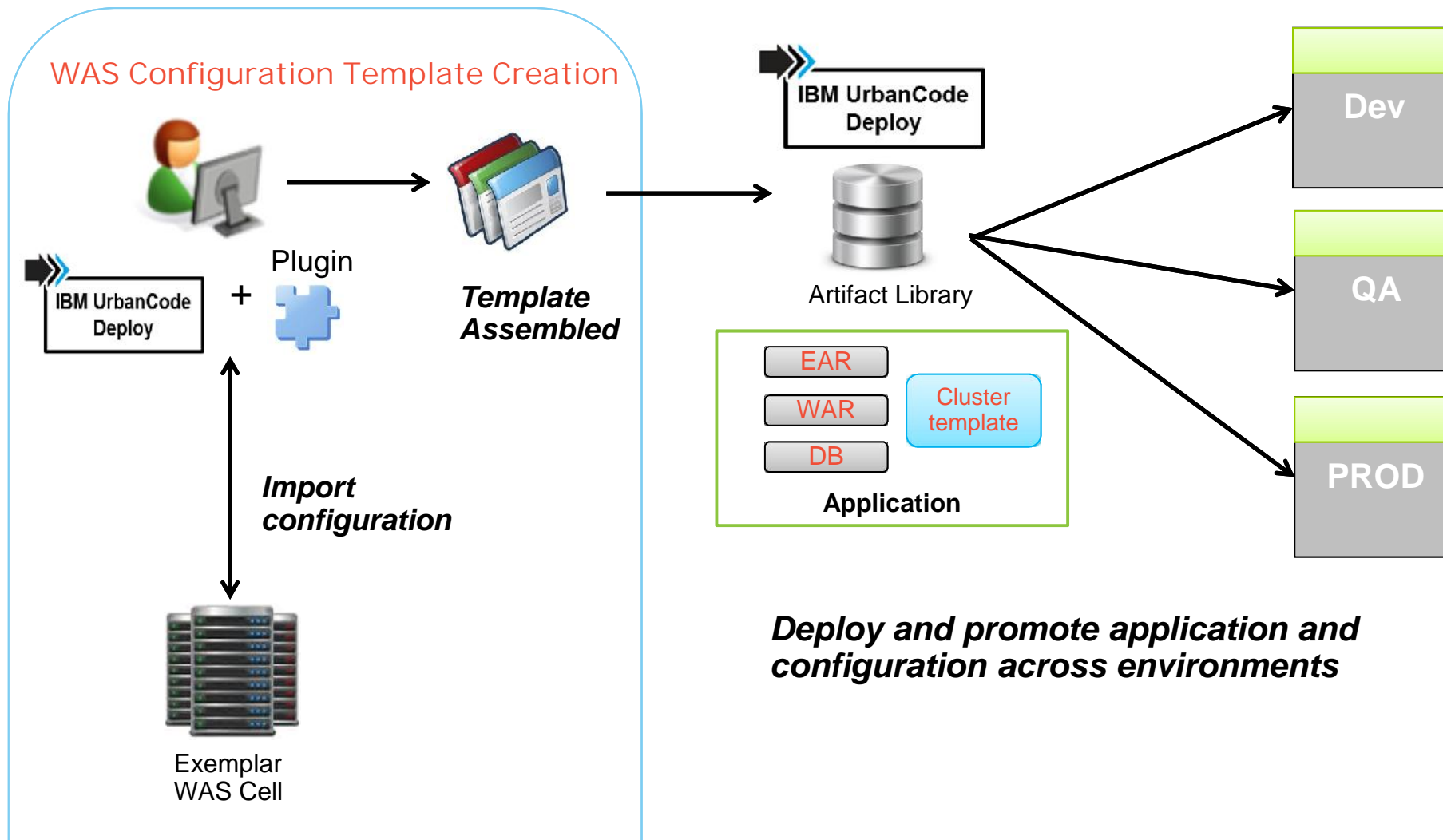
Note: Only components with operational processes (which do not require a version) will appear in this list. For other processes, use one of the other options, such as Install Component.

Application Process Request: JPetStore

Process: Deploy (Version 2)
Environment: DEV
Only Changed Versions: true
Date Requested: 09/22/2013, 10:11 AM
Requested By: admin
Scheduled For: 09/22/2013, 10:11 AM

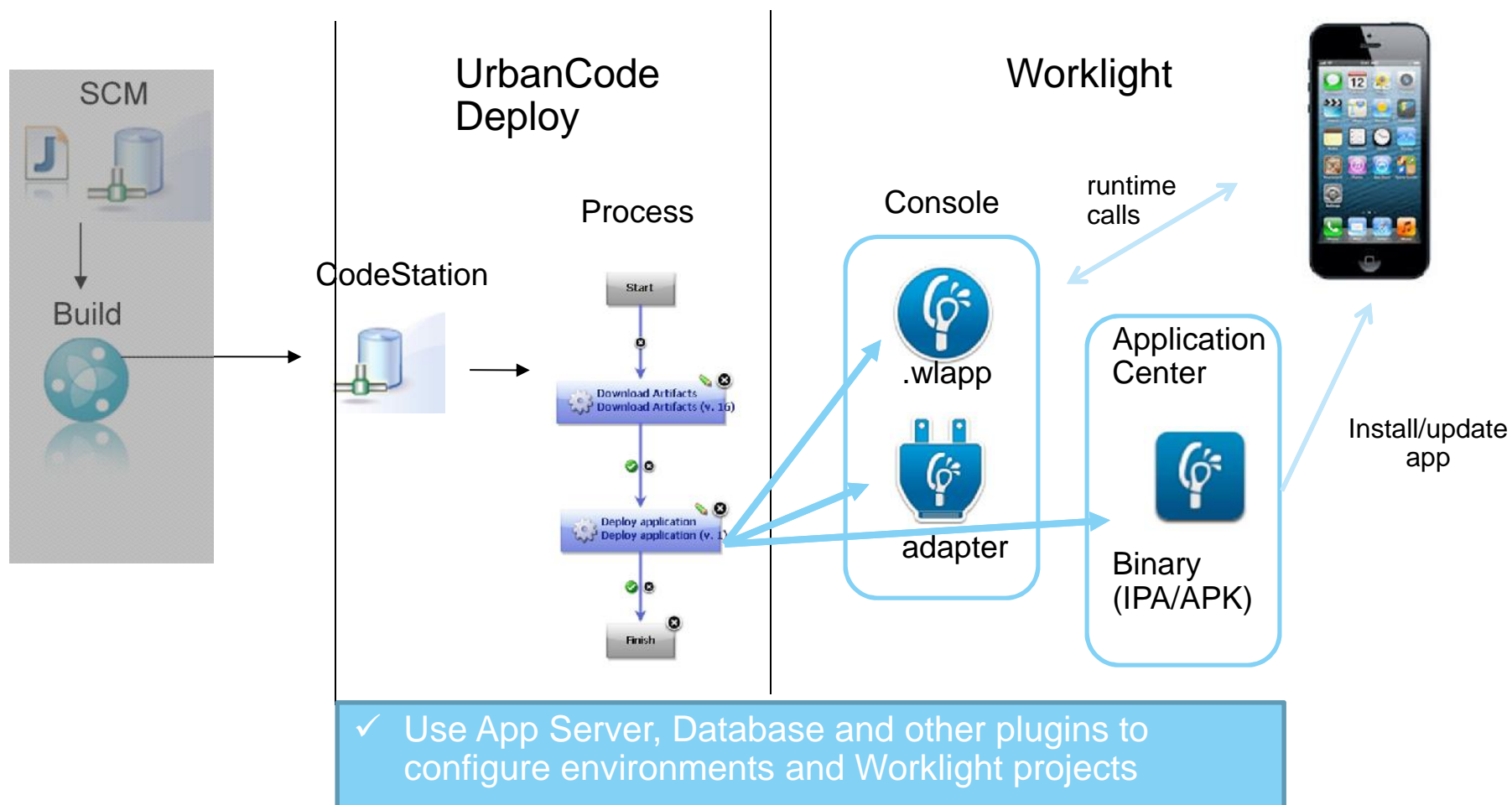
Step	Progress	Start	Duration	Status	Actions
Deploy APP	1 / 1	10:11:59 AM	0:00:07	Success	
Deploy DB	1 / 1	10:12:07 AM	0:00:11	Success	
/EU-West-1 / JPetStore / Development / jpetstore.dev.example.com / JPetStore-DB	1 / 1	10:12:07 AM	0:00:11	Success	Details
1.0		10:12:07 AM	0:00:11	Success	
Deploy WEB	1 / 1	10:12:07 AM	0:00:16	Success	
/EU-West-1 / JPetStore / Development / jpetstore.dev.example.com / JPetStore-WEB	1 / 1	10:12:07 AM	0:00:16	Success	Details
1.0		10:12:07 AM	0:00:16	Success	
Total Execution	3 / 3	10:11:59 AM	0:00:24	Success	

Reliable Middleware Configuration Management

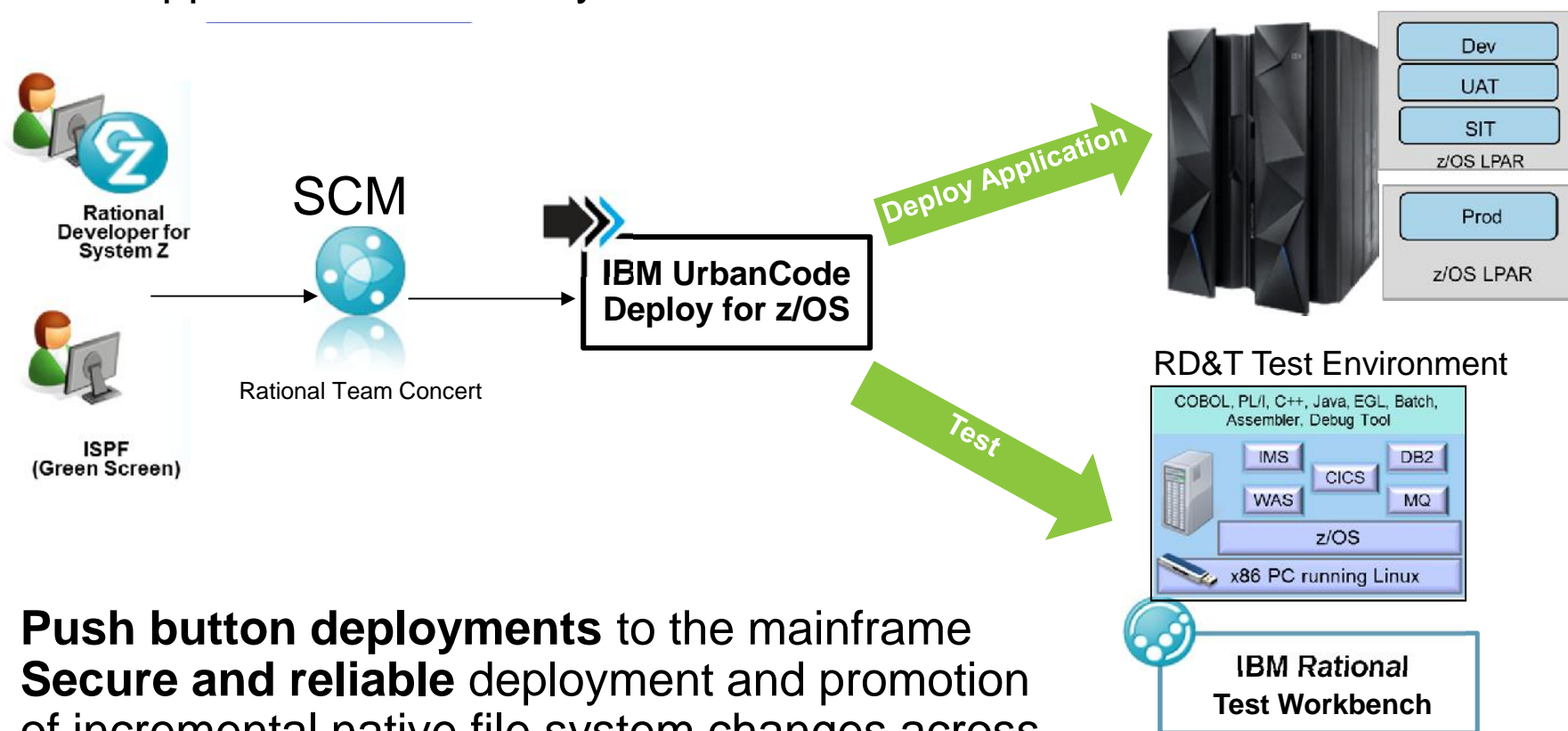


Application deployment automation with IBM Worklight

- ✓ The new plugin enables automated deployment to Worklight Console and Application Center
Supports Worklight Apps targeting iOS and Android

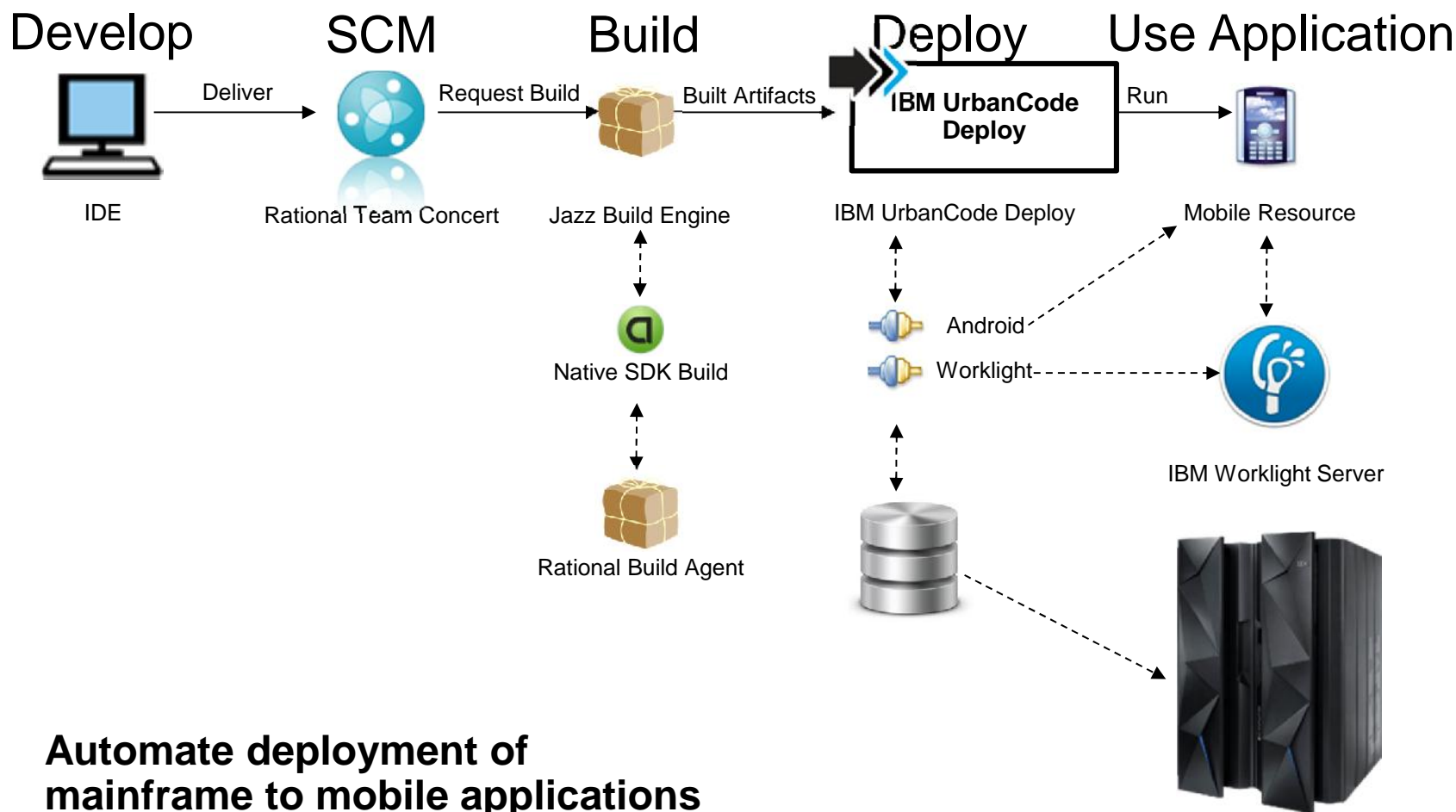


Extend support to back-end Systems of Record



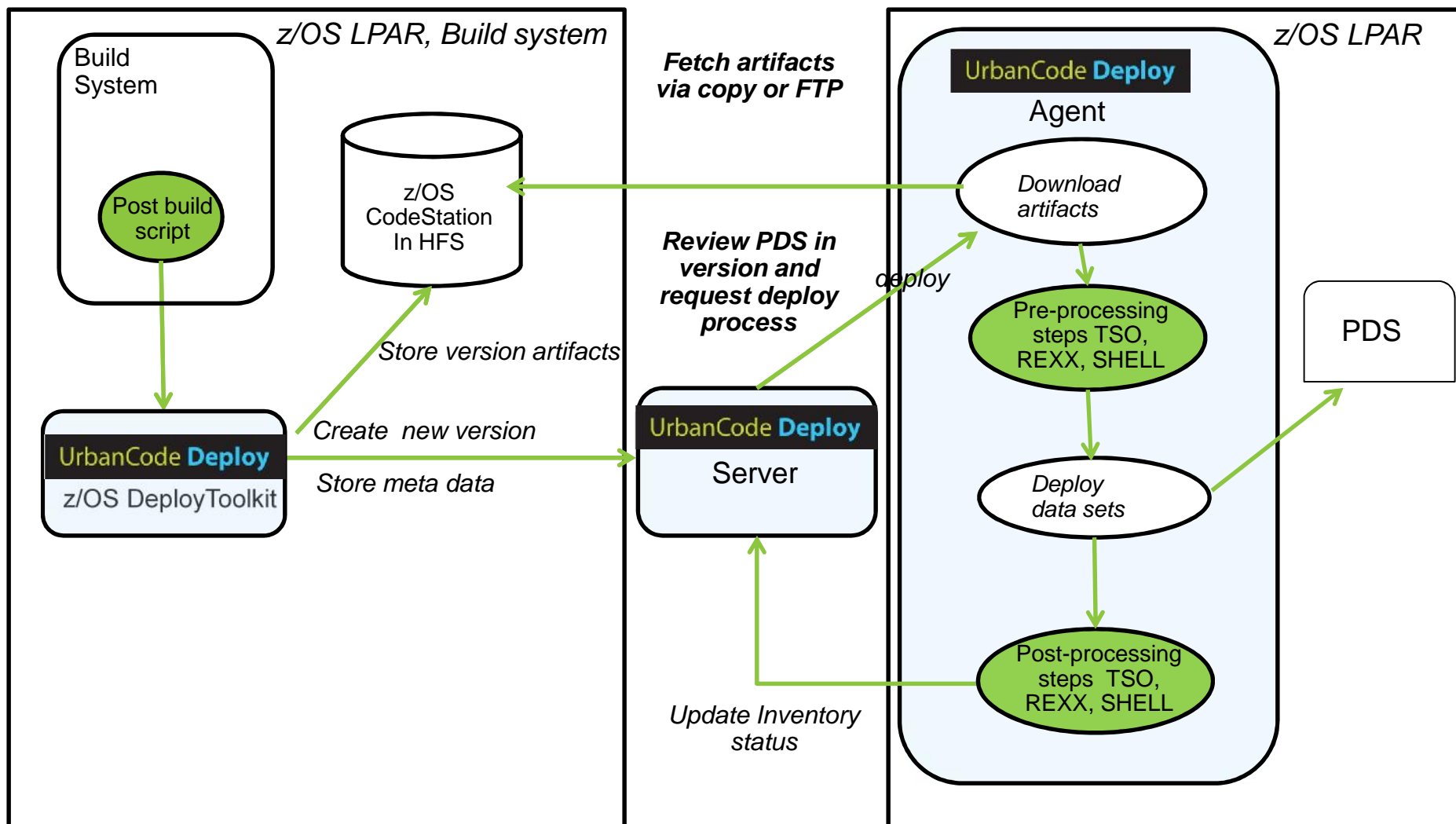
- **Push button deployments** to the mainframe
- **Secure and reliable** deployment and promotion of incremental native file system changes across environments
- **Greater visibility** of “what is where” with the ability rollback to any prior version at ease

Enable rapid delivery of multi-tier applications



- Automate deployment of mainframe to mobile applications

High Level Overview of Deployment Capabilities



Note: LPARs can be the same or different LPARs

z/OS Plugins

- Copy Artifacts
- FTP Artifacts
- Deploy Data Sets
- Allocate Dataset, From Existing, SMS Managed
- Replace Tokens MVS
- Run TSO or ISPF Commands
- Rollback Data Sets
- Submit Job
- Wait for Job

z/OS deployment both traditional applications and HFS artifacts

- Deployment support for artifacts in the HFS
- Allows coordination between Load module deploy and service artifacts or Java on z.

Environments
History
Configuration
Components
Blueprints
Snapshots
Processes
Calendar
Changes

Create New Environment
Drag environments by their names to re-order them. 2 Environments

or
Collapse All Expand All

Test
Snapshot: None Compliancy 29 / 29

Component	Version	Snapshot	Properties	Status	Compliancy	Actions
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>		<input style="width: 100%;" type="text"/>		
HomesteadWebApp	30			Active	Compliant (1/1)	View Request
HomeSteadCICS	20141015-0939380566 (+ 26 more)		Version 1	Active	Compliant (27/27)	View Request
HomeSteadWSBIND	v2.3		Version 1	Active	Compliant (1/1)	View Request

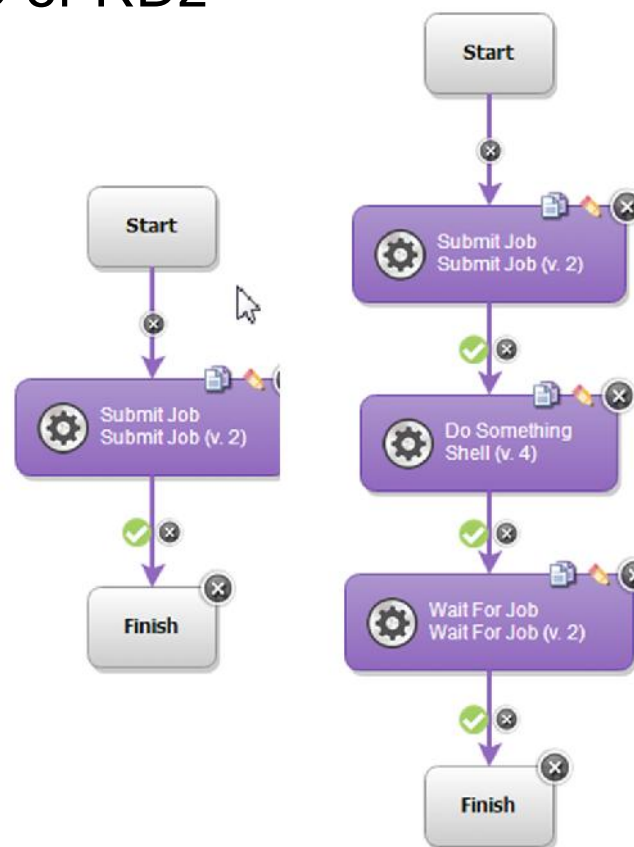
[Refresh](#) [Print](#)

Production
Snapshot: Release2 Compliancy 21 / 21

JCL Plug-in V6.1.0.2

Requires job server component from RTC or RDz

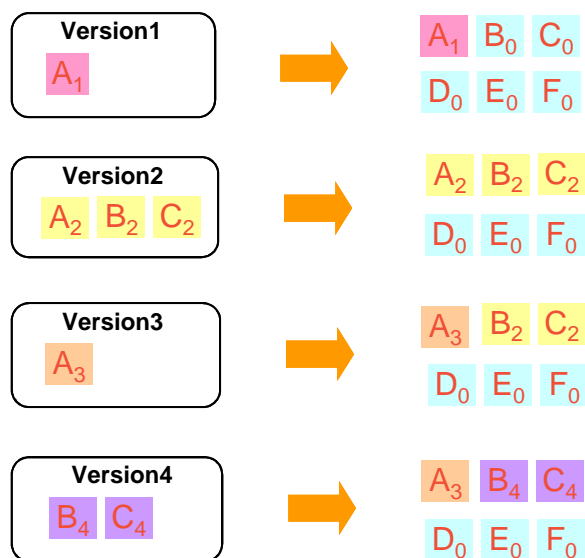
- ✓ Mode
 - Synchronized (Submit & wait for completion)
 - Asynchronized (Submit, check status later)
- ✓ Source of JCL
 - MVS Data Set
 - Unix file
 - Input JCL content in the step
 - Replace tokens
- ✓ Logs & Status
 - Select output data set to be printed in log
 - Status based on MaxCC (default)
 - Customize status



Managing Redundant Versions V6.1.0.2

- Redundant versions are versions replaced by one or more subsequent incremental versions.

Sequence of Versions	Deployed System State
-------------------------	--------------------------

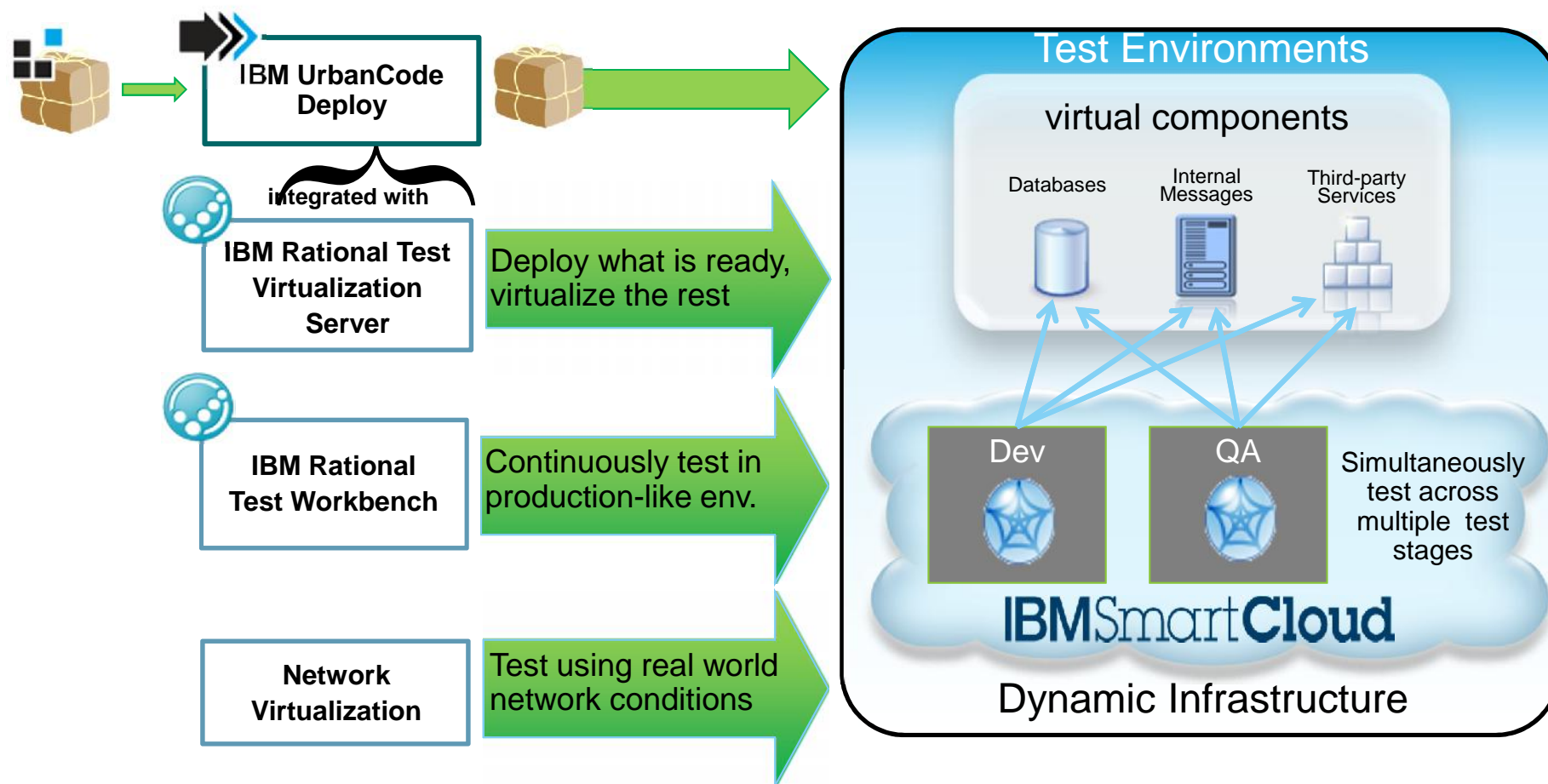


At this point Version 1 is replaced

At this point Version 1 & 2 are replaced

DevOps: Continuous Testing

Deployment automation and service virtualization for reducing time to market and improving quality



UrbanCode Release

Transform chaotic release planning into streamlined release events

Planning

Prepare Releases for Development

- Schedule releases
- Release content impacting multiple applications
- Project and release kickoff
- Include: Dev, Vendors, COTs & infrastructure

Tracking

Focus release effort appropriately for successful delivery

- Development & test efforts are on-track
- Dependencies & impacts of changes are accounted for
- Risks monitored and mitigated
- Release-day planning

Governance

Rapidly move changes through pipeline w/o destabilizing envs

- Deployments controlled via quality gates & approvals
- Detailed deployment plans
- Audit trail

Automation

Guarantee deploys are identical across envs & reproducible

- Push-button, standard processes
- All deployment artifacts versioned
- Inventory of artifacts deployed to each environment

Risk Management – Impact Analysis

- Track your changes and dependencies in the context of a release
- Detect what application is at risk
- Integrate with Rational Team Concert



Impacted Applications

Name
JPetStore
Pet Grooming Reservations
Pet Sourcing

Scheduled in Releases

Name	Description	Lifecycle	Team
Pets Financials 1.1.x	March Release	Default Lifecycle	Core1 Release Team
Pets Online 1.1.x	March Release for Pets Online Retail	Default Lifecycle	Core1 Release Team

IBM UrbanCode Release Releases & Plans ▾

Home ▶ Releases & Plans ▶ Pets Online 1.1.x

Release Impact Analysis

Release Impact Analysis

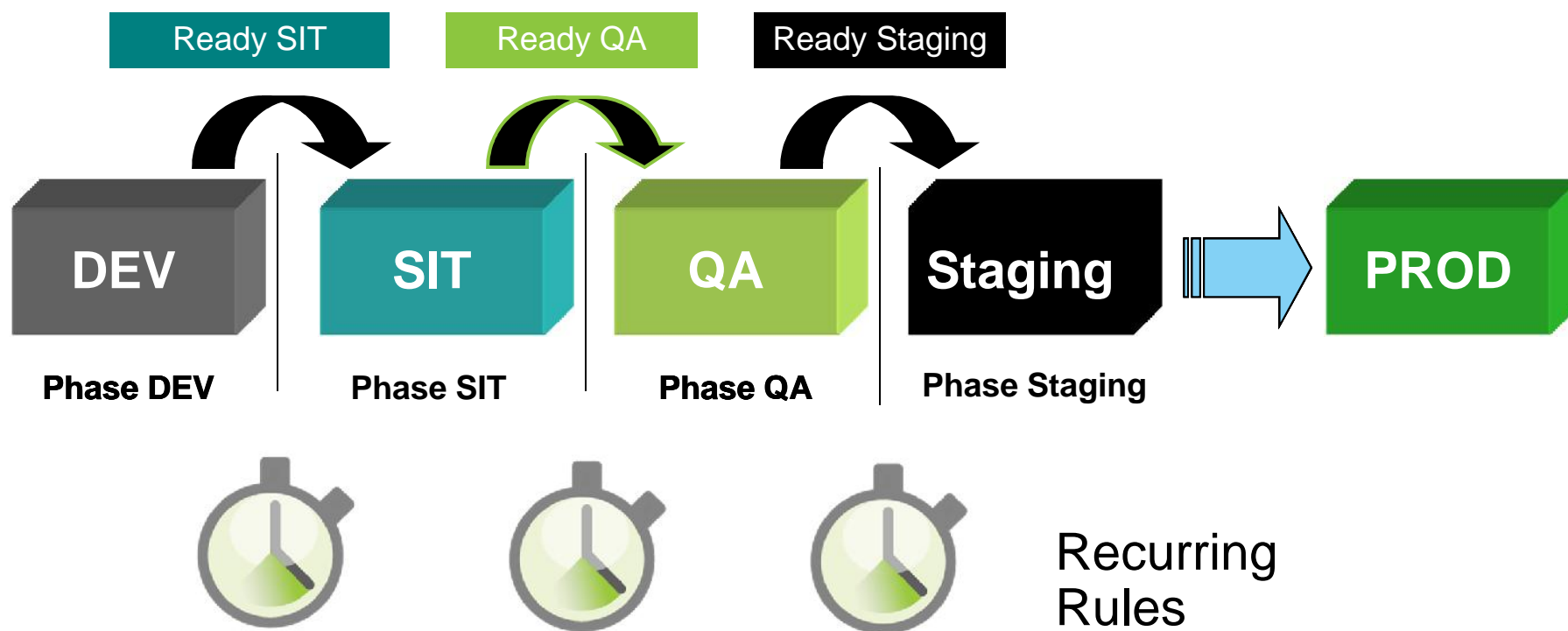
Filters	No Initiative	Breeder Certification Program	Internationalization	Pet Adoption Program
<input checked="" type="checkbox"/> Bug <input checked="" type="checkbox"/> Feature <input checked="" type="checkbox"/> Task <input checked="" type="checkbox"/> Blocker <input checked="" type="checkbox"/> Other				
Key New Accepted				
No Application				
JPetStore	4	1	2	5
Pet Grooming Reservations	JPetStore - No Initiative			1
Pet Sourcing				

JPetStore - No Initiative

Accepted: 0
 Completed: 0
 In Progress: 0
 New: 4
 Other: 0

Boost your Release Process with Auto Progression

- Recurring scheduled deployments
- Fully automated deployments
- Quality status enforced by the gates



Increased Visibility and Control - Pipeline View

- Keep track of the inventory across the entire life cycle of the release
- Control the entire release lifecycle in an easy to use view

Pets Online 1.1.x [View this release](#) Default Lifecycle [View this lifecycle](#)

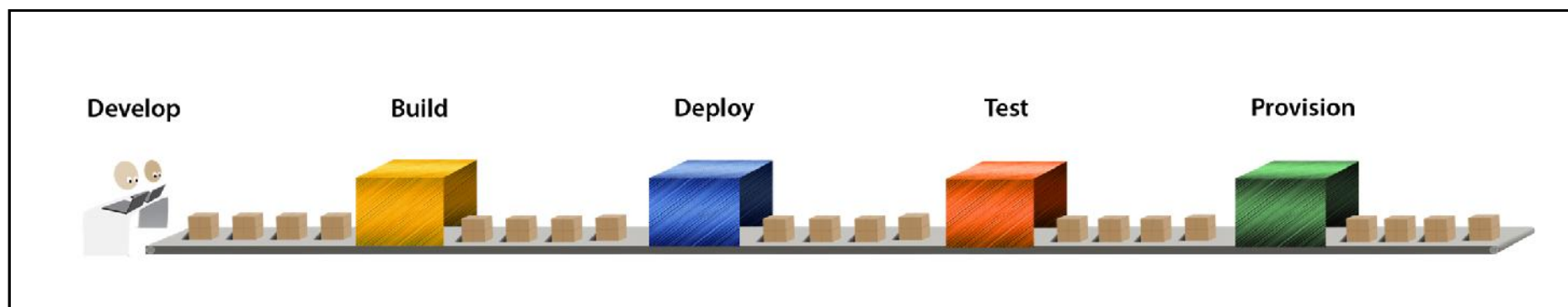
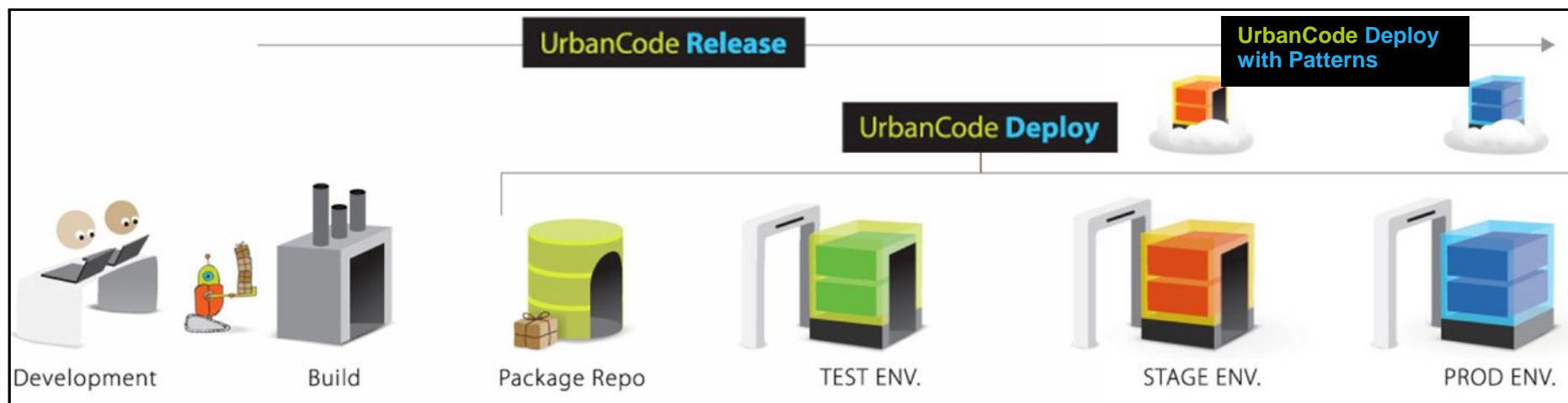
The screenshot displays a pipeline view for 'Pets Online 1.1.x'. On the left, a sidebar lists 'Phases' (Upcoming, Latest), 'Environments', and 'Applications' (JPetStore, Pet Breeder Site, Pet Grooming Reservations, Pet Sourcing, Pet Transport). The main area shows a grid of release versions across environments: LATEST, DEV (DEV-1), CERT (CERT-1), QA (QA-1), PT (PT-1), and PROD (PROD-1). Each environment column shows a 'Baseline' version and subsequent versions with their respective dates and times. The PROD environment is highlighted in yellow. At the bottom, there is a pagination bar showing '1 to 5 of 5 items, Page:1/1', a navigation arrow, and a status bar indicating 'Updated: 11/25/13, 8:55 AM' and 'Rows Per Page: 10 25 50 100'.

Environment	Release Version	Date/Time	Status
LATEST	1.1		
DEV (DEV-1)	Baseline		
DEV (DEV-1)	2.0.1	12/10 05:00a	
DEV (DEV-1)	2.0.0	11/25 11:37a	Failed
DEV (DEV-1)	2.0.1		
DEV (DEV-1)	2.0.0		
DEV (DEV-1)	2.0.1		
DEV (DEV-1)	2.0.1		
CERT (CERT-1)	Baseline		
CERT (CERT-1)	1.1.1	11/21 01:00p	Success
CERT (CERT-1)	1.1.2		
CERT (CERT-1)	1.1.2		
CERT (CERT-1)	2.0.0		
QA (QA-1)	Baseline		
QA (QA-1)	1.1.1	12/9 09:45a	
QA (QA-1)	1.1.2	12/9 07:45a	Success
QA (QA-1)	1.1.2		
QA (QA-1)	2.0.0		
PT (PT-1)	1.0.2	11/26 12:49p	Failed
PT (PT-1)	1.0.2	11/21 02:46a	Success
PT (PT-1)	1.0.1		
PROD (PROD-1)	1.0.1	11/21 03:01a	Failed
PROD (PROD-1)	1.0.1	11/6 02:37p	Success
PROD (PROD-1)	1.1.0		
PROD (PROD-1)	1.0.1		
PROD (PROD-1)	1.0.1		

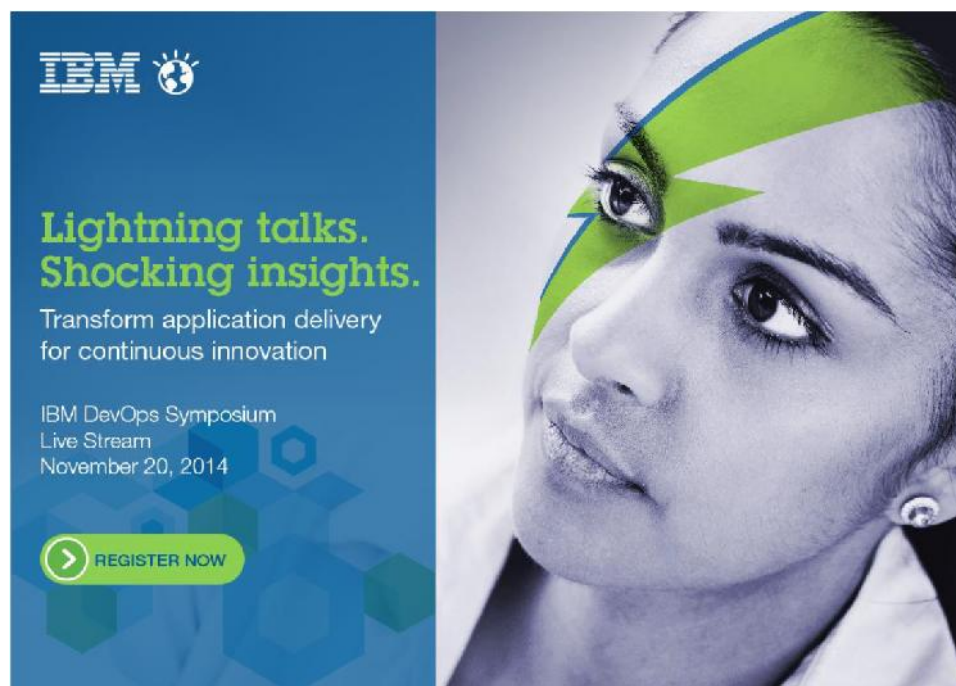
1 to 5 of 5 items, Page:1/1 Updated: 11/25/13, 8:55 AM Rows Per Page: 10 25 50 100

Summary

A balanced software delivery pipeline requires automated release and deploy capabilities supporting DevOps practices.



IBM DevOps Symposium – Thurs, November 20



Face-to-face – New York Metro

Limited seating. No charge.

November 20, 2014

8.30 AM – 4.00 PM EST

[Register](#)

Worldwide live stream

Unlimited seating.

November 20, 2014

8:30 – 9.30 AM EST

[Register](#)

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 - Kurt Bittner - Principal Analyst, Forrester Research
 - Kristof Kloeckner - General Manager, IBM Software Group, Rational
 - Steve Kagan - VP, IBM Global Business Services
 - Dibbe Edwards - VP Development, IBM Software Group, Rational



www.ibm.com/devops

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