



DevOps with UrbanCode

Extend Agile ALM to Accelerate Business Value

Cindy VanEpps
Team Interaction Designer - DevOps
vanepps@us.ibm.com





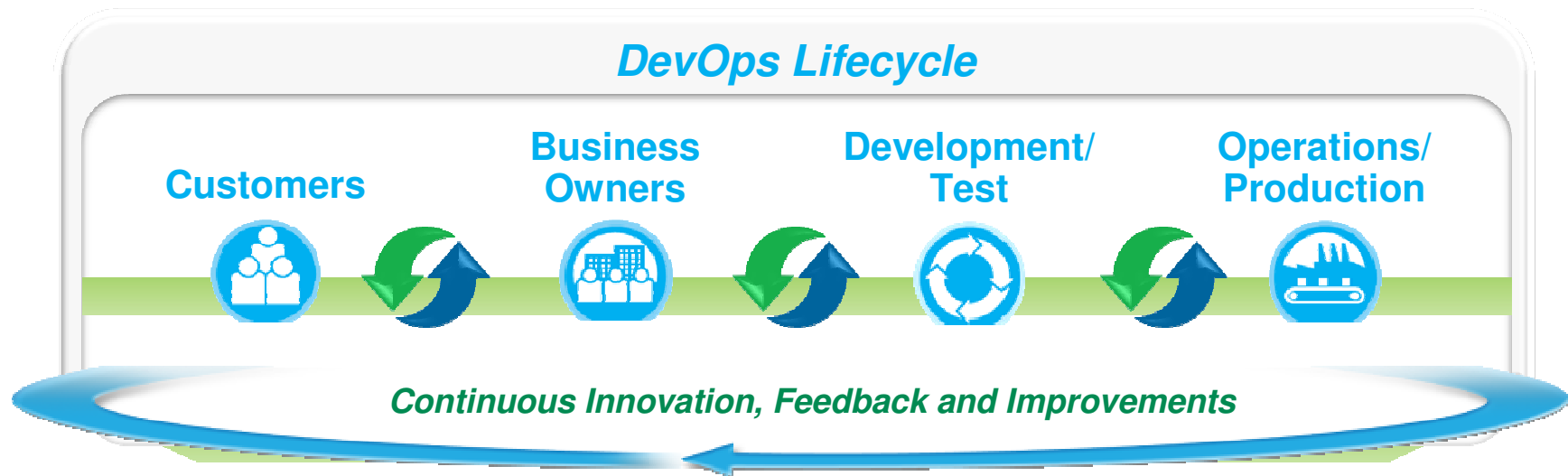
Agenda

- What is DevOps?
- Introducing UrbanCode
 - Deployment Automation
 - Release Coordination
- Demo



DevOps

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



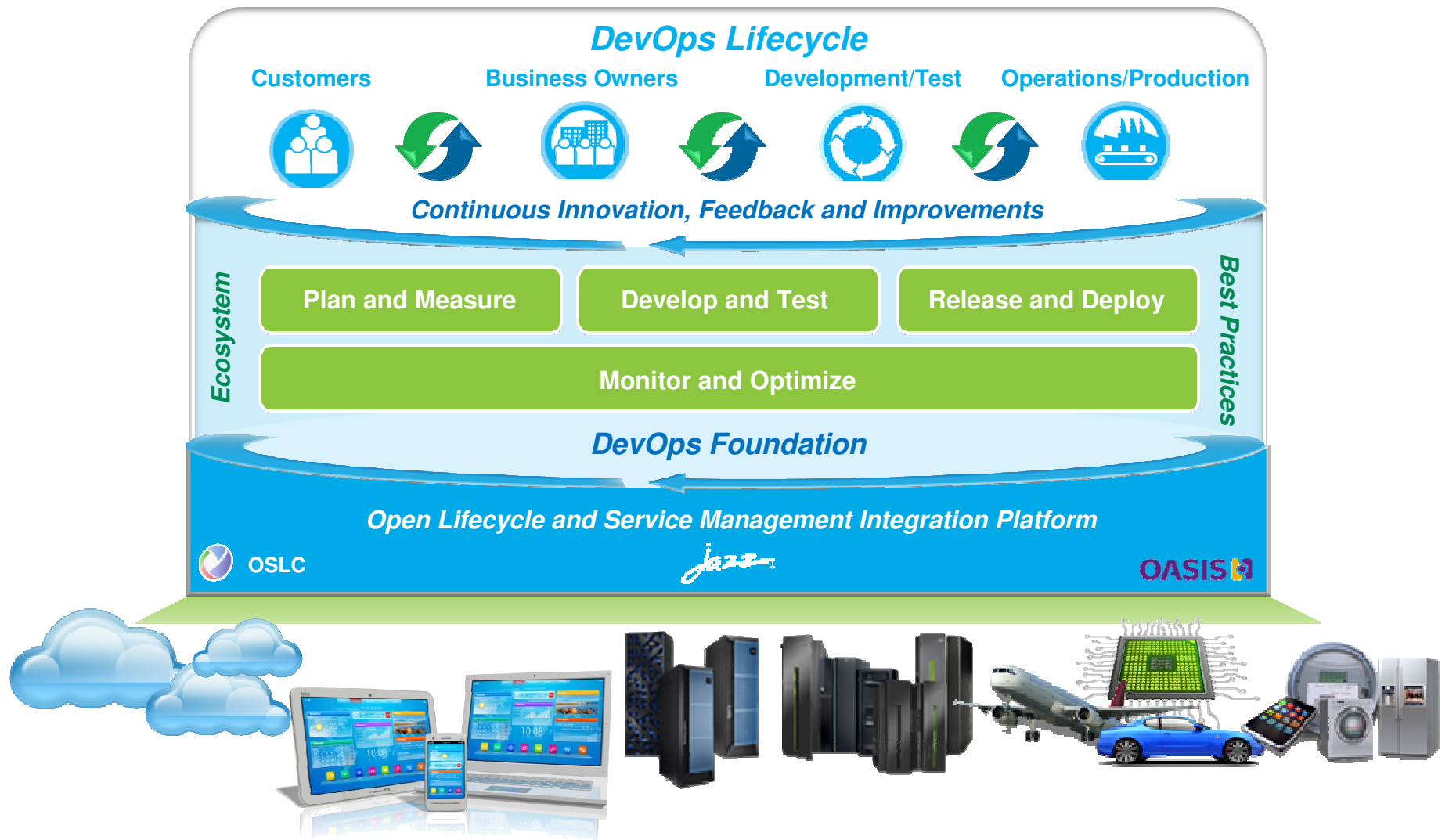
Accelerate Software Delivery

Balance speed, cost, quality and risk

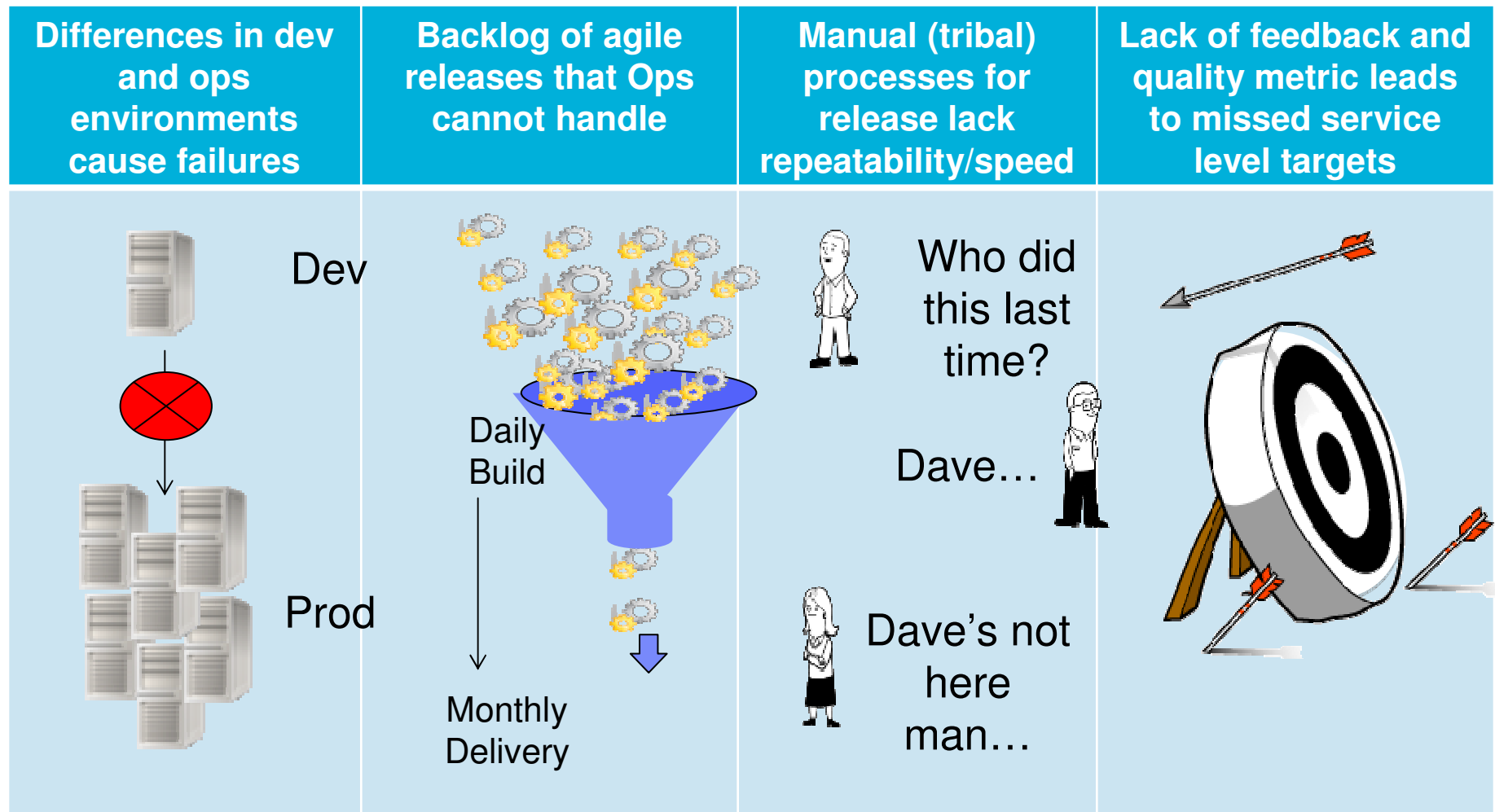
Reduce time to customer feedback



Adoption paths to a DevOps approach



Patterns of challenges





Agenda

- What is DevOps?
- Introducing UrbanCode
 - Deployment Automation
 - Release Coordination
- Demo



UrbanCode, an IBM Company

- 11 Years Build, Release and Deployment Experience
- Global Customers
- Enterprise scalability, security, compliance and automation
- Training, consulting and implementation services
- Based in Cleveland, OH

“One key benefit of UrbanCode is how quickly it can be implemented and used for deployments.”

Gartner





UrbanCode is the premier Application Release Automation (ARA) solution

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

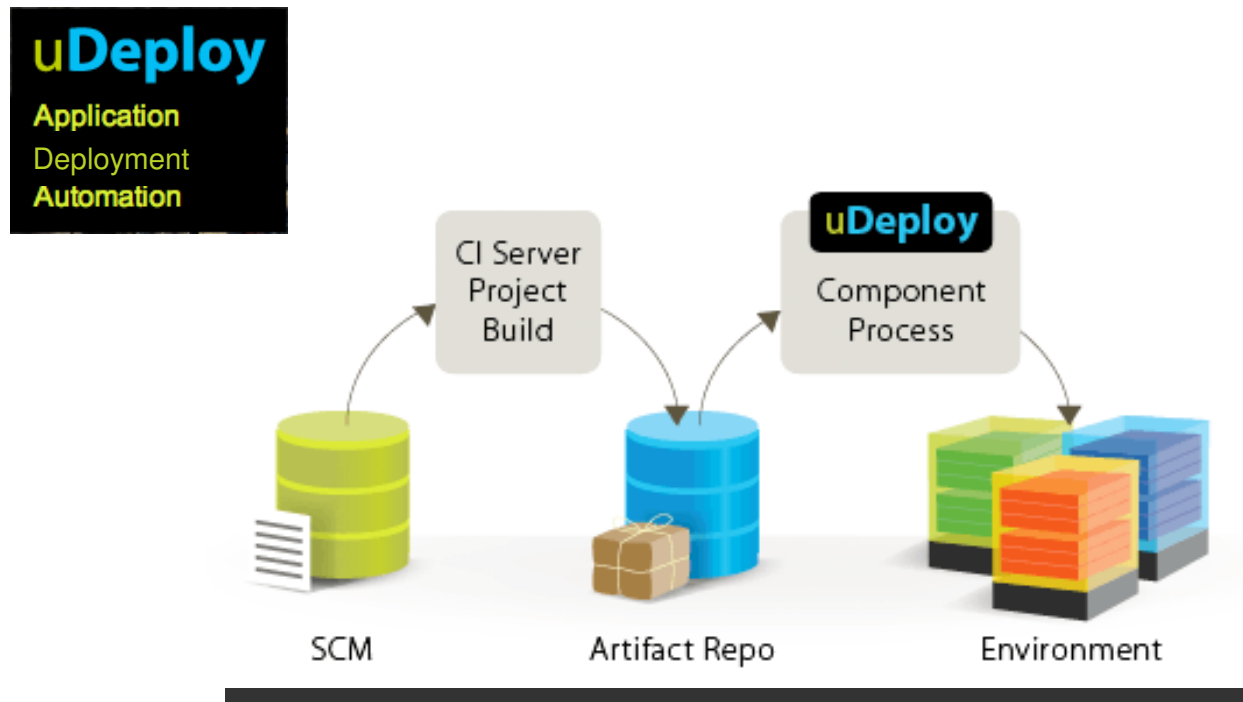
Reduce risk

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



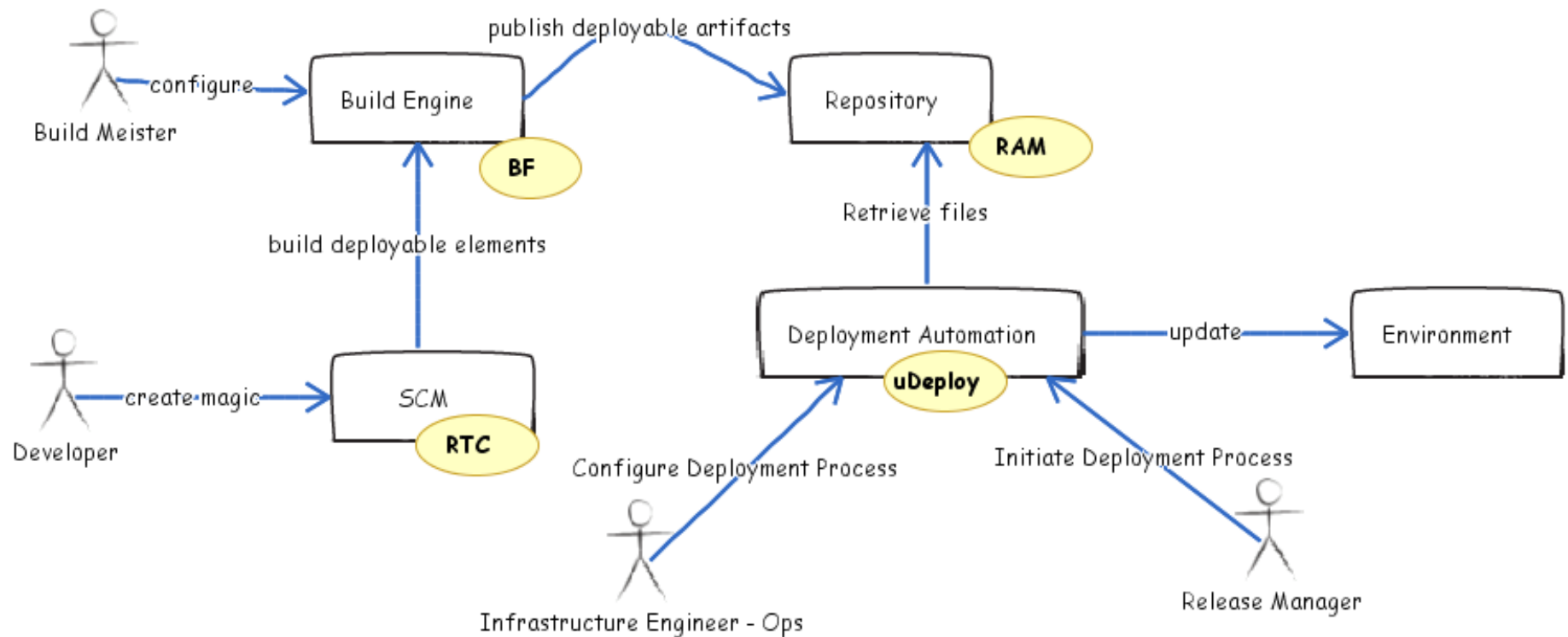
uDeploy

Automating deployment of applications across dev, test, and production environments





Basic uDeploy Usage Model with Example Tools



Note: A build engine could send deployable elements directly to uDeploy codeStation

Application – Component Model

Components

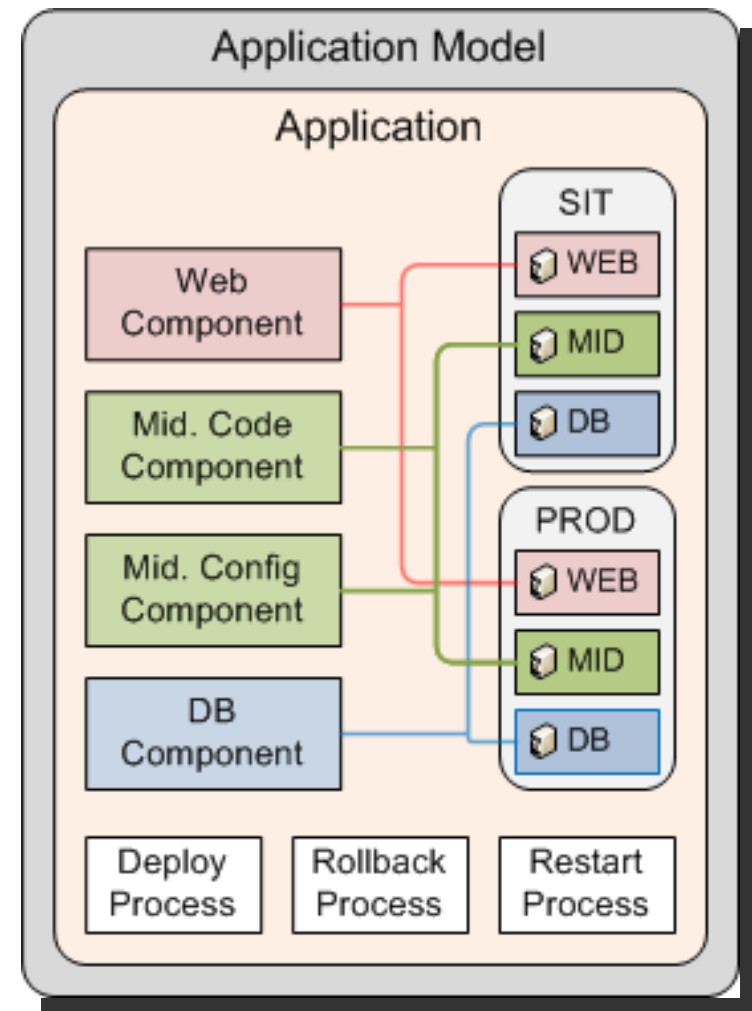
- Tiers or services

Environments

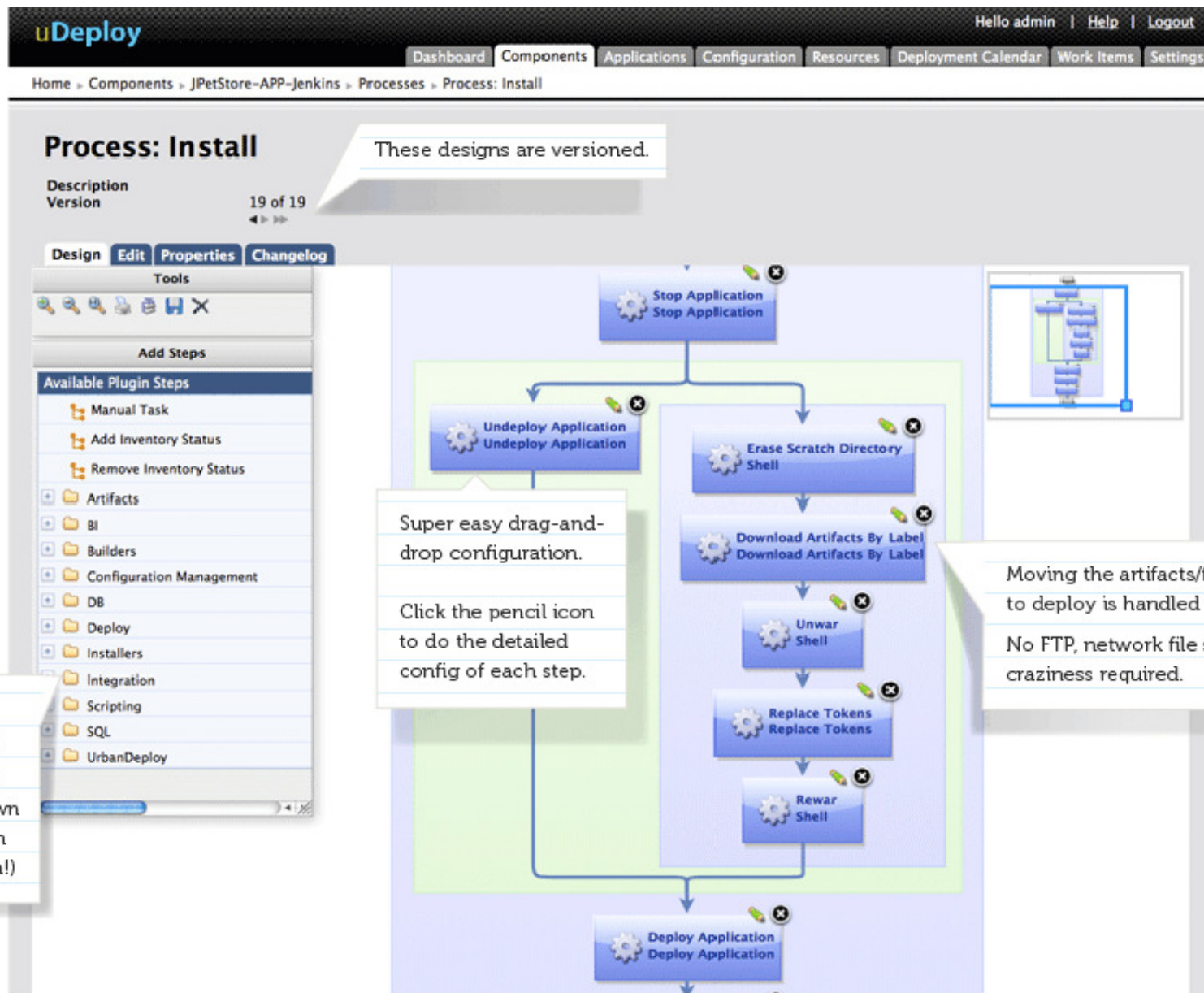
- Target servers
- Servers have roles
- Env. Specific Config

Processes

- Coordinates Component processes

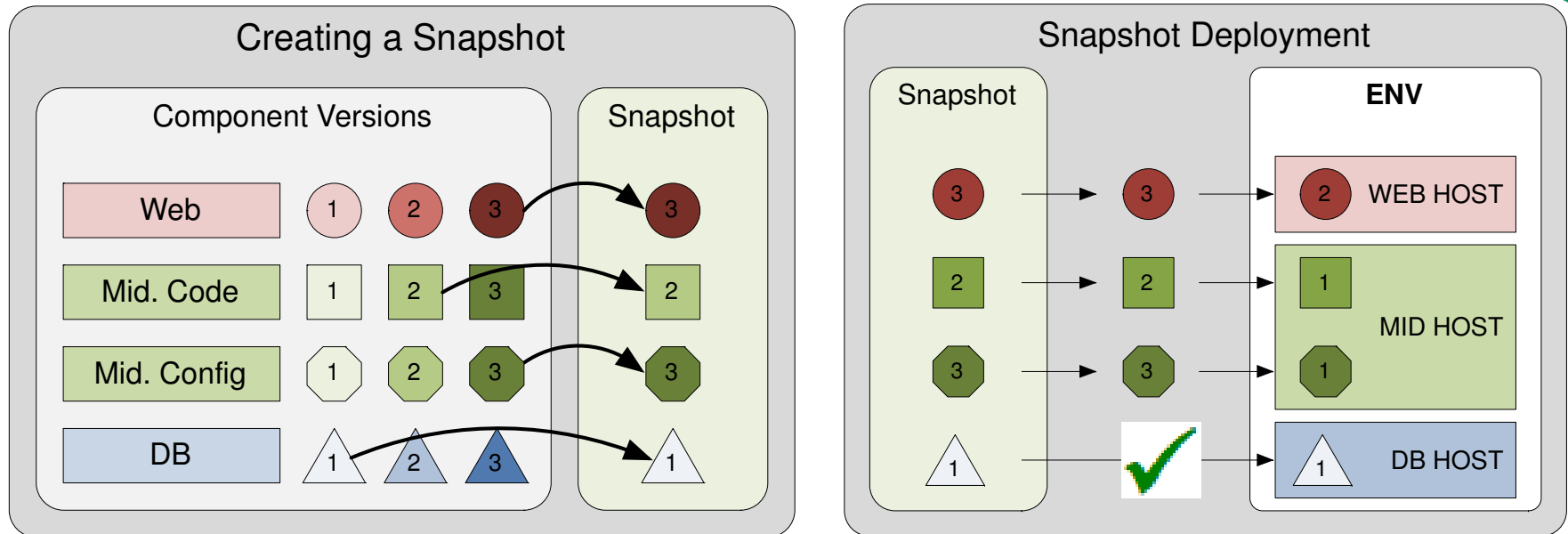


uDeploy process designer



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

Snapshots – A Version of the App



Contents of environments that pass tests

- contain deployables and config

Deployments are based on deltas

They help with:

- ✓ Automation, Audit, and Visibility



Application environment inventory

uDeploy

Hello admin | Help | Logout

Home » Applications » PetShop

The "Petshop" is made of 4 deployable components and is deployed to 3 environments.

Application: PetShop

Description

Environments History Edit Properties Components Snapshots Properties

Environments

Drag environments by their label boxes to order them.

SIT

Actions: Request Process, Compare, Copy, Inactivate

UAT

Actions: Request Process, Compare, Copy, Inactivate

Prod

Actions: Request Process, Compare, Copy, Inactivate

Show Inactive Environments

Create New Environment

Define your own environments

Inventory of correct versions of each component and full app in each environment. SIT has newer stuff.

Compliance: How many of our machines actually have the right version?

The variables used at deploy time are versioned and tracked along with the deployed binaries.

Easily see how this got there.

Latest Inventory

| Component | Version | Snapshot | Properties | Status | Compliance | Actions |
|---------------|---------|--------------------|------------|--------|-----------------|--------------|
| PetShop-DB | 2279 | | Version 2 | Active | Compliant (1/1) | View Request |
| Net Framework | 4.0 | baseline - petshop | Version 1 | Active | Compliant (1/1) | View Request |
| IIS | 7.5 | baseline - petshop | Version 1 | Active | Compliant (1/1) | View Request |
| PetShop-APP | 2306 | | Version 20 | | | |

10 per page 4 records - Refresh

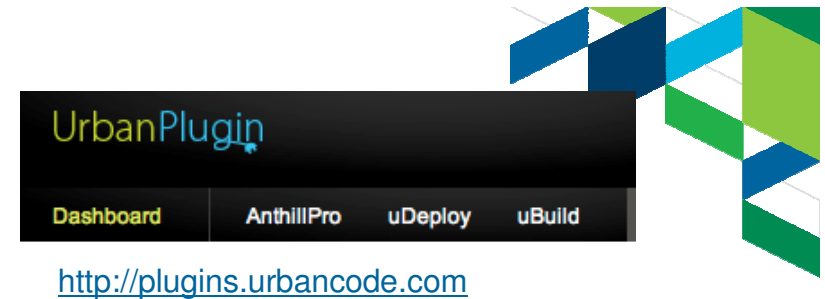
Latest Inventory

| Component | Version | Snapshot | Properties | Status | Compliance | Actions |
|---------------|---------|--------------------|------------|--------|-----------------|--------------|
| PetShop-DB | 2279 | baseline - petshop | Version 1 | Active | Compliant (1/1) | View Request |
| PetShop-APP | 2299 | baseline - petshop | Version 11 | Active | Compliant (1/1) | View Request |
| Net Framework | 4.0 | baseline - petshop | Version 1 | Active | Compliant (1/1) | View Request |
| IIS | 7.5 | baseline - petshop | Version 1 | Active | Compliant (1/1) | View Request |

10 per page 4 records - Refresh

No components have been installed to this environment. - Refresh

uDeploy works in heterogeneous environments



Deployment Sources

- Build servers
- Source control tools
- Maven repositories

IBM Integrations

- RTC / ClearCase / Synergy
- WebSphere Application Server
- MQ
- Message Broker

Other Java Platforms

- WebLogic, Tomcat, Jboss, etc

Quality & Change Management

- QualityCenter
- Remedy
- ServiceNow

Microsoft Platform

- IIS
- SharePoint & Biztalk

Infrastructure

- Public / Private Cloud
- Load Balancers
- DataBases



What troubles operational releases?

Releases encompass more than application deployment

- Examples: Middleware, network, hardware changes in addition to application changes
- Steps known in development and integration, but missed in Prod

Interaction between applications in a release

- Ordering of application deployment steps fails to account for dependencies between applications or deployment steps.
- Required artifacts or applications missed or wrong application versions deployed.

Difficulty coordinating dozens of participants

- Late breaking changes to deployment instructions or targeted artifacts are not communicated.
- Work product quality and process check lists scattered about many tools and not digested for at-a-glance status

Change Type

Applications

Vendor Software

Middleware

Database

Network

OS & Patches

VM platform



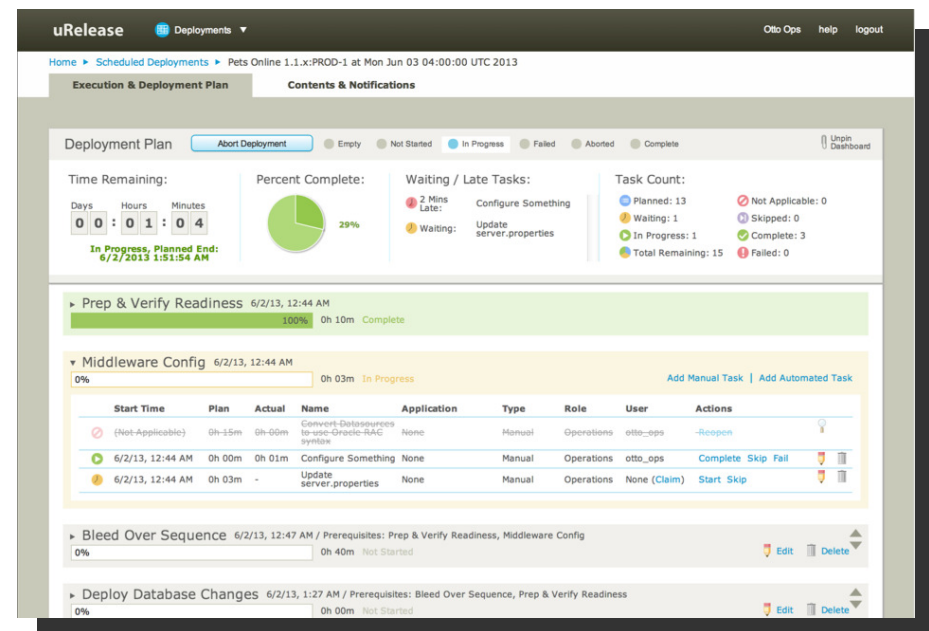
uRelease – Release planning and orchestration

Qualify with one question:

Do you have large monthly or quarterly releases that take hours/days and require dozens or that hundreds of people to get on a call?

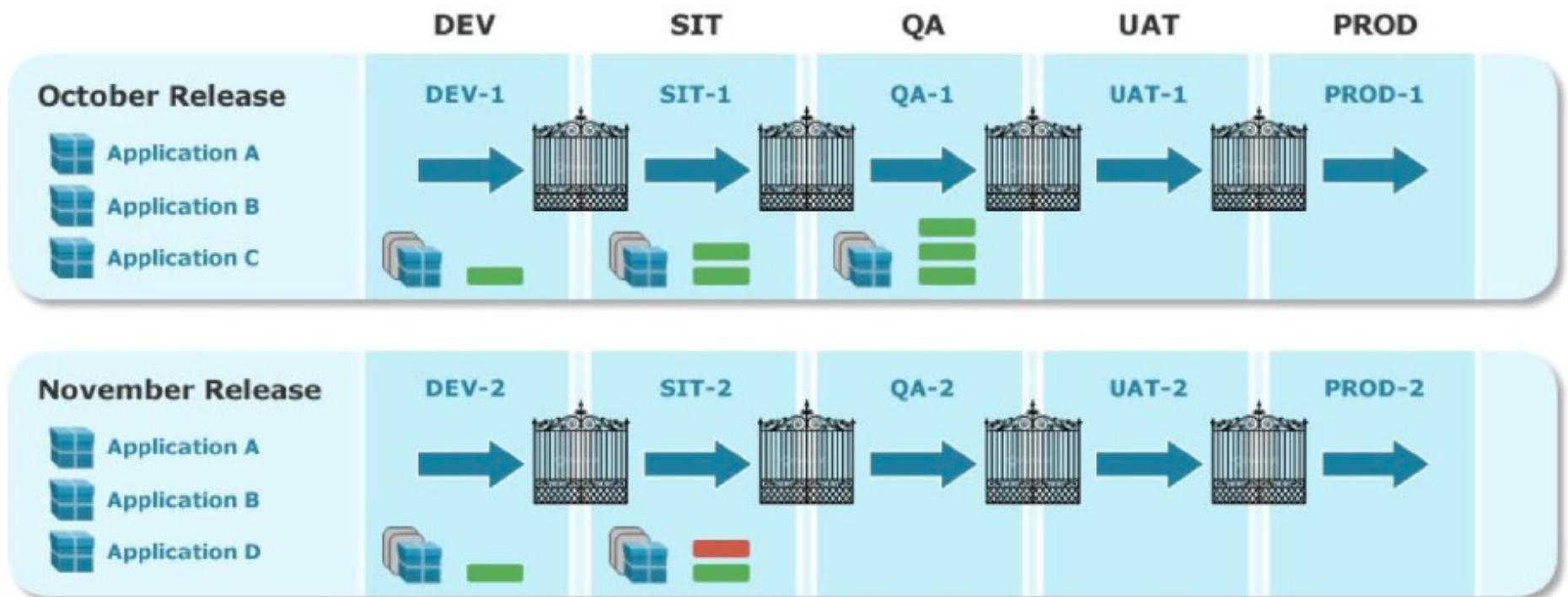
uRelease delivers

- Plan the release day
- Execute the release
- Communicate what's going on
- Allocate environments to releases
- Tie release back to development





uRelease Concepts



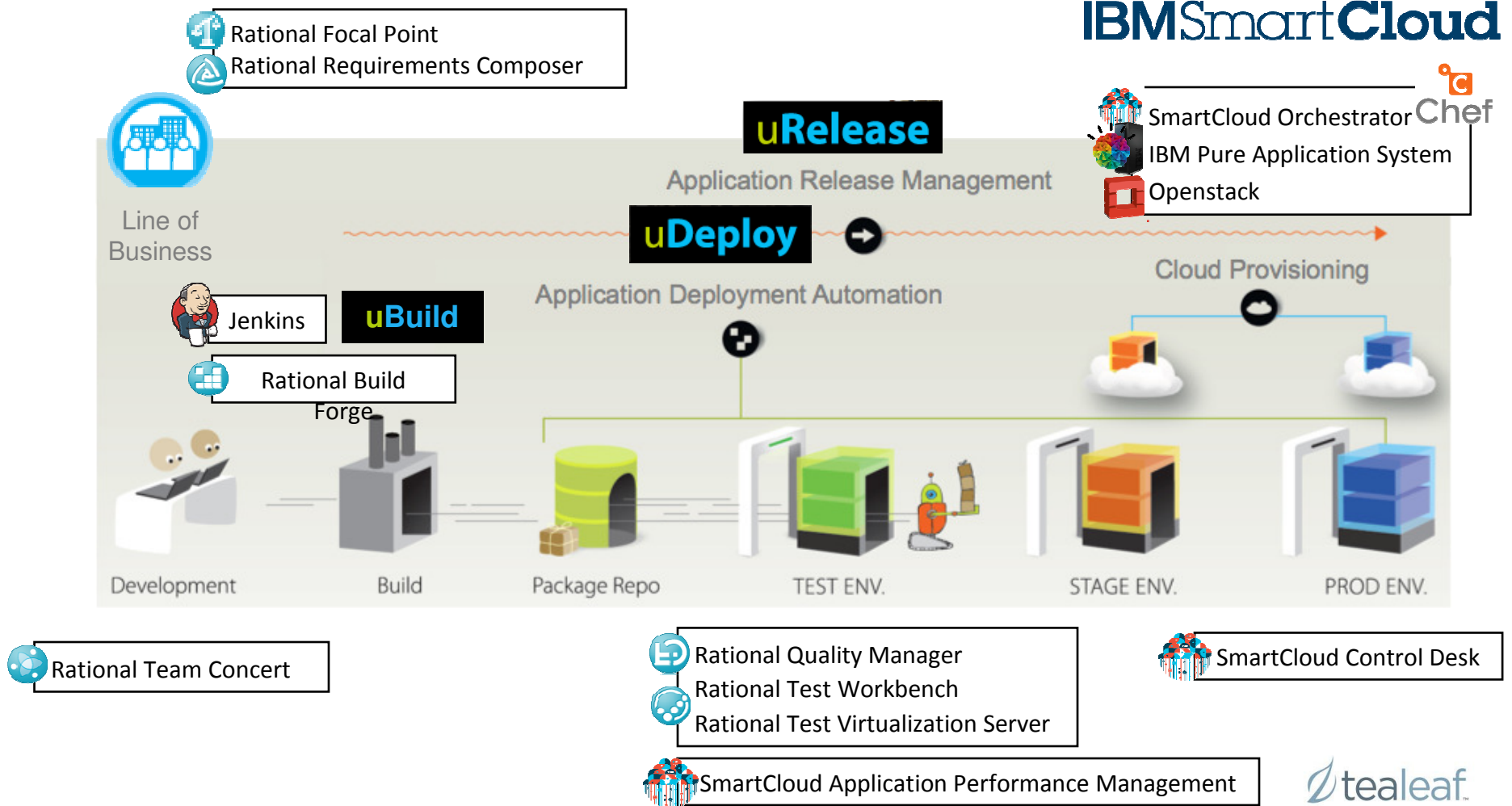


Automation & Management

| | uDeploy | uRelease |
|---|---------|----------|
| Application Release Automation | | |
| Automate deployments | ✓ | |
| Visual process designer | ✓ | |
| Plug-in actions for application containers, web servers, network devices, database deployment, etc. | ✓ | |
| Model environments & deployment targets | ✓ | |
| | | |
| Release Management | | |
| Enforce quality gates for environments | ✓ | ✓ |
| Orchestrate changes across multiple applications | | ✓ |
| Manage infrastructure in addition to application changes | | ✓ |
| Real-time status for long production releases | | ✓ |
| Track the allocation of environments to releases | | ✓ |



DevOps Tool Chain





Agenda

- What is DevOps?
- Introducing UrbanCode
 - Deployment Automation
 - Release Coordination
- Demo



How to get started?

- IBM DevOps Solutions
 - <http://www.ibm.com/ibm/devops/us/en/>
- Product Overviews
 - <http://www.urbancode.com/html/products/deploy/>
 - <http://www.urbancode.com/html/products/release/>
- DevOps learning Circle
 - <https://www.ibm.com/developerworks/community/groups/service/html/communityview?communityUuid=860ff390-6cab-4f95-ab37-66d2ca7521b4>
- uRelease Training Modules
 - <http://www.youtube.com/watch?v=gLK86M13X7M&feature=youtu.be>

Questions



Thank You

© Copyright IBM Corporation 2013. All rights reserved. The information contained in these materials is provided for informational purposes only, and is provided AS IS without warranty of any kind, express or implied. IBM shall not be responsible for any damages arising out of the use of, or otherwise related to, these materials. Nothing contained in these materials is intended to, nor shall have the effect of, creating any warranties or representations from IBM or its suppliers or licensors, or altering the terms and conditions of the applicable license agreement governing the use of IBM software. References in these materials to IBM products, programs, or services do not imply that they will be available in all countries in which IBM operates. Product release dates and/or capabilities referenced in these materials may change at any time at IBM's sole discretion based on market opportunities or other factors, and are not intended to be a commitment to future product or feature availability in any way. IBM, the IBM logo, Rational, the Rational logo, Telelogic, the Telelogic logo, and other IBM products and services are trademarks of the International Business Machines Corporation, in the United States, other countries or both. Other company, product, or service names may be trademarks or service marks of others.





End-to-end release planning & reporting

Real-time feedback for the delivery of business value

