

Continuous Delivery for Cloud Native Applications

Cyrille Le Clerc, Director, Product Management at CloudBees

Bjorn Boe, Senior Field Engineer at Pivotal Software

Speakers

/Cyrille Le Clerc

- Product Manager at CloudBees
- In charge of alliances and Docker
- Dev → DevOps
- 15 years consulting before CloudBees
- Open Source: jmxtrans...



/Bjorn Boe

- Sr. Field Engineer at Pivotal
- Help customers modernize
the way they build software
- Have been working with building
software for about 15 yrs



/you

Poll!



Agenda

Agenda

- Introduction
- Overview of CloudBees Jenkins Platform for PCF
- **Demo**
- Deep dive in CloudBees Jenkins Platform for PCF
- Managing Jenkins with Pivotal Ops Manager
- CloudBees Jenkins Operations Center
- Q&A

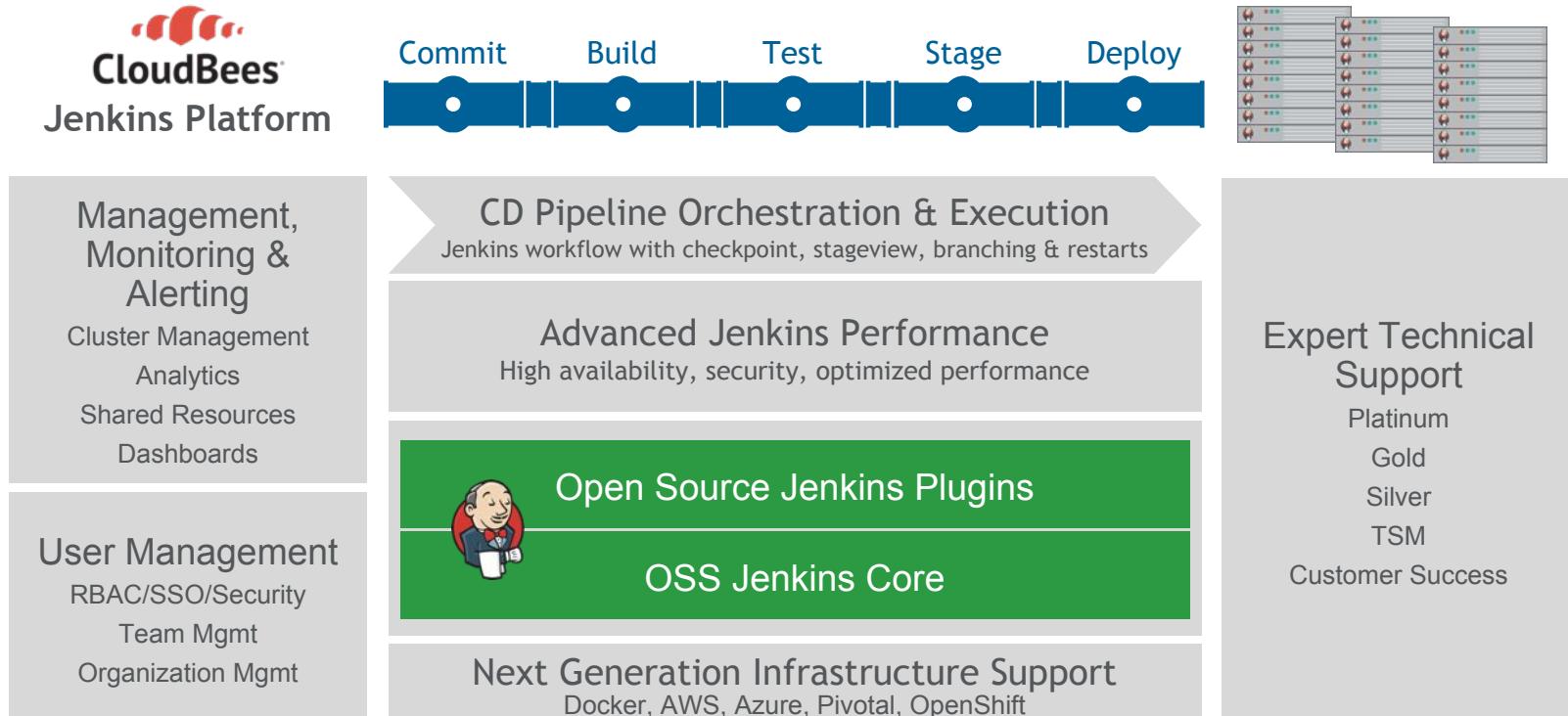
Introduction

CloudBees

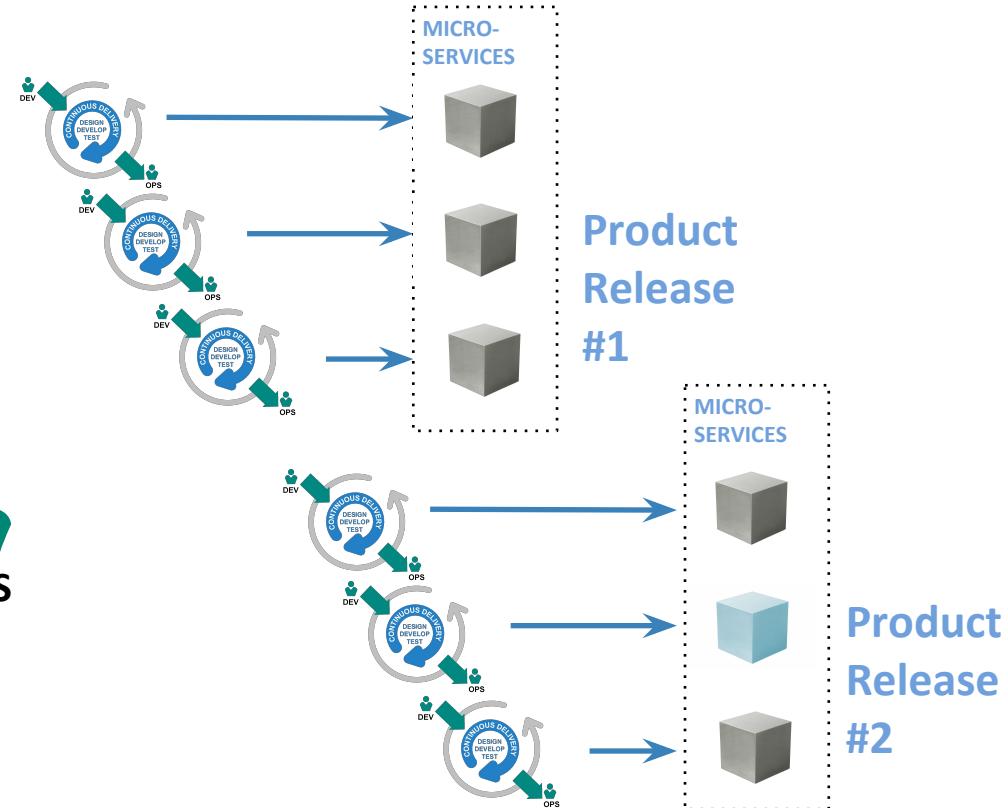
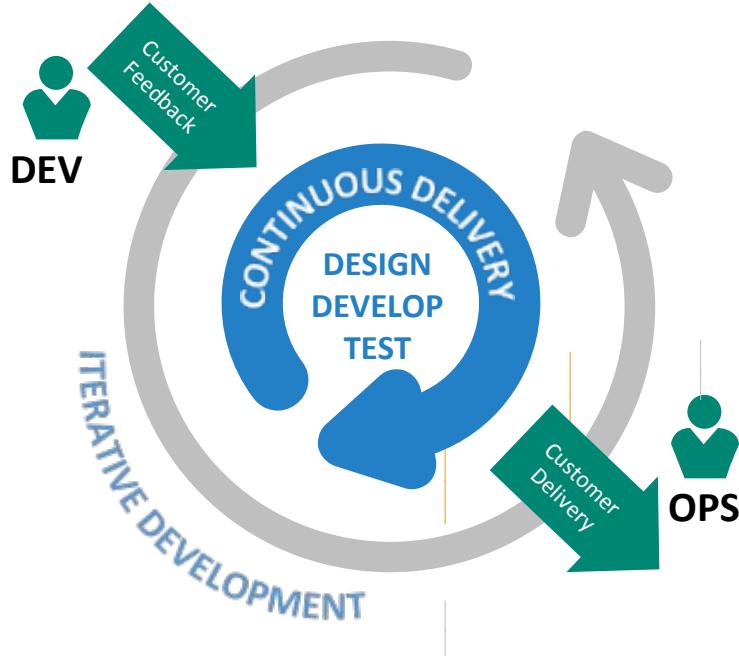
- The Enterprise Jenkins Company
- Kohsuke Kawaguchi is our CTO
- “as a Service” and “as a Software”

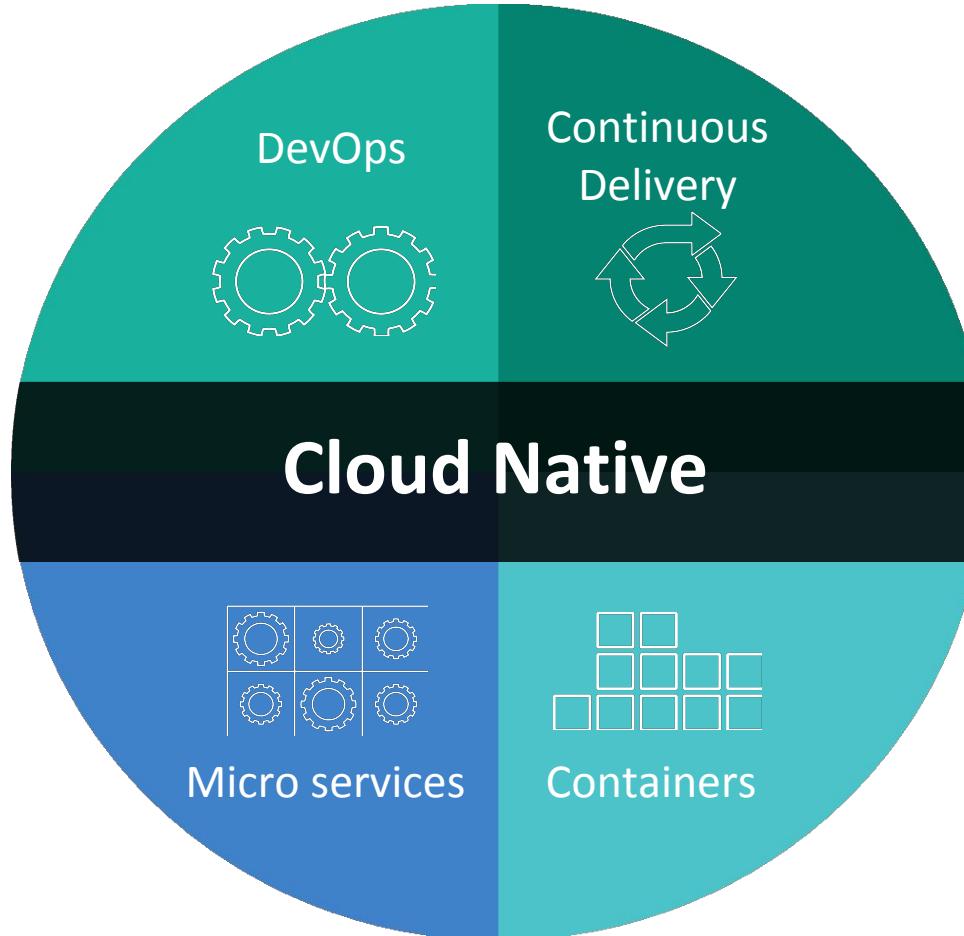


What is the CloudBees Jenkins Platform?

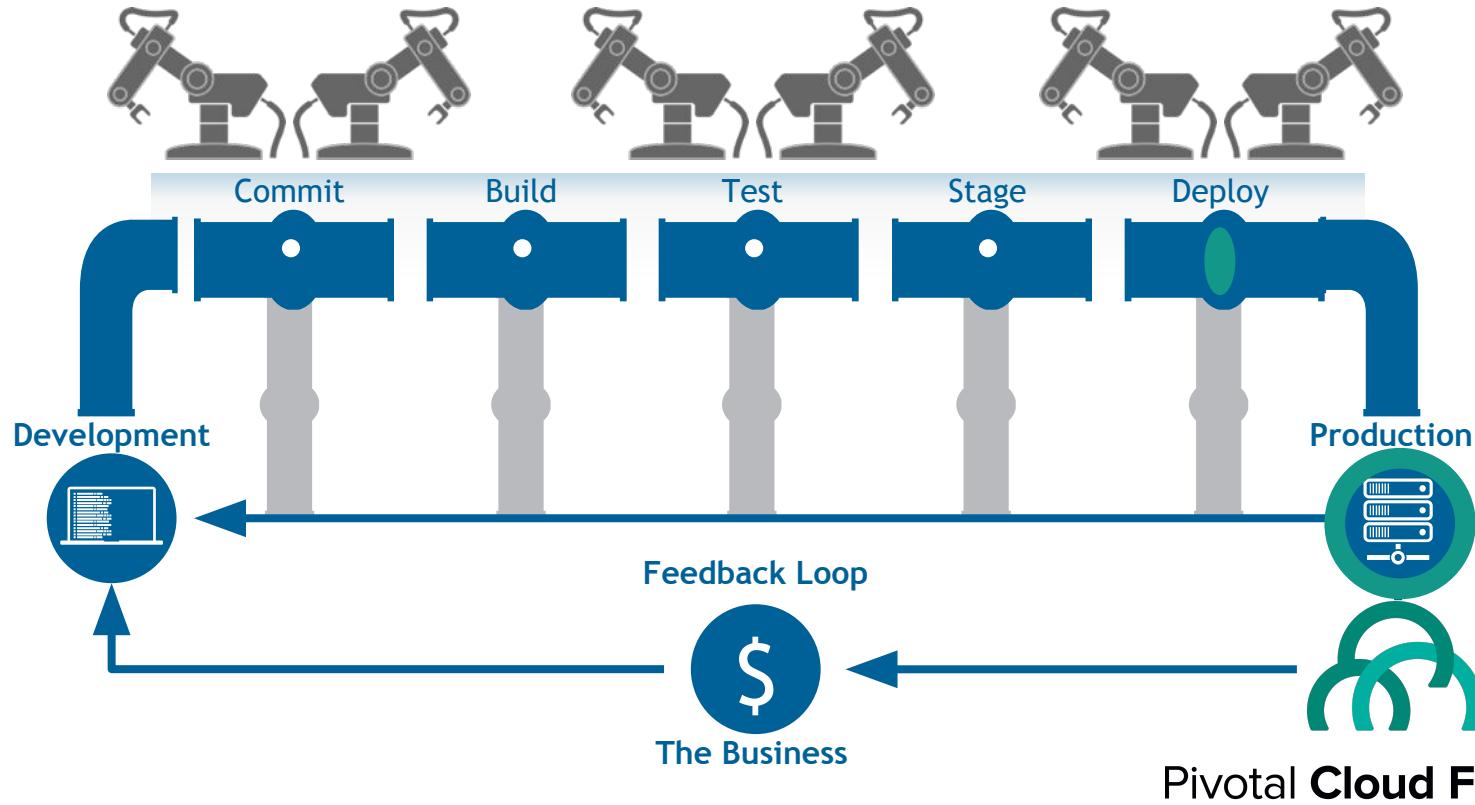


Changing Build and Release Models

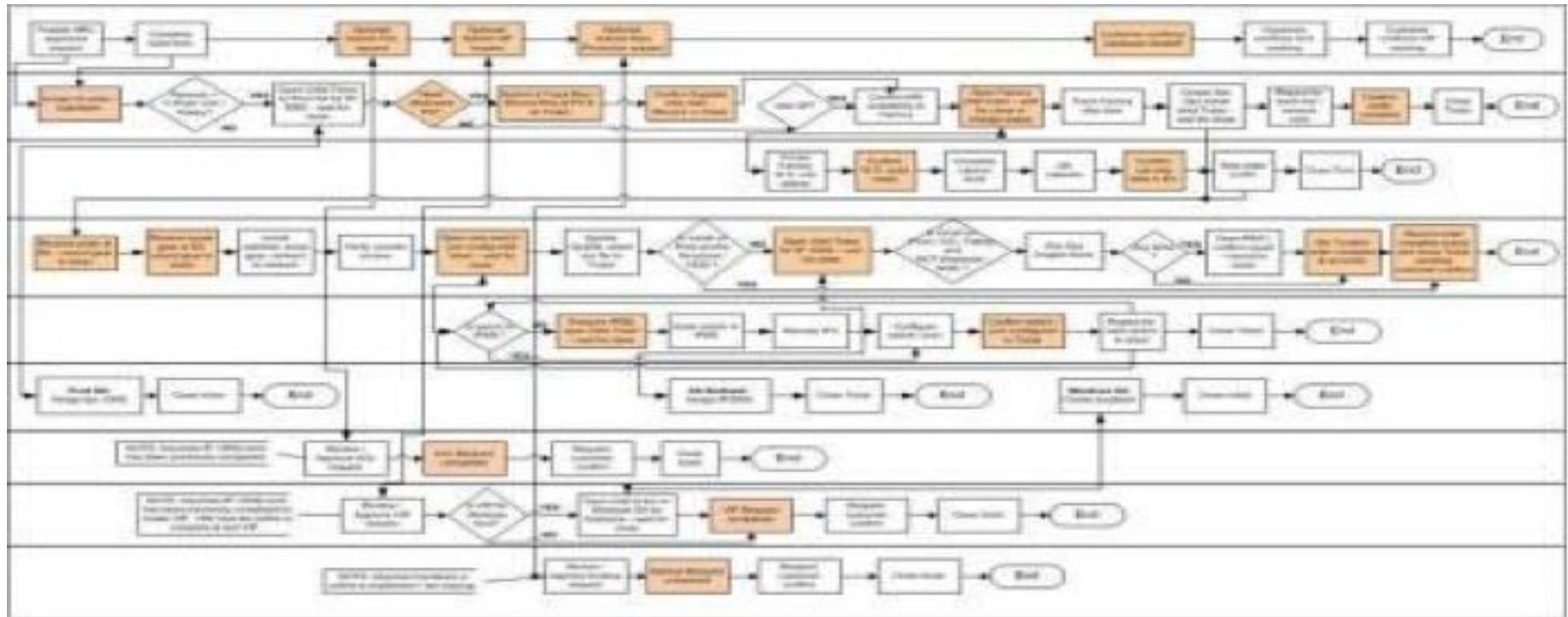




Continuous Delivery Flow



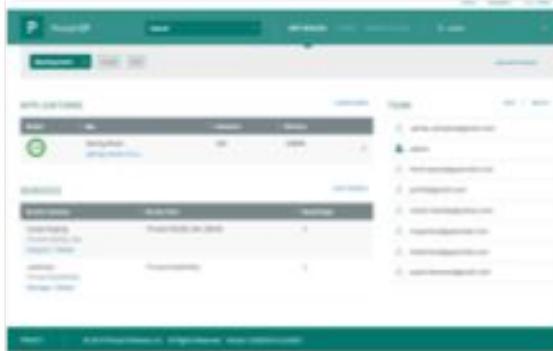
Pivotal Cloud Foundry, Taking the Application Lifecycles From Months...



...to Hours and Minutes

DEVELOPER

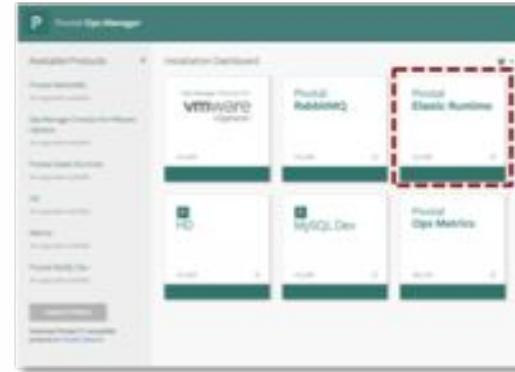
- Auto-select runtimes
- Deploy app
- Select and bind middleware
- Scale app



App Deployment: 30-90 seconds

OPERATOR

- Establish infrastructure
- Provision
- Add capacity
- Control Auth, Policies, HA



Cloud Deployment: 2-4 hours

Pivotal®

WE BELIEVE

Transforming how the world builds software will shape the future.

Modern Product Development

Help customers learn by doing it for and with them

Data

Modern, open, highly parallelized platform

Apps

Modern, open, highly automated cloud platform

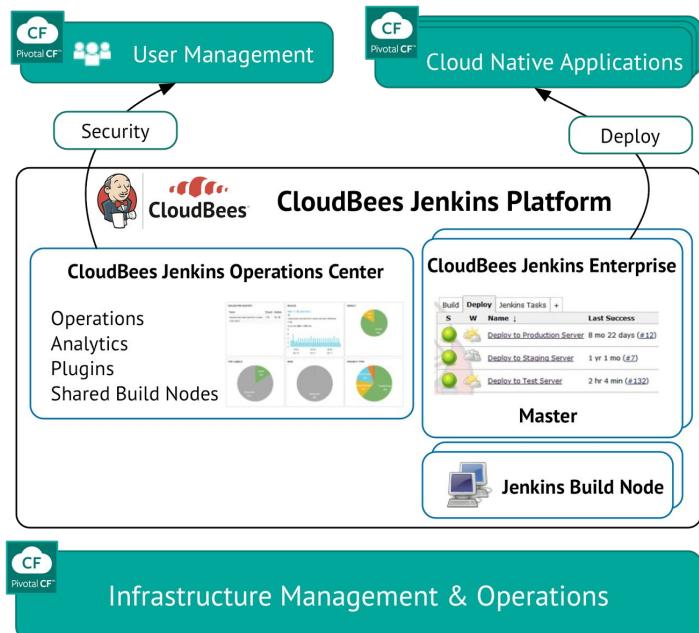
Pivotal

CloudBees Jenkins Platform for Pivotal Cloud Foundry

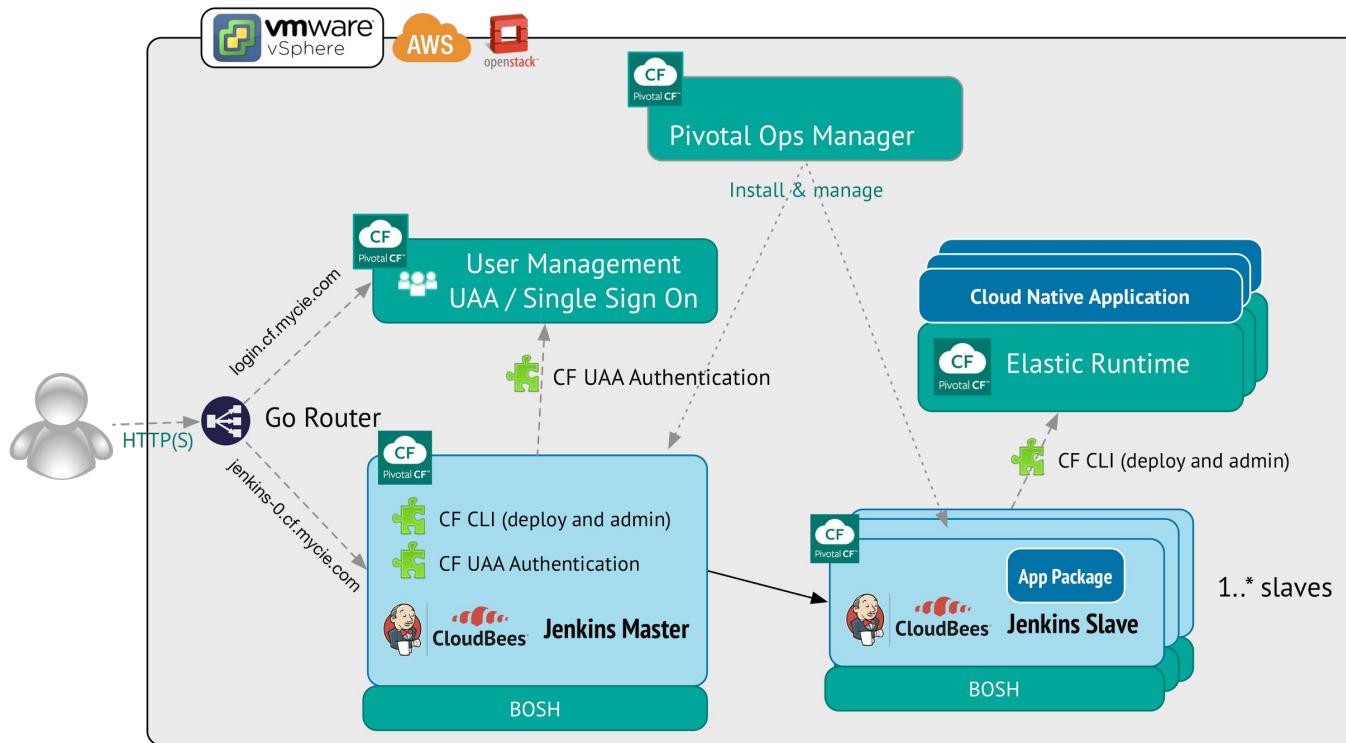
Overview

CJP on Pivotal CF

- Jenkins as you know it
- CloudBees enterprise features
- Seamless integration with PCF
 - User Management
 - Environment characteristics
- CD pipeline for Pivotal CF apps
- Install & operate Jenkins through Pivotal CF



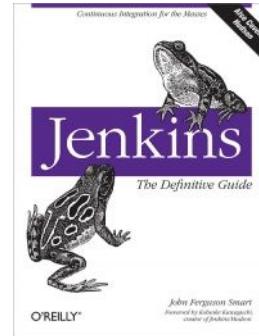
CJP on Pivotal CF



Demo

Demo Time!

- App: Game Of Life (Jenkins - The Definitive Guide)
- Technology: Java, Spring Framework & Maven
- Cloud Platform: Pivotal Cloud Foundry
- CI/CD: CloudBees Jenkins Platform
- Source code: GitLab
- Artifact repository: JFrog Artifactory
- Web Browser Testing: Selenium with Firefox in Docker



maven



spring



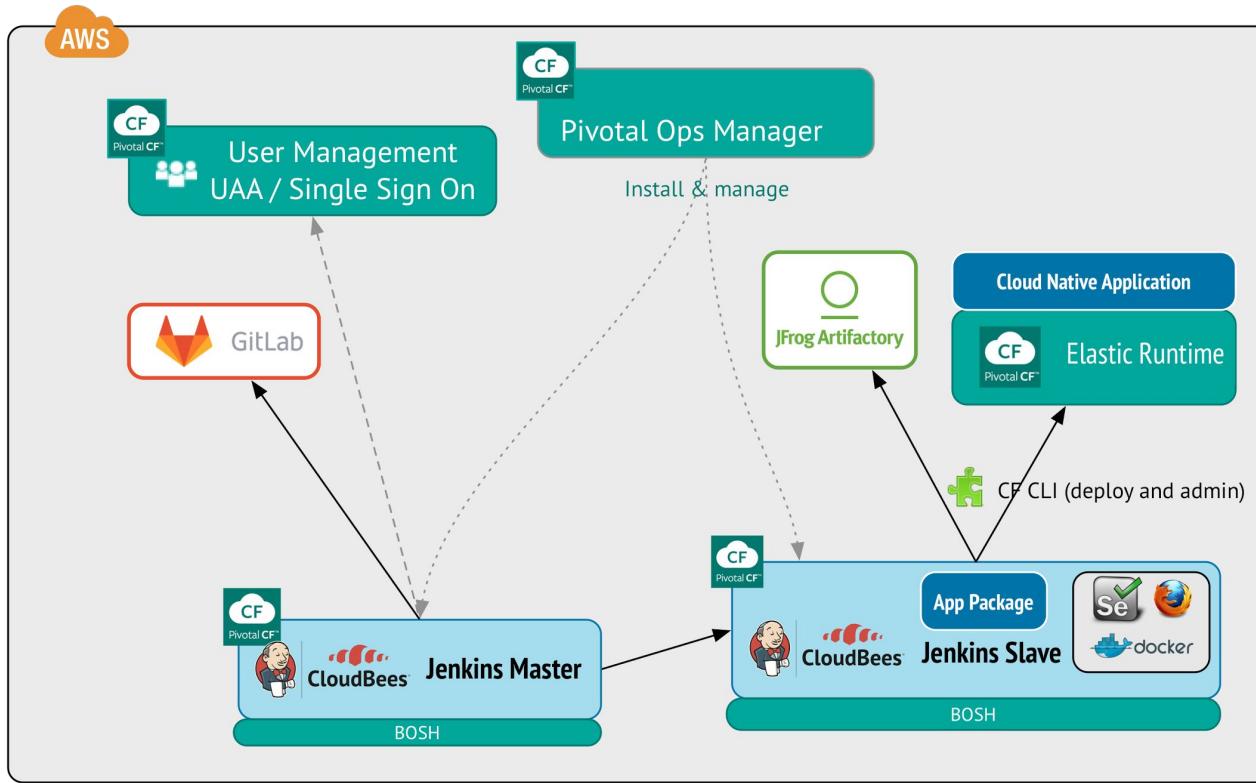
Pivotal **Cloud Foundry**



CloudBees
The Enterprise Jenkins Company



Demo Time!



Demo Time!

Demo Summary

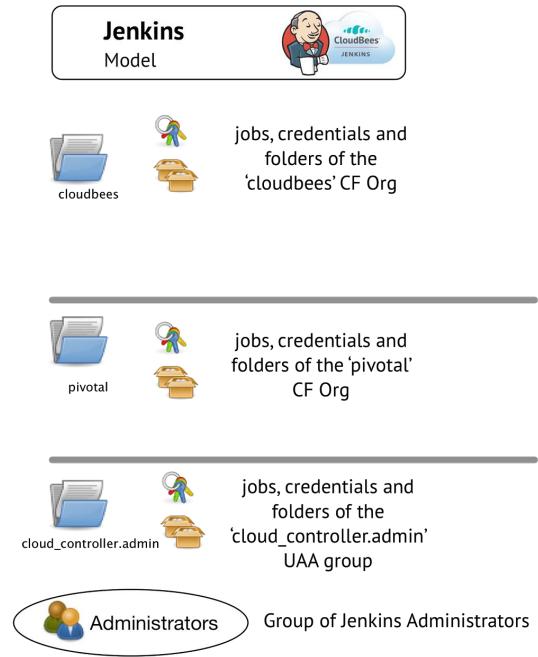
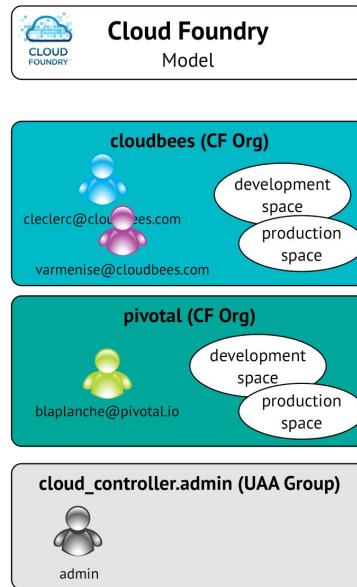
- Integrated PaaS platform
 - Pivotal Cloud Foundry, CloudBees Jenkins Platform, GitLab, JFrog Artifactory
- CD Pipeline as Code: Jenkins Workflow
- Continuous Deployment: CF CLI
- Build environment customization: Docker applied with Selenium and Firefox

CloudBees Jenkins Platform for Pivotal Cloud Foundry

Deep dive

Unified User Management and Security

- Single Sign On
- Cloud Foundry Orgs as security groups
- Visibility in Jenkins limited to CF Orgs



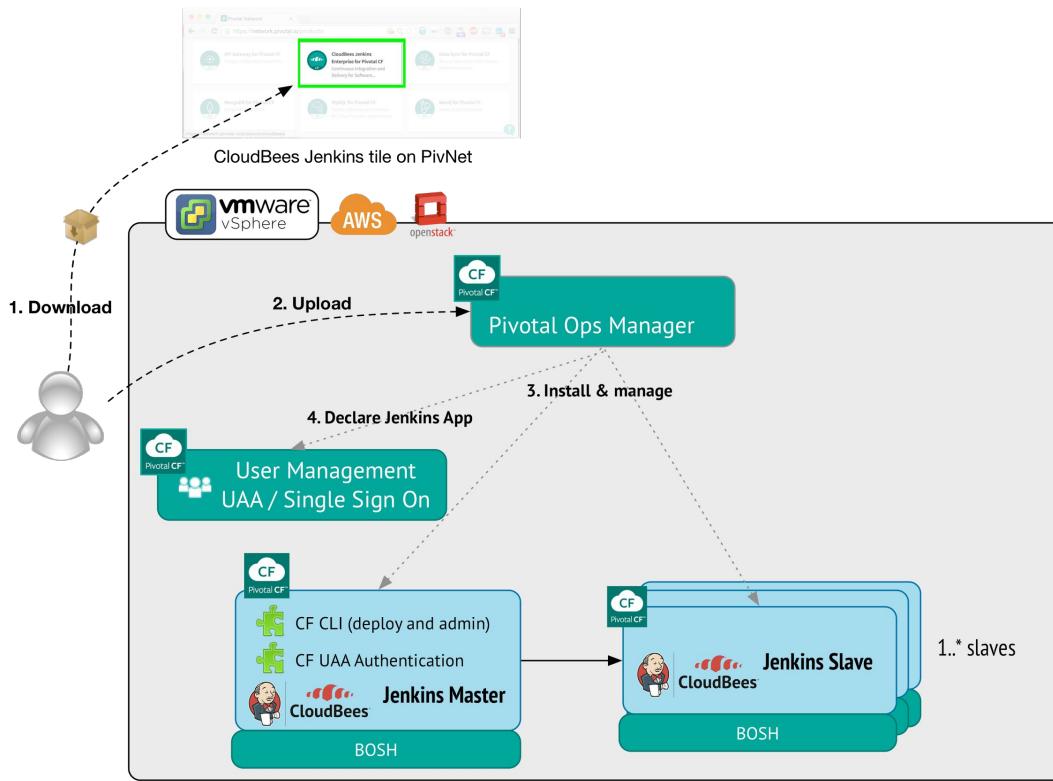
Build Pack and CF services in Jenkins

Slave match Elastic Runtime environment

- Ruby and NodeJS buildpacks
- JVM from the Java buildpack
- Docker container for other customizations
- CF services available through CF CLI

Manage Jenkins with Pivotal Ops Manager

Managing Jenkins with Ops Manager



One Click Install

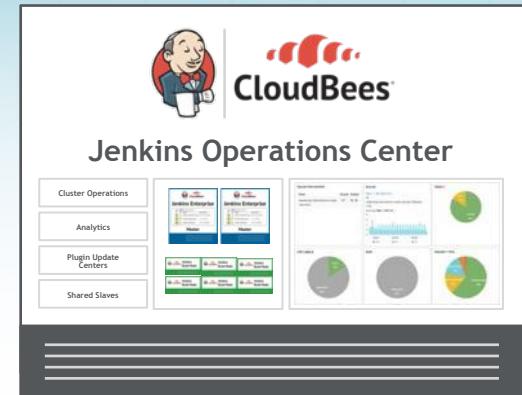
One Click Install and you are all set

- Production ready CloudBees Jenkins Platform with persistence, desired #instances...
- Pre-installed plugins & tools: GitLab, GitHub, JFrog, CF CLI...
- Pre-configured: authentication and authorization, slave setup...

Seamless Maintenance

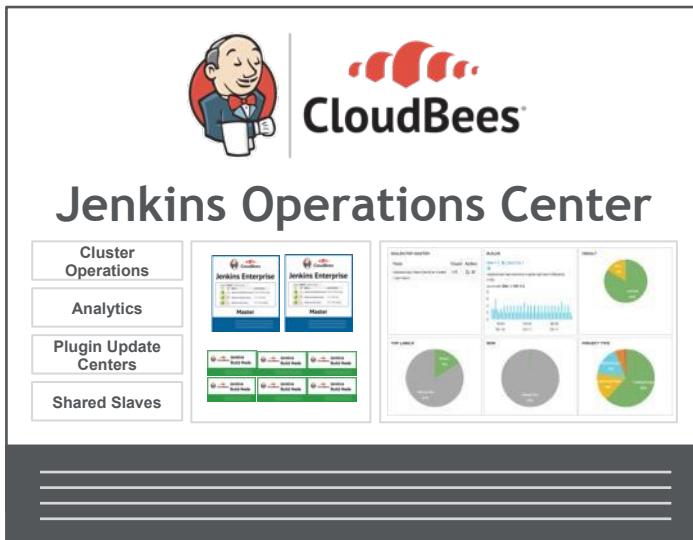
- Upgrade Jenkins core and infrastructure through the Ops Manager
- Upgrade Jenkins plugins through the Jenkins admin console

CloudBees Jenkins Operations Center



Managing Jenkins at Scale

Operations/Monitoring/Management
for Your Jenkins Environment



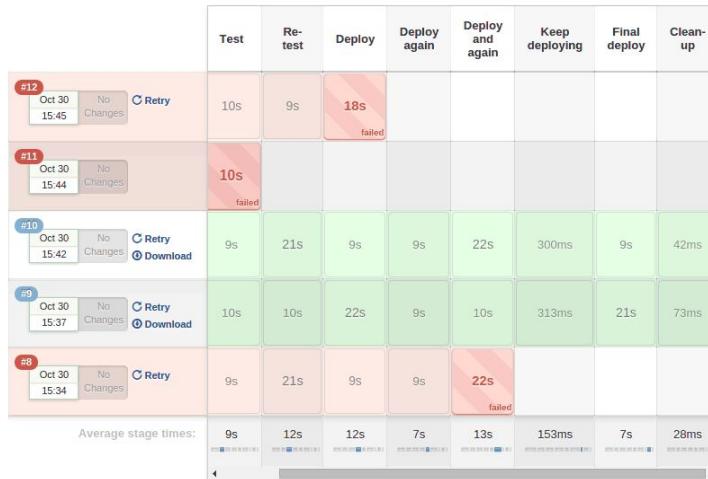
The screenshot shows the Jenkins Operations Center dashboard. At the top left is the Jenkins logo, followed by the CloudBees logo. Below that is the title "Jenkins Operations Center". The dashboard is divided into several sections: "Cluster Operations" (with a button), "Analytics" (with a button), "Plugin Update Centers" (with a button), and "Shared Slaves" (with a button). To the right of these buttons are two "Jenkins Enterprise" master nodes. Further right is a "Metrics" section with a bar chart and a pie chart. At the bottom of the dashboard are three circular progress indicators.

- ✓ Manage Connected Client Masters
- ✓ Jenkins Analytics and Monitoring
 - CloudBees Performance Analytics
 - CloudBees Build Analytics
- ✓ Cluster Operations
- ✓ Centralized Security – SSO & RBAC
- ✓ Custom Update Centers

Monitoring, Visualization and Analytics

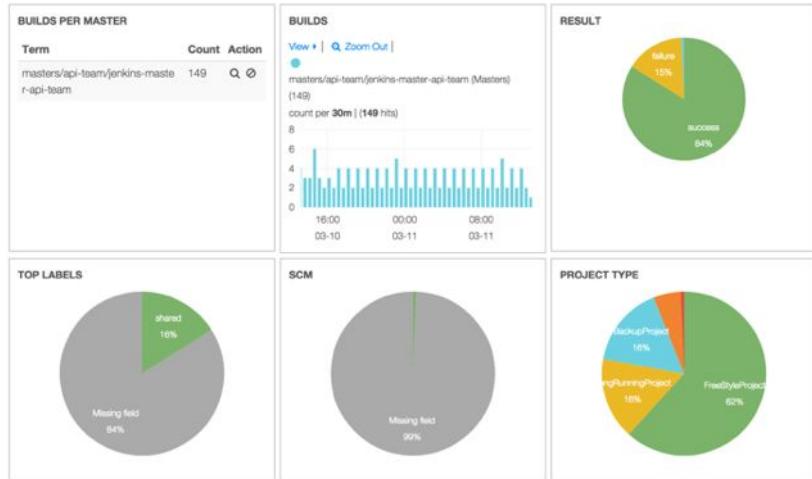
Jenkins Workflow Stage View

Visibility into Pipeline Status



Jenkins Analytics

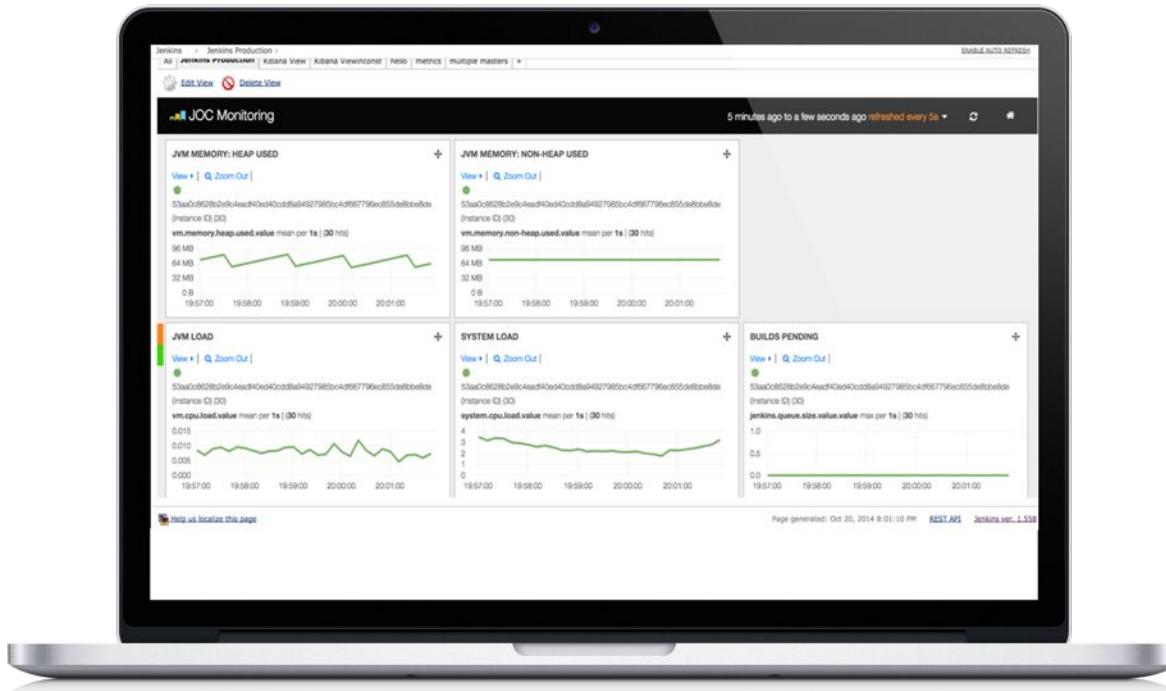
Cross-Team Build Analytics



... among many other features, tailored for enterprise organizations using Jenkins @ scale

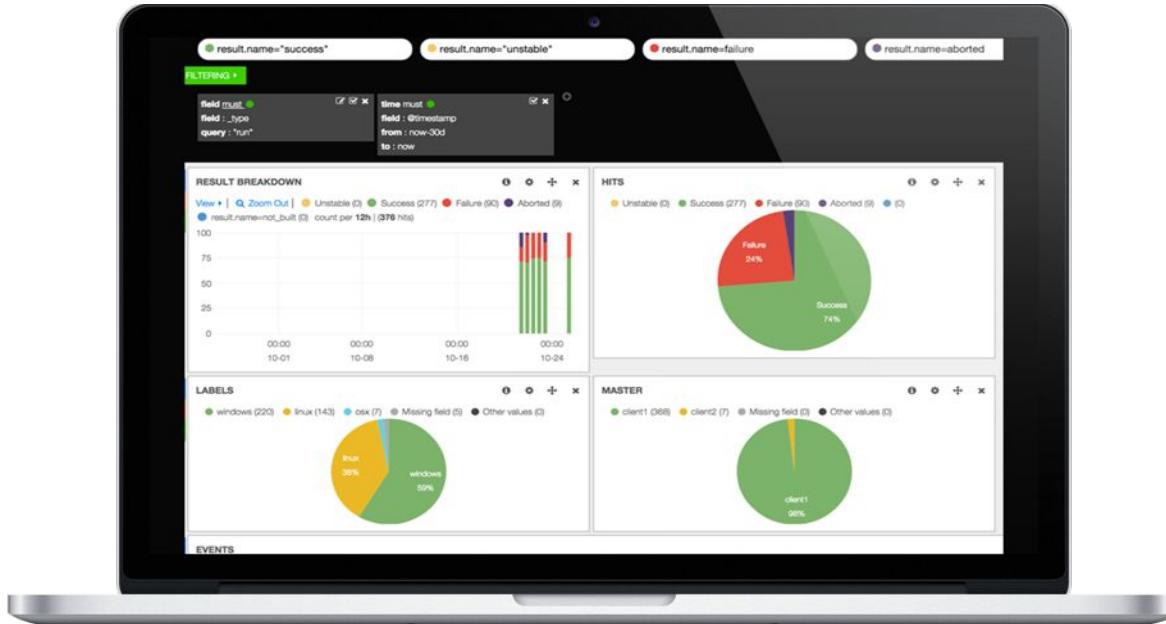
CloudBees Performance Analytics

Jenkins JVM and Jenkins Queue Monitoring



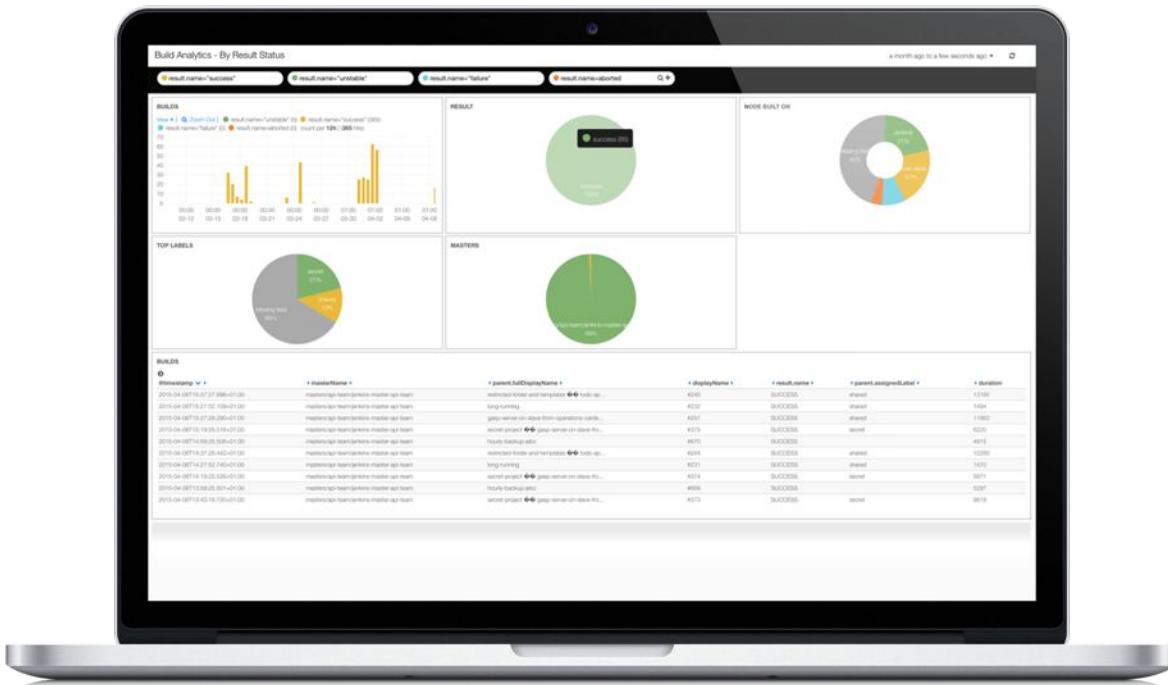
CloudBees Performance Analytics

Build, Job Growth Across Masters



CloudBees Performance Analytics

Build Status



Q&A

Thank you.

<https://network.pivotal.io/products/cloudbees>

<https://www.cloudbees.com/partners/platform/pivotal>



Pivotal **Cloud Foundry**[®]