

Pivotal



Pivotal Cloud Foundry

Services Overview

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What is a Service

- Allows resources to be easily provisioned on-demand
- Typically middleware, frameworks, and other “components” necessary for applications
- Can be a persistent, stateful layer



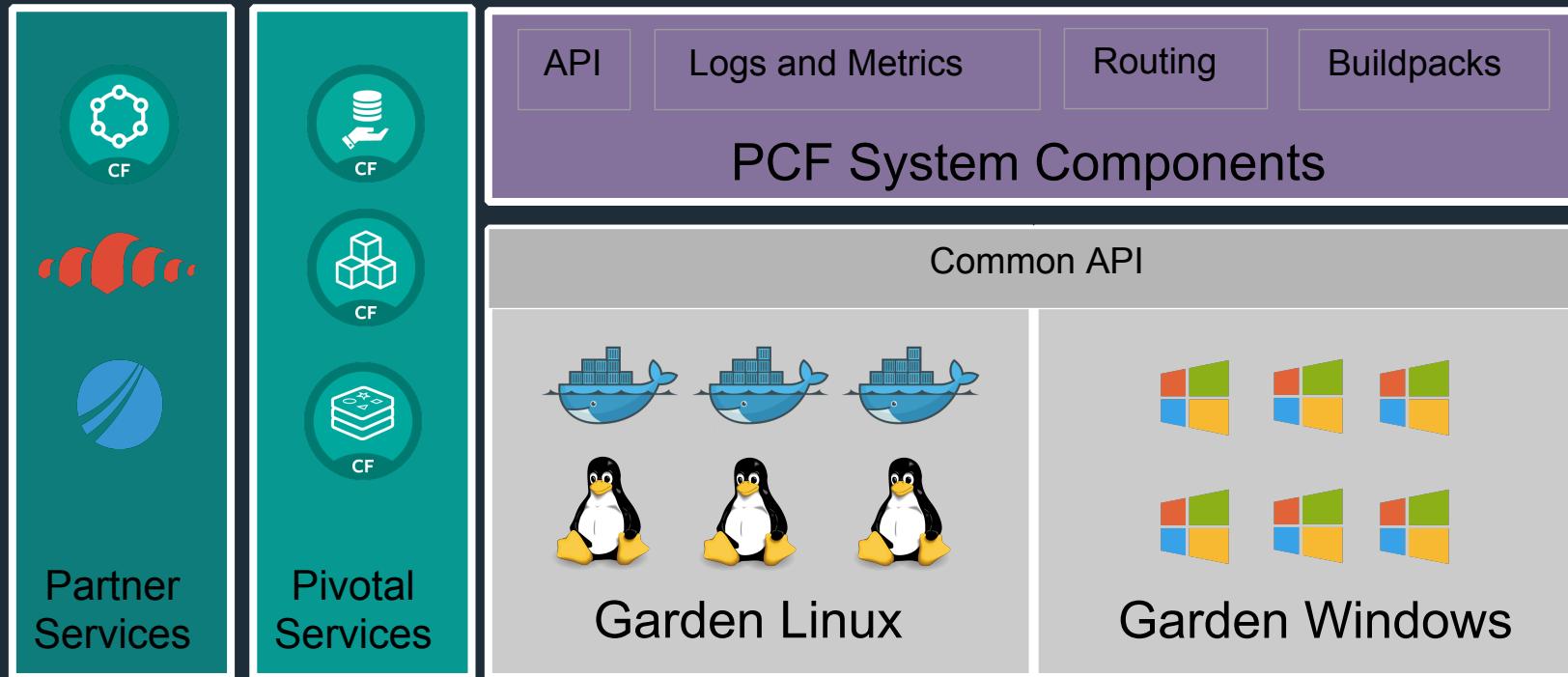
Two Types of Services



- **Managed** - Fully integrated, with full lifecycle management
- **User-Provided** – Created and managed external to the platform

PCF – Functional Architecture

Single Platform and API for multiple Cloud Native workloads



Pivotal Cloud Foundry Services

Mobile



App Distribution



Push Notifications

Security



Single Sign-on

Data



Redis



DataStax
Cassandra



MySQL



RabbitMQ



Data Flow



PivotalHD



Session state
caching



GemFire

CI/CD



Git Lab



Jenkins
Enterprise

Monitoring



App
Dynamics



New Relic

Cloud Native



Config
Server



Service
Directory



Circuit
Breaker



Powered by

Pivotal™

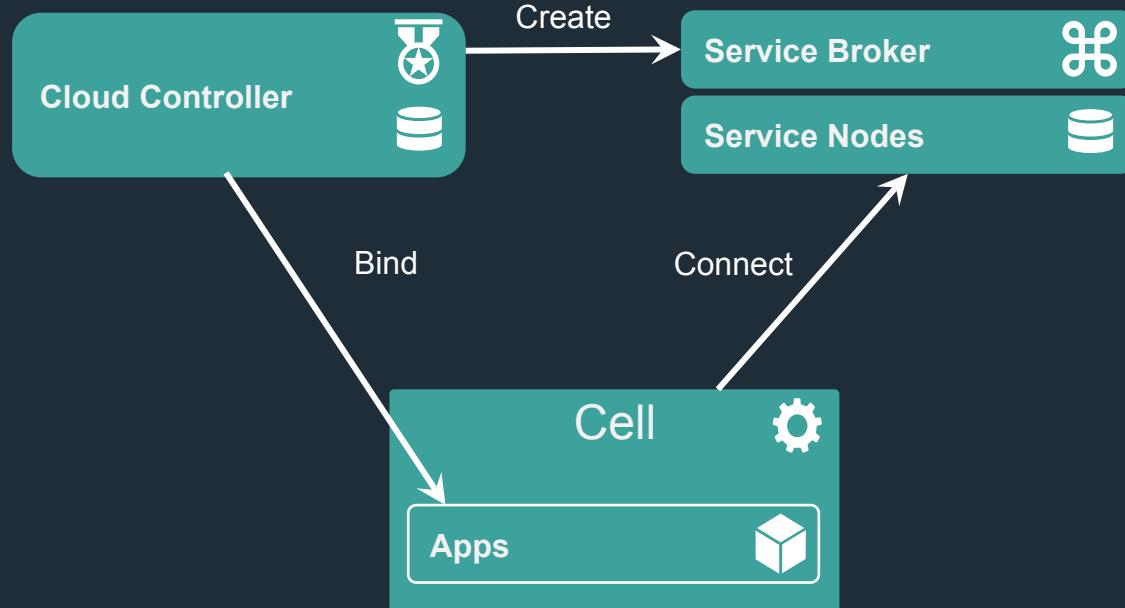


DEMO

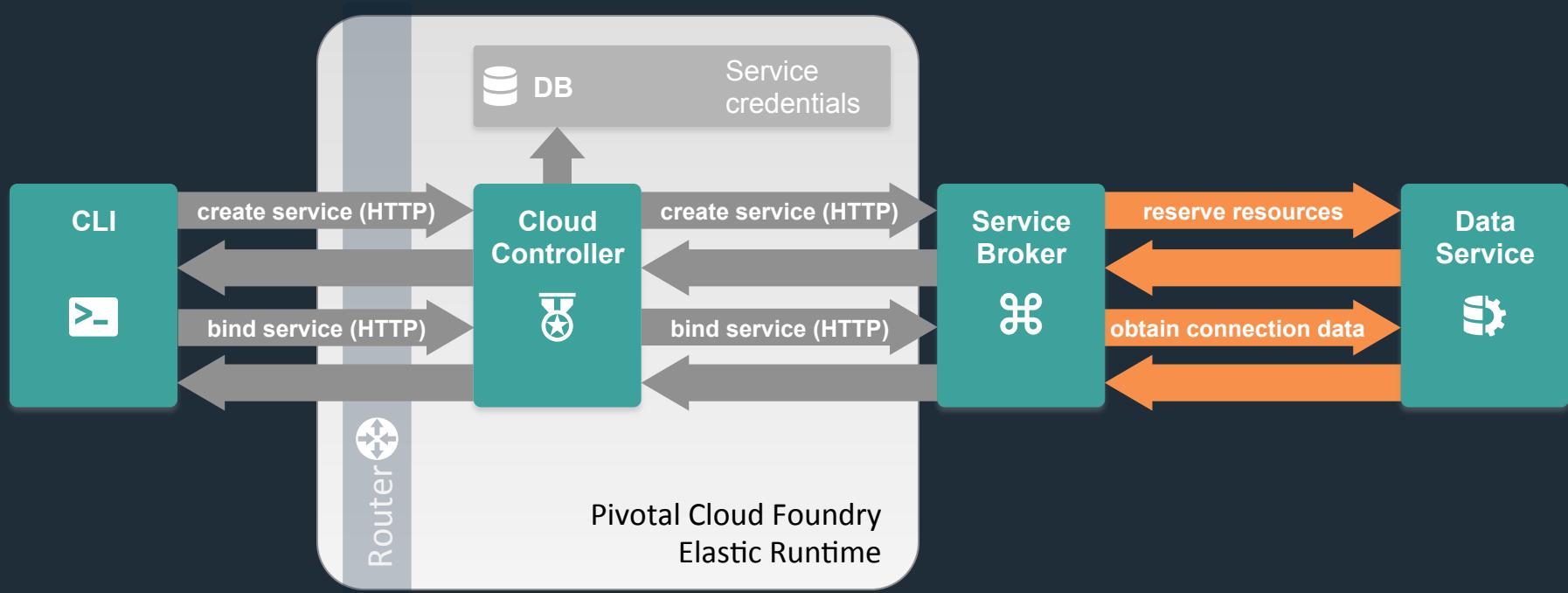
CF

Service Broker

- Flexible, RESTful API
- Allows Service Authors to provide self-provisioning Services to developers



Creating and Binding a Service



Pivotal Cloud Foundry Services



- Operated ‘as a Service’
- Configured and integrated to enable push button deployment
- Full lifecycle management - software updates and patching
- Bind to apps through an easy-to-use interface
- Common view into access control and audit trails across a breadth of services

PCF Marketplace

- Broad Services Ecosystem
- Easy accessibility
- Quick, self-provisioning

The screenshot displays the Pivotal CF Marketplace interface. At the top, there's a navigation bar with links like "Dashboard", "Logs", "Data", "Build", "Metrics", "Tracing", "Details", "Google", "Home", "Timeline", "Streams", "UI", "PivotalCF", "CloudBees", "Cloud Foundry", "PCF", "Pivotal", "Pivotal CF", "Pivotal Data", "Pivotal Cloud Foundry", "Pivotal Data Center", "Pivotal Data Center Load Balancer", "Pivotal Data Center IP Address", "Pivotal Data Center Metrics", "Pivotal Data Center Notifications", "Pivotal Data Center Object Store", "Pivotal Data Center Applications", and "Pivotal Data Center Metrics". Below the navigation is a sidebar with sections such as "Available", "Upgrades", "Logs", "Metrics", "Tracing", "Build", "Data", "CloudBees", "Cloud Foundry", "PCF", "Pivotal", "Pivotal CF", "Pivotal Data", "Pivotal Cloud Foundry", "Pivotal Data Center", "Pivotal Data Center Load Balancer", "Pivotal Data Center IP Address", "Pivotal Data Center Metrics", "Pivotal Data Center Notifications", "Pivotal Data Center Object Store", and "Pivotal Data Center Applications".

Services Marketplace

Get started with our marketplace services. Upgrade to give access to premium service plans.

Service	Description
Search	Zookeeper search & control
Blastfaster	The faster load testing cloud
Redis Cloud	Enterprise Cloud Redis for Developers
ClearDB MySQL Database	High availability MySQL from MySQL
CloudAMQP	Manage your RabbitMQ servers in the cloud
ElephantSQL	Premium PostgreSQL as a Service
Sendgrid	Email delivery, simplified.
Hazelcast	Manage your Hazelcast as a Service
New Relic	Manage and monitor your apps
Load Impact	Test your web application with real-world performance testing
Memcached	The fastest memcached for developers
Search Elasticsearch	Search Made Simple. Powered by Elasticsearch
CloseForge	Development Tools in the Cloud
IronMQ	Powerful durable Message Queuing Service
PubNub	Build Real-time Apps that Scale
CloudBees Jenkins	Open Jenkins Cloud Bees Jenkins
Codebees Jenkins	Open Jenkins Cloud Bees Jenkins
IronWorker	Scalable Management and Agile Processing
CloudBees Radar	Cloud Bees Radar Mobile App Performance Reports
Statica	Enterprise Static IP Addresses
Scalate	AI Configuration Platform

Pivotal CF Ops Manager

Available Products

Product	Version
Ops Manager Director	No upgrades available
Spring XD for Pivotal CF	No upgrades available
Pivotal Elastic Runtime	No upgrades available
Docker	0.0.0.19
Pivotal RabbitMQ	1.3.6.0
MongoDB for Pivotal CF	1.3.2.0
Jenkins Enterprise by CloudBees for Pivotal CF	No upgrades available

Installation Dash

Service	Version
vcloud Hybrid Service	v1.3.2.0
Spring XD for Pivotal CF	v1.0
Pivotal Elastic Runtime	v1.3.2.0
Pivotal RabbitMQ for Pivotal CF	v1.3.4.0
Jenkins Enterprise by CloudBees for Pivotal CF	v1.3.8.3
Pivotal Redis	v1.4.1.0

BDS Vision: Make all data products cloud-ready.

Open.
Agile.
Cloud-ready.

Pivotal BDS on PCF

- ✓ **Production:** RabbitMQ, Redis, GemFire/Geode
- ✓ **Beta:** PivotalHD (includes HAWQ), Data Flow

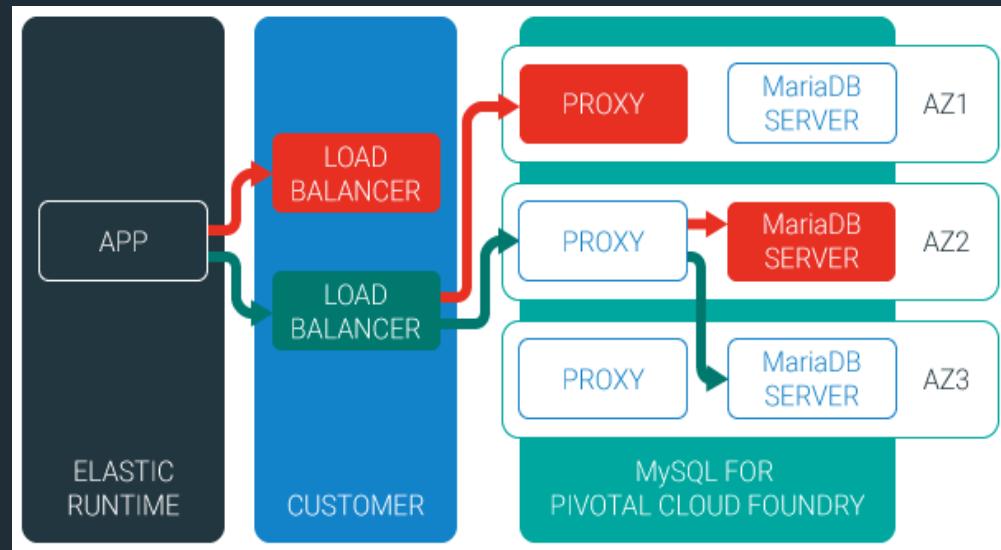




MySQL for Pivotal Cloud Foundry

Relational Database as a Service for Your Applications

- Minimized effort to create, configure, and manage a MySQL cluster
- Multi-node cluster
- Data replication across nodes
- Failover functionality ensures app traffic only routed to healthy nodes

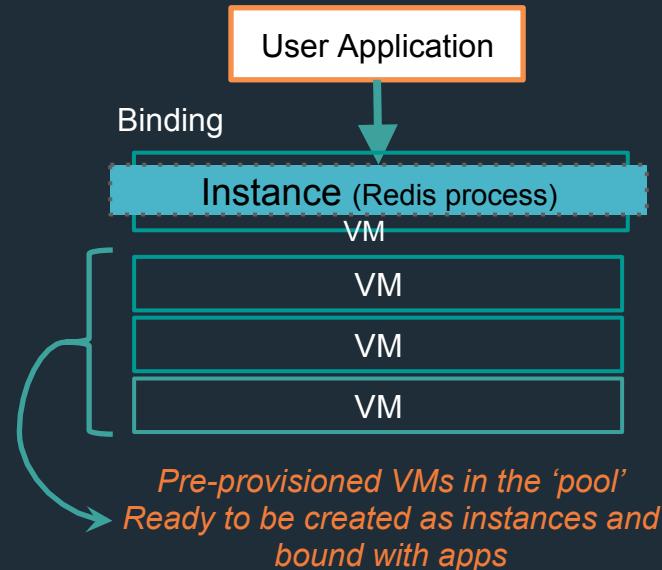




Redis for Pivotal Cloud Foundry

Advanced Key-Value Store and Cache as a Service

- Pre-provision a pool of Redis VMs
- Supports persistence to disk
- Consolidated logging and monitoring
- VM health monitoring, and recovery

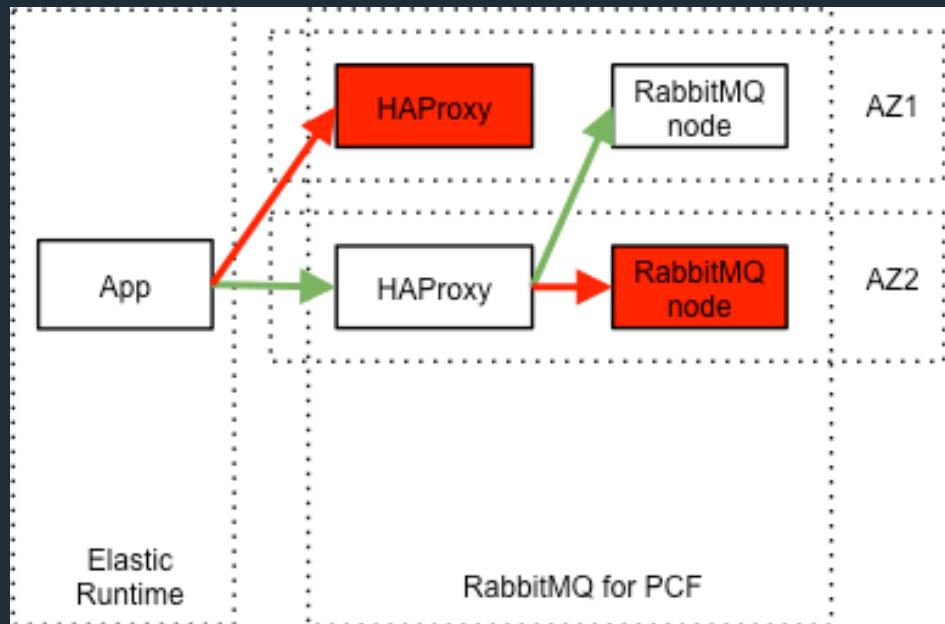




RabbitMQ for Pivotal Cloud Foundry

Apps safely send and receive messages at scale

- Messaging broker for communication between servers, applications and devices
- Highly available queues, flexible routing, support for multiple protocols and client libraries
- Wide range of client libraries, in all languages
- Push button deployment and upgrades of a RabbitMQ Cluster





Session State Caching (SSC) by GemFire

- Configure, manage, monitor, and consume GemFire in a client/server topology
- A turn-key GemFire session replication cache service optimized for Java buildpack apps deployed in Tomcat
 - No need to modify your app
 - Tomcat from the java buildpack “knows” how to use the service
 - GemFire pre-configured for session replication
- Session state management independent from app servers
 - App servers can come and go without affecting session lifetime
 - Not affected by load balancing

Diversity of clients, more load

In January 2014, mobile devices accounted for 55% of Internet usage in the United States. Apps made up 47% of Internet traffic and 8% of traffic came from mobile browsers.



<http://money.cnn.com/2014/02/28/technology/mobile/mobile-apps-internet/>

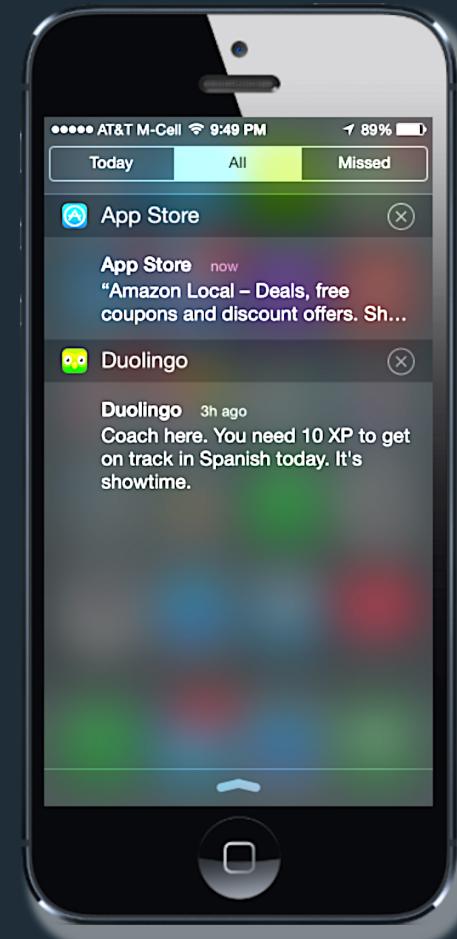
Push Notifications

Problem

- Push is difficult to implement across platforms and at scale
- Most existing push solutions are public / shared
- Data owned by SaaS provider and cannot be fully leveraged by enterprise
- Difficult to integrate SaaS push providers with services behind the firewall

Solution / Benefits

- Dedicated, comprehensive solution built to scale
- Full control of data and comprehensive logging / tracing
- Direct integration with enterprise services



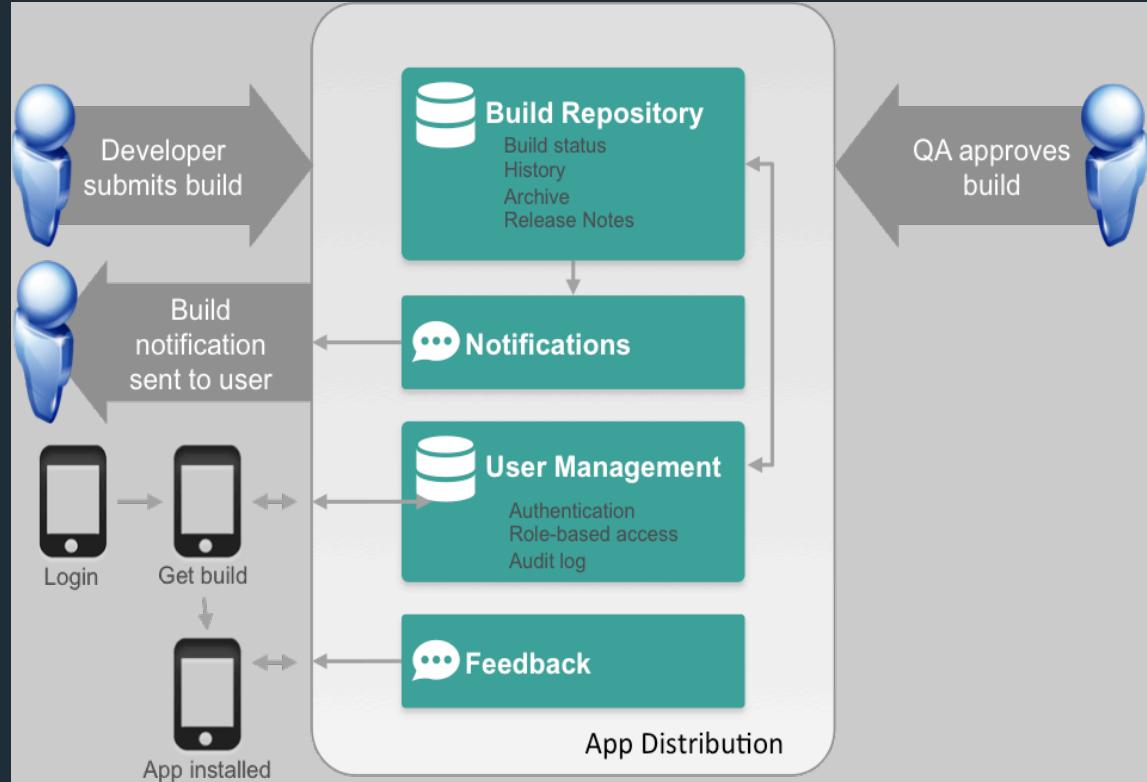
App Distribution

Problem

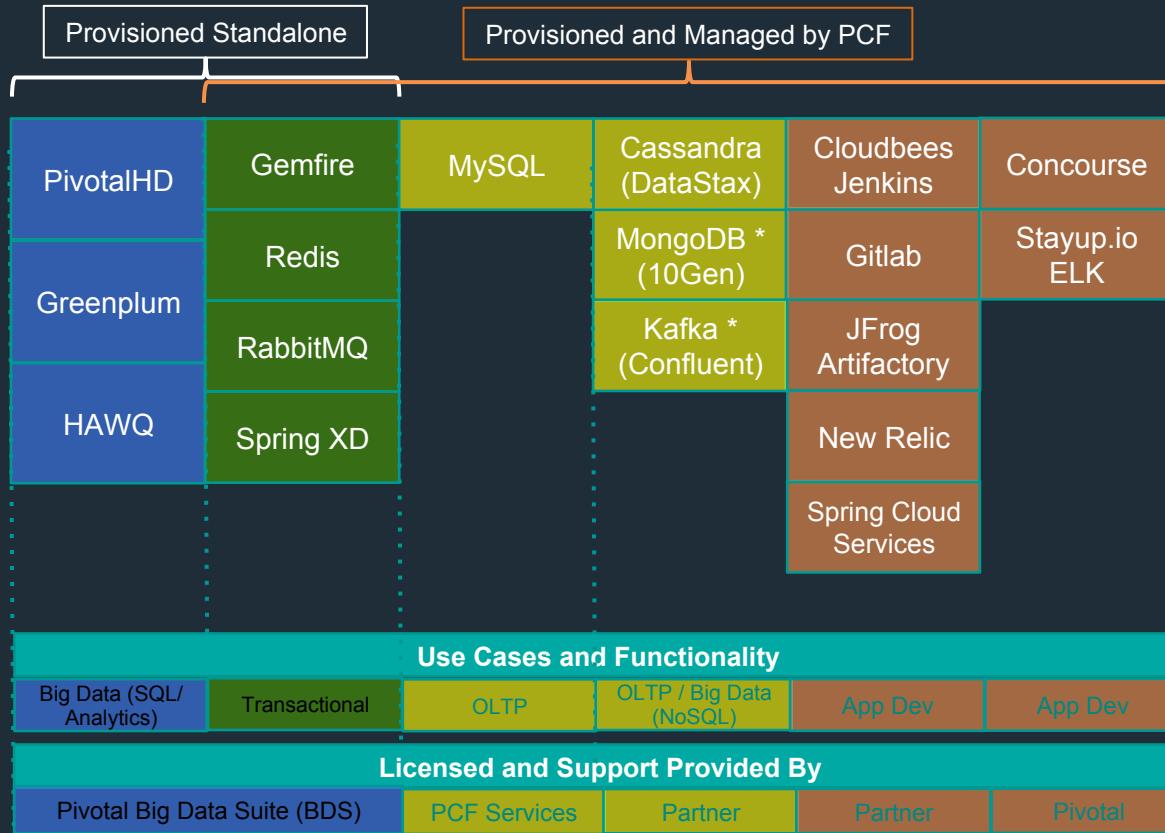
- Extensive user testing of apps is critical to success
- Difficult to distribute pre-release apps to test users
- Existing solutions are public cloud

Solution / Benefits

- Easy OTA app distribution
- User / team management
- Supports all major platforms
- Private cloud for management



Data and Services – Pivotal Cloud Foundry and Big Data Suite



Pivotal

BUILT FOR THE SPEED OF BUSINESS