

Pivotal



Pivotal Cloud Foundry

Services Overview

Pivotal

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



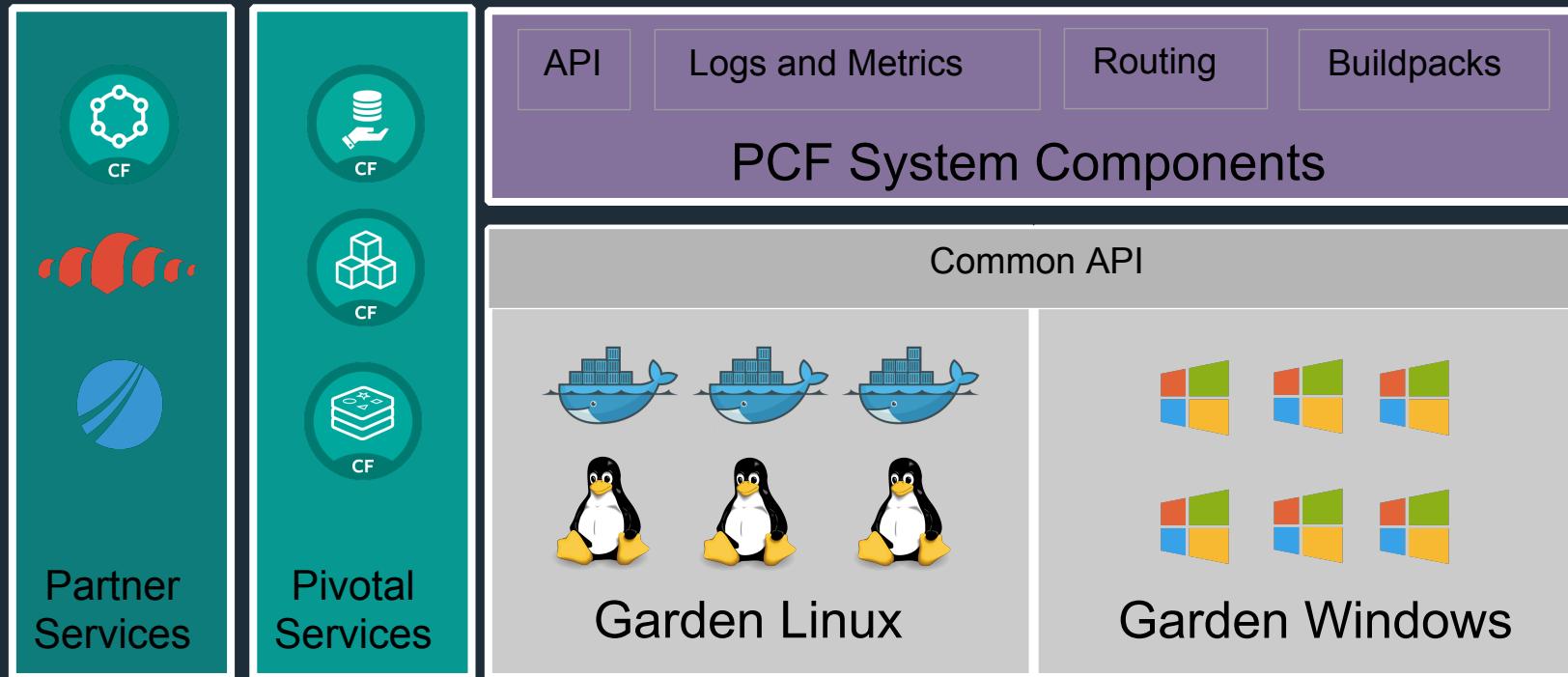
Two Types of Services



- **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™

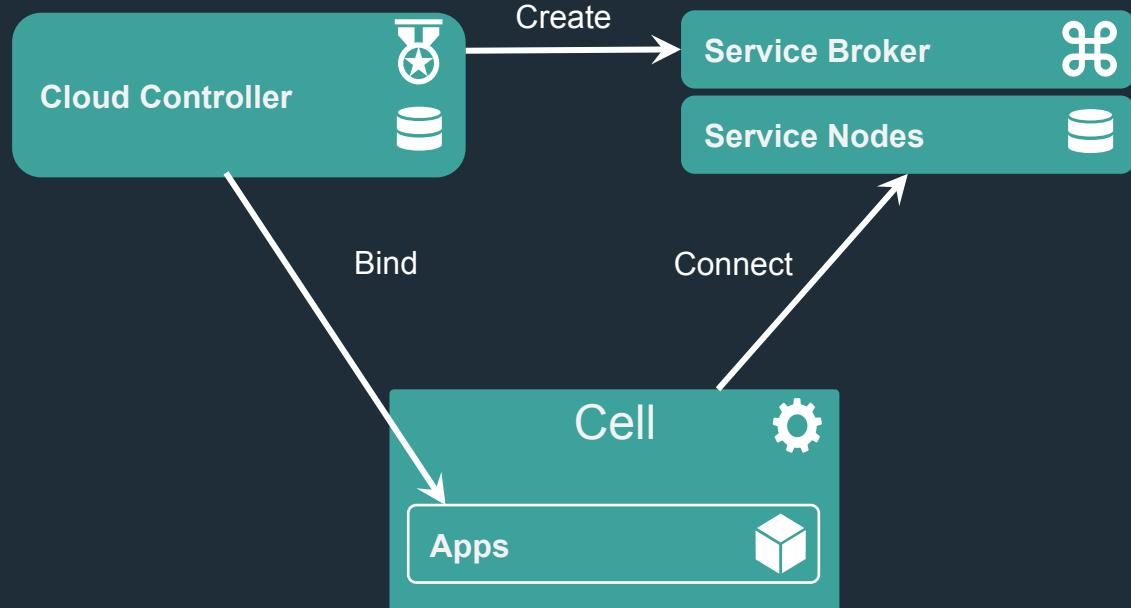


DEMO

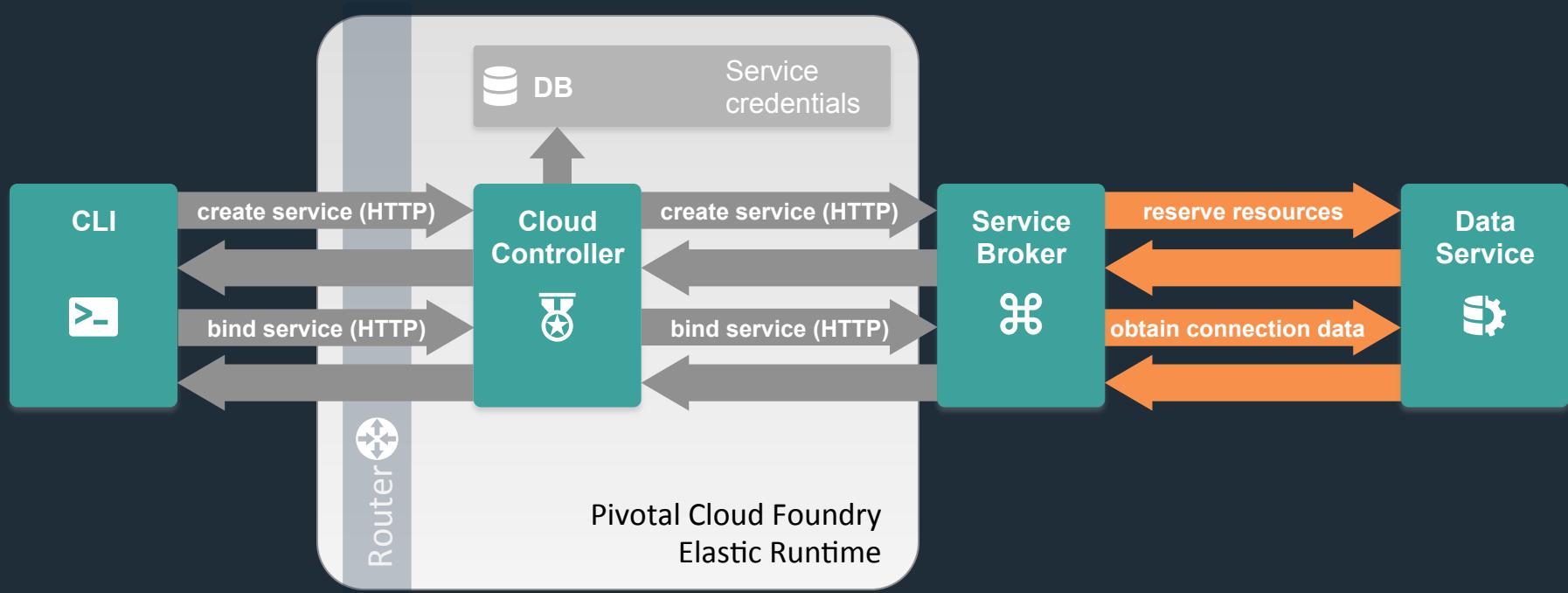
CF

Service Broker

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



Creating and Binding a Service



PCF Marketplace

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

The screenshot displays two main interfaces related to the Pivotal CF Marketplace:

- Services Marketplace:** A grid of service icons and names. Some visible services include:
 - API Gateway for Pivotal CF
 - Data Sync for Pivotal CF
 - Blastfaster
 - Redis Cloud
 - CloudAMQP
 - ElephantSQL
 - Sendgrid
 - Hazelcast
 - New Relic
 - Load Impact
 - Memcached
 - Search Elasticsearch
 - CloseForge
 - IronWorker
 - Apache Kafka
 - PubNub
 - Codecademy OpenShift
 - Statica
 - Scalr
- Pivotal CF Ops Manager:** A dashboard showing available products and their versions. The available products listed are:
 - Ops Manager Director
 - Spring XD for Pivotal CF
 - Pivotal Elastic Runtime
 - Docker
 - Pivotal RabbitMQ
 - MongoDB for Pivotal CF
 - Jenkins Enterprise by CloudBees for Pivotal CFEach product entry includes a green progress bar indicating its status.

Pivotal™

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

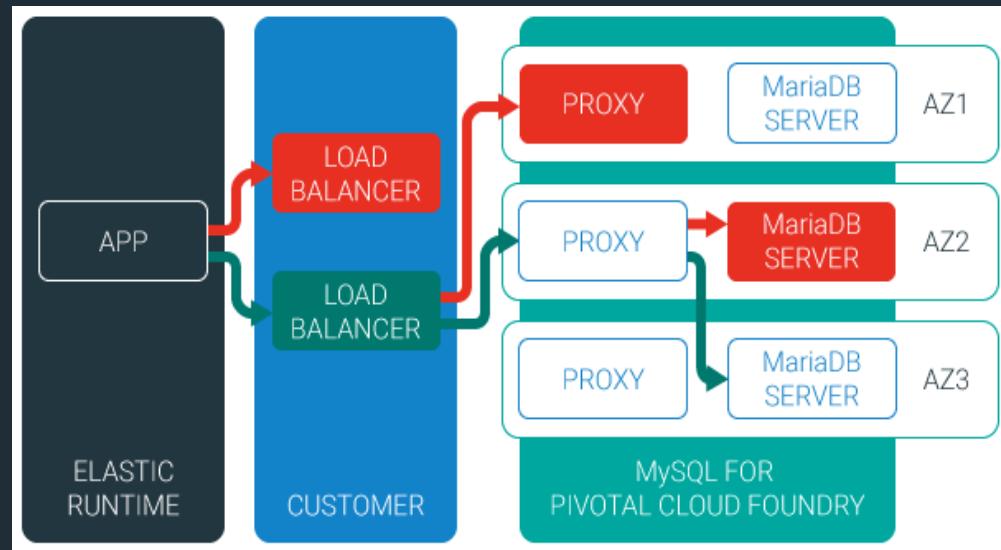




MySQL for Pivotal Cloud Foundry

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

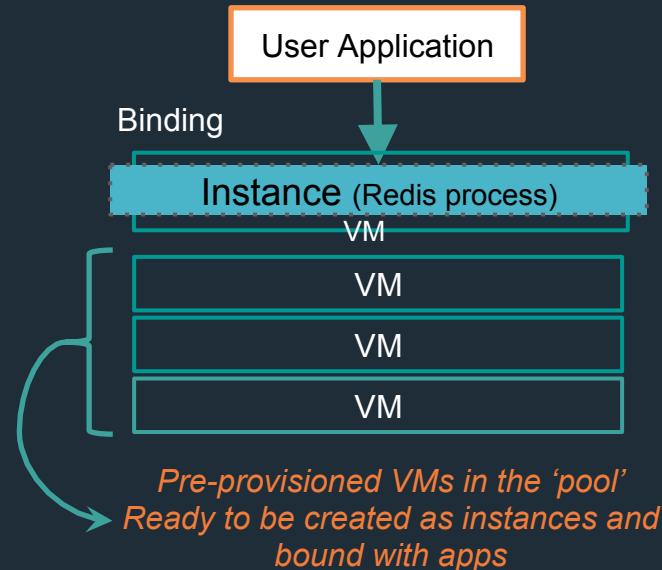




Redis for Pivotal Cloud Foundry

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

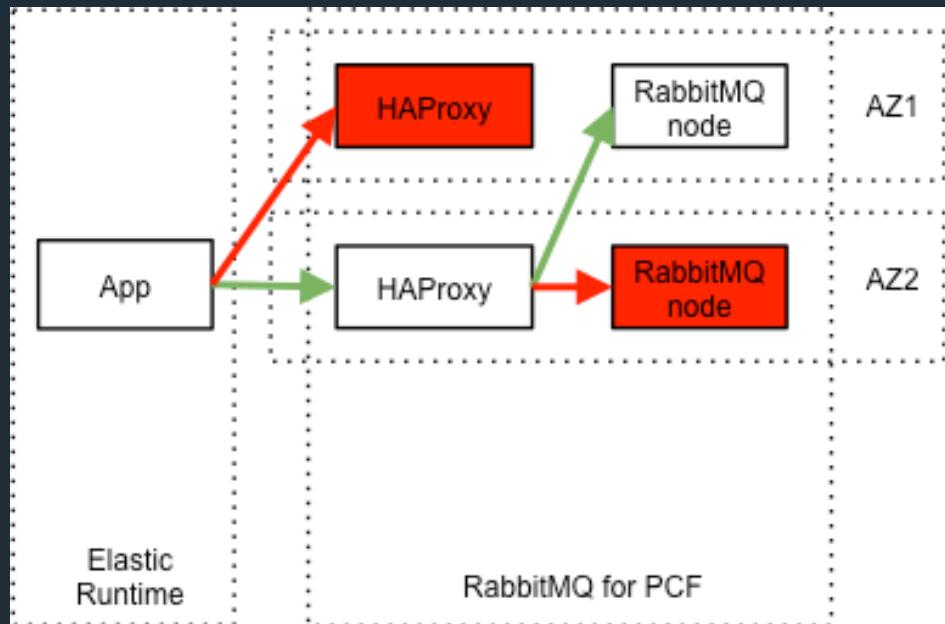




RabbitMQ for Pivotal Cloud Foundry

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/>

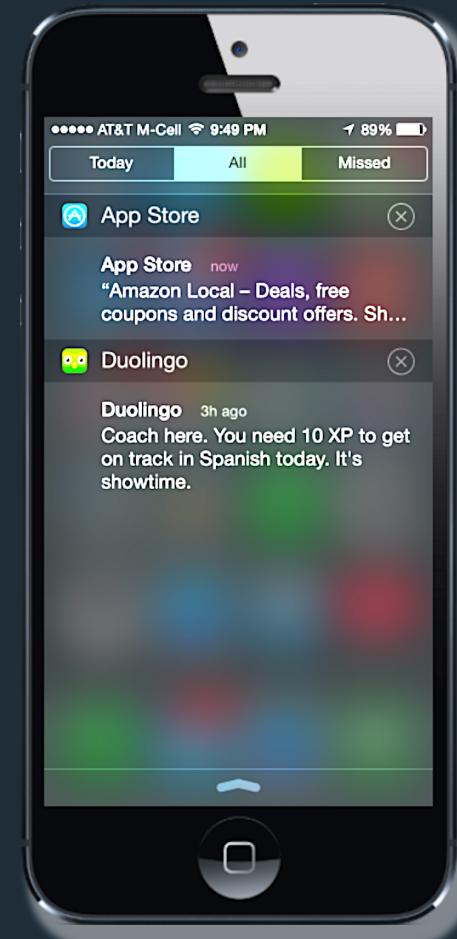
Push Notifications

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



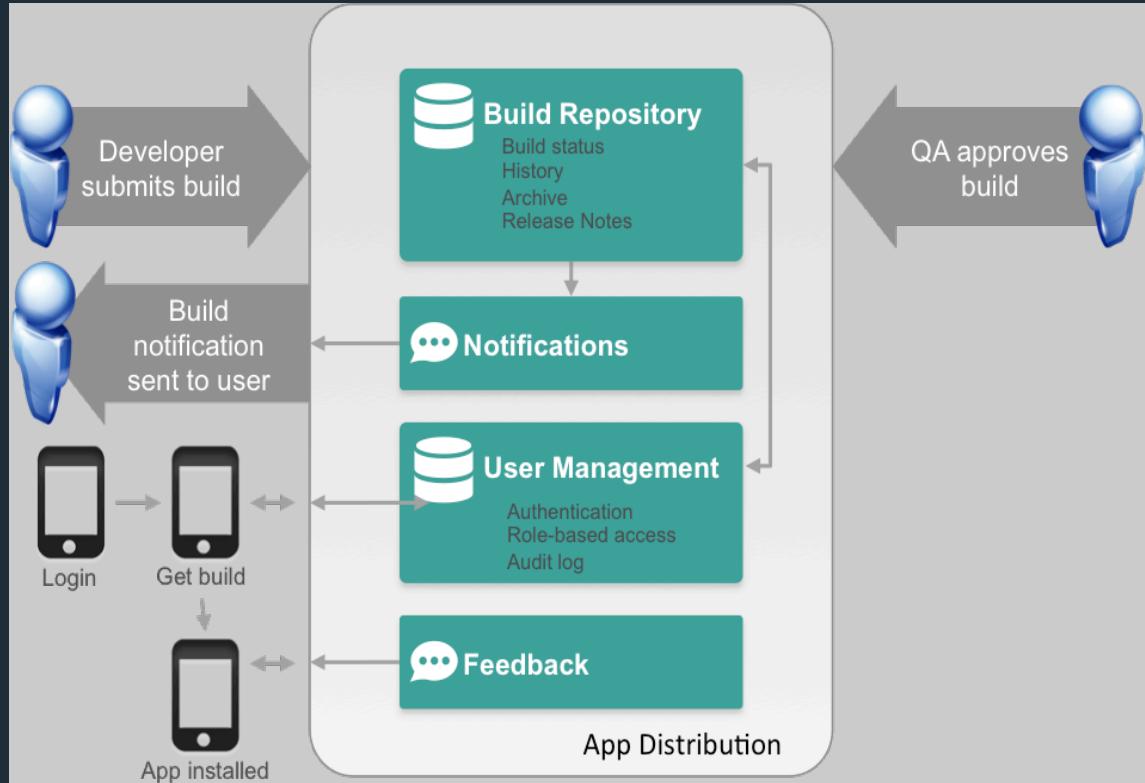
App Distribution

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



Pivotal

BUILT FOR THE SPEED OF BUSINESS