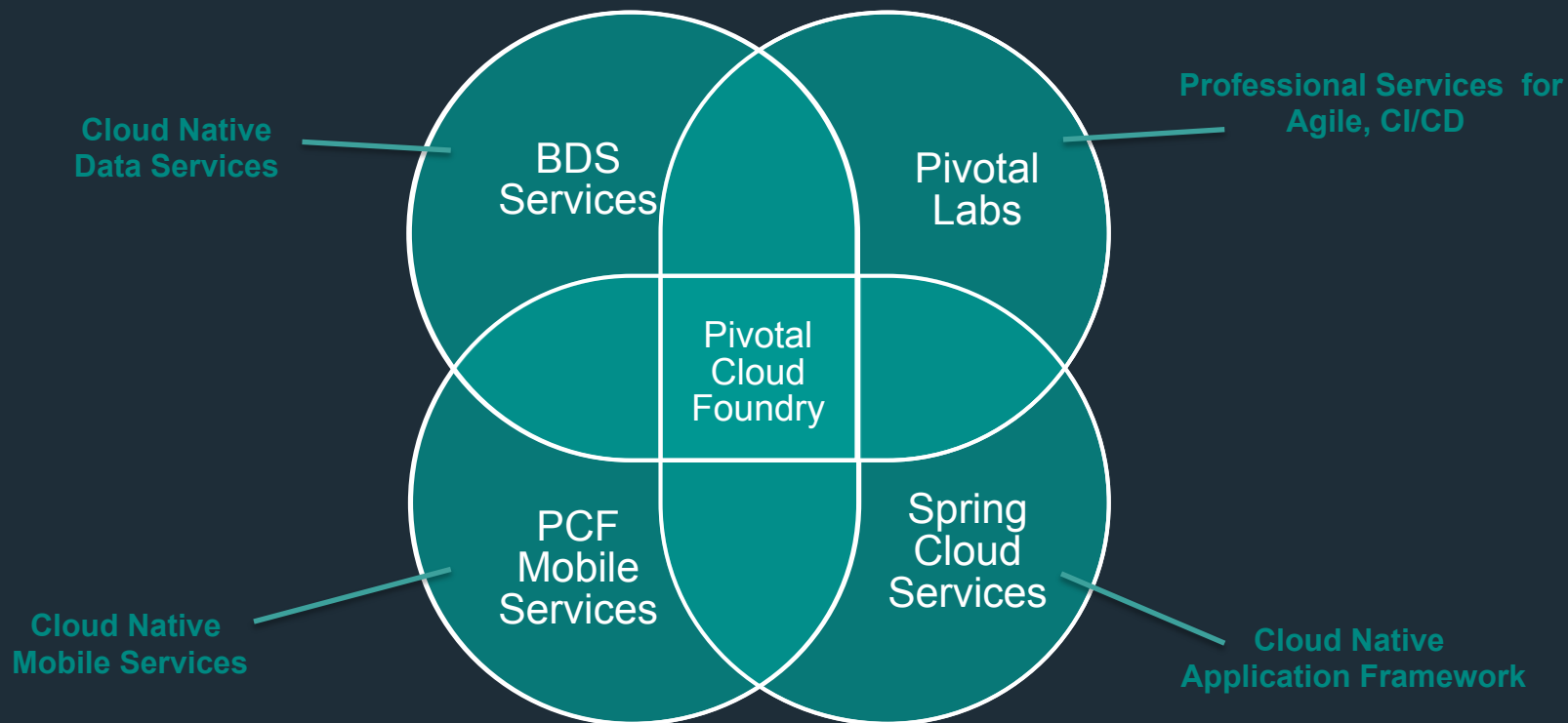


Pivotal Cloud Foundry

Services

Cloud Native Application Platform - Services



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

Pivotal Cloud Foundry Services

Built-In



Single Sign-on



Push Notification



App Distribution

Data



Redis



MySQL



Session state caching



DataStax
Cassandra



GemFire



RabbitMQ

CI/CD

Jfrog
Artifactory



Jenkins
Enterprise

GitLab Git

Spring Cloud



Config
Server



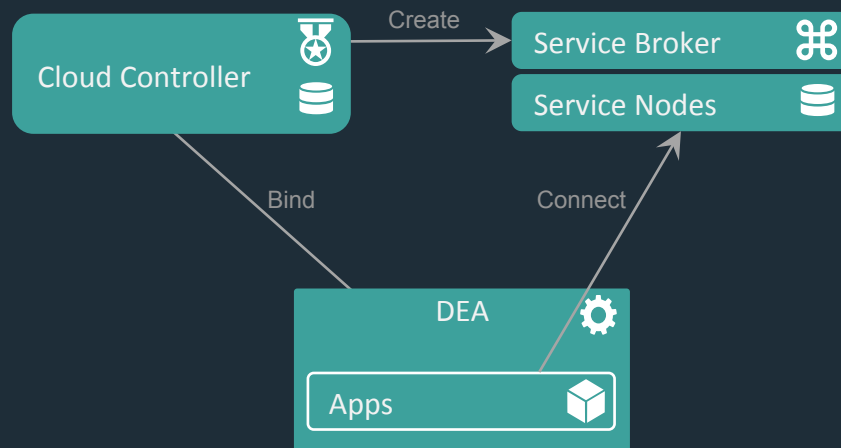
Service
Directory



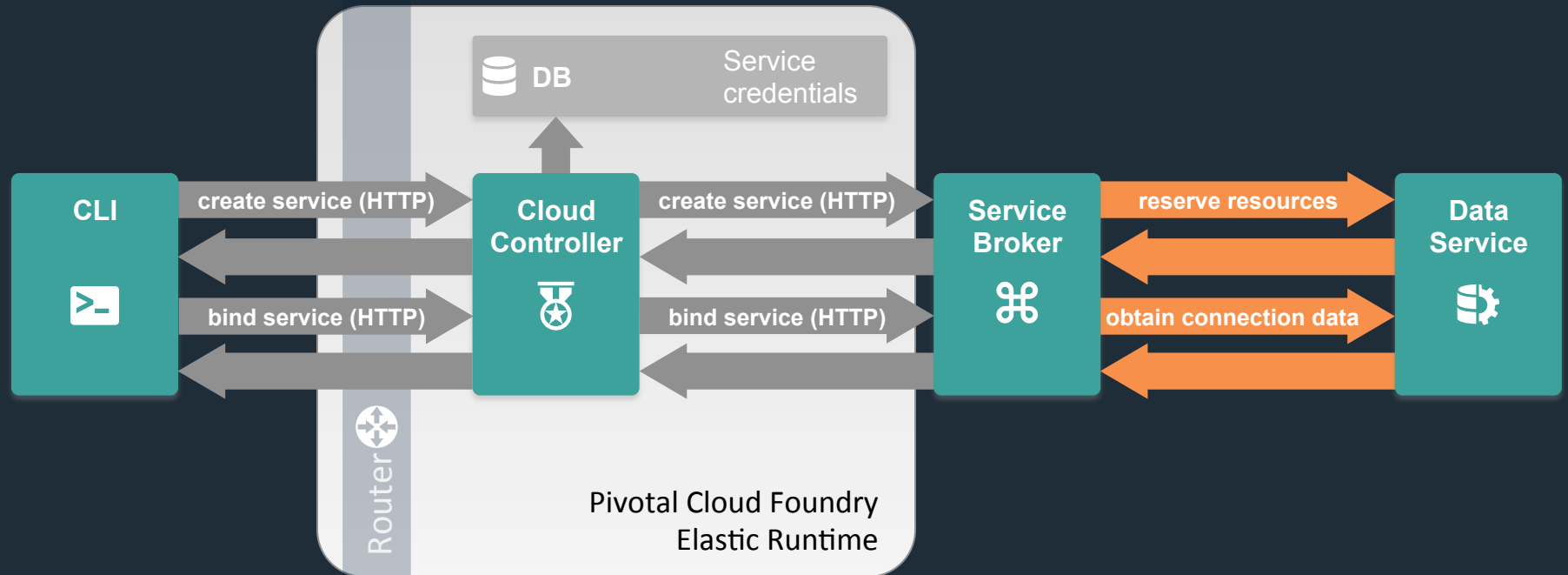
Circuit
Breaker

Service Broker

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



Creating and Binding a Service



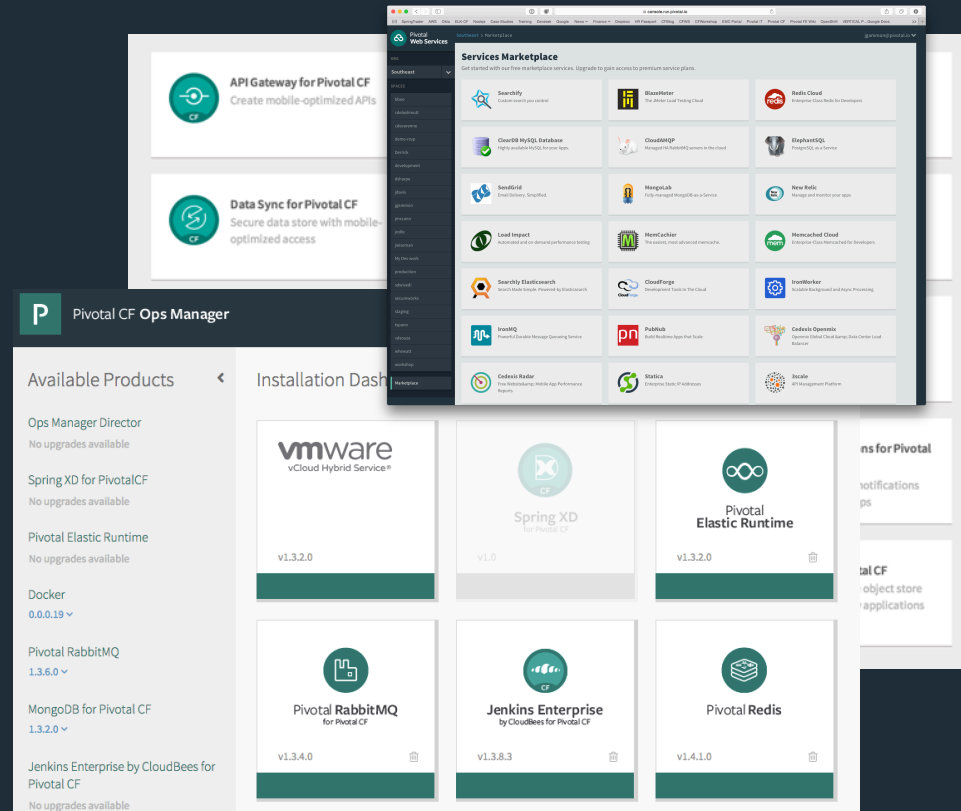
Pivotal Cloud Foundry Services



- 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

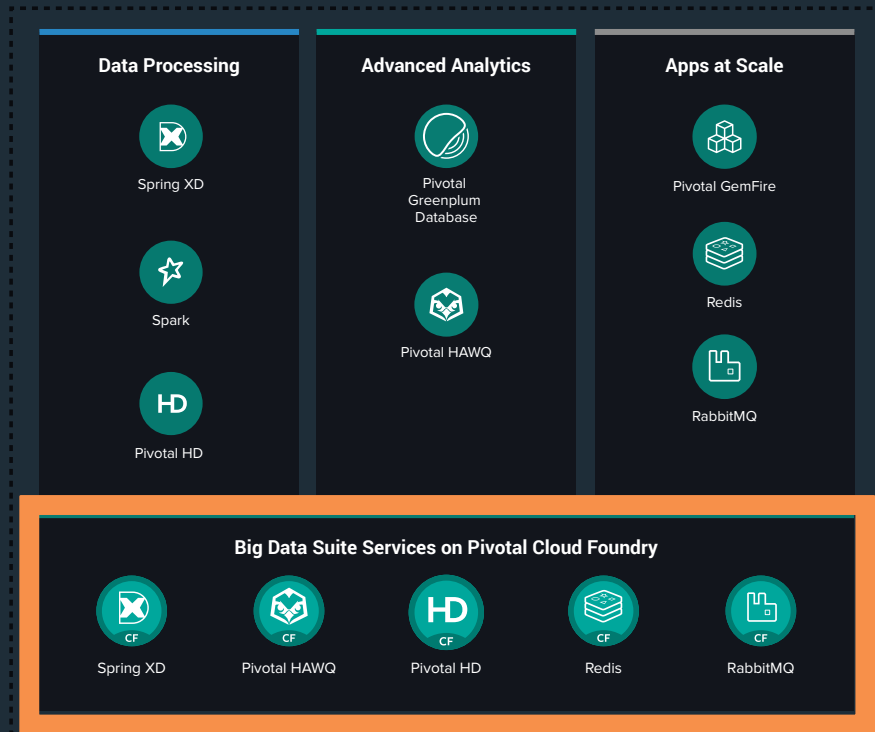


BDS Vision: Make all data products cloud-ready.

Open.
Agile.
Cloud-ready.

Pivotal BDS on PCF

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

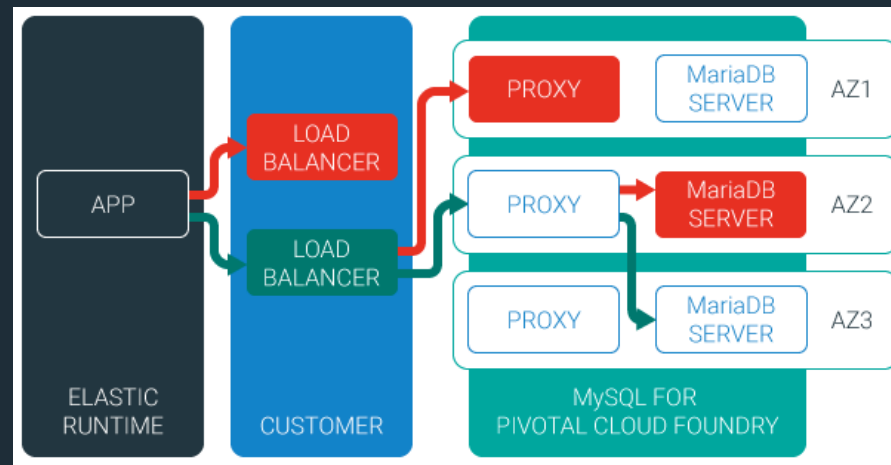


MySQL for Pivotal Cloud Foundry

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

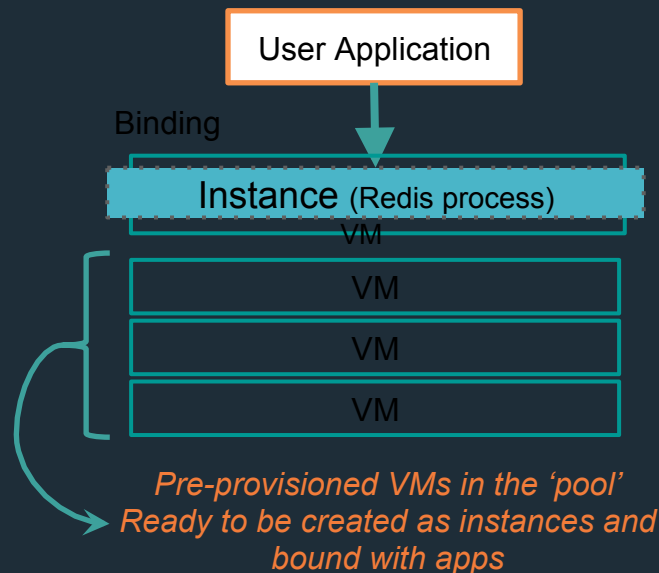




Redis for Pivotal Cloud Foundry

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

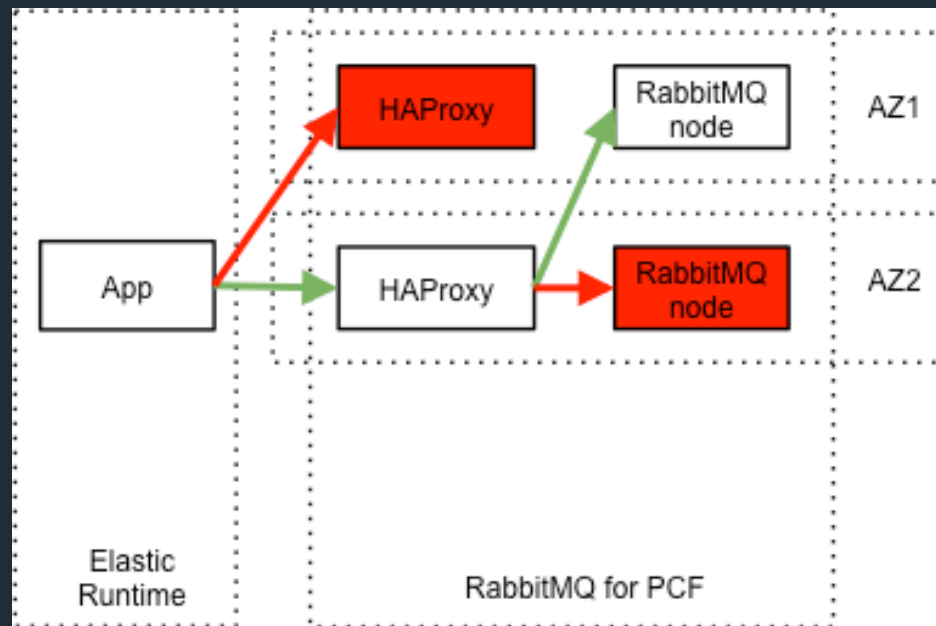


RabbitMQ for Pivotal Cloud Foundry

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



Mobile Services

Diversity of clients, more load

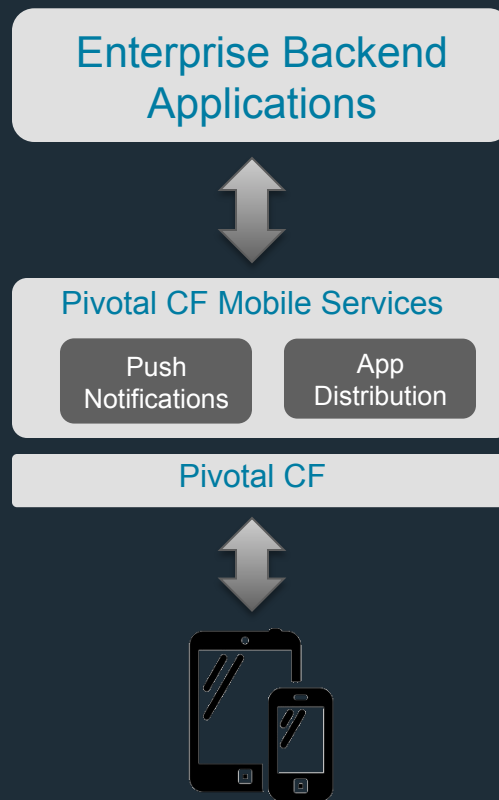
In January 2014, mobile devices accounted for 55% of Internet usage in the United States. Apps made up 47% of Internet traffic and 8% of traffic came from mobile browsers.



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

Pivotal CF Mobile Services

- Consumer-grade, mobile backend services built for the enterprise
- Included in Elastic Runtime Service



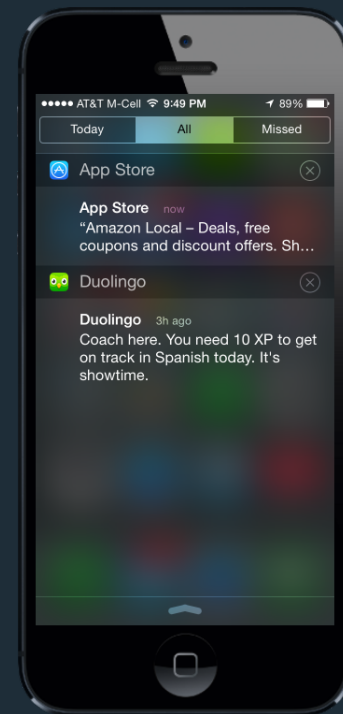
Push Notifications

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 control / security

