

A faded, blue-tinted background image of the Golden Gate Bridge spanning the water, with its iconic towers and suspension cables visible.

Pivotal

PCF Operations Workshop – Service Overview

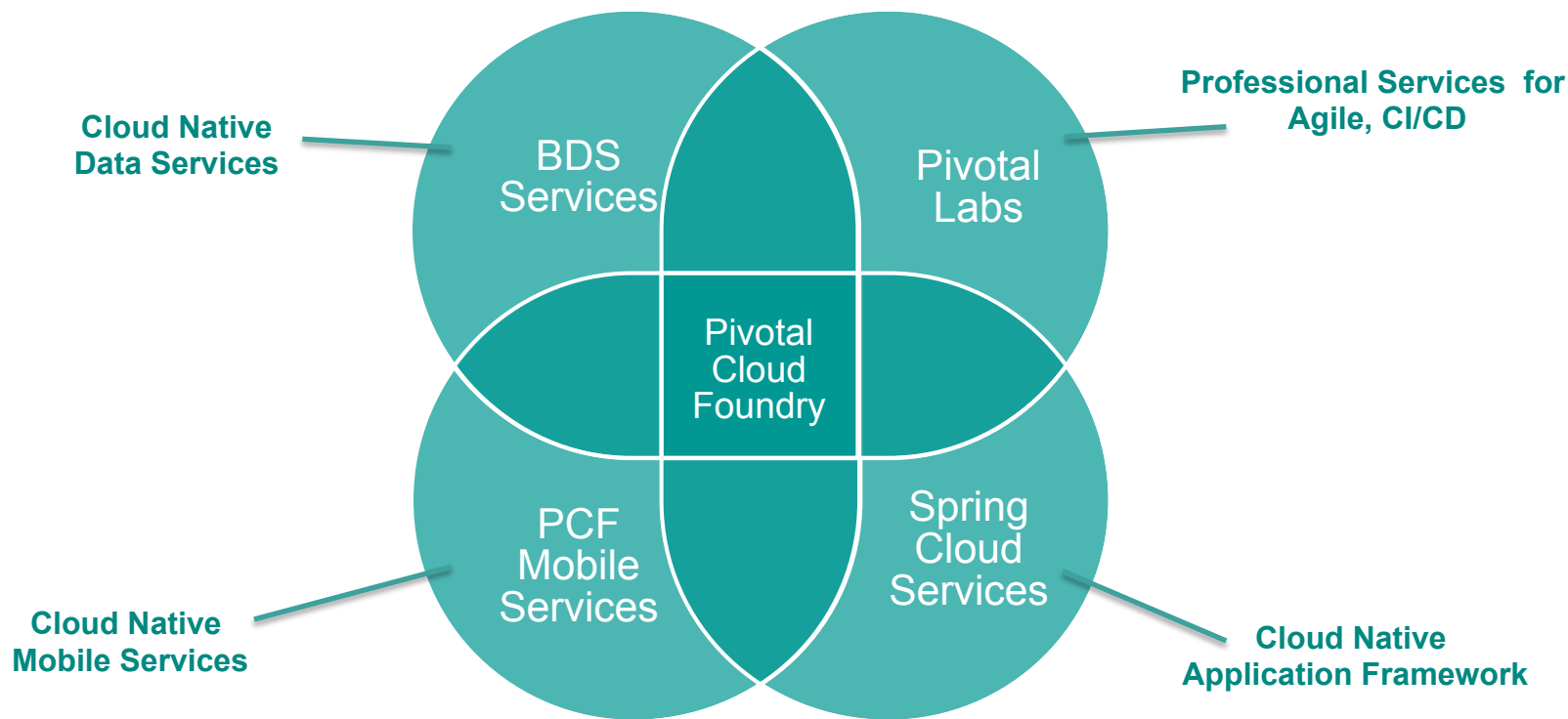
Dan Herold – Platform Architect

Nenad Momcilovic – Platform Architect

Operations Workshop Agenda

- PCF Introduction
- **Services Overview**
- Platform Installation & Setup
- Role Based Access Control
- Platform & Application Scaling
- Platform & Application Health
- Patching & Upgrades
- Authentication and Authorization
- Advanced BOSH

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

Mobile



CF

API
Gateway



CF

Push
Notification



CF

Data Sync



CF

App
Distribution

Data



CF

Redis



CF

MySQL



CF

Session
state
caching



CF

Neo4j



CF

DataStax
Cassandra



CF

GemFire



CF

PivotalHD



CF

MongoDB

Other



CF

RabbitMQ



CF

Jenkins
Enterprise



CF

Spring XD



CF

Single Sign-
on

Spring Cloud



CF

Config
Server



CF

Service
Directory

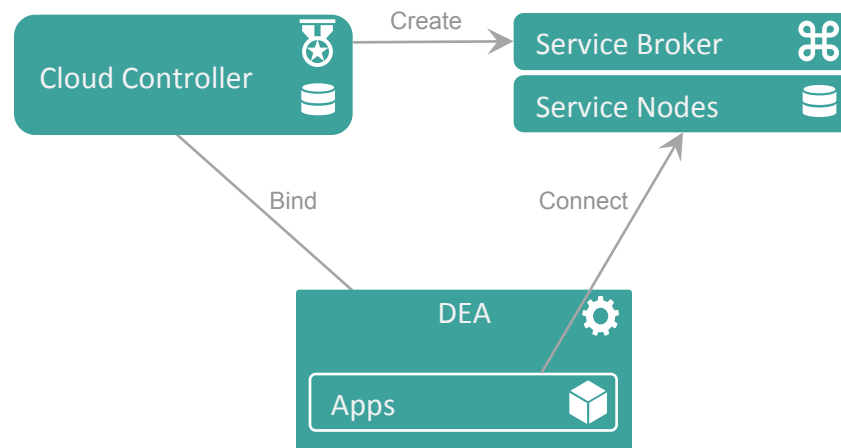


CF

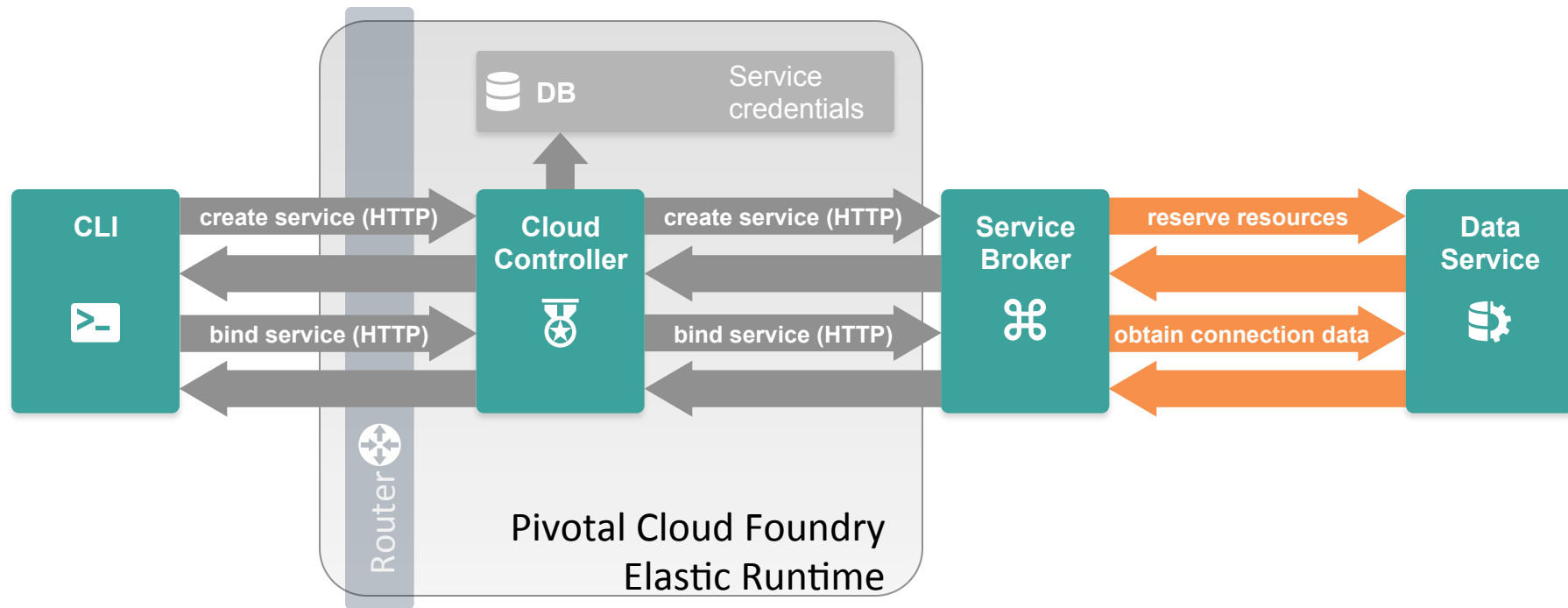
Circuit
Breaker

Service Broker

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



Creating and Binding a Service



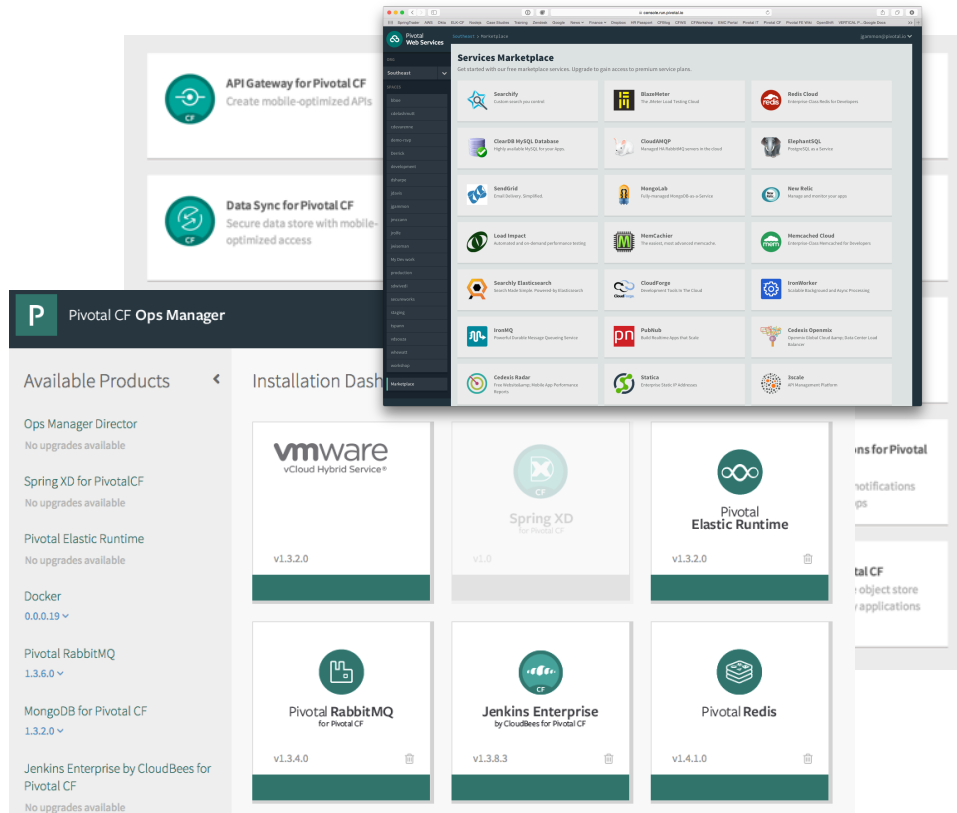
Pivotal Cloud Foundry Services



- 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

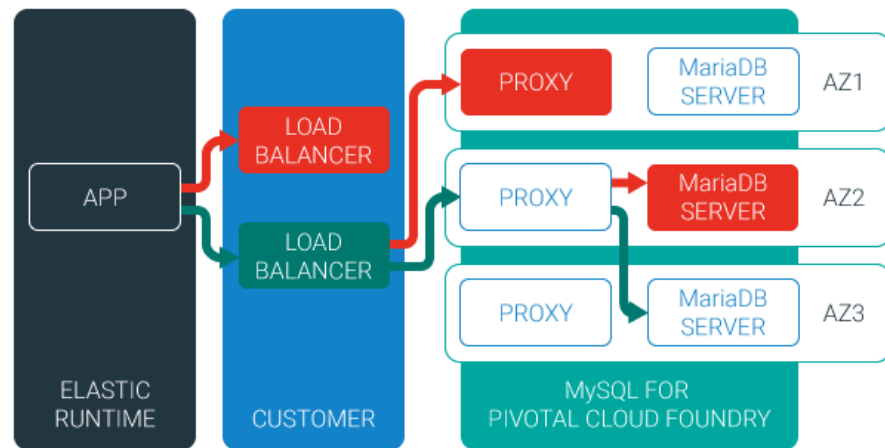




MySQL for Pivotal Cloud Foundry

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

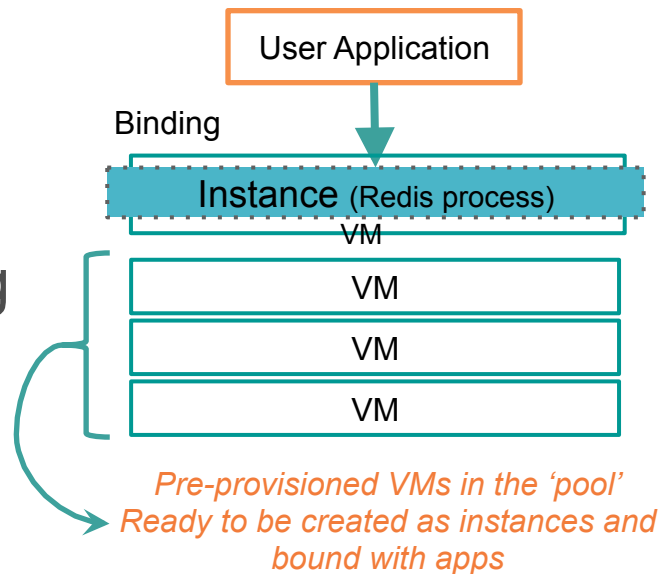
Advanced Key-Value Store and Cache as a Service

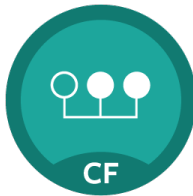
Pre-provision a pool of Redis VMs

Supports persistence to disk

Consolidated logging and monitoring

VM health monitoring, and recovery





Session State Caching (SSC) by GemFire

Another advanced Key-Value Store and Cache as a Service, for managing Sessions

- 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



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

