



Damian O'Connor & Ben Lackey

Running DataStax Enterprise Production-Certified Apache Cassandra on Pivotal
Cloud Foundry

Pivotal Cloud Foundry

Applications/APIs/Microservices



Compiled, staged, containerized, deployed
and managed by platform
Java | .NET | Ruby | Node.js | Python | PHP | Go

Pre-packaged container
deployed and managed
by platform

PCF Elastic Runtime

Automated,
Polyglot
Build/Package/Dep
loy

Container
Scheduling

Elastic (Auto)Scale

Integrated
Logging/Metrics*
(Application & Platform)

Dynamic Routing &
Extensible Route
Services

Dev + Ops Role-
Based Self-Service
Access

Security
(Application & Platform)

Self-Healing &
High Availability
(Application & Platform)

Zero Downtime
Upgrades &
Patches
(Application & Platform)

PCF Tools

- Apps Manager UI (App Admin UI)
- CLI
- REST APIs
- PCF Metrics Dashboard

Ops Manager UI (Cloud Admin UI)

Cluster Orchestration and Management (BOSH)

Infrastructure Agnostic Software Packaging

Multi-Cloud Orchestration of Infrastructure Provisioning

Distributed Software Configuration and Health/Lifecycle Management

Infrastructure

VMware
(vSphere + Photon)

OpenStack

Microsoft
Azure

Google
Cloud Platform

Amazon
Web Services

BOSH Managed Services

MySQL

Gemfire

Redis

RabbitMQ

Spring Cloud
Services

Single
Sign On

Mobile Push
Notifications

mongoDB.

GitLab

Dingo
PostgreSQL

PIVOTAL

PARTNER

Brokered Services

Greenplum DB

HDB

...

dynatrace

New Relic.

apigee

APPDYNAMICS

EDB
POSTGRES

redislabs

...

Oracle DB

MS SQL Server

Active MQ

IBM DB/2

...

PIVOTAL

PARTNERED

USER PROVIDED

CASSANDRA
SUMMIT 2016

cf push
haiku

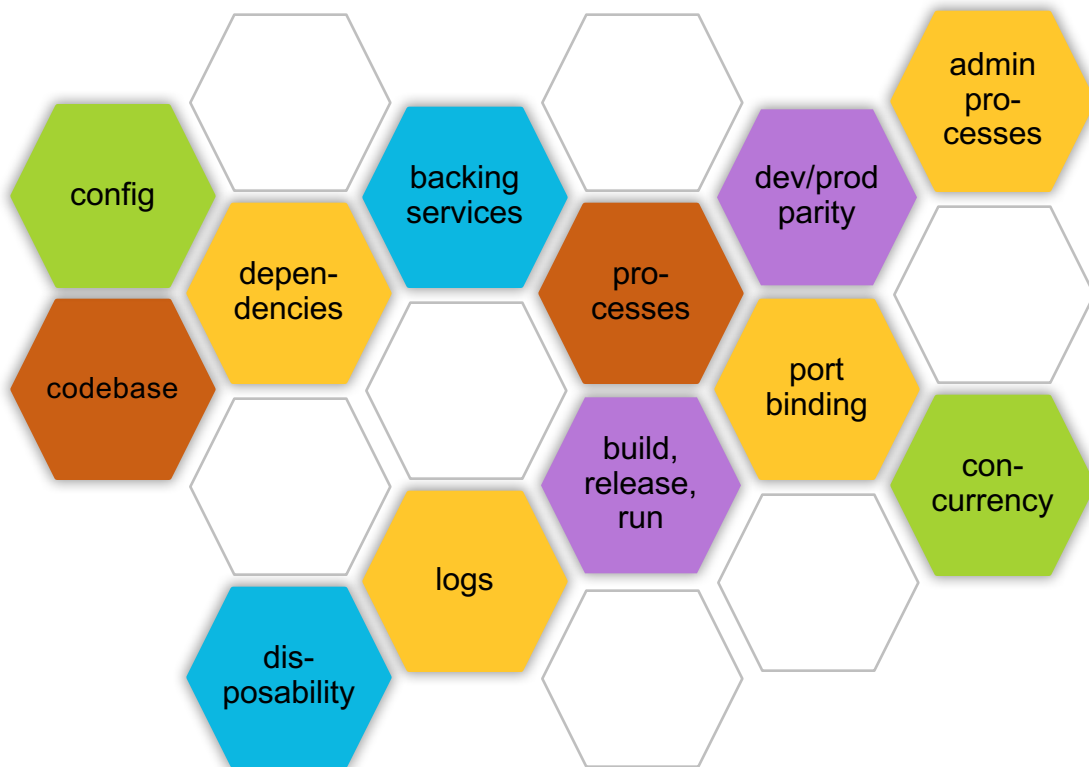
*“Here is my source code
Run it on the cloud for me
I do not care how”*

Onsi Fakhouri,
VP Engineering @ Pivotal Cloud Foundry



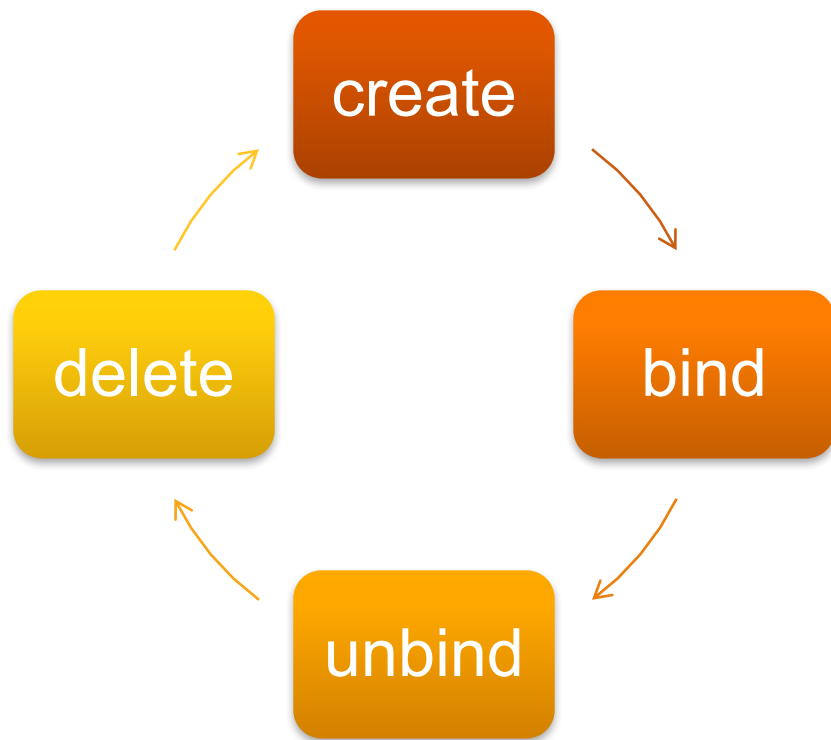
THE TWELVE-FACTOR APP

<https://12factor.net/>



demo

PCF Services Life Cycle



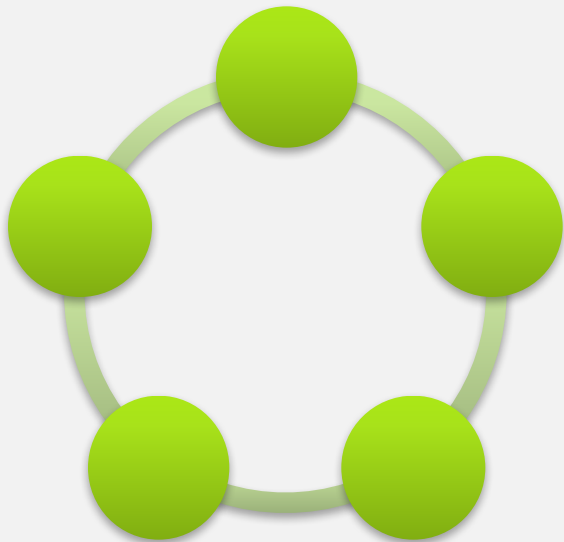
PCF Services API

GET	/v2/catalog	What's available
PUT	/v2/service_instances/:id	Create Service
PUT	/v2/service_instances/:id/service_bindings/:id	Bind Service
DELETE	/v2/service_instances/:id/service_bindings/:id	Unbind Service
DELETE	/v2/service_instances/:id	Delete Service

On-Demand C* on PCF

What is it...

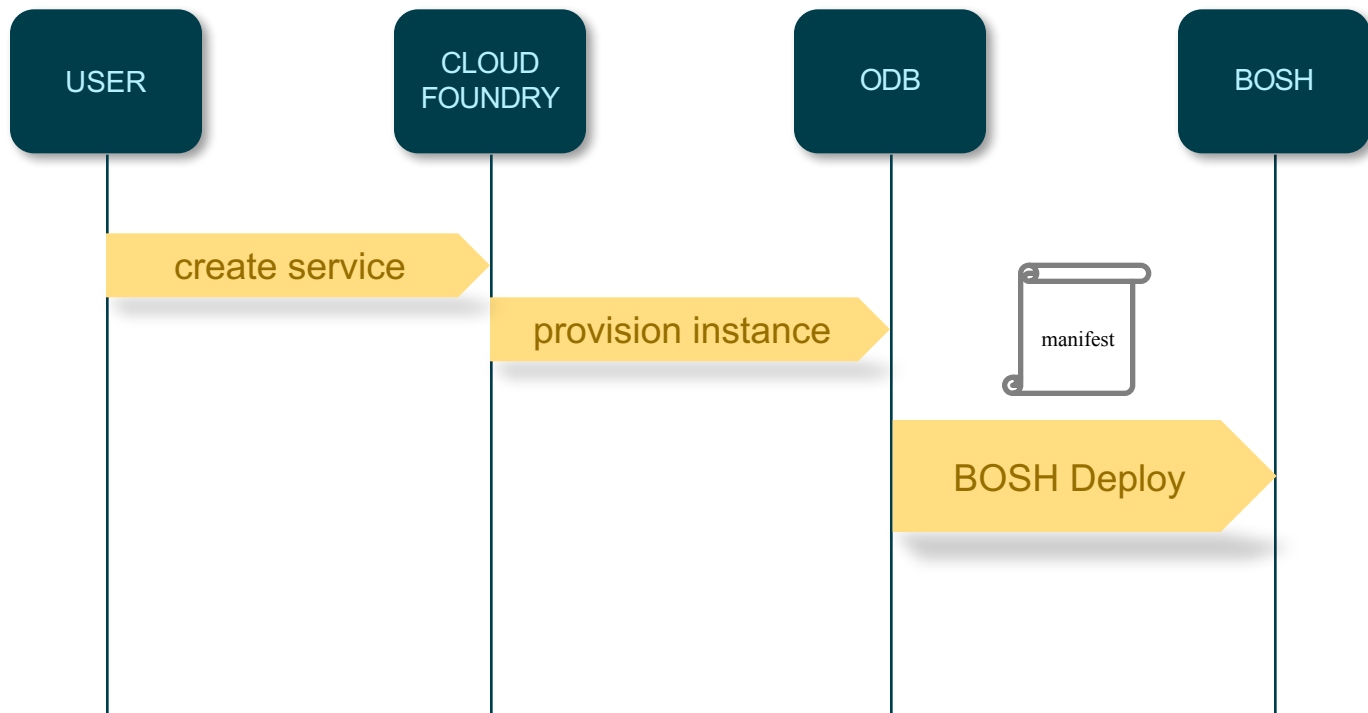
Service Instance = Dedicated C* Cluster



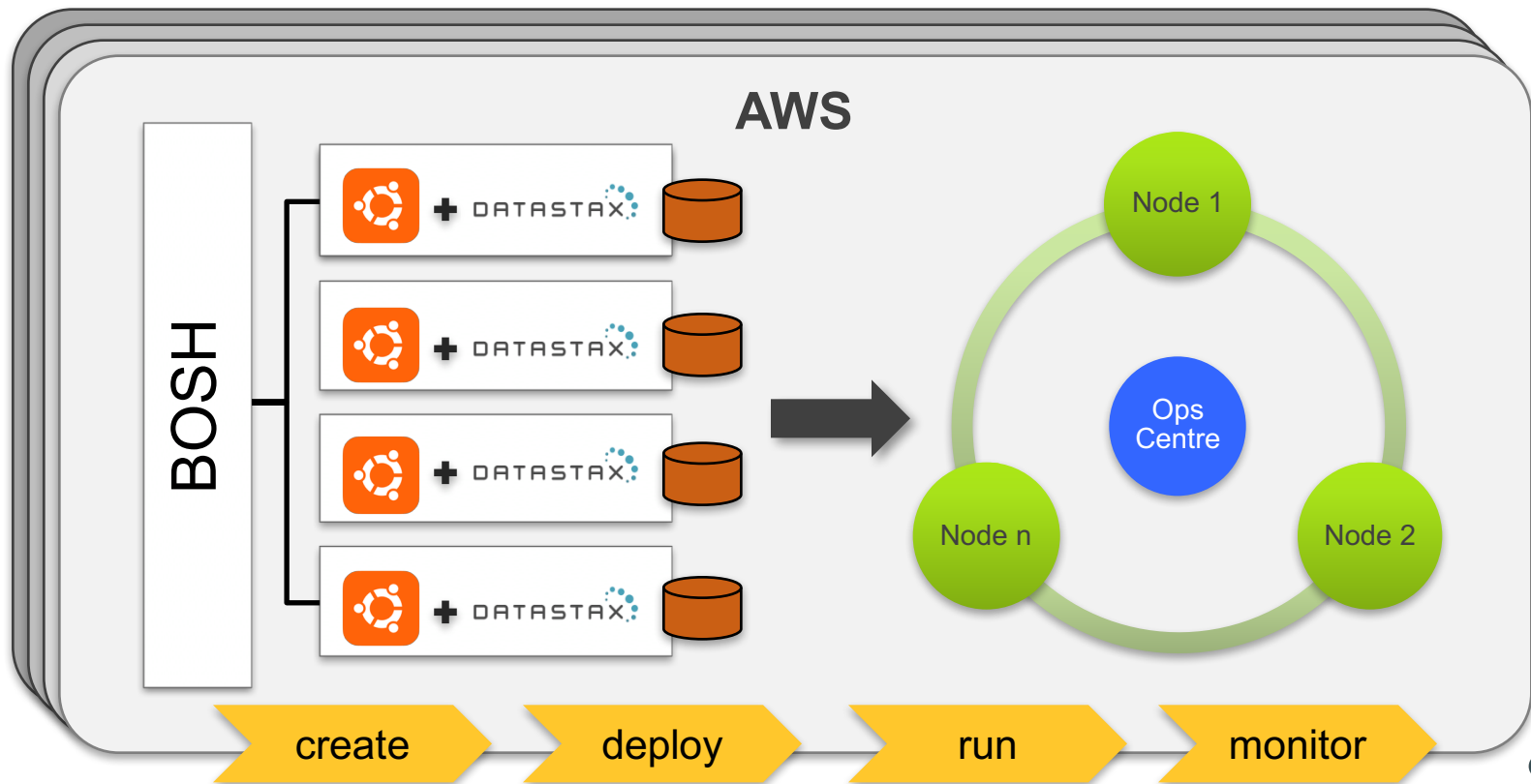
What's the upside...

- More choice via service plans
- Empowers App Developers
- Reduces Operations cycle times
- Resources allocated on-demand
- Controlled exposure via Quota Mgt

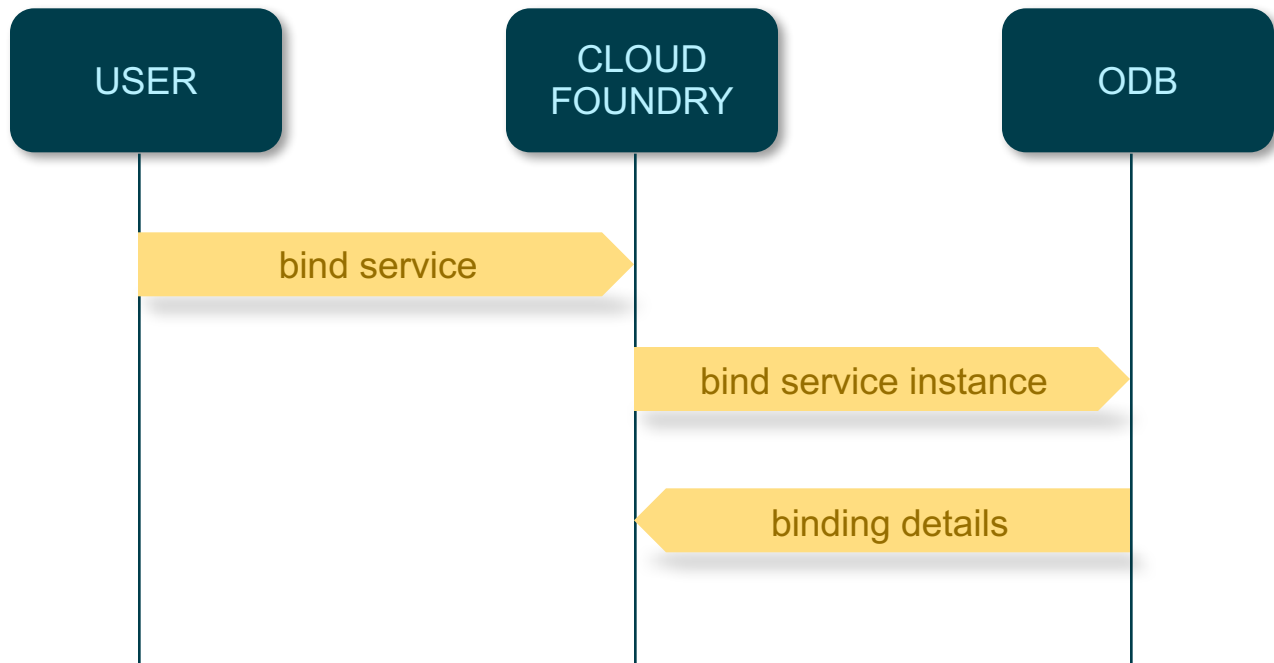
Creating a Service



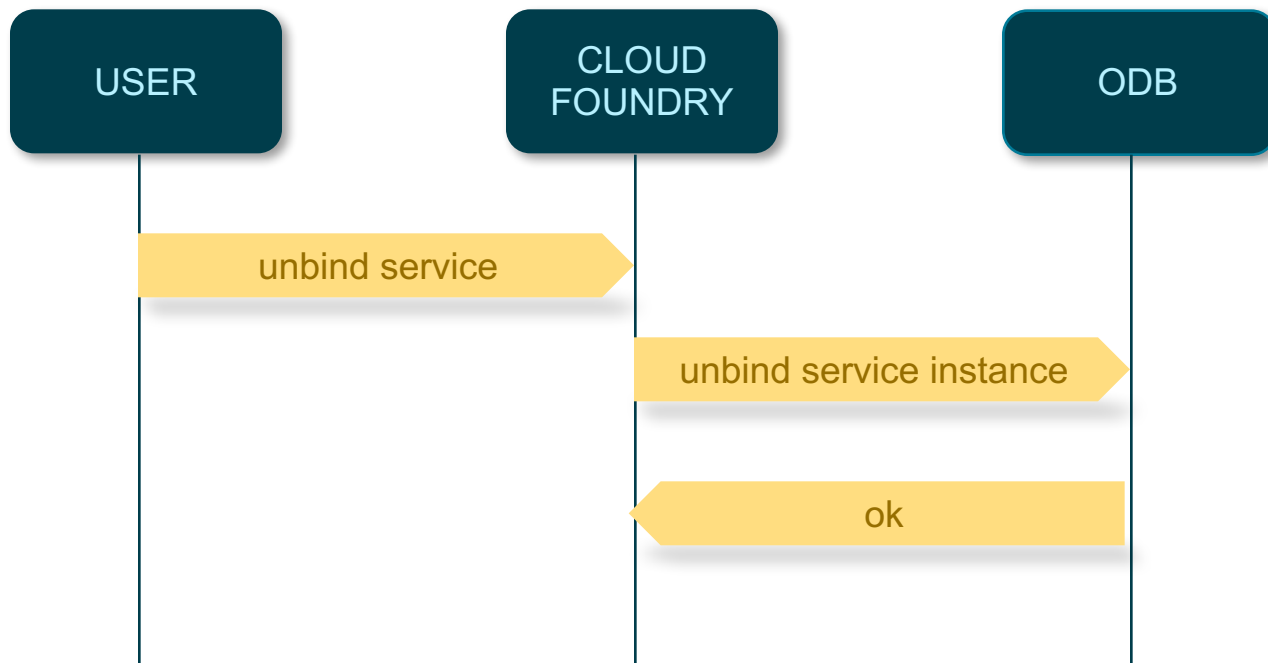
Creating a Service (cont.)



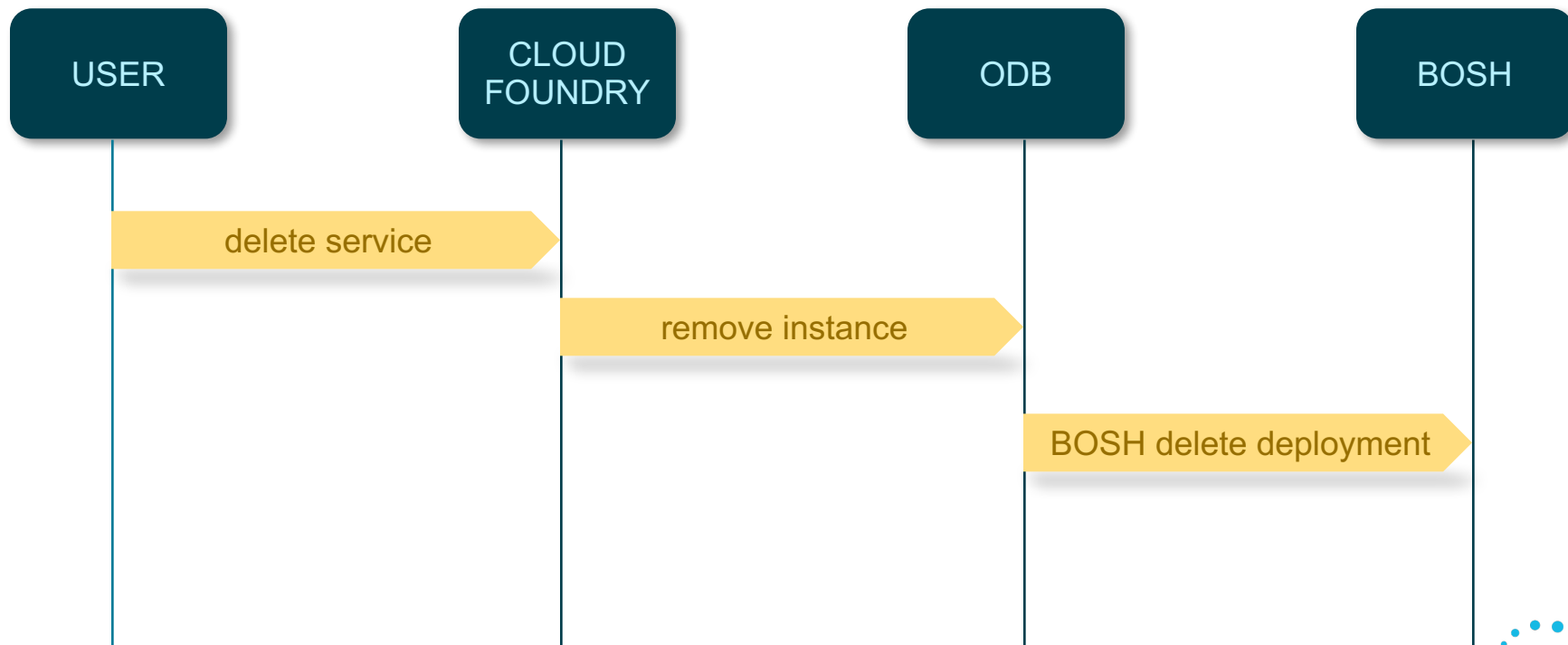
Binding Service & Application



Unbinding Service & Application



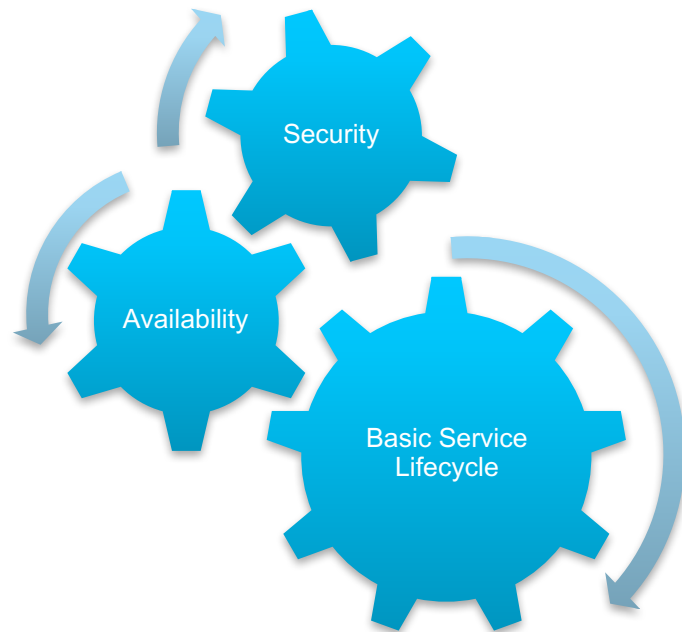
Deleting a Service



demo

Dedicated Cassandra Service on PCF Recap

- Service Plans
- Creating a Service
- Increasing Cluster Size
- Binding Application
- Authentication w/ Unique Passwords
- Logging
- Unbinding Application
- Deleting a Service



Where to next ?



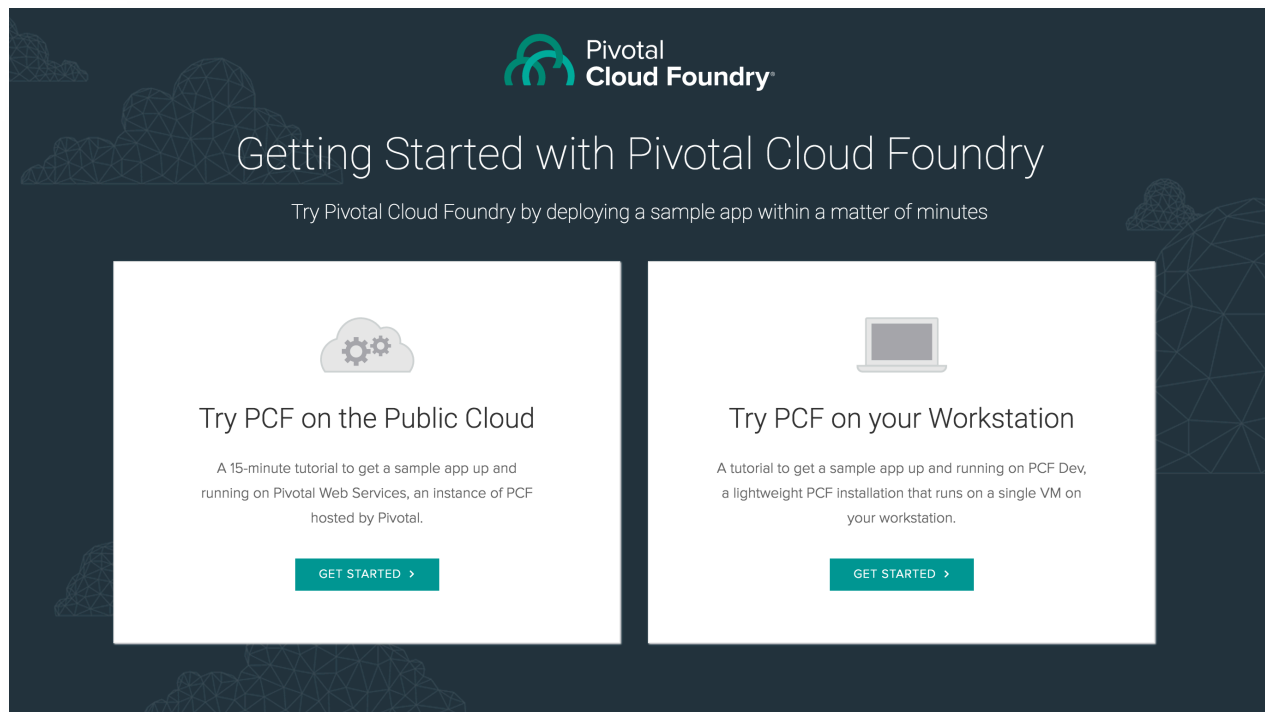
Summary


- Proof of concept on-demand single tenant DBAAS on PCF
- Supports DataStax Enterprise 5.0 (incl. OpsCenter 6.0)
- In Market Validation
- We want to hear from you ...
- Damian O'Connor, daoconnor@pivotal.io (Product Manager)
- Ben Lackey, ben.lackey@datastax.com (Lead Partner Architect)

Useful Resources

Location	URL
Pivotal	https://pivotal.io/
Pivotal Web Services	https://run.pivotal.io/
Pivotal Network	https://network.pivotal.io/
Pivotal Documentation	https://docs.pivotal.io/
Pivotal Cloud Foundry Tutorial	https://pivotal.io/platform/pcf-tutorials/getting-started-with-pivotal-cloud-foundry


<https://pivotal.io/platform/pcf-tutorials/getting-started-with-pivotal-cloud-foundry>



 Pivotal
Cloud Foundry

Getting Started with Pivotal Cloud Foundry


Try Pivotal Cloud Foundry by deploying a sample app within a matter of minutes



Try PCF on the Public Cloud

A 15-minute tutorial to get a sample app up and running on Pivotal Web Services, an instance of PCF hosted by Pivotal.

[GET STARTED >](#)



Try PCF on your Workstation

A tutorial to get a sample app up and running on PCF Dev, a lightweight PCF installation that runs on a single VM on your workstation.

[GET STARTED >](#)

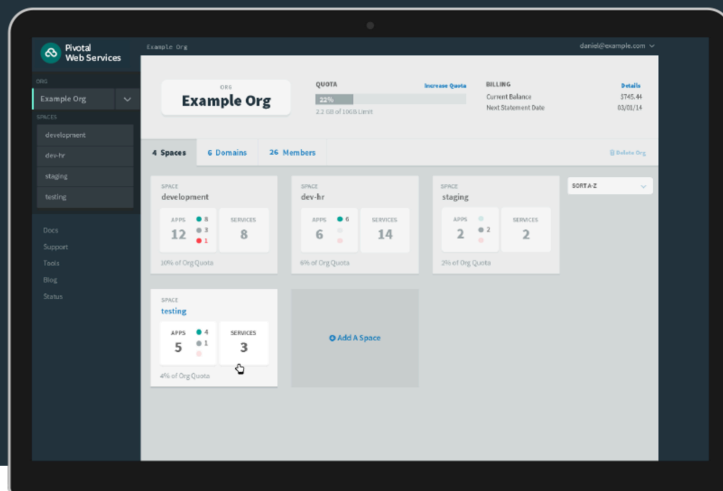
<https://run.pivotal.io/>

The Agile Platform for the Agile Team

Powered by Cloud Foundry

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Thank You

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