

Pivotal Cloud Foundry

Introduction

WE BELIEVE

Transforming how the world builds software
will shape the future.

From idea to production: 6-9 months



An idea in the morning, is running in production by evening



Software is changing INDUSTRIES



Square

\$6BN

Financial Services

NETFLIX

\$53BN

Entertainment



airbnb

\$26BN

Hotel

TESLA

\$34BN

Automotive



UBER

\$50BN

Transportation

nest

\$3.2BN

Industrial Products

The Enterprise REVOLUTION



700+ apps



Spring + PCF



Re-writing software
the modern way



Agile software
transformation



DevOps adoption with PCF
Automated build pipeline



Major IT
transformation

Software Developers Spend too Much Time NOT Writing Software



17.5 hrs ~ 40% of full work week!

The developer dream haiku

Here is my source code,

Run it in the Cloud for me,

I do not care how

Deploying Code Shouldn't be So Painful!!

Traditional

Create a VM

Install JDK

Install Tomcat

Deploy Application

Configure Load Balancer

Configure DNS

Configure Firewall

Configure Monitoring

Configure Logging

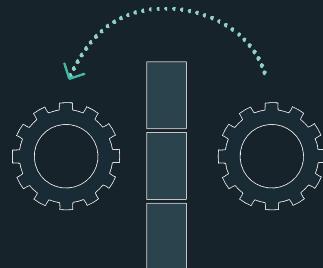
Pivotal Cloud Foundry

`cf push`

DevOps

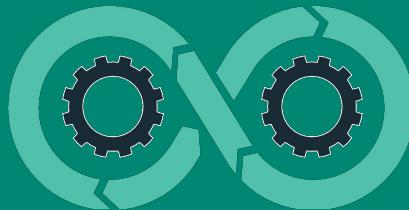
Not my problem

Separate tools, varied incentives,
opaque process



Shared responsibility

Common incentives, tools,
process and culture



Continuous Delivery

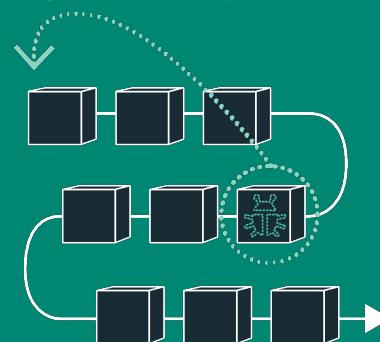
Release once every 6 months

More Bugs in production



Release early and often

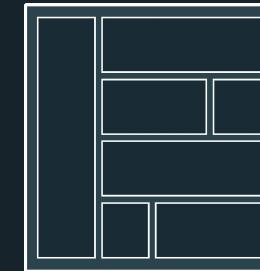
Higher Quality of Code



Microservices

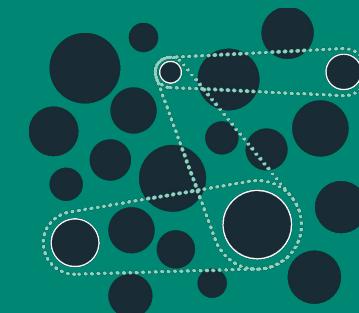
Tightly coupled components

Slow deployment cycles



Loosely coupled components

Automated deployments



Then

assume **reliable** infrastructure

release **every 3 months**

works in **my** environment

tightly coupled

Now

assume **fragile** infrastructure

release code **early and often**

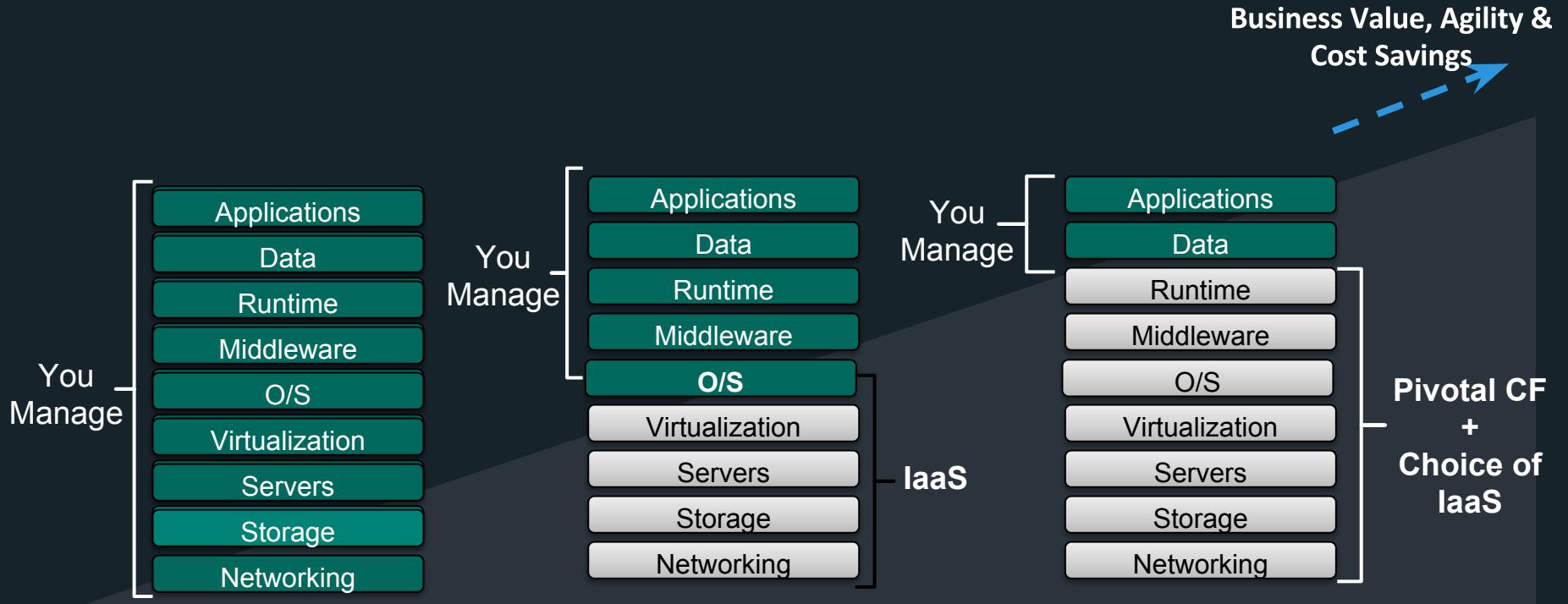
shared Dev & Ops responsibility

loosely coupled

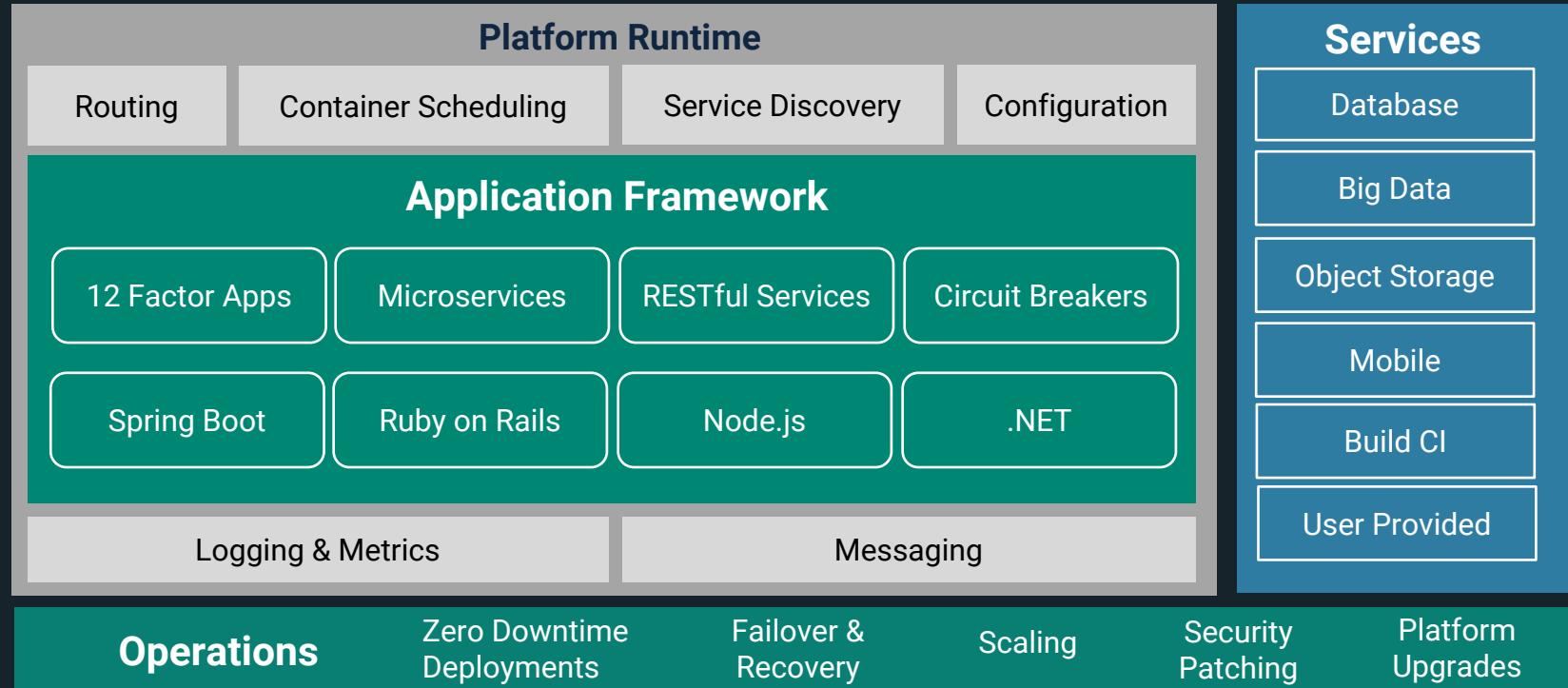
It Takes a Platform

An end-to-end *structured platform*
that makes implementing
distributed application best
practices, a turn-key and first
practice

Application-centric Platforms



Pivotal Cloud Foundry at a Glance



Pivotal

Enable Guarantees through Contracts

Culture



Dev



Dev



IT Ops



IT Ops



IT Ops

Cloud Native Framework

Application Framework

Contract: **12 Factor App**



Container Runtime

Contract: **BOSH Release**

Infrastructure Automation

Contract: **Cloud Provider Interface**

Infrastructure

Integrated Stack



Spring
Boot



Spring Cloud
Dataflow



Spring
Cloud



.NET



Cloud
Foundry



BOSH



amazon
web services™



Microsoft
Azure



vmware®



openstack®



Google Cloud Platform

Pivotal

Enable Guarantees through Contracts

Culture



Cloud Native Framework

Application Framework

Spring Boot



From 0 to app in < 5 min

Spring Boot:

- Is designed to get you up and running as quickly as possible, with minimal upfront configuration of Spring.
- Takes an opinionated view of building production ready applications.
- Build microservices with REST, WebSocket, Messaging, Reactive, Data, Integration, and Batch capabilities via a simple and consistent development experience.

Integrated Stack



Spring
Boot



Spring Cloud
Dataflow



Spring
Cloud



.NET

**Spring Cloud
Data Flow**



Event-Driven Data Microservices

Spring Cloud Dataflow provides:

- Leverages Spring and Spring Boot
- Coordinated Data Microservices
 - Create flexible, robust, elastic and scalable data processing pipelines on demand
 - Ingest, transform and load data into concurrent and analytical data stores.

Pivotal

Everything Needed to Deploy and Operate an App

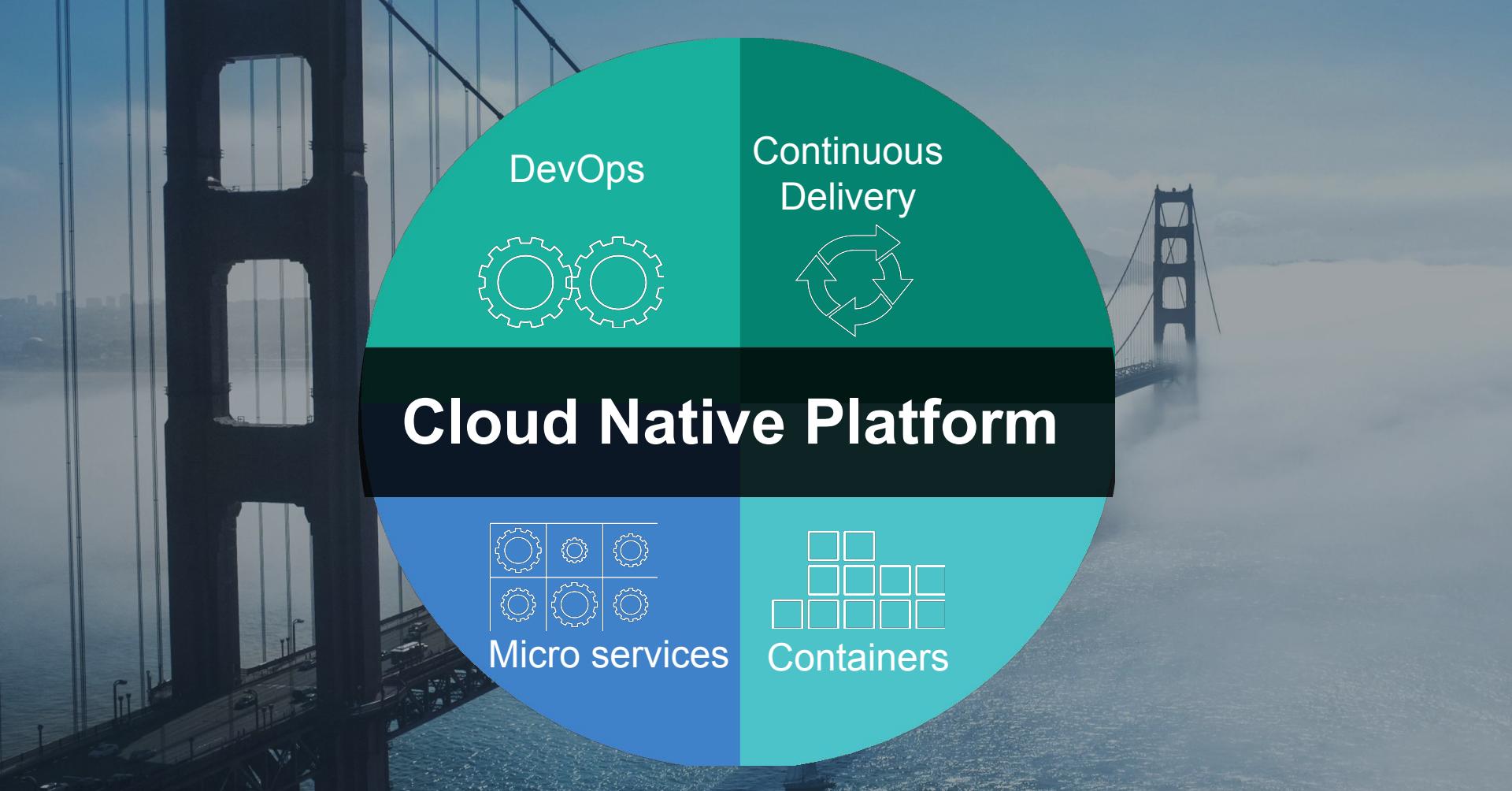


The image displays two screenshots of Pivotal software interfaces. The left screenshot shows the "Service Registry" interface with sections for "Service Registry Status" (listing "FORTUNES" application with "default (1)" availability zones) and "System Status". The right screenshot shows the "Circuit Breaker Dashboard" for the "FORTUNE" service, displaying metrics like Error Rate (0.0%), Volume (0.0/s), and Thread Pools. Both interfaces are dark-themed with light-colored cards for different components.

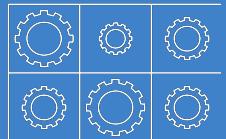
Cloud is about
how computing is
done, not where.

-Paul Maritz

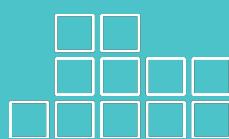




Cloud Native Platform



Micro services



Containers



BREAK