Introduction

• Why cloud foundry?
• What does it do for me?
• Where can I learn more?
Uber for Pet Stores?

• Your million dollar idea?
• It’s your turn to disrupt business as we know it.
“petgo delivers animals when I can’t get them myself

-- A crazy cat lady

* with apologies to Pet co.
Key Objectives

• Mobile first
• High availability
• Scale with demand
• Need it fast
  • Limited market window
• Lean team of engineers
  • Do more with less
  • Tight market
  • Keep a minimum overhead
So You Pounce…

- Amazon Web Services
- AWS Lamda and API Gateway
- S3 Document storage
- DynamoDB (NoSQL db)
We Have A Problem…

• Amazon is now launching a drone-delivered pet service

• Investors are not happy that they are paying AWS, and thus the competition!

• We need to change cloud providers!
Welcome to Vendor Lock-in!

• Layers to isolate you from vendor specific APIs
  • But, we were moving fast!

• Options
  • Add the layering
  • Re-write portions of the app
  • Timelines just got tighter

• But, does this really happen?
IT is Evolving

https://docs.cloudfoundry.org/concepts/overview.html
Demo – Pushing an Application to Cloud Foundry

push - Cloud Foundry CLI Reference Guide

NAME
push - Push a new app or sync changes to an existing app

USAGE


cf push [-f MANIFEST_PATH_MULTIPLE_APPS_PATH [APP_NAME] [-no-start]

ALIAS

P

OPTIONS

-b

Custom buildpack by name (e.g. my-buildpack) or Git URL (e.g. https://github.com/cloudfoundry/java-buildpack.git) or Git URL with a branch or tag (e.g. https://github.com/cloudfoundry/java-buildpack.git/v3.3.0 for v3.3.0 tag). To use built-in buildpacks only, specify default or null
What is Cloud Foundry Doing for Me?

- Buildpack
- Rootfs
- Stemcell

Cloud Foundry Container

- App bits + Middleware
- Filesystem
- Kernel & Devices
A More Complete Depiction

https://docs.cloudfoundry.org/concepts/how-applications-are-staged.html
Scaling Your Application

scale vertically -> more memory and disk per component instance

scale horizontally -> more component instances

https://docs.cloudfoundry.org/concepts/high-availability.html
Demo: Scaling An Application

scale - Cloud Foundry CLI Reference Guide

NAME
scale - Change or view the instance count, disk space limit, and memory limit for an app

USAGE
cf scale app_name [-i INSTANCES] [-k DISK] [-m MEMORY] [-f]

OPTIONS
- f
  Force restart of app without prompt
- i
  Number of instances
- k
  Disk limit (e.g. 256M, 1024M, 1G)
- m
  Memory limit (e.g. 256M, 1024M, 1G)

SEE ALSO
push
Services and Service Brokers

https://docs.cloudfoundry.org/services/overview.html
Demo: Binding to a Service

bind-service - Cloud Foundry CLI Reference Guide

NAME
bind-service - Bind a service instance to an app

USAGE

cf bind-service APP_NAME SERVICE_INSTANCE [-c PARAMETERS_AS_JSON] [--binding-name BINDING_NAME]

Optionally provide service-specific configuration parameters in a valid JSON object in-line:

cf bind-service APP_NAME SERVICE_INSTANCE -c "{"name":"value","name":"value"}"

Optionally provide a file containing service-specific configuration parameters in a valid JSON object. The path to the parameters file can be an absolute or relative path to a file.

cf bind-service APP_NAME SERVICE_INSTANCE -c PATH_TO_FILE

Example of valid JSON object: { "permissions": "read-only" } Optionally provide a binding name for the association between an app and a service instance:

cf bind-service APP_NAME SERVICE_INSTANCE --binding-name BINDING_NAME

EXAMPLES

Linux/Mac:

cf bind-service myapp mydb -c '{"permissions":"read-only"}"

Windows Command Line:

cf bind-service myapp mydb -c "{"permissions":"read-only"}"

Windows PowerShell:

cf bind-service myapp mydb -c "{"permissions":"read-only"}"
Where to learn more

https://pivotal.io/platform

https://12factor.net

Image from: https://medium.com/easyread/today-i-learned-series-twelve-factor-app-af28b0d3fd45
What Did We Learn?

• Why Cloud Foundry is important
• What problems CF solves
• Deploying an application
• Scaling an application
• How to bind additional services
Thank you

Twitter: twitter.com/opentext
LinkedIn: linkedin.com/company/opentext

Resumes welcome

bkidwell@opentext.com
cwells@opentext.com

opentext.com