DevOps Applied

A 3 step technical redux
Nathan Fisher, ThoughtWorks Consultant
2012-11-14

Tweet Along

- #twuknorth

- @natbobc <= that's me, please be kind

Rules of DevOps

Rules of DevOps

- First rule of DevOps is you <u>MUST</u> talk about DevOps.

Rules of DevOps

- First rule of DevOps is you <u>MUST</u> talk about DevOps.

- Second rule of DevOps is you <u>MUST</u> talk about DevOps.

Rules of DevOps

- First rule of DevOps is you <u>MUST</u> talk about DevOps.

- Second rule of DevOps is you <u>MUST</u> talk about DevOps.

- Final rule is, if it's your first week you have to deploy.

What is DevOps?

"Bridging the gap between projects and operations by using Agile techniques in development, project management and systems administration."

- Patrick Debois

Why DevOps?

- Reduce the feedback from concept to cash through improved collaboration and automation.

DevOps in 3 Steps

DevOps in 3 Steps

- Build

DevOps in 3 Steps

- Build
- Deploy

DevOps in 3 Steps

- Build

- Deploy

- Monitor

fin

(just kidding)

Build

- Code

- Test

- Package

- Publish

Infrastructure as Code

- Codify software and configuration as dependencies.
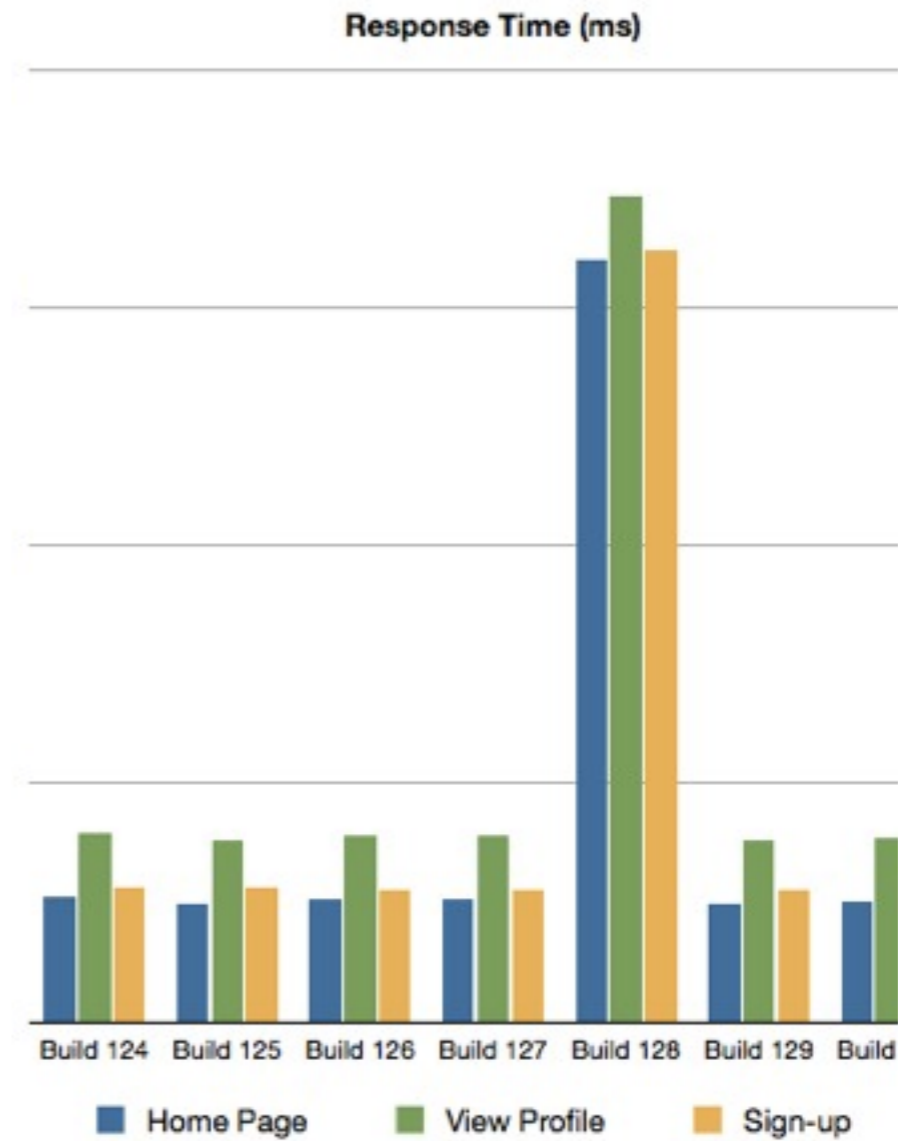
    - Puppet

    - Chef

    - Pallet

    - cfEngine

Cloud Infrastructure

- Platform as a Service (PaaS)

- Public Cloud

- Private Cloud

Build

- Code
- Test
- Package
- Publish

Response Time (ms)

| | Build 124 | Build 125 | Build 126 | Build 127 | Build 128 | Build 129 | Build |

■ Home Page   ■ View Profile   ■ Sign-up

Test Infrastructure?

- Puppet - puppet parse, puppet-lint, erb syntax check

- BDD + Infrastructure

- Vagrant (Easy VM's)

Build

- Code

- Test

- Package

- Publish

Build

- Code
- Test
- Package
- Publish

SCHEDULED ON:	2012-11-13T23:29:13+05:3(
DURATION:	00:01:02
BUILD CAUSE:	modified by Elly

Console | Tests | Failures | **Artifacts**

📁 coverage
📁 cruise-output
📄 target
📄 fabfile.py
📄 frontend_109.ac477d8185d8445b23b97ae1(

Deploy

- Push or Pull Package

- Backup

- Install

- Verify

Wait a minute!!!

- Why automate deployments?

Deploy

- Pull/Push Package

- Backup

- Install

- Verify


```
0:40 FlyingFish ~/Desktop% cd pre
0:40 FlyingFish ~/Desktop/prez% c
org/virtualbox/4.2.4/VirtualBox-4
  % Total      % Received % Xferd

    0      0      0      0      0      0
0:41 FlyingFish ~/Desktop/prez% c
ox.org/virtualbox/4.2.4/VirtualBo
  % Total      % Received % Xferd

    0      0      0      0      0      0
100  100M  100  100M      0      0
0:49 FlyingFish ~/Desktop/prez% m
MD5 (vb-4.2.4.dmg) = 3902b3e953c5
9:03 FlyingFish ~/Desktop/prez%
```

Deploy

- Push/Pull Package
- Backup
- Install
- Verify
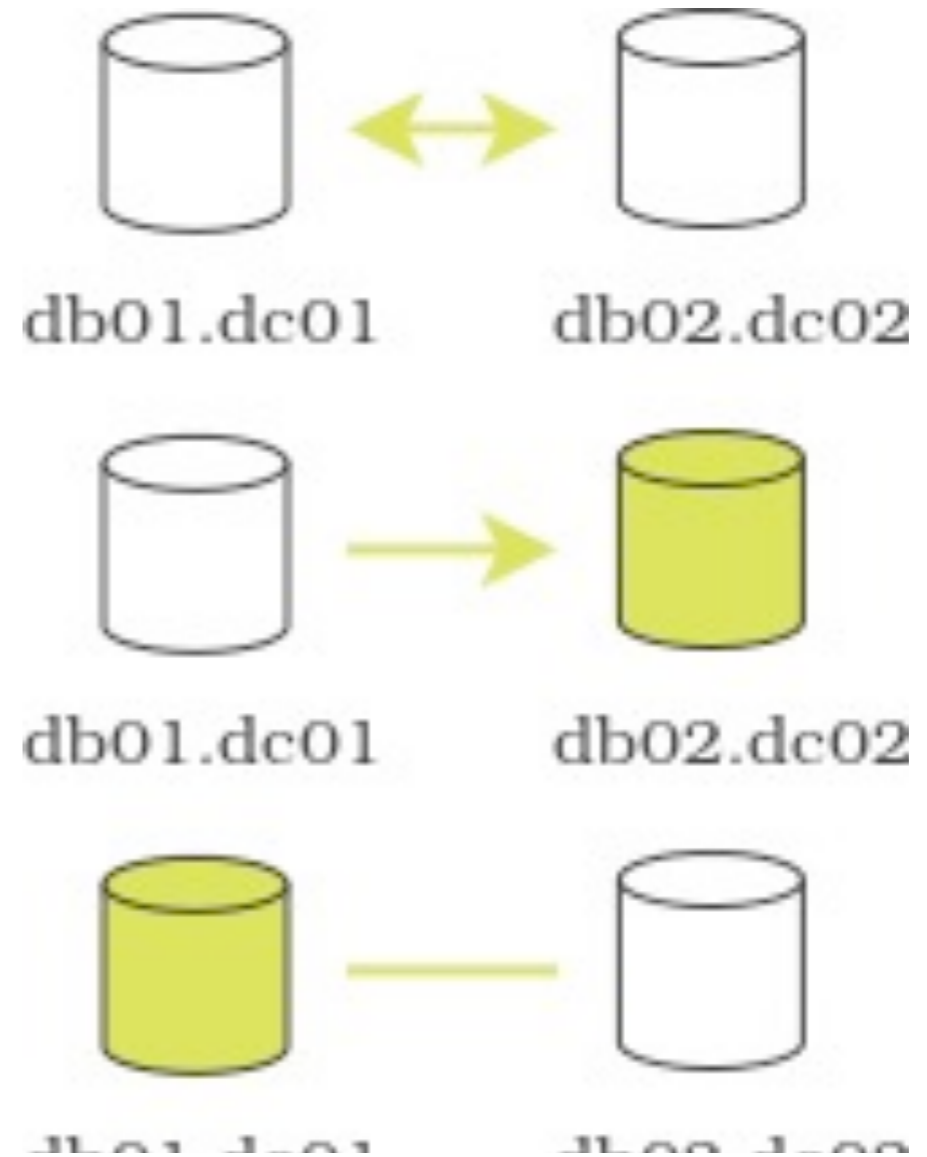
db01.dc01   db02.dc02

db01.dc01   db02.dc02

Deploy

- Push/Pull Package

- Backup

- Install

- Verify

Status

memcached	OK
profiles	OK
search	OK
templates	OK

Info

build number	92.c2a4563ae2baa(
scm revision	c2a4563ae2baa0c3
created at	2012-11-12 15:50:3
requested at	2012-11-13 23:20:2

Deploy

- Push/Pull Package

- Backup

- Install

- Verify

Status

memcached	OK
profiles	OK
search	OK
templates	OK

Info

build number	92.c2a4563ae2baa0
scm revision	c2a4563ae2baa0c3
created at	2012-11-12 15:50:3
requested at	2012-11-13 23:20:2

Measure
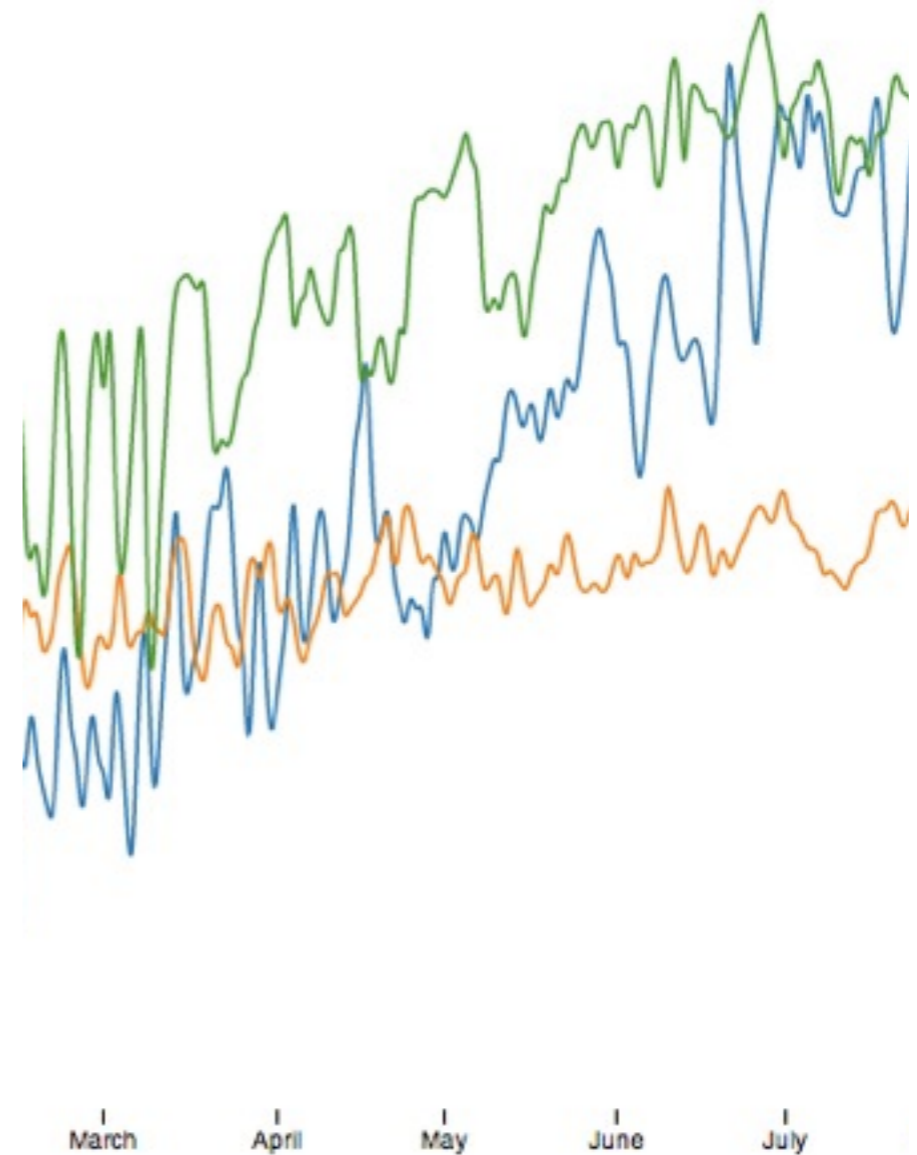
- Collect

- Analyse

- Readjust

Why Measure?

- Decisions guided by fact rather than intuition

- Discover how environment behaviour can affect user behaviour.

- Relate usage to business value.

- Trends show emerging behaviour.

Measure

- Collect

- Analyse

- Readjust

Measure

- Collect
- Analyse
- Readjust

Measure

- Collect

- Analyse

- Readjust

Conclusions

- reduce failures caused by inconsistency.

- metrics driven development helps ensure you build the what's needed (and get rid of what's not).

- DevOps requires continual communication and effort but, is worth it for the peace of mind.

Contact Us

ThoughtWorks UK

+44 (0) 20 7497 4500

Talk URL: http://bit.ly/mgnApplyingDevOps

Twitter: @natbobc