DevOps vs SRE, CI/CD Pipelines  
Bridging the Gap
Had lots of outages

Destroyer of error budgets
What are we talking about today?

- DevOps and/or vs SRE?
- Actions favors the bold or prepared
- Eventually you must pull the trigger
DevOps || SRE
Enabling Efficiency and Resiliency
Conway’s Law

@ravilach
Two Different Goals
Two Different Problem Sets
Comparisons
Comparisons, in a 6 Round Battle

SRE  
DevOps
Round I, tl;dr

SRE
- Resilience,
- Scaling,
- Uptime,
- Robustness

DevOps
- Development Pipelines
Round II, Does the App Cluster?

SRE
- RAFT based leader with Zookeeper and Mesos

DevOps
- Yes, we need to fulfill three nodes
Round III, Can We Have Monitoring?

SRE
- BlackBox vs WhiteBox

DevOps
- Yes, Prometheus, ELK, FluentD
Round IV, Our Deployment Failed

SRE

Did it cause an incident?

DevOps

Re-run the pipeline and we can up the logging.
Round V, Typical Metrics

SRE

- Four Golden Signals, SLOs, SLIs

DevOps

- Deployment frequency, deployment failure rate
Round VI, War Chant

SRE
No Root Cause!

DevOps
People, Process, Technology!
Action Required
Eventually You Have to do Something
Dimensions of an App

- Compute
- Storage
- Networking
- App Infra
How do you Deploy?

```bash
# BackUp
cp ~/doughnut ~/doughnut_old

# Make Dir
mkdir ~/doughnut_build && cd ~/doughnut_build

# SCP Files
scp -rp java.zip centos@34.229.24.254:/home/doughnut_build/

# Unzip
unzip java.zip

# Maven Build
mvn install

# Make Dir
mkdir ~/doughnut_artifact && cd ~/doughnut_artifact

# Move
cp ~/doughnut_build/build/latest.jar ~/doughnut_artifact
```
Pipelines, in Good and in Incident

Deploying During an Incident

Deploying New Feature
Confidence is Always Needed

People

Technology

Process
Being Prepared to Take Action

![Image of Smokey the Bear with a shovel, with the text "ONLY YOU"]
What is Normal?

YOU DON'T HAVE TO CHANGE THE BASELINE

IF YOU HAVE NO BASELINE
CI/CD Pipeline
Auto Baselines
Measure Goals
Hello CDF!
Continuous Delivery Foundation

How much should you Deploy?

Before moving to its own cloud, Amazon engineers deploy code every 11.7 seconds. On average—reducing both the number and duration of outages at the same time. Netflix engineers deploy code thousands of times per day. Feb 4, 2016.
Neutral Home for CD Tools and Projects
Learn More!
