

Spark on K8s

(First :) Reactive Programming Meetup - Dublin - June 2015

Created by roland@tritsch.org / [@innolocity](#)

NodeJs on K8s

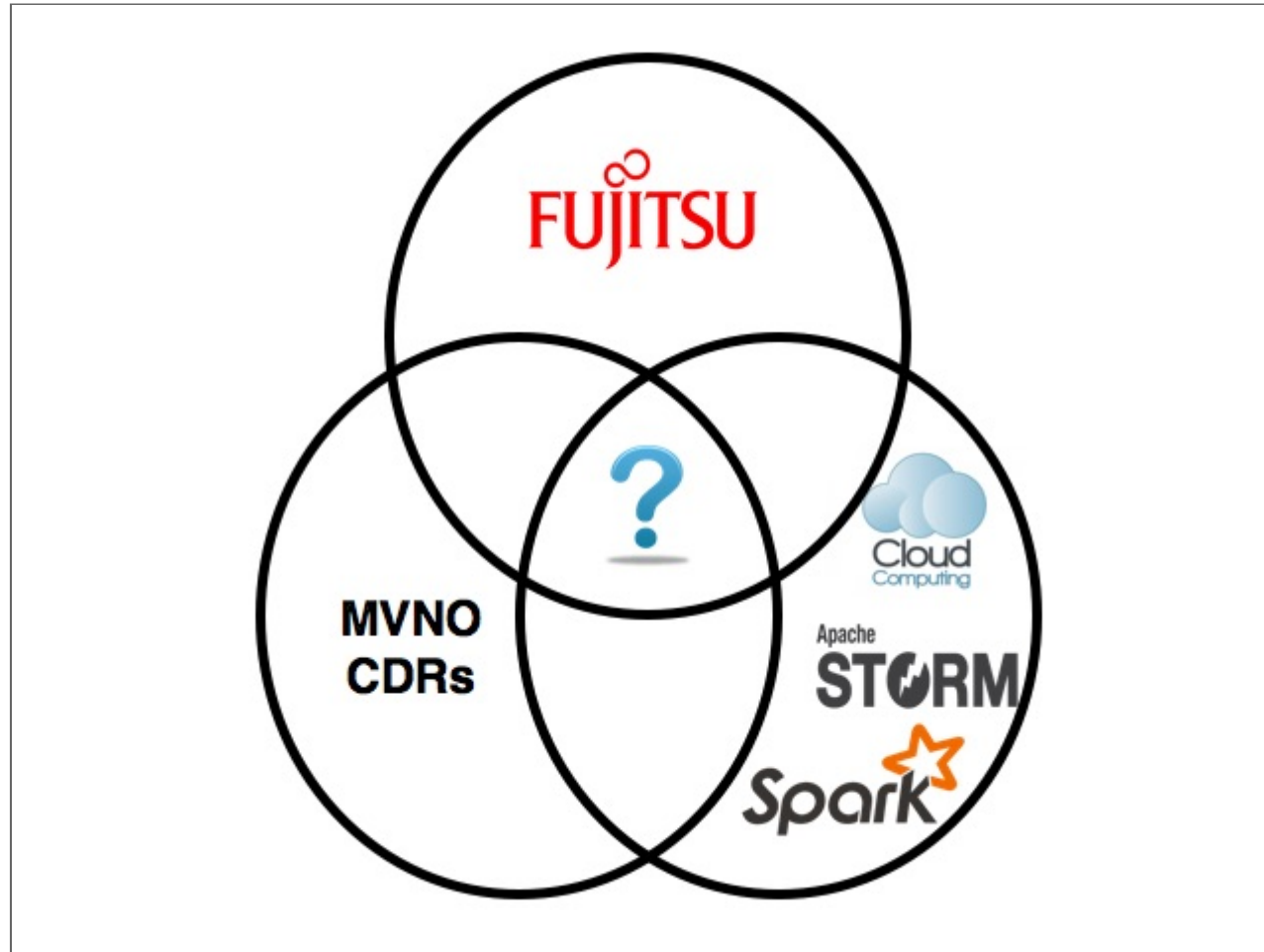
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Today

- Reactive programming
- Immutable deployments
- Google Container Engine (Kubernetes)
- NodeJs on K8s

About the Roland



About the Roland



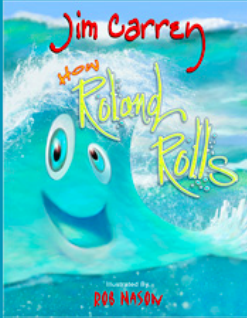
“Philosophical
cosmic
with a
twist”

HOME ABOUT FOR KIDS ONLY


GET ROLLIN' WITH ROLAND!

How Roland Rolls

The Inspiring New Book for Children
(and their grown-ups!) from Jim Carrey!



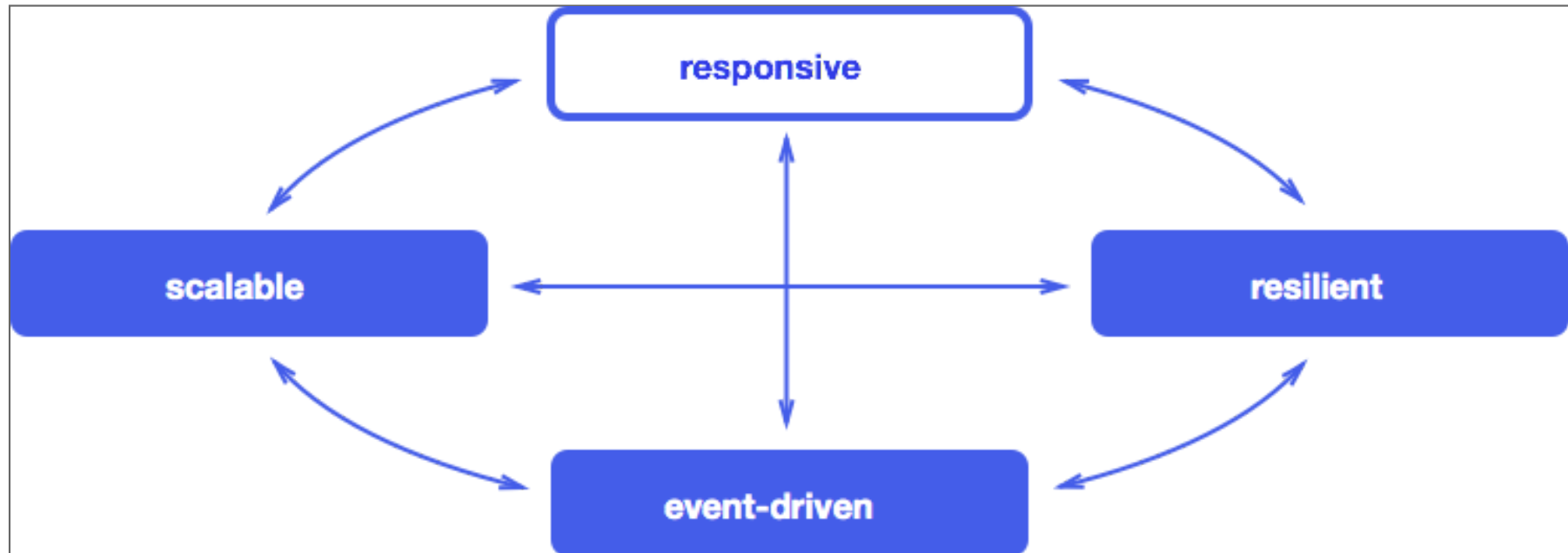
How Roland Rolls is a story about a wave named Roland who's afraid that, one day, when he hits the beach, his life will be over. But when he gets deep, he's struck by the notion that he's not just a wave — he's the whole big, wide ocean!



A letter from Jim to the grown-ups

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Reactive Programming



Reactive Programming

- Reactive Programming!!!
- Reactive Infrastructure??? - Software Dev Platform (Code, Unit-Test, Code-Review, , Software Deployment Platform (Packaging, System/Load-Test, ...), Runtime (Monitoring, Alarming, Logging, ...), Feedback Platform (A/B test, Performance/Through-put, Was it a good change?, ...)
- Reactive Organisations???

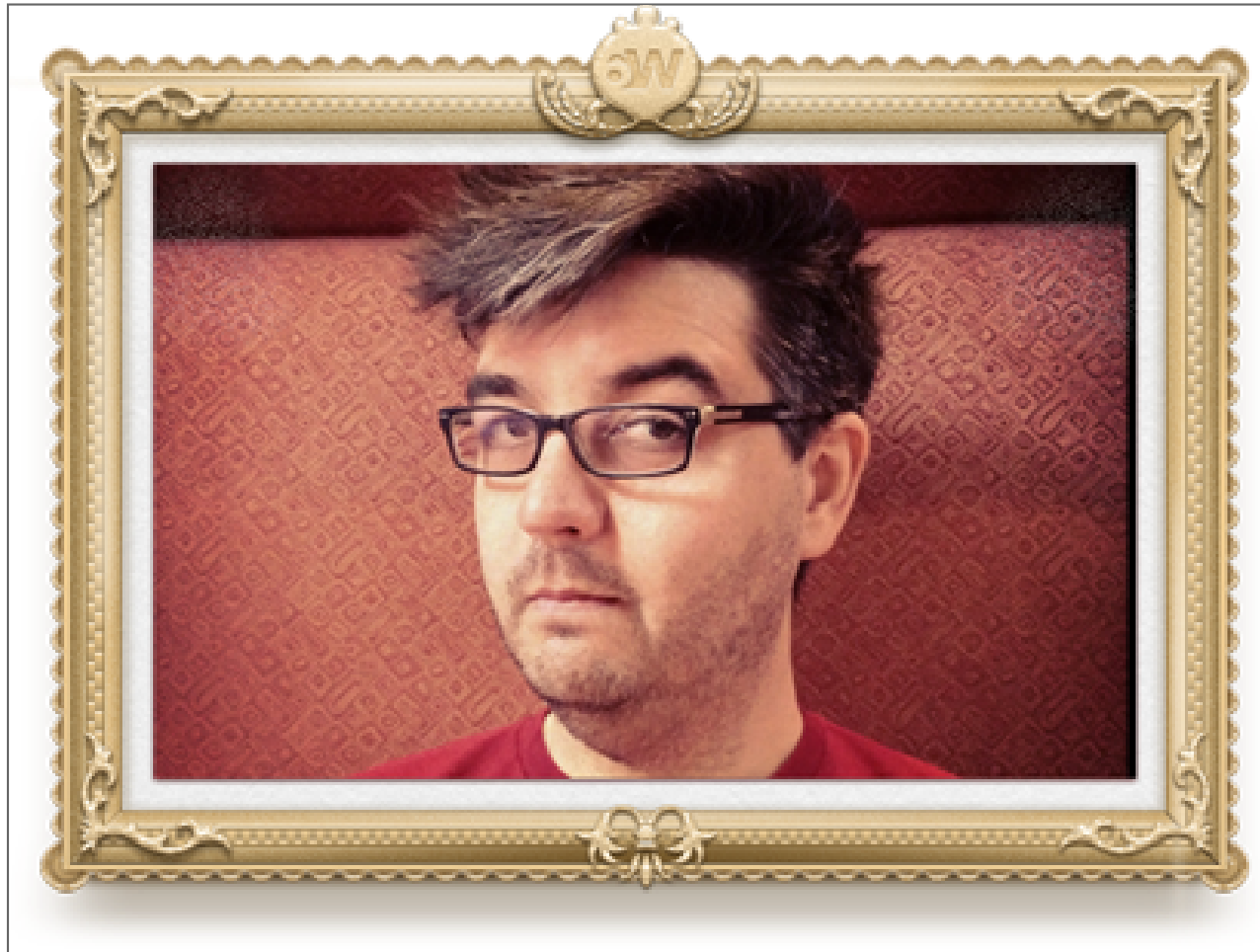
Immutable Deployments



Immutable Deployments



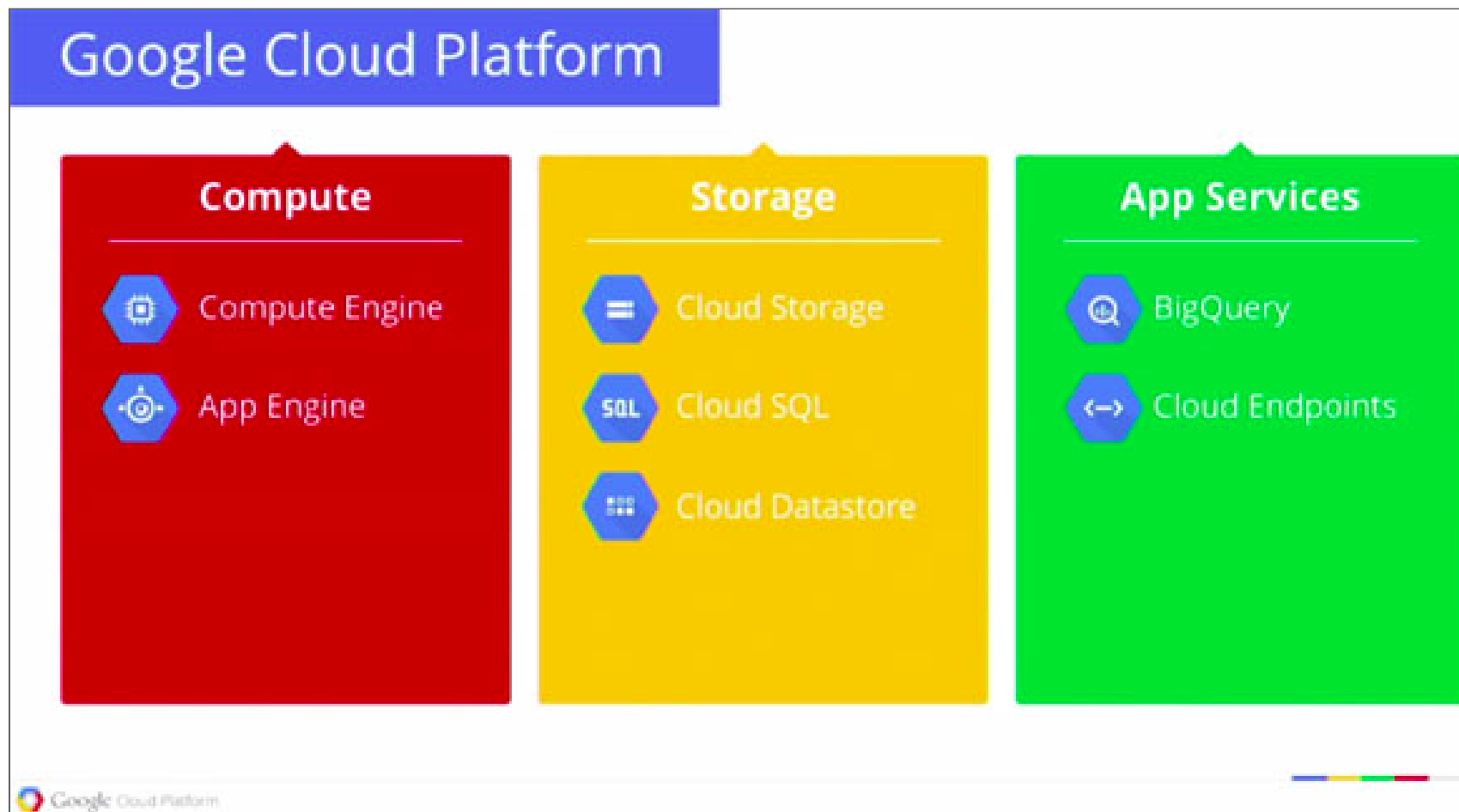
Immutable Deployments



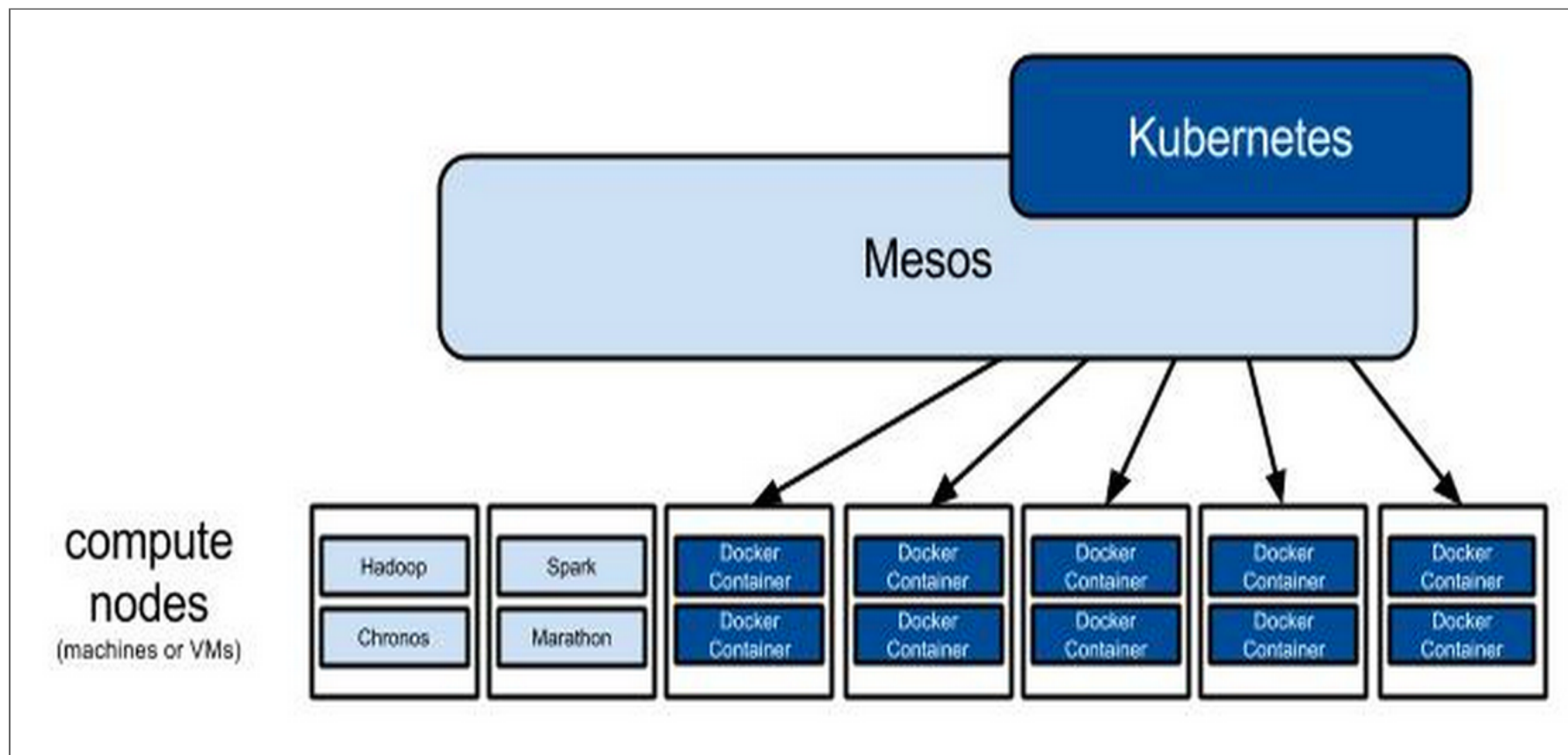
Immutable Deployments

- Inspired by functional programming concepts (Talk by Rich Hickey)
- About Snowflakes and Phonixes
- By now ... mainstream! Netflix, Gilt, Zalando, Wunderlist, ...
- Works well with MicroServices

Google Container Engine (Kubernetes)



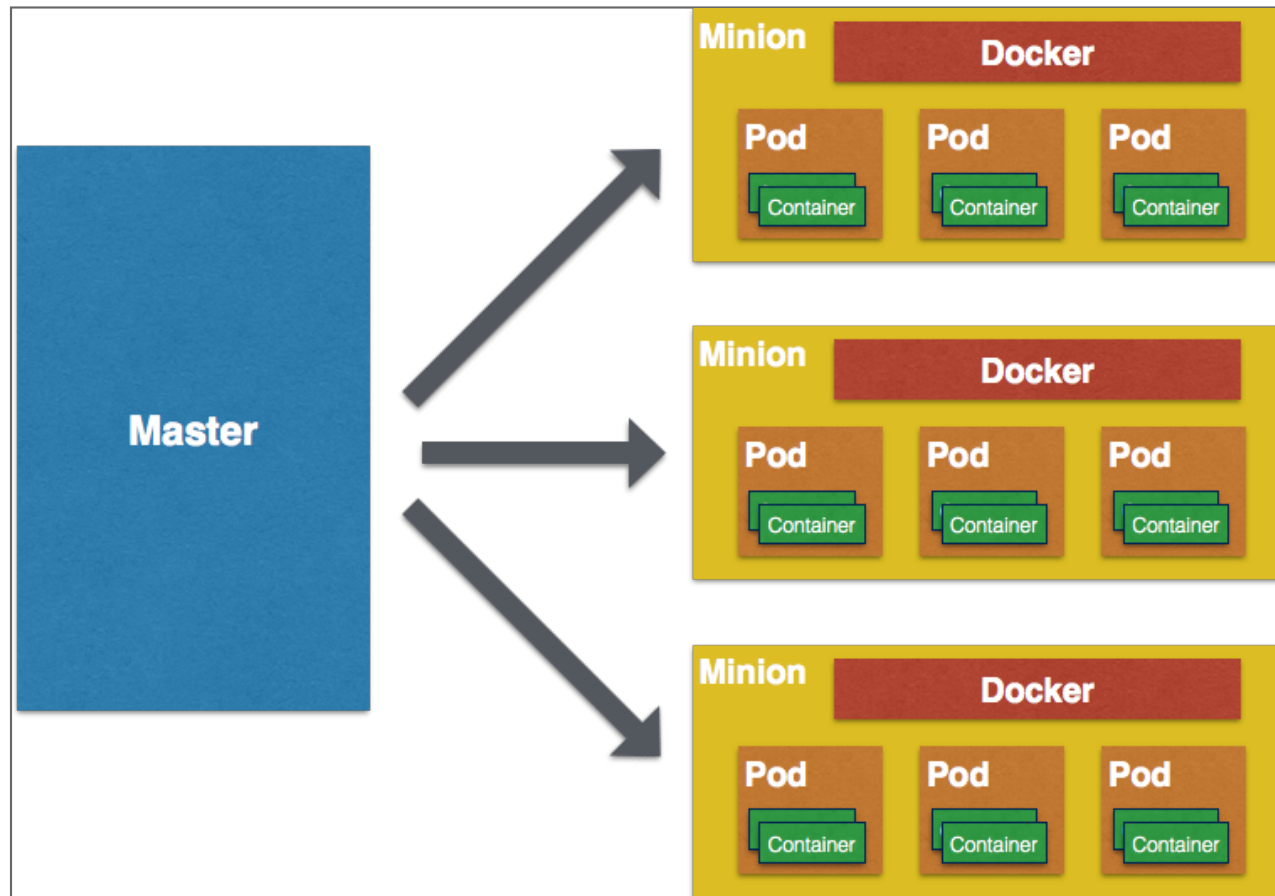
Google Container Engine (Kubernetes)



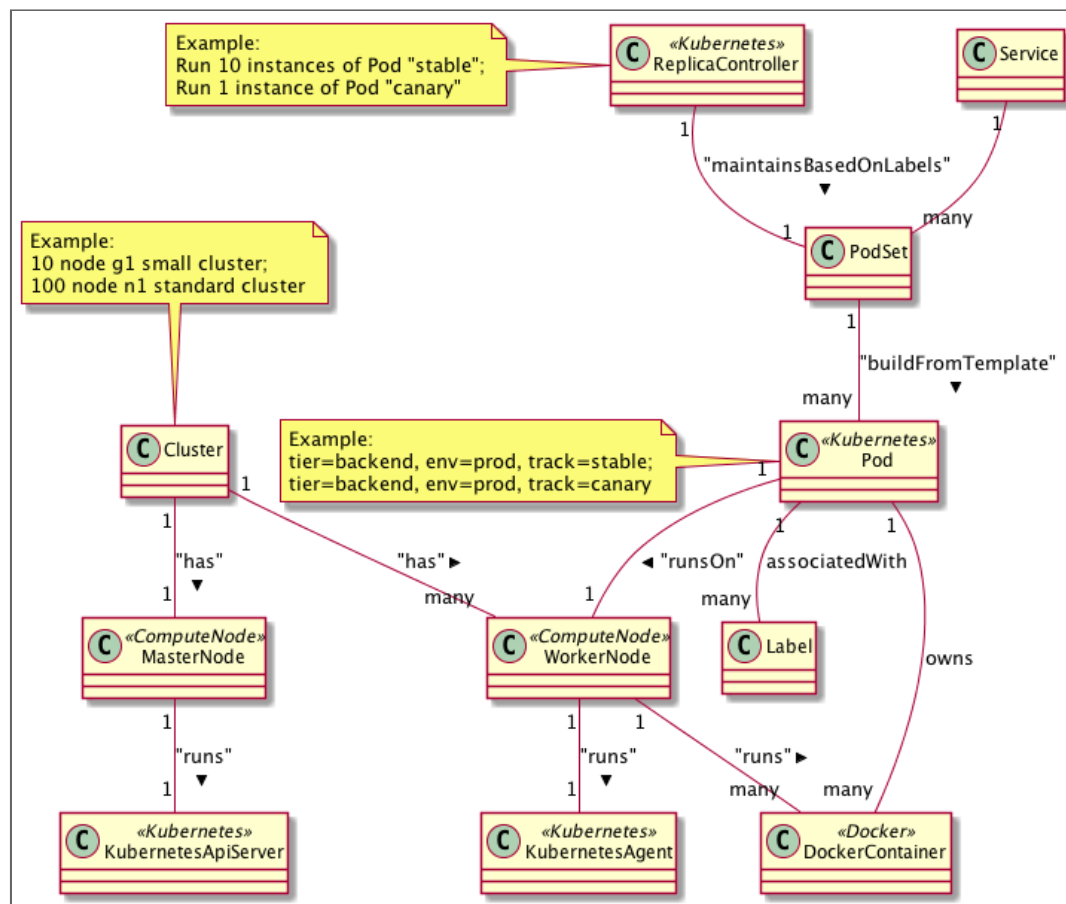
Google Container Engine (Kubernetes)



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Google Container Engine (Kubernetes)



Google Container Engine (Kubernetes)

- Concepts: Cluster, Node (master/worker), Pod, Service, ..., Replication Controller, ...
- GCE vs. Mesos vs. Openstack vs. ... - Resources (CPU, Mem, Disk, Network), Assets (Services, Applications, ...)

NodeJs on k8s

- Hello, World vs. Hello, Meetup
- DEMO - Upgrade a running cluster to the next better version of a NodeJs server implementation

NodeJs on k8s - DEMO



What to consider?

1. Do not build it yourself!!!
2. AWS, Google Cloud, RackSpace, Heroku, ...
3. Bamboo, snap-ci, ...
4. Netflix, Zalando, Gilt, Etsy, ...

Questions?

