Kubernetes og sånt

Trond Hindenes, RiksTV

Containers 101

- Completely self-contained and independent
- Reliable build DSL (same input -> same output)

- But: Hard to manage at scale (where to run container bd9e2b757a16?)
- Docker Linux vs Windows

.Net Core in Docker

- Let’s build awesome!!
- How to manage docker artifacts (docker images)

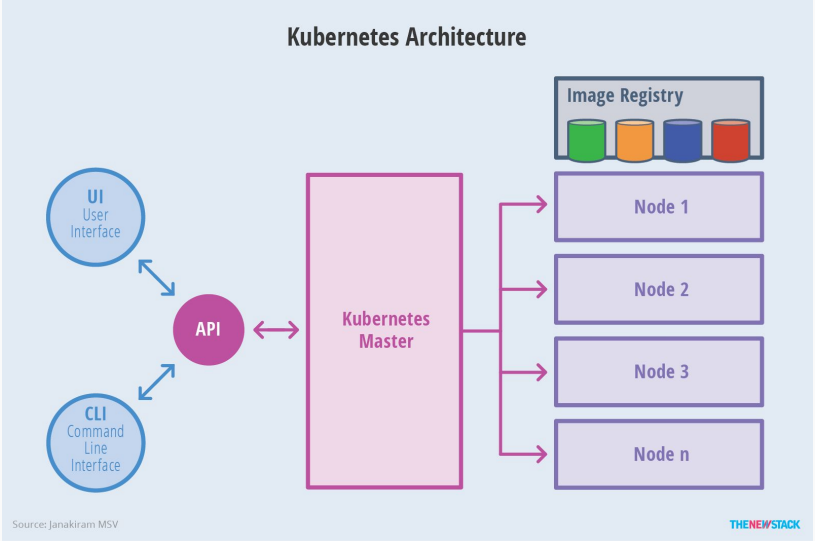
What Kubernetes does

- Container Scheduling (and health probing)
- Service Discovery
- Routing

- … In an api providing “sufficient” abstraction from the underlying infrastructure

Important Kubernetes Constructs

- Container
- Pod (scale unit)
- Deployment
- Service
- Ingress (and Ingress Controller)
- Node



Interacting with Kubernetes

- Kubectl
- Kubernetes Dashboards
- Many other projects

Let’s build some stuff!

Making apps shine on Kubernetes

- Concurrency
- Health probes
- Resource Scheduling
- Autoscaling
- Logging

Things we learned at RiksTV

- Kubernetes is a “platform to build platforms” - treat it as such!
- Multiple clusters allow testing infra changes (Traefik for instance)
- Use REAL versions, not “latest”
- No one likes 1000 lines of YAML. Abstractions are good!

Things we use (or should)

- Traefik: awesome load balancer and ingress controller http://Traefik.io
- Istio: Service Mesh
- Jaeger: Distributed Tracing