GO2 TEAM MEETING #4

JAN 30, 2020

A Brief Intro to *Kubernetes*

- A platform that takes applications and package it into **containers**, and deploy them at scale

- ***Declarative*** ~~Imperative~~ APIs -> System components work in parallel to drive to desired state -> automatic recovery

- The control plane is transparent with no hidden internal APIs -> all components interact with the ***API server*** -> level ~~edge~~ triggered -> system is more reliable and more extensible

KubeAPIs

mounted as files within a container, or environment variables

- `Secret` -> sensitive info, passwords, certificates

- `ConfigMap` -> startup parameters

- `DownwardAPI` -> pod information

Conclusion:

- The ecosystem is rapidly evolving

- Maintain best practice

- Informed with latest tooling

command line interface -> `kubectl`
build cluster in single host -> `minikube`
bootstrap min. best-practice cluster -> `kubeadm`
package manager -> `helm`
in-cluster component of helm -> `tiller`
cluster management -> `kops` `oc`