Bringing Zabbix to Kubernetes, the Zabbix-Operator

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Intro

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Kubernetes Operators

- “A place to put operational knowledge into software where previously that knowledge was held in the minds of administrators.” - [https://operatorframework.io/](https://operatorframework.io/)
  - CNCF Incubator Project
  - Started at CoreOS

- Operator-SDK

- Types of Operator Bases
  - Ansible
  - Go
  - Helm
Define Zabbix Instance

● How?
  ○ Custom Resource Definition (CRD) - https://kubernetes.io/docs/concepts/extend-kubernetes/api-extension/custom-resources/

● What?
  ○ Container images
  ○ Database claim size
  ○ Replicas
  ○ Cluster Monitoring
  ○ Database Monitoring (Coming Soon)
The Guts

- Ansible based
  - Kubernetes-Zabbix Role
  - Docker-Compose -> Kompose -> Ansible Role
- Postgres Database Statefulset
  - Postgres base image + Zabbix schema pre-loaded
- Cluster Node Monitoring
  - Auto add cluster nodes
  - Deploy Prometheus Node Exporter
  - Requires Service Account with Cluster Scope
- Database Monitoring
  - Auto add Database container
  - Postgres Database monitoring template applied
Where?

https://gitlab.com/frenchtoasters/zabbix-operator

https://www.zabbix.com/integrations/kubernetes

https://operatorframework.io/

https://github.com/operator-framework/operator-sdk

https://kompose.io/
Questions?