

GitOps

What?

- Modern infrastructure is declarative
- We can represent it's state in source control
- GitOps - using git to do operations
 - Git is the source of truth for our deployments.
 - deploy/upgrade = make changes in git repo

Why?

- Trail / Audit log
- Ability to revert
- Ability to review
- Use PR flow to test proposed changes

How?

- Home made workflows
 - CI/CD
 - git webhooks
- Off the shelf tools:
 - Flux

Things to consider

- Git is the UI/UX
 - Lots of YAMLs.
- Secret Management
 - You usually don't want plain secrets in git
 - Consider [External Secrets](#), [Sealed Secrets](#).
 - Flux has support for YAML decryption with [Mozilla SOPS](#)
- Intentional automated drifts from git state
 - Failed deployments / automated rollbacks
 - HPA (i.e. increment number of replicas)

Demo time!

- Flux v2
- Flux docs: <https://toolkit.fluxcd.io/get-started/>