# GITOPS PULL BASED DEPLOYMENT

THIS MODEL SPLITS CI FROM CD FOR SECURITY AND SPEED.

- SYSTEM IS ALWAYS IN A KNOWN STATE
- DEVIATIONS FROM THAT STATE ARE AUTOMATICALLY REVERTED
- ALL CHANGES TO SYSTEM STATE ARE:
  - CAPTURED IN GIT
  - IMMUTABLE
  - AUDITABLE
  - ATTRIBUTABLE
- CI
  - RUNS TESTS
  - BUILDS OCI IMAGE FOR EACH CHANGE
  - PLACES OCI IMAGE IN REGISTRY FOR SCANNING
- REGISTRY
  - CONTAINS ALL PROJECT IMAGES
  - SCANS RECENT IMAGES
  - OLD IMAGES ALLOW ROLLBACK
- CD
  - CLUSTER REACHES OUT
  - NO EXTERNAL SERVICE REACHES IN

## PULL BASED MODEL WITH GITHUB ACTIONS

KUBERNETES   FLUX   GITHUB CONTAINER REGISTRY   GITHUB ACTIONS   GITHUB REPO

**CI**

TRIGGER BUILD VIA HTTPS WEBHOOKS

PULL NEW CHANGES TO BUILD CONTAINER

BUILD NEW IMAGE

TAG AND PUSH NEW IMAGE TO REGISTRY

**CD**

POLLS REGISTRY FOR IMAGES A CONFIGURABLE INTERVAL

COMMIT NEW IMAGE TAG BACK TO CONFIG

PULL SPECIFIED BRANCH ON CONFIGURABLE INTERVAL

APPLY CONFIG FROM GITHUB REPO

PULL IMAGES SPECIFIED IN CONFIG

RUN CONTAINERS SPECIFIED IN CONFIG