



GitOps with ArgoCD

Diamond
Sponsors:



Partners:



Universitatea Transilvania din Braşov

About me

- Writing code for a living since 2003
- GO, Bash and a long time ago .NET and JS
- SRE Tech Lead in Mambu's Release Engineering team
- Organiser of the Cloud Native Meetup in Iasi (registered with CNCF)
- OSS contributor (Argo) & CNCF Ambassador

In the next ~3 hours:

- Kubernetes platform
- GitOps
- ArgoCD
 - Self manage
 - App of apps pattern
 - Promotions

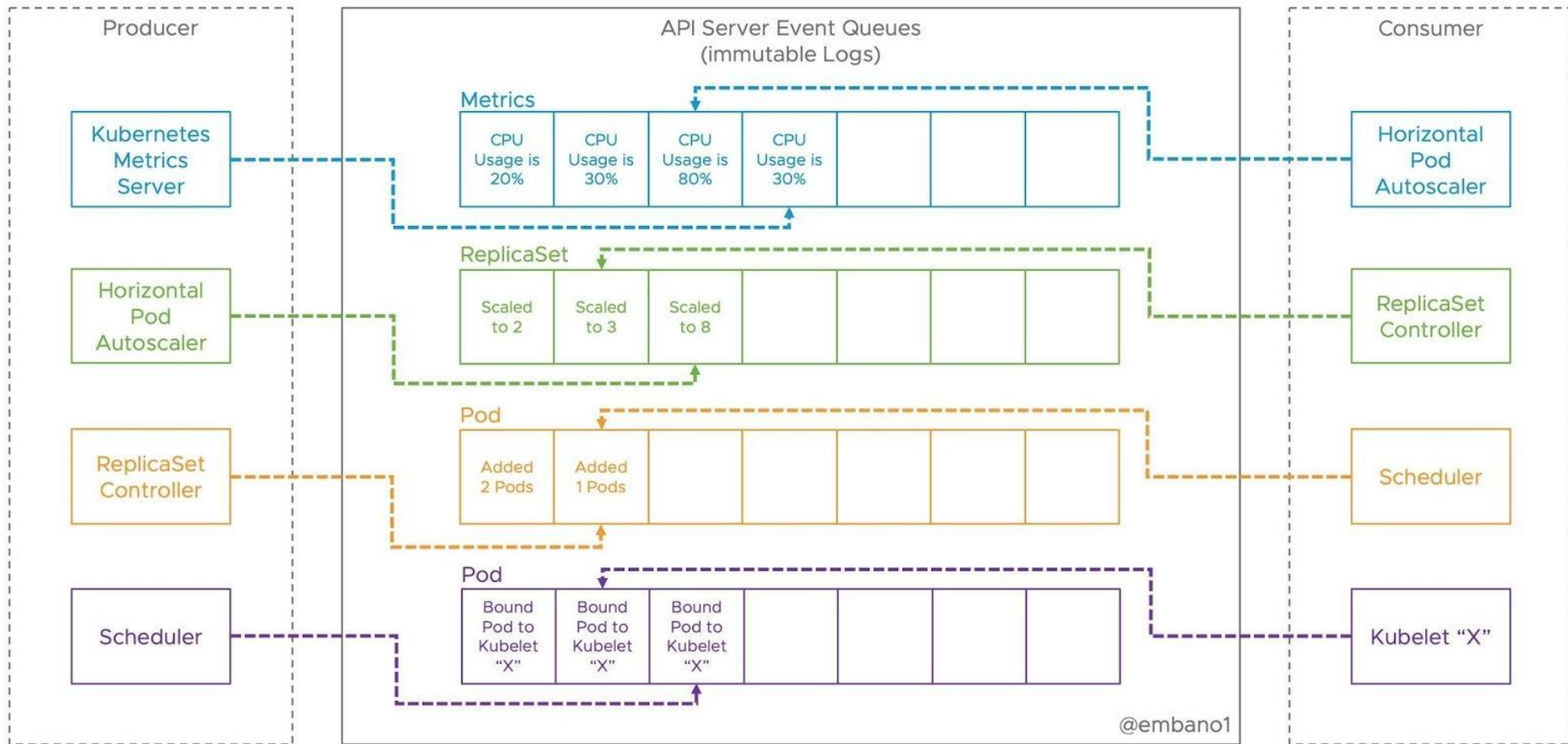
Kubernetes

- What is Kubernetes?
- Do you really need Kubernetes?
- Is it your only option?



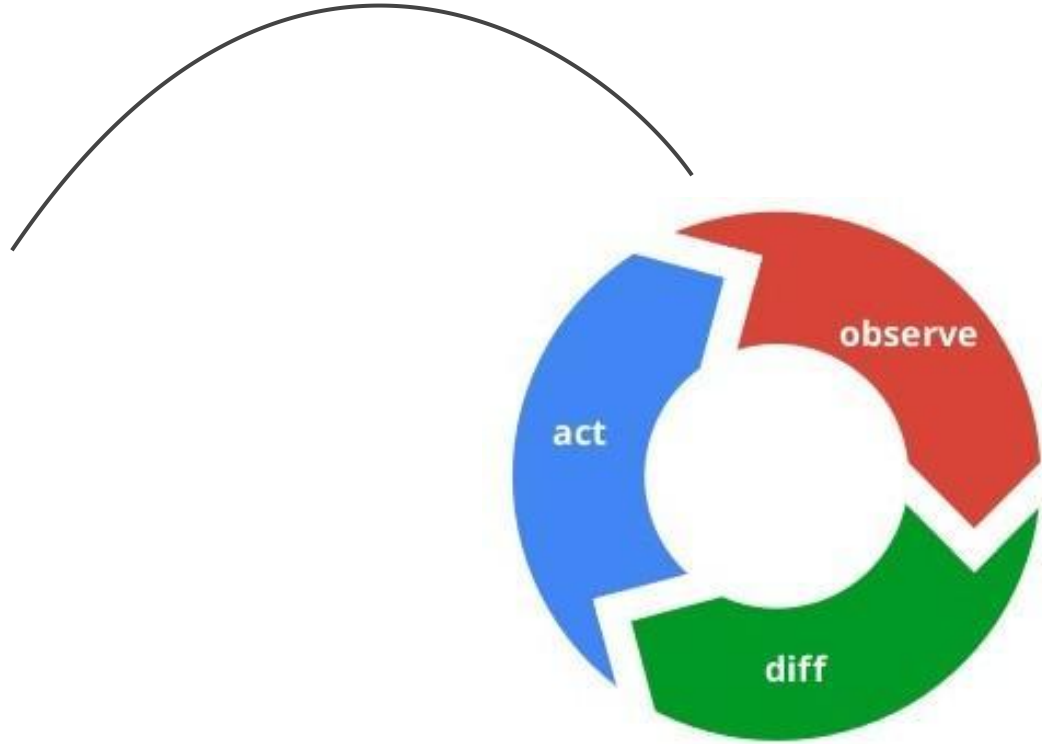
Kubernetes API Server

- HTTP Rest Server
- Open API Specifications
- SDKs in many languages
- Declarative API



Control loop

Kubernetes Controllers



GitOps

GitOps is a way to do Kubernetes [...] application delivery. It works by using Git as a single source of truth for declarative infrastructure and applications[...]

<https://www.weave.works/technologies/gitops/>

ArgoCD





- A GitOps Operator: keeps your git repos with your cluster in sync
- A glorified *kubectl apply*
- Open source project, part of CNCF, which could be useful for you



Argo CD

Jesse

← → ↻ ⚠ Not Secure https://192.168.64.36:31880/applications/argocd/guestbook-default?kinds=Deployment%2CService... ☆ ⋮


APPLICATION DETAILS

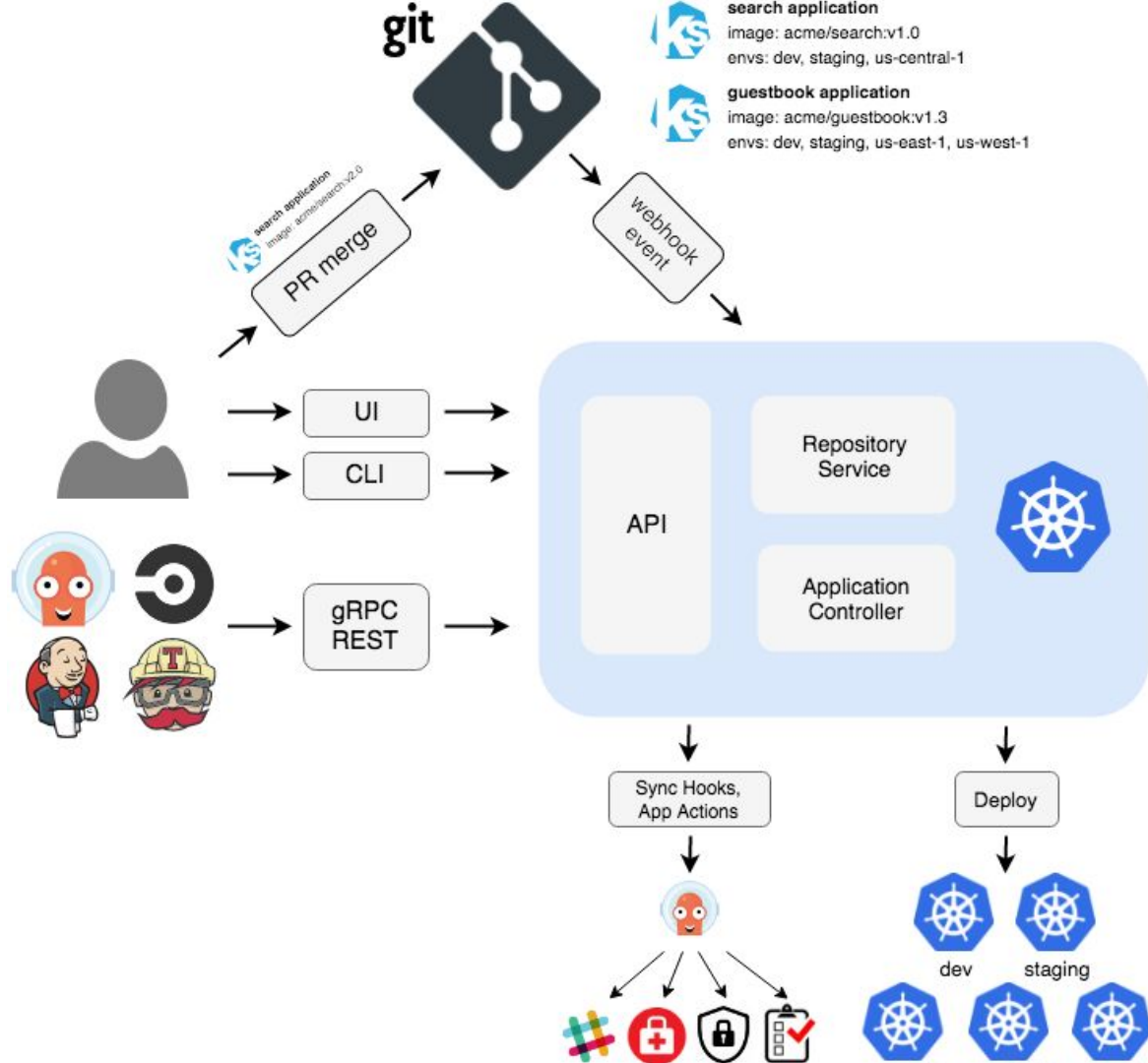
Applications / guestbook-default

0
DAYS ACTIVE

0
DAYS SINCE LAST
SYNCHRONIZED

synchronization
SUCCEEDED AT 2018-06-21T01:23:50Z



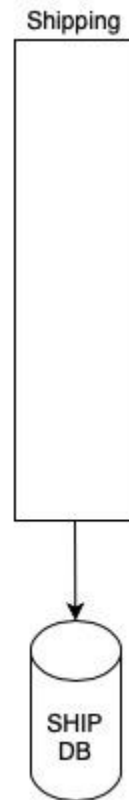
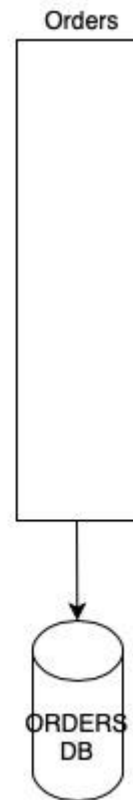
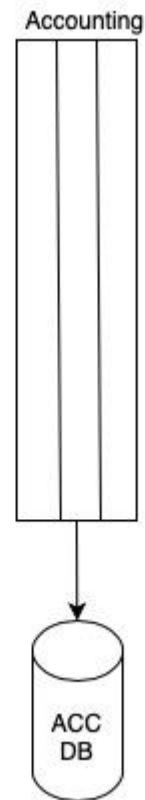
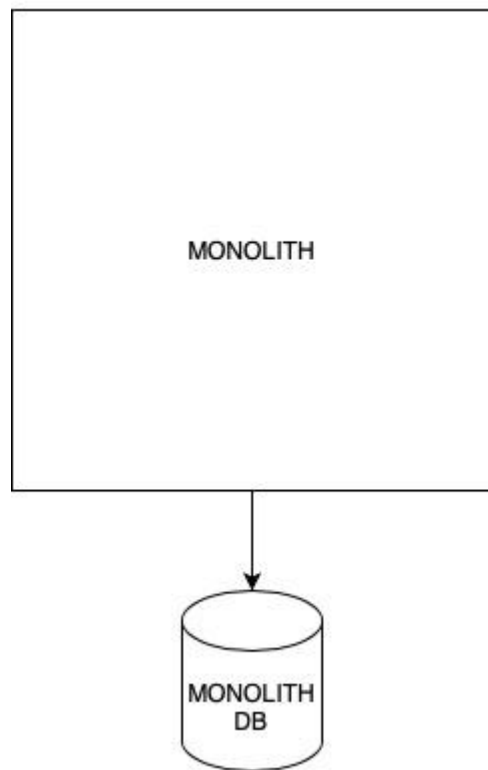


ArgoCD Features

- Single Sign On: SAML (Google), OIDC (Github, Auth0, Microsoft etc)
- Can be deployed in one central location and manage multiple clusters
- Declarative setup & it can update itself (possible with Kustomize install)
- Sync waves, sync windows
- A thriving community: slack channels, regular meetings, public roadmap

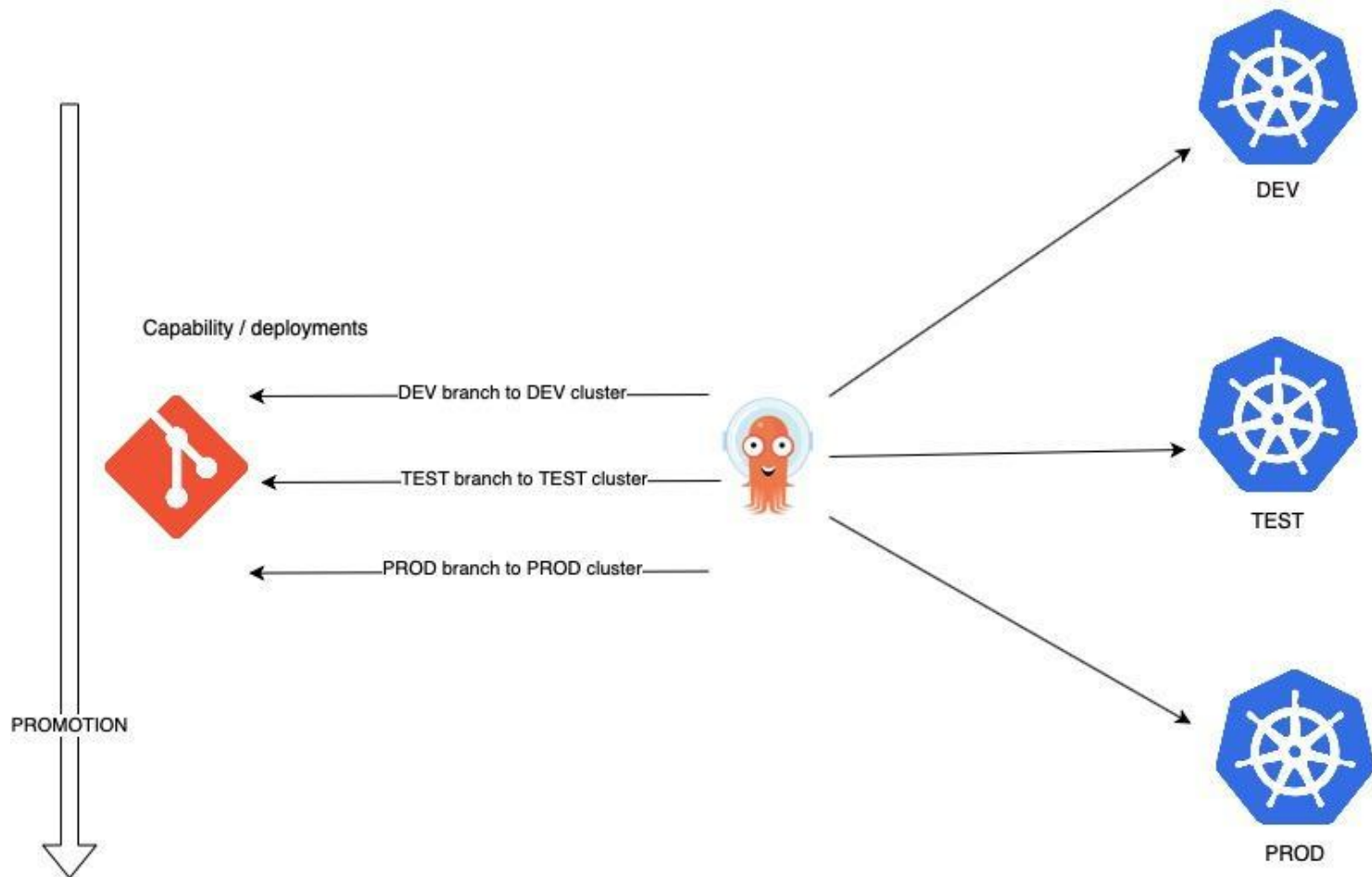
Hands On time

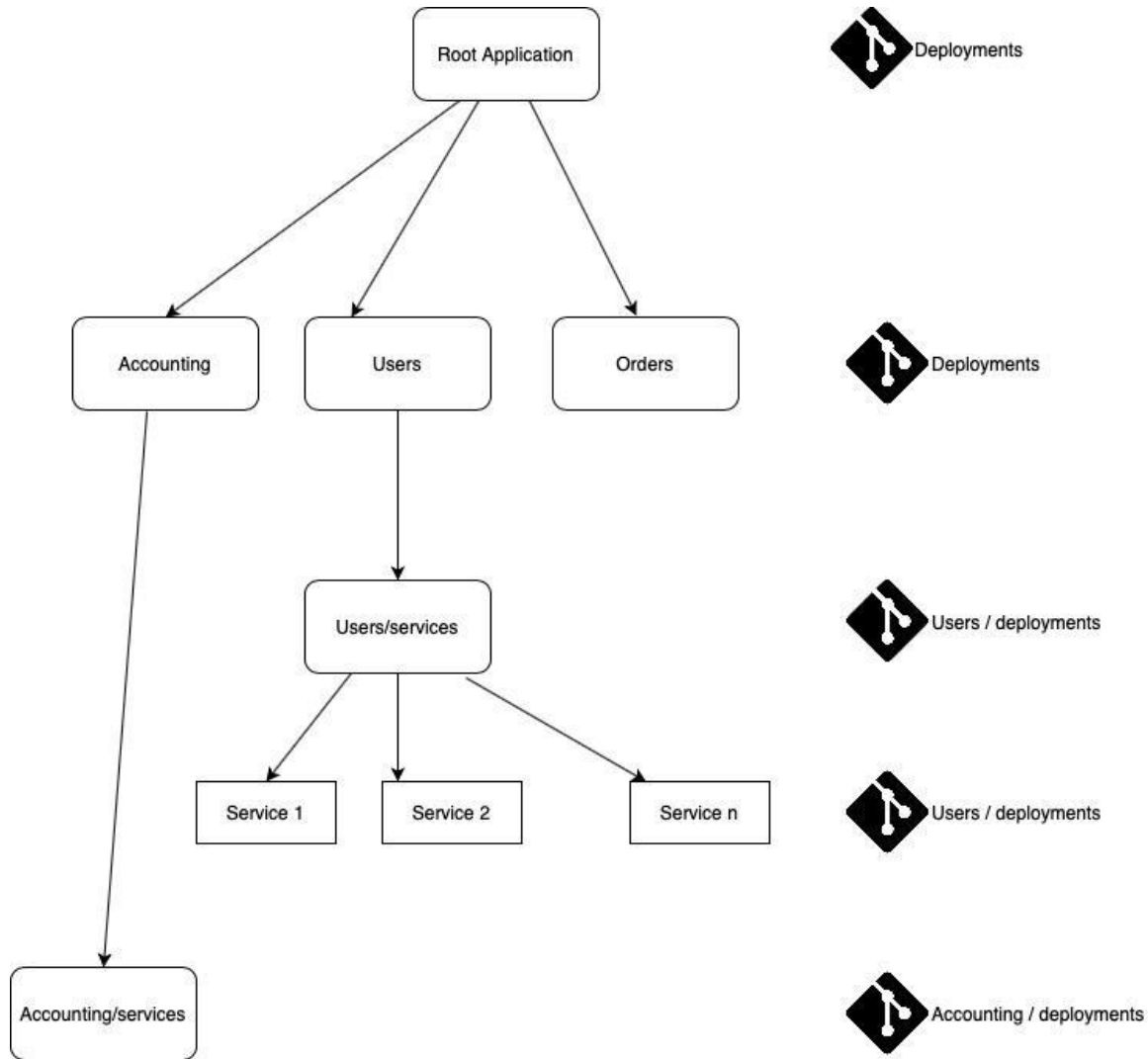




GitOps Repos

- One repo to rule them all, separated in branches and paths (for monolith)
- Repo per capability:
 - Users repo, Accounting repo, Orders repo etc
- Repo per service:
 - Users-auth repo, Users-profile repo, Acc-reconciliation repo





GitOps Engine

- ArgoCD v1.6
- *<https://github.com/argoproj/gitops-engine>*
- Joint-venture between Argo CD and Flux CD (from weaveworks)
- This is a common library which can be used by many projects

Controller scaling (sharding)

- ArgoCD 1.8
- Performance issues when dealing with >2000 apps or >100 clusters
- Allows a controller replica to handle a shard of the clusters

Feedback



<http://bit.ly/peakit003-feedback>



Completați acum



Durează 2-3 minute



Feedback anonim -
pentru formator și
AgileHub