

# GitOps at Adobe

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@csanchez

**DEVOPS**  
**WORLD**  
by CloudBees

Cloud Engineer

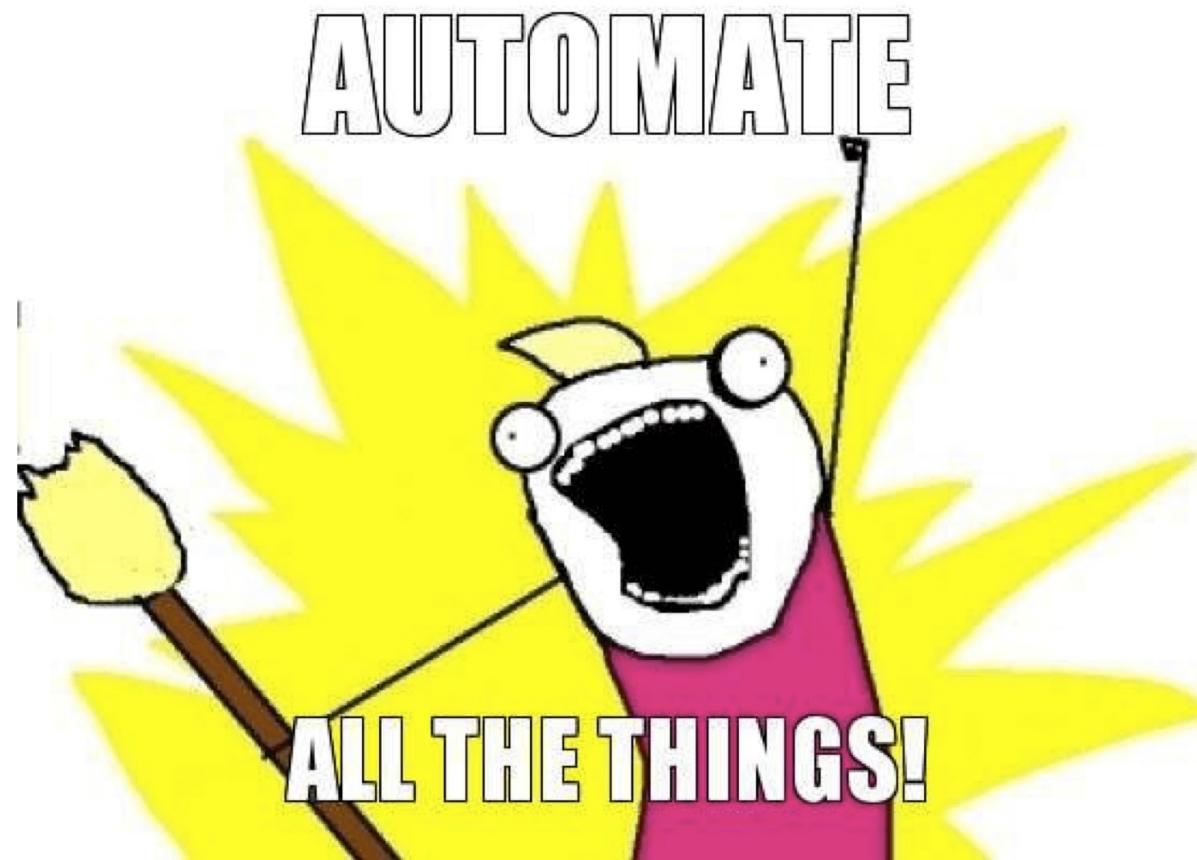
@ [Adobe Experience Manager Cloud Service](#)



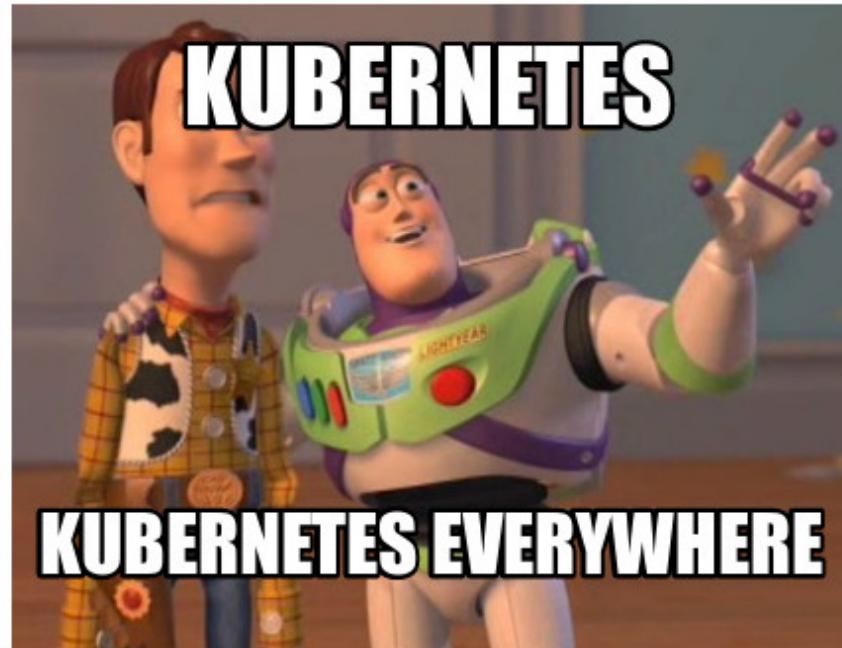
Author of Jenkins Kubernetes plugin

Long time OSS contributor at Apache Maven, Eclipse,  
Puppet,...

# WHY GITOPS?



# KUBERNETES



Many clusters

Many regions

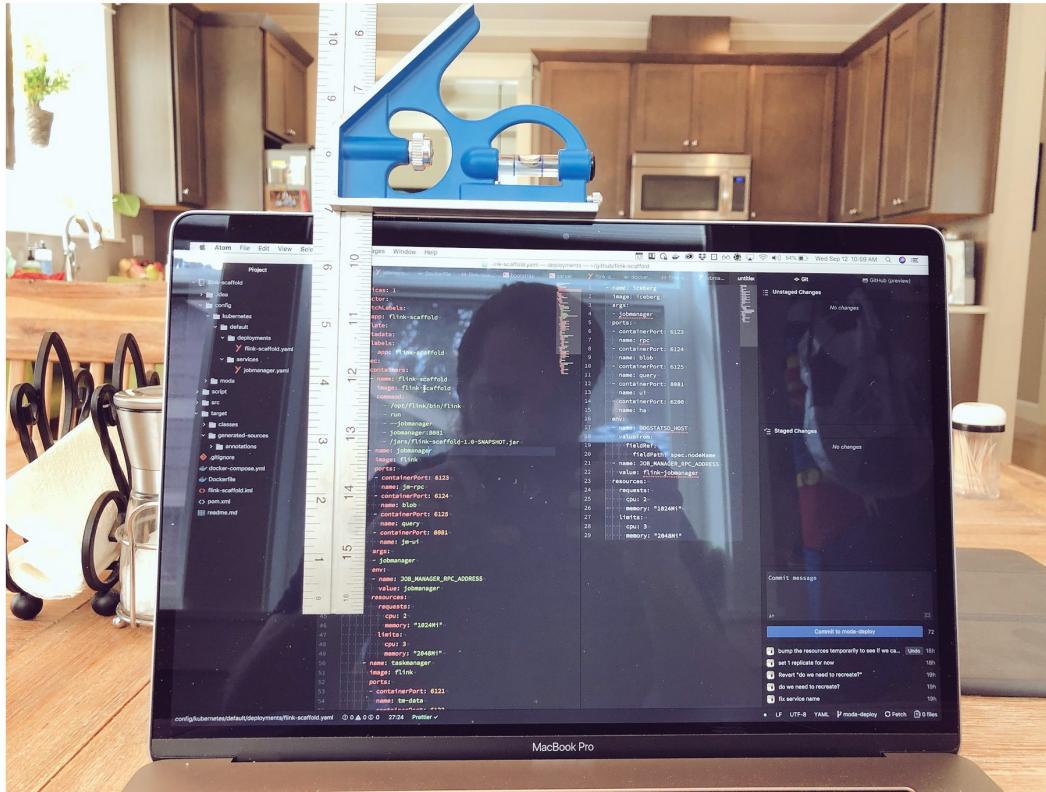
Many related services and infrastructure

# BENEFITS

# **FULL VIEW ACROSS ALL SYSTEMS**

For developers, SREs, on-call,...

# DECLARATIVE CONFIGURATION



Using standard YAML  
ie. Kubernetes, Kustomize, Helm  
and  
custom defined

## **RECONCILIATION**

We keep the desired state in git  
and it is automatically reconciled against what is  
running

# TRACEABILITY

Using git logs

# PULL REQUESTS

PRs can be deployed to different environments too

# CONTINUOUS DELIVERY

Changes in git trigger Jenkins pipelines that test and  
deploy the definitions



# TRACEABILITY

Using git logs

# APPLICATIONS

Changes in git are automatically deployed across  
clusters and namespaces

pull vs push when possible

# INFRASTRUCTURE

Can use

- Terraform
- AWS CloudFormation
- Azure ARM
- Google Cloud Deployment Manager

Then react on git changes deploying and updating the infrastructure

**IS THIS THE REAL GITOPS**  
**or just Infrastructure As Code?**



# DNS

DNS configuration is stored in git

Using Jenkins and templates we continuously  
reconcile changes with the DNS API

# CDN

CDN configuration is also stored in git

Same Jenkins and templating mechanism to deploy  
and update CDN configuration

# **AND MORE!**

Grafana

Prometheus

...

**IS IT JUST FOR  
HUMANS?**

# NO!

Integrate changes coming from

- UI
- APIs
- Humans (devs, SREs, on-call,...)

to keep a consistent always up to date view

# DECOUPLING SYSTEMS AND GIT

Providing services with APIs or using queues  
that transform actions into git commits

Yes, you can [trigger Jenkins pipelines from message queues](#)

# GITOPS SO FAR...



# Thanks!

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<http://csanchez.org>

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