Kubernetes: beyond Minikube

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developer, dreamer and
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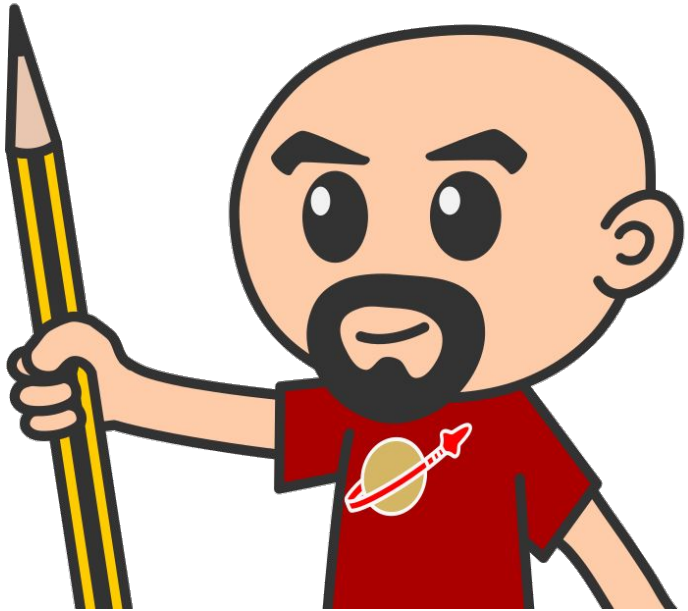

OVH
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MEETUP

Summary

What I would like to speak about:

- Orchestrating containers
- Kubernetes: some concepts
- I have deployed on Minikube, woah!
- From Minikube to prod
- Building a managed Kubernetes service

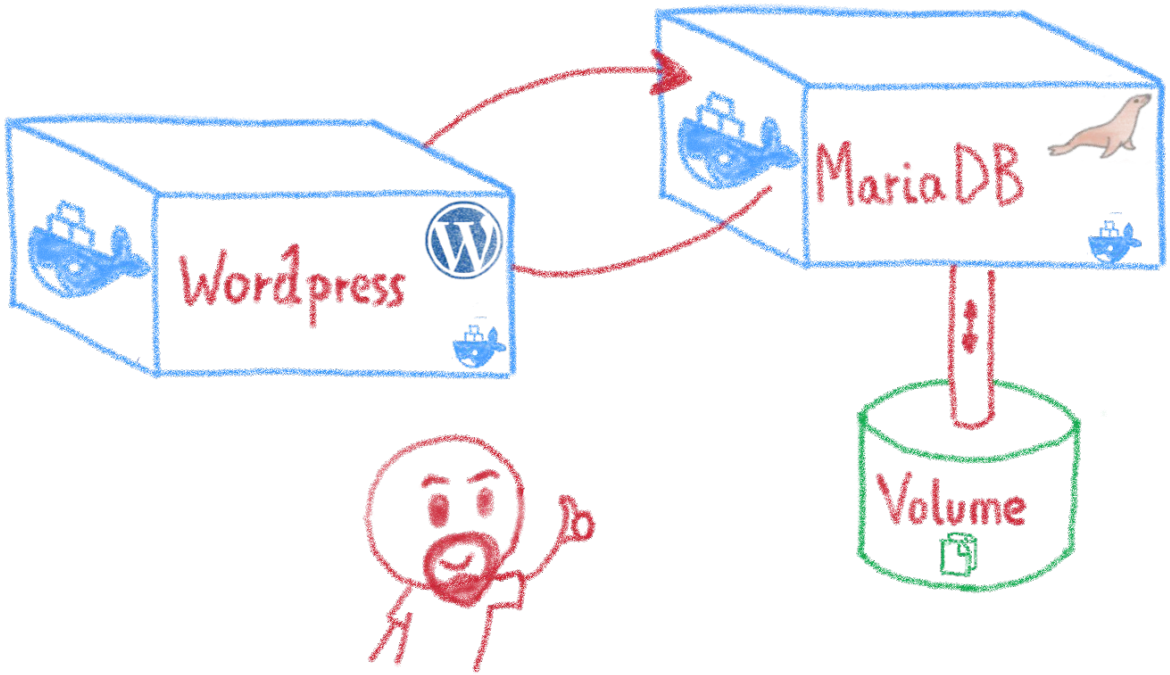
Orchestrating containers

Like herding cats… but in hard mode!

From bare metal to containers

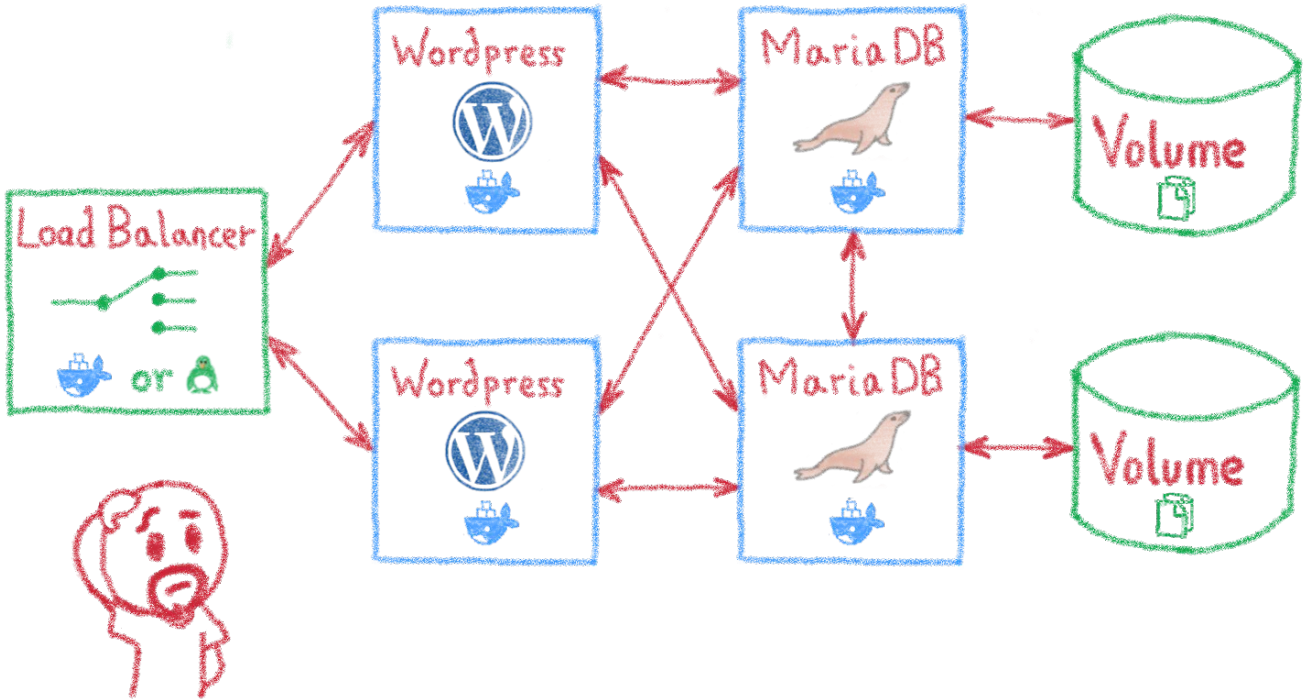
Another paradigm shift

Containers are easy…



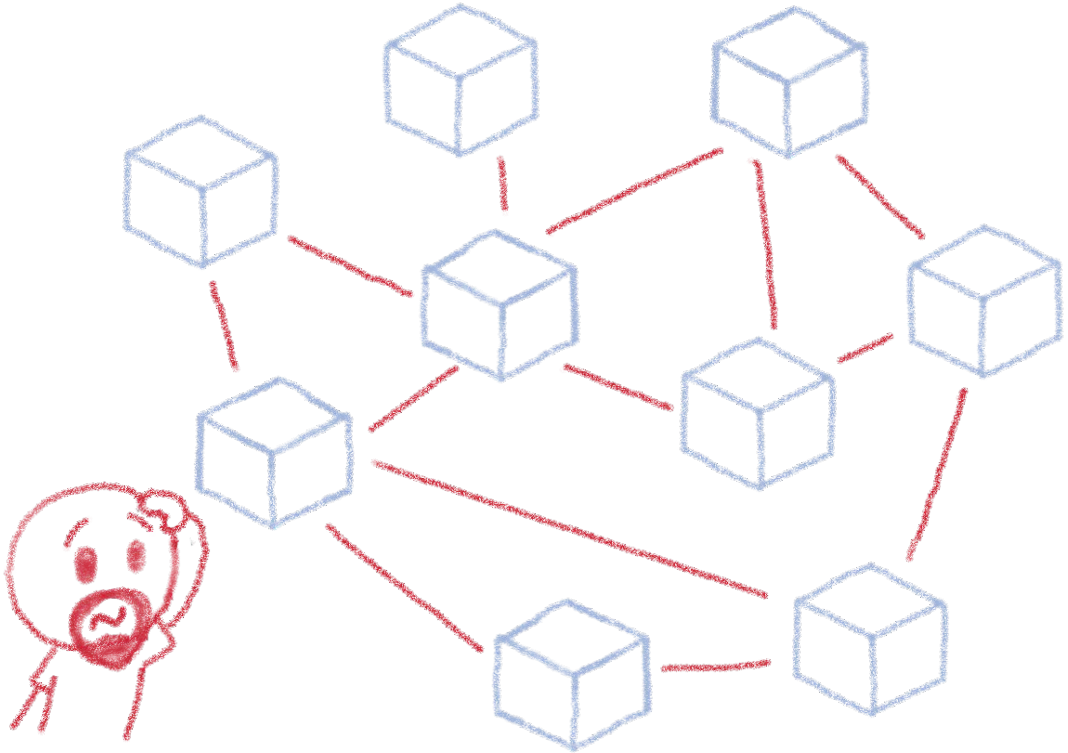
For developers

Less simple if you must operate them



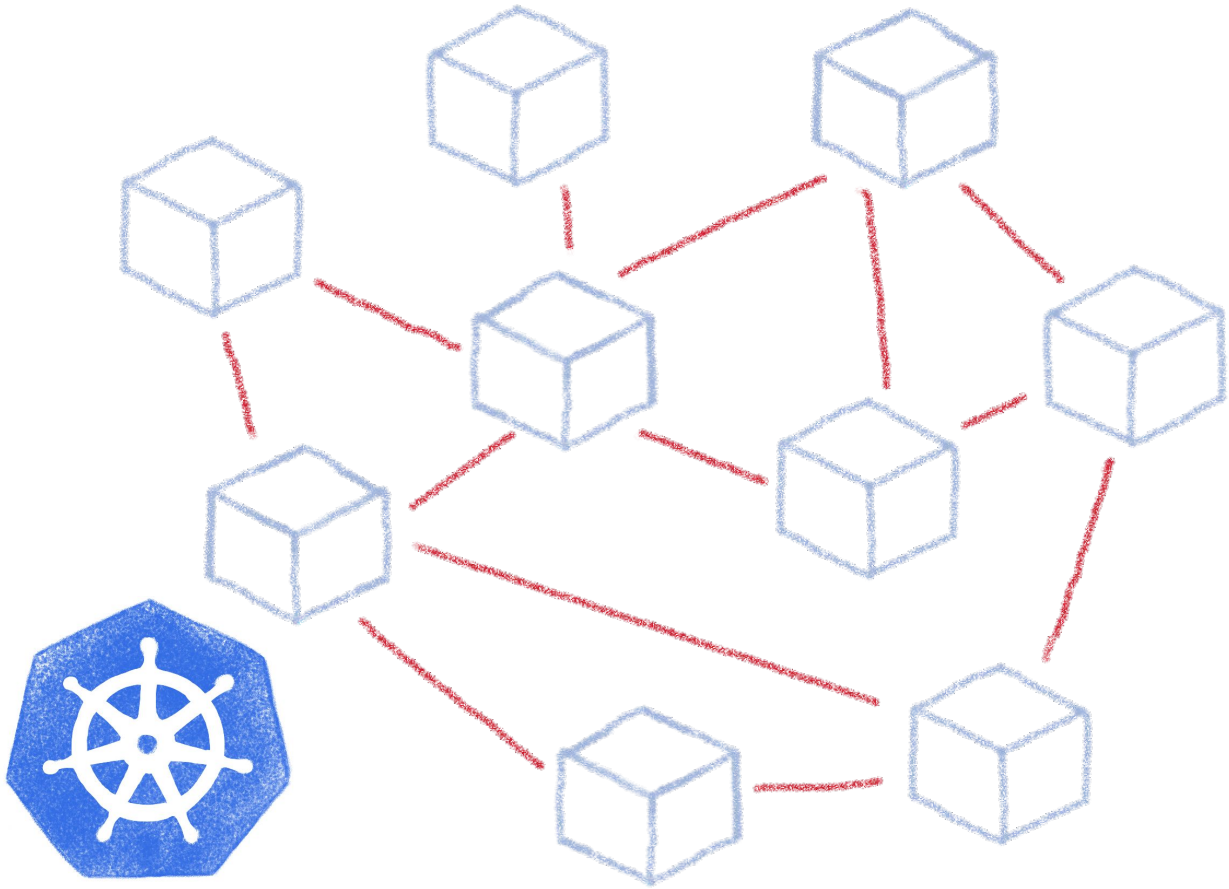
Like in a production context

And what about microservices?



Are you sure you want to operate them by hand?

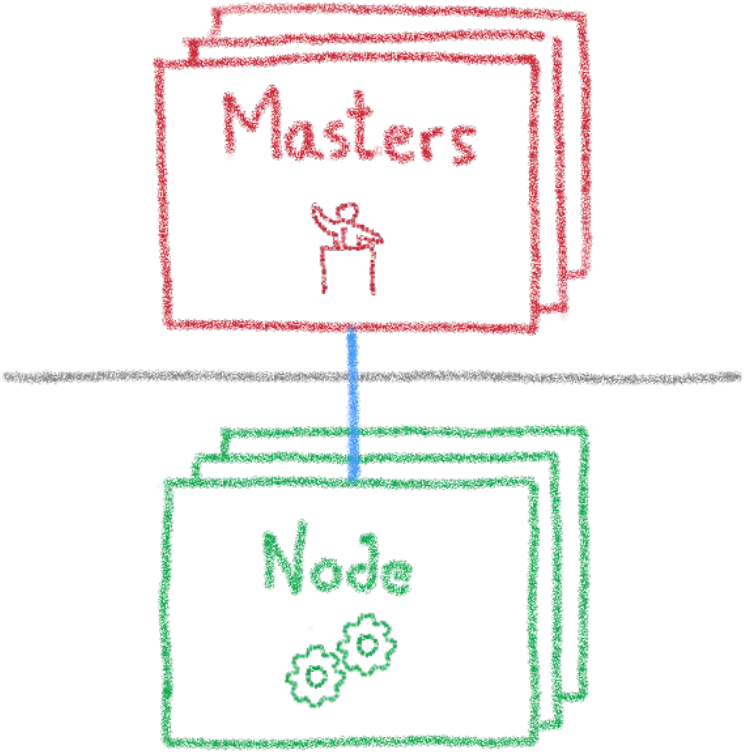
Taming microservices with Kubernetes



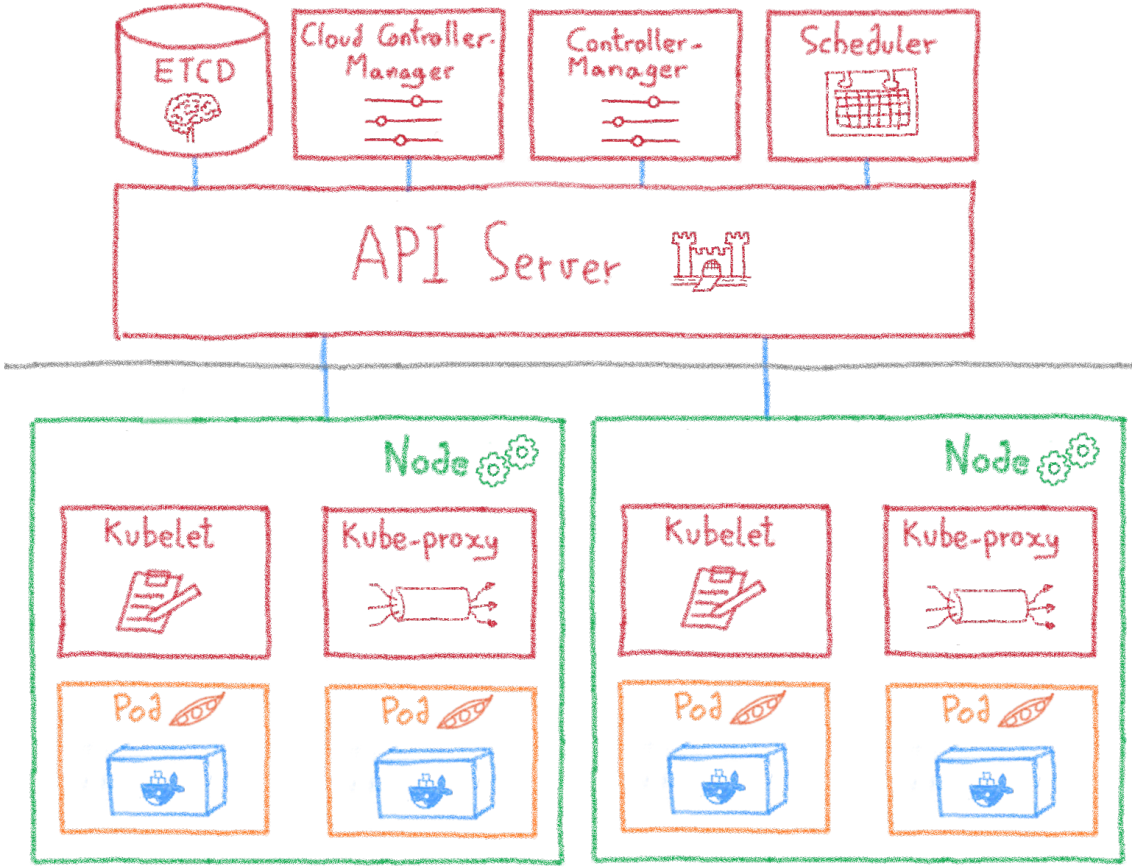
Kubernetes

Way more than a buzzword!

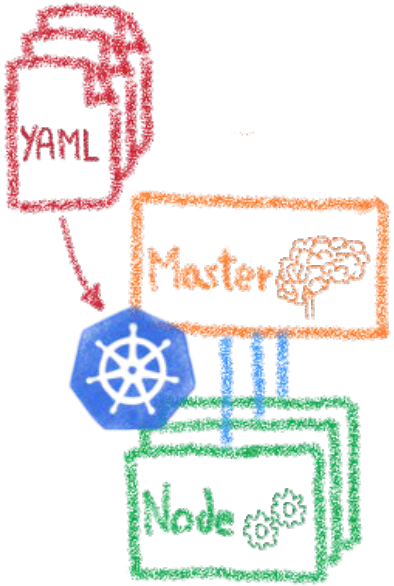
Masters and nodes



Some more details

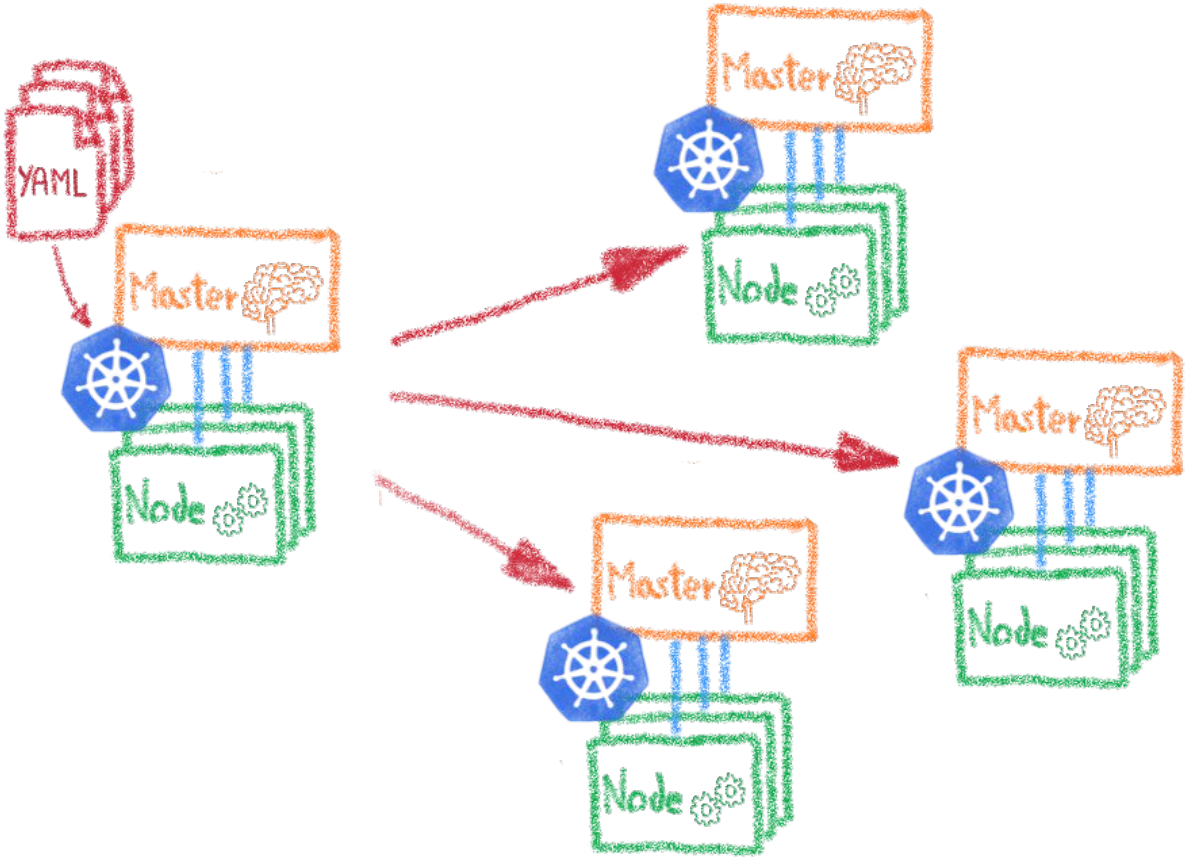


Declarative infrastructure



Multi-environment made easy

Having identical, software defined envs



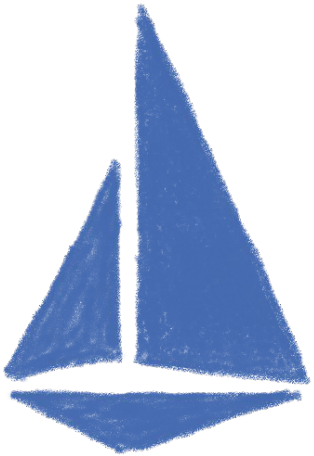
Dev envs

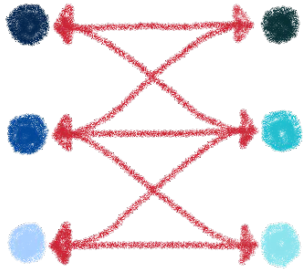
Staging

Multi-cluster

Multi-cloud

Istio, a Service Mesh for Kubernetes

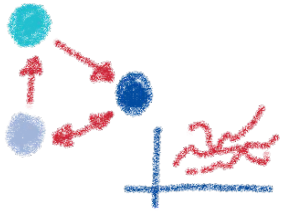




Connect

Secure

Control



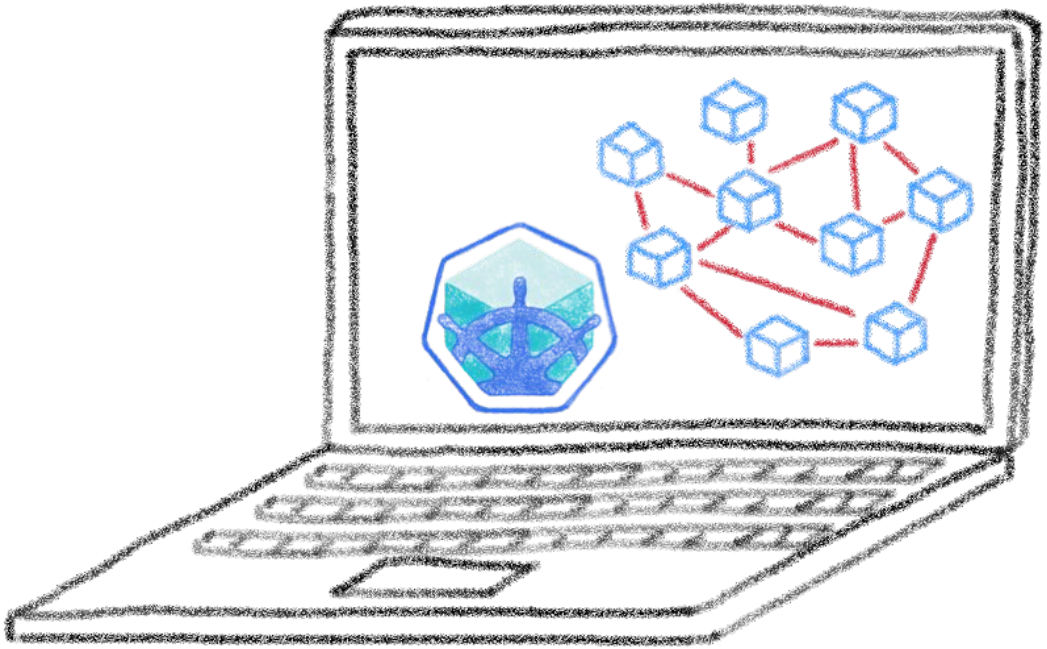
Observe

- Rolling upgrades
- A/B Testing
- Canary Testing
- Edge traffic management
- Multicluster service mesh

I have deployed on Minikube, woah!

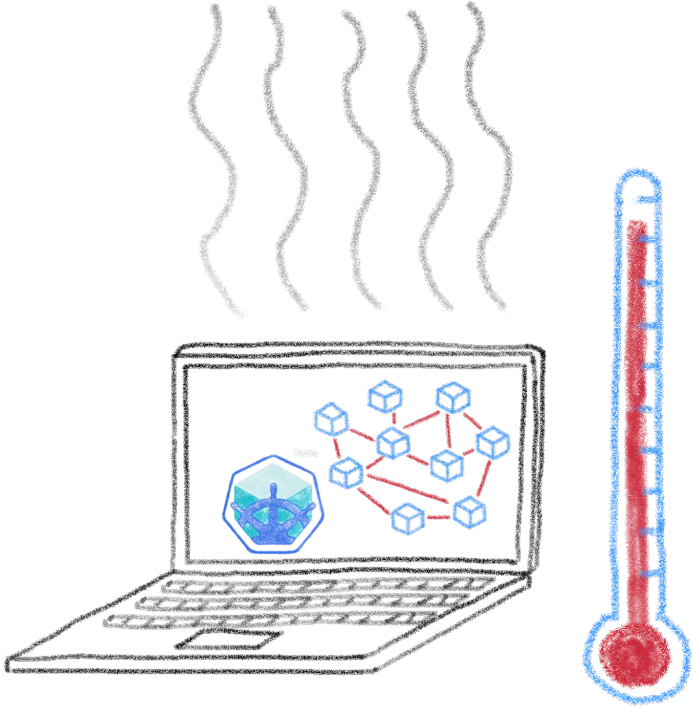
A great fastlane into Kubernetes

Running a full K8s in your laptop



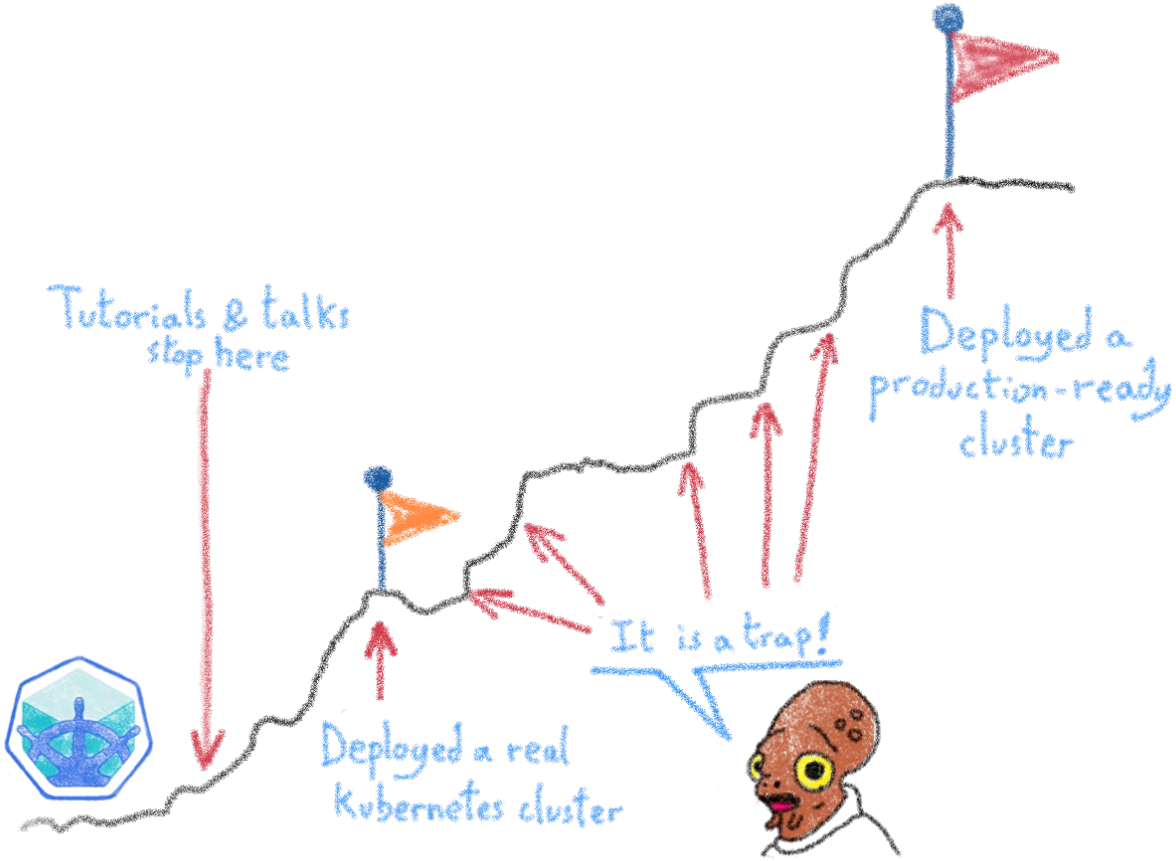
A great learning tool

Your laptop isn't a true cluster



Don't expect real performances

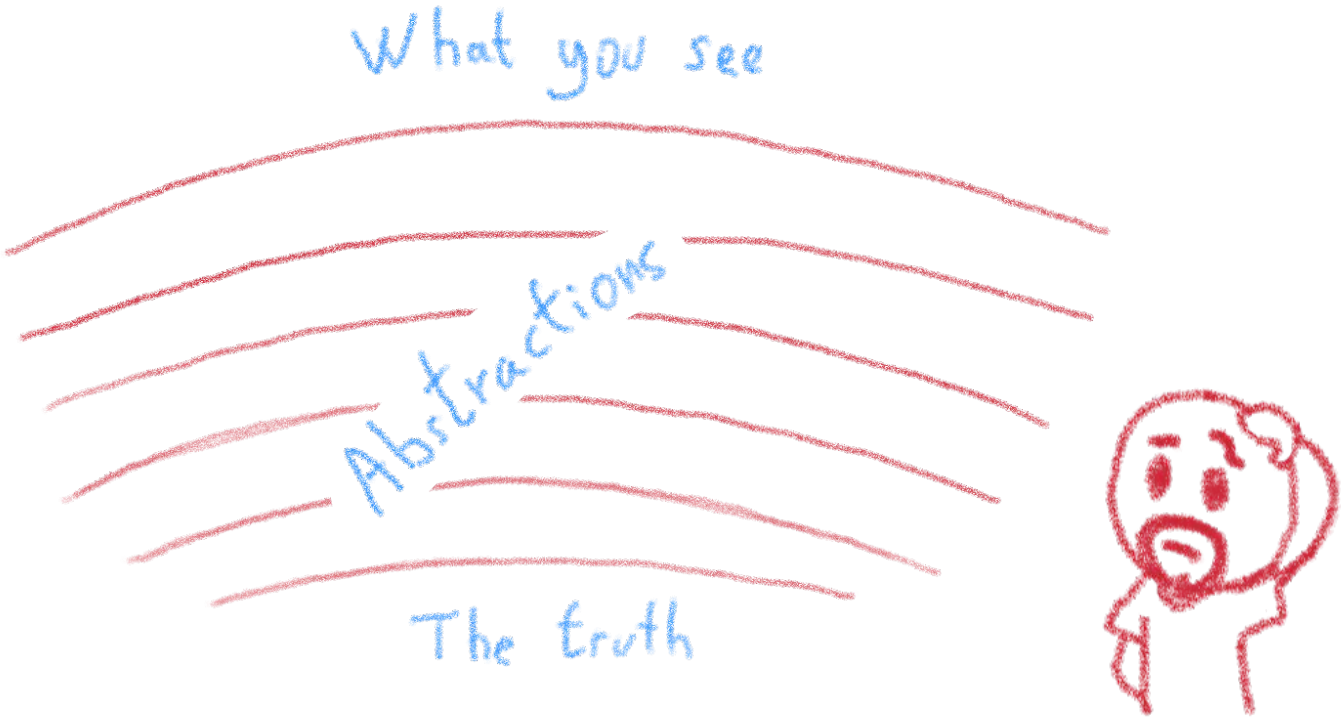
Minikube is only the beginning



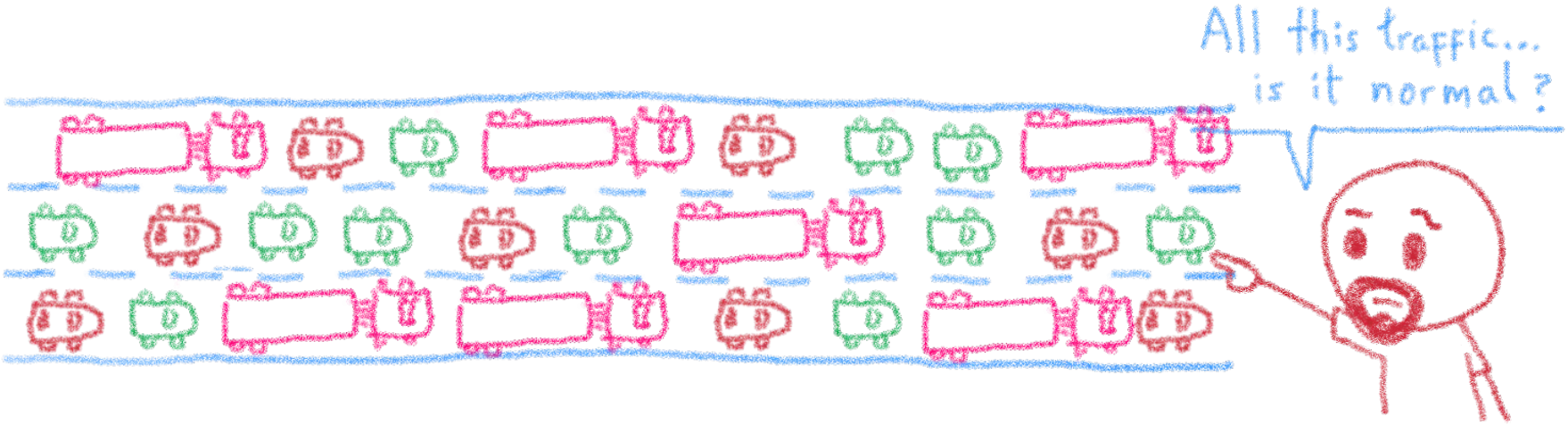
From Minikube to prod

A journey not for the faint of heart

The truth is somewhere inside...



The network is going to feel it...



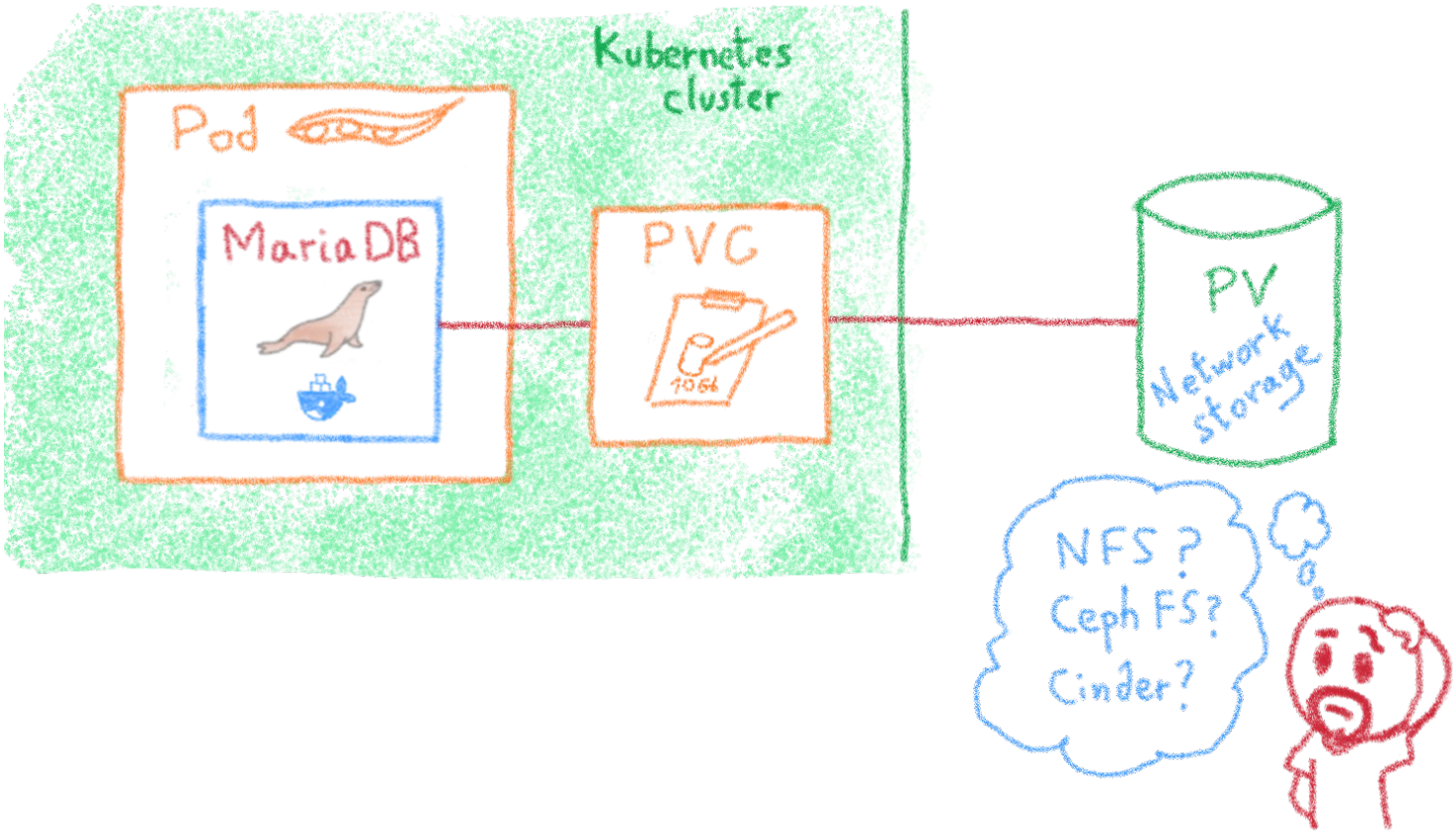
The security journey

Mattias Gees
@MattiasGees

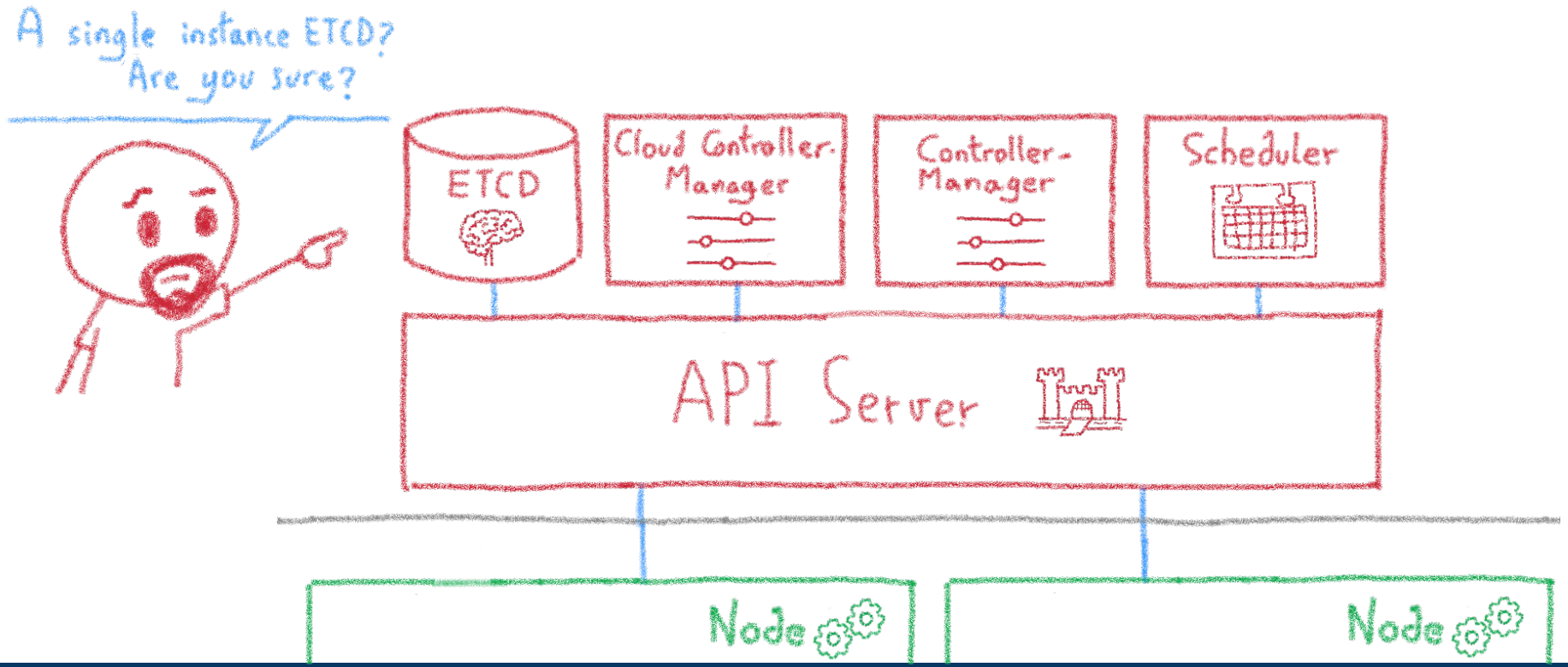
Your security journey with Kubernetes by @MayaKaczorowski #GoogleNext18

♡ 319 12:59 PM - Oct 11, 2018

The storage dilemma

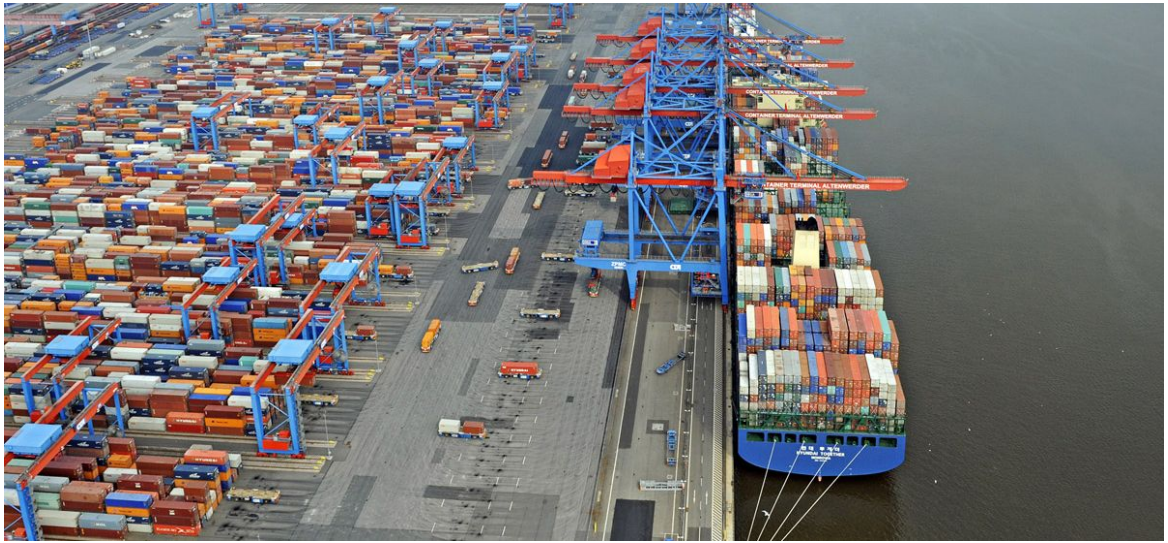


The ETCD vulnerability

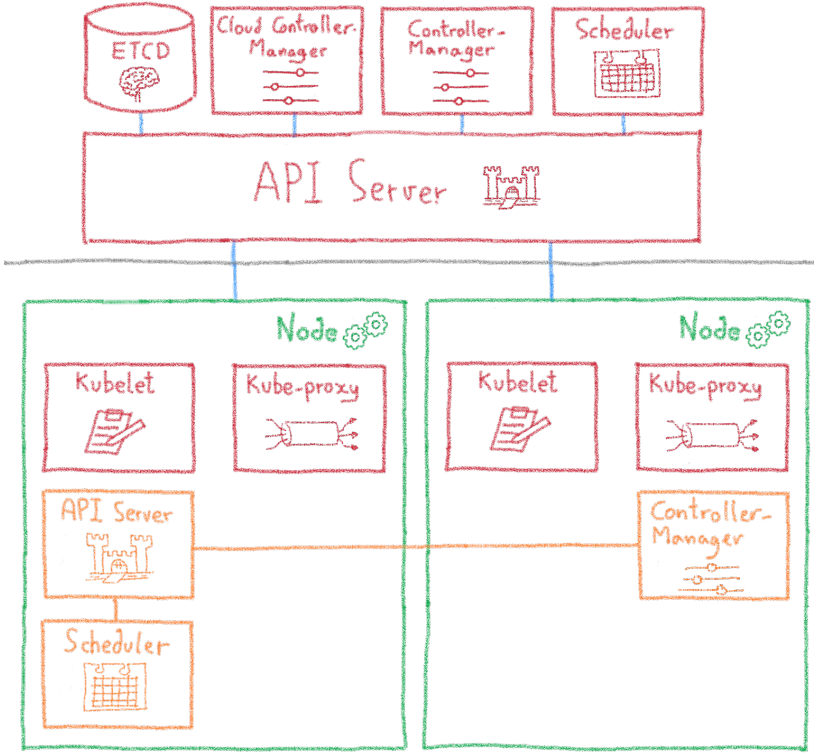


Managed Kubernetes

Don't try it at home, folks!

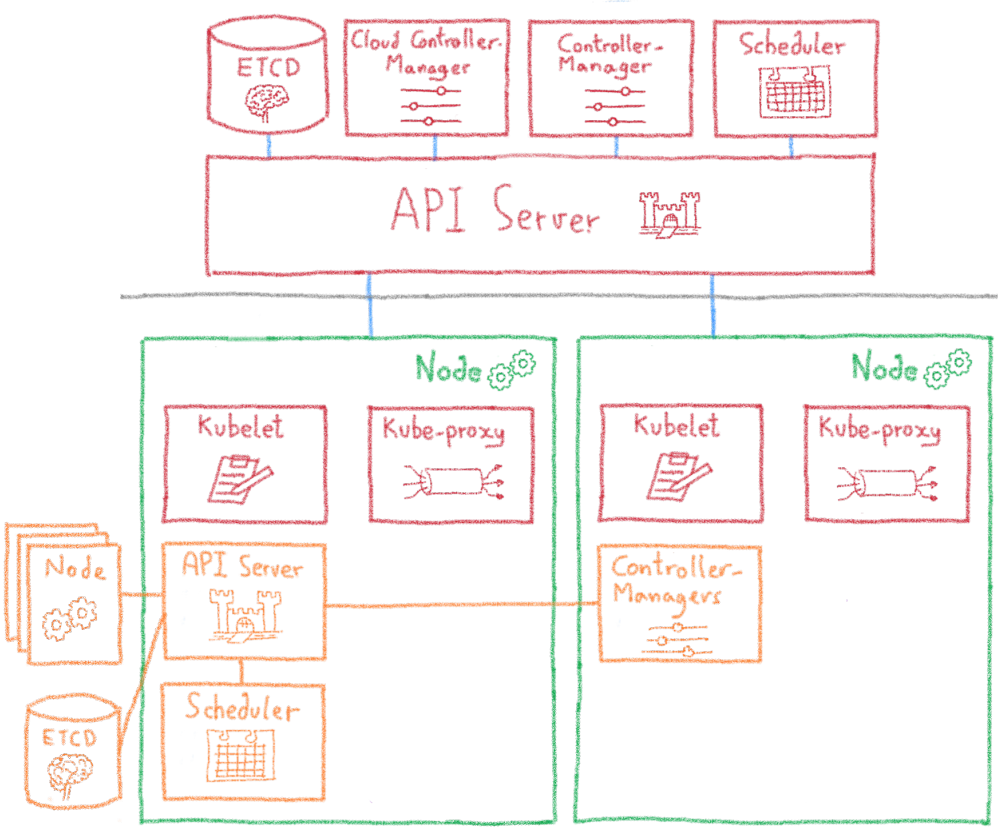


Kubinception: running K8s on K8s

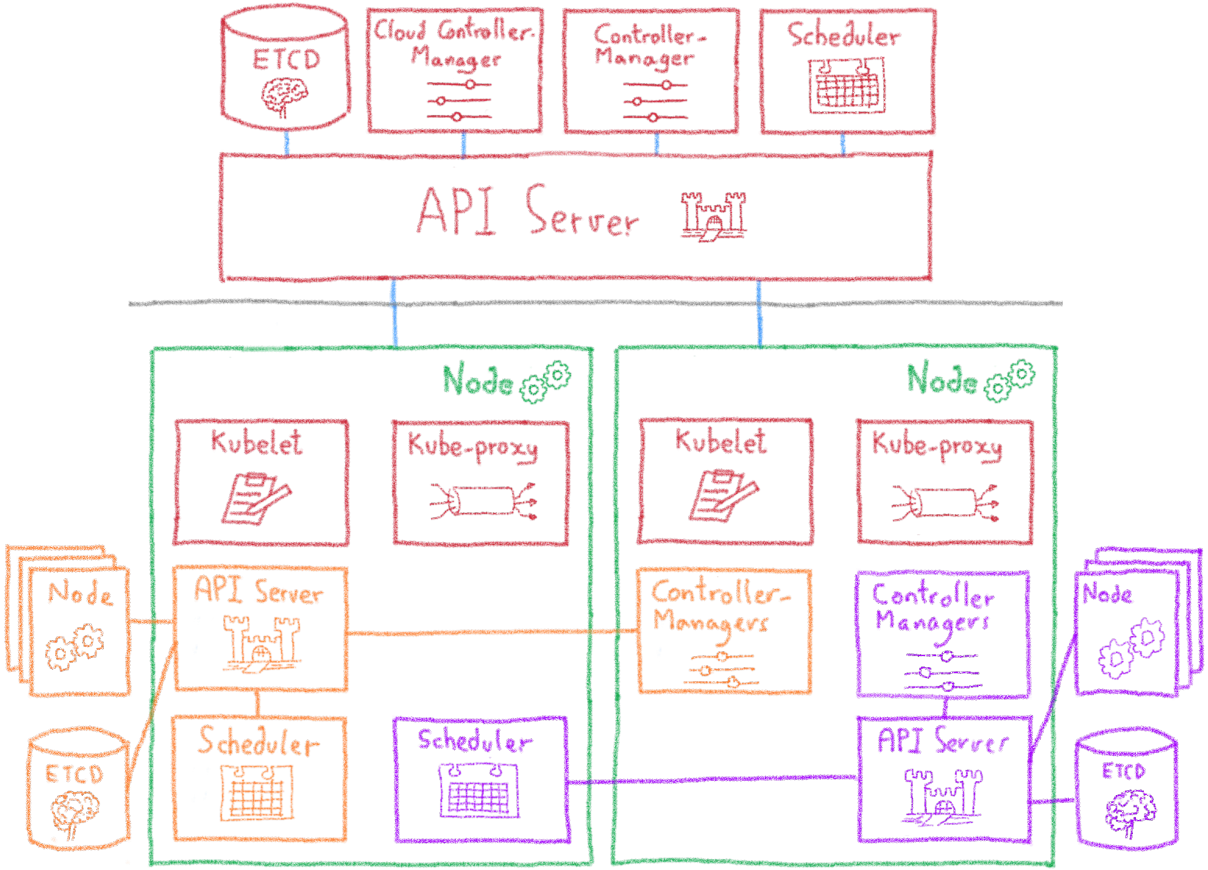


Using Kubernetes to run Kubernetes

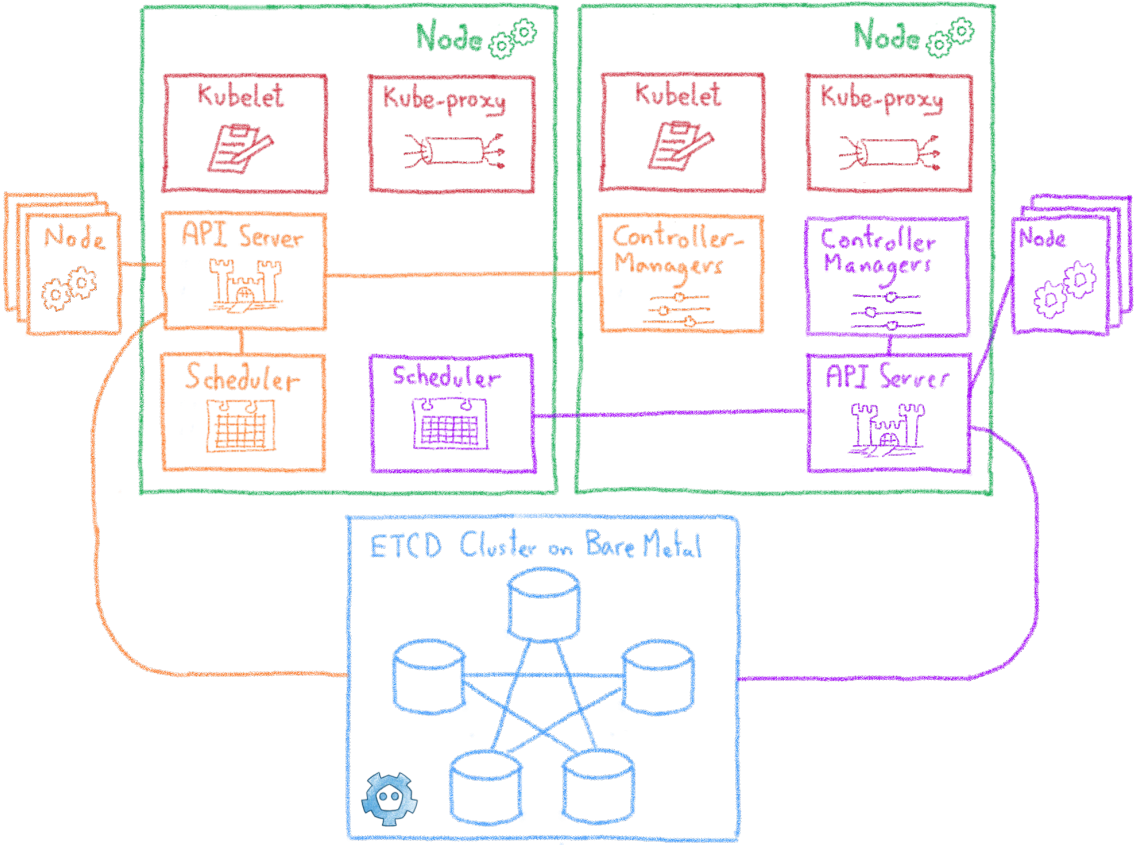
Kubinception: where are the nodes?



Kubinception with several customers



And the ETCD?


Node
Kubelet
Kube-proxy
Node
API Server
Scheduler
Node
Kubelet
Kube-proxy
Controller-Managers
Controller Managers
Scheduler
API Server
Node
ETCD Cluster on Bare Metal