

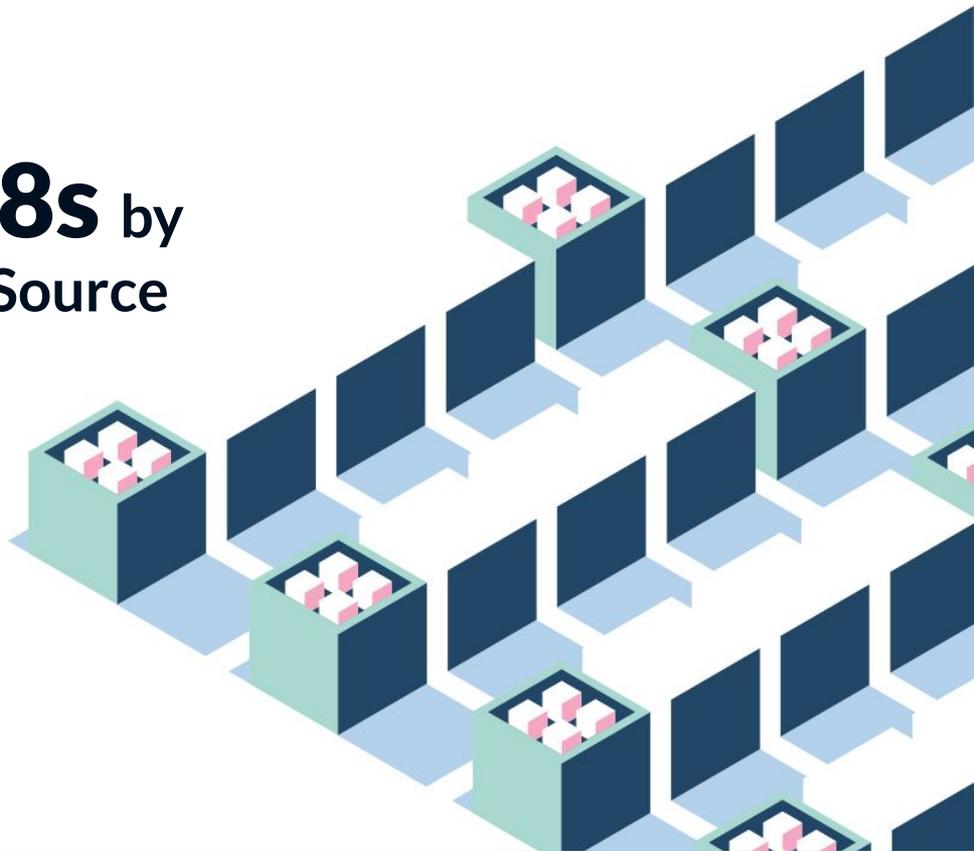


Cloud Native & Container Day
Breakout session

Revolutionizing K8s by Harnessing the Power of Open Source k0s & k0smotron

Julian Hennig,

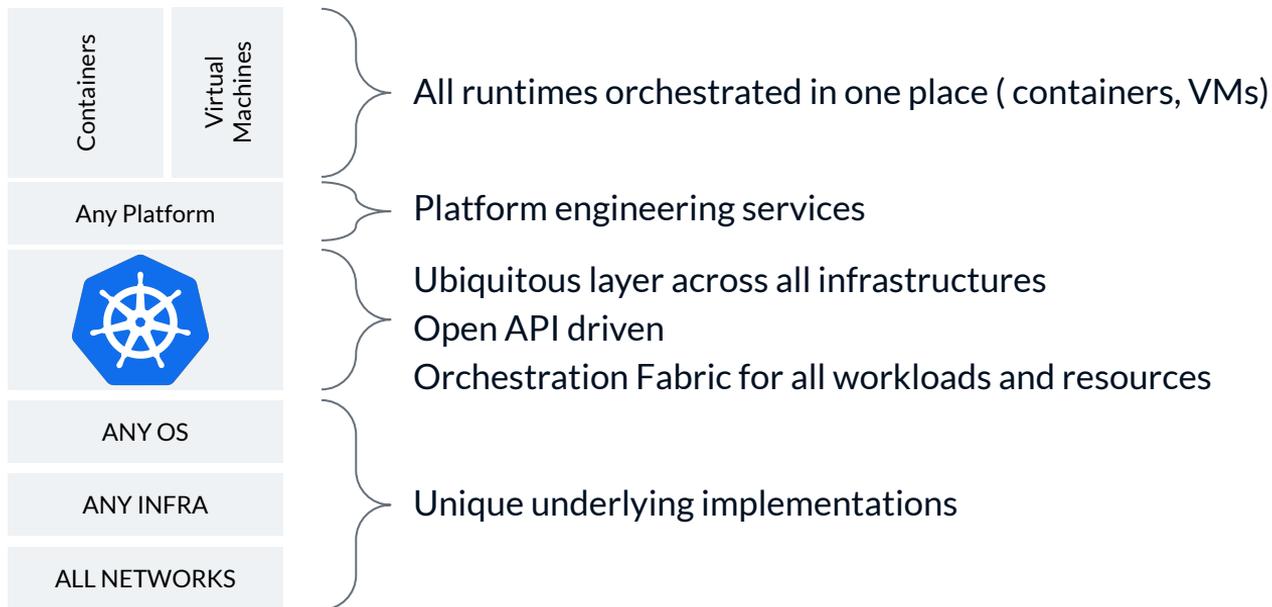
Principal Solution Architect @ Mirantis



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Kubernetes as the OS of the future



Connecting the dots

- ❖ Demand for Multi-Cluster Management
 - Availability / Location
 - Multi-Infra Provider
 - Use-Case / Application related clusters
 - On-Demand clusters
- ❖ What are the Challenges?
 - Complexity
 - Cluster Sprawl
 - Footprint / Resources
 - Compliance & Security

Kubernetes as the Fabric of the Future



Open Source by Mirantis

k0smotron

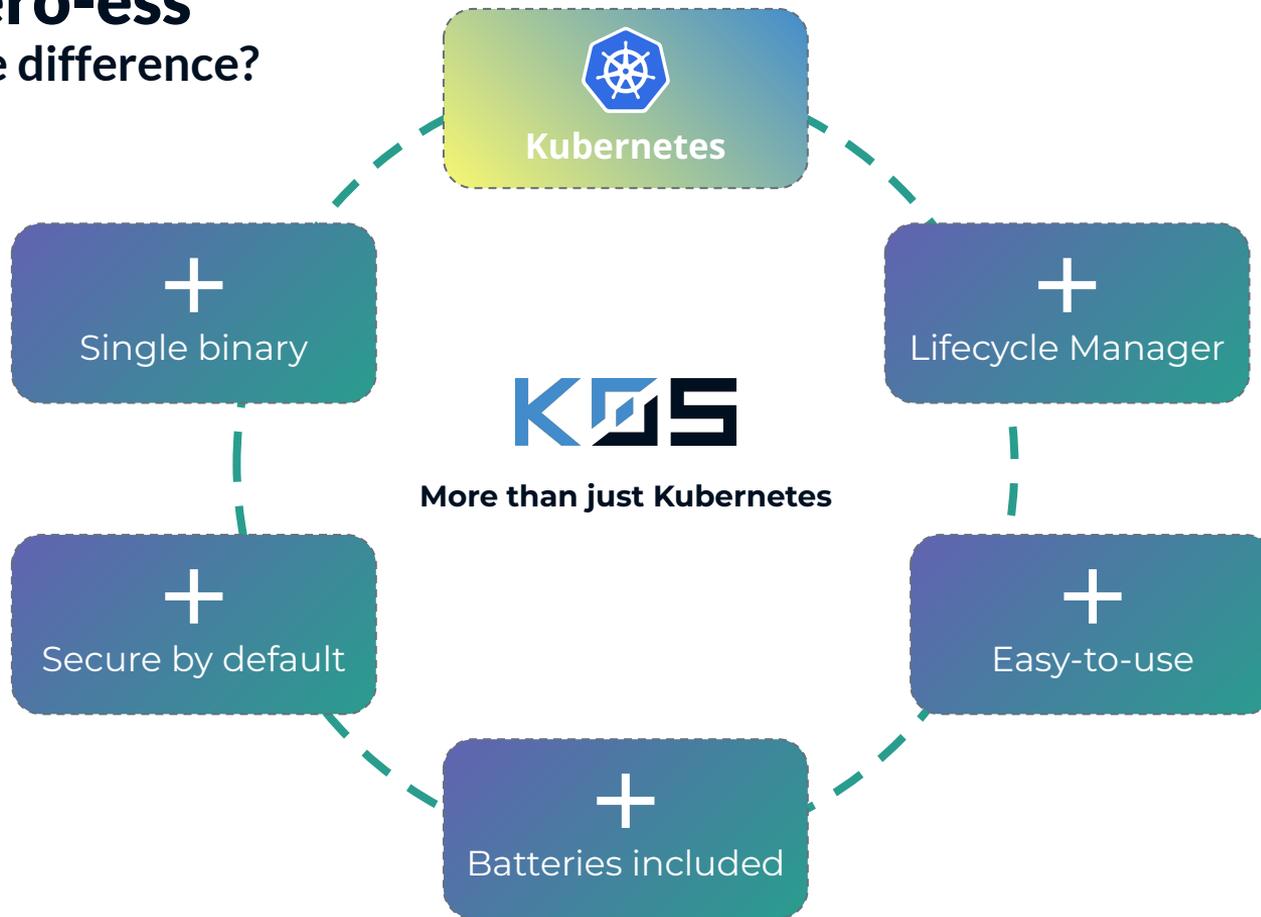
Open Source by Mirantis



Open Source by Community

“kay-zero-ess”

What’s the difference?



“kos-mo-tron”

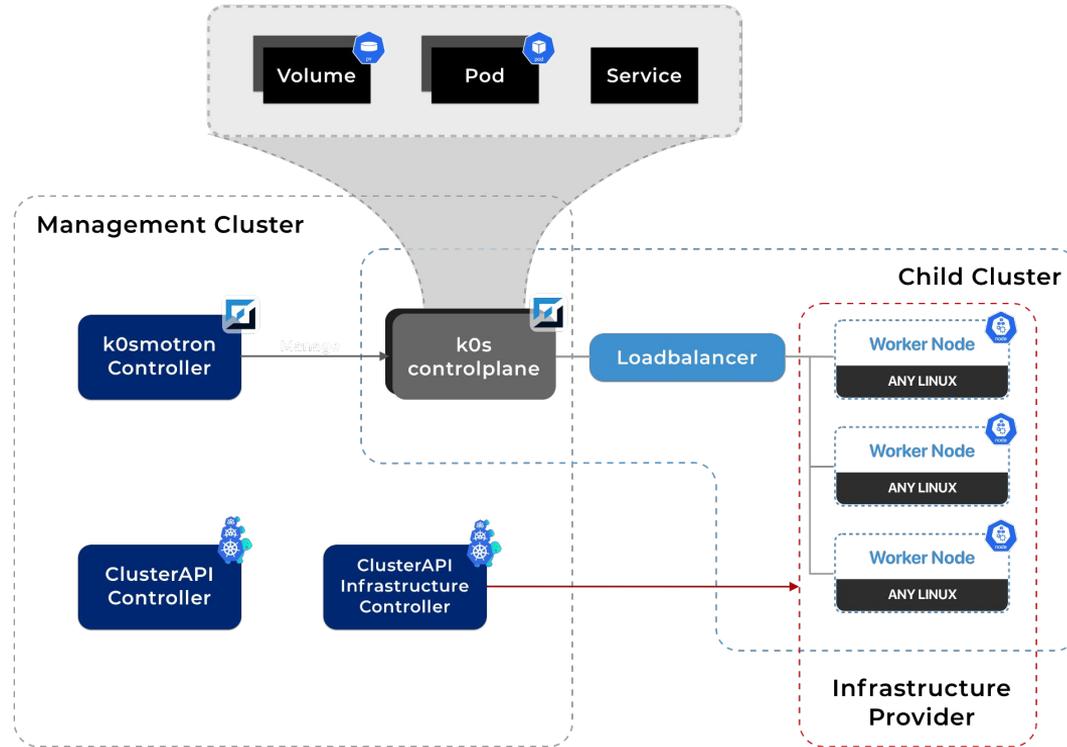
Control Plane Manager & Cluster API Provider

k@smotron

- Control Plane-as-a-Service allows:
 - Kubernetes Control Planes running in Management Cluster
 - Fault tolerance and automatic failover capabilities of K8s
 - Simplified Cluster Operations & State Store options
 - Full separation of Control & Worker Plane
 - Declarative APIs - State Management
 - Based on the CNCF conformant Kubernetes distribution k0s
- Simple GitOps, Edge Computing & Multi-Cloud Scenarios

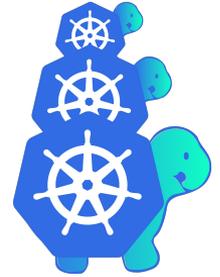
k0smotron

Control Plane Manager



ClusterAPI

What is it?

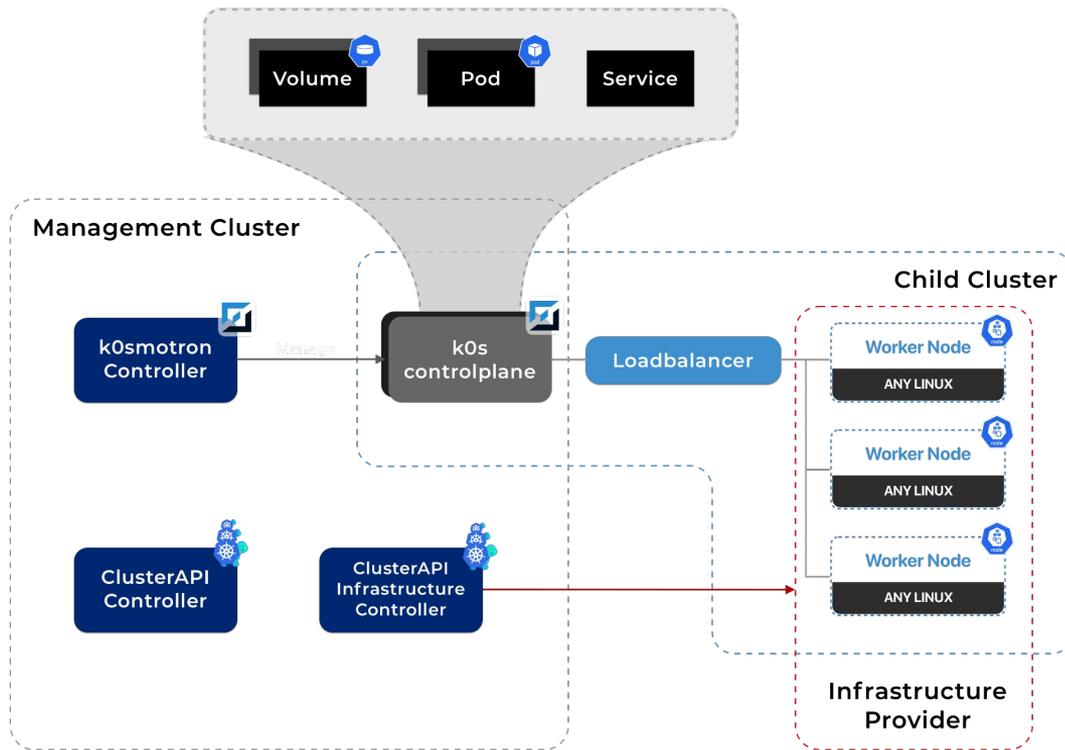


- Open source Kubernetes community project to simplify
 - ◆ Cluster and resource provisioning
 - ◆ Cluster Updates & Upgrades
 - ◆ Scaling,
- Declarative APIs - State Management
- Large list of infrastructure providers

- Full Kubernetes & Infrastructure as Code lifecycle management

k0smotron & ClusterAPI

Enabling Kubernetes as the open OS of the cloud





DEMO

k0smotron & ClusterAPI

Enabling Kubernetes as the open OS of the cloud



Summary

- ❖ **k0s**
 - Upstream, open source, lightweight and easy-to-use Kubernetes
- ❖ **k0smotron**
 - Open Source Central Kubernetes Management
 - Reduces footprint - similar to managed offerings but open source and agnostic
 - Creates consistency across any infrastructure or cloud
 - Full ClusterAPI provider (CP & Machine)
- ❖ **ClusterAPI**
 - Automate / Simplify Kubernetes provisioning, upgrading, scaling, operating on various Infrastructure providers

Q&A

or get started at



k0sproject.io



k0smotron.io



mirantis.com/labs



github.com/mirantis-labs

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