

Kubernetes

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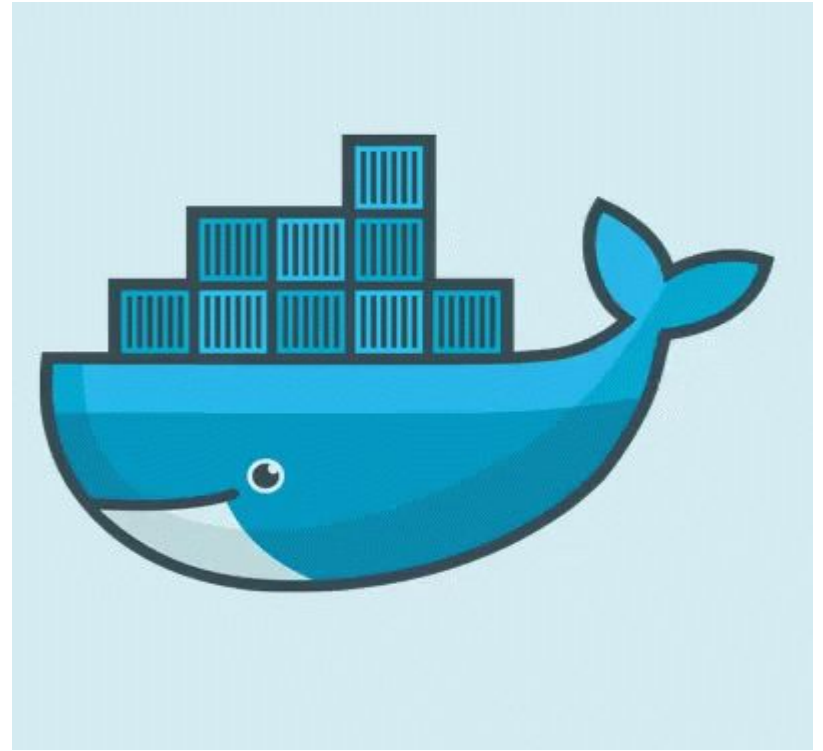
Agenda

- Docker
- Kubernetes
- Kubernetes Architecture

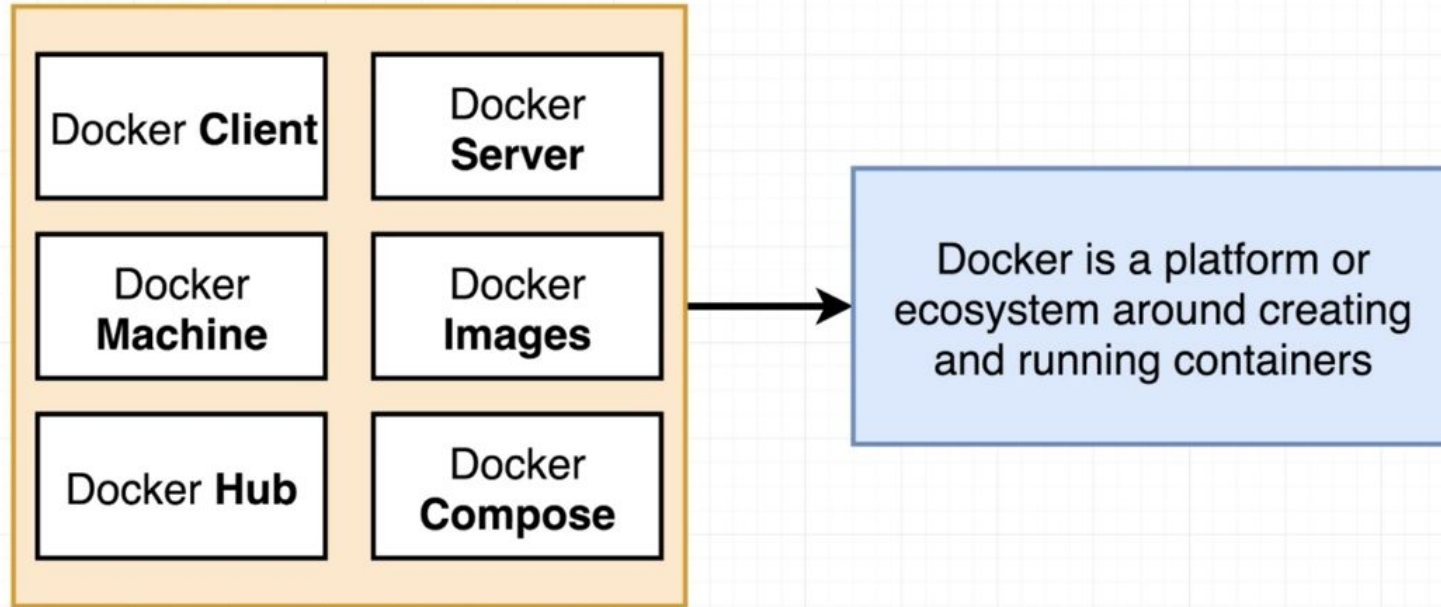


Docker

Docker is an open-source project that automates the deployment of applications inside software container.



Docker Ecosystem



What is Kubernetes?

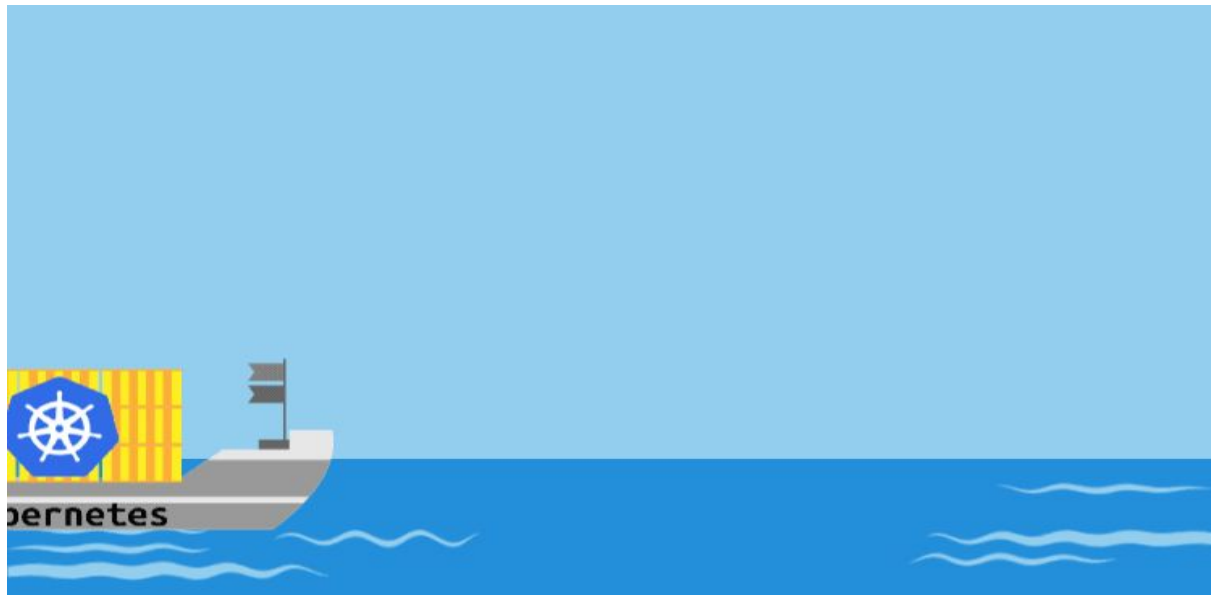
A declarative language for launching containers.



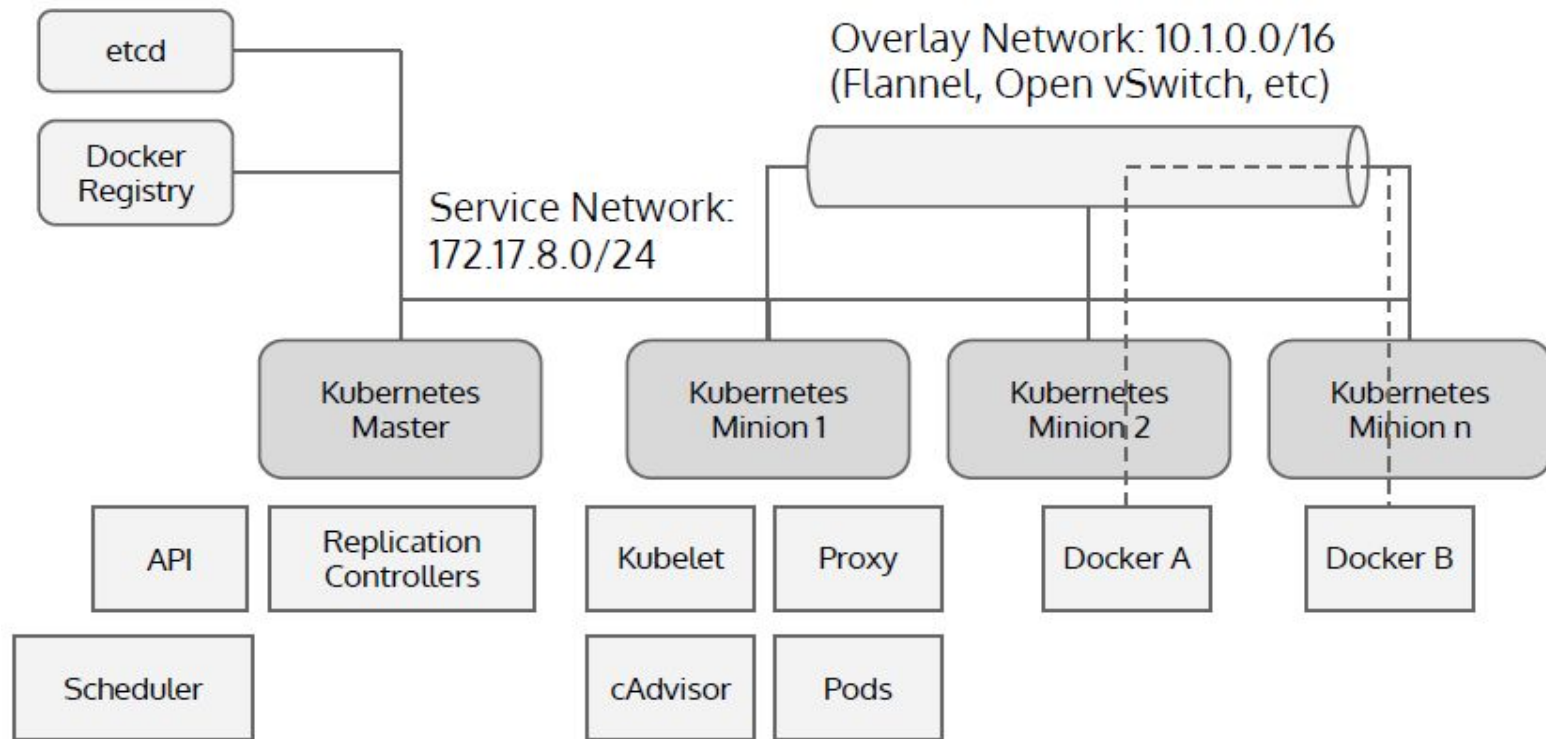
- A highly collaborative open source project originally conceived by Google
- Red Hat has been a member since day 0.
- Sometimes called:
 - Kube, k8s (that's 'k' + 8 letters + 's')
- Start, stop, update, and manage a cluster of Machines running containers in a consistent and maintainable way.



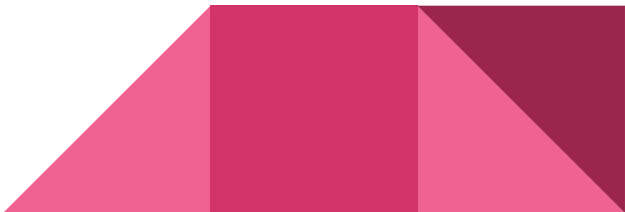
Kubernetes Architecture



Kubernetes Architecture



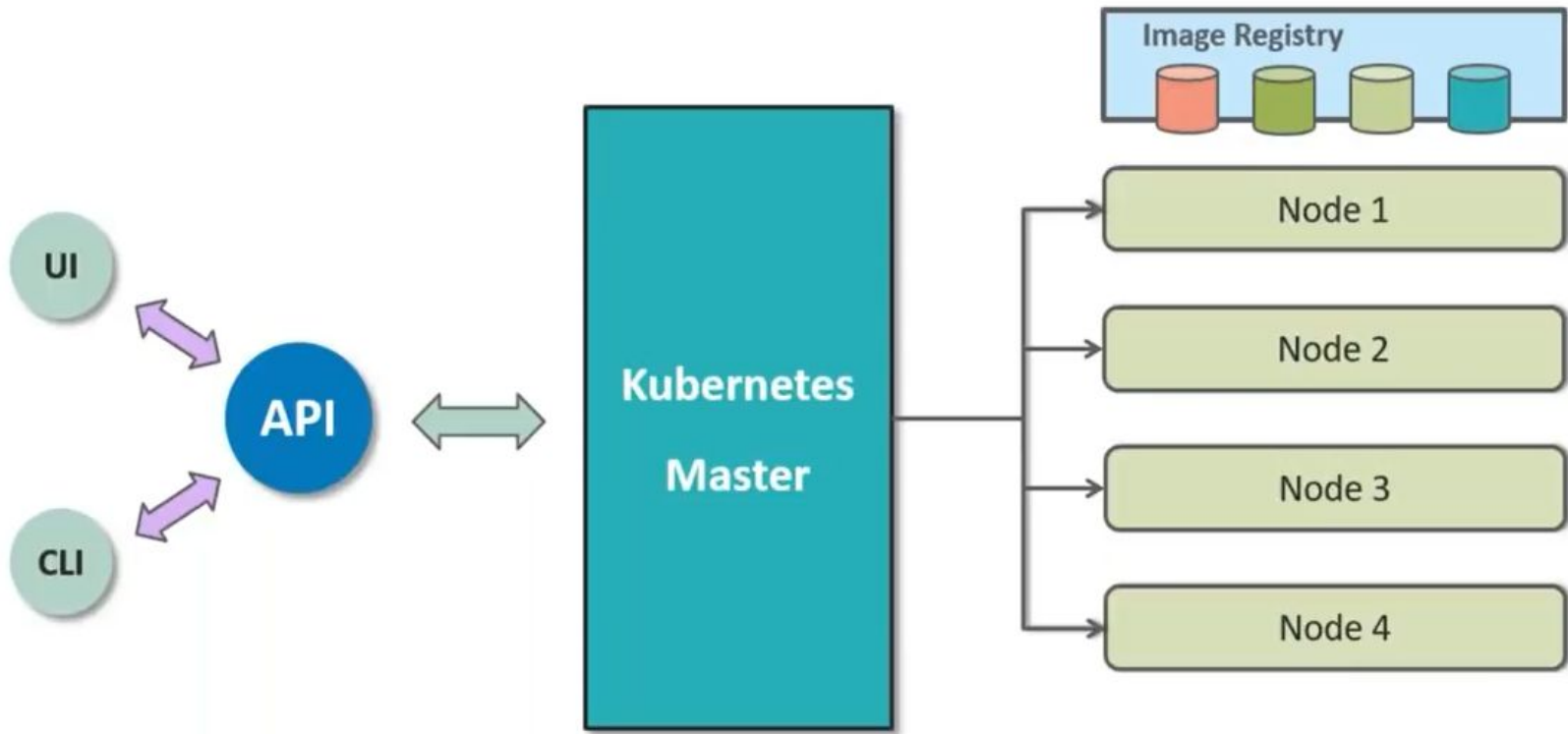
Key Concepts of Kubernetes

- Pod - A group of Containers
 - Labels - Labels for identifying pods
 - Kubelet - Container Agent
 - Proxy - A load balancer for Pods
 - etcd - A metadata service
 - cAdvisor - Container Advisor provides resource usage/performance statistics
 - Replication Controller - Manages replication of pods
 - Scheduler - Schedules pods in worker nodes
 - API Server - Kubernetes API server
- 

Master

- Typically consists of:
 - kube-apiserver
 - kube-scheduler
 - kube-controller-manager
 - etcd
- Might contain:
 - kube-proxy
 - a network management utility





Minion-Node

- Typically consists of:
 - kubelet
 - kube-proxy
 - cAdvisor
- Might contain:
 - a network management utility
- May be referred to by either name



Service

- Define:
 - What port in the container
 - Labels on pods which should respond to this type of Request



Namespace

- Attached to every object
- Pods in ns1 will not get service variable from ns2





Thank You

<https://bit.ly/2LkqOuQ>