

K8s or Die!

You must do Kubernetes. Or should you? If so when, where, why? How?!

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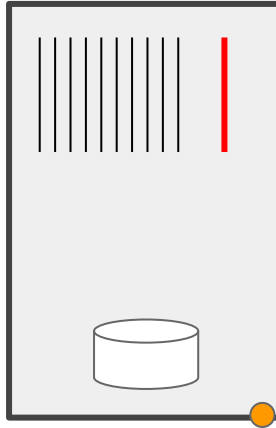


Why

Kubernetes

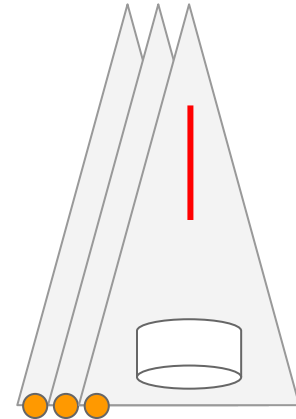
Computing in the modern age

Virtual Machines



Traditional operations
KVM

Process Containers



Container Coordinator

Docker / RunC / Rkt





What is

Kubernetes

kubernetes is container **coordination**

compute
network
storage



for **docker-style** containers

rollout / rollback
scale up / scale back
service discovery
load balancing
self healing





EasyRSA

Provides PKI / CA for TLS certs to all components



ETCD

Distributed data store / backend for Kubernetes



K8S Master

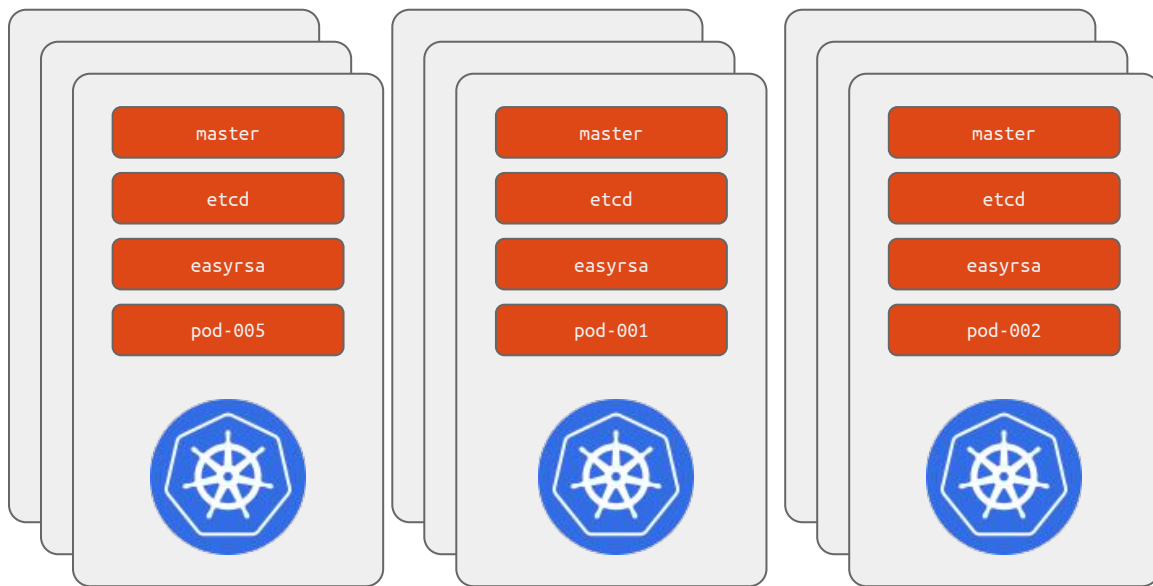
API server, scheduler, controller manager

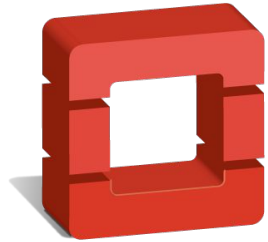


K8S Worker

Kubelet, SDN, Kube Proxy, Docker

Converged Kubernetes

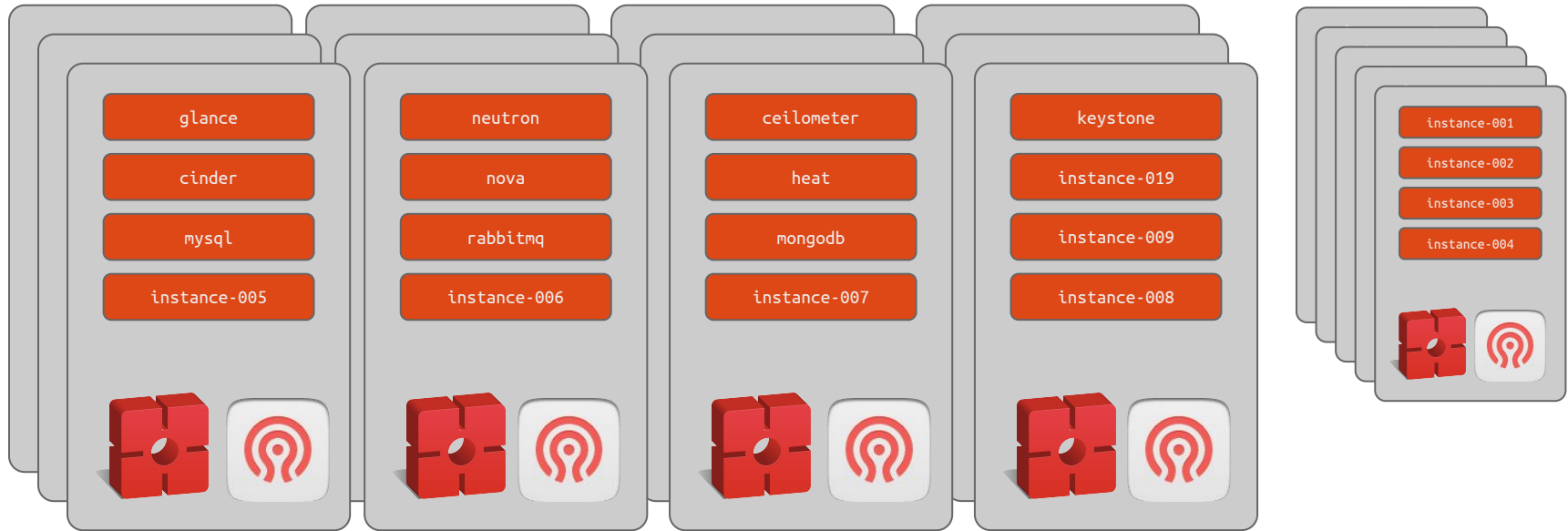




What is

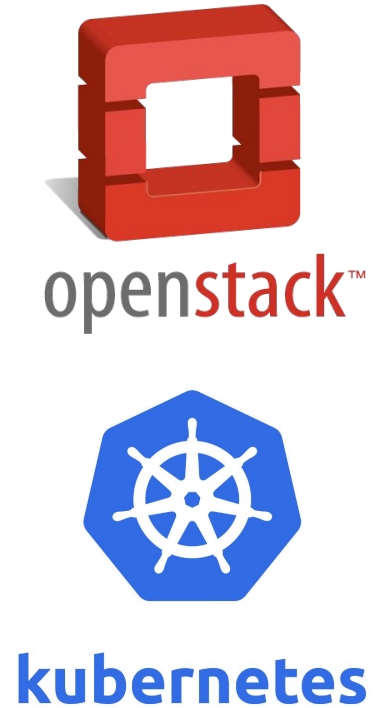
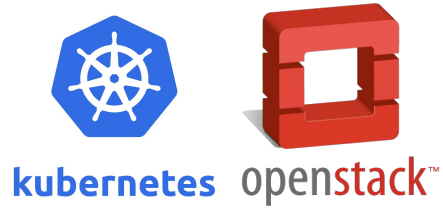
OpenStack

Converged OpenStack Architecture



kubernetes + openstack

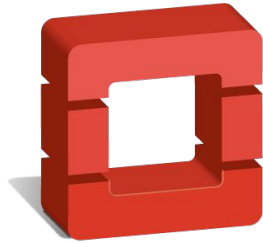
kubernetes + openstack



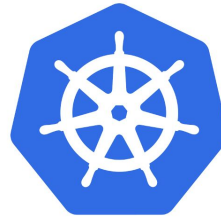
openstack between kubernetes



kubernetes



openstack™



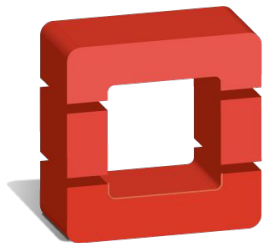
kubernetes



kubernetes on openstack



kubernetes

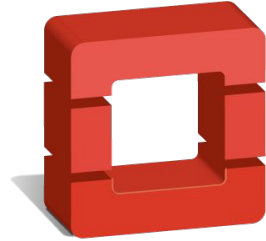


openstack™

heat
magnum

charms
kubeadm
kargo

openstack on kubernetes



openstack-helm

openstack™

kolla-kubernetes



kubernetes

kubernetes on bare metal



kubernetes

charms

kubeadm

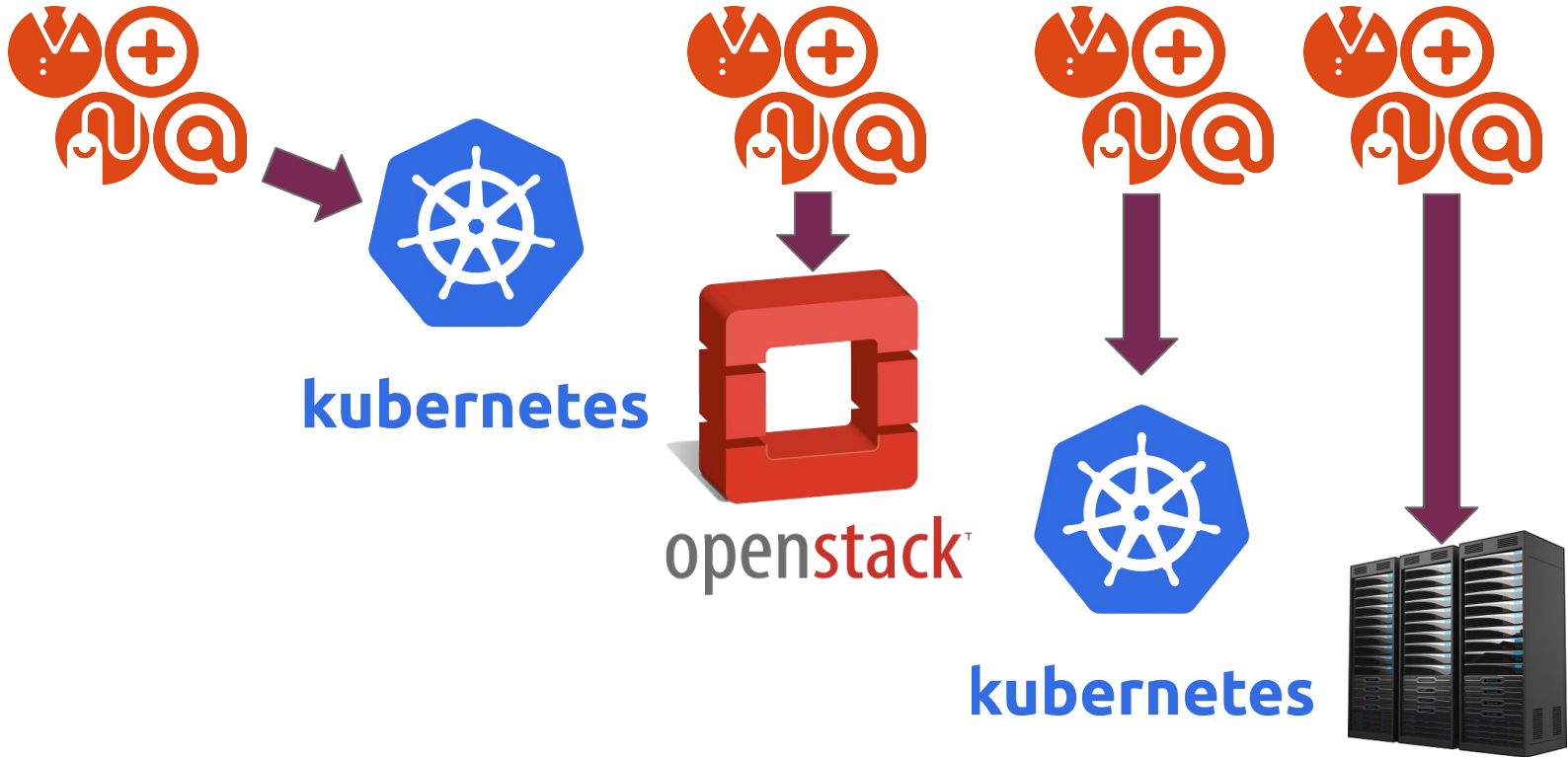


kubernetes + openstack

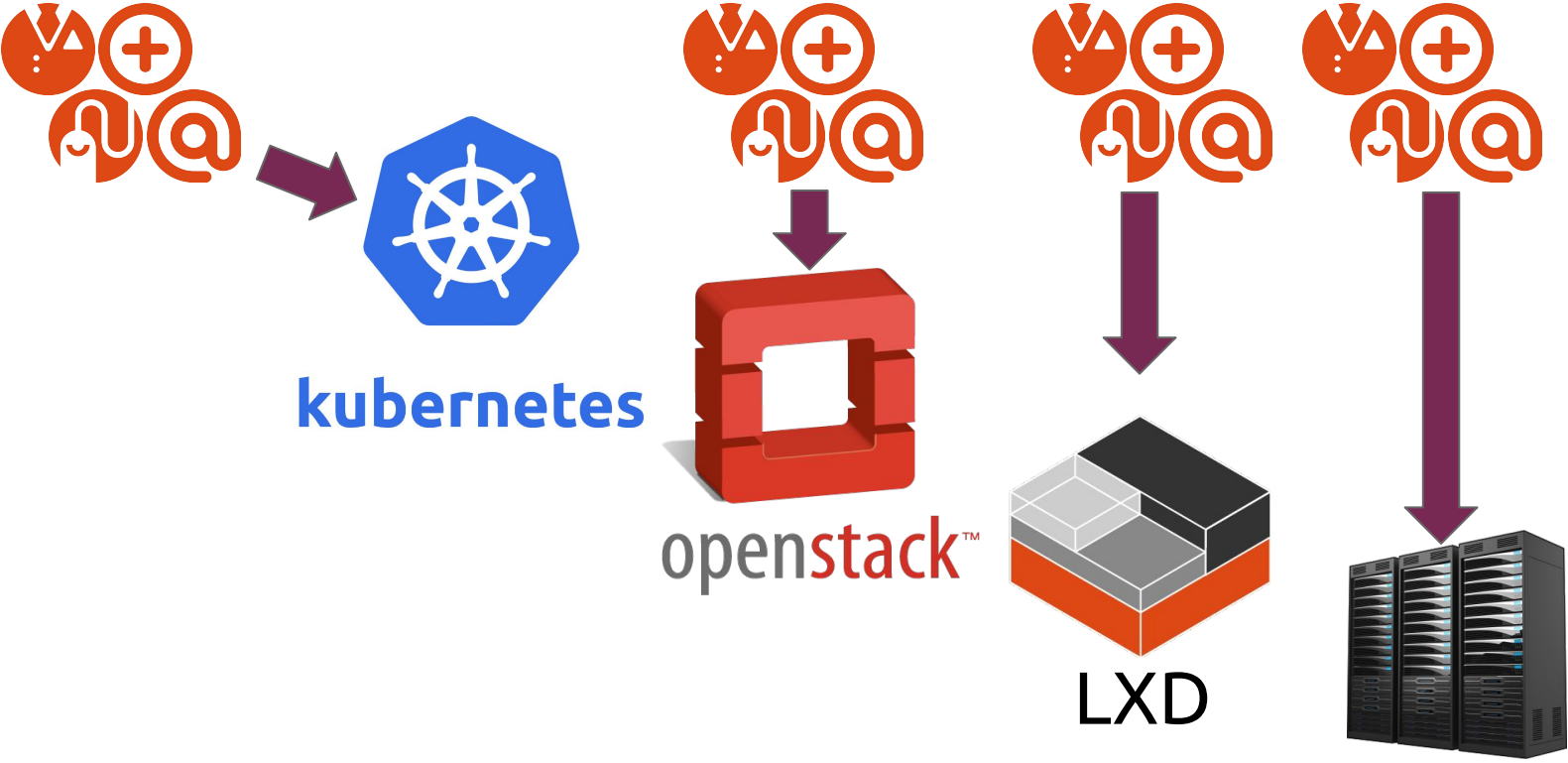
stateless + stateful

¿Questions?

turtles, all the way down



Managing Applications and Operations



Thank you!



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<https://kubernetes.io/docs>
<https://conjure-up.io>

