

Openshift overview

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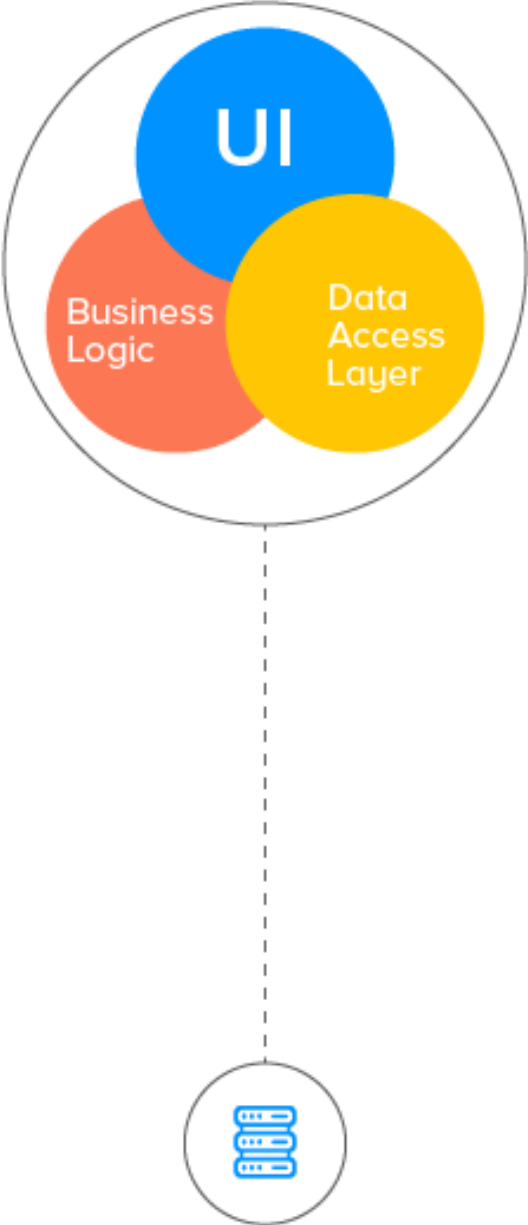


Agenda

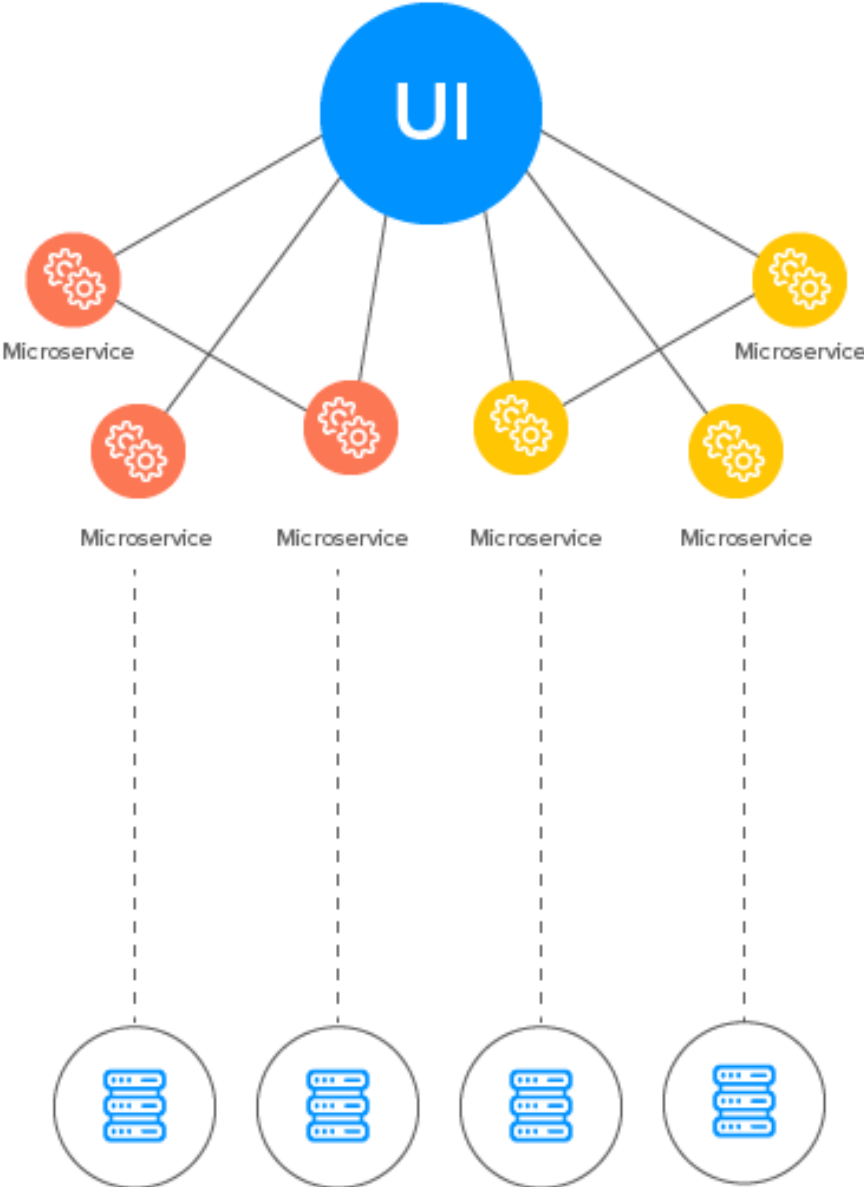
- Why OpenShift
- What is OpenShift
- Demo
- Run the lab yourself
- Resources

Why OpenShift

Monolithic Architecture

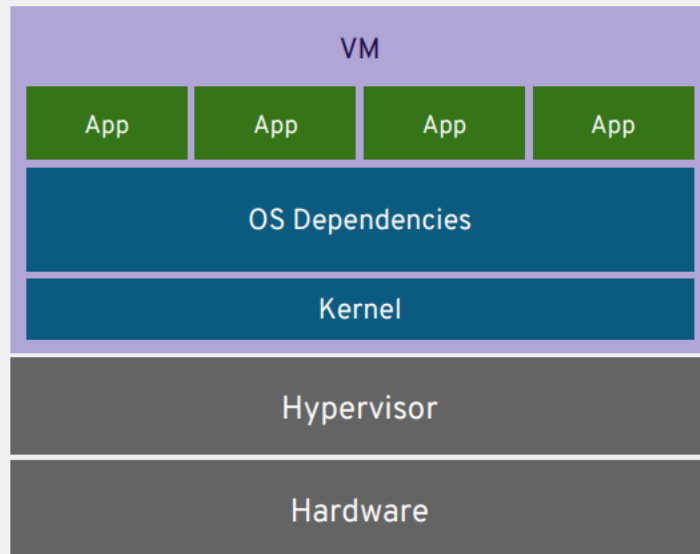


Micro-services Architecture



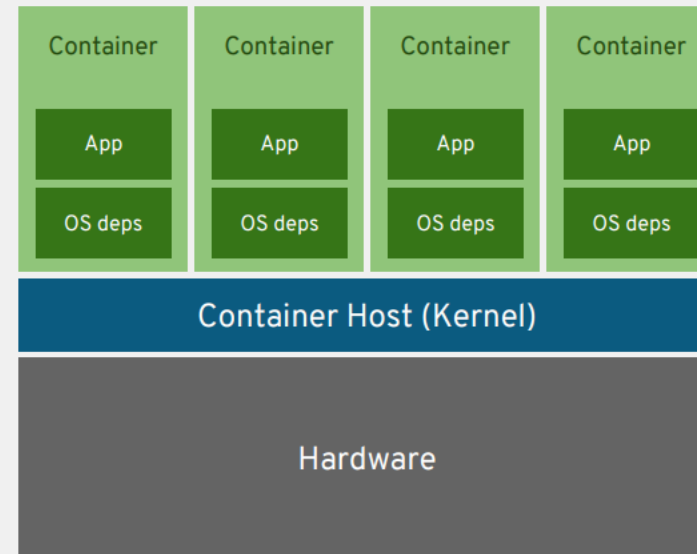
VIRTUAL MACHINES AND CONTAINERS

VIRTUAL MACHINES



virtual machines are isolated
apps are not

CONTAINERS



containers are isolated
so are the apps

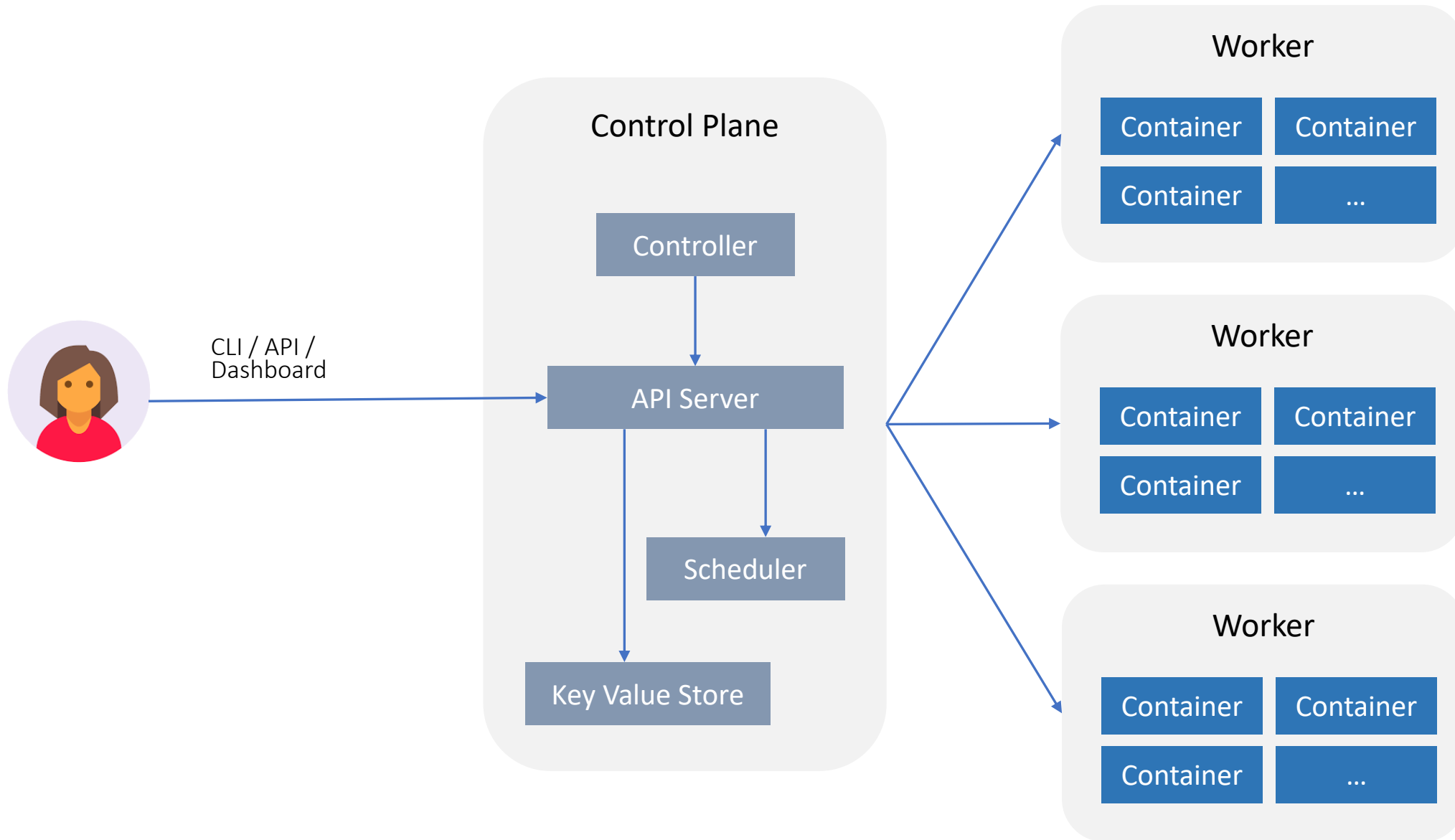


Un conteneur...

kubernetes



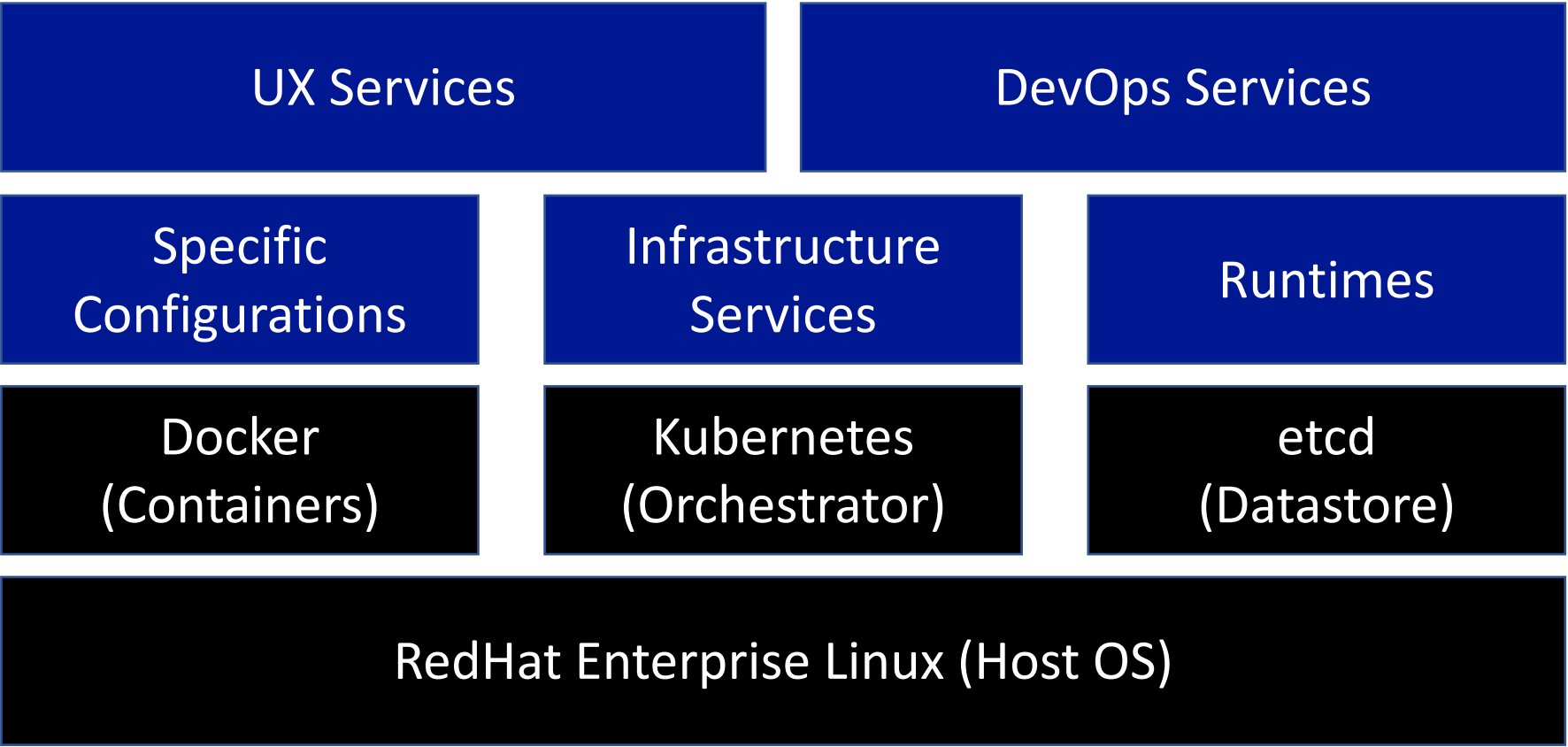
Kubernetes Architecture



Technical Components

Open-Shift
addon

Open
Source

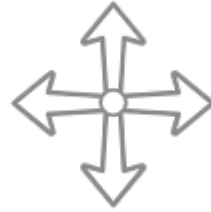


Avantages des micro-services



Agilité

Des modifications peuvent être appliquées à chaque service de façon indépendante



Evolutivité

Chaque service peut être redimensionné indépendamment



Résilience

Isolation des pannes entre les micro-services



Déploiement

Déploiement simple car chaque service peut être déployé individuellement avec un temps d'arrêt minimal



Accessibilité

Des bases de code plus petites sont plus faciles à gérer



Ouverture

Chaque service peut être développé dans un langage de programmation différent

What is OpenShift

YOUR CHOICE OF INFRASTRUCTURE



PHYSICAL



VIRTUAL



PRIVATE

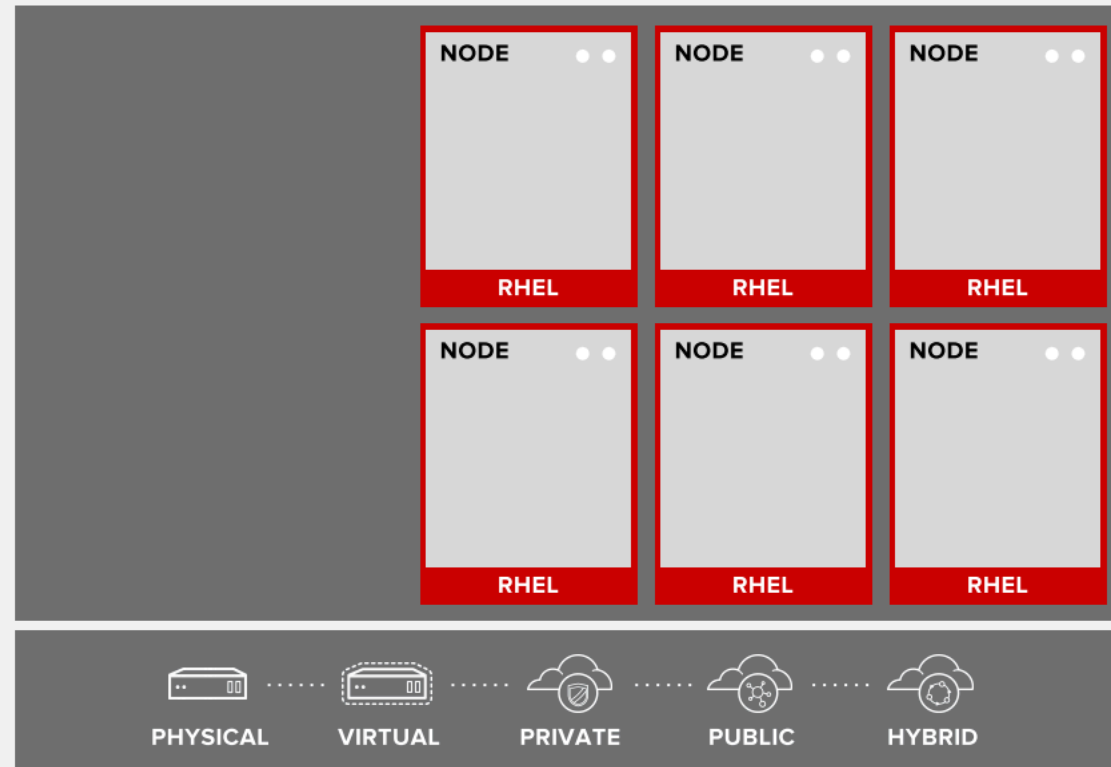


PUBLIC

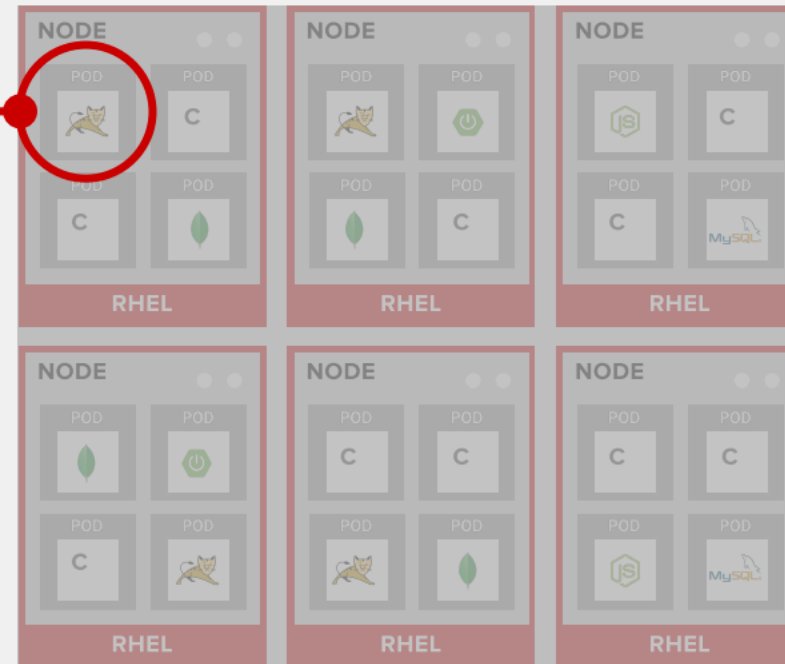
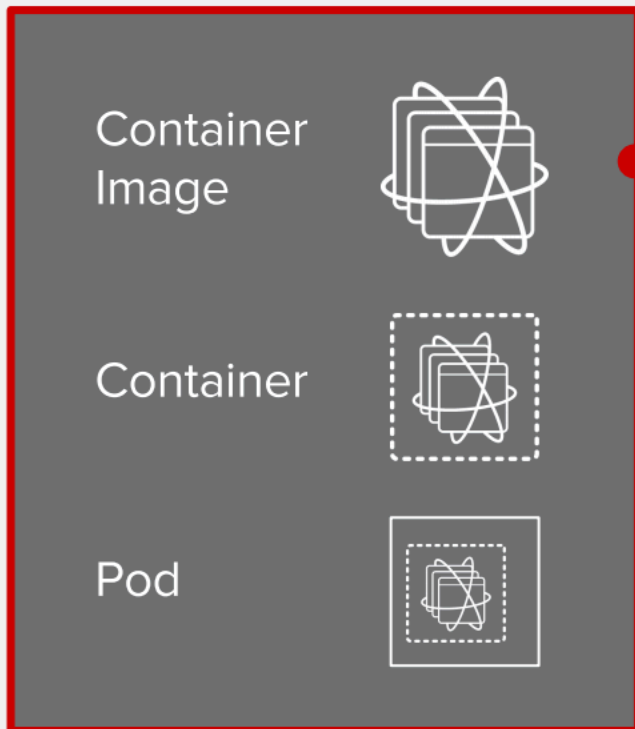


HYBRID

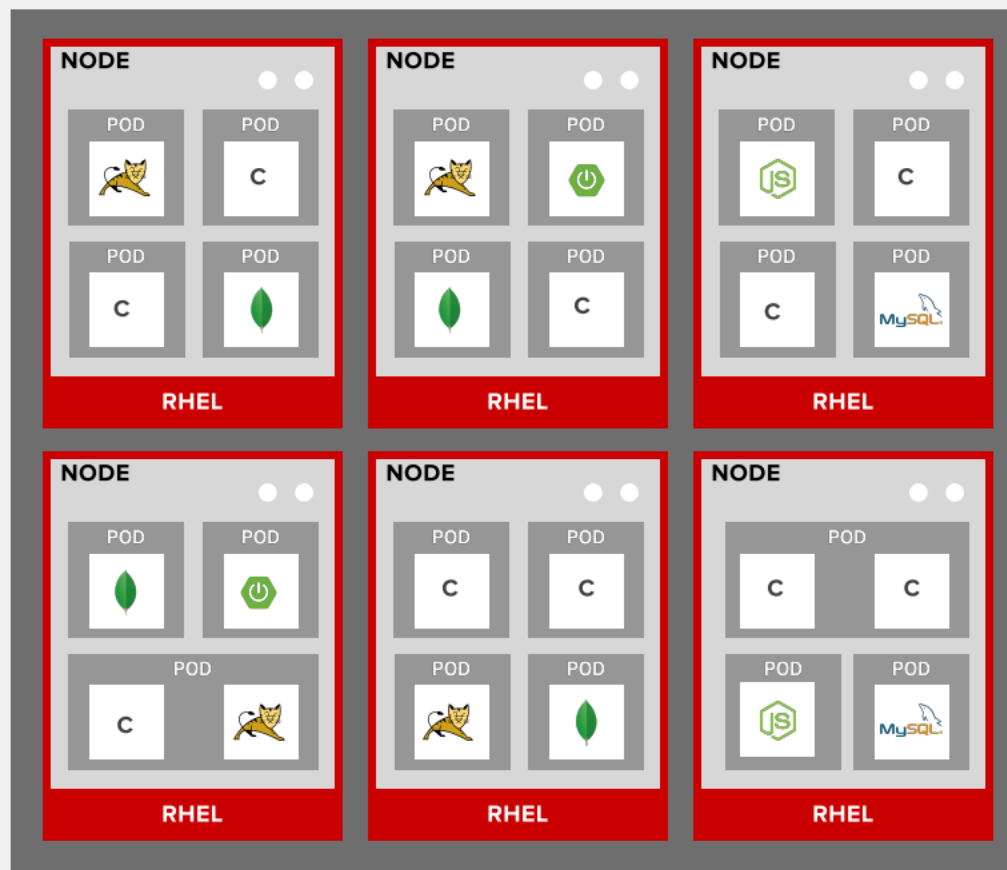
NODES RHEL INSTANCES WHERE APPS RUN



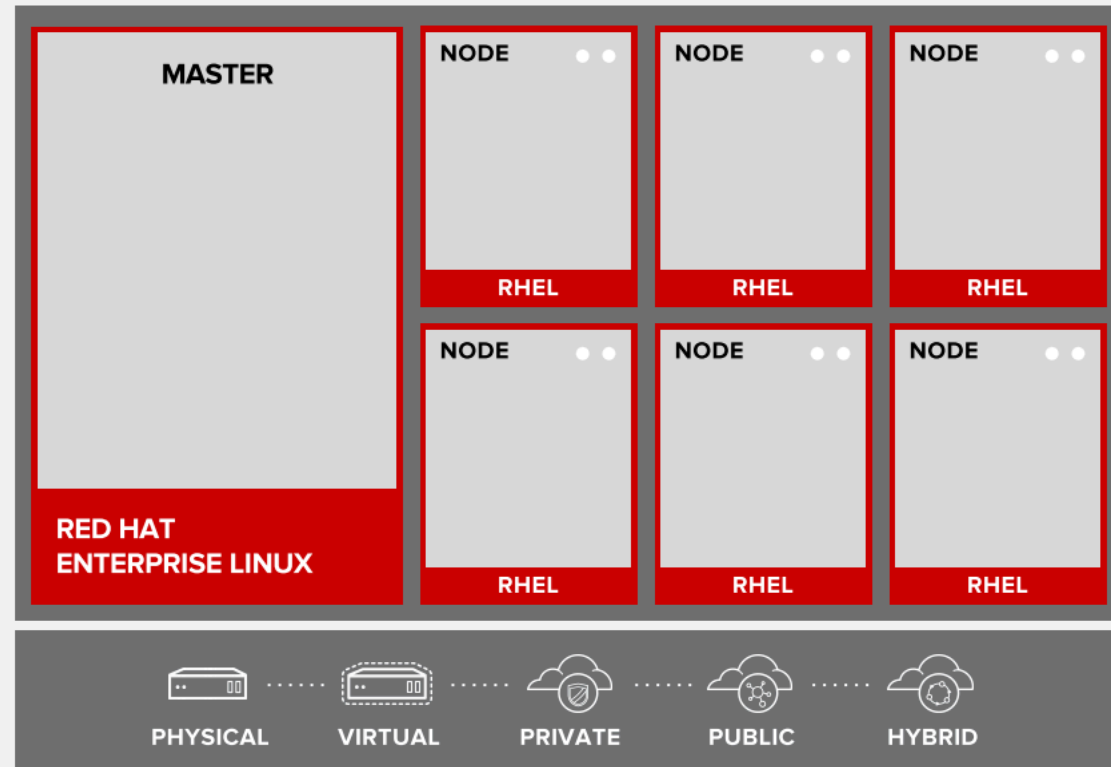
APPS RUN IN CONTAINERS



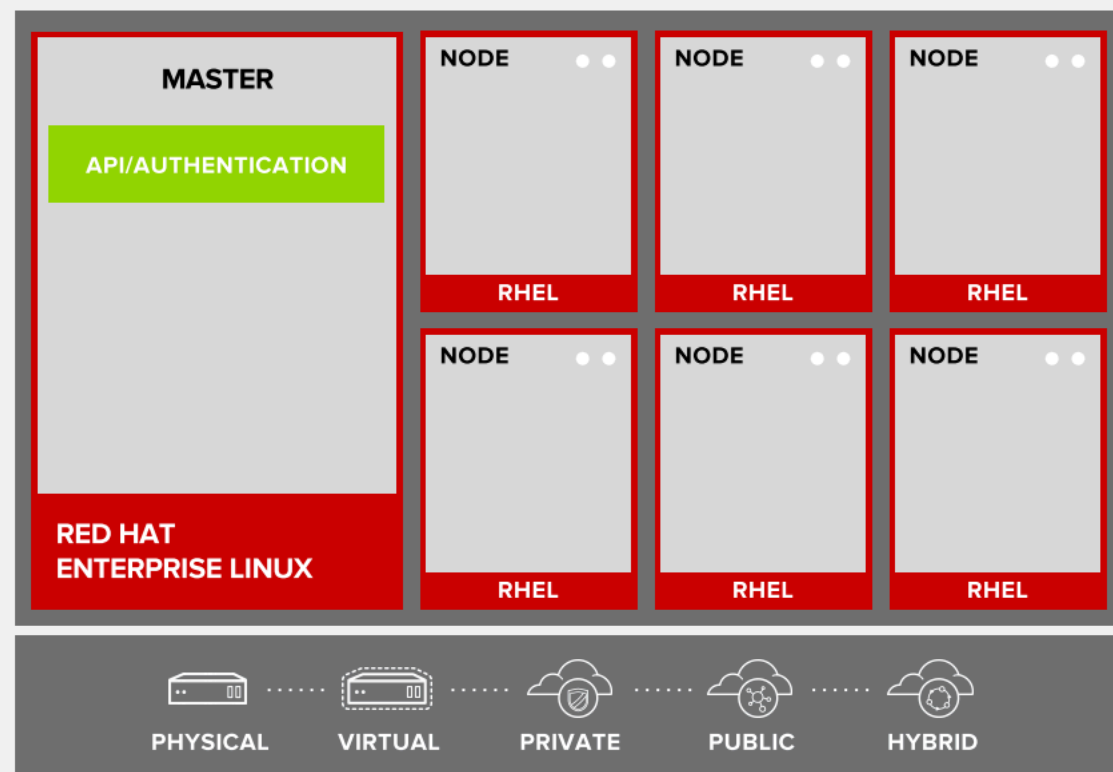
PODS ARE THE UNIT OF ORCHESTRATION



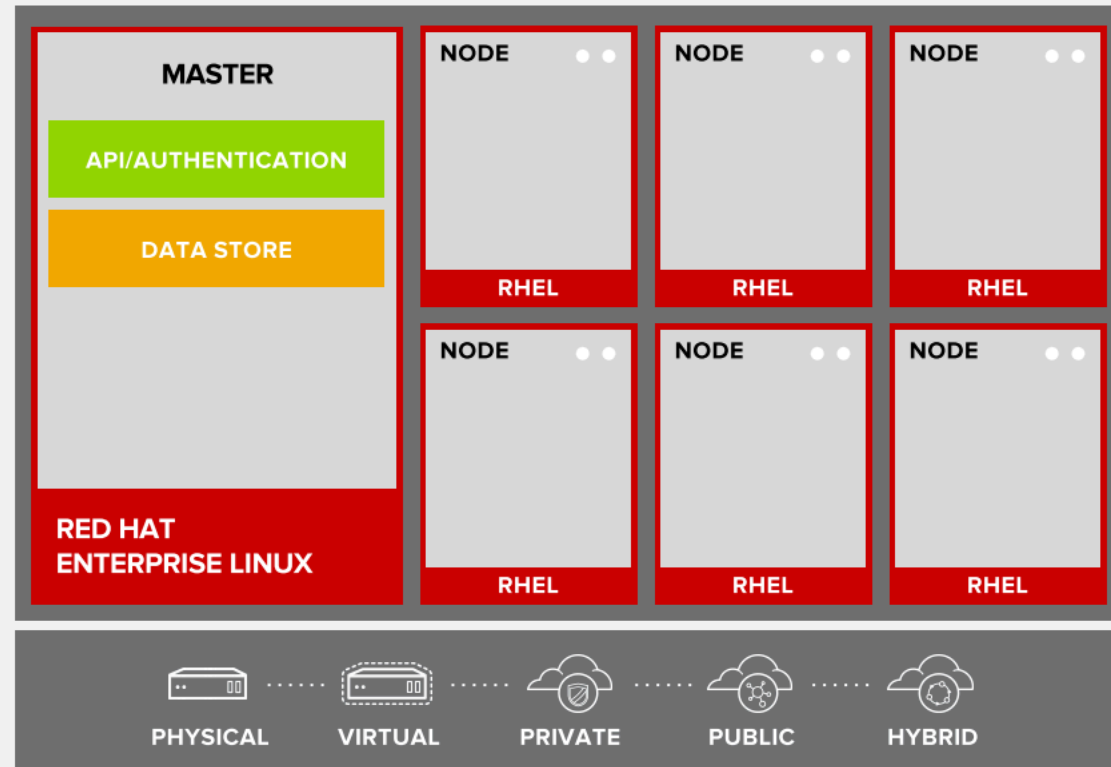
MASTERS ARE THE CONTROL PLANE



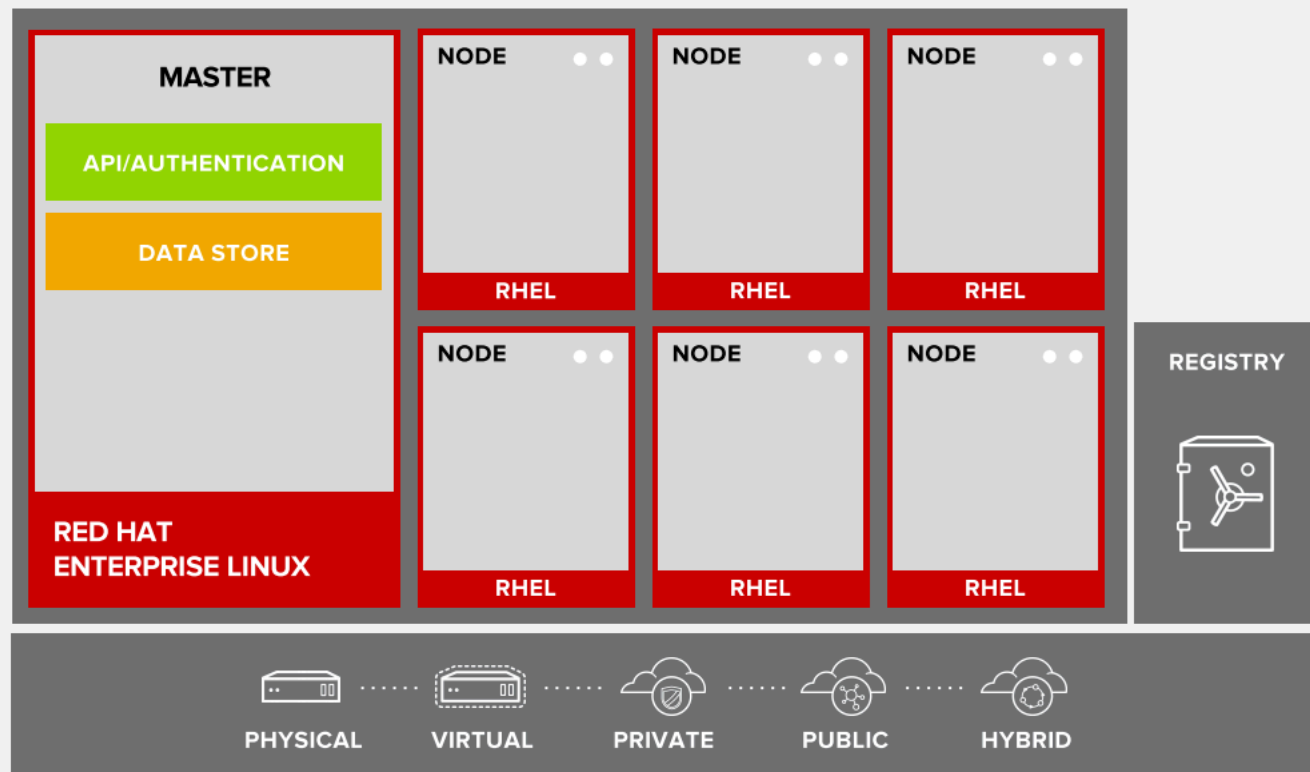
API AND AUTHENTICATION



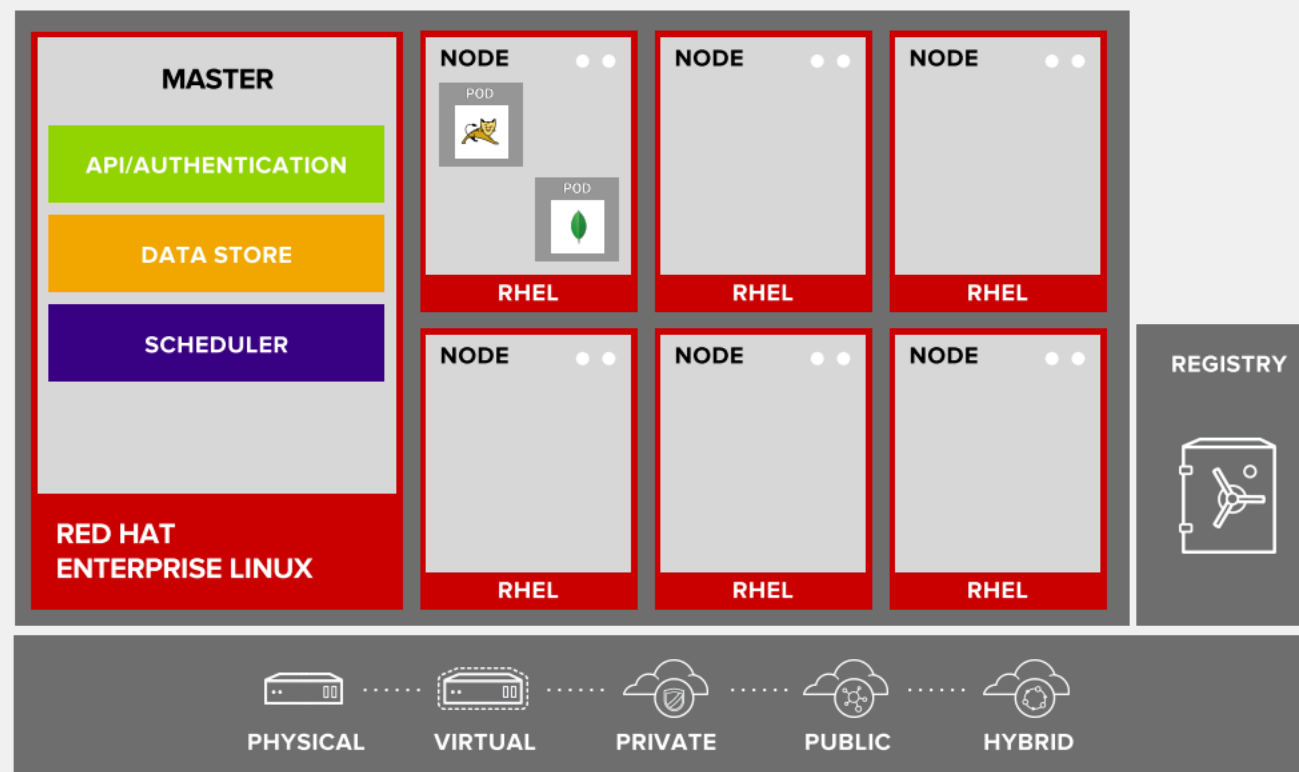
DESIRED AND CURRENT STATE



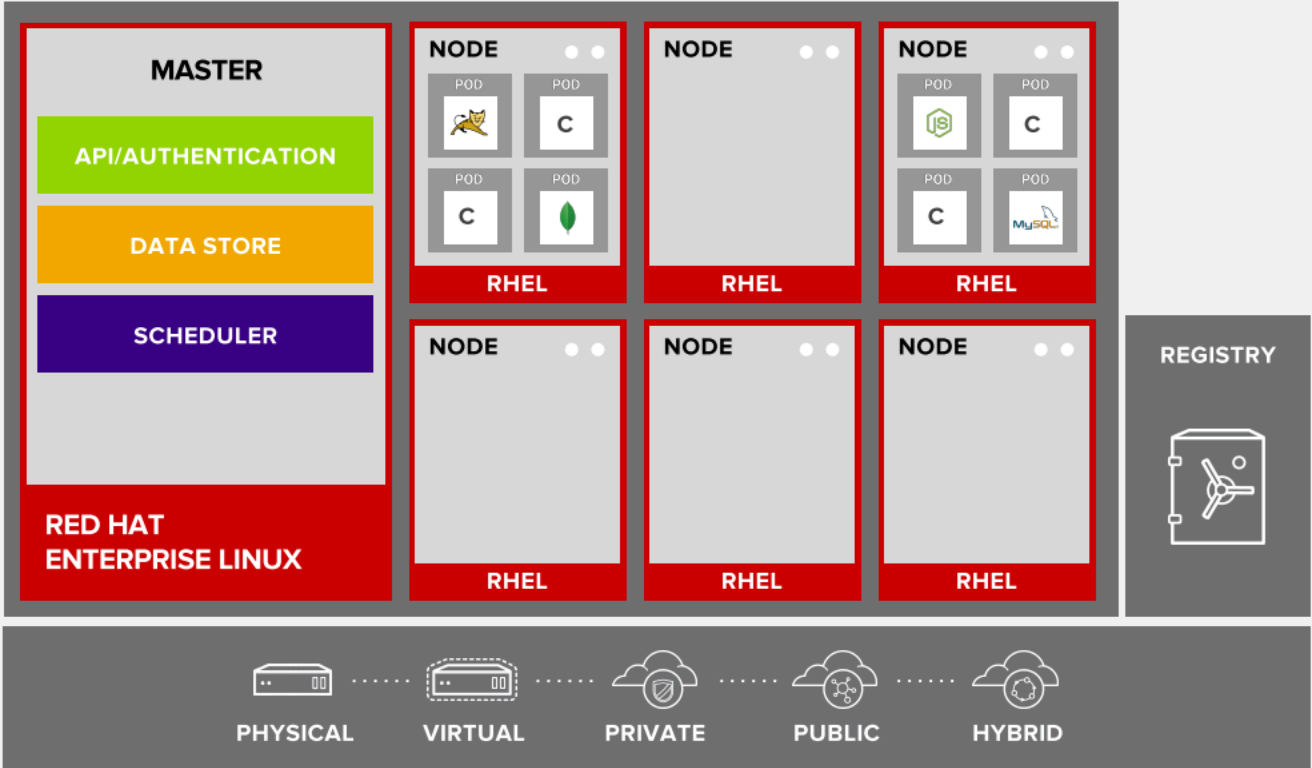
INTEGRATED CONTAINER REGISTRY



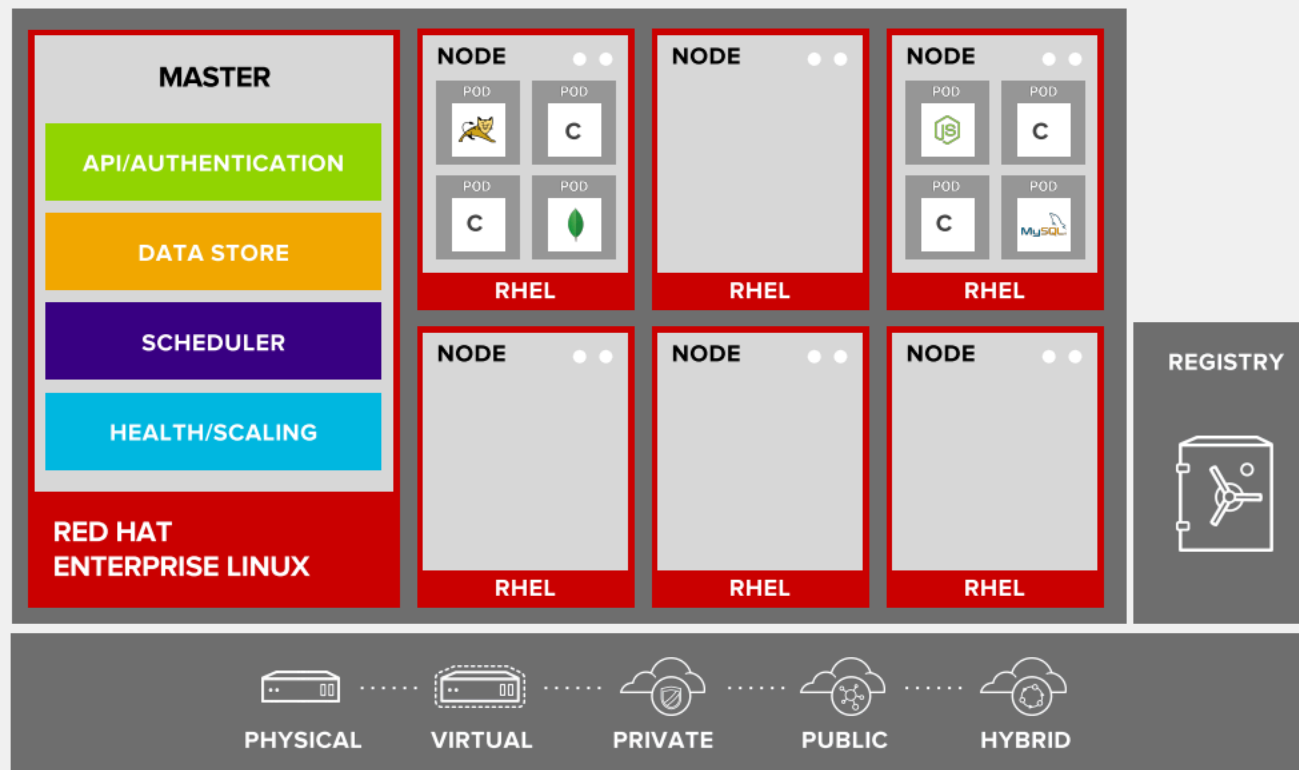
ORCHESTRATION AND SCHEDULING



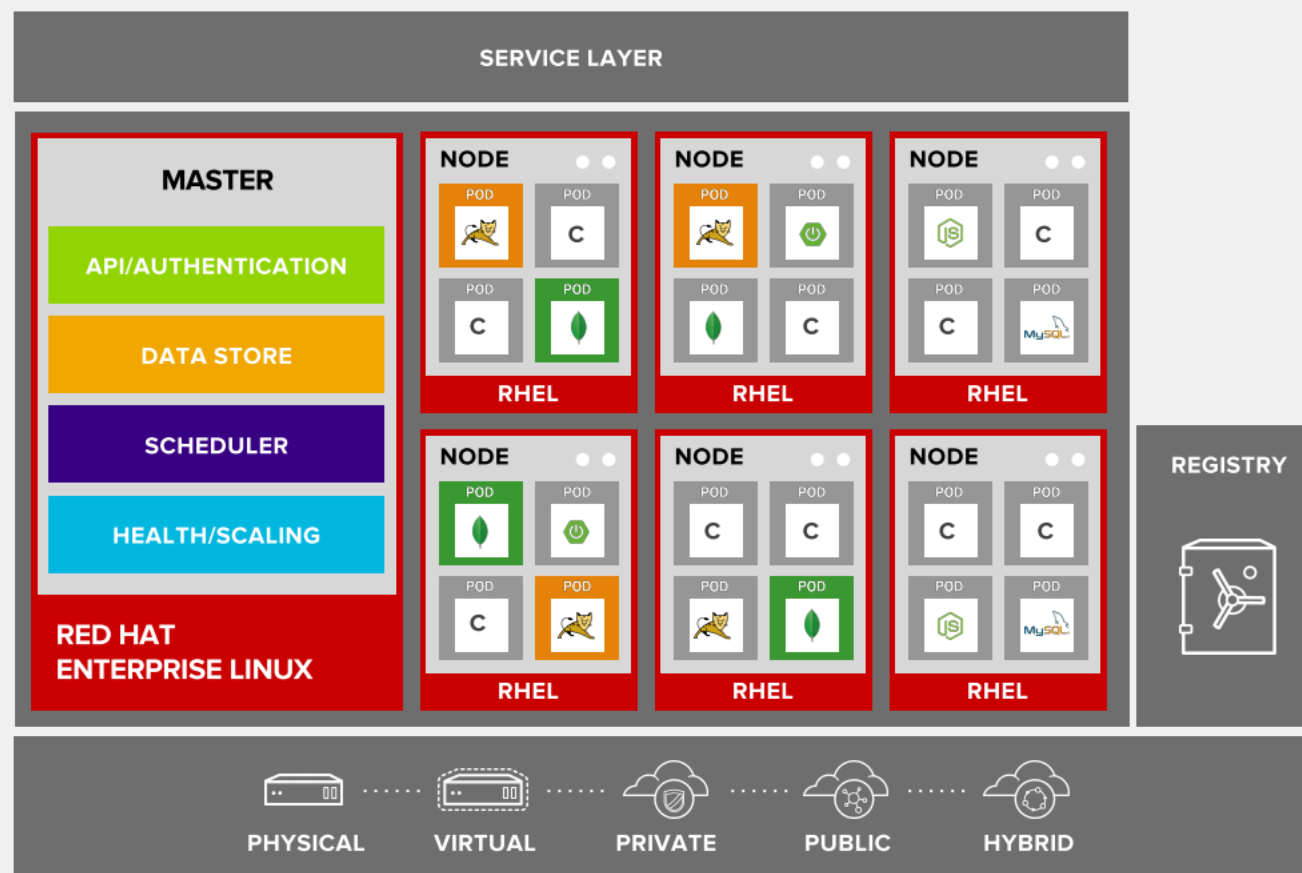
PLACEMENT BY POLICY



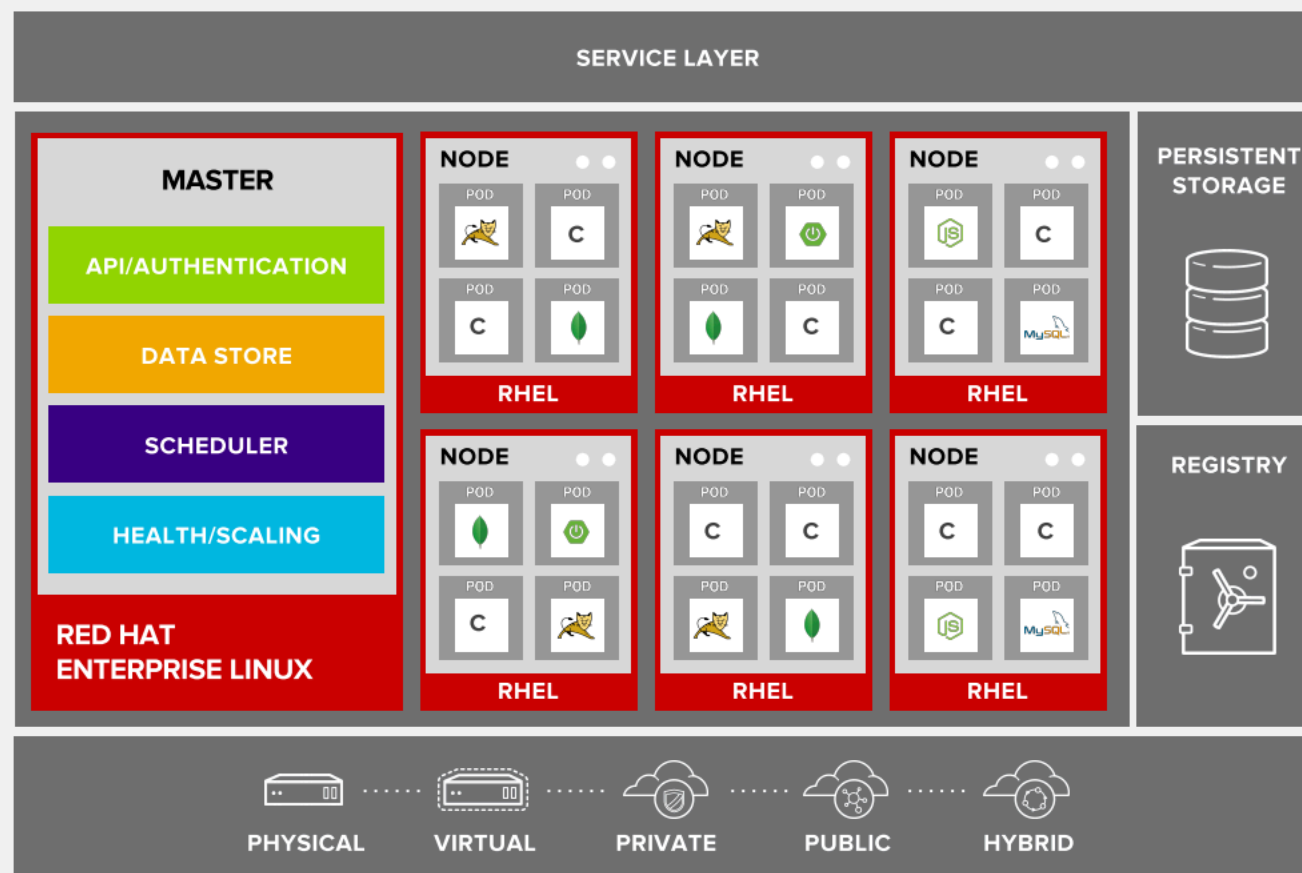
AUTOSCALING PODS



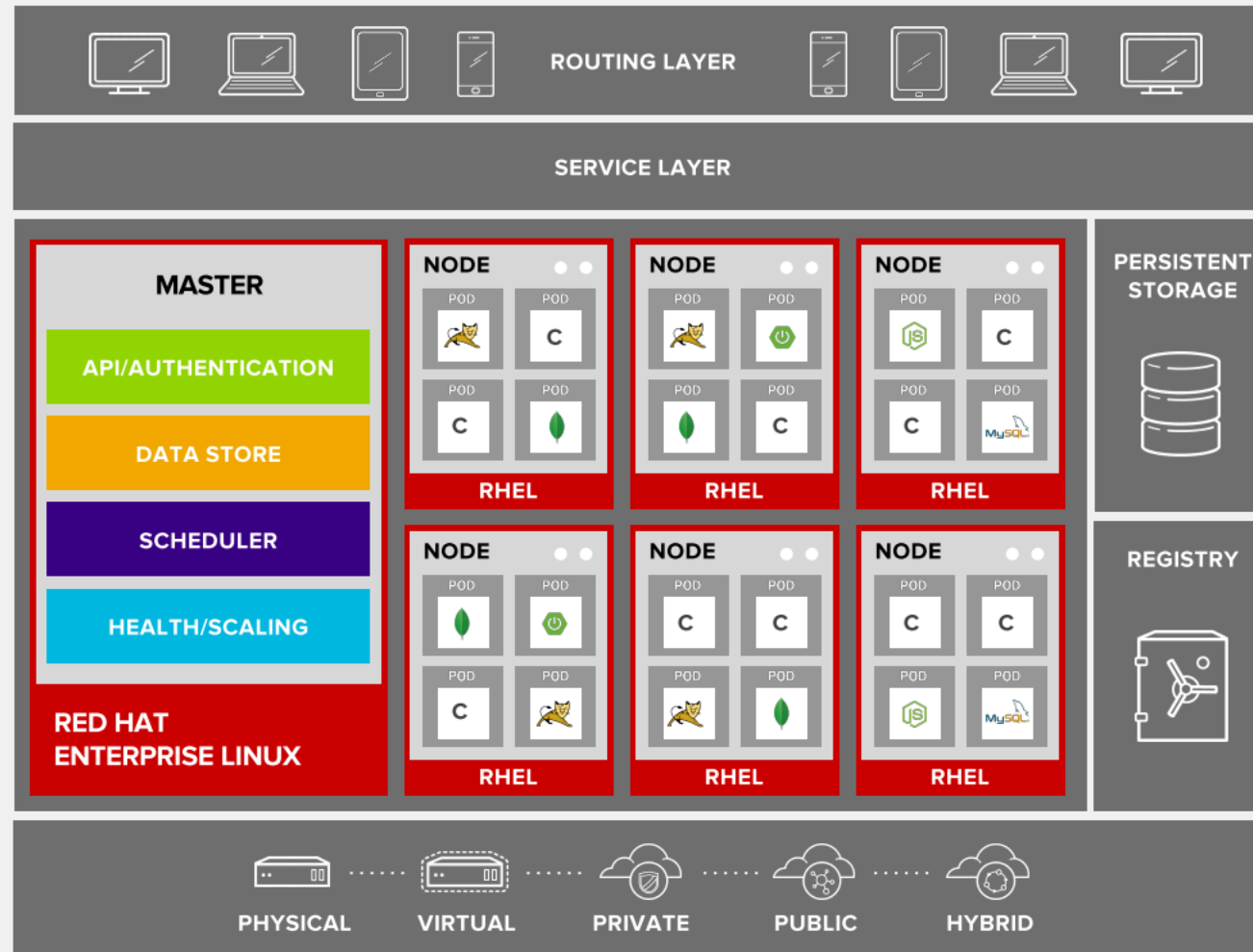
SERVICE DISCOVERY



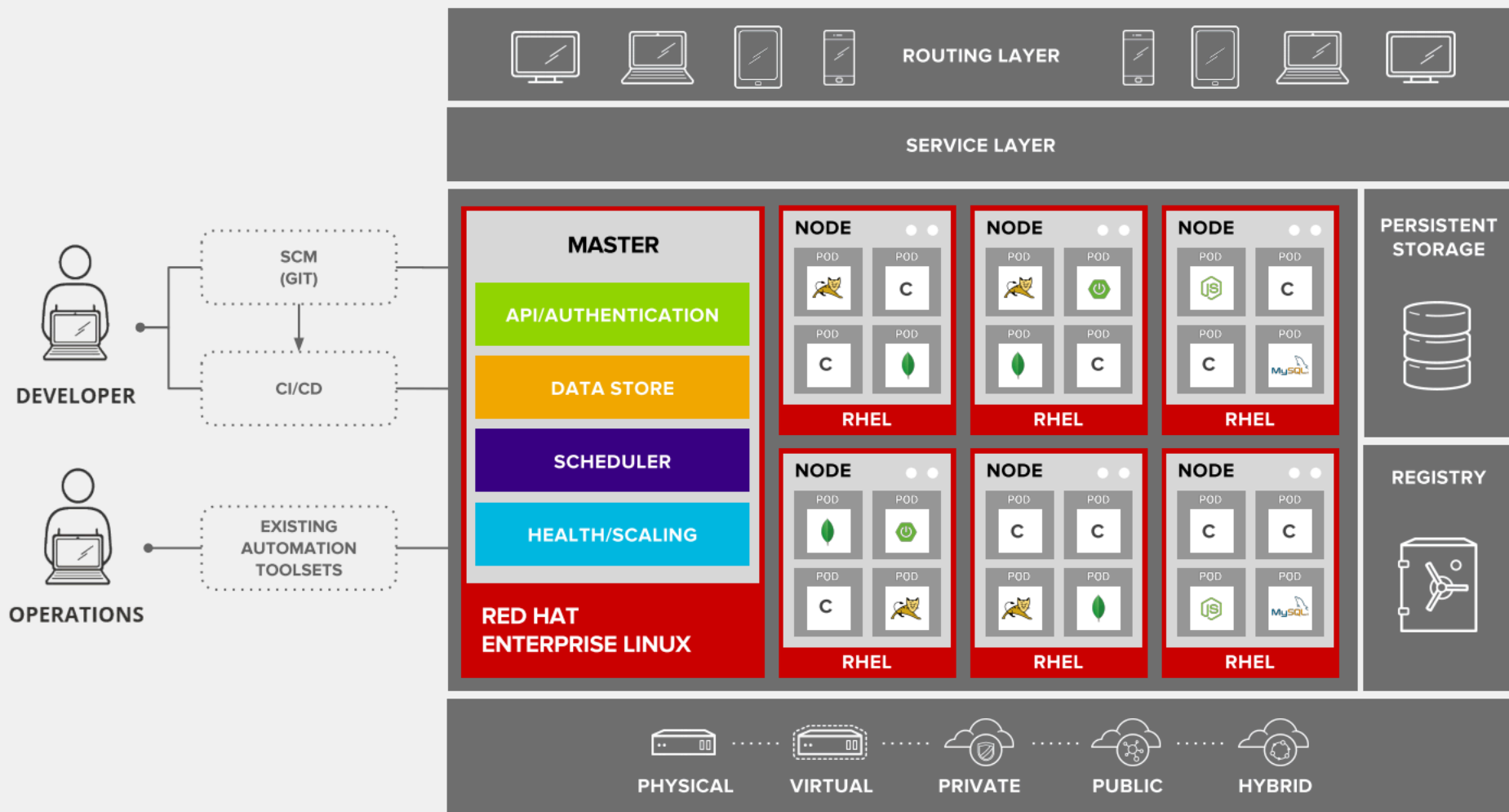
PERSISTENT DATA IN CONTAINERS



ROUTING AND LOAD-BALANCING



ACCESS VIA WEB, CLI, IDE AND API



Demo

Run the demo yourself

- You can get all instructions at this web page
- <https://ronanb3.github.io/meetup-openshift-startup/>

Resources

Some useful resources I used for this presentation

- [Openshift Technical Overview](#)
- Nice and quick video in French from Cookie connecté
 - [Docker](#)
 - [Kubernetes](#)
 - [Openshift](#)

Merci pour votre attention.

Des questions ?

Labs : <https://ronanb3.github.io/meetup-openshift-startup/>

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