



Making DevOps Easy

"Idea to Production" in Minutes with Red Hat OpenShift

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WHY

Developers are the new Kingmakers

-- Stephen O'Grady, RedMonk

Developers are the new Kingmakers

-- Kieran Broadfoot, CTO Barclays

Ideas to production, safely in a day

-- Pat Healy, CTO Deutsche Bank

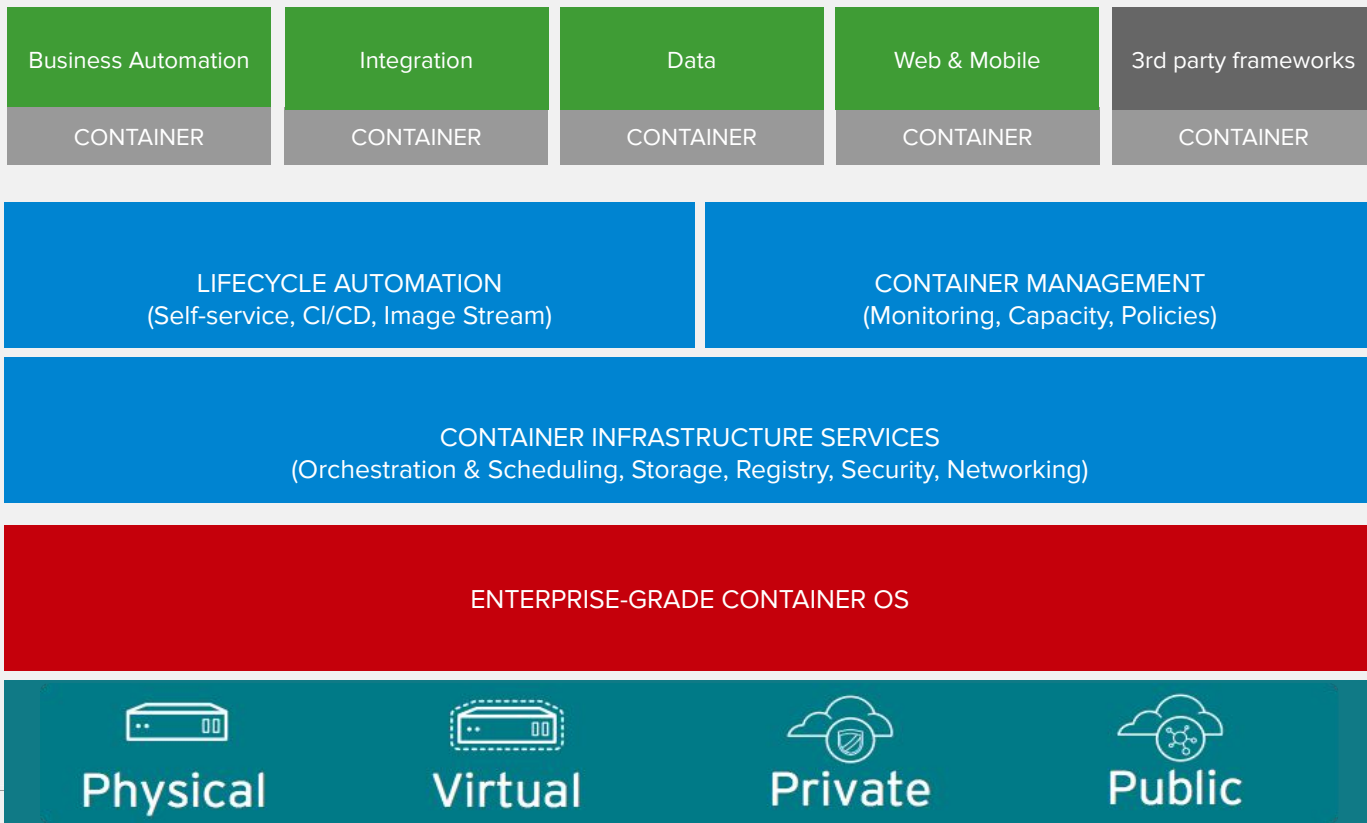
WHAT

Red Hat OpenShift Container Platform

An integrated application platform to run,
orchestrate, monitor and scale containers
(CaaS and PaaS)



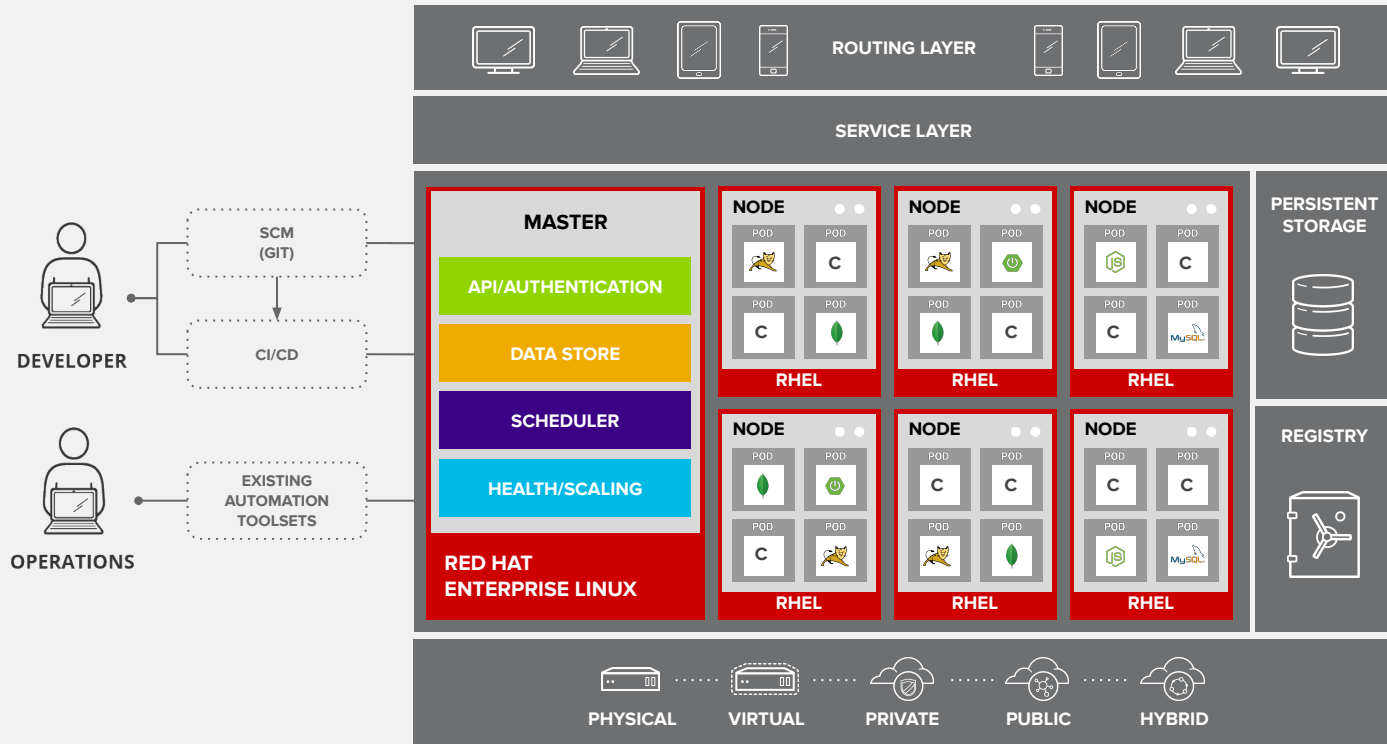
OpenShift is Enterprise Kubernetes+



HOW?

OpenShift Architecture

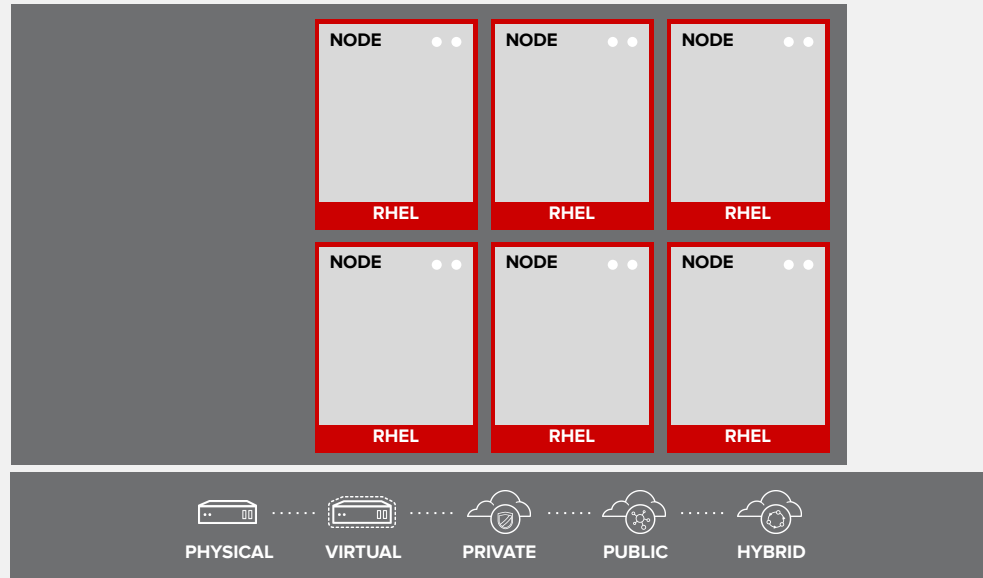
OPENS SHIFT ARCHITECTURE



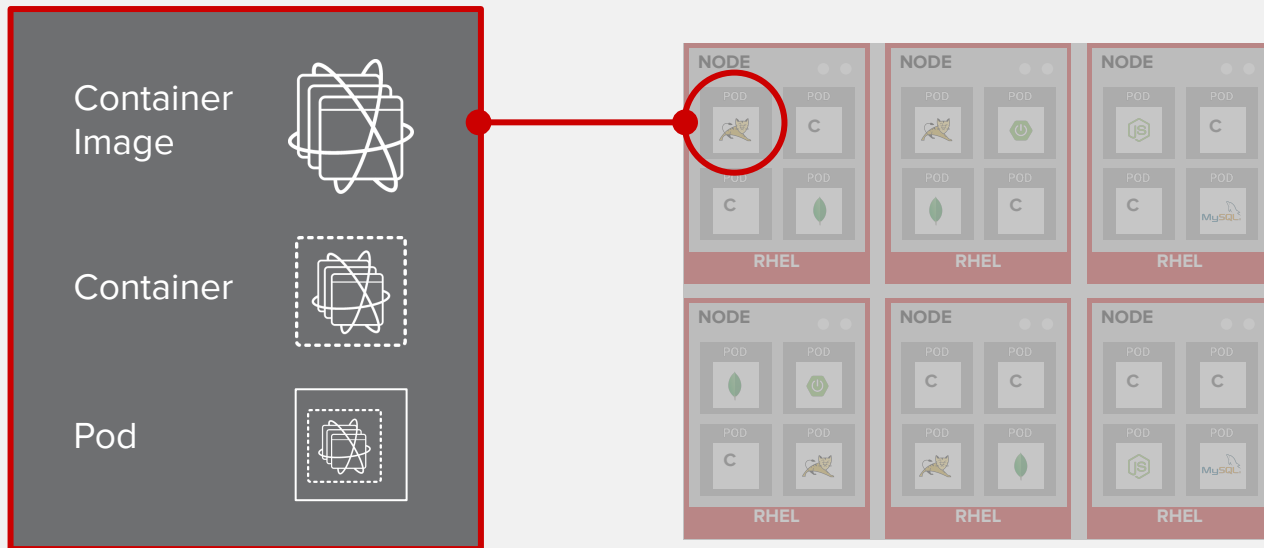
YOUR CHOICE OF INFRASTRUCTURE



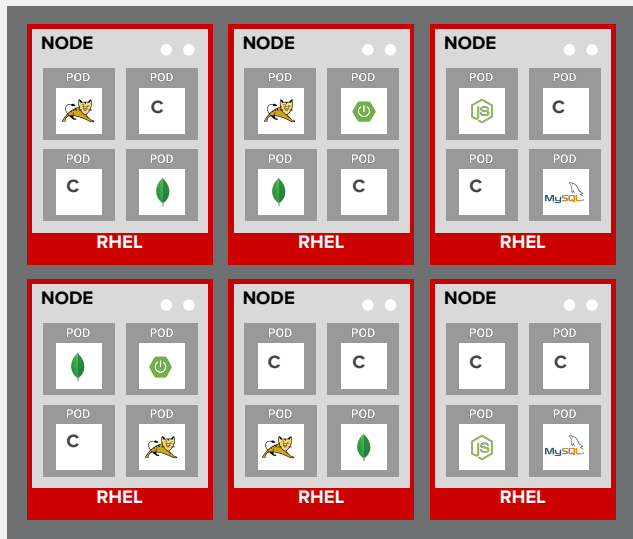
NODES RHEL INSTANCES WHERE APPS RUN



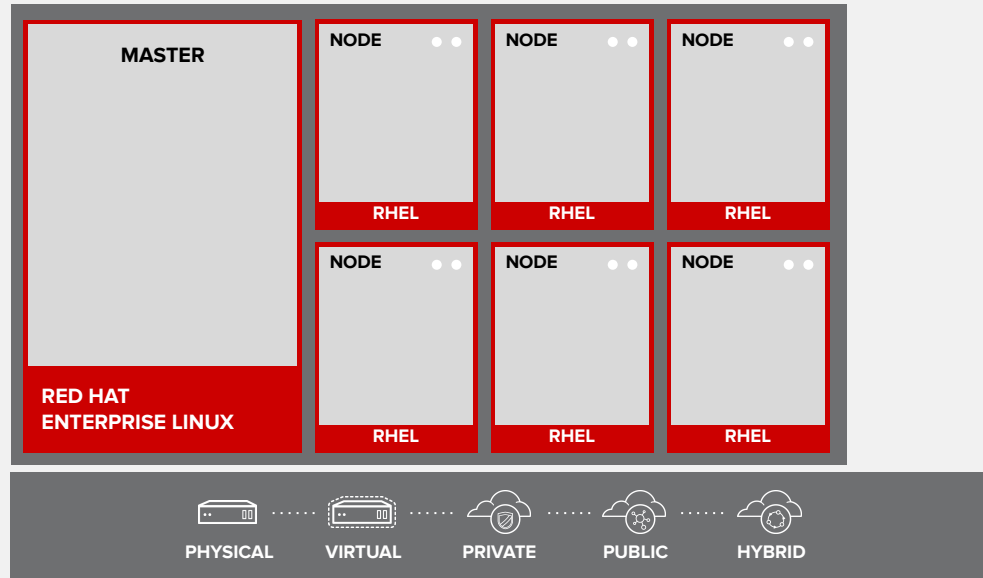
APPS RUN IN CONTAINERS



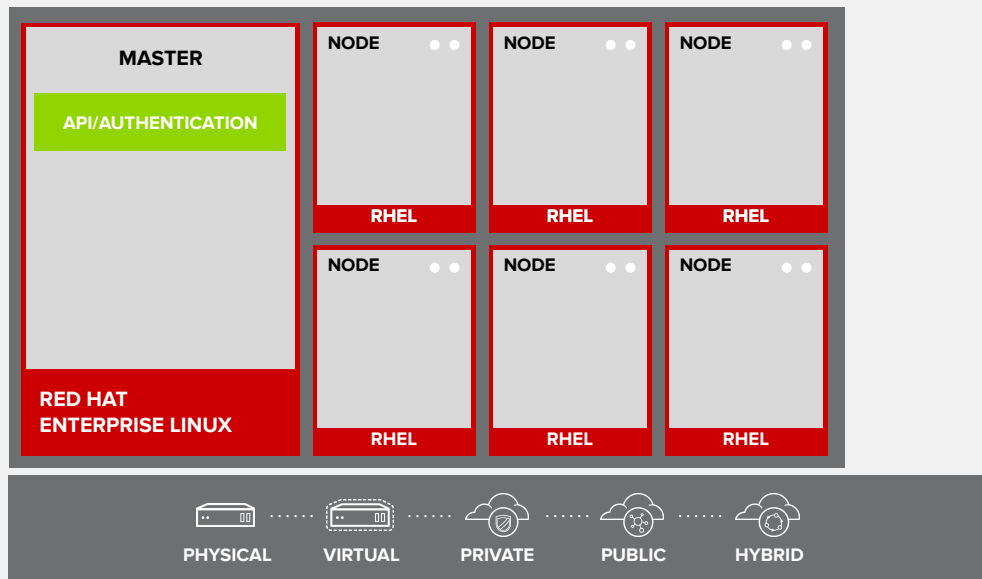
PODS ARE THE UNIT OF ORCHESTRATION



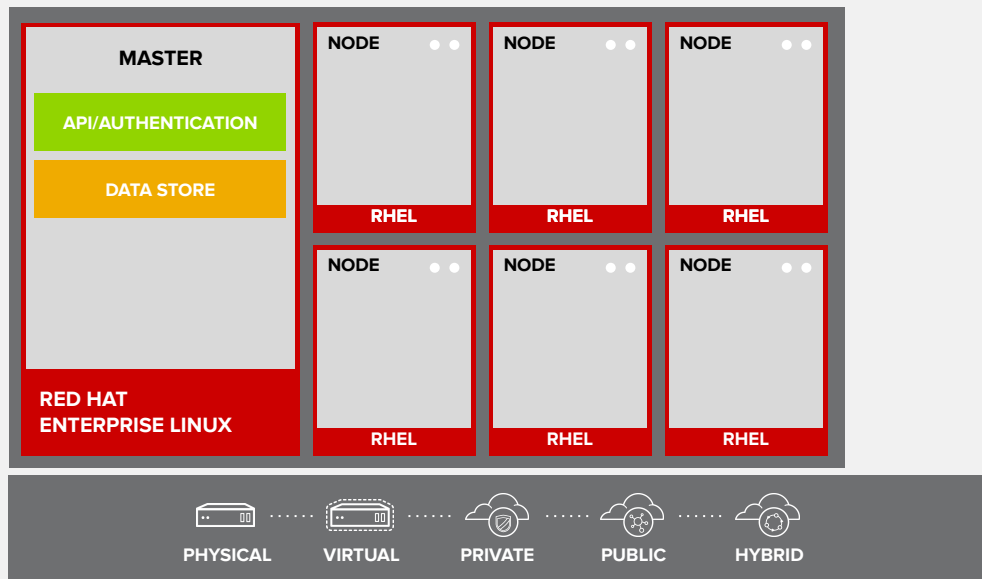
MASTERS ARE THE CONTROL PLANE



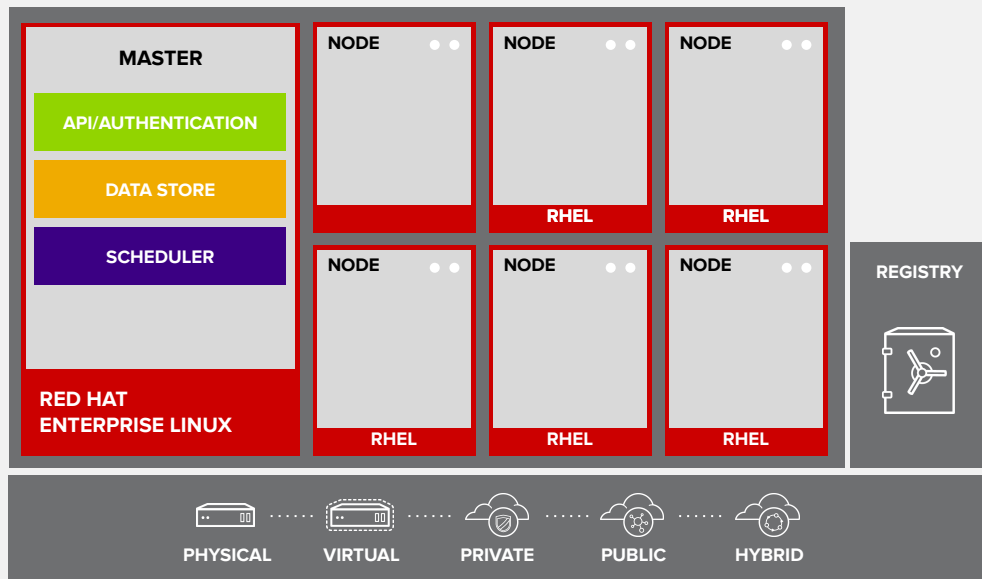
API AND AUTHENTICATION



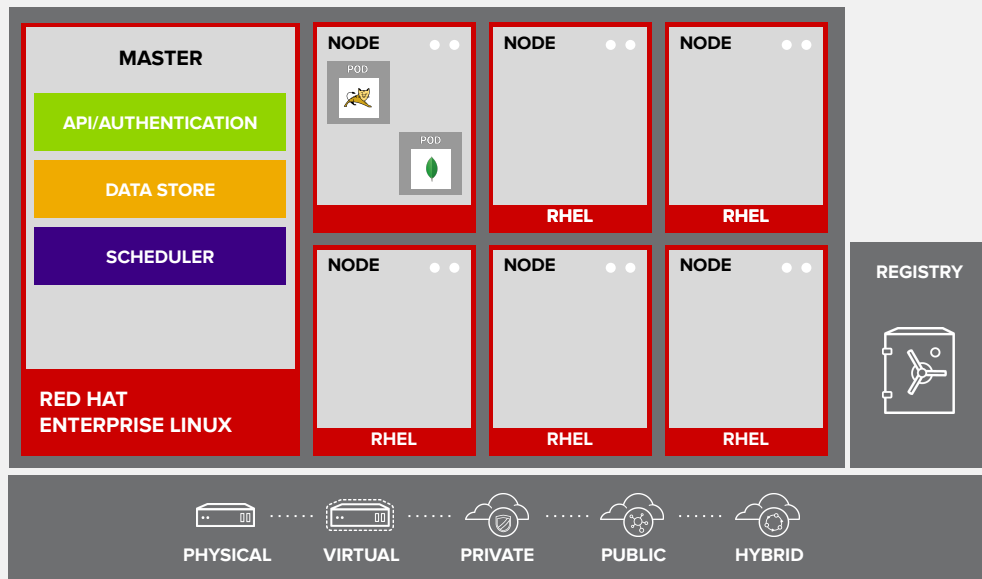
DESIRED AND CURRENT STATE



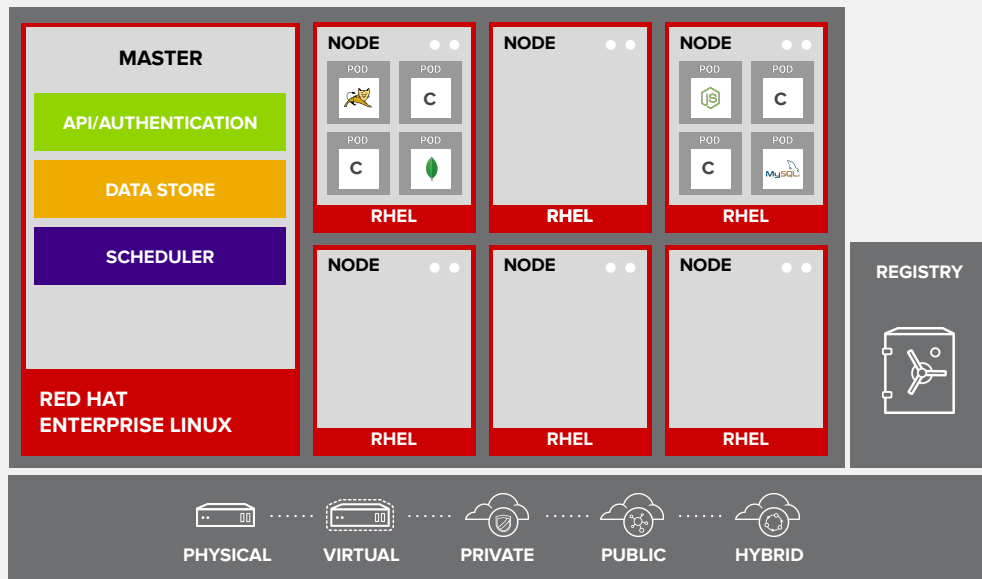
SCHEDULER PULLS FROM THE REGISTRY



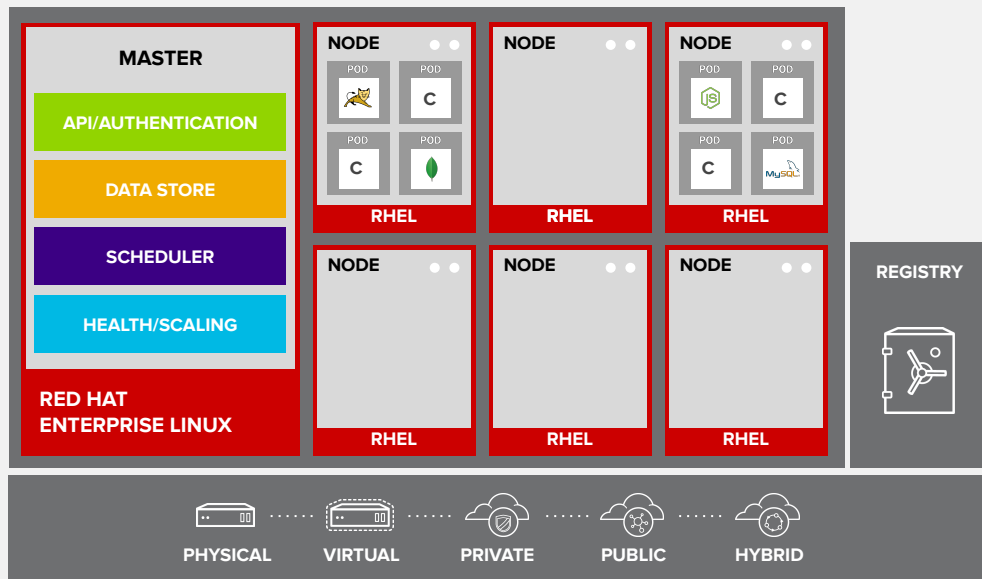
ORCHESTRATION AND SCHEDULING



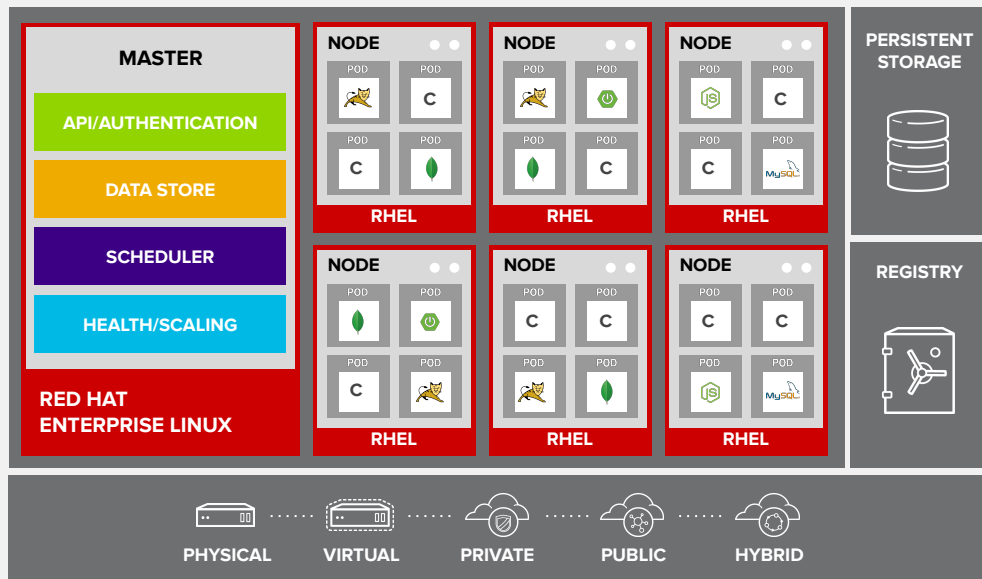
PLACEMENT BY POLICY



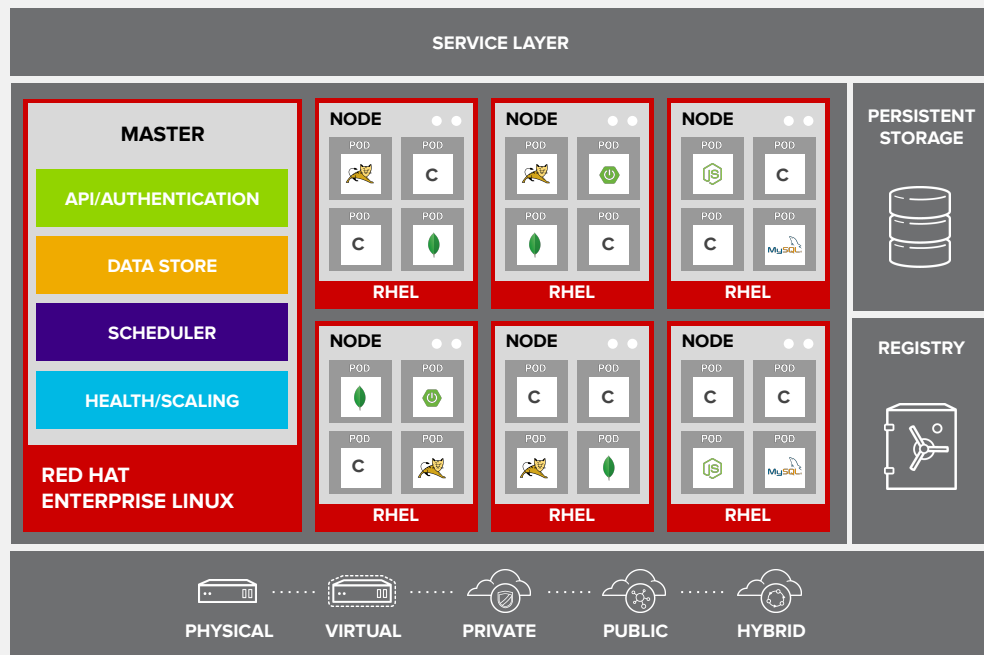
HEALTH AND SCALING



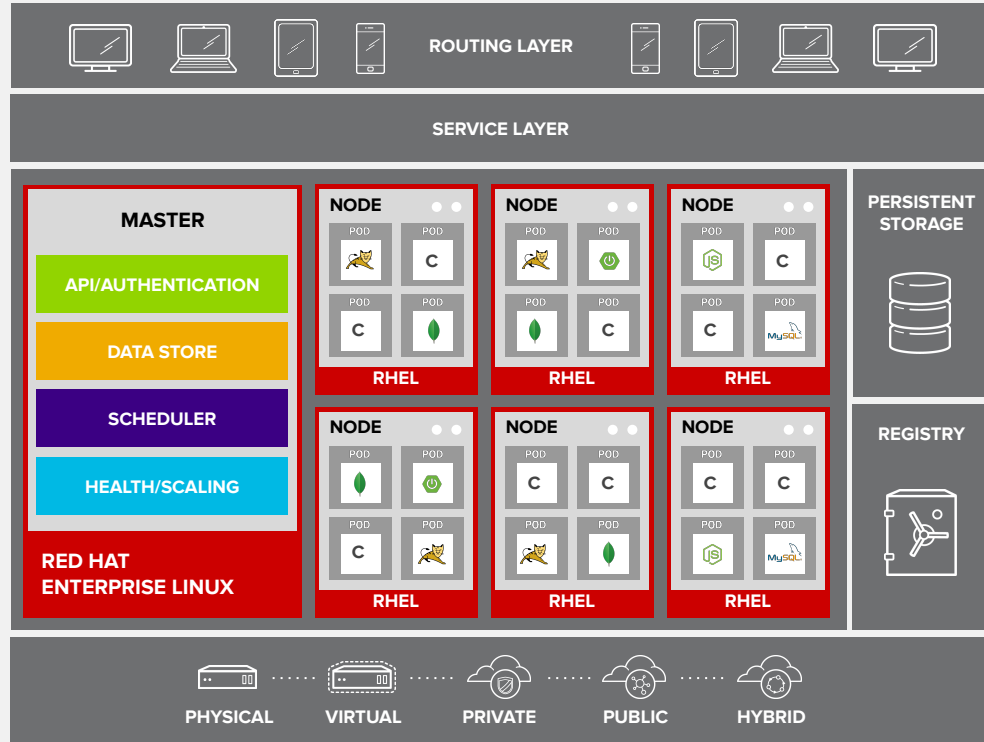
WHAT ABOUT DATA?



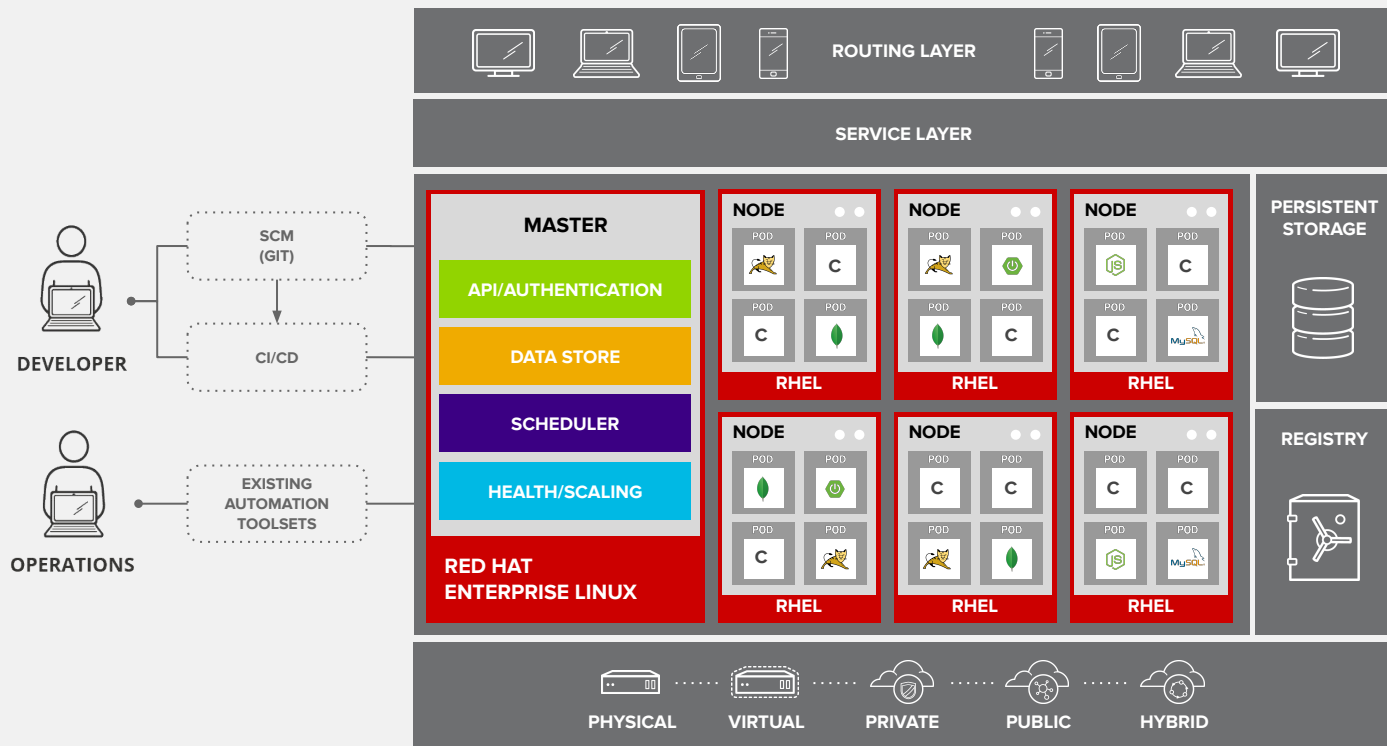
SERVICE DISCOVERY



ROUTING AND LOAD-BALANCING



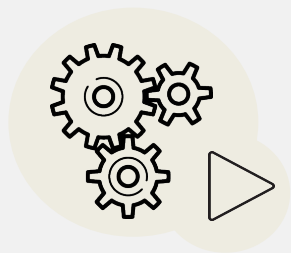
ACCESS VIA WEB, CLI, IDE AND API



OpenShift Concepts

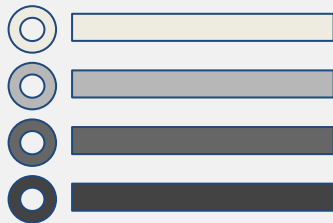
OPENSIFT CONCEPTS

Pod



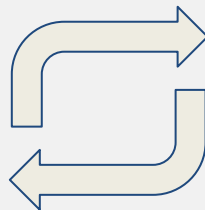
One or More Containers
Shared IP
Shared Storage Volume
Shared Resources
Shared Lifecycle

Label



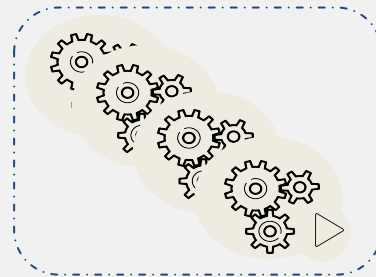
Key/Value pairs associated
with Kubernetes objects
(e.g. env=production)

Replication Controller



Ensures that a specified
number of pod replicas are
running at any one time

Service

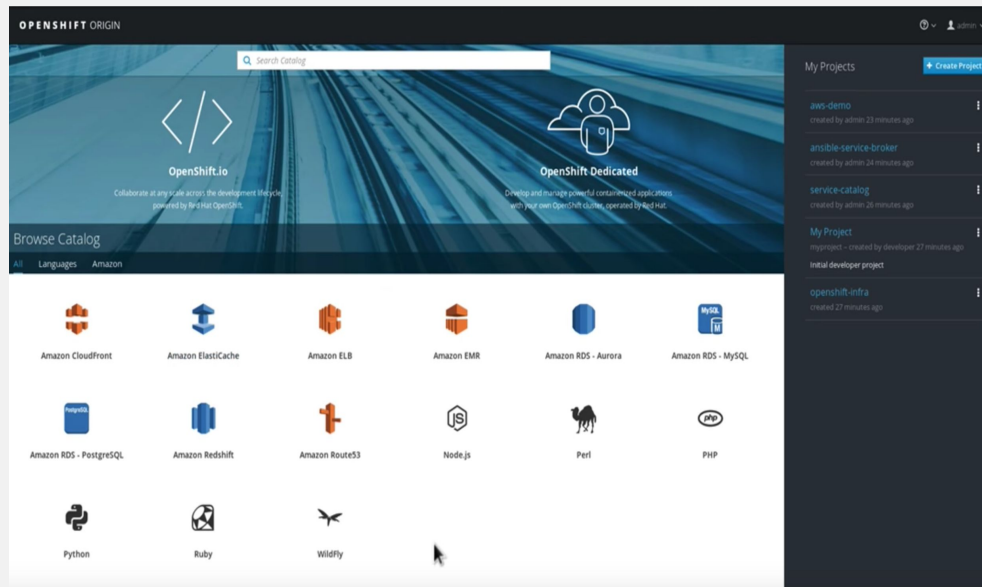


Grouping of pods, act as one,
has stable virtual IP
and DNS name

Couple more things ...

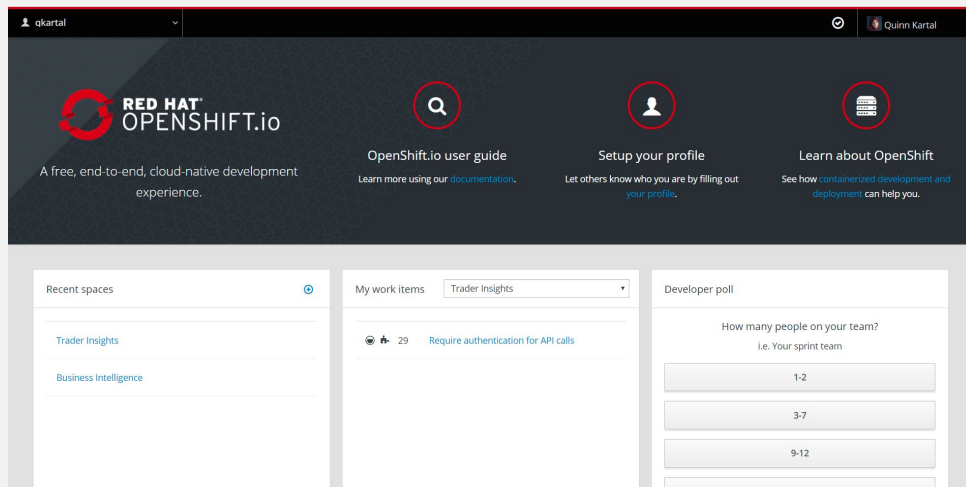
AWS INTEGRATION WITH OPENSSHIFT

- Provisioning native AWS services via OpenShift Service Catalog using Open Service Broker API
- Joint support for applications using Openshift with integrations to AWS
- General Availability Q4 2017



INTRODUCING OPENSIFT.IO

- All the tools a team needs to analyze, plan, create and deploy services
- Planning tools for managing and prioritizing work
- Code editing and debugging tools built on Eclipse Che
- Integrated and automated CI/CD pipelines
- Build on top of Openshift Online



DEMO

Demo

- Deploy platform (yes, that's right!)
- Build & deploy app
- Change code & config, redeploy
- Make resilient / scale out
- Add persistence
- Deploy to staging / production
- Fully automated deployment pipeline



THANK YOU



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