RED HAT
FORUM
Europe, Middle East & Africa

redhat.

OPENSHIFT®
by Red Hat®

# Taming your heterogeneous cloud with Red Hat OpenShift Container Platform

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# Business Problem: Building a Hybrid Cloud solution

PartyCo

Some Bare Metal machines
Mostly Virtualised

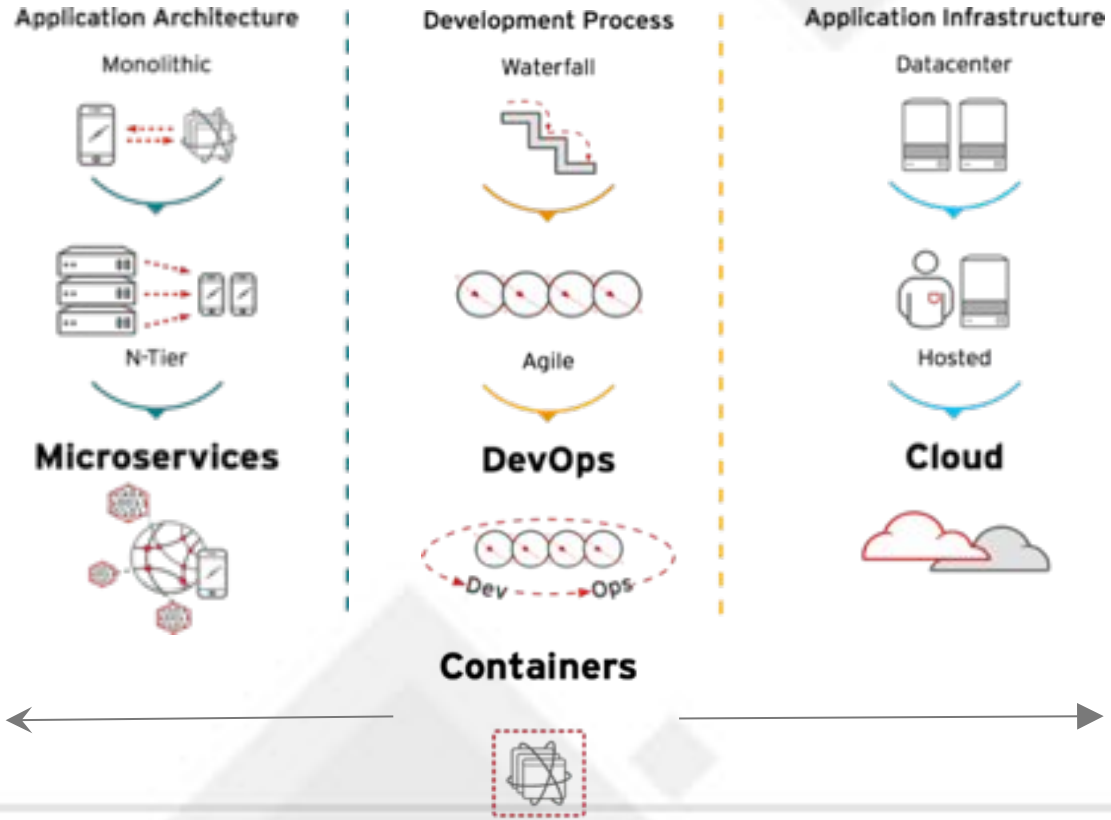
CosPlayUK

Some OpenStack
Primarily public cloud

Develop and Deploy across all environments

# Red Hat Solution: OpenShift

# Containers - Transform Apps, Infrastructure & Process



# Red Hat Addresses Container Adoption Concerns

**Comprehensive offerings and capabilities enable enterprise-wide container adoption.**

# Critical features for both Dev and Ops

# Community Powered Innovation

# RED HAT® OPENSHIFT


Formerly
OpenShift Enterprise


Currently in
Dev Preview for V3


New cloud platform
announcements
coming soon

# The Breakdown

## MANAGED BY THE CUSTOMER


**Full Offering**

Sold the same way as Enterprise

**RHEL Add-on**

For customers that already own RHEL

**Developer Tool**

An OpenShift environment for developers to use on their local machine

## MANAGED BY RED HAT

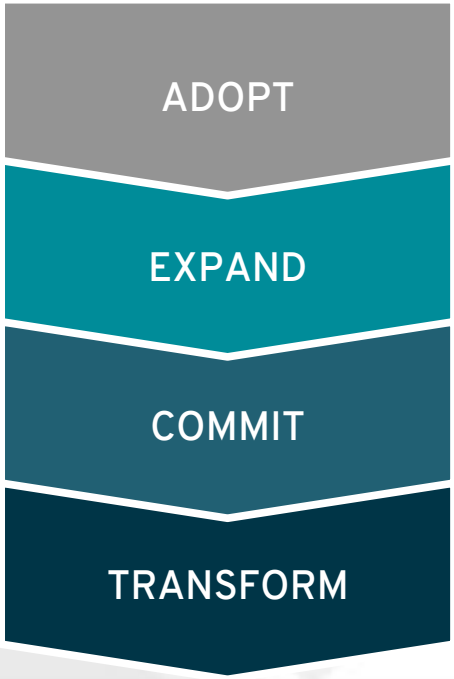

**Public Cloud**

OpenShift in the cloud.

**Managed Private Instance**

A complete OpenShift Container Platform instance managed by Red Hat and provided to the customers as a service

# WHAT WE ANNOUNCED AT SUMMIT




## ON-PREMISE

[NEW] Red Hat OpenShift Container Local

[NEW] Red Hat OpenShift Container Labs*

[NEW NAME] Red Hat OpenShift Container Platform*

Red Hat Cloud Suite

## PUBLIC CLOUD

[UPDATED] Red Hat OpenShift Online

Red Hat OpenShift Dedicated

Red Hat OpenShift Dedicated

* Also available as RHEL Add-On [NEW]

# OpenShift Online

# OpenShift Container Platform

FICO

ca technologies

UTS

CISCO

LeShop.ch MIGROS

PAYCHEX

BOEING

T · · · Systems · · ·

amadeus

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

Read more at: openshift.com/customers

# Customer Wins


openshift.com/customers

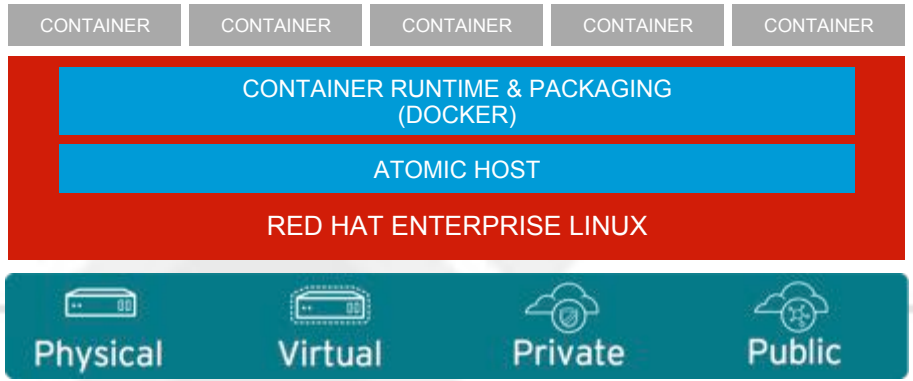
## Business Challenges

- Need to match traveler's reservation requests to various providers' inventory (airlines, hotels, etc.)
- Dealing with constant updates from provider systems all over the world
- Must deliver high consistency and fast response times
- Managing very high request volumes of up to ~210,000 queries per second at peak

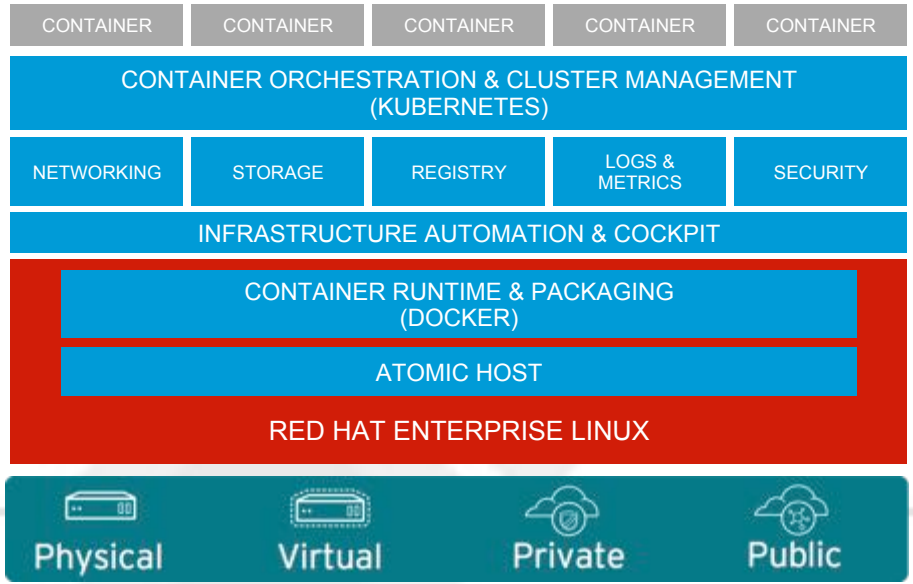
## Key Benefits

- Application-centric deployments, deploying the application as a whole with all of its dependencies.
- Automated scheduling across the cluster, decoupling 'what should run' from 'where it should run'
- Able to support different types of applications, not limited to HTTP or stateless services
- Improved operational model and greater efficiency

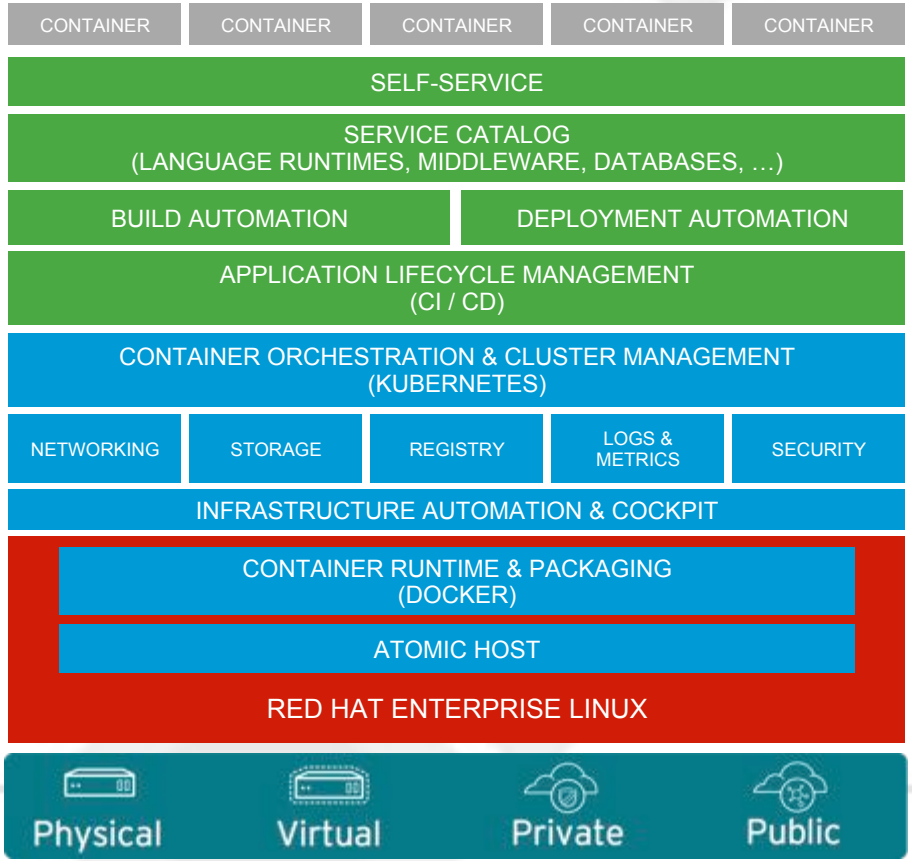
# Trusted Container OS



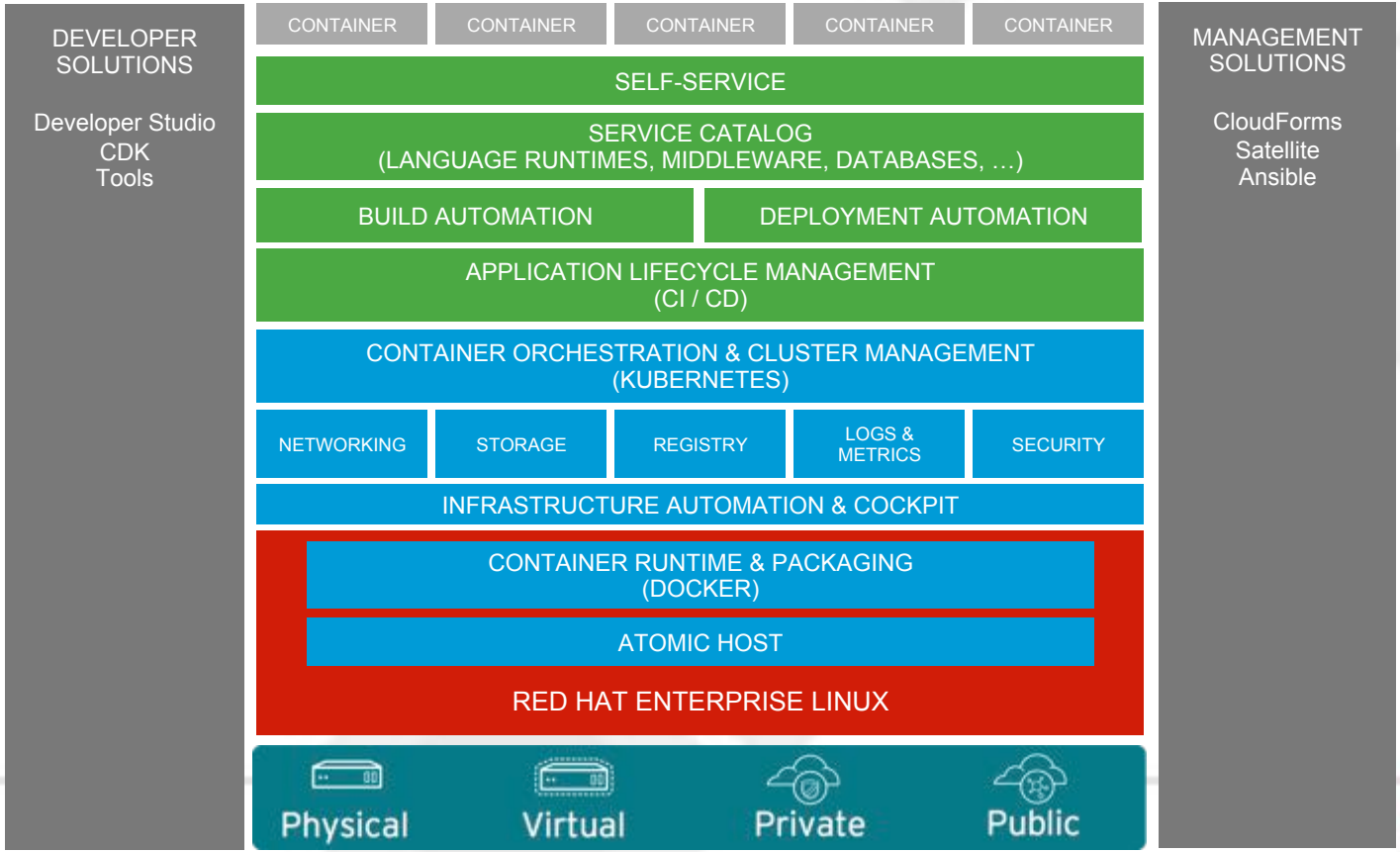
# Clustered Container Infrastructure



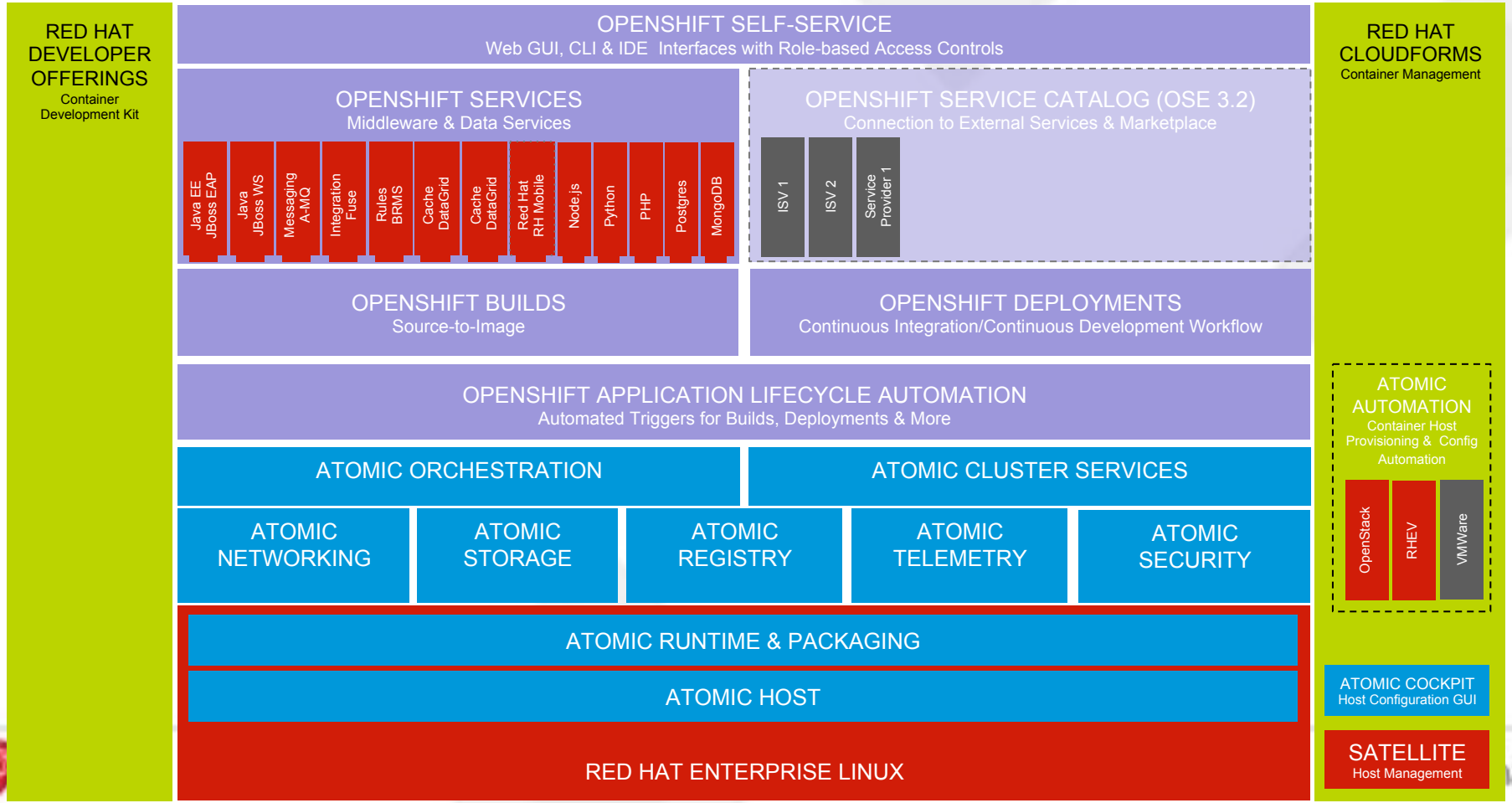
# Enterprise Container Platform

# Red Hat Container Solutions



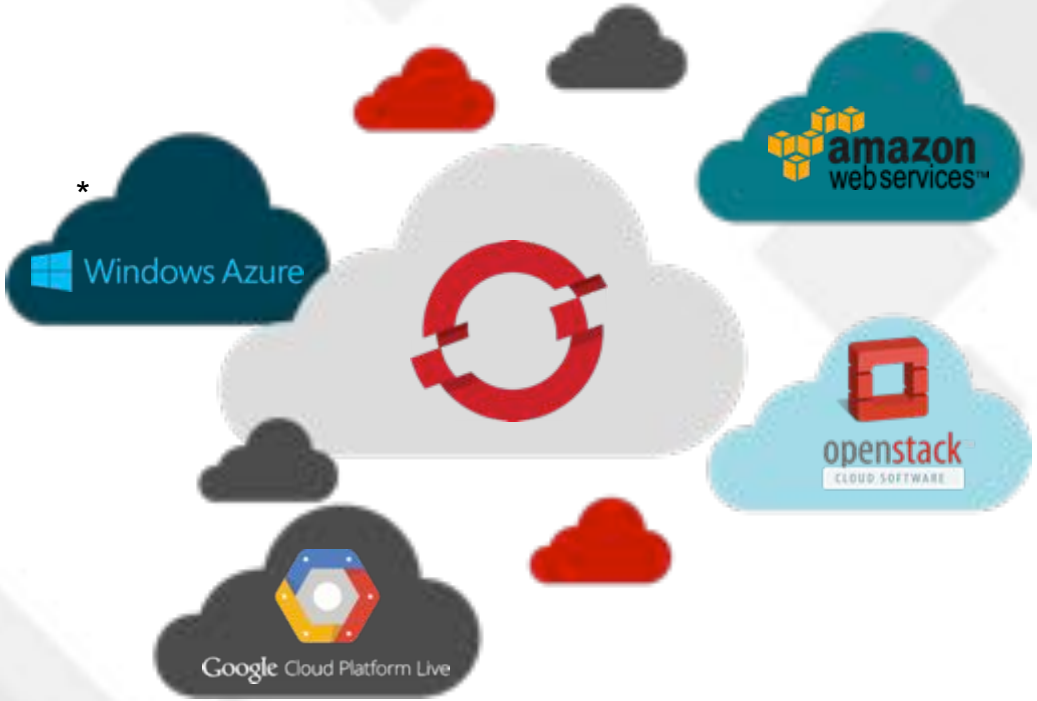
# Red Hat OpenShift Enterprise



# Cloud Infrastructures

## Choose your IaaS

OpenShift will run anywhere RHEL can run giving you the ultimate portability for your mission critical workloads.

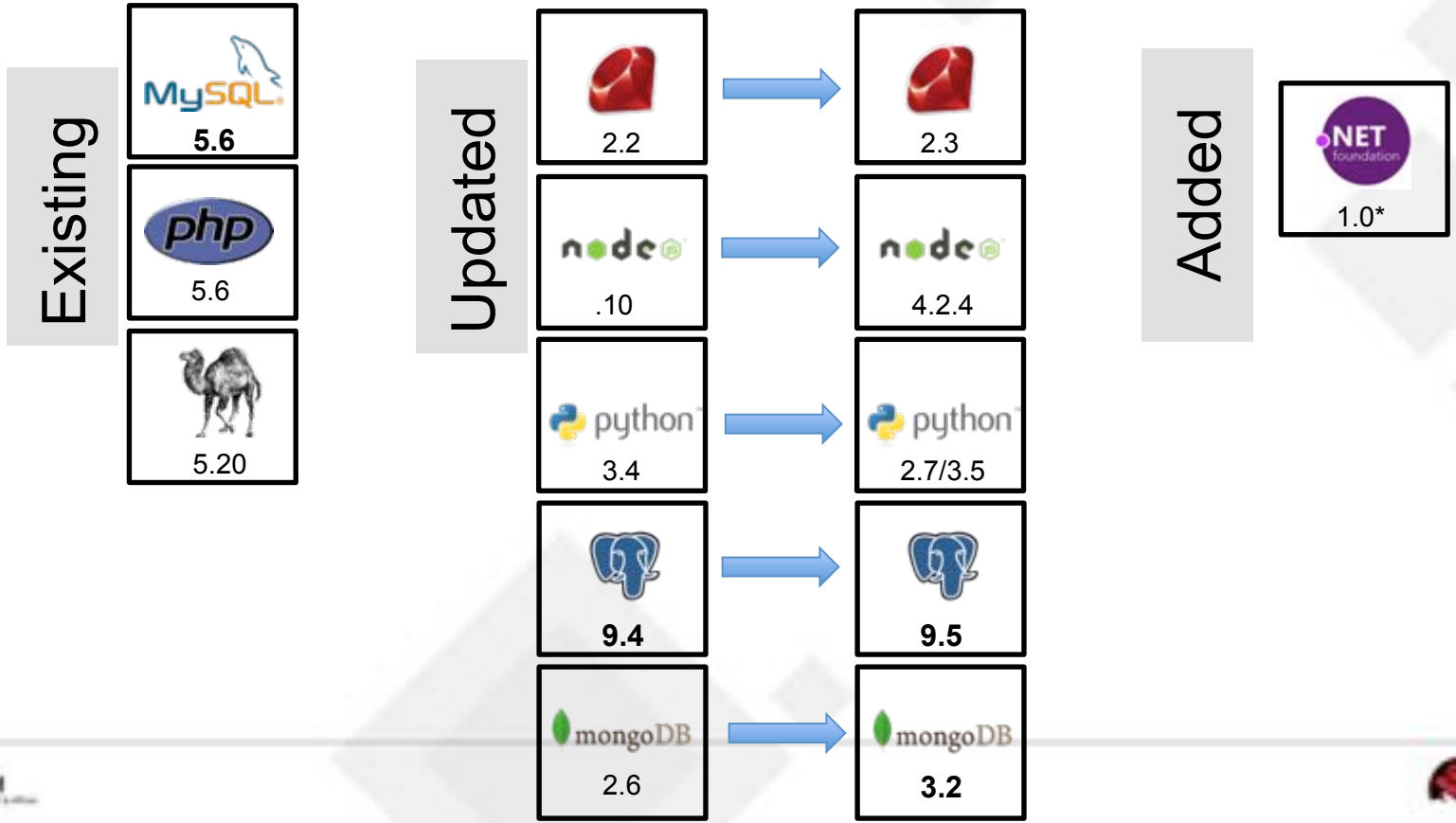



* = Coming Soon

# OpenShift Application Services


- From Red Hat
- From ISV Partners
- From the Community

# SERVICE CATALOG
# SCL 2.2: RUNTIMES & DATABASES



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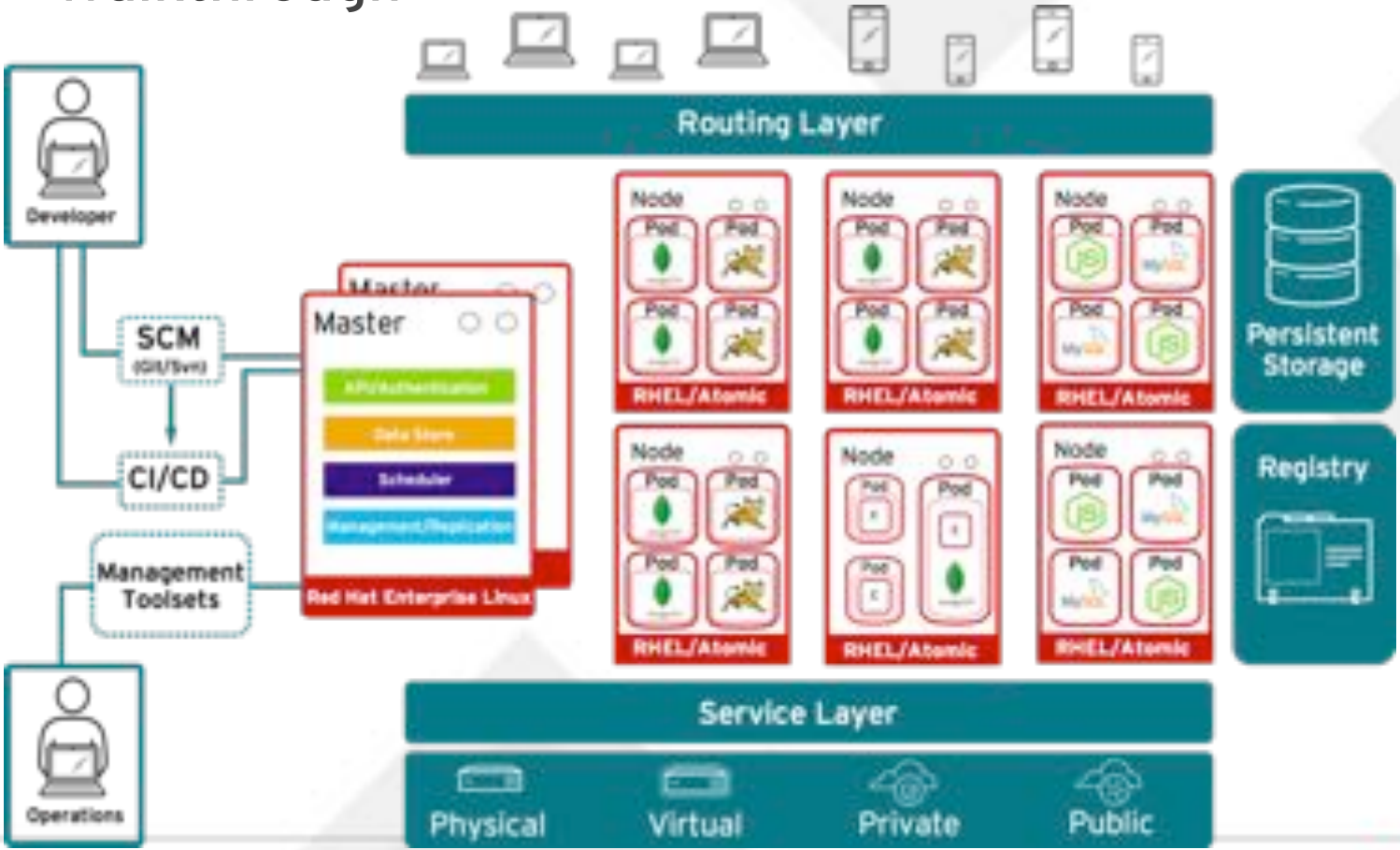
# OpenShift

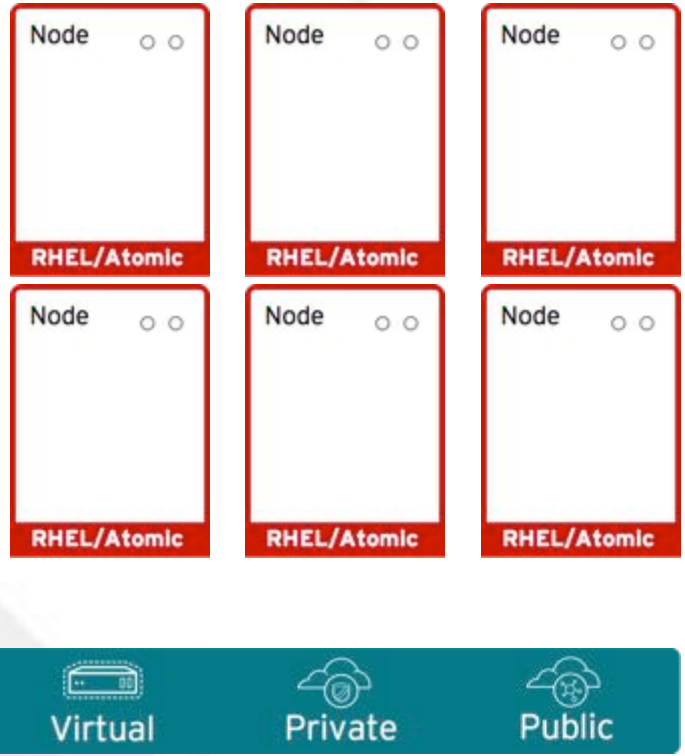
Product Deep Dive

# Walkthrough

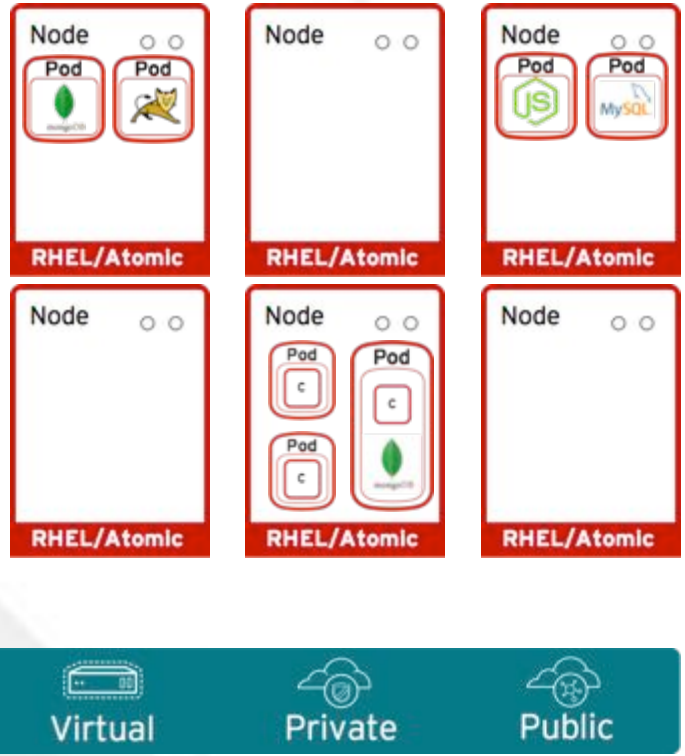


# OpenShift runs on your choice of infrastructure

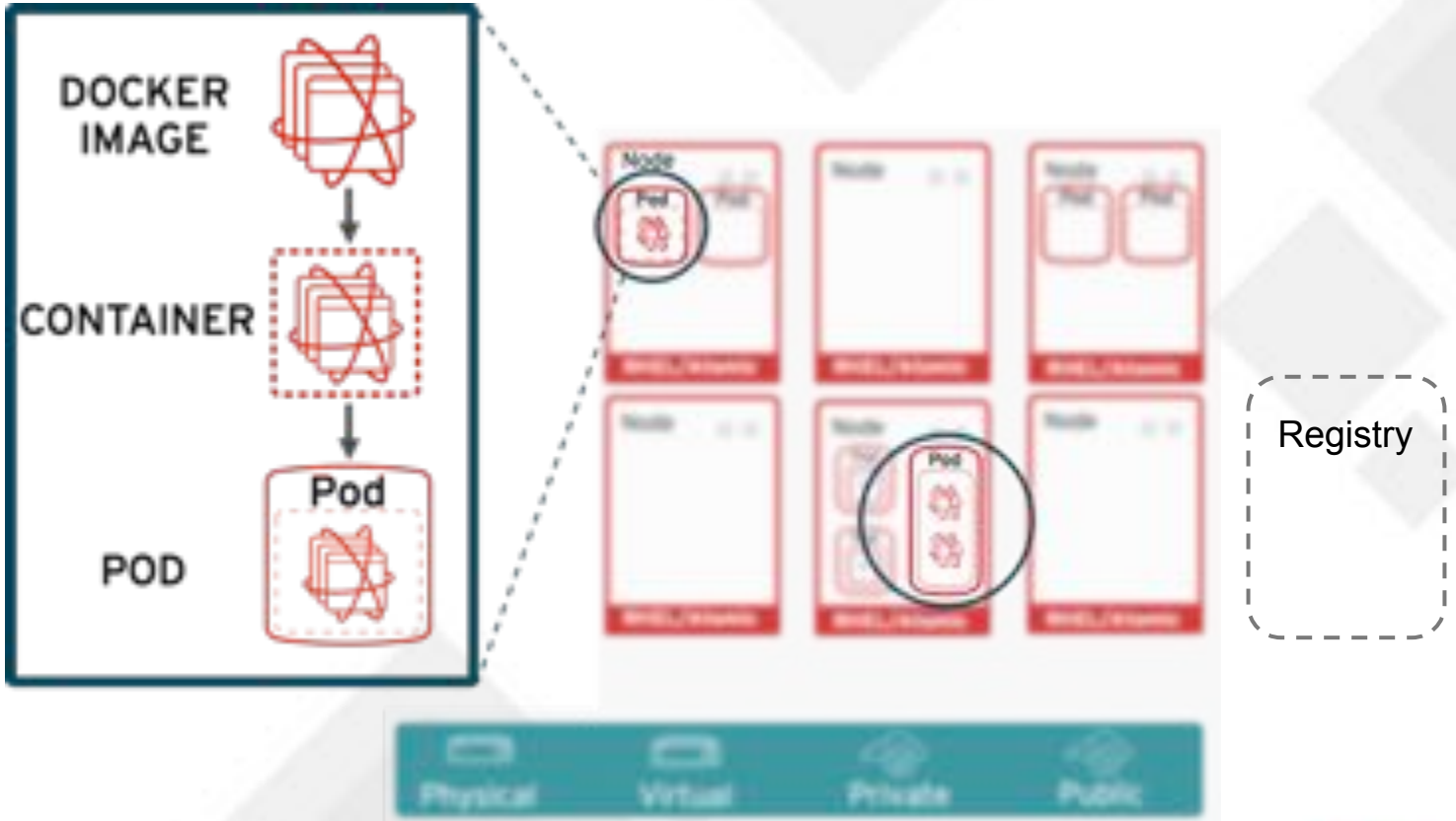
# Nodes are instances of RHEL where apps will run



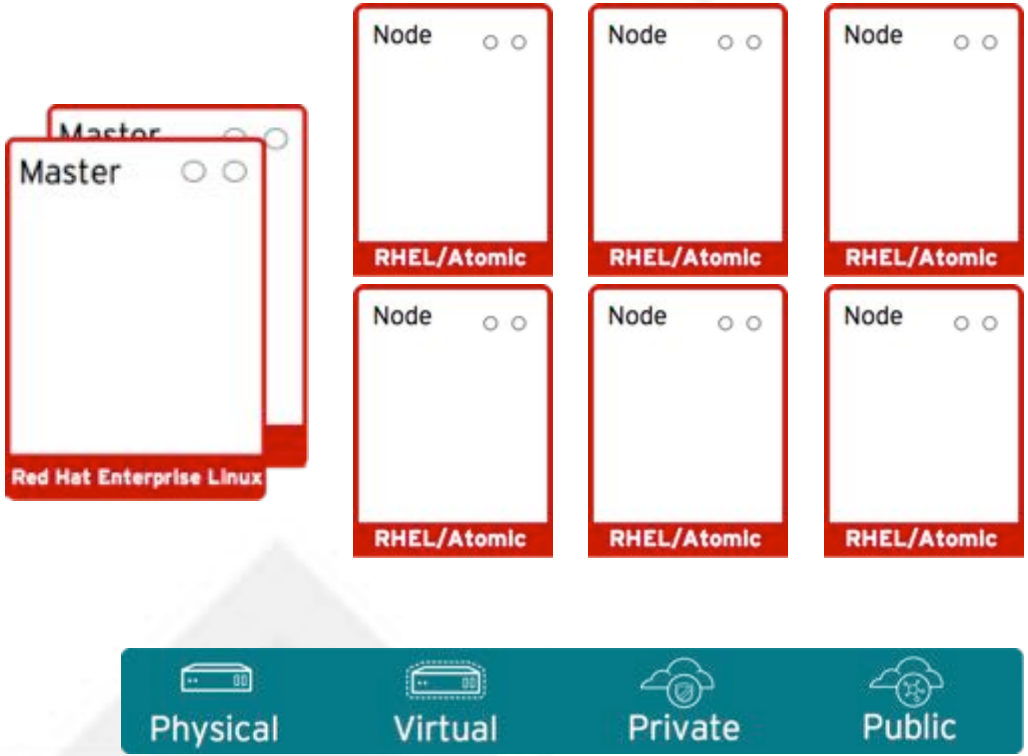
# App services run in docker containers on each node



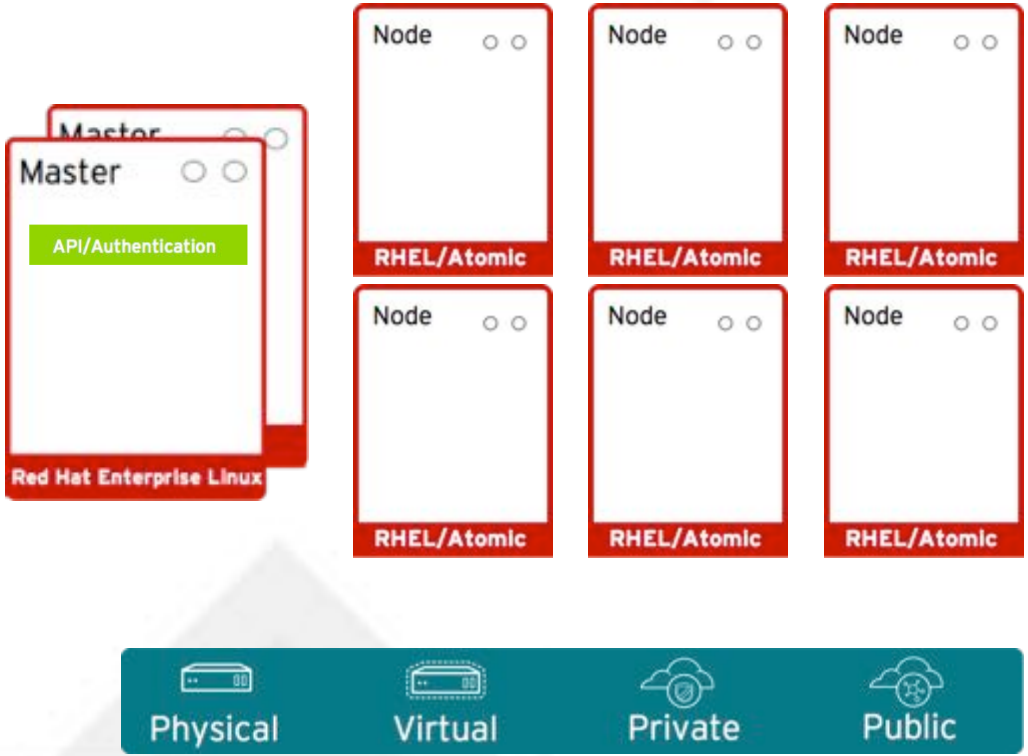
# Pods run one or more docker containers as a unit



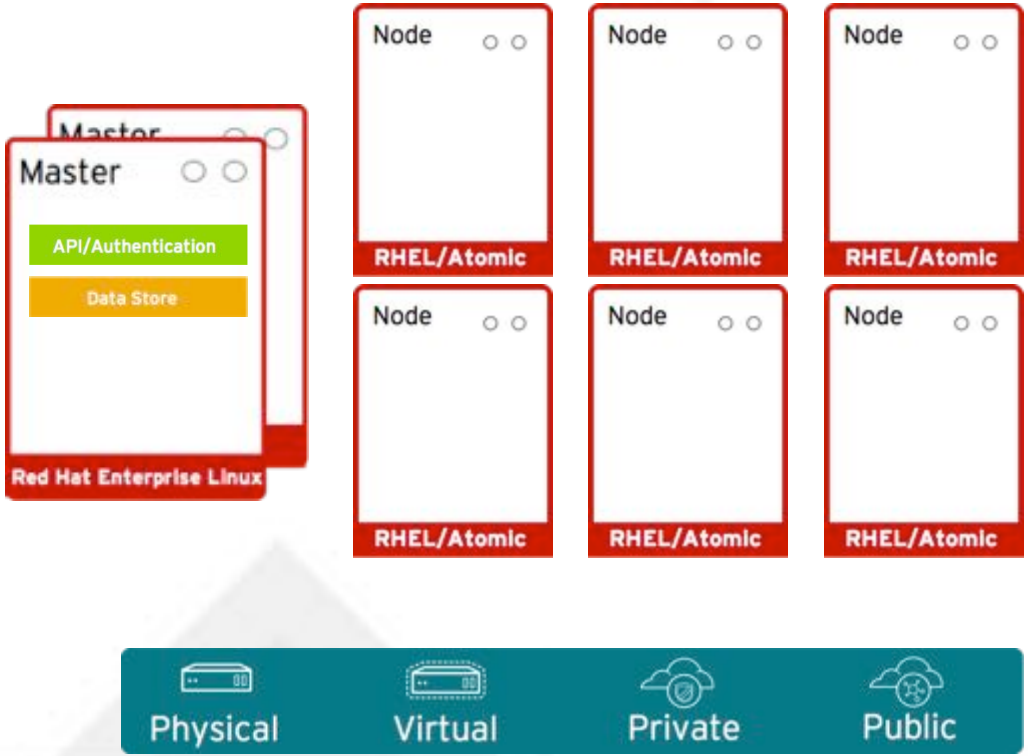
# Masters leverage kubernetes to orchestrate nodes / apps



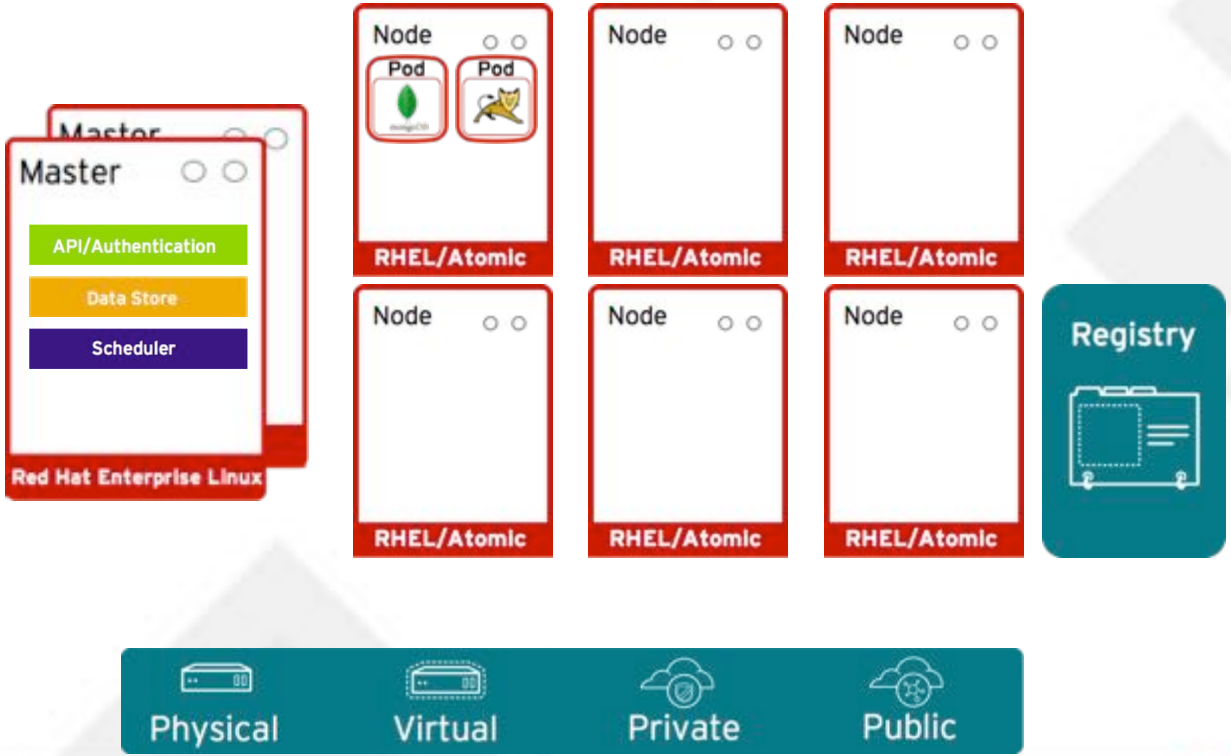
# Master provides authenticated API for users & clients



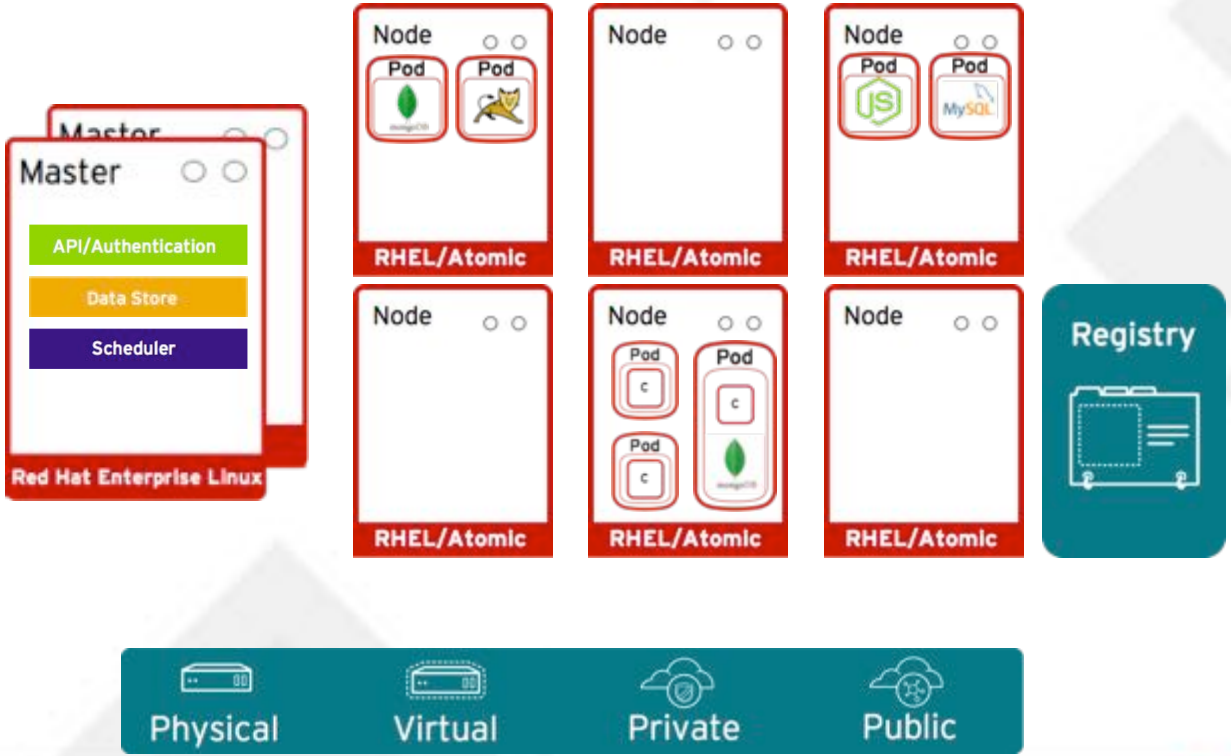
# Master uses etcd key-value data store for persistence



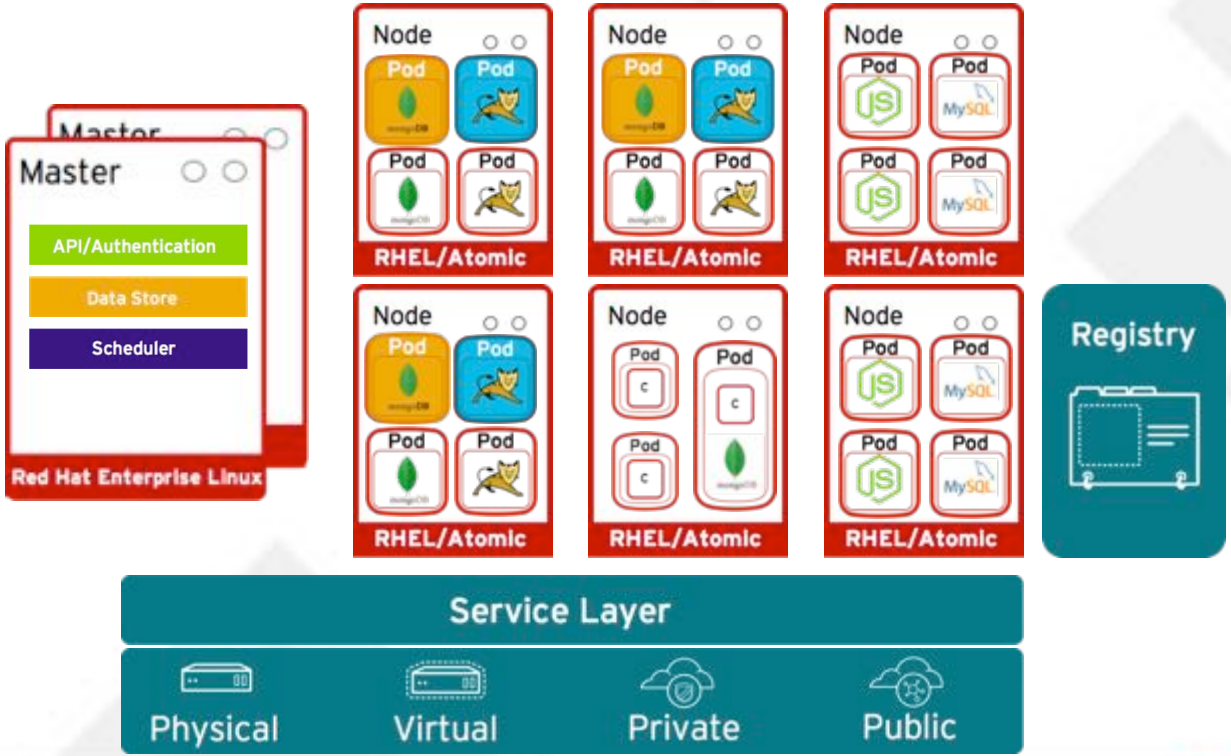
# Master provides scheduler for pod placement on nodes



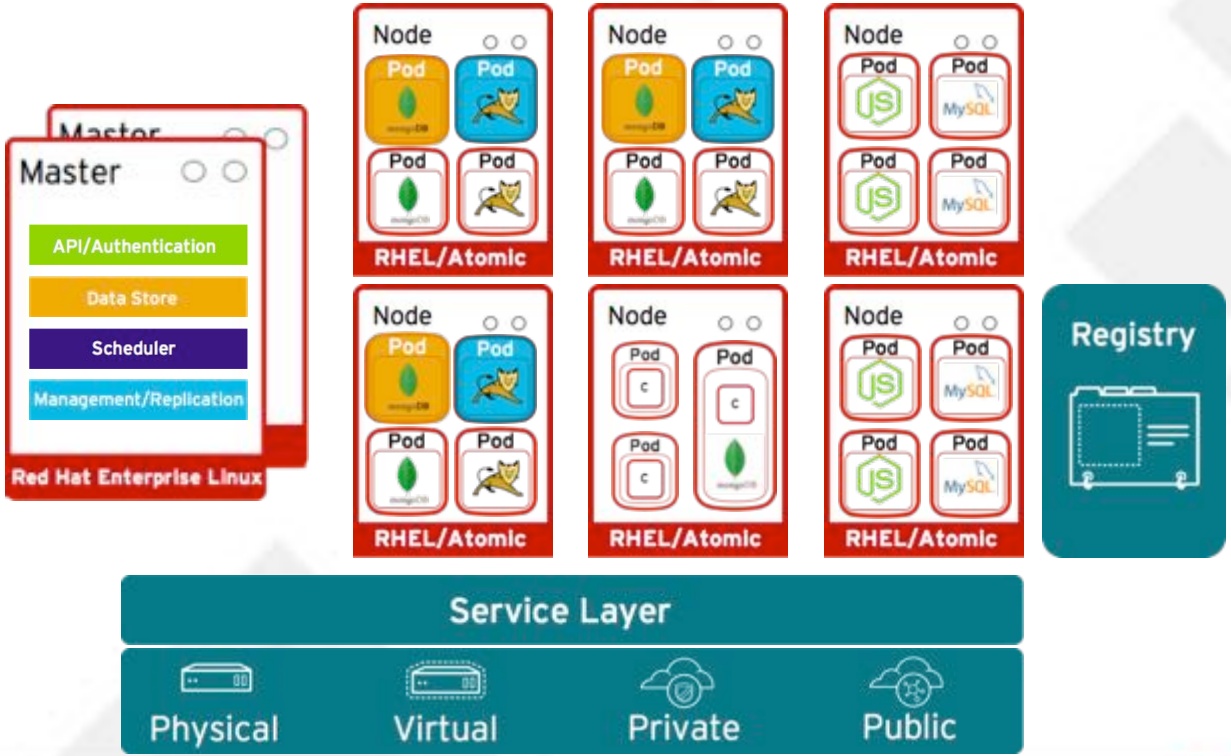
# Pod placement is determined based on defined policy



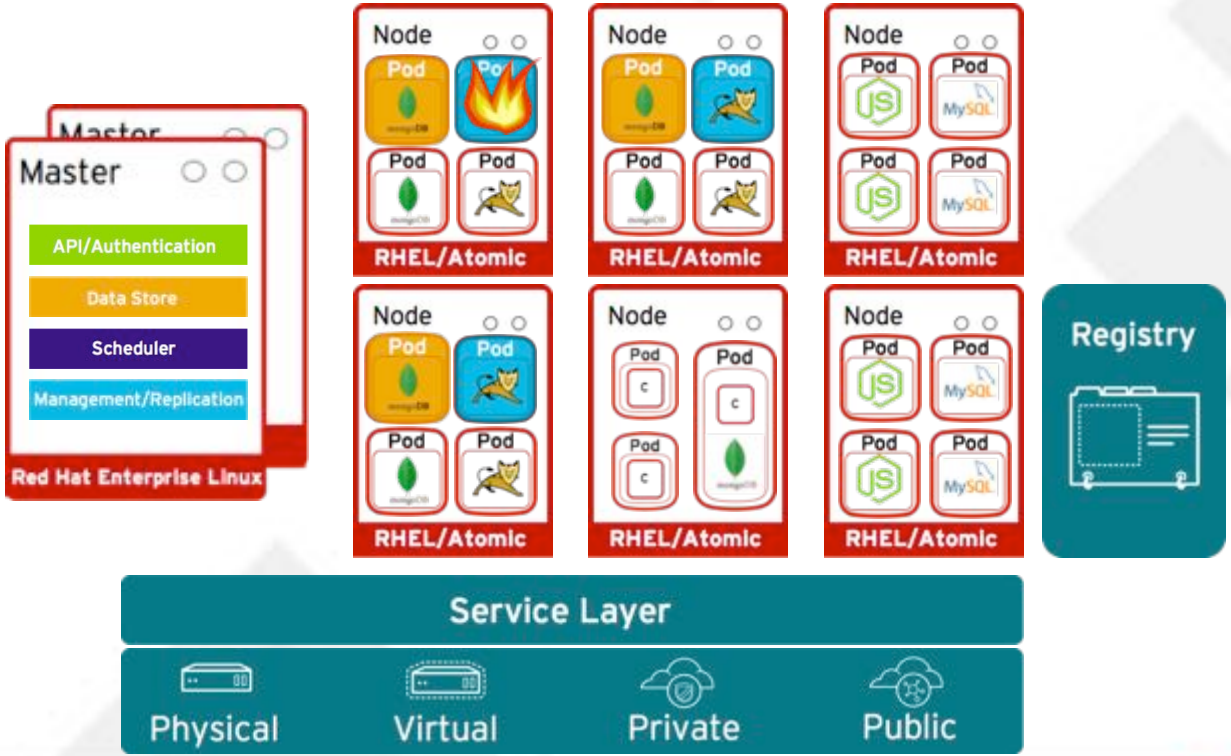
# Services allow related pods to connect to each other



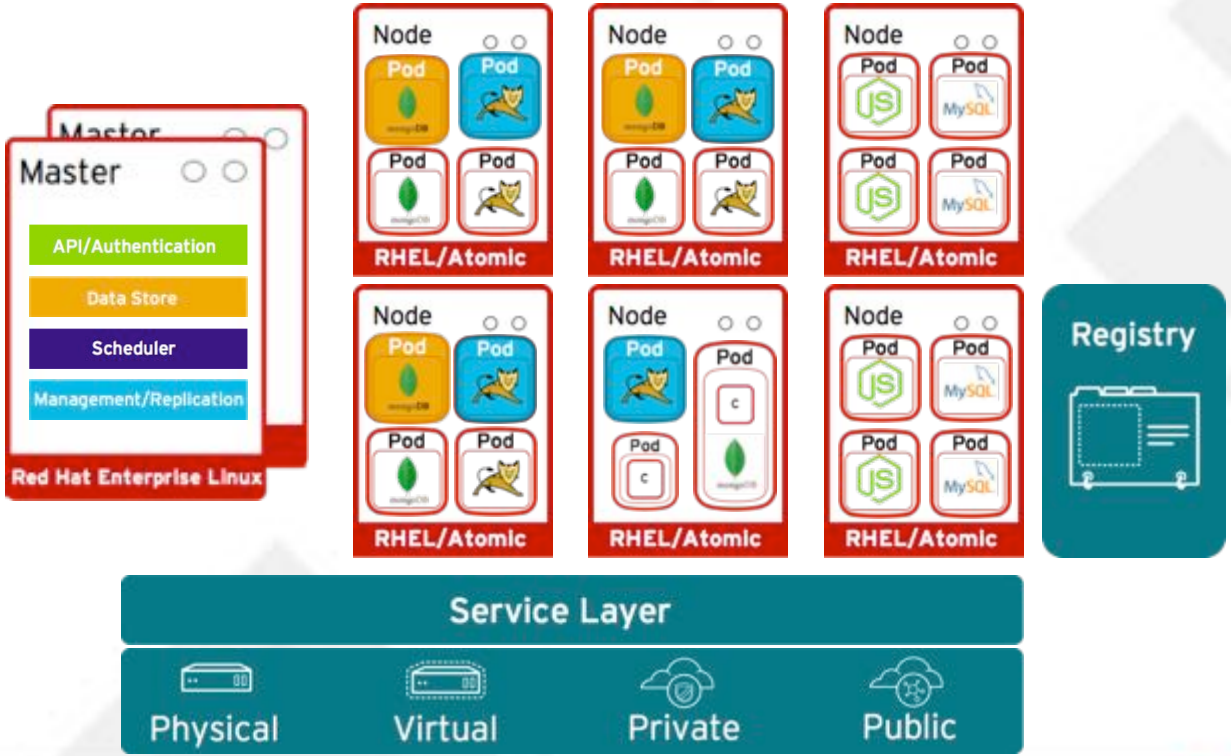
# Management/Replication controller manages the pod lifecycle



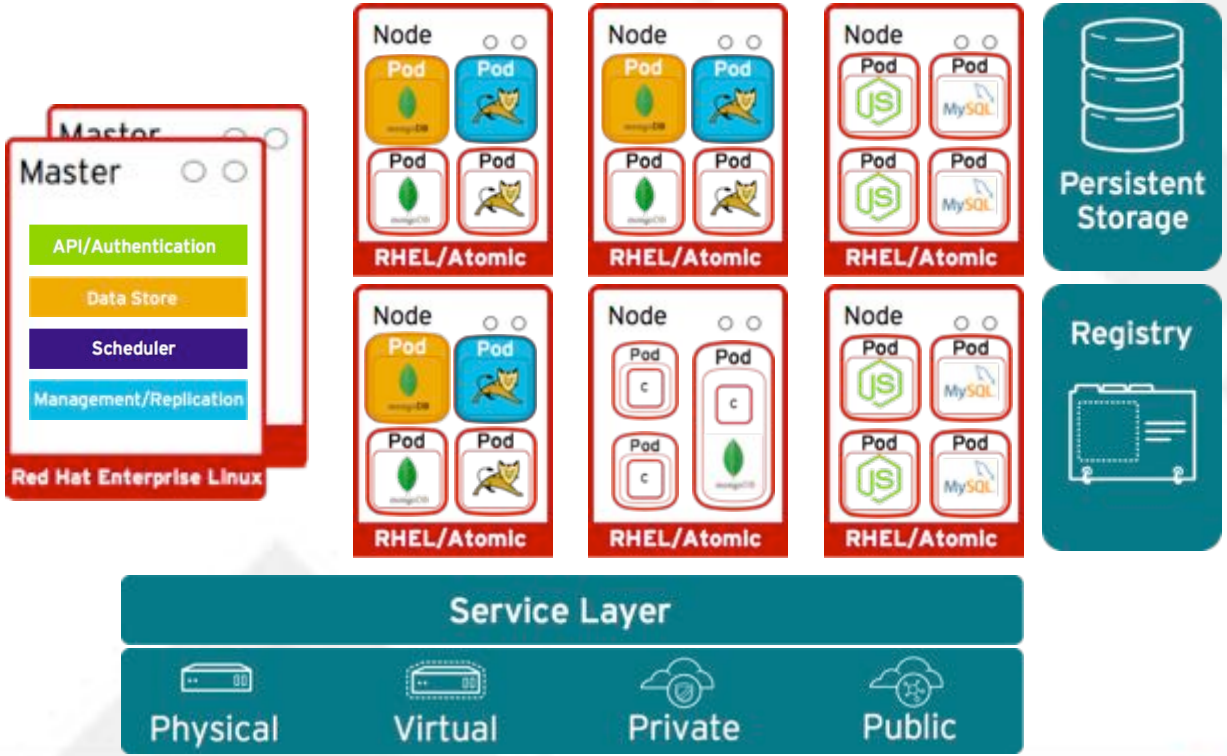
# What if a pod goes down?



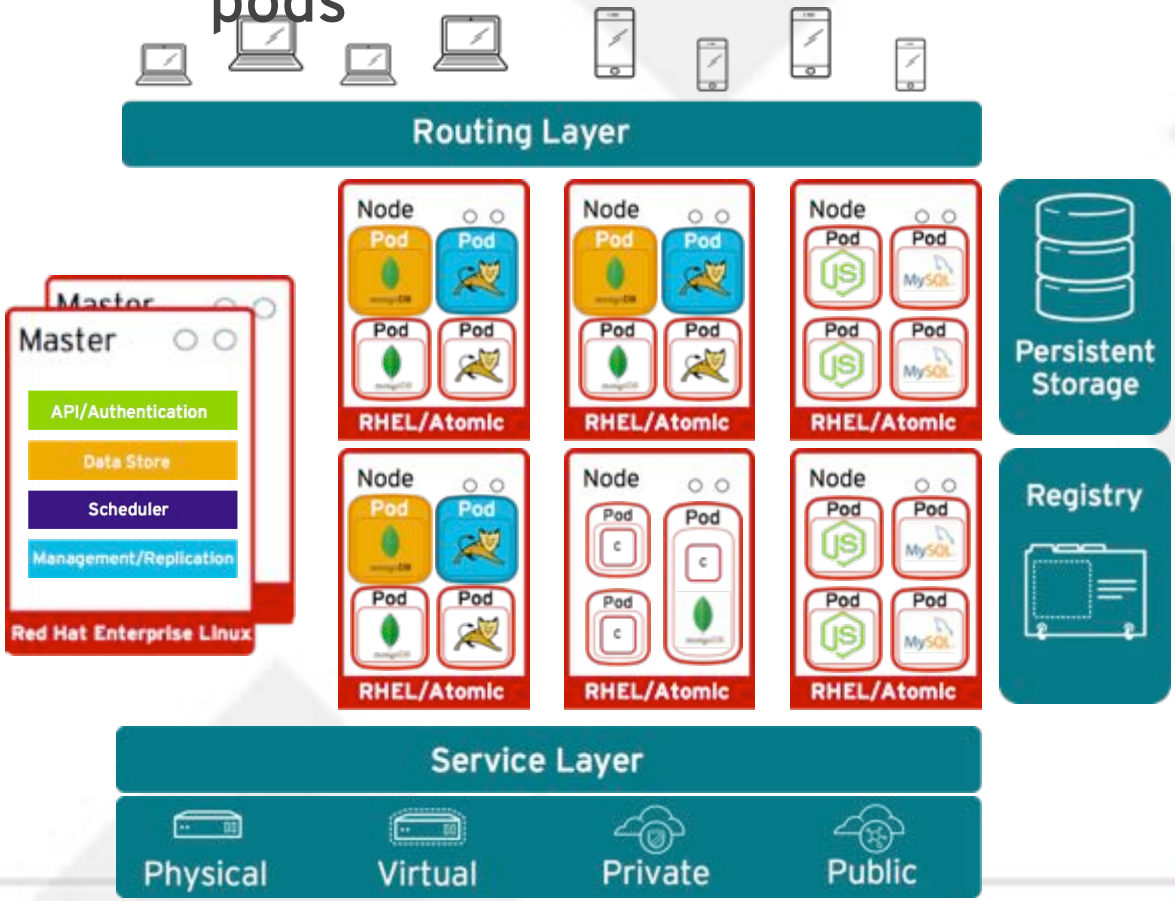
# OpenShift automatically recovers and deploys a new Pod



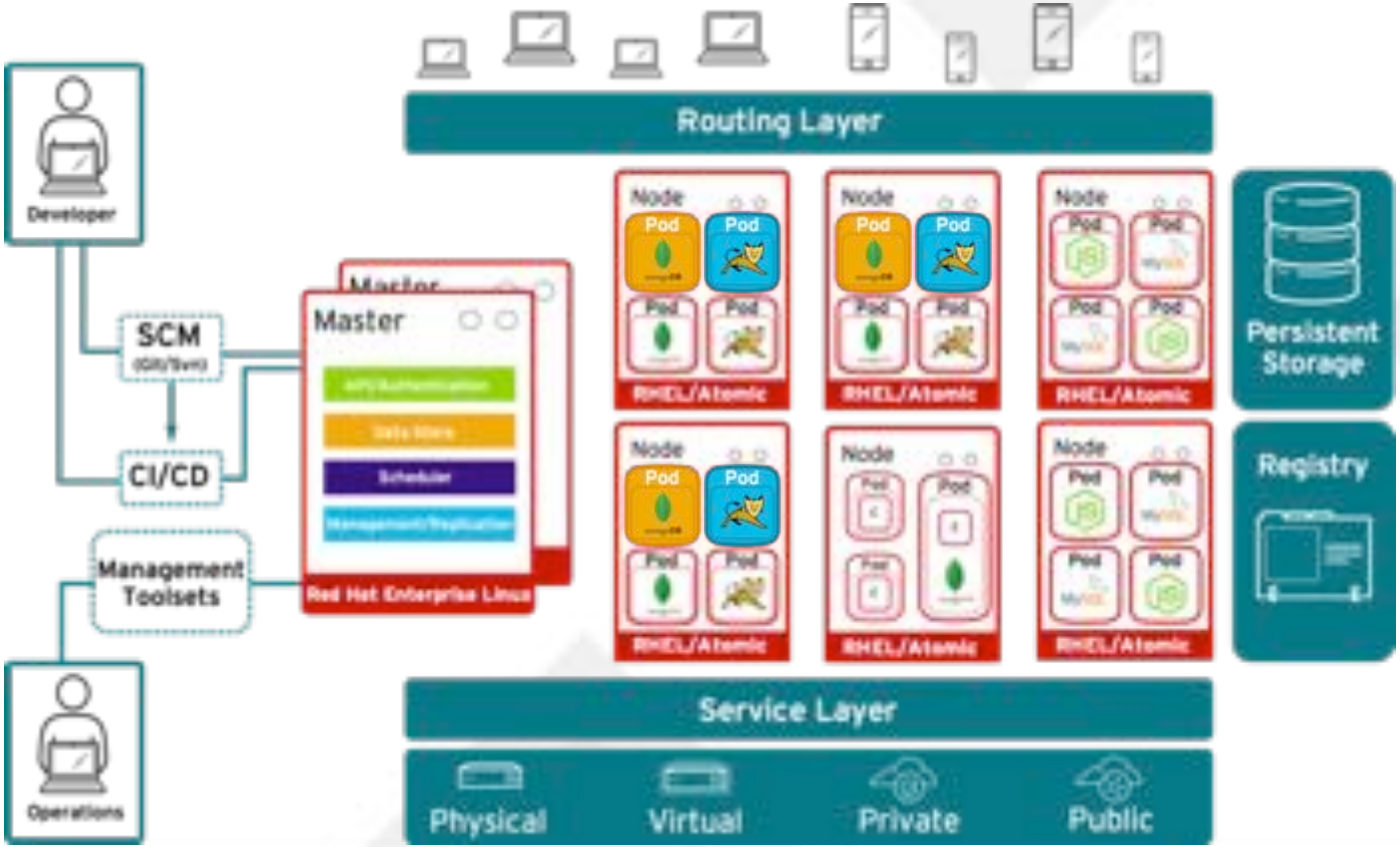
# Pods can attach to shared storage for stateful services



# Routing layer routes external app requests to pods



# Developers access openShift via web, CLI or IDE



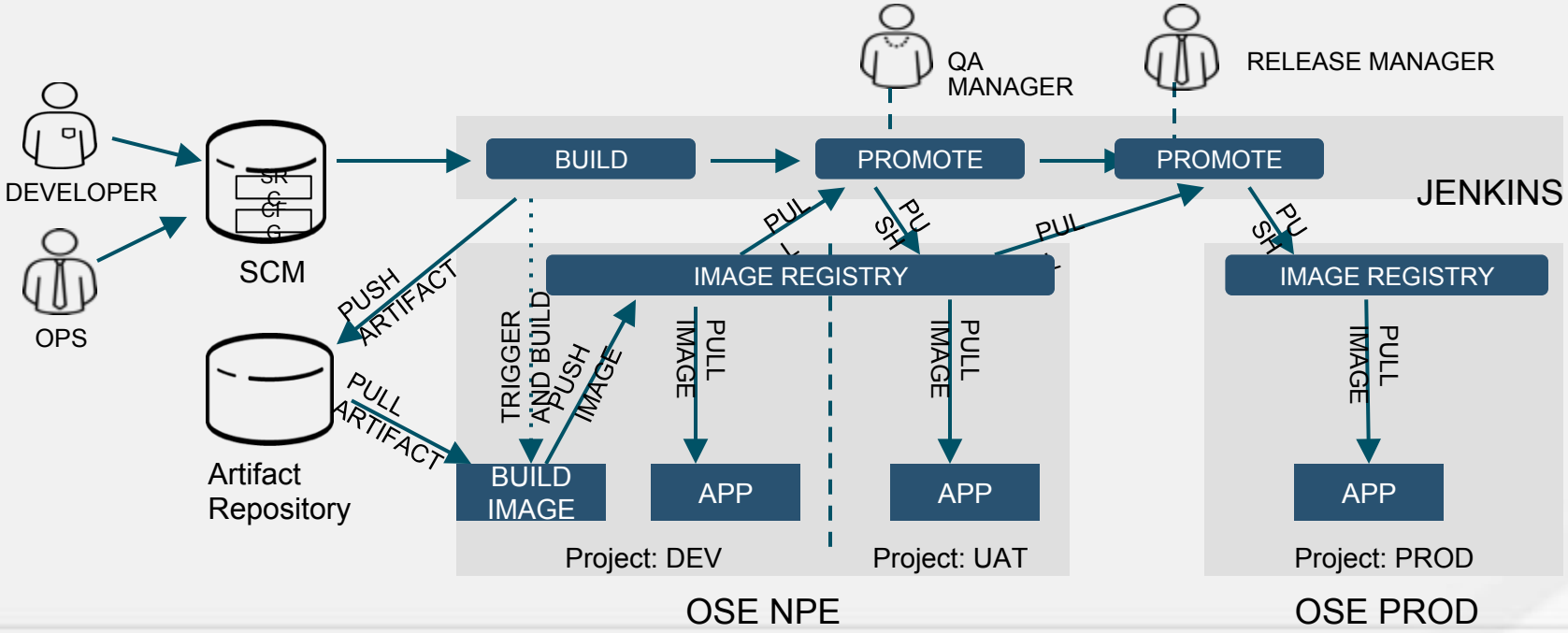
# UPSTREAM KUBERNETES VS. RED HAT OPENSHIFT CONTAINER PLATFORM


kubernetes


RED HAT® OPENSHIFT Container Platform

# View application topology

# CI/CD Flow

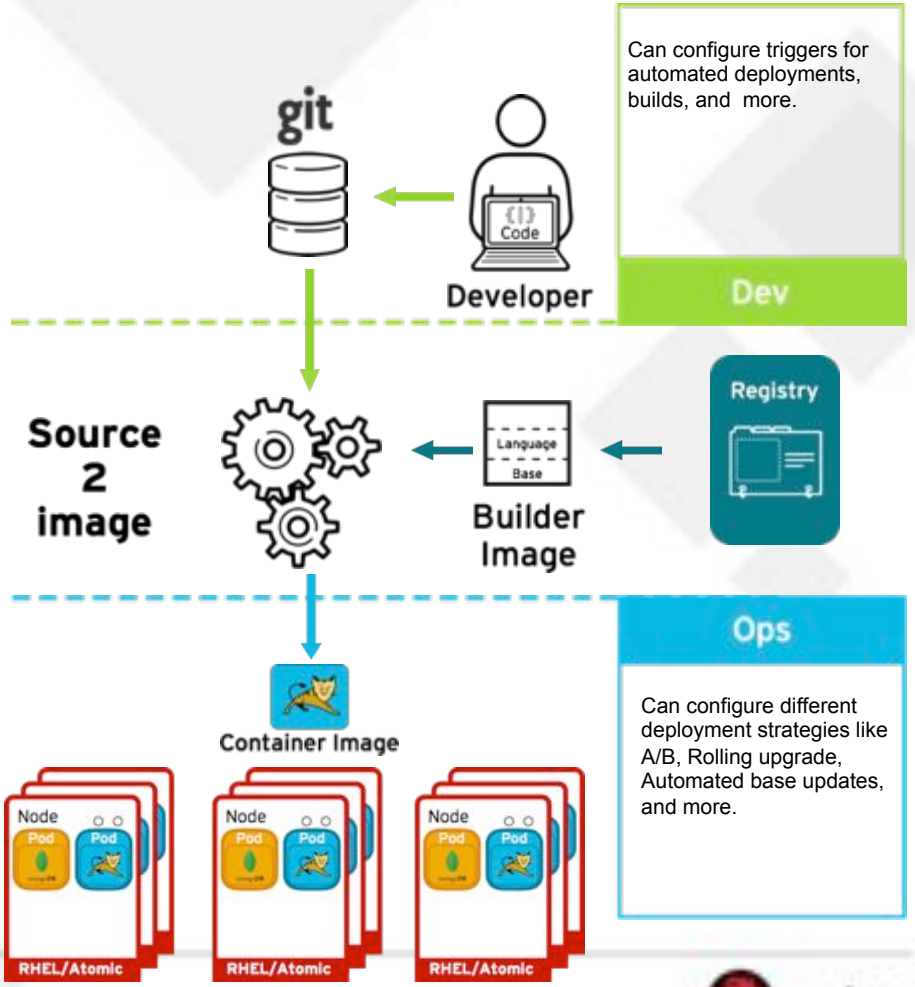


# Source 2 Image Walk Through

**Code**

**Build**

**Deploy**



# JBOSS Middleware Services for OpenShift

## Application Container Services

- JBoss Enterprise Application Platform
- JBoss Web Server / Tomcat
- JBoss Developer Studio

## Business Process Services

- Business Process Management *
- Business Rules Management System **(NEW)**

## Integration Services

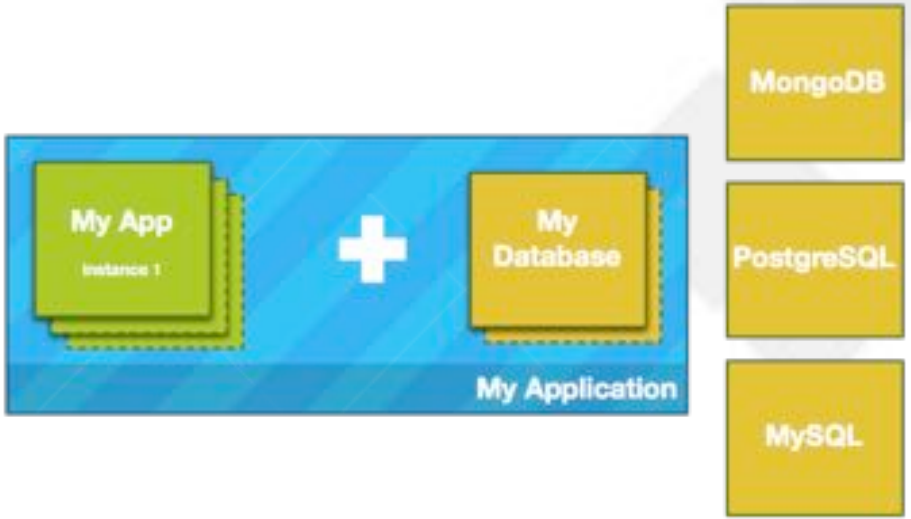
- Fuse **(NEW)**
- Data Grid **(NEW)**
- A-MQ
- Data Virtualization *

## Mobile Services

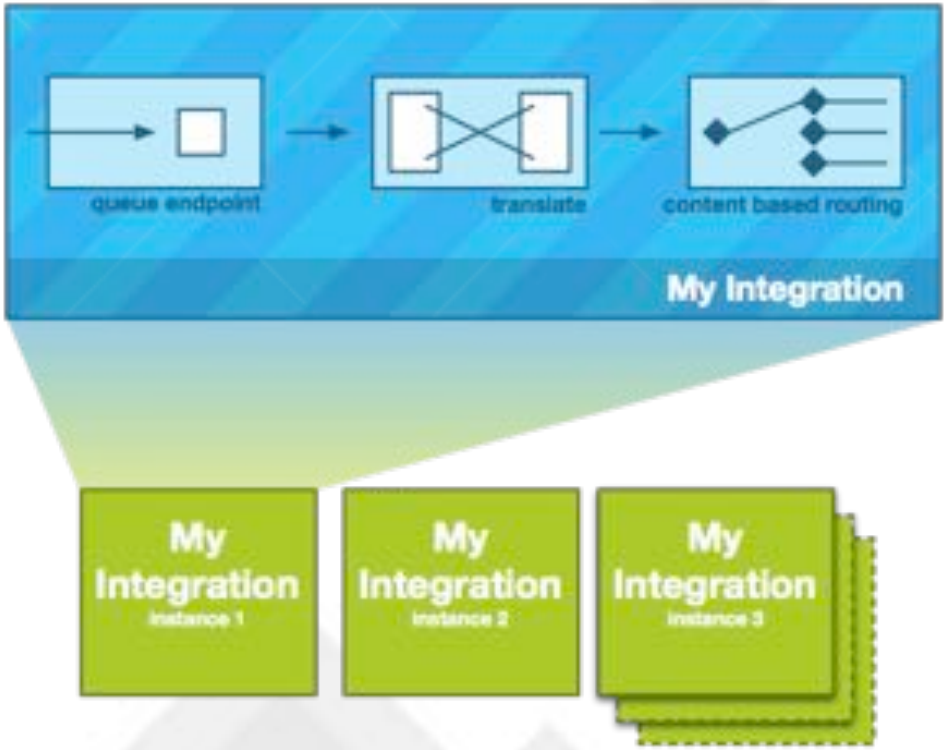
- Red Hat Mobile / FeedHenry *

* Available soon (2016)

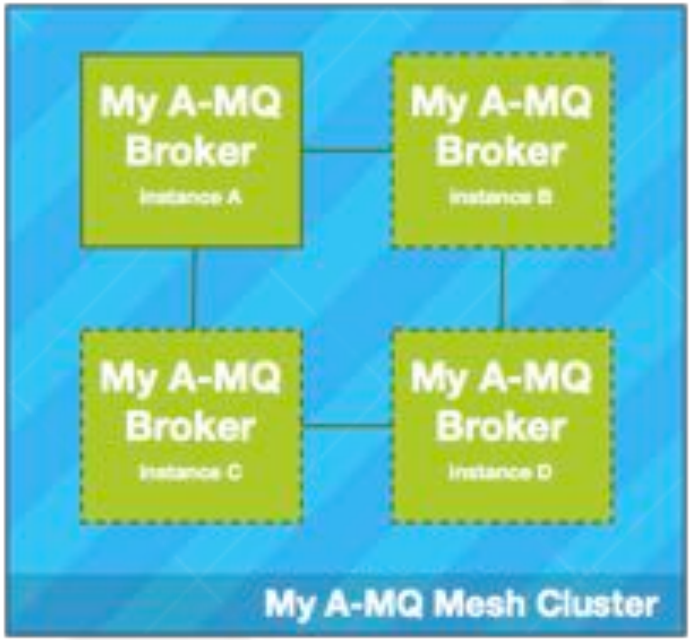
# Clustering for Java Applications Made Easy

# Integration routes deployed as containers

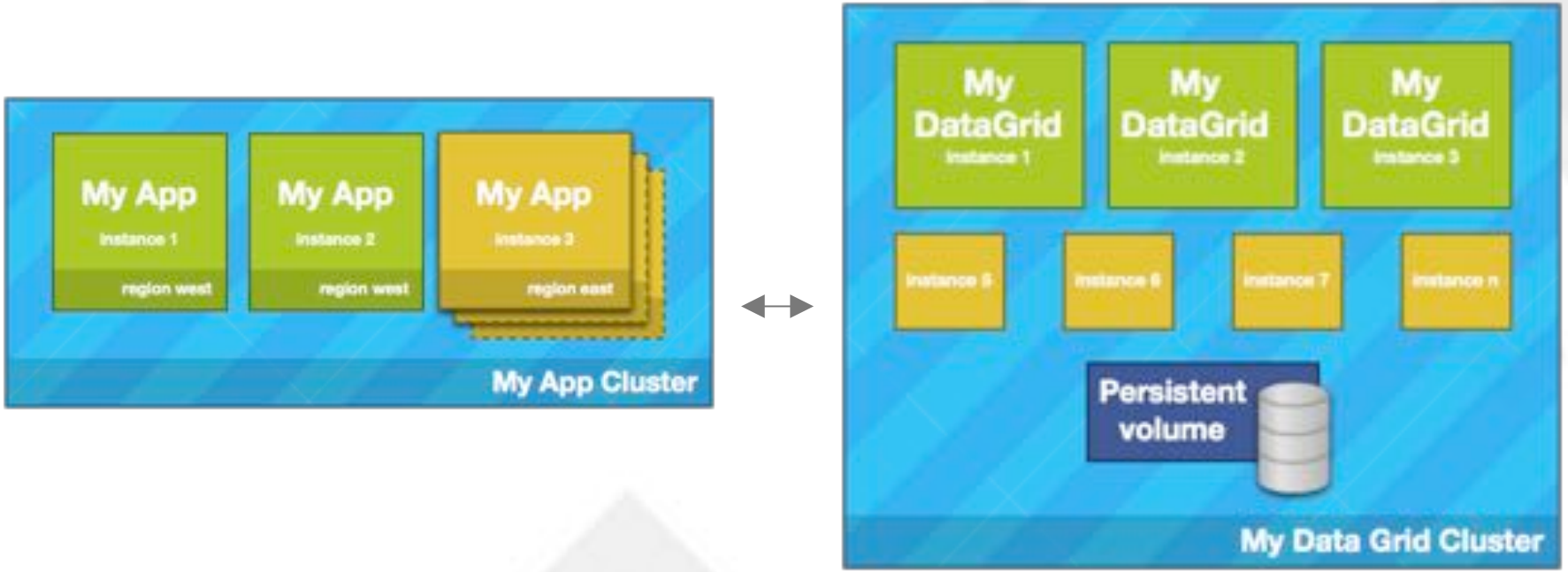


# Automatic Mesh for A-MQ Brokers



# Decision Services Powered by JBoss BRMS

# Cache Services Powered by JBoss Data Grid



# OpenShift and Microsoft Azure + .Net


- Red Hat and Microsoft cloud partnership announced in Nov 2015
- Red Hat solutions are now fully certified and supported on Microsoft Azure, including RHEL, JBoss and OpenShift
- RHEL will be the primary development and reference operating system for .NET Core on Linux
- OpenShift will be providing a .NET runtime container image distributed and supported by Red Hat and Microsoft
  - Build, deploy and run .NET applications on OpenShift
  - Based on .NET Core 5

https://blog.openshift.com/open-source-power-microsoft-dotnet-openshift

# Monthly TechTalk Series

| | |
|---|---|
| October 26th | An introduction to 3Scale and API Management. |
| November 23rd | EAP 7 and A-MQ 7. JEE and core |
| December 13th | RHEL, RHEV, Atomic and OpenStack. |
| January 25th | Software Defined Storage, Gluster, Ceph. |
| February 22nd | Hybrid Cloud Architectures and Cloudforms |

All @ Red Hat Monument Office – Morning and Evening sessions

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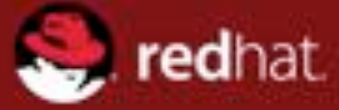


# Thank You