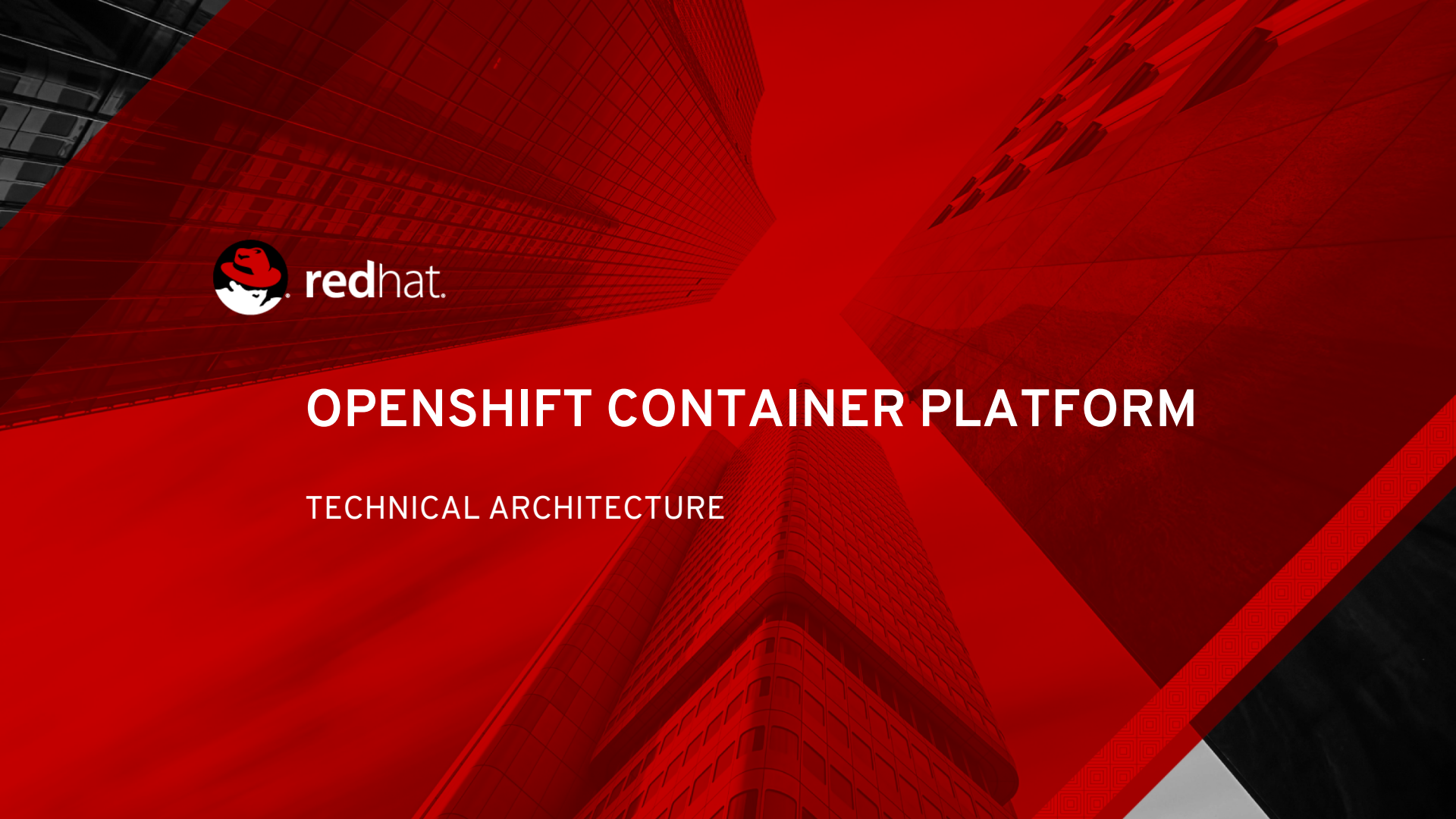
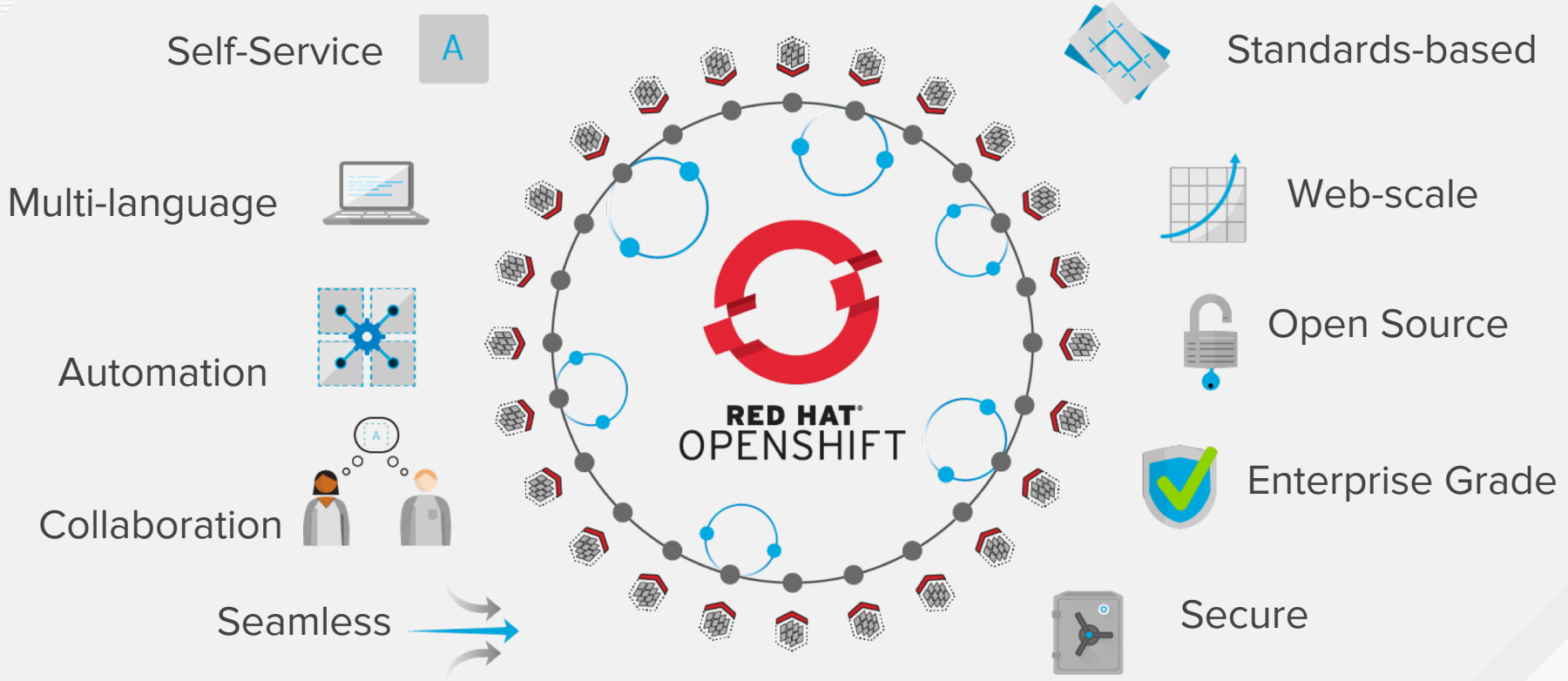
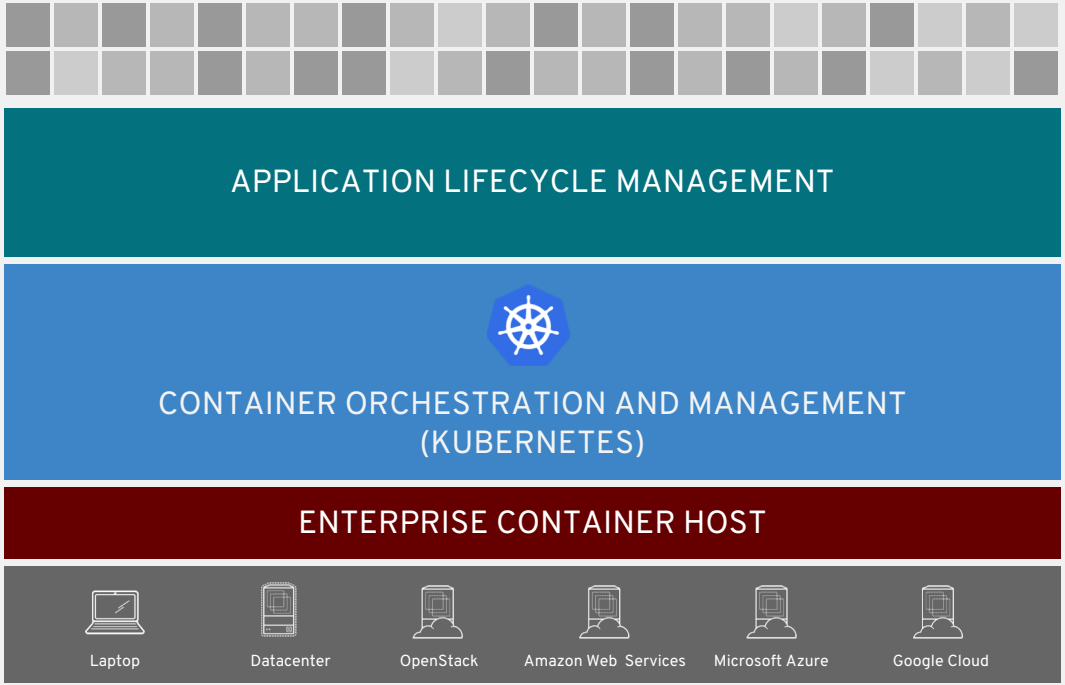


OPENSHIFT CONTAINER PLATFORM

TECHNICAL ARCHITECTURE


Self-Service
Multi-language
Automation
Collaboration
Seamless
RED HAT
OPENSHIFT
Standards-based
Web-scale
Open Source
Enterprise Grade
Secure

OPENSHIFT CONTAINER PLATFORM



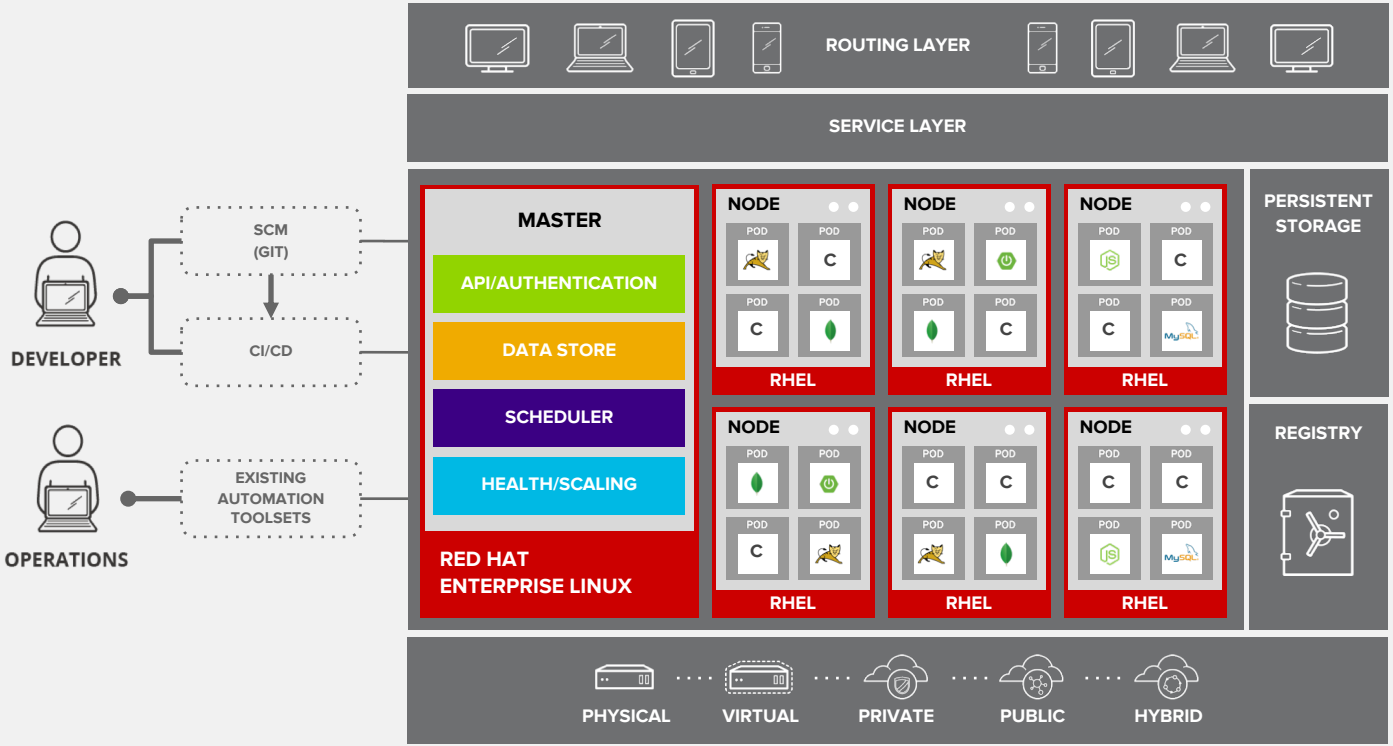
ANY
CONTAINER

RED HAT®
OPENSHIFT

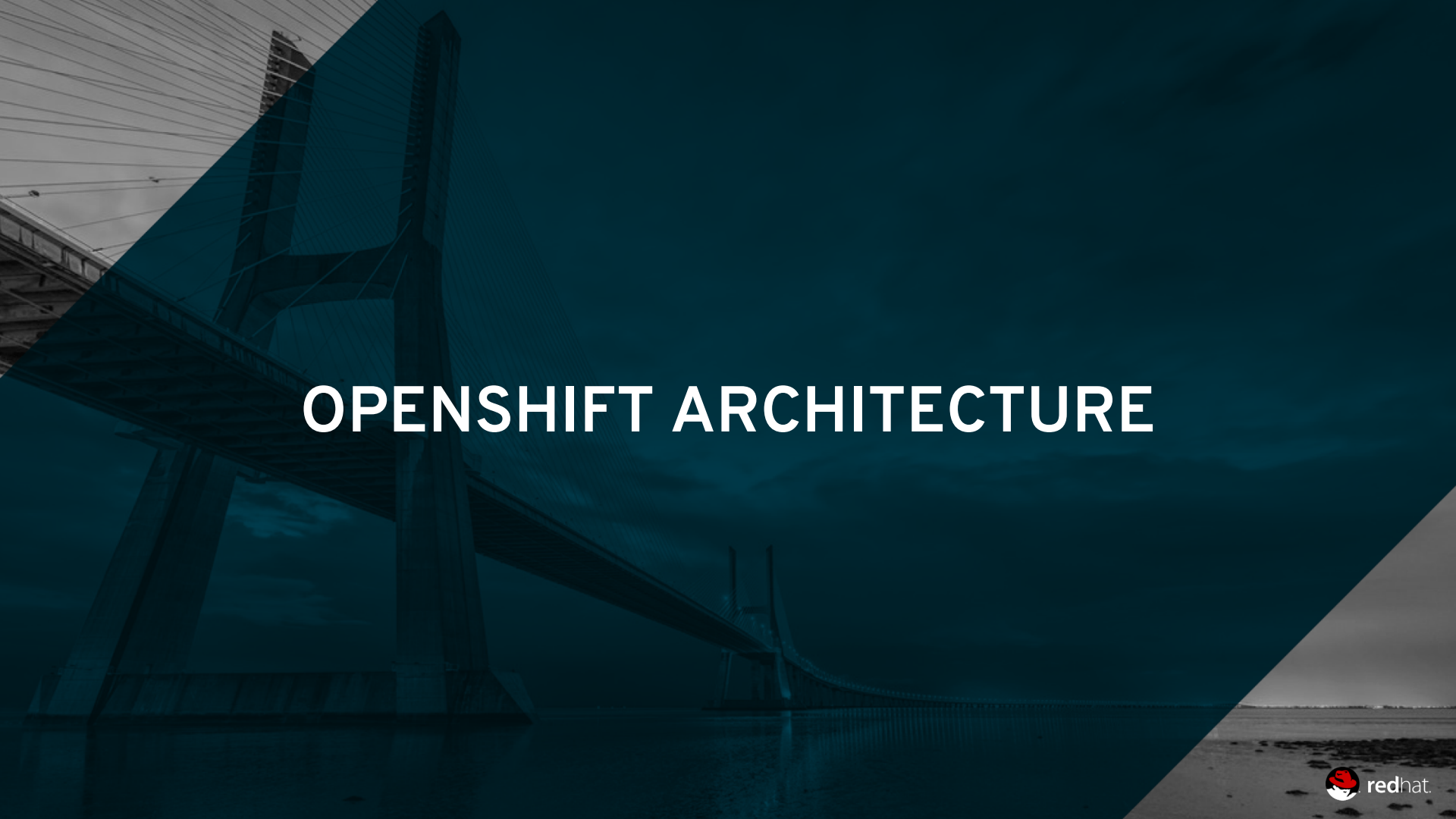
ANY
INFRASTRUCTURE

redhat.

OPENSHIFT ARCHITECTURE



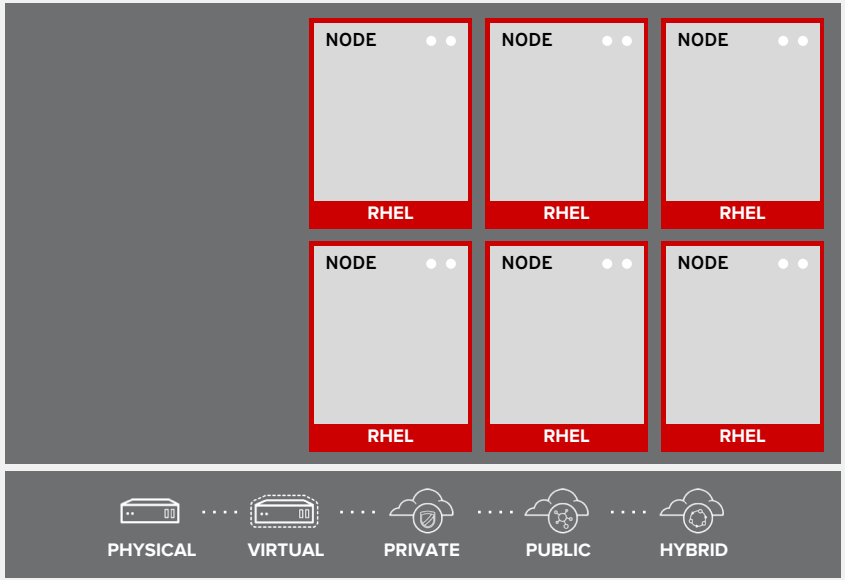
redhat.


OPENSHIFT ARCHITECTURE
redhat.

WHERE CAN RHEL BE DEPLOYED?

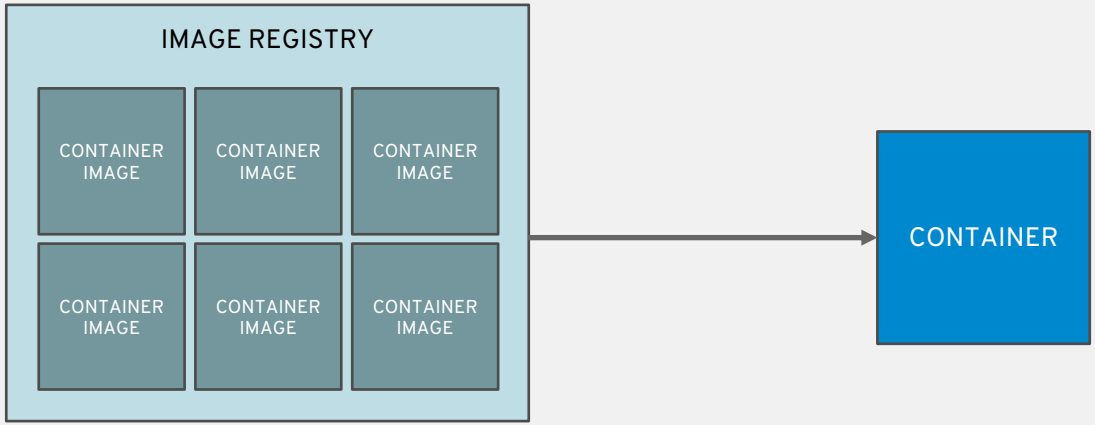
redhat.

WHERE DO CONTAINERS COME FROM?

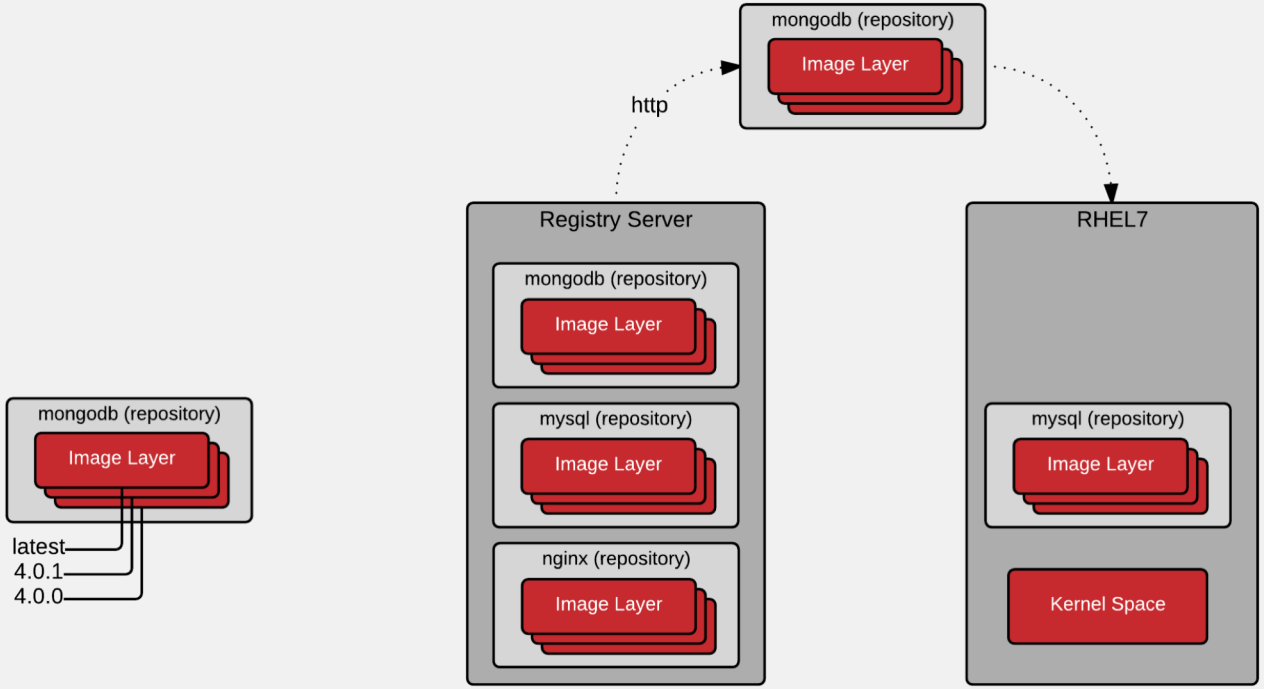


CONTAINERS COME FROM CONTAINER IMAGES

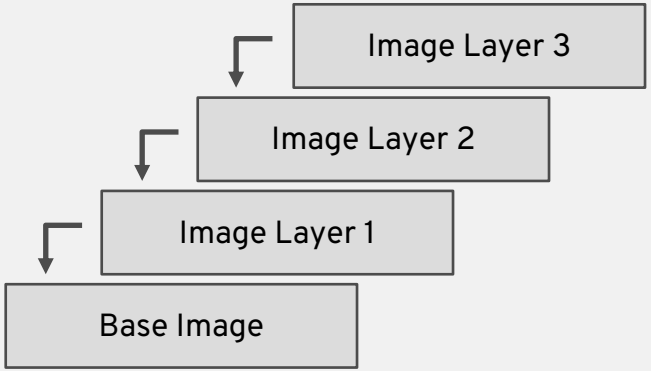
CONTAINER IMAGES ARE STORED IN AN IMAGE REGISTRY



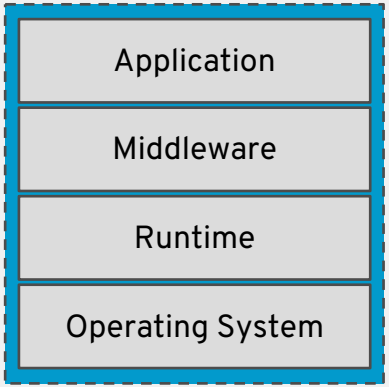
CONTAINER IMAGES ARE CACHED AS IMAGE LAYERS IN A LOCAL REPOSITORY



EACH IMAGE LAYER IS AN INDEPENDENT DELTA FROM THE LAYER BELOW IT

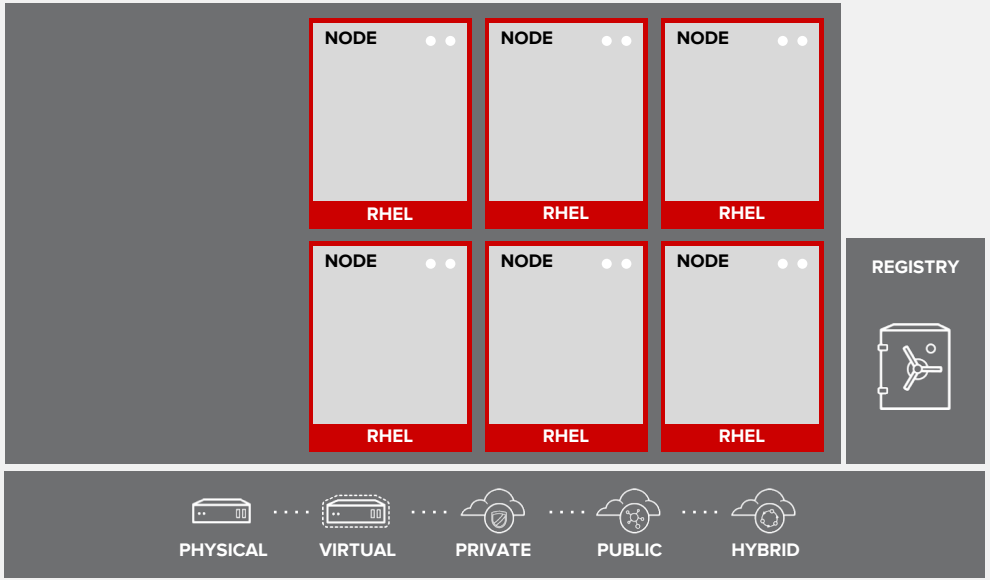


Container Layers

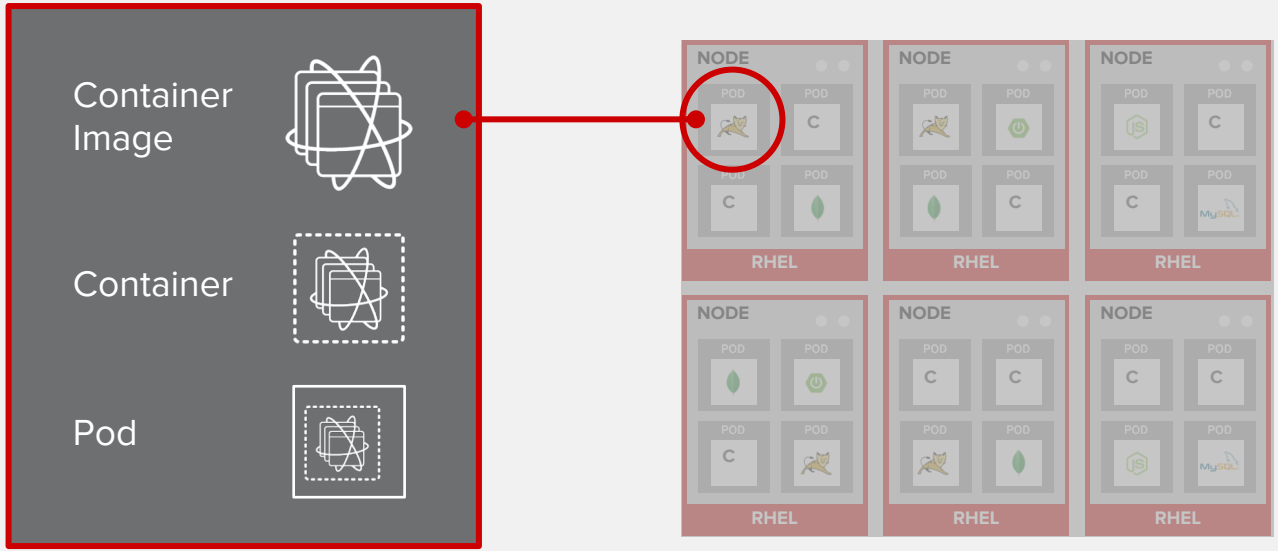


Container Image

RED HAT CONTAINER REGISTRY

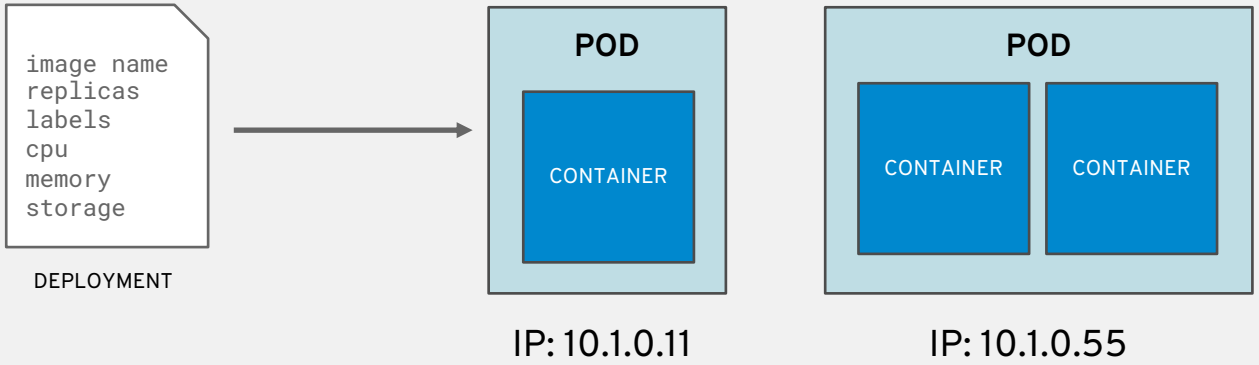


CONTAINERS RUN IN PODS ON NODES

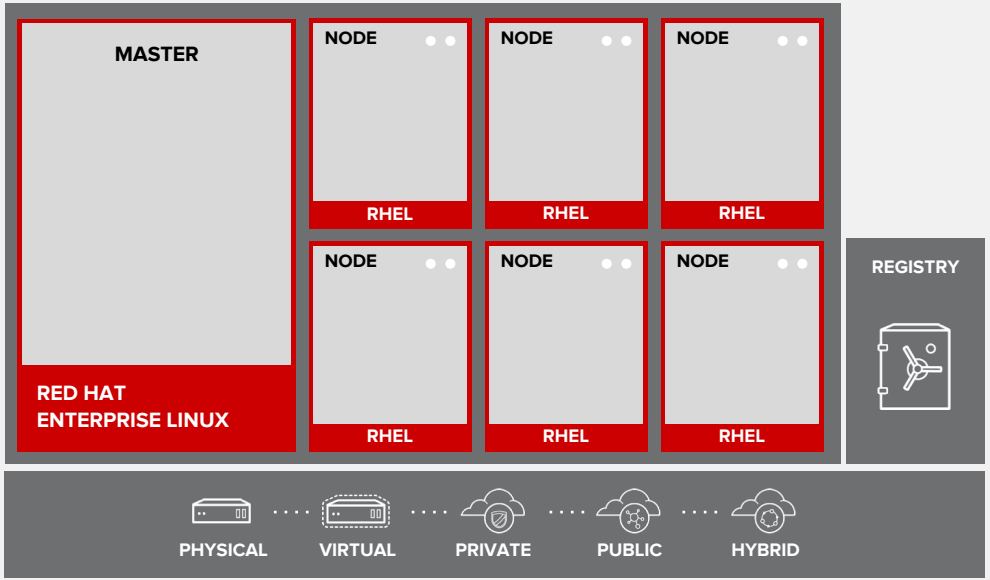


https://blog.openshift.com/kubernetes-pods-life/

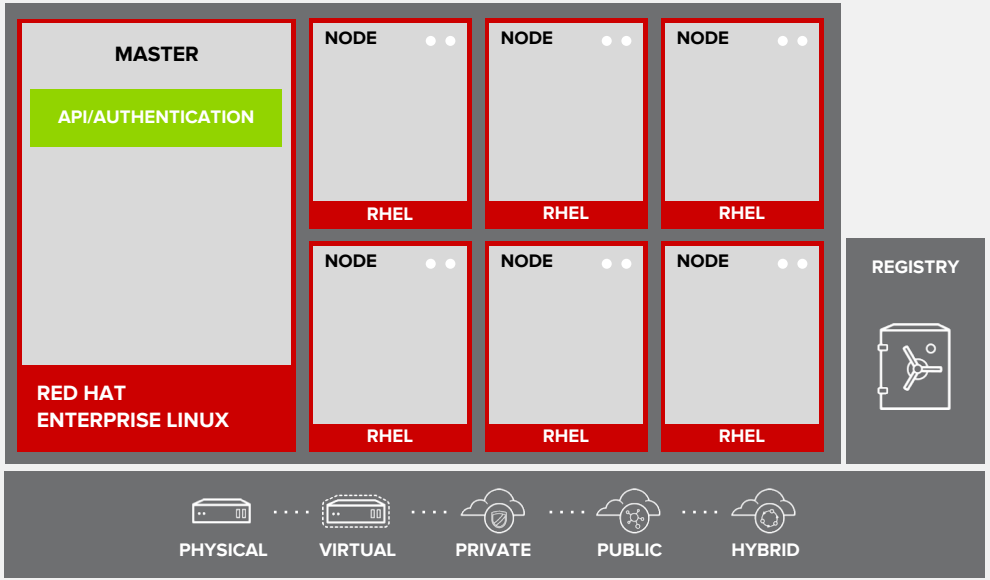
PODS REPRESENT UNITS OF DEPLOYMENT AND MANAGEMENT



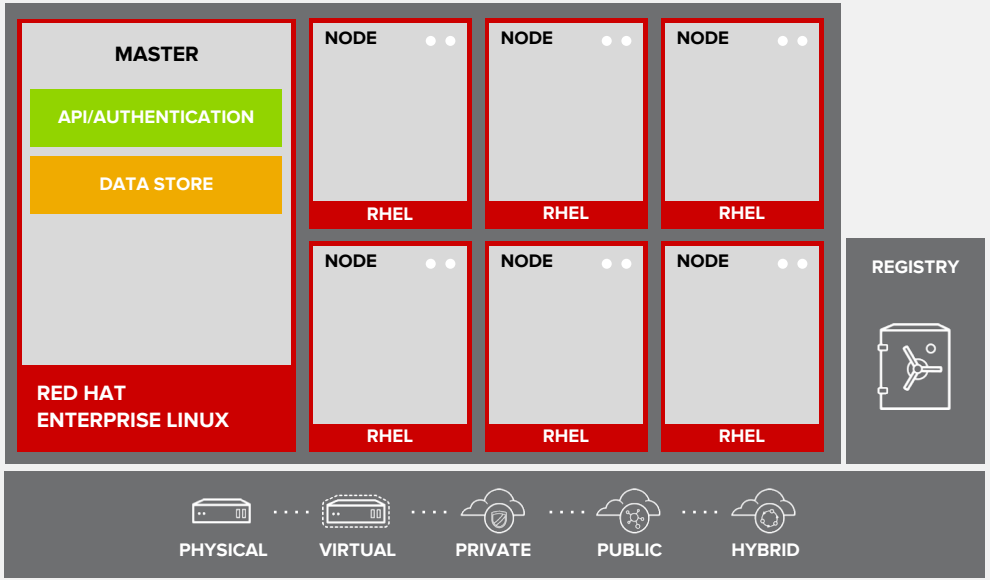
MASTERS ARE THE CONTROL PLANE



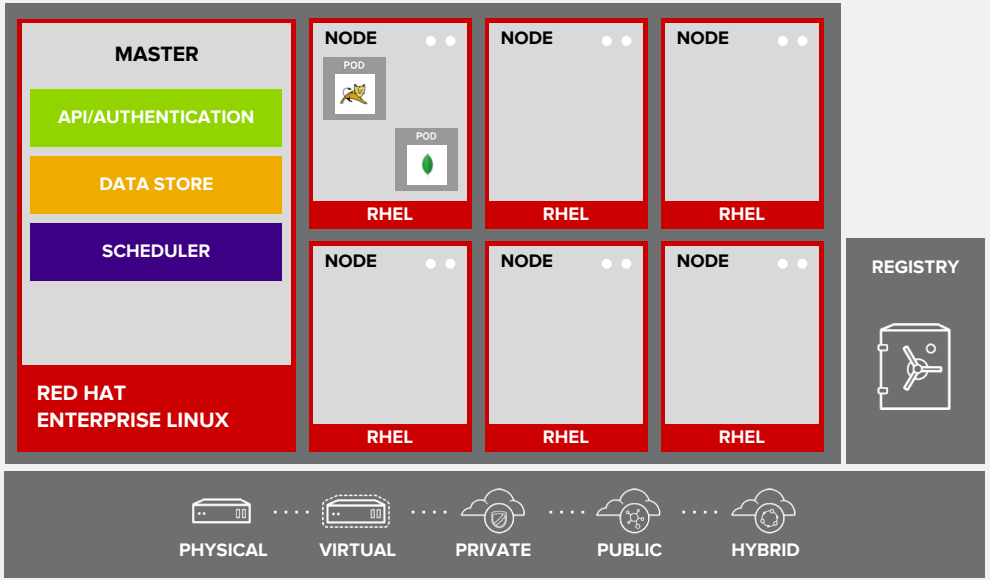
API AND AUTHENTICATION



DESIRED AND CURRENT STATE



ORCHESTRATION AND SCHEDULING



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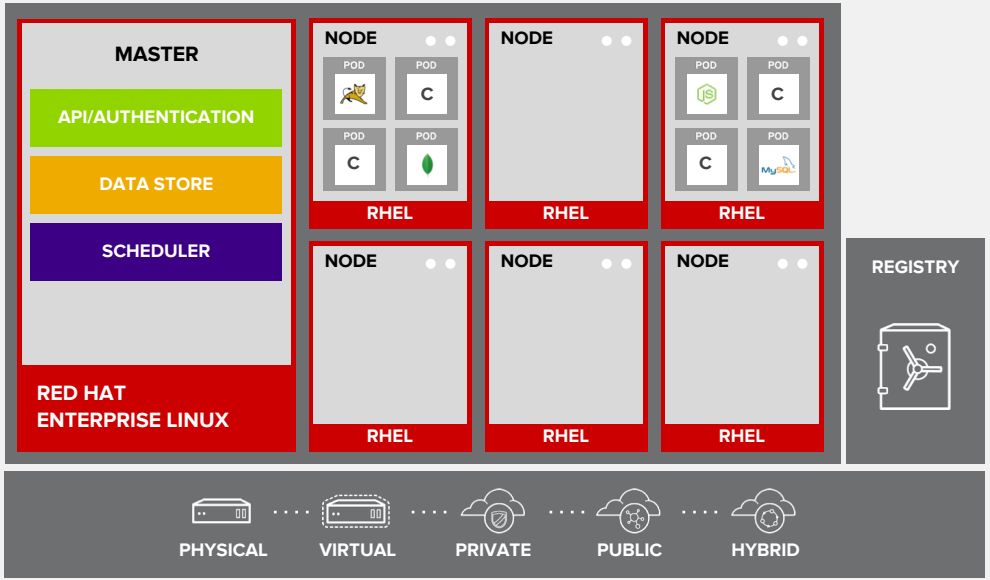
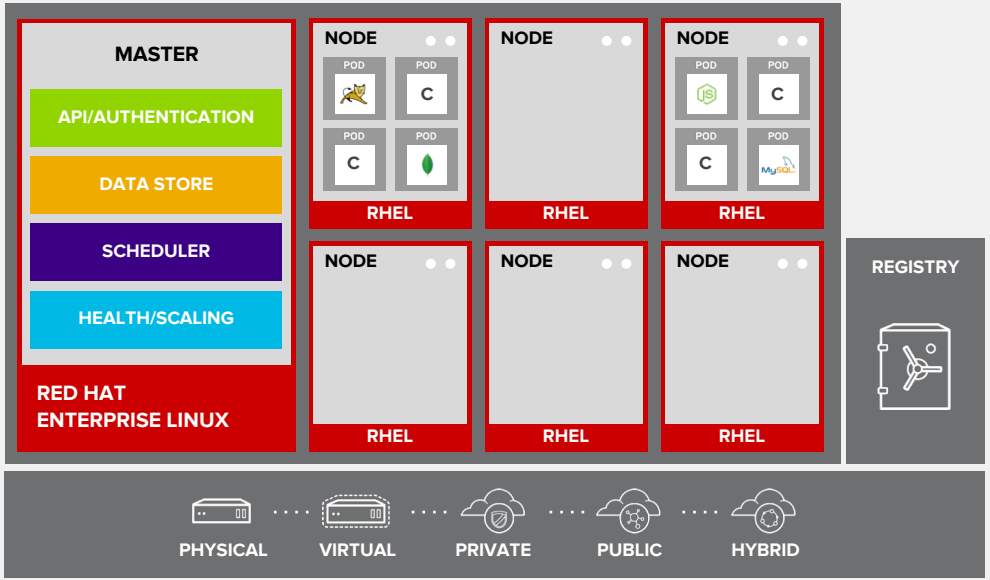
POD PLACEMENT BY POLICY



AUTO HEALING & SCALING PODS



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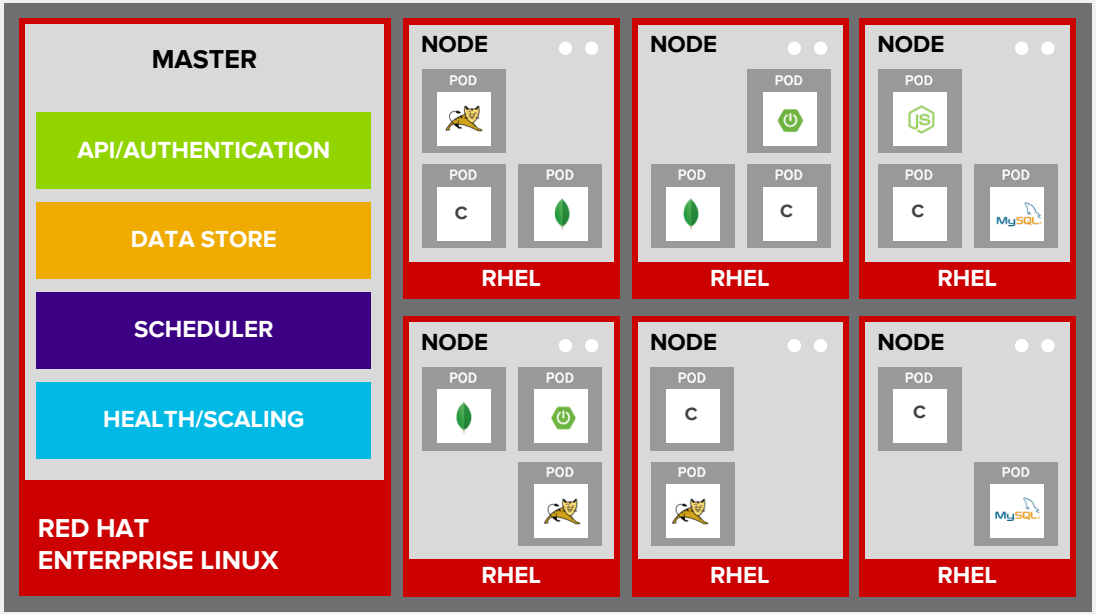
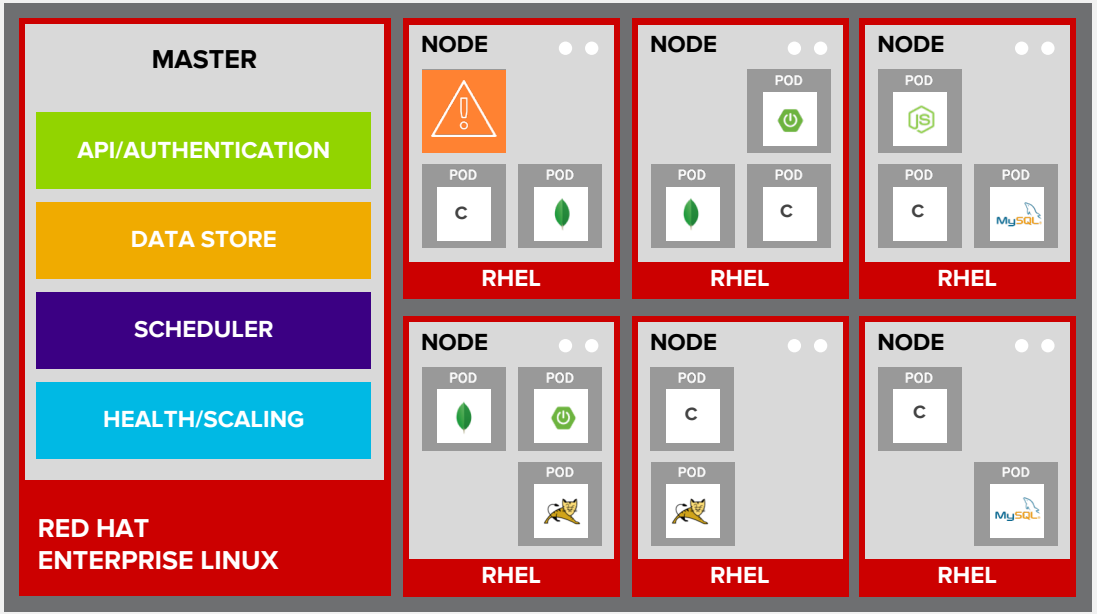
LIVENESS AND READINESS PROBES

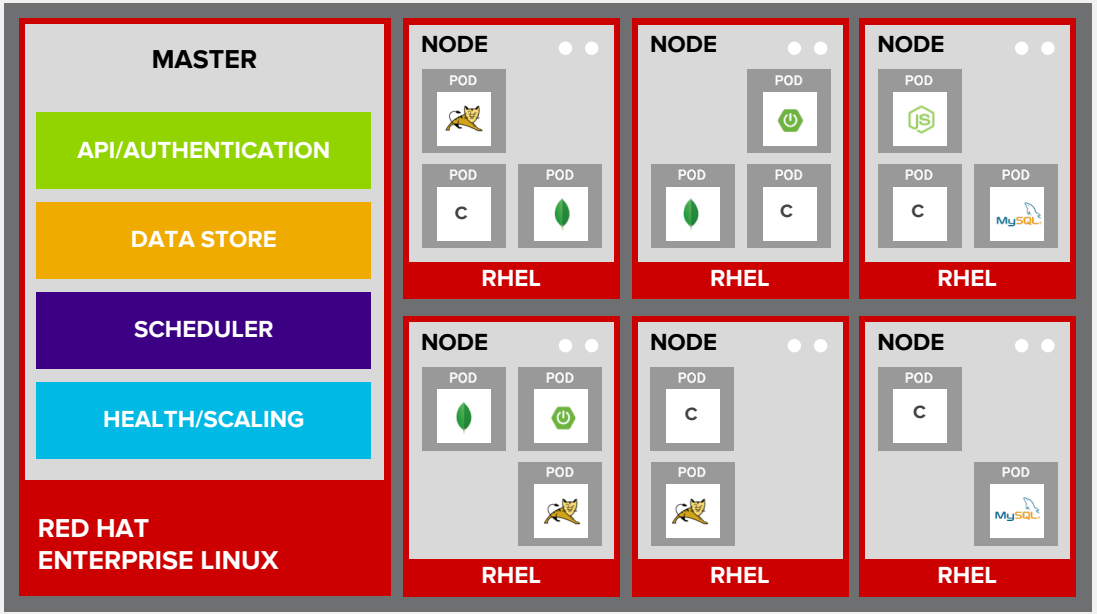


WHAT HAPPENS WHEN PODS FAIL?



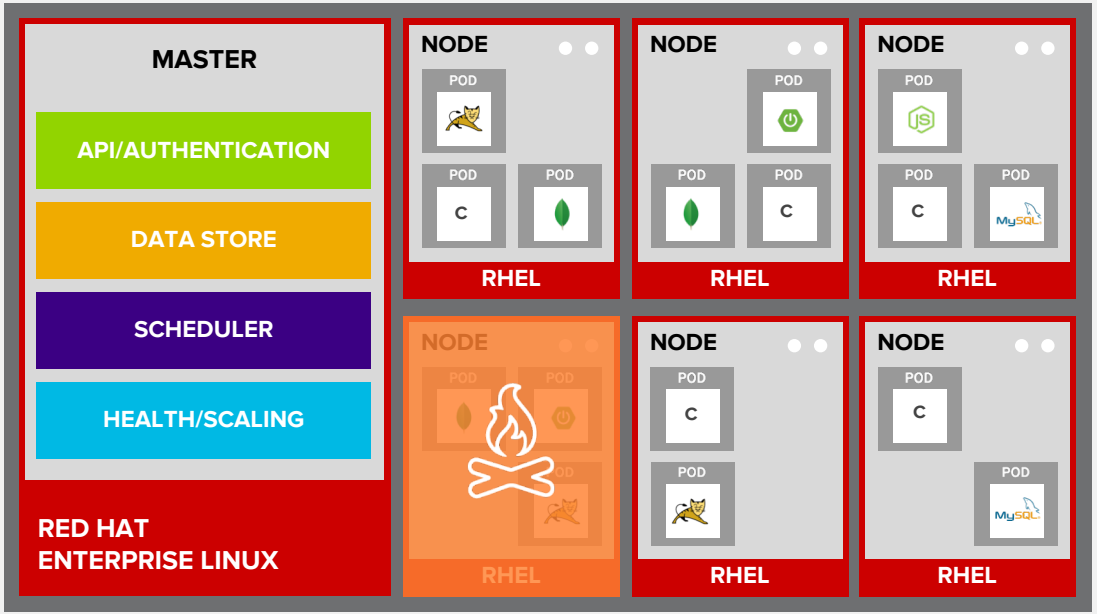
redhat.

PODS AUTOMATICALLY RESTART

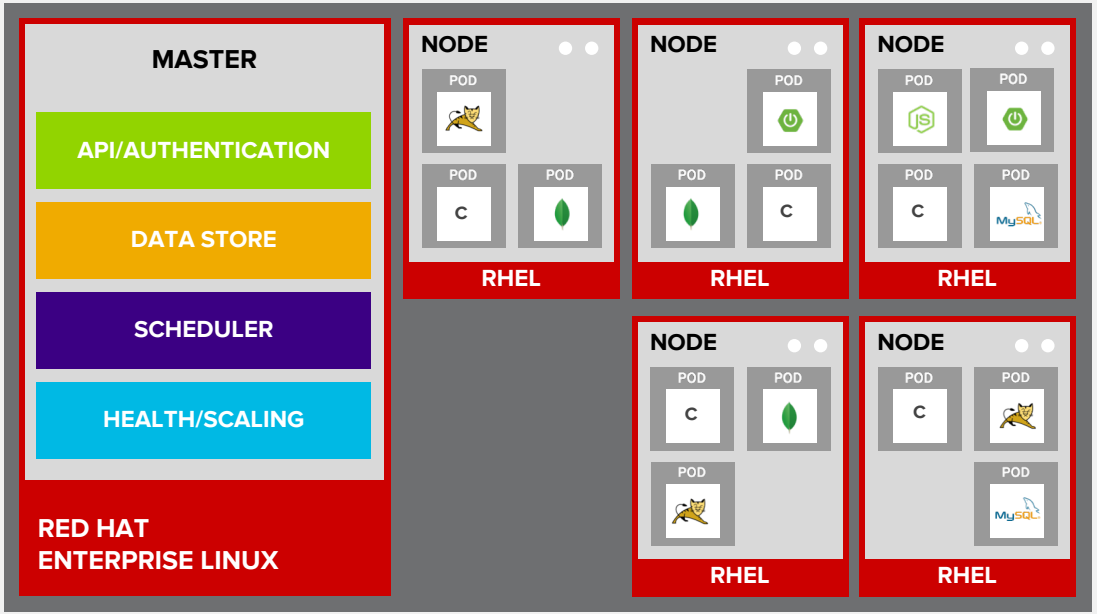


redhat.

WHAT HAPPENS WHEN NODES FAIL?



PODS AUTOMATICALLY RESTART



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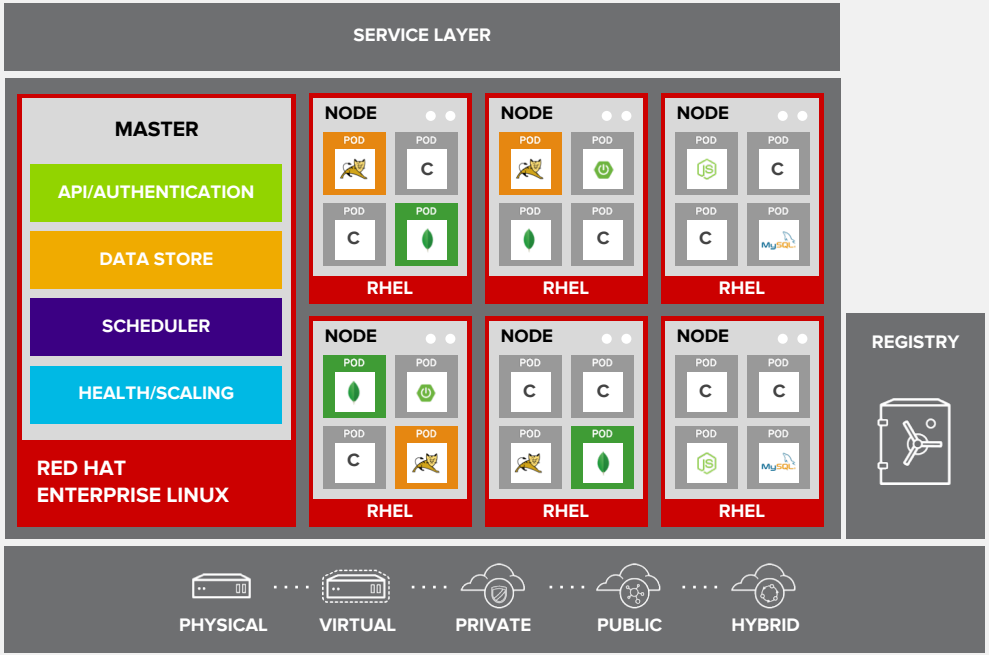
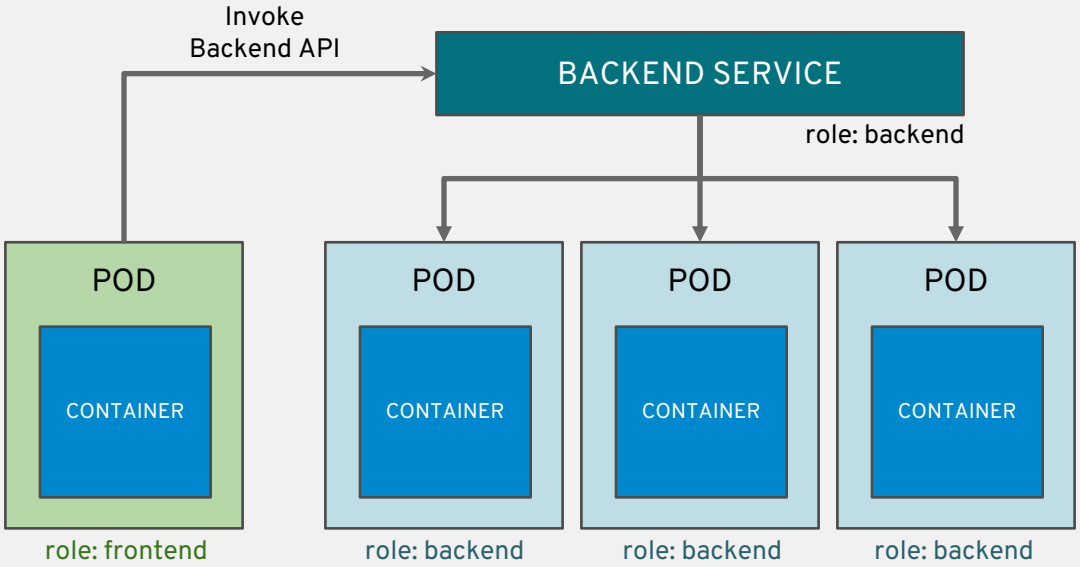
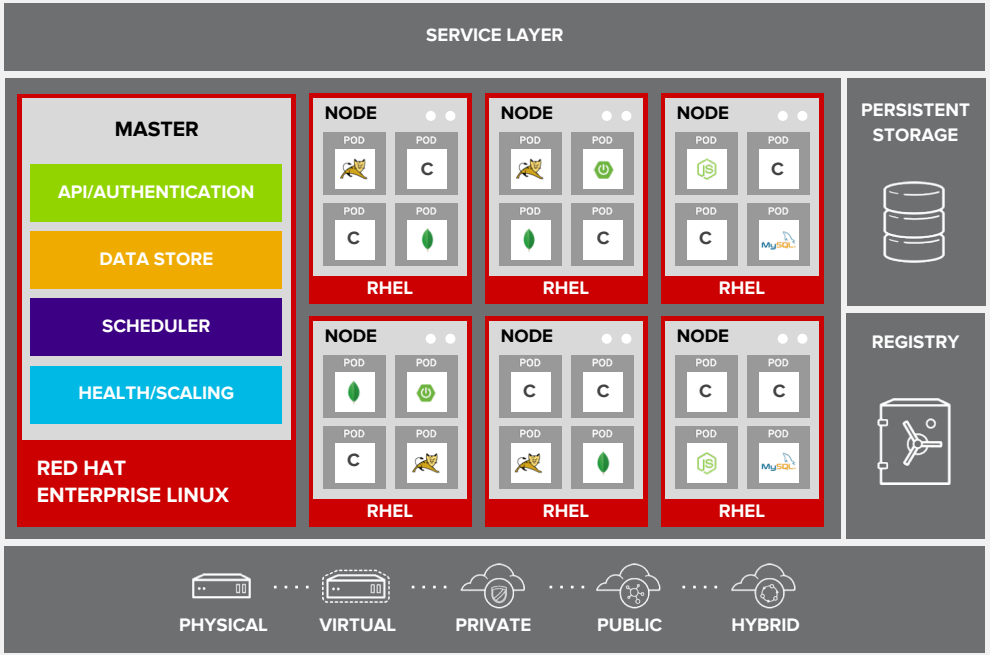
HOW DO APPS TALK TO EACH OTHER?



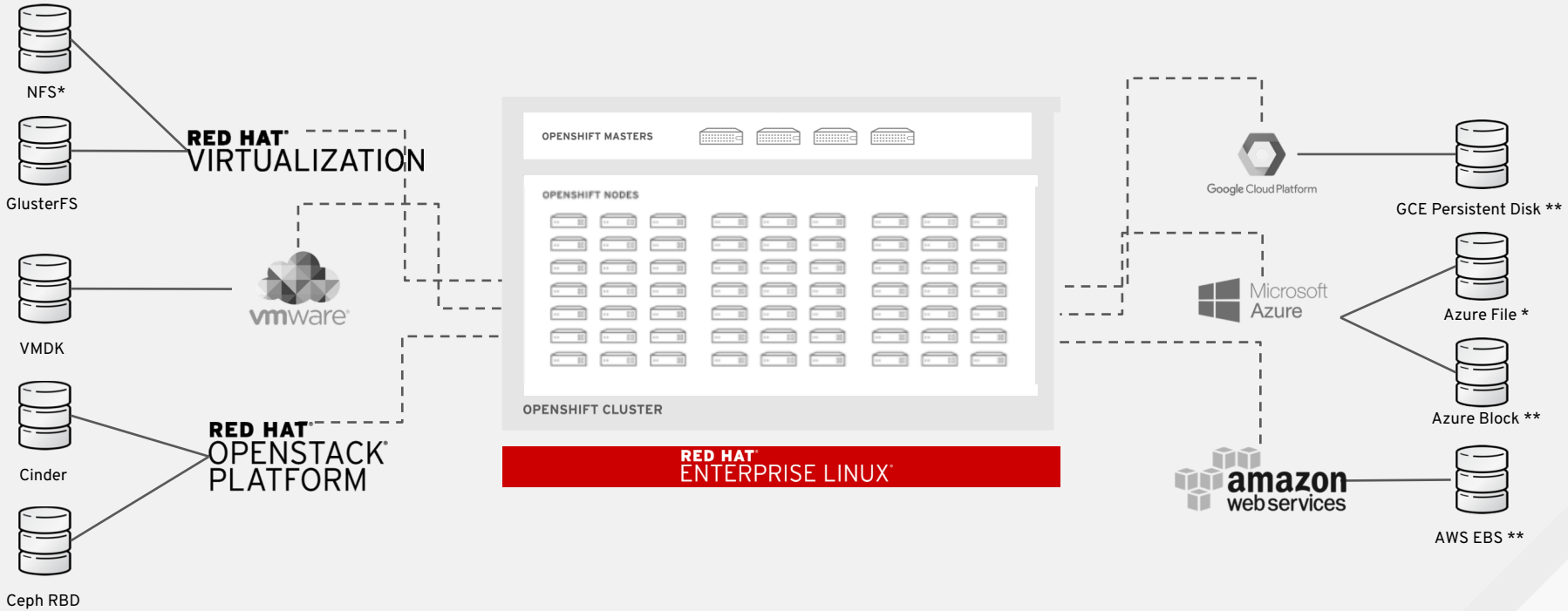
SERVICES PROVIDE INTERNAL LOAD-BALANCING AND SERVICE DISCOVERY ACROSS PODS



PERSISTENT STORAGE



WHAT HAPPENED SO FAR



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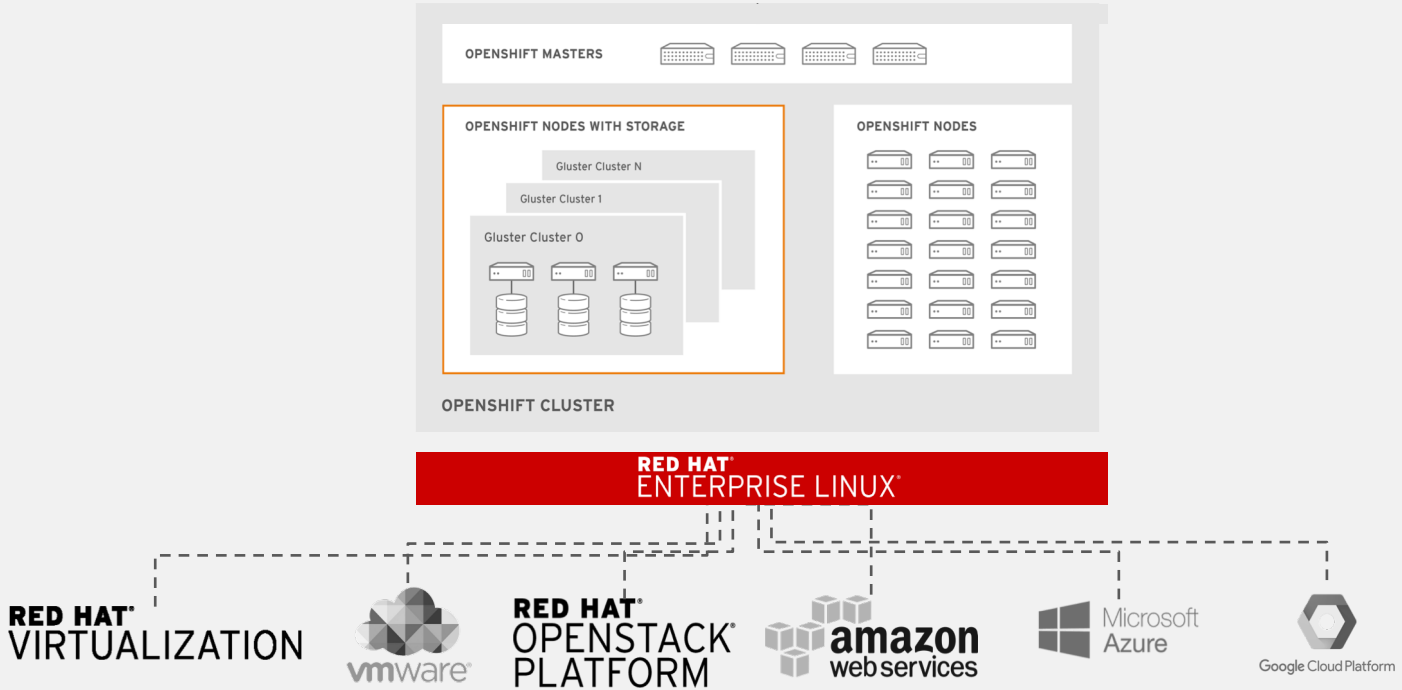
OPENSHIFT CONTAINER STORAGE



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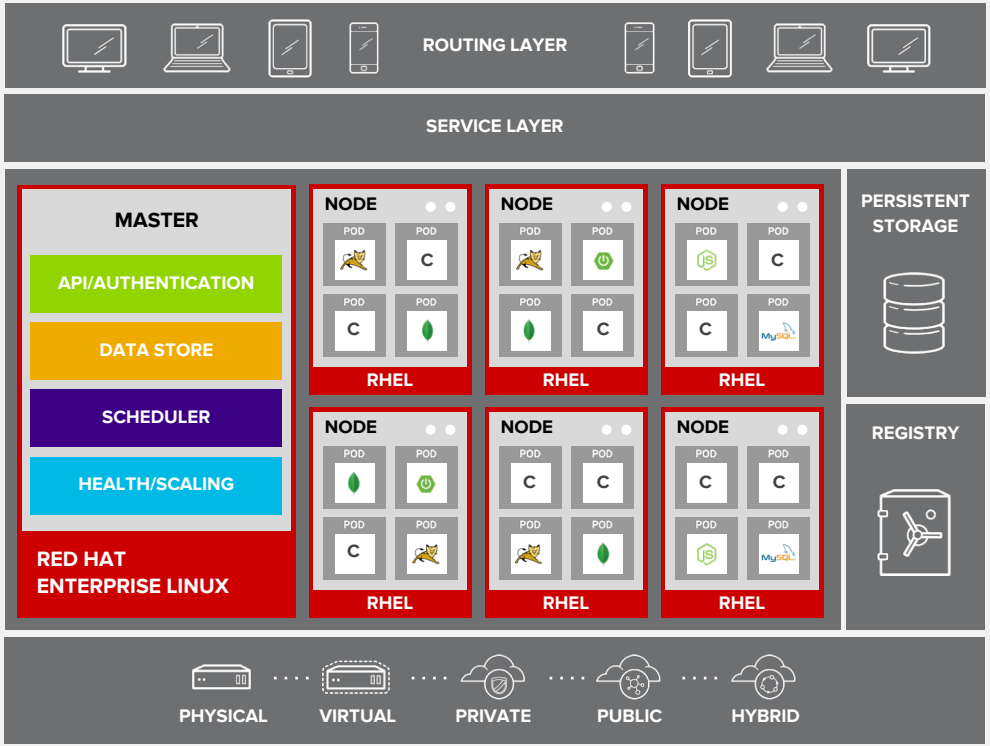
ROUTING & LOAD-BALANCING



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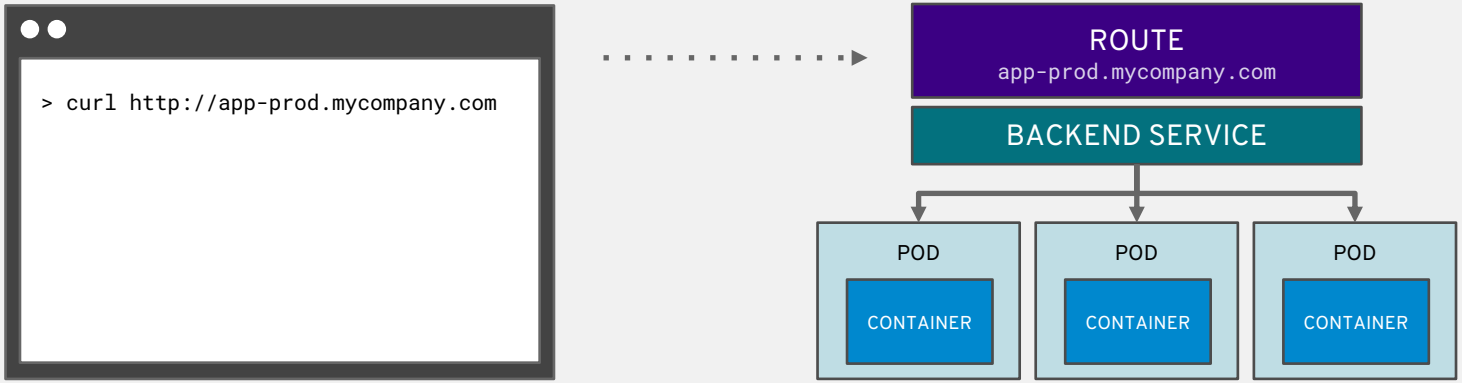
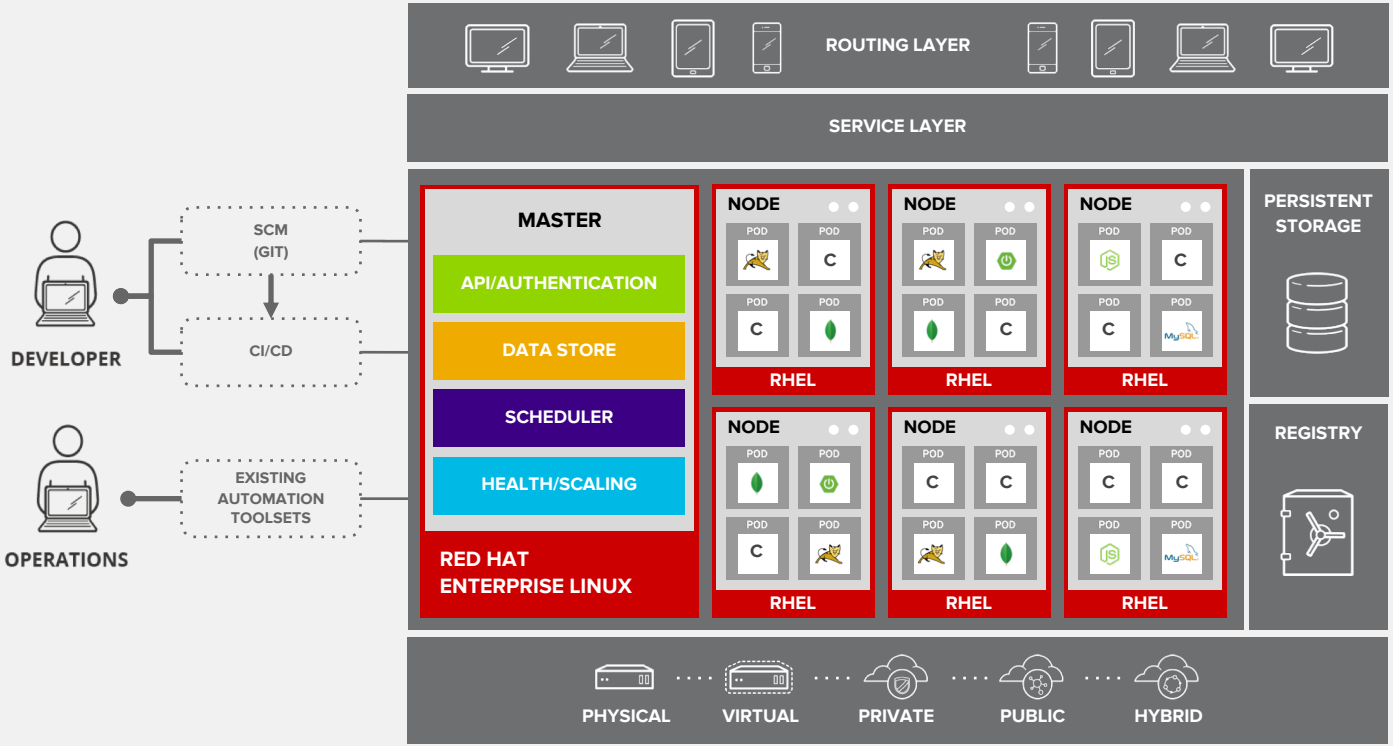
ROUTES ADD SERVICES TO THE EXTERNAL LOAD-BALANCER AND PROVIDE READABLE URLS FOR THE APP



ACCESS VIA WEB, CLI, IDE AND API



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OPENSHIFT INSTALLATION
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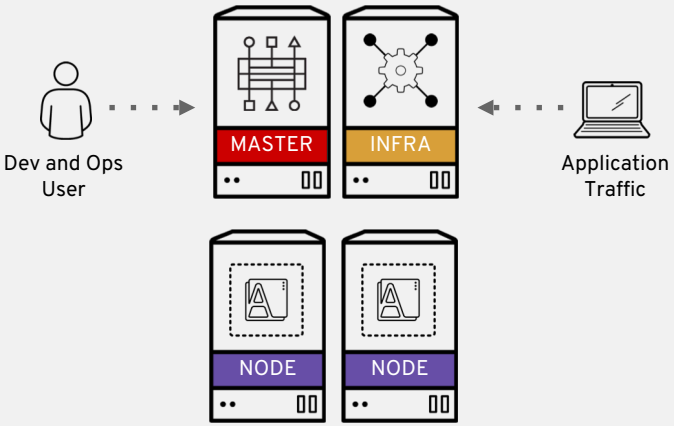
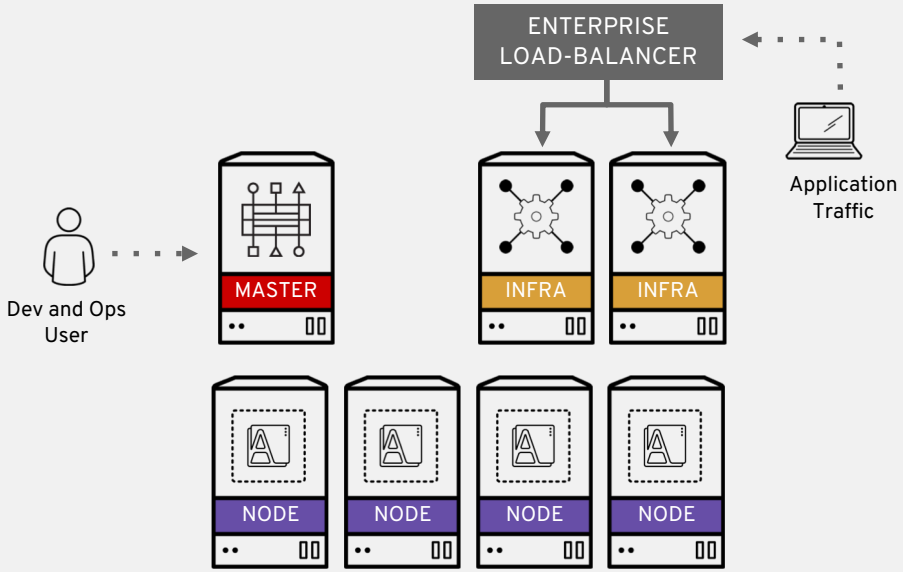
PROOF-OF-CONCEPT ARCHITECTURE

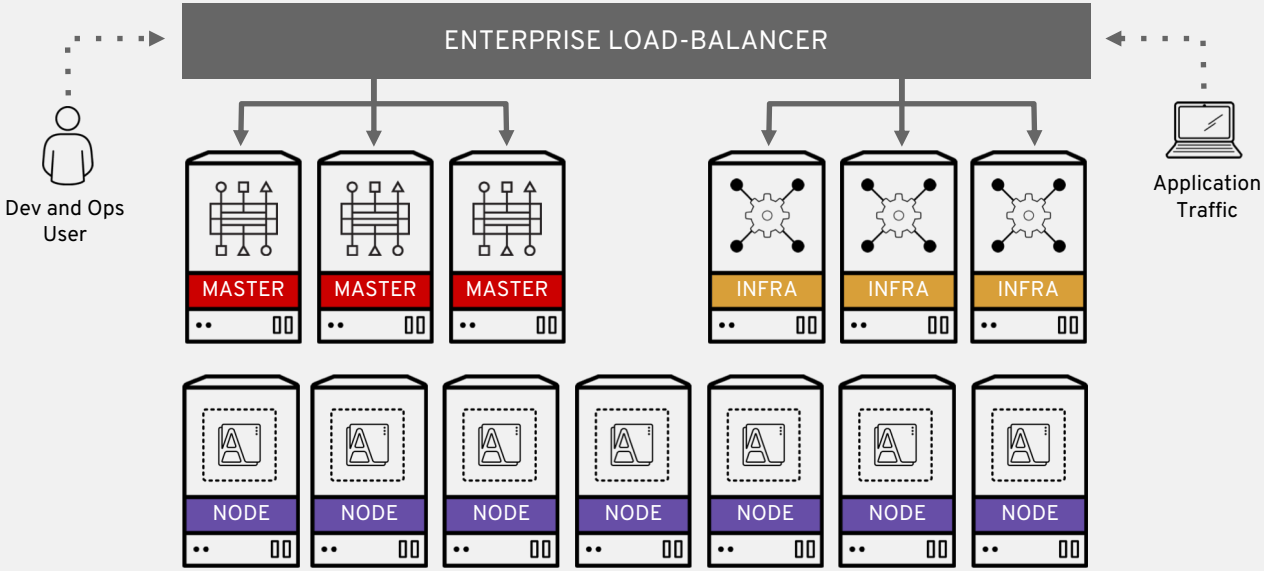
An infrastructure node is a node that is dedicated to infrastructure pods such as router, image registry, metrics, and logs



APP HIGH-AVAILABILITY ARCHITECTURE



FULL HIGH-AVAILABILITY ARCHITECTURE



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