

Open Hybrid Cloud

Introduction & technology overview

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Big ideas drive... **business innovation**

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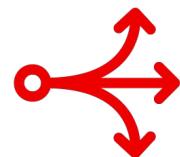
Every organization in every geography and in every industry can innovate and create more customer value and differentiation with open source technologies and an open culture.

But **innovating**
isn't always easy



Innovation

Innovate at speed.



Flexibility

Flexibility to adapt to market changes.



Growth

Grow new customer experiences
and lines of business.

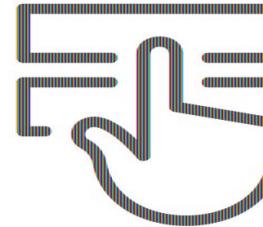
Why OpenShift

CONFIDENTIAL Red Hat associates only



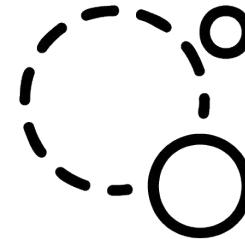
100% Kubernetes

OpenShift is certified as 100% Kubernetes by the CNCF.



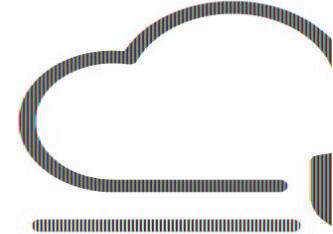
Ecosystem of choice

Red Hat partners offer customers a choice of technologies: Networking, Storage etc without lock-in



Open source

OpenShift platform code is 100% open source, developed and collaborated in the upstream community.



Open Hybrid Cloud

OpenShift provides a consistent operator and developer experience on-prem and in public cloud

Installation Paradigms

OPENSHIFT CONTAINER PLATFORM

Full Stack Automated (IPI)

Simplified opinionated “Best Practices” for cluster provisioning

Fully automated installation and updates including host container OS.



Red Hat
Enterprise Linux
CoreOS

Pre-existing Infrastructure (UPI)

Customer managed resources & infrastructure provisioning

Plug into existing DNS and security boundaries



Red Hat
Enterprise Linux
CoreOS



Red Hat
Enterprise
Linux

HOSTED OPENSHIFT

Red Hat OpenShift on IBM Cloud

Deploy directly from the IBM Cloud console. An IBM service, master nodes are managed by IBM Cloud engineers.

Azure Red Hat OpenShift

Deploy directly from the Azure console. A MSFT service, jointly managed by Red Hat and Microsoft Azure engineers.

Red Hat OpenShift on AWS - ROSA

Get a powerful cluster, fully managed by AWS and Red Hat engineers and support.



xKS vs OCP vs. Managed OpenShift

It's important to understand the apples to apples comparison



The Engine



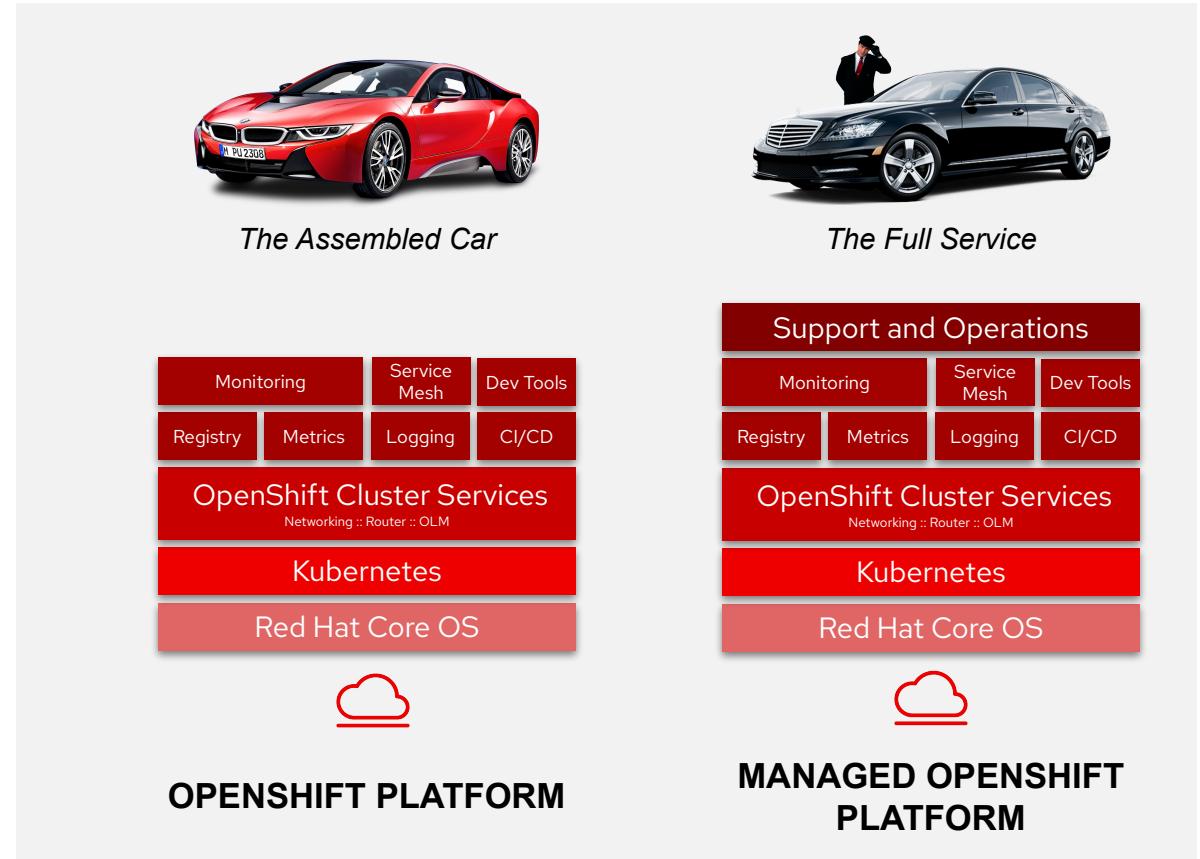
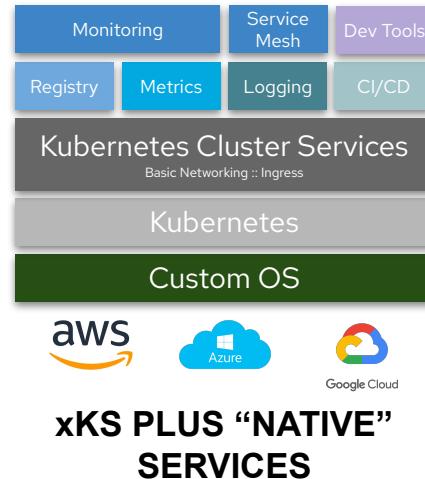
The Parts



The Assembled Car

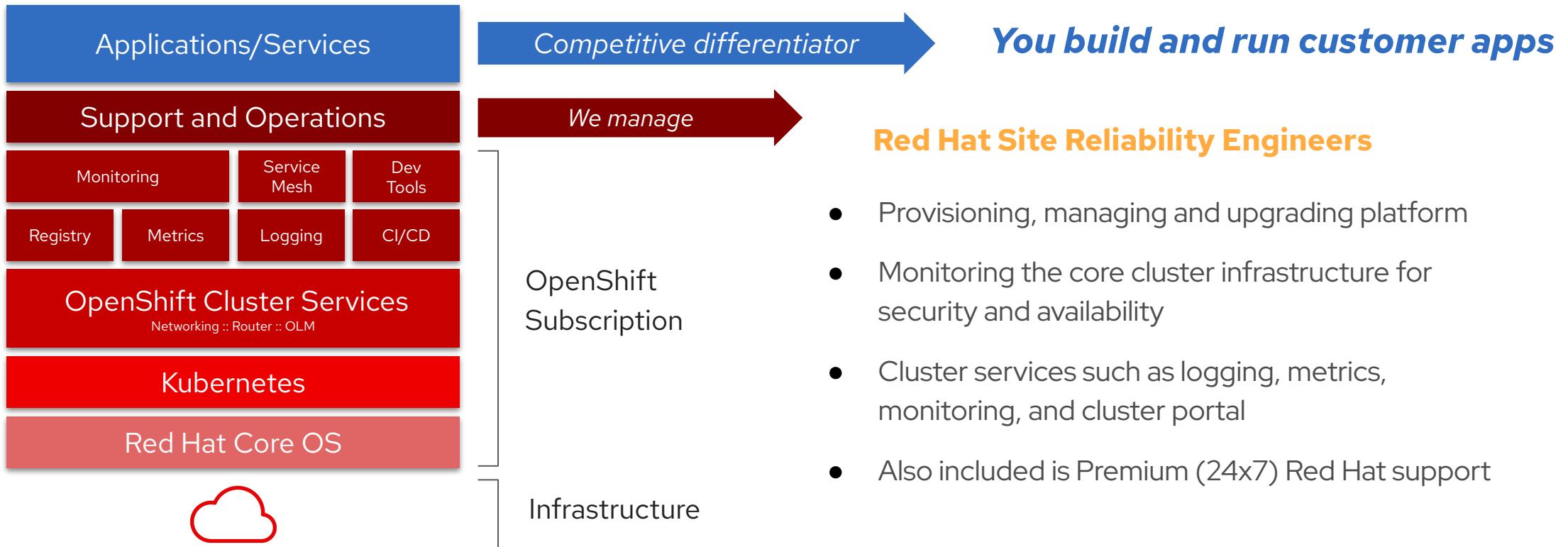


The Full Service



“Fully Managed”

Managed Kubernetes, application and data services delivered as a streamlined, consistent experience on multiple public clouds enables DevOps teams to deploy faster, simplify operations and focus on the business.

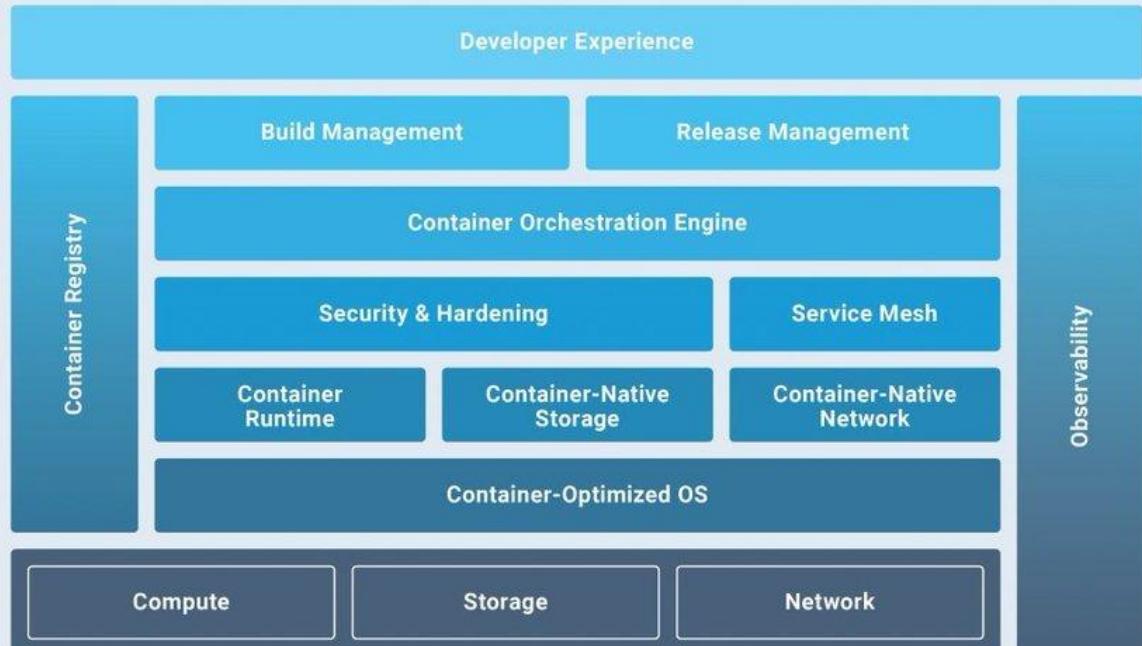


Components of OpenShift

Or use OpenShift, a modern cloud native stack

CONFIDENTIAL Designator

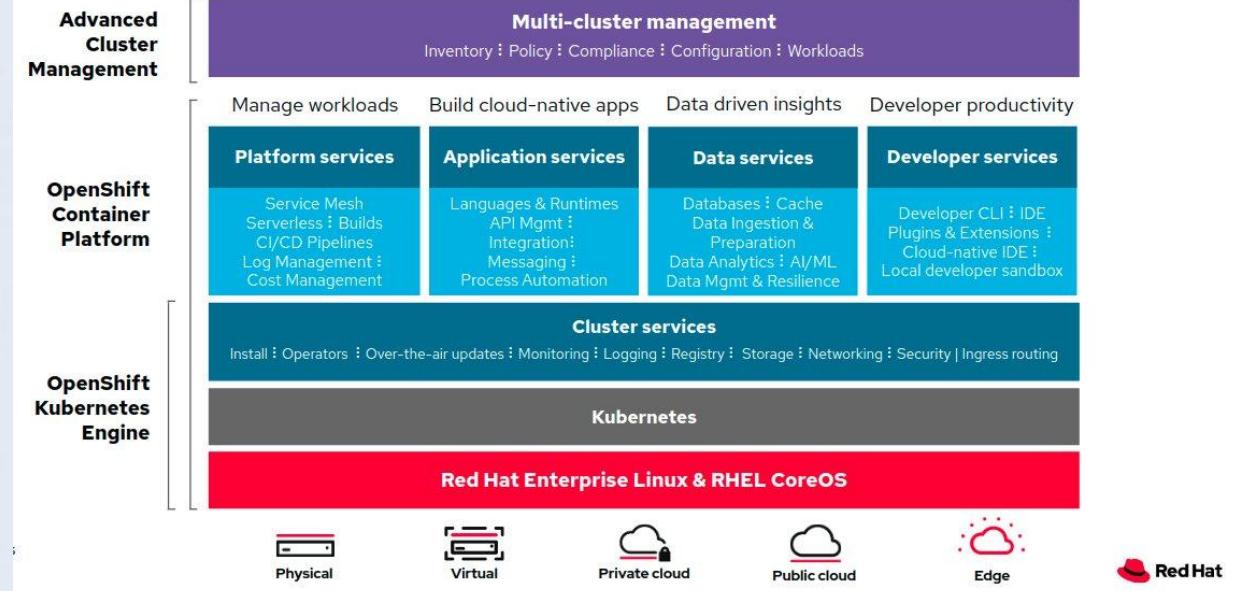
The Cloud Native Stack



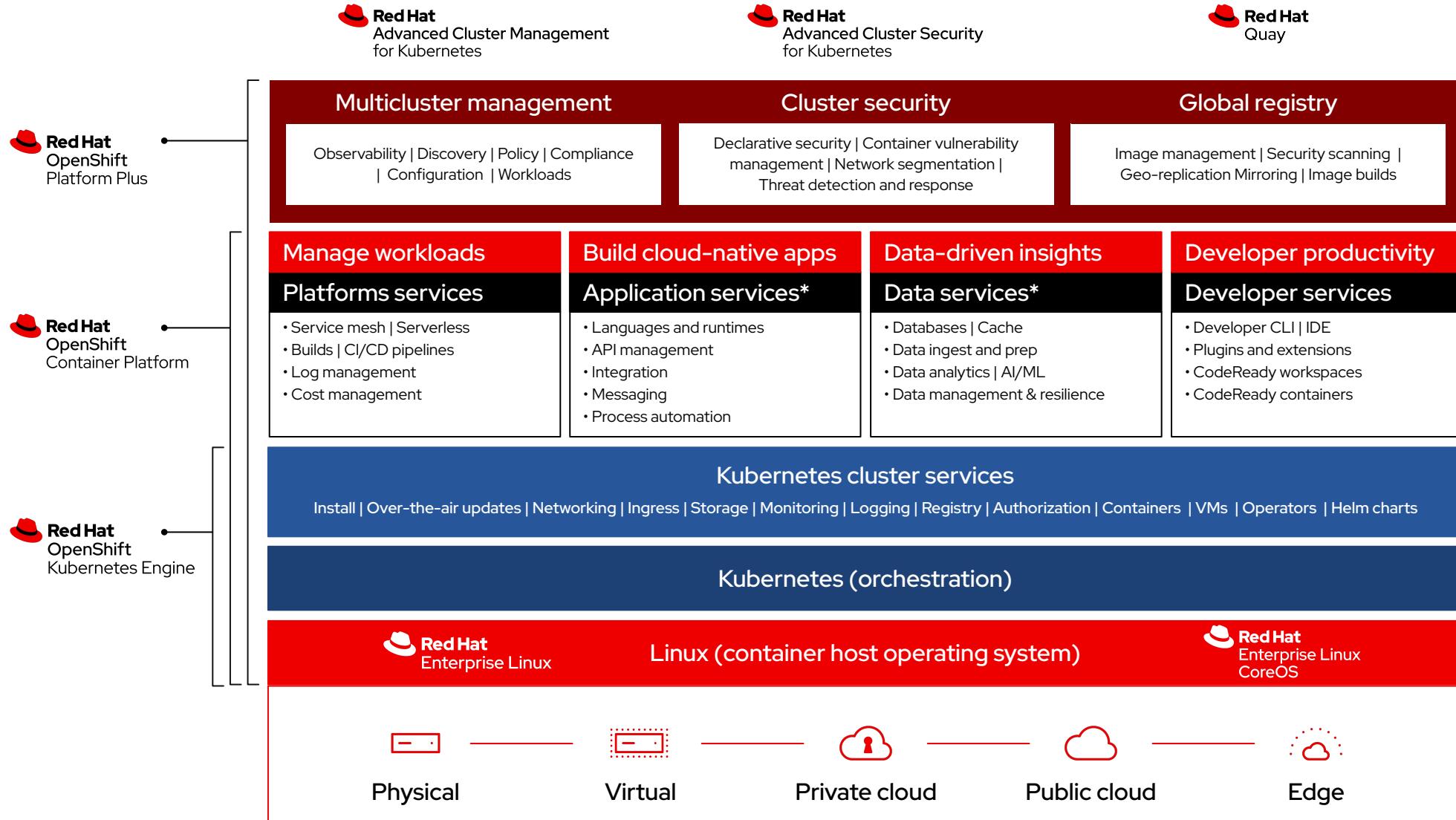
Source: Janakiram MSV

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OpenShift Container Platform

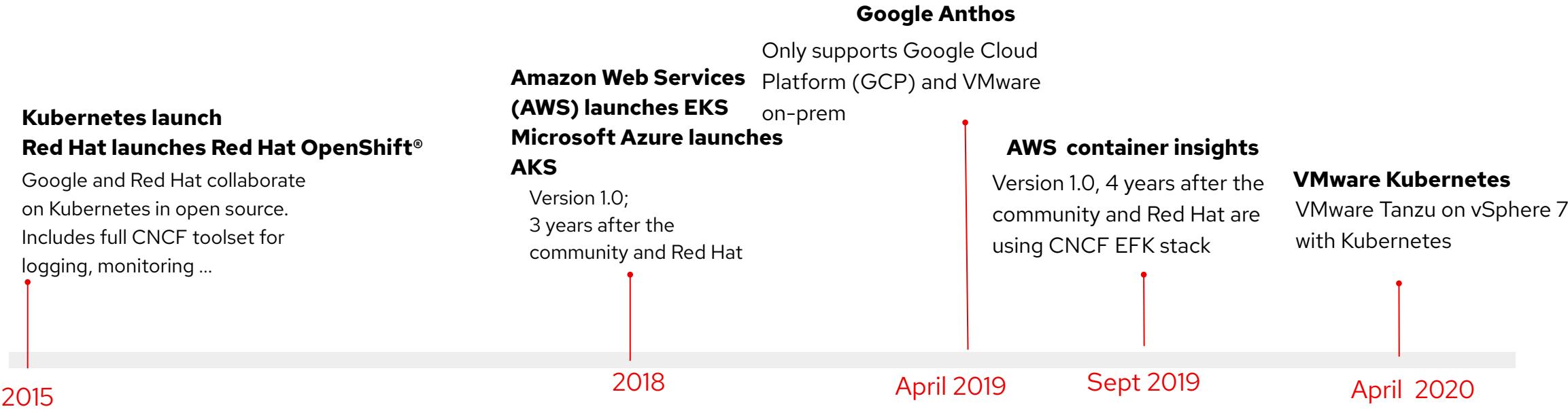


From a newstack article defining a cloud native stack, OpenShift container platform neatly fits the definition. [What Is the Modern Cloud Native Stack? – The New Stack](#)



Red Hat leads Kubernetes development from the start

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5+ years of enterprise
Kubernetes leadership

Red Hat OpenShift

Kubernetes, developer services, operators, serverless, service mesh,
container-optimized Linux operating system



Edge



Physical



Virtual



Private cloud



Public cloud



Managed cloud
(Azure, AWS, IBM, Red Hat)

V00000000



Open Hybrid Cloud

Red Hat Cloud

Red Hat Marketplace

Open Ecosystem

Red Hat Cloud Experience

Applications



Red Hat
Advanced Cluster Management
for Kubernetes



Red Hat
OpenShift

- Cluster Management
- Policy Management
- Governance
- Cost Management
- Telemetry
- Platform Lifecycle
- Application Lifecycle



Red Hat
Enterprise Linux



Red Hat
Virtualization



Red Hat
OpenStack Platform



vmware®



aws



Google Cloud



IBM Cloud



Microsoft Azure



Alibaba Cloud



Edge Computing

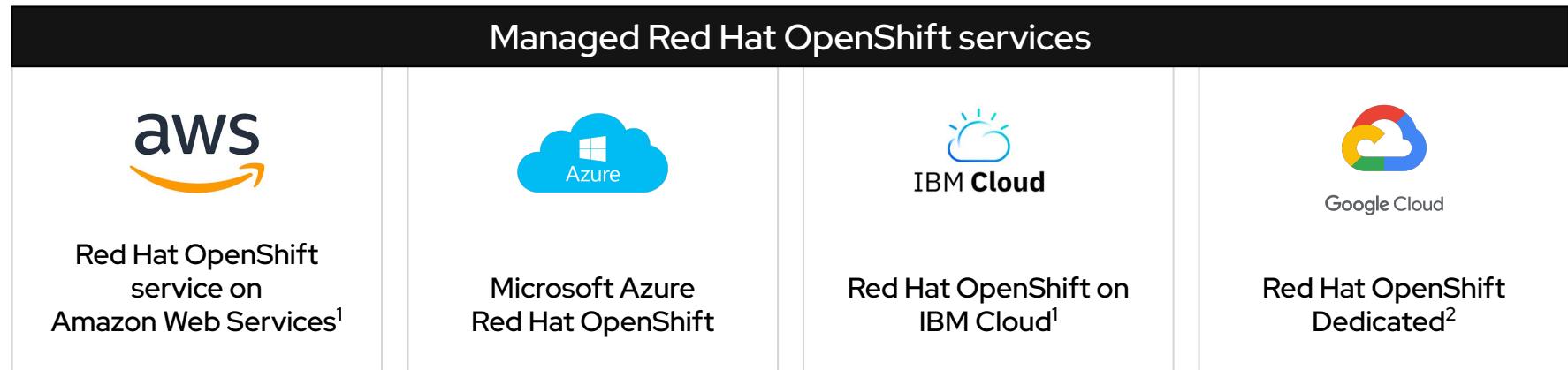
Red Hat OpenShift

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Available as self-managed platform or fully managed cloud service

Start quickly, we
manage it for you

Cloud managed



You manage it, for
control and flexibility

Customer managed



Open Hybrid Cloud Demo



Manage OpenShift Anywhere

Overview



- OCP Cluster Lifecycle Management:
 - Provision new OCP 4.5.x and above
 - Manage existing OCP 3.11, 4.5.x and above
- Import ARO, OSD, OSP and IBM Z
 - Deploy and manage applications across any of these clusters
 - Define security policy, compliance and violations
- Multi-cluster networking with Submariner
 - Support for the Submariner Operator
 - Provides inter-cluster networking for apps that span multiple clusters

The screenshot shows a web-based management interface for cluster management. The title bar reads "Red Hat Advanced Cluster Management for Kubernetes". The main area is titled "Cluster management" and contains a table of clusters. The columns in the table are: Name, Status, Provider, Distribution, Labels, and Nodes. There are two entries:

Name	Status	Provider	Distribution	Labels	Nodes
cluster1	Ready	aws	Amazon Web Services	OpenShift 4.6.12 cloud=Amazon clusterID=4593ffd4-c18c-4b51-84b0-33ead77c0ee1 name=cluster1 region=us-east-2 vendor=OpenShift	6
local-cluster	Ready	aws	Amazon Web Services	OpenShift 4.6.4 Upgrade available cloud=Amazon cluster.open-cluster-management.io/clusterset=submariner cluster.open-cluster-management.io/submariner-agent=true clusterID=e5275847-4c69-432c-a096-52685029a378 installer.namespace=open-cluster-management local-cluster=true name=local-cluster vendor=OpenShift	7

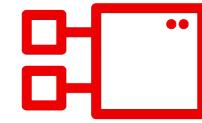
Open hybrid cloud: The platform for big ideas



The same developer experience



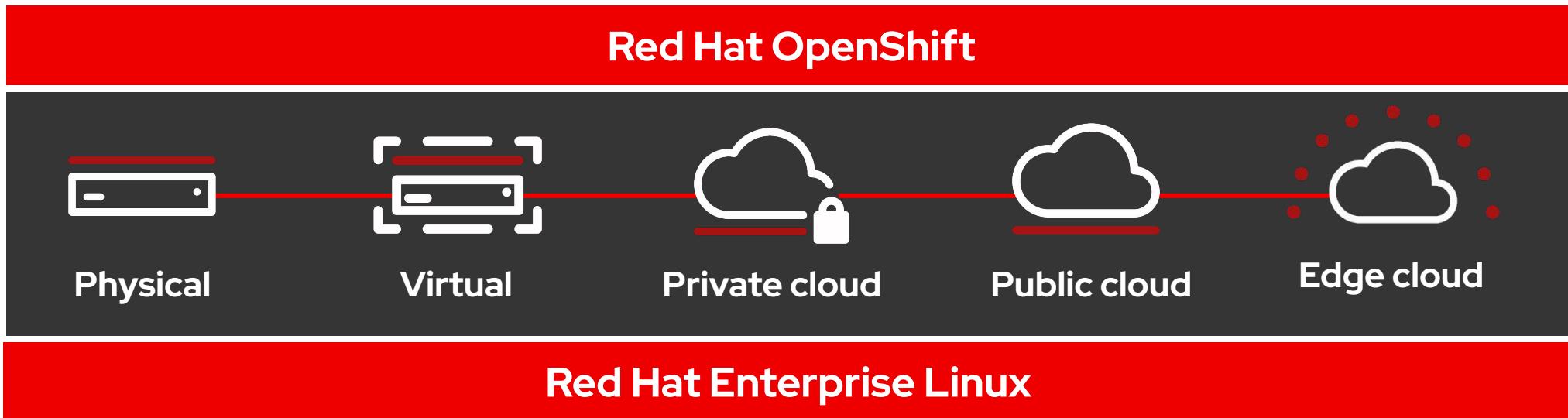
Modernize apps



App migration



Secure



Your choice of OpenShift

Self-managed Red Hat OpenShift editions



Red Hat

OpenShift Kubernetes Engine

Essential enterprise
Kubernetes Infrastructure

Includes:

- Enterprise Kubernetes runtime
- Red Hat Enterprise Linux CoreOS immutable container OS
- Administrator console
- OpenShift Virtualization



Red Hat

OpenShift Container Platform

Opinionated application
development platform

Adds:

- Developer console
- Log management and metering/cost management
- Red Hat OpenShift Serverless (Knative)
- Red Hat OpenShift Service Mesh (Istio)
- Red Hat OpenShift Pipelines & Red Hat OpenShift Gitops (Tekton, ArgoCD)



Red Hat

OpenShift Platform Plus

Manageability and consistency across hybrid and multi cloud with advanced security for DevSecOps

Adds:

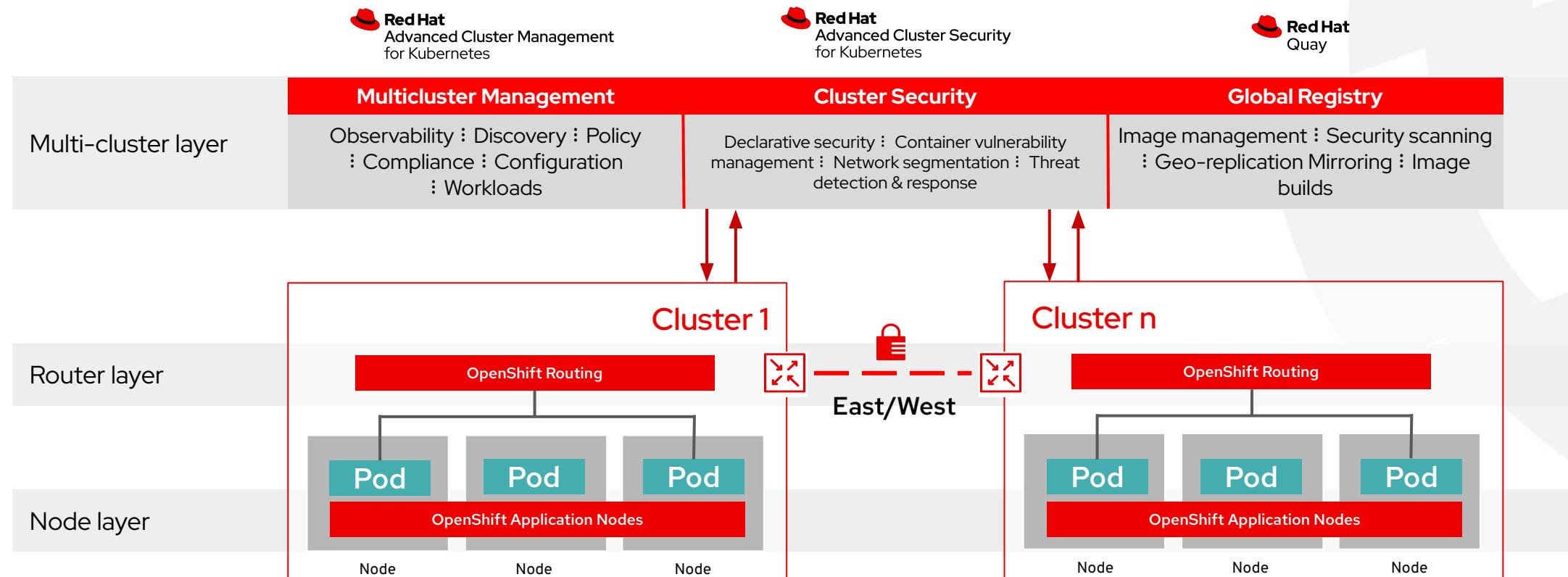
- Red Hat Advanced Cluster Management for Kubernetes
- Red Hat Advanced Cluster Security for Kubernetes
- Red Hat OpenShift Data Foundation Essentials
- Red Hat Quay



Red Hat
OpenShift

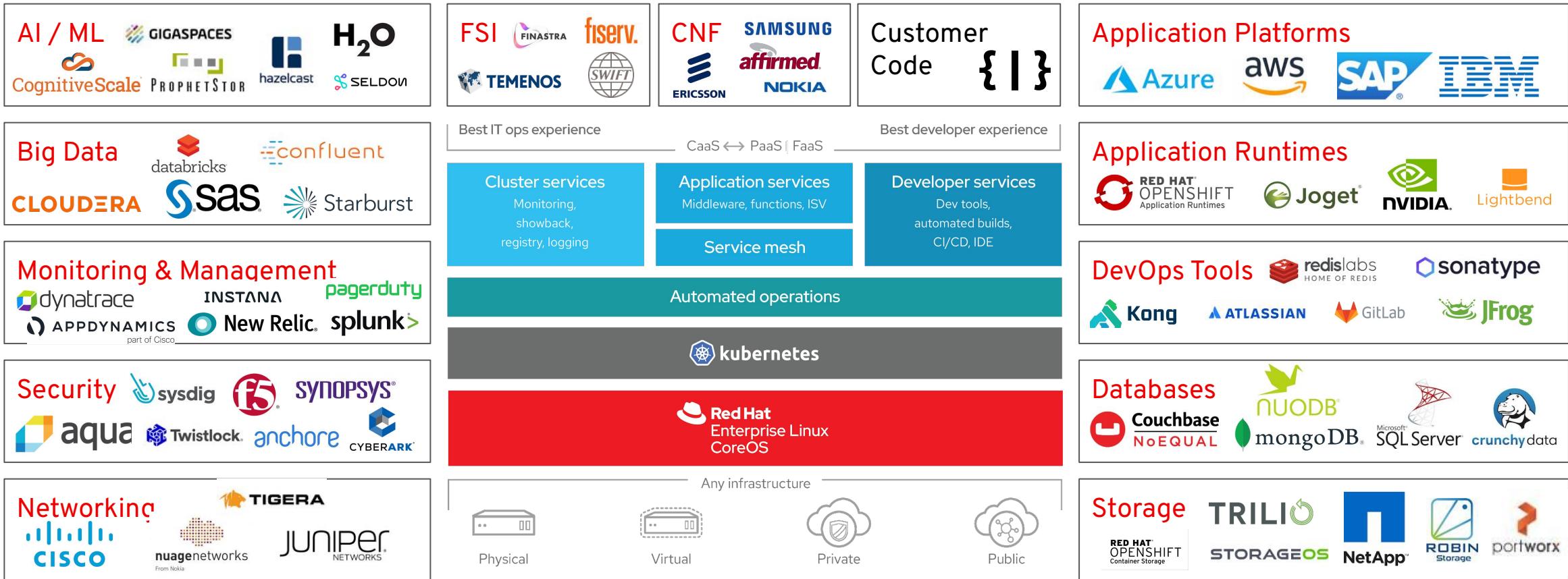
Red Hat OpenShift Platform Plus

Enabling hybrid and multi-cloud deployments

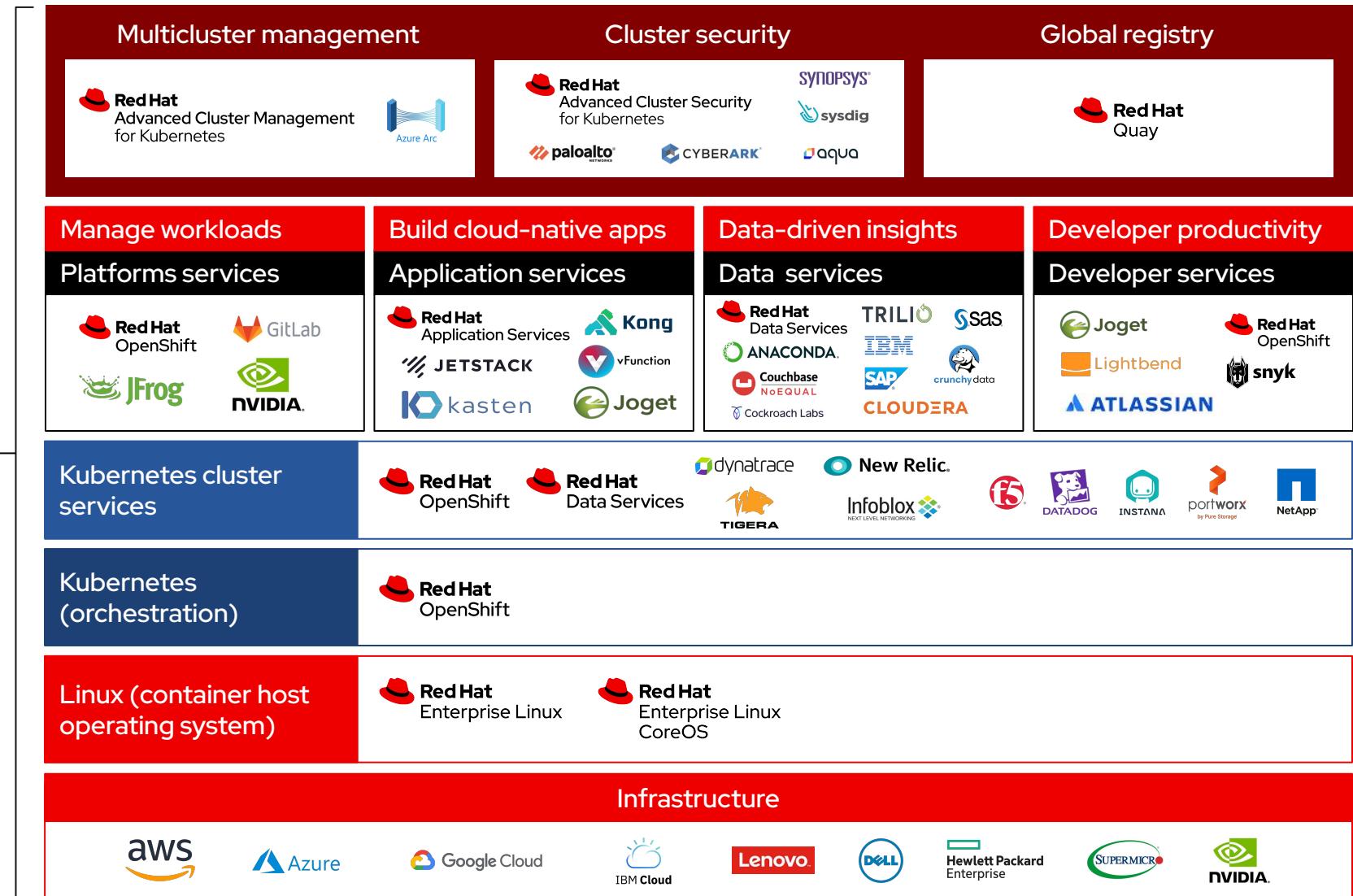


Open choice and certified partner ecosystem

Red Hat offers choice



 Simplify the trial, procurement, and deployment of ISV software on Red Hat OpenShift, anywhere with Red Hat Marketplace



Why customers choose Red Hat OpenShift

The diagram is organized into four horizontal sections separated by dotted lines. The top three sections are enclosed in dark teal boxes with white text, while the bottom section is a solid dark teal bar.

- Trusted enterprise Kubernetes**: Features a black and white icon of a server rack with nodes connected to a central point.
- Cloud-like experience everywhere**: Features the Red Hat OpenShift logo with a red hat icon, followed by two clouds containing icons representing network and security.
- Empowering developers to innovate**: Features logos for Spring, Node.js, Kafka, and a smartphone displaying various app icons.
- Open source innovation**: A solid dark teal bar containing logos for Docker, Kubernetes, Apache Mesos, etcd, and CoreOS.

Red Hat OpenShift: Delivering innovation without limitation

Bringing results to customers across industries and use cases



Telefónica



AIRBUS

ally



Follett

MACQUARIE

atpco

helvetia

CATHAY PACIFIC

disipolis®



HCA
Healthcare™

Deutsche Bank

omnitracs

Miles & More



DE LTA

ExxonMobil

Public Health
England

posco
ICT

SLOVENSKÁ
sporitelňa



Lufthansa Technik



Bilyoner

unicef
INNOVATION

elo

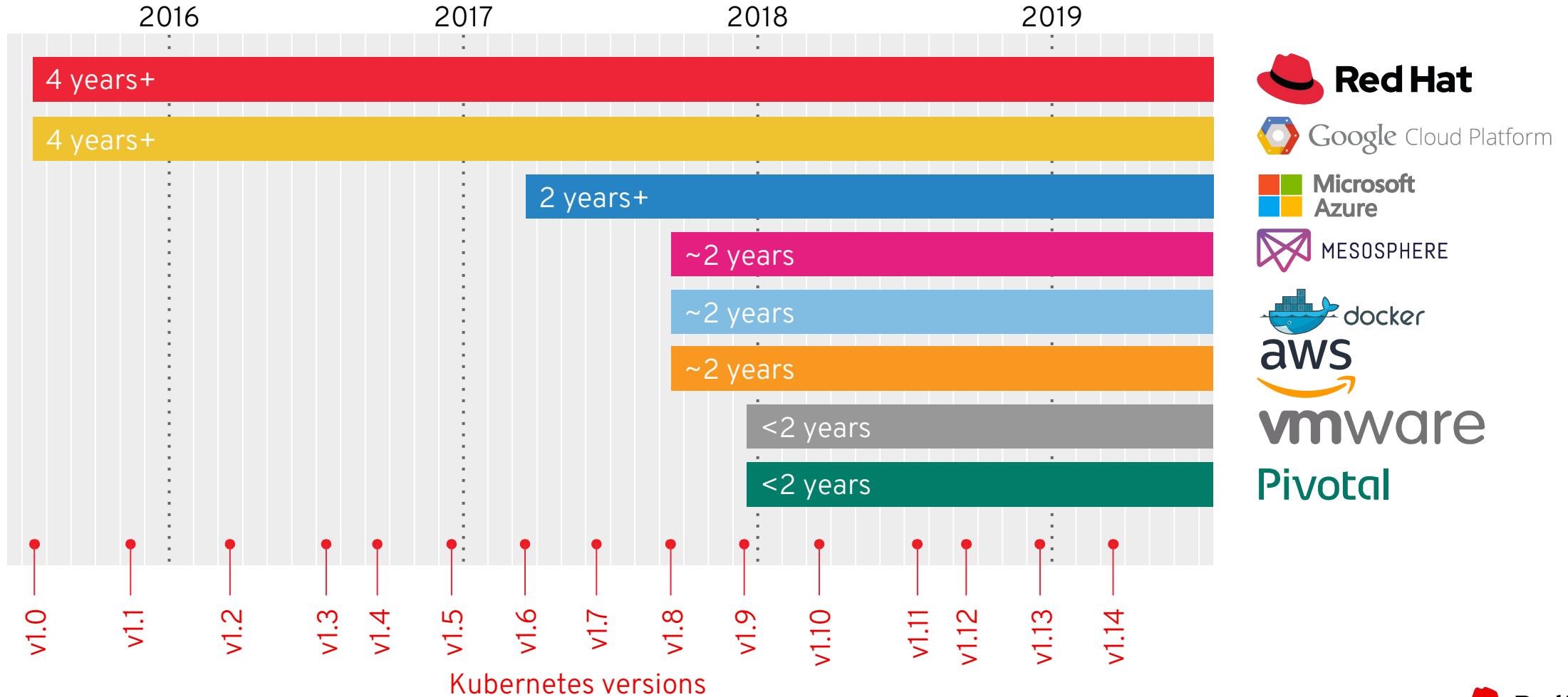
GENERALI

ascend money

NetApp™

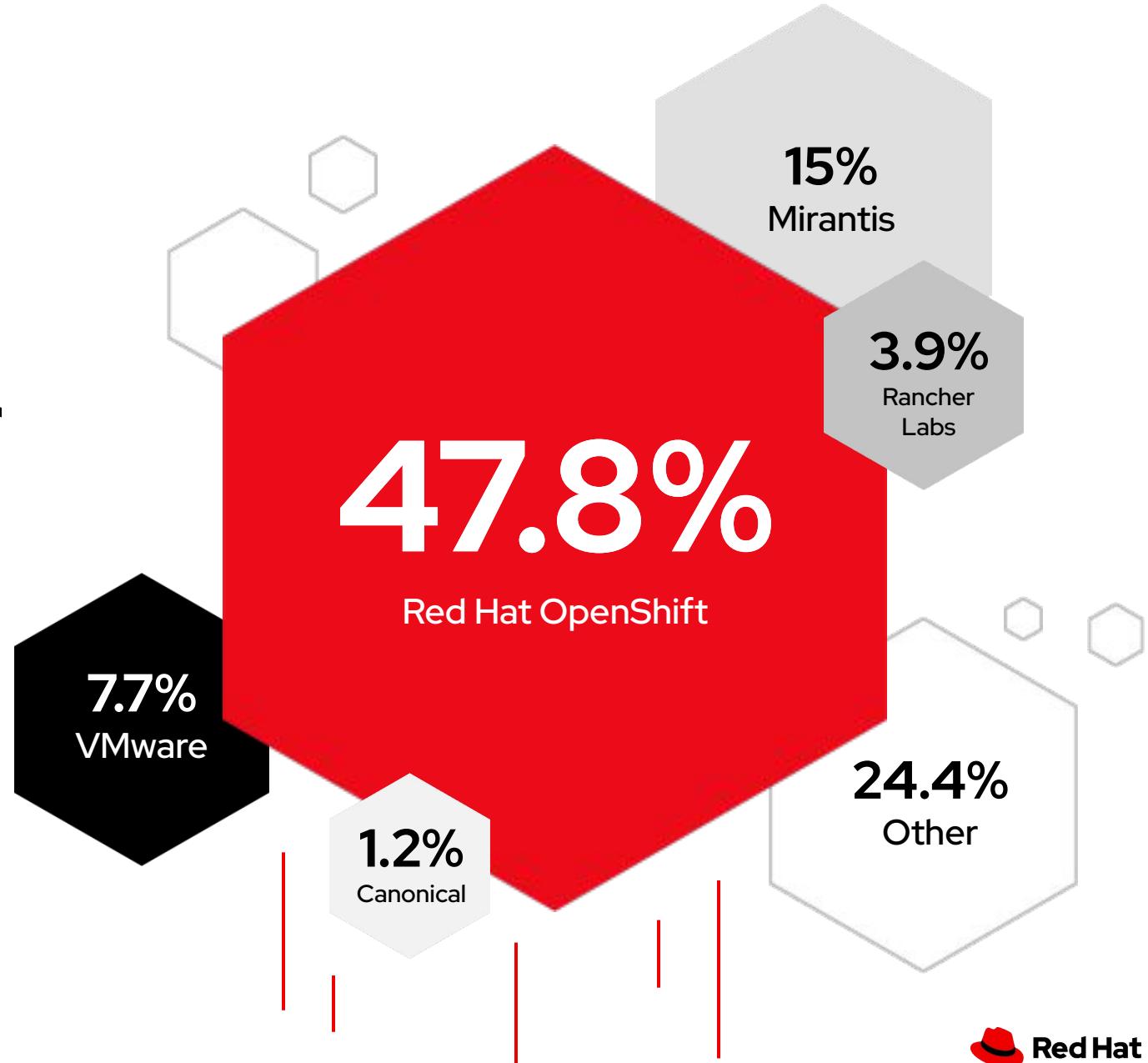
Fast time to business value

Red Hat has a strong history with Kubernetes



RED HAT OPENSHIFT

Container platform market share leader





Thank you

Red Hat is the world's leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500.

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