

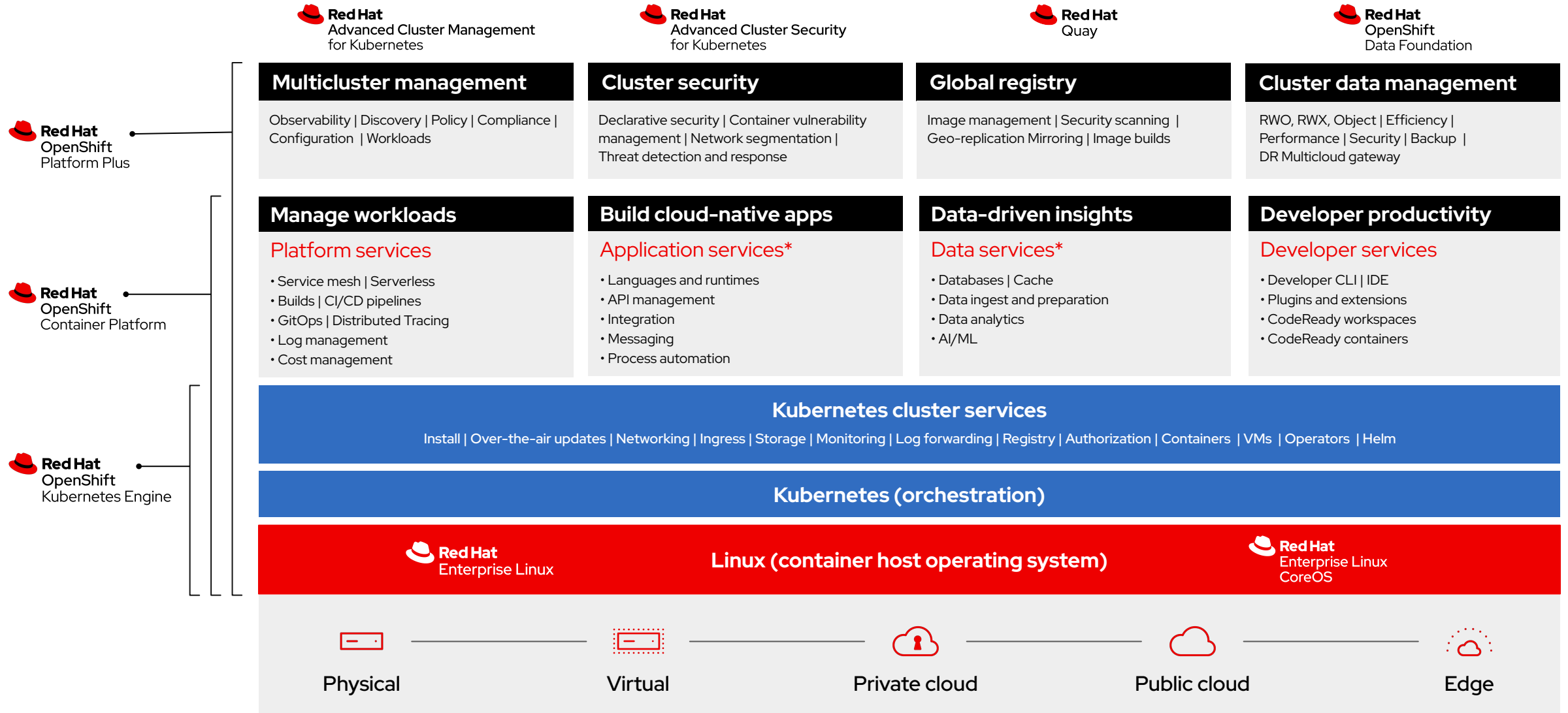


# OpenShift Plus

Alfred Bach  
Principal Solution Architect

# Red Hat open hybrid cloud platform

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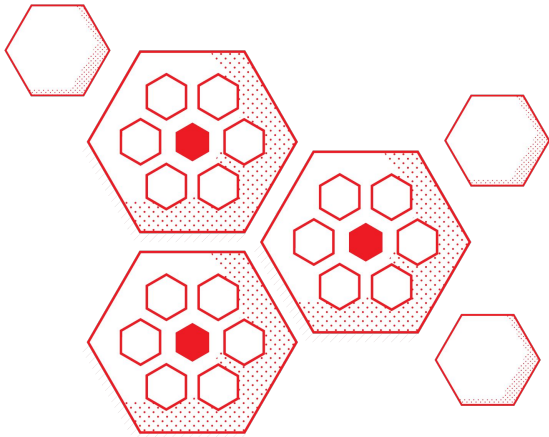


\* Red Hat OpenShift® includes supported runtimes for popular languages/frameworks/databases. Additional capabilities listed are from the Red Hat Application Services and Red Hat Data Services portfolios.

\*\* Disaster recovery, volume and multicloud encryption, key management service, and support for multiple clusters and off-cluster workloads requires OpenShift Data Foundation Advanced

# Red Hat Advanced Cluster Management for Kubernetes

## Kubernetes adoption leads to multicloud



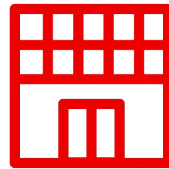
“As Kubernetes gains adoption across the industry, scenarios are arising in which I&O teams are finding **they must deploy and manage multiple clusters**, either in a single region on-premises or in the cloud, or across multiple regions...for a number of reasons, including multi-tenancy, disaster recovery, and with hybrid, multicloud, or edge deployments.”

# Where is the growth in cluster deployments?



## Small Scale Dev teams

- Managing and syncing across Dev/QE/Pre-Prod/Prod clusters can be difficult



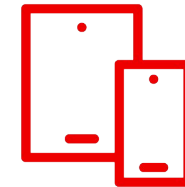
## Medium Scale Organizations

- Retail with small clusters across 100s of locations
- Organizations with plan for growth 10-15 clusters moving to 100s



## Large Scale

- Global organizations with 100s of clusters, hosting thousand of applications
- Large Retail with 1000s of stores



## Edge Scale Telco

- 100s of zones, 1000s of clusters and nodes across complex topologies

## Reasons for deploying clusters



Application  
availability



Reduced  
latency



Address industry  
standards



Geopolitical data  
residency guidelines



Disaster  
recovery



Edge  
deployments



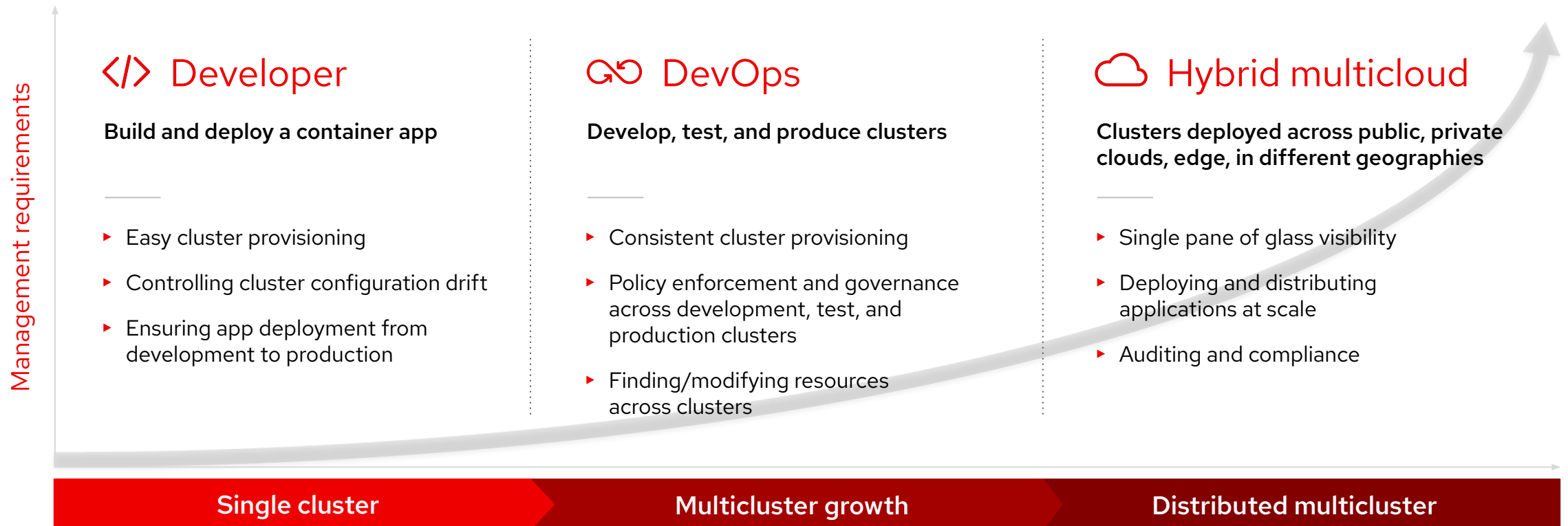
CapEx  
cost reduction



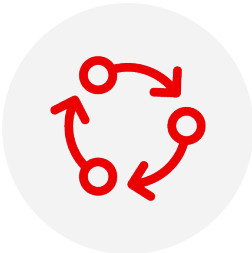
Avoid vendor  
lock-in

# Multicloud management challenges

How do I normalize and centralize key functions across environments?



Robust. Proven. Award winning.



Multicluster lifecycle management



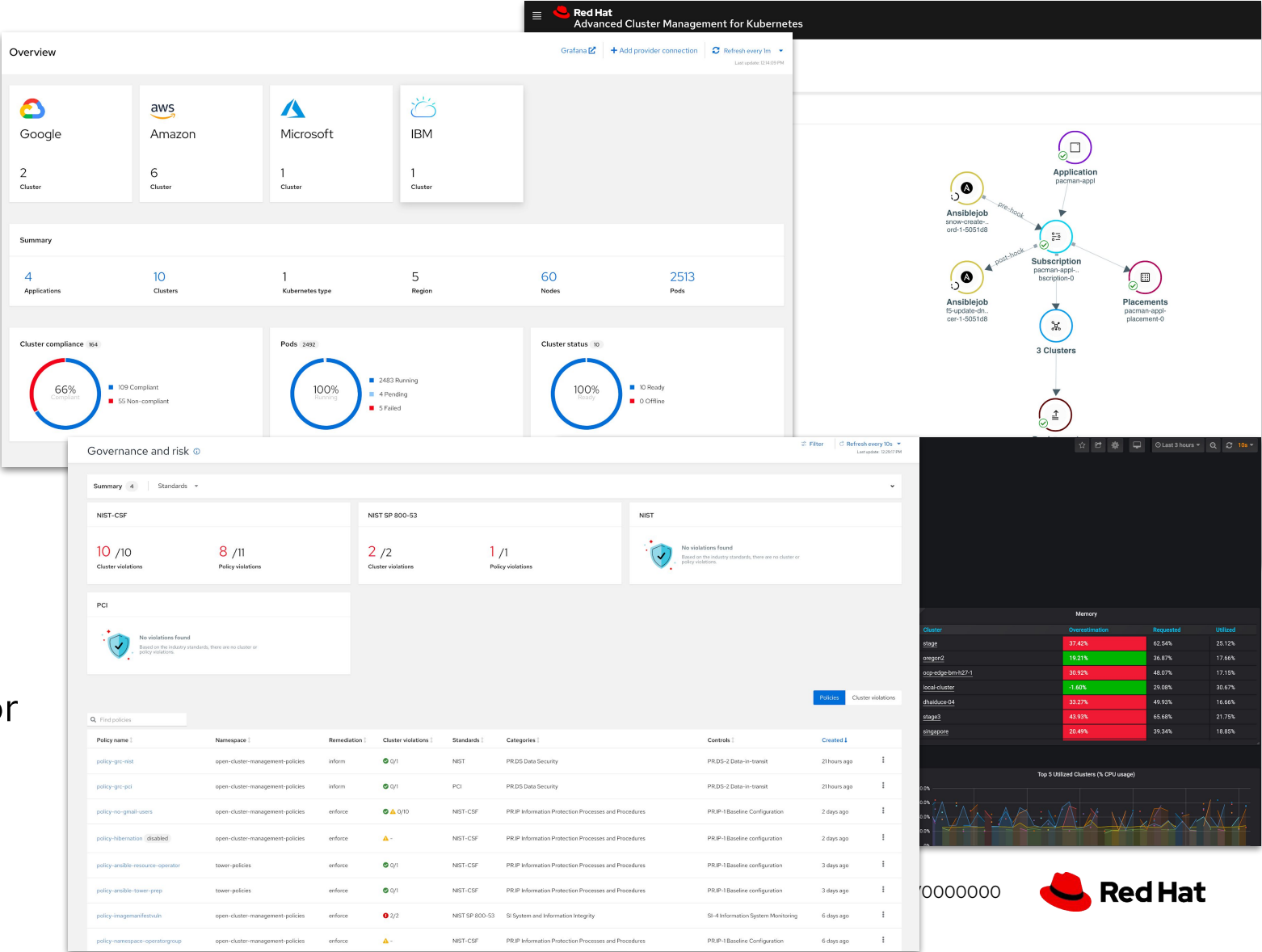
Policy driven governance, risk, and compliance



Advanced application lifecycle management



Multicluster observability for health and optimization







# StackRox | Red Hat ACS

Alfred Bach

Principal Solution Architect - Cloud, Security & DC- Infrastructure

Partner Enablement Team EMEA

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Kubernetes is the standard  
for application innovation...



- ▶ Microservices architecture
- ▶ Declarative definition
- ▶ Immutable infrastructure

...and Kubernetes-native  
security is increasingly critical



- ▶ Secure supply chain
- ▶ Secure infrastructure
- ▶ Secure workloads

DevOps

DevSecOps

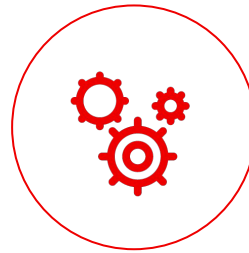
Security

# Benefits of a Kubernetes-native approach to security



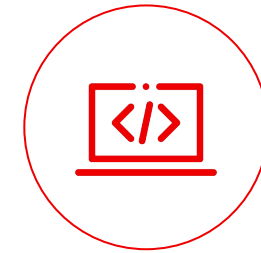
## Lower operational cost

DevOps and Security teams can use a common language and source of truth



## Reduce operational risk

Ensure alignment between security and infrastructure to reduce application downtime



## Increase developer productivity

Leverage Kubernetes to seamlessly provide guardrails supporting developer velocity

# Red Hat Advanced Cluster Security for Kubernetes

A cloud workload protection platform and cloud security posture management to enable you to “shift left”

## Shift left

## Cloud security posture management (CSPM)

## Cloud workload protection (CWPP)

### Secure supply chain

### Secure infrastructure

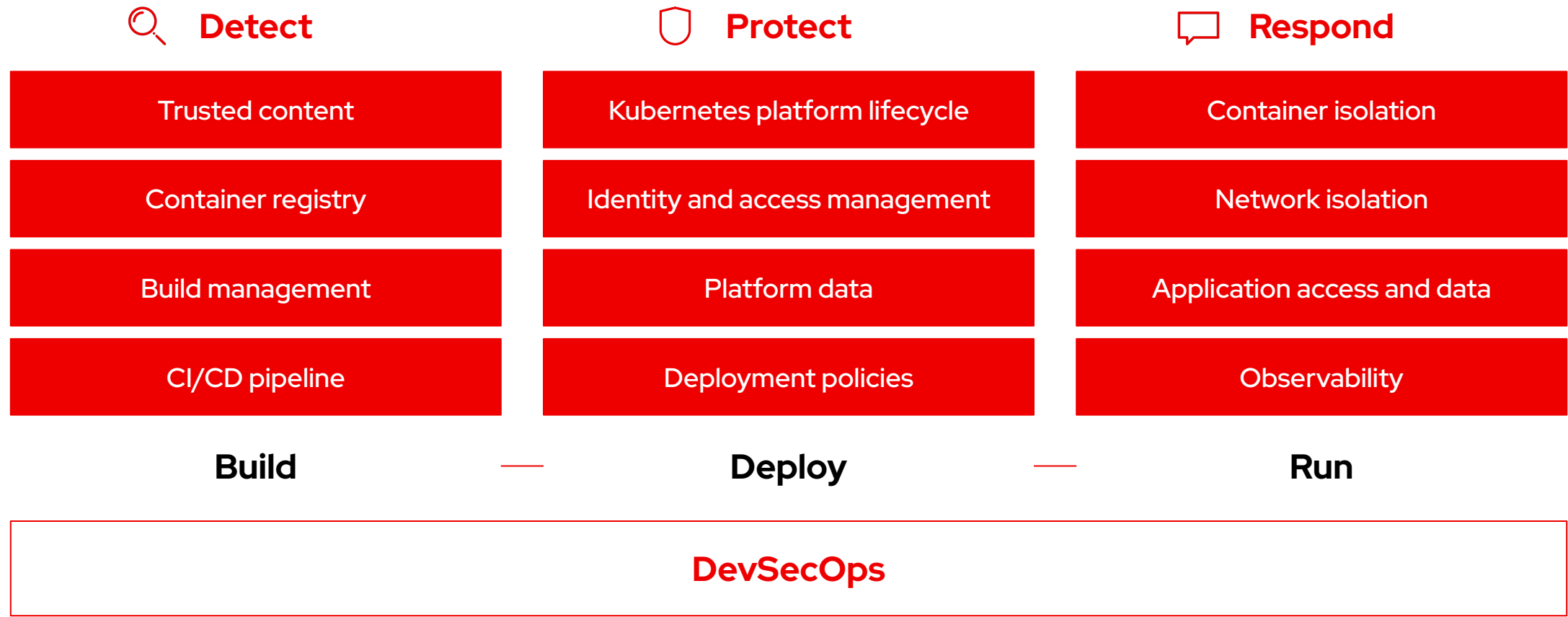
### Secure workloads

Extend scanning and compliance into development (DevSecOps)

Leverage built-in Kubernetes CSPM to identify and remediate risky configurations

Maintain and enforce a “zero-trust execution” approach to workload protection

# Red Hat OpenShift provides a secure foundation



# RHACS delivers security depth to entire application lifecycle

 **Detect**

 **Protect**

 **Respond**



Trusted content	Kubernetes platform lifecycle	Container isolation
Container registry	Identity and access management	Network isolation
Build management	Platform data	Application access and data
CI/CD pipeline	Deployment policies	Observability
Vulnerability analysis	Image assurance and policy admission controller	Runtime behavioral analysis
App config analysis	Compliance assessments	Auto-suggest network policies
APIs for CI/CD integrations	Risk profiling	Threat detection / incident response

**Build**

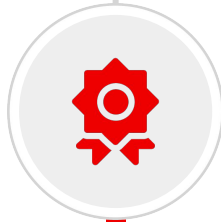
**Deploy**

**Run**

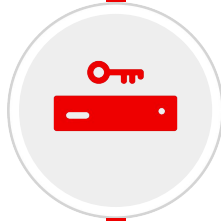
**DevSecOps**



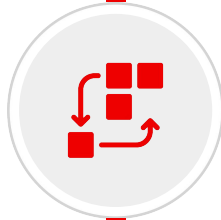
# RED HAT QUAY



Industry-leading, **trusted, and open source registry platform** operating at scale since 2014



Built to **efficiently manage content** under governance and security **controls** globally



Runs **everywhere**, easy to **integrate** and **automate** but works best with **OpenShift**



Developed in **collaboration** with a broad open source, customer, and ecosystem **community**



# Red Hat Quay Key Features

Massive Scale Testing Quay.io  
Real Time Garbage Collection  
Automated Squashing

## SCALABILITY

Seamless Git Integration  
Build Workers  
Webhooks

## BUILD AUTOMATION

Extensible API  
Webhooks, OAuth  
Robot Accounts

## INTEGRATION

## REGISTRY

High Availability  
Full Standards / Spec Support  
Long-Term Protocol Support  
Application Registry  
Enterprise Grade Support  
Regular Updates

## SECURITY

Vulnerability Scanning  
Logging & Auditing  
Notifications & Alerting

## CONTENT DISTRIBUTION

Geo-Replication  
Repository Mirroring  
Air-Gapped Environments

## ACCESS CONTROL

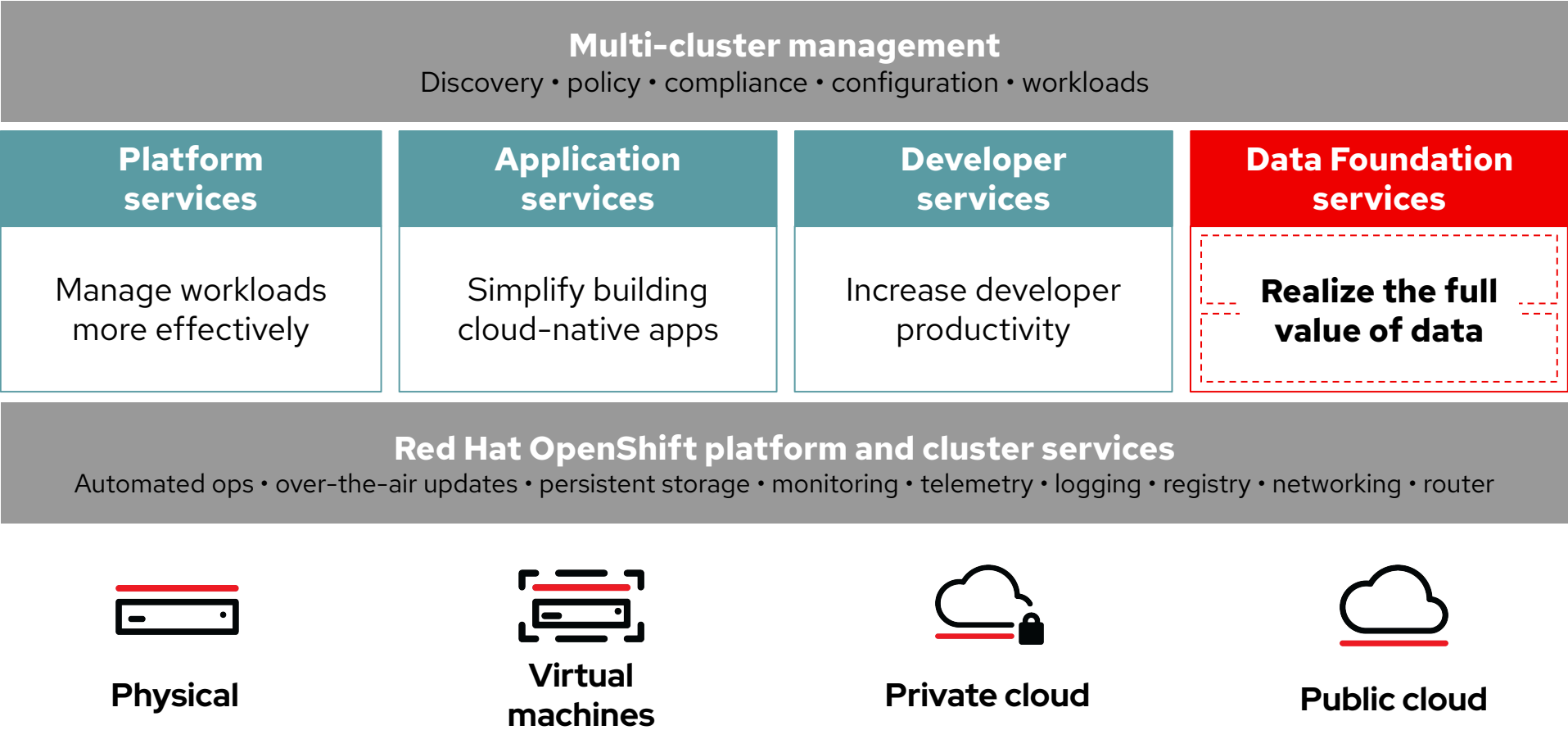
Authentication Providers  
Fine-Grained RBAC  
Organizations & Teams

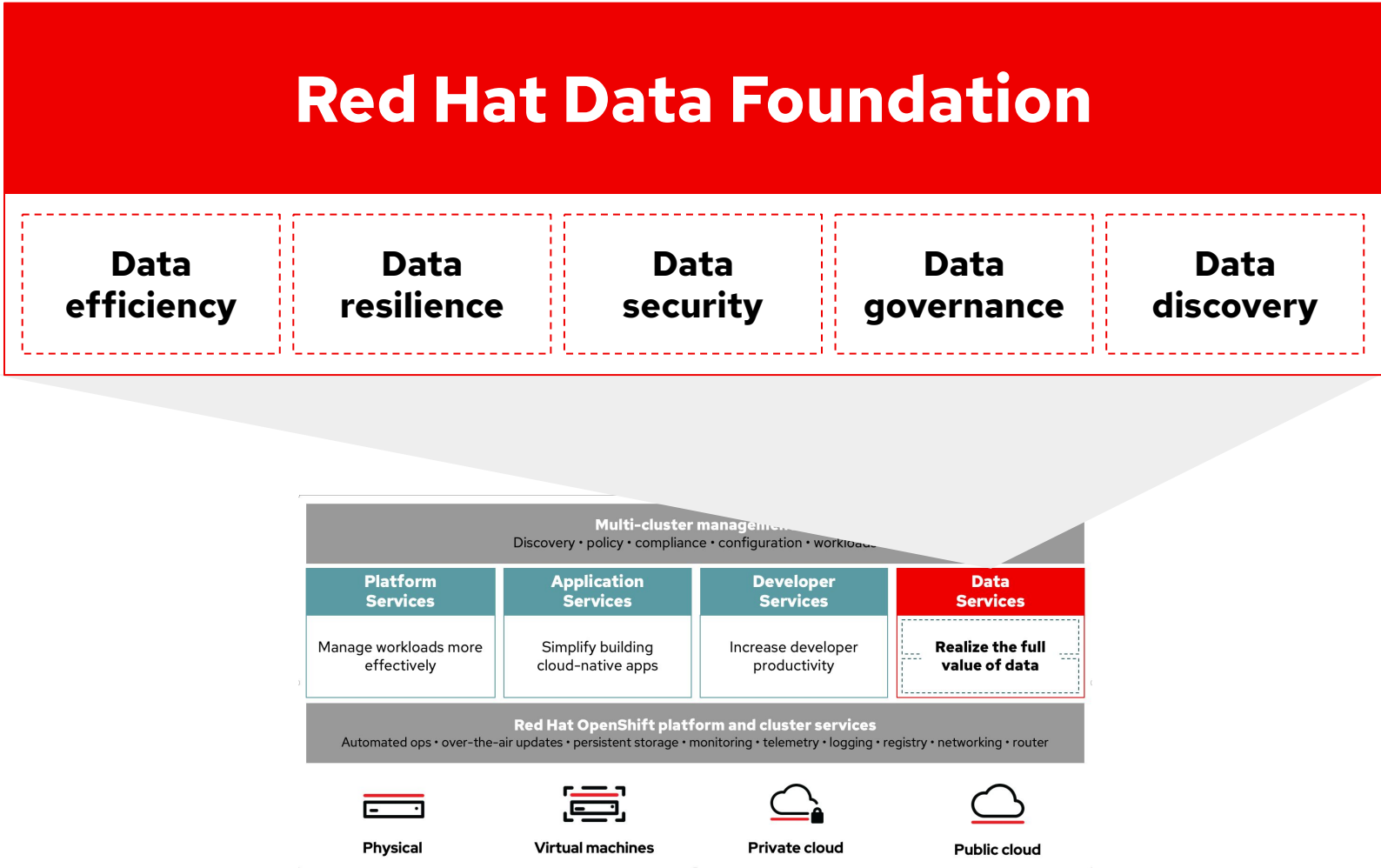


# Red Hat OpenShift Data Foundation 4

# How Red Hat Data Foundation services fit

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# Red Hat Data Foundation in a nutshell

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## **Data efficiency**

- Erasure coding
- Compression
- Performance



## **Data resilience**

- Snapshots
- Clones
- Backup
- Recovery
- Business continuity
- Disaster recovery



## **Data security**

- At rest encryption
- In flight encryption
- Key management



## **Data governance**

- WORM
- Auditing
- Compliance
- SEC & FINRA
- GDPR

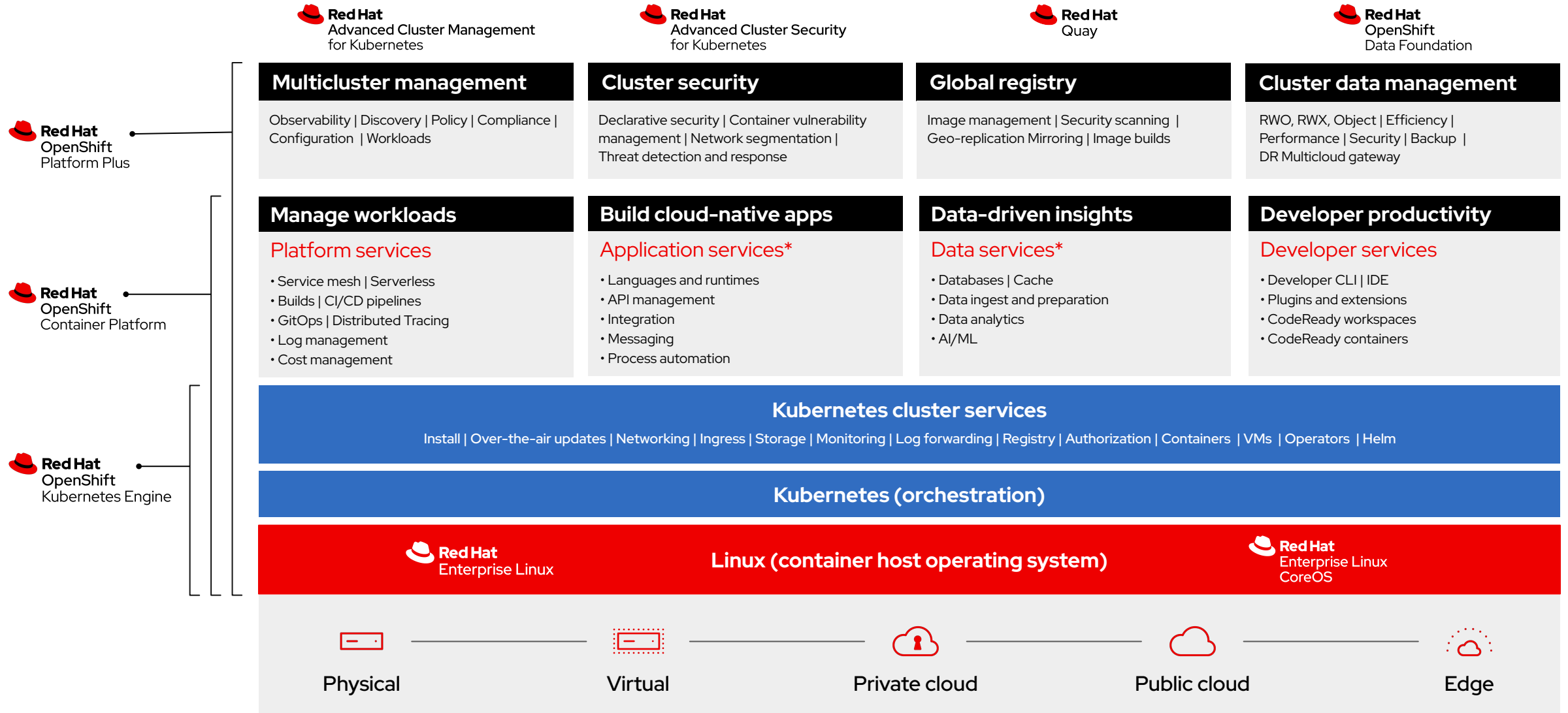


## **Data discovery**

- Cataloging
- Tagging
- Search

# Red Hat open hybrid cloud platform

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# 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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