Red Hat vision & way-to: Open Hybrid Multi Cloud & Edge

Open hybrid cloud is Red Hat's recommended strategy for architecting, developing, and operating a hybrid mix of applications, delivering a truly flexible cloud experience with the speed, stability, and scale required for digital business transformation.
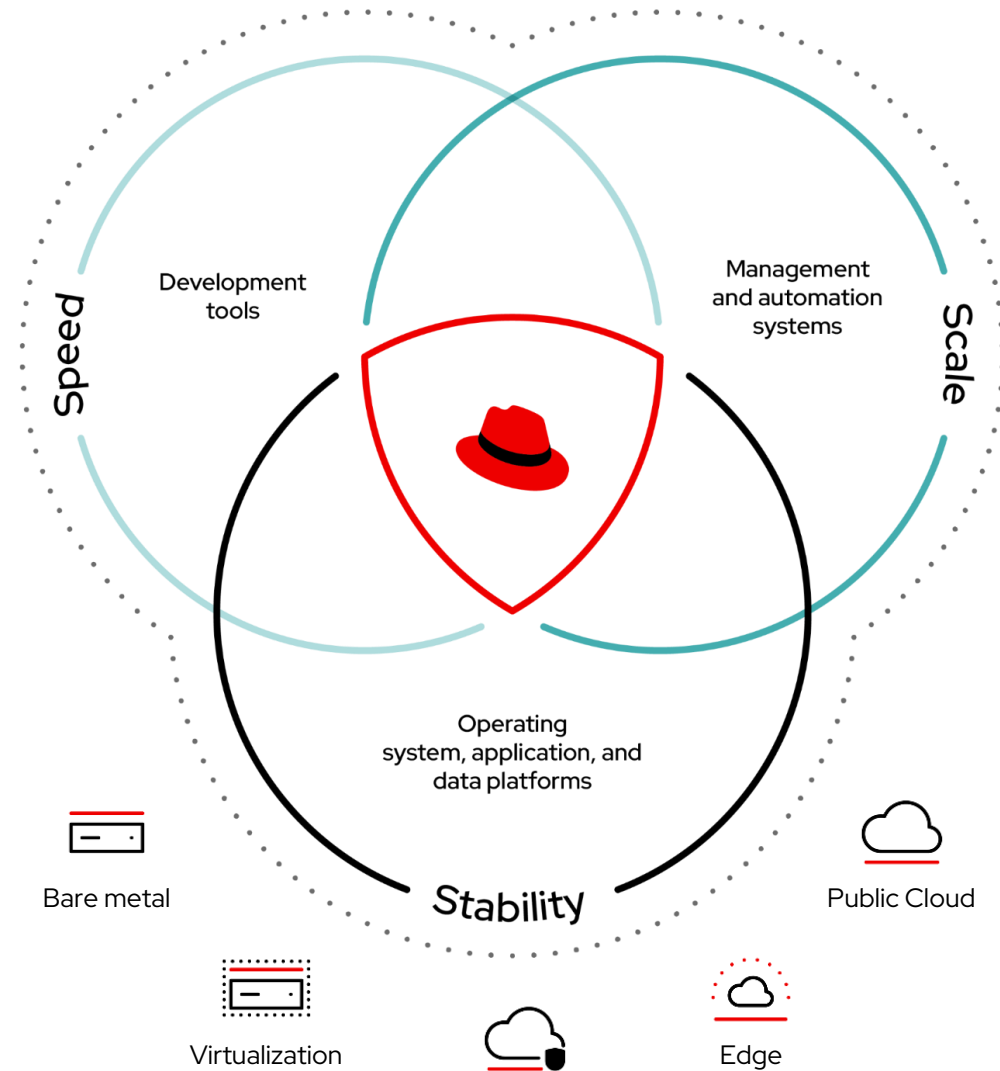
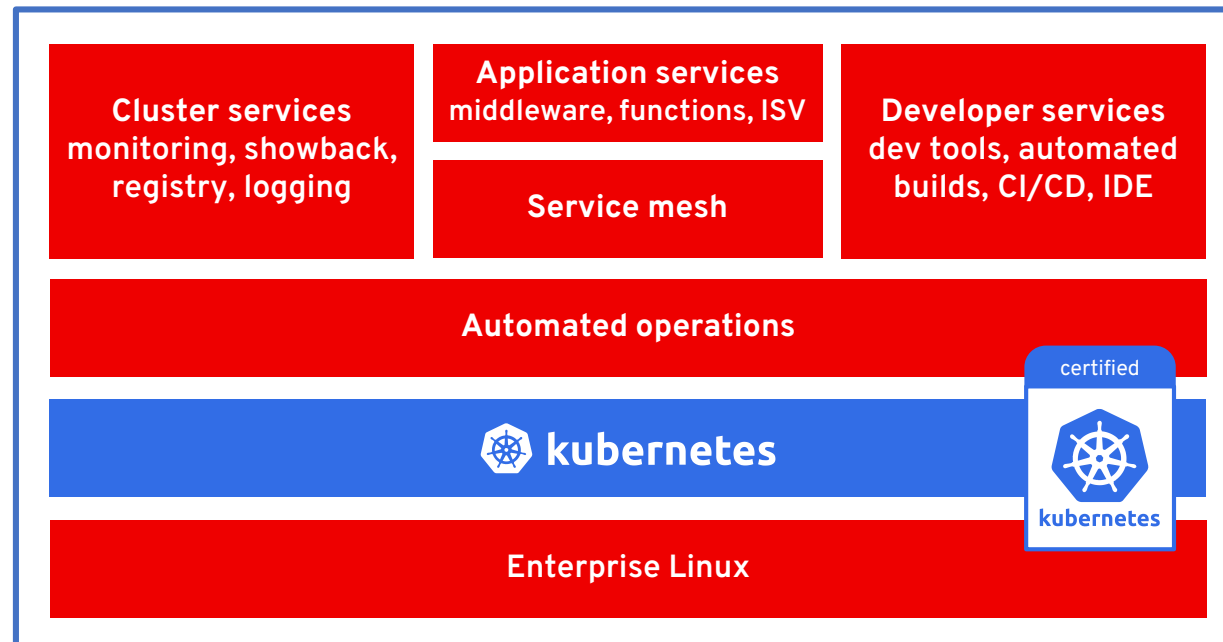# Run any application or workload consistently across any footprint

Operating system, application, and data platforms

Stability
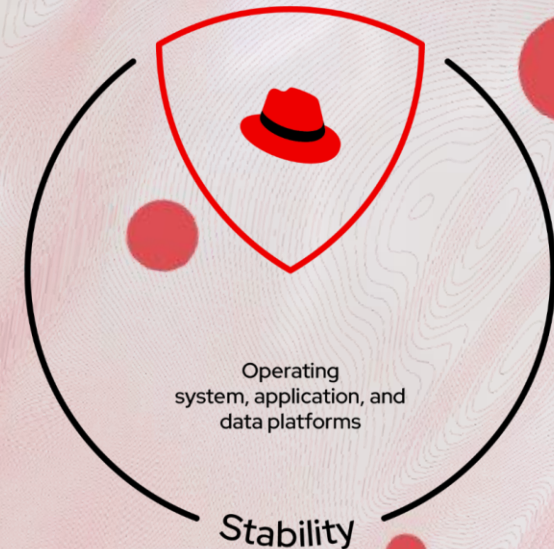
What's needed to put Kubernetes into production?

IMPACT

OPENSHIFT

Integrates all essential components in a cohesive development platform

- Operating system
- Workload orchestration runtime
- Image registry
- Software-defined networking
- Load-balancer and routing
- Log management
- Container metrics and monitoring
- DNS
- Ingress
- RBAC
- Dev Services + CI/CD + Add-On Services

Cluster services monitoring, showback, registry, logging	Application services middleware, functions, ISV	Developer services dev tools, automated builds, CI/CD, IDE
	Service mesh	

Automated operations

kubernetes

certified

kubernetes

Enterprise Linux

Physical **Virtual** **Private cloud** **Public cloud** **Edge**

gruppo **VEM**

" **Multicloud use continues to grow. Today, 60% of surveyed technology practitioners and decision-makers are using multicloud. In the next 12 months, that number will swell to 81%.** "
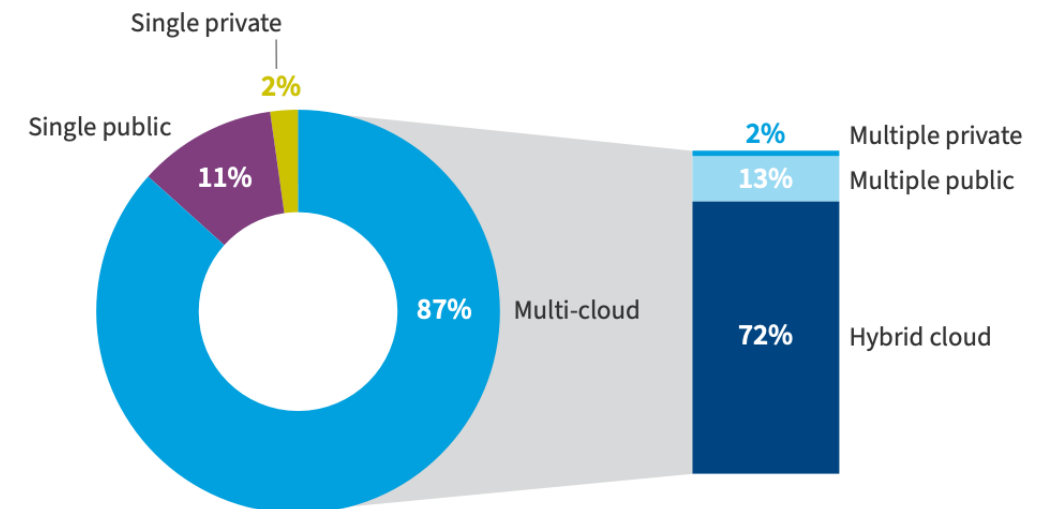
Forrester Research

1 Hybrid Cloud has hit a **point of maturity**

2 Cloud Teams have **hit limitations** with current tooling

3 Management and Governance has **become untenable**

Red Hat
Ansible Automation
Platform

Source: unlocking-multiclouds-operational-potential-forrester

Organizations embrace multi-cloud

Single private — 2%

Single public — 11%

87% Multi-cloud

2% Multiple private
13% Multiple public
72% Hybrid cloud

N=750
Source: Flexera 2023 State of the Cloud Report

flexera

gruppo VEM

Red Hat Advanced Cluster Management
for any k8s, wherever it is

End-to-end automation with Red Hat Ansible Automation Platform integration

Multicluster lifecycle management

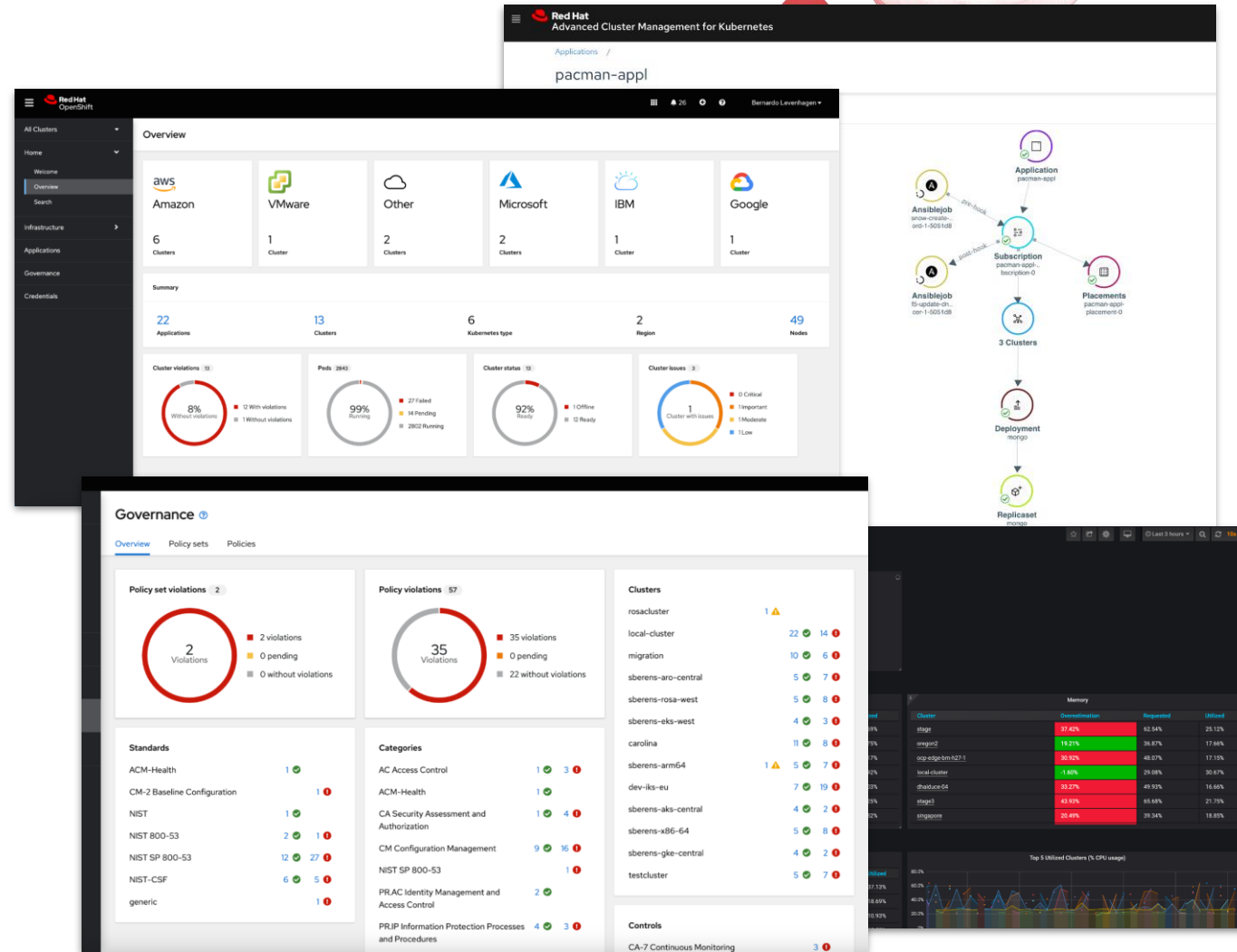**Policy driven governance, risk, and compliance**

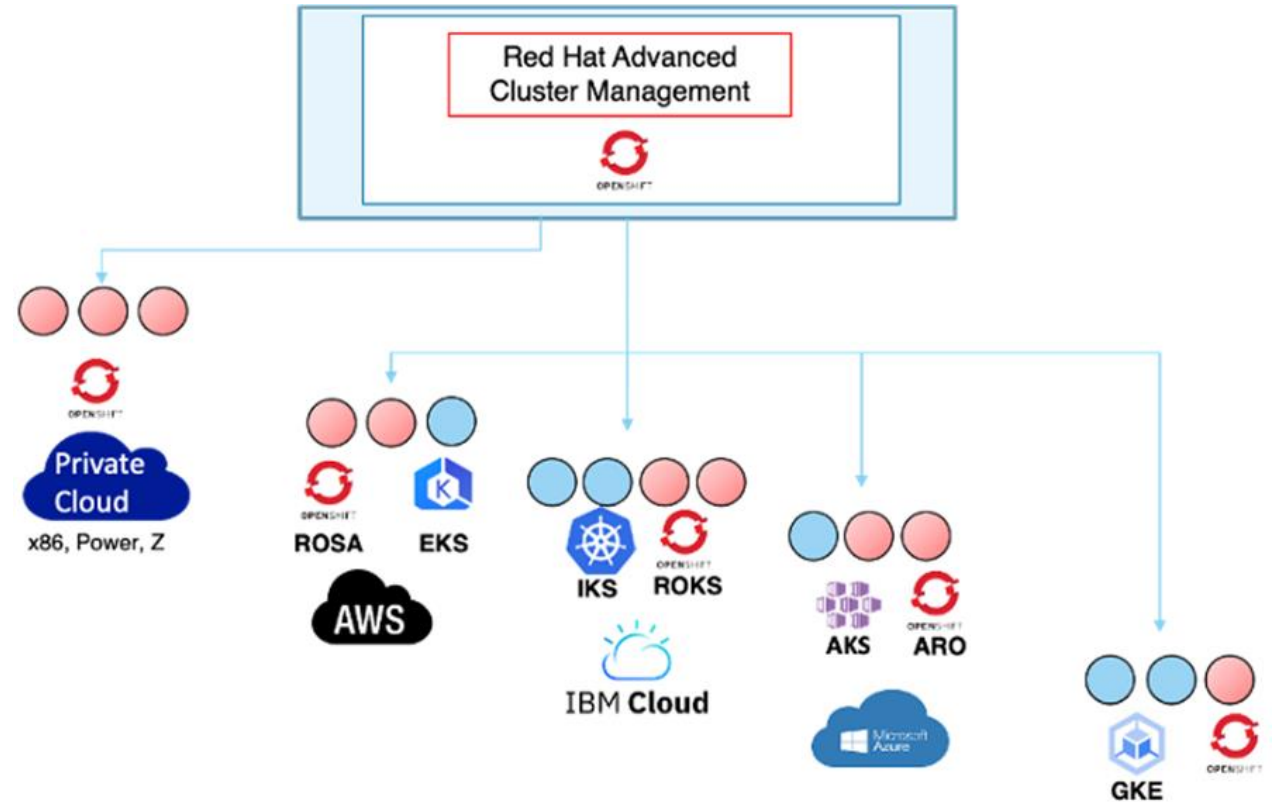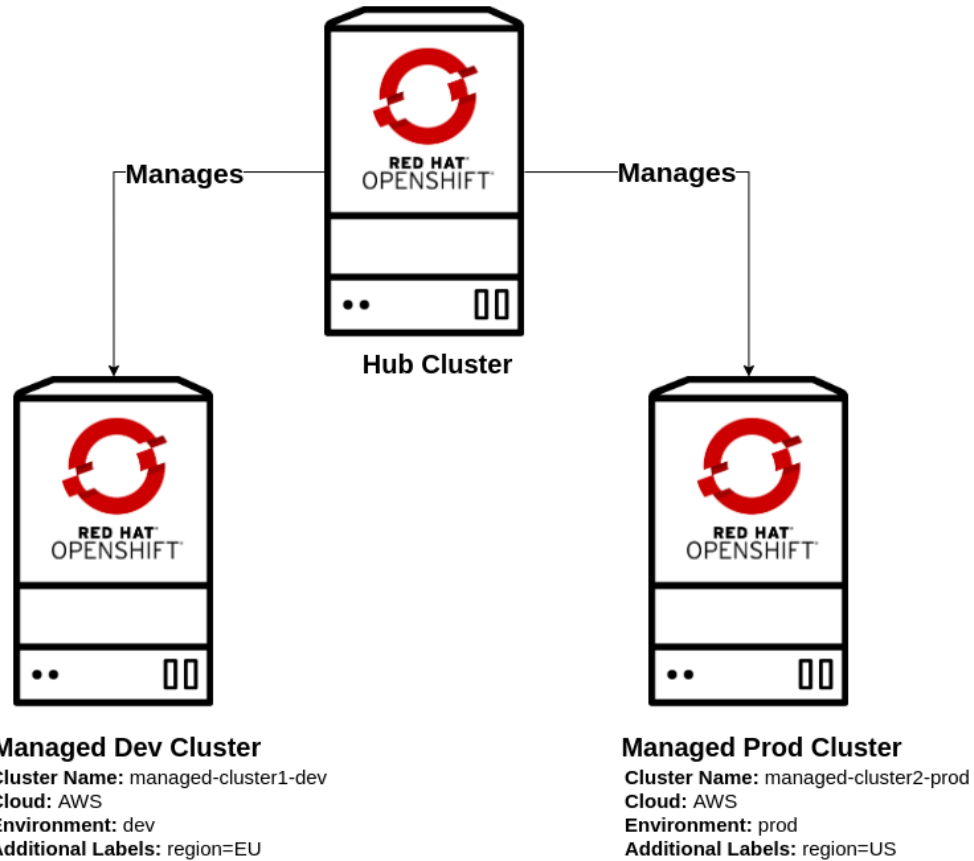**Advanced application lifecycle management**

Multicluster Observability and Search for health and optimization

Multicluster networking for interconnecting apps

Managing multiple cluster and resources with ACM

Red Hat Service Interconnect

Hybrid Cloud Application Networking

Portable Simple Protected Hybrid

Simplifies application and service connectivity across environments including clouds, containers, VMs and bare-metal
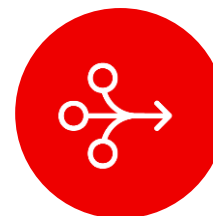
Protects your organization's infrastructure and data

Allows application connectivity to be more **portable** in **hybrid or multi-cloud** scenarios
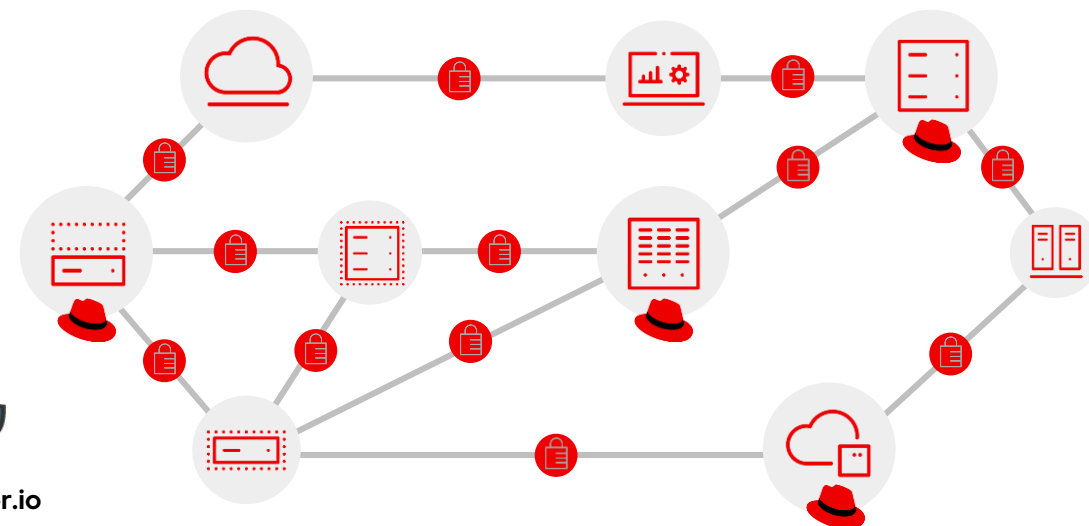
Based on **Skupper.io**

gruppo
VEM

Shift any workload, anywhere, with unique governance and a comprehensive underlying infrastructure
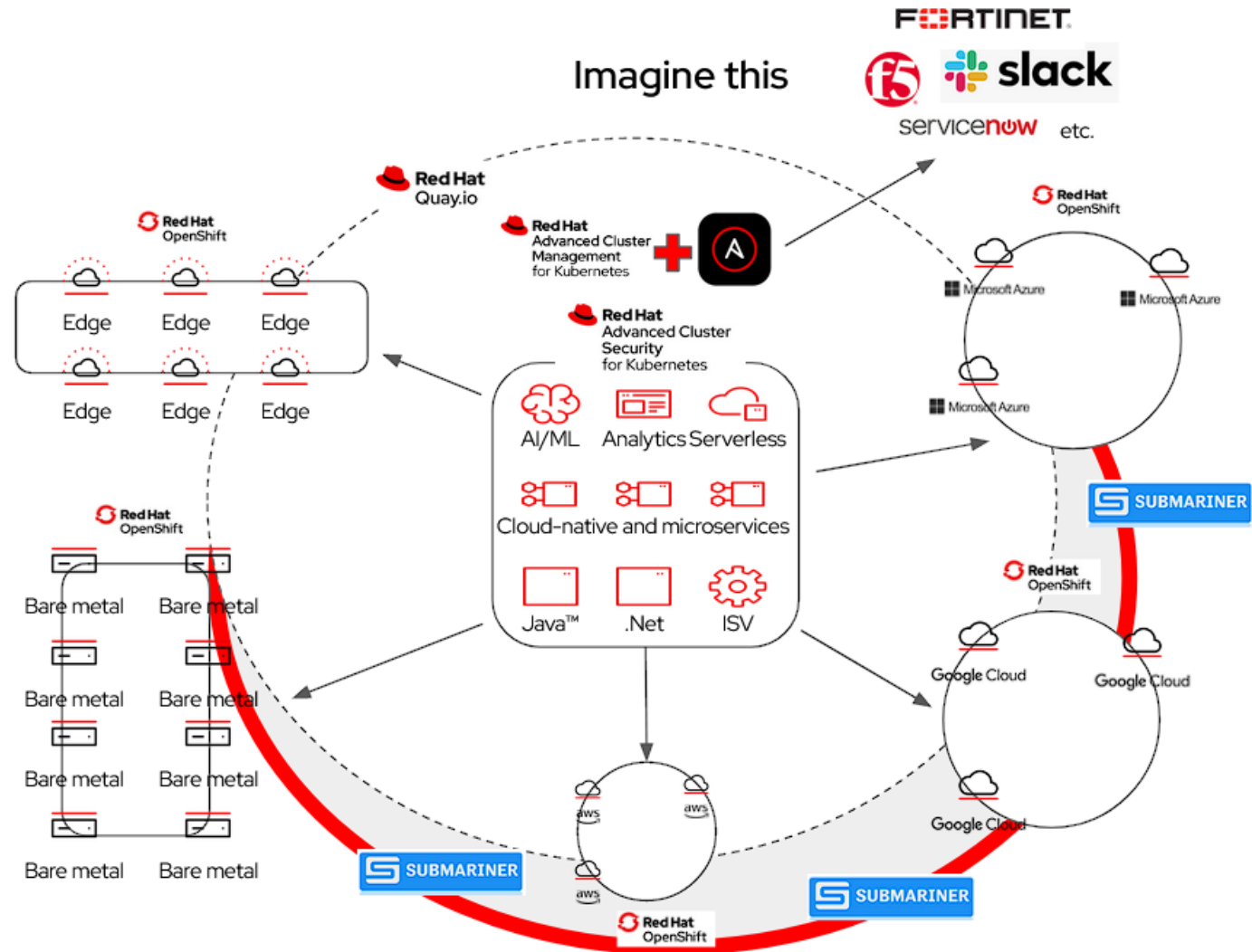
Help developers quickly build, deploy, and manage applications

Speed

Development tools
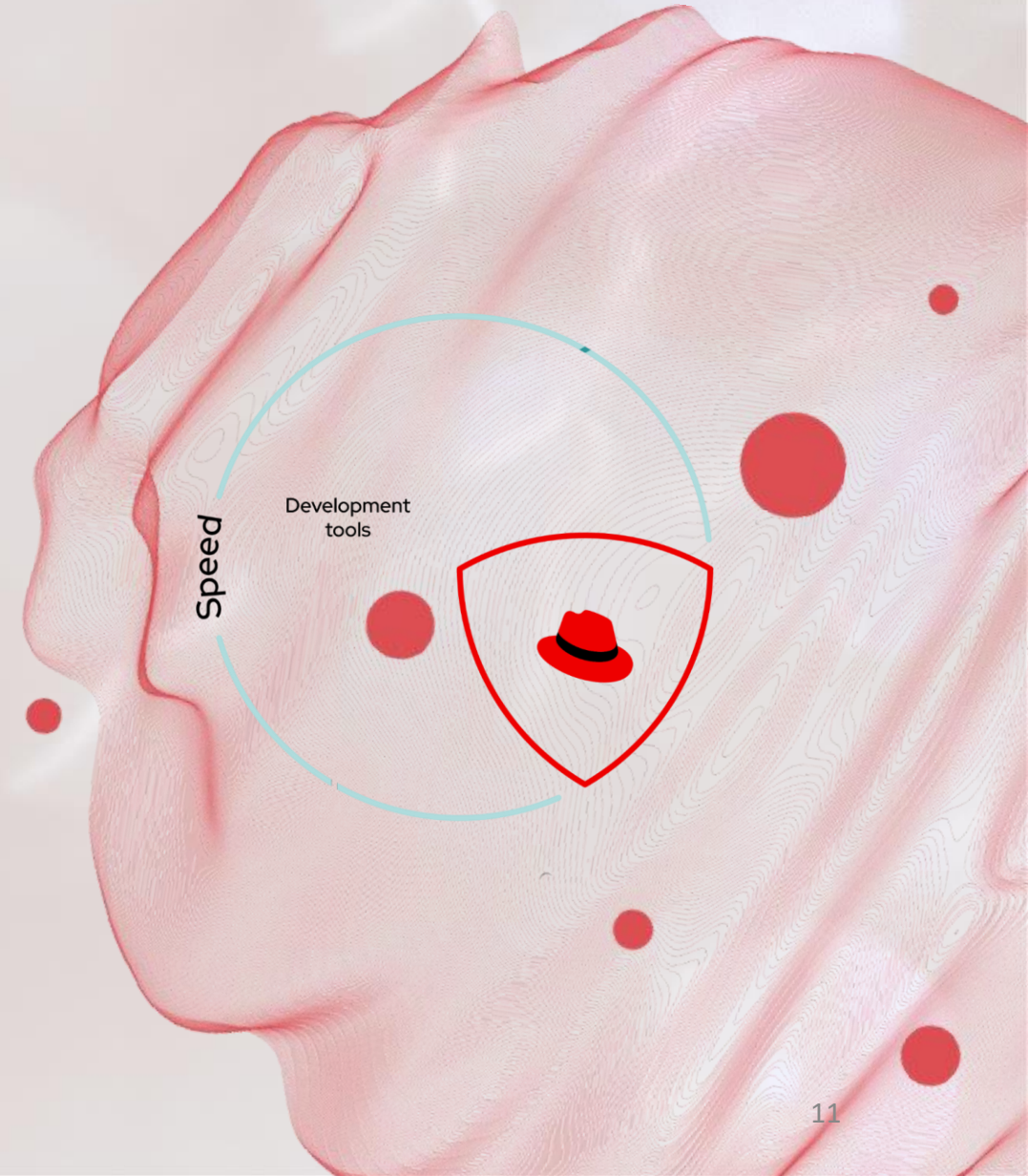
CI/CD: a critical need

Map Market Demand and Pressure for IT Skills, 2022 IT Skills Quadrant

Source: Gartner
777360_C
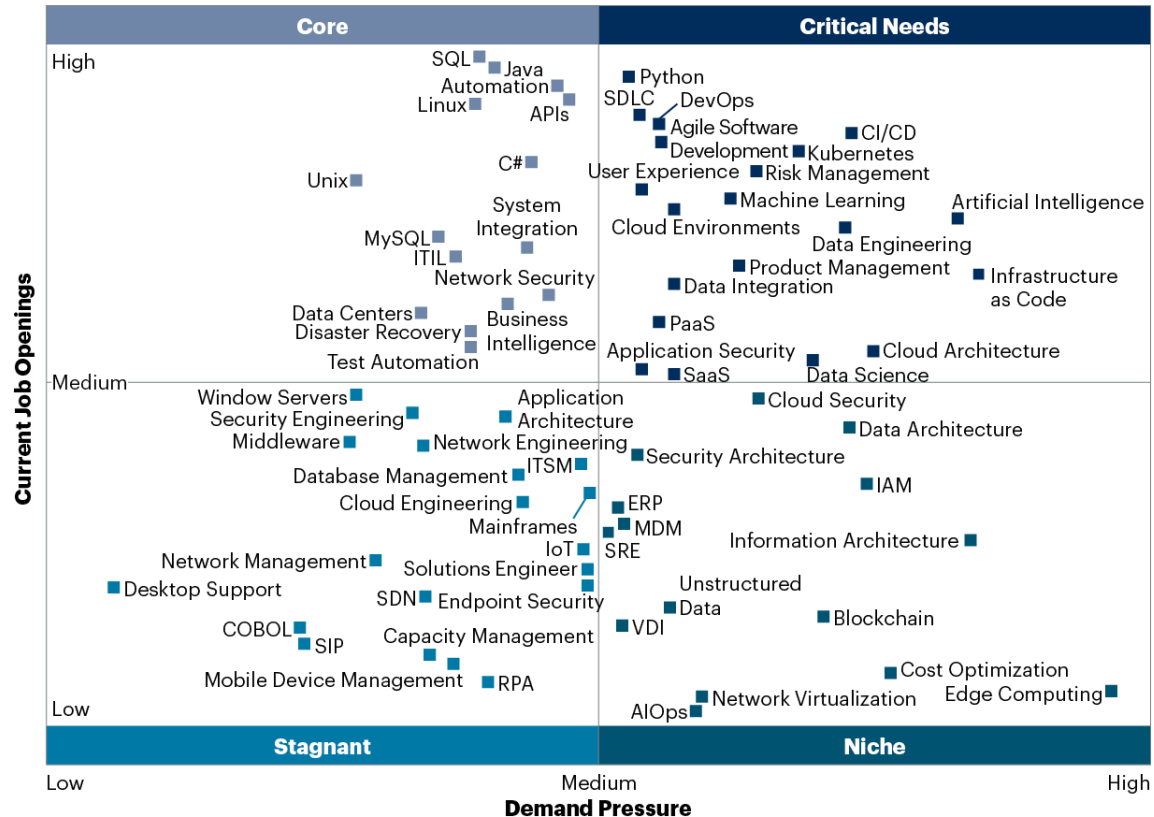
For most of human history technology advanced slowly.

Fire. The wheel. Gunpowder. Steam. The microprocessor.

Now, with communication, industrial capacity, and economic forces as tailwinds, it takes only a few years for physical technology innovations to reach the industrialized world, and only months for virtual technology to do the same.

Treat anything as a code… pipeline and test it NOW!
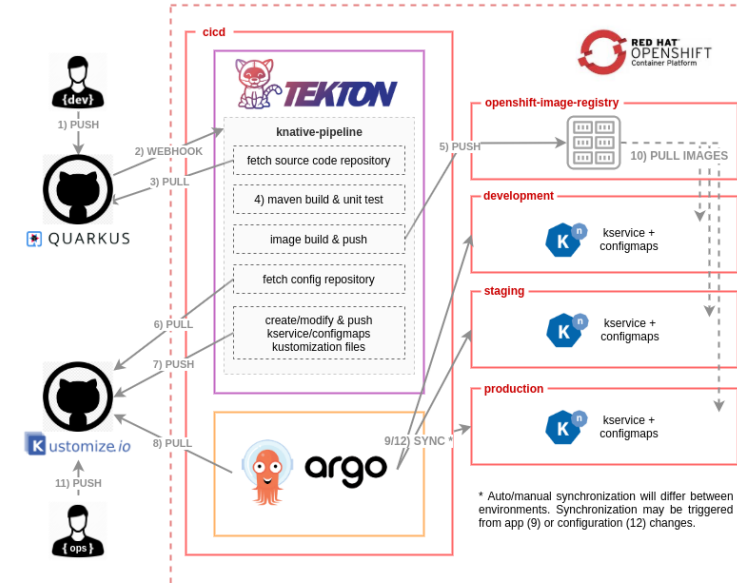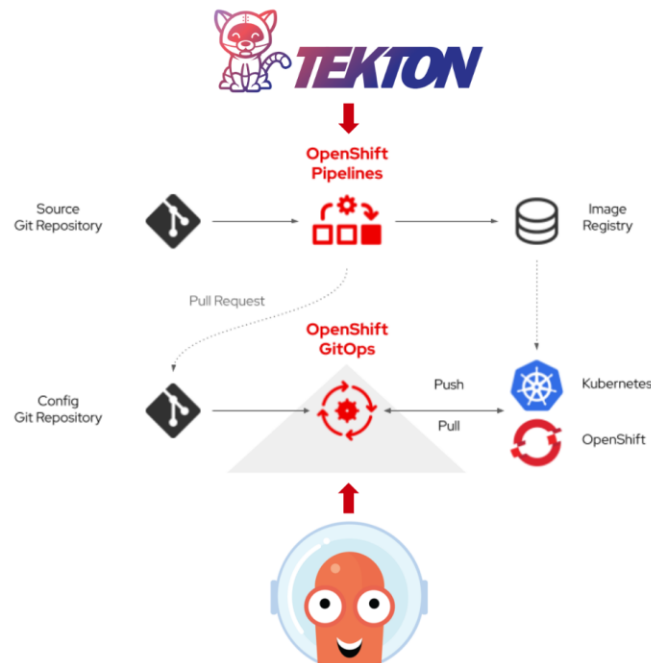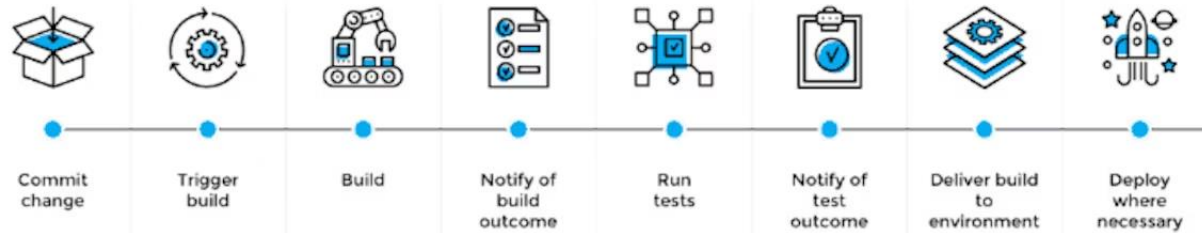
Red Hat Developer Hub & Red Hat Plugins for Backstage

Introducing a renewed developer experience
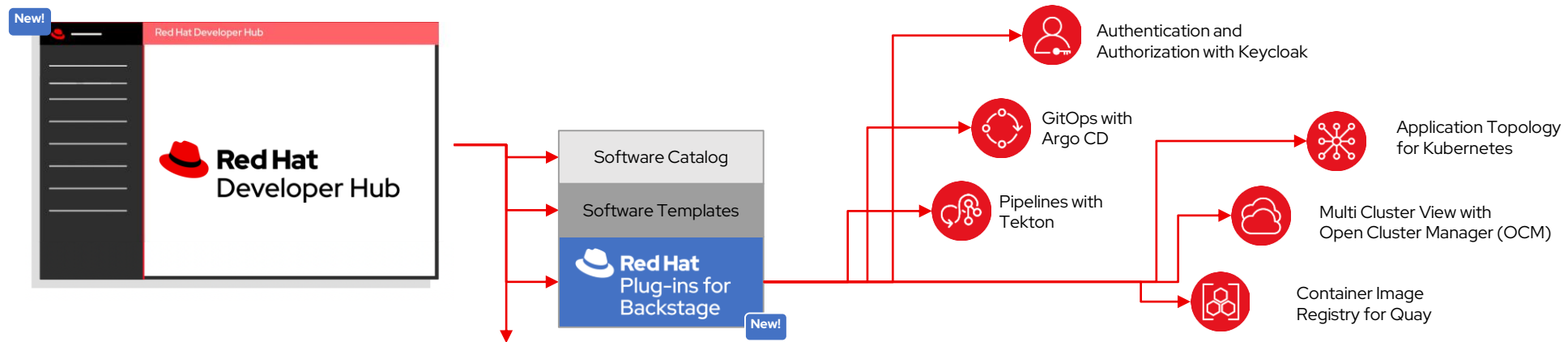
Integrates with industry standards and technologies through a broad ecosystem.

Based on Backstage, an open source platform for building developer portals.

Consistent developer experience across environments.

Simplify, Automate and secure processes

Management
and automation
systems

Scale

Red Hat OpenShift & Ansible powered DevOps Platform

Red Hat OpenShift

Red Hat Ansible Automation Platform

Developer Productivity	Continuous Integration	Continuous Delivery	Security & Compliance	Config. Automation
Languages | Runtimes | Databases | Web dashboard | CLI | Web IDE | IDE plugins | Serverless	Kubernetes-native pipelines | build automation | test automation | pipelines as code | Git-provider integrations	GitOps | Automated deployments | Drift detection | Deployment metrics | Manual approvals | Rollbacks | Progressive delivery	Declarative security | Vulnerability management | Network segmentation | Threat detection | zero-trust app security	Cloud | Security | Networking | Edge | Operating Systems | Devices | Bare Metal

| Fleet Management	Policy & Governance	Observability	Image Registry	Infra. Management
Kubernetes management | Multi-cluster observability | Multi-cluster networking | Discovery | Inventory | Configuration	Policy | Compliance | Automated remediations	Monitoring | Metrics | App topology | Cost mgmy insights | Distributed tracing | Log forwarding | Network traffic visualization | Predictive risk analysis	Image management | Vulnerability scanning | Geo-replication Mirroring | Image builds	Provision | Deprovision | Configure | Orchestrate | Event-Driven

Kubernetes cluster services
Install | Over-the-air updates | Networking | Ingress | Storage | Registry | Authorization | Containers | VMs | Operators | Helm

Enterprise Kubernetes

Red Hat Enterprise Linux Linux (container host operating system) * **Red Hat Enterprise Linux CoreOS**

Physical — Virtual — Private cloud — Public cloud — Edge

What Ansible can do for you

Delivering on the core promise of Ansible Automation Platform 2

Create

Manage

Scale

Validated content

Ansible Lightspeed
with IBM Watson
Code Assistant

Automation Hub

Certified
Collections

Automation
controller

**Event-Driven
Ansible**
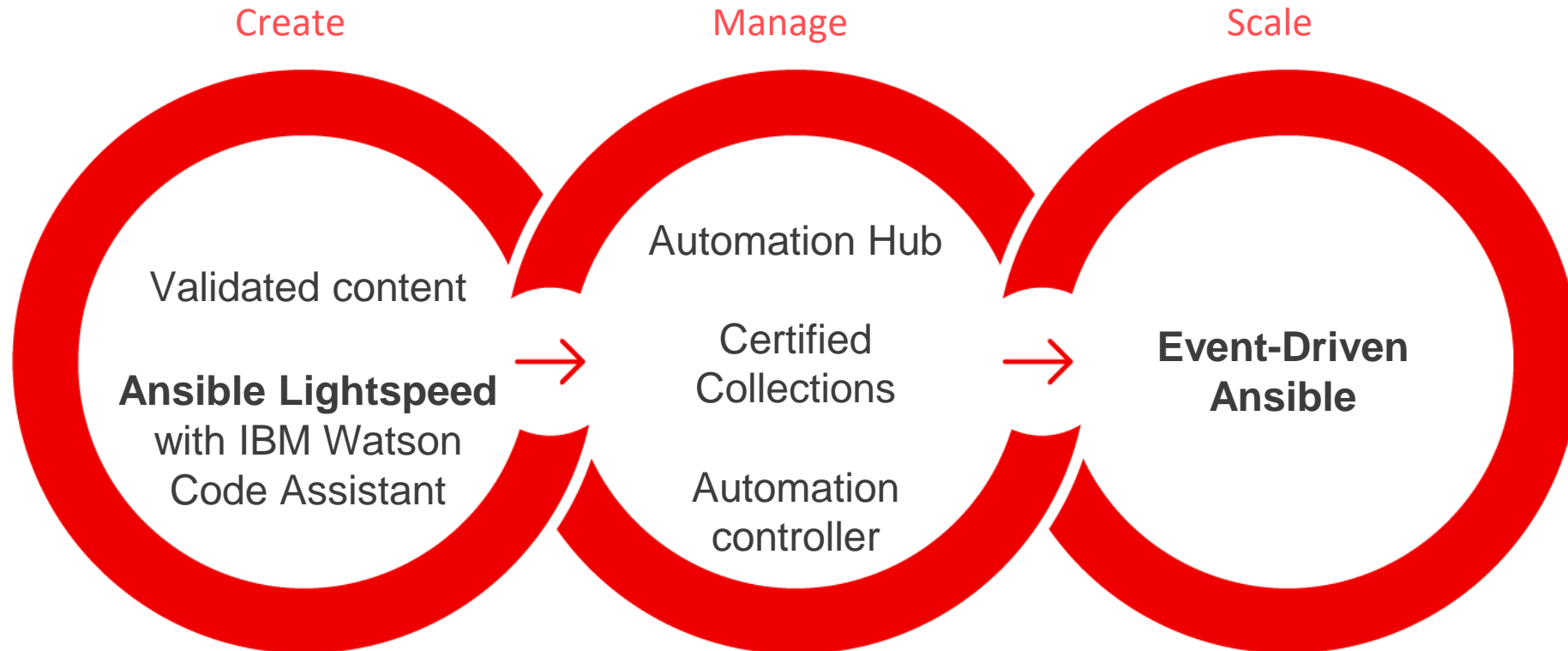
Hybrid is also Virtualization and Container

Container

Containers   Containers   Containers

Red Hat OpenShift   OpenShift Platform

Physical Hardware

Virtual Machine
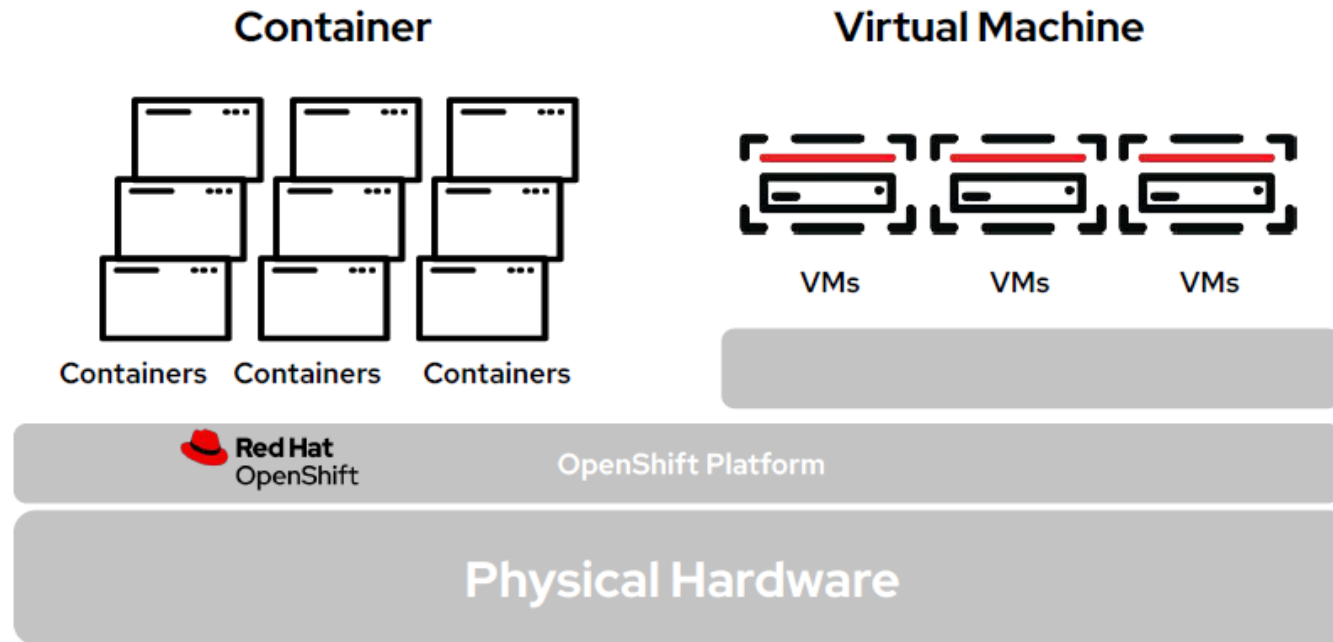
VMs   VMs   VMs

Leverage Infrastructure for both Container and Virtual Machine

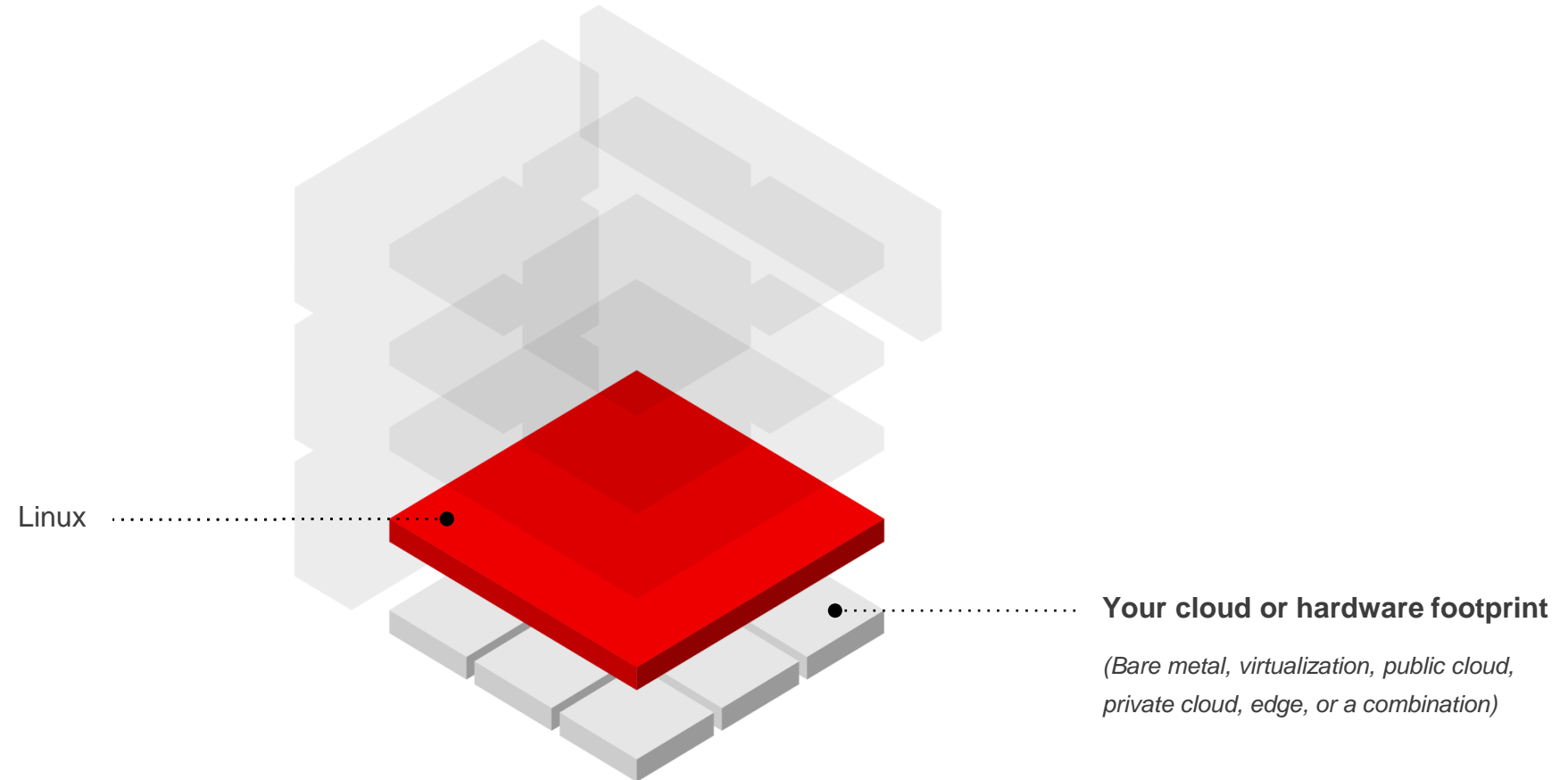Increase bare metal node utilization by deploying multiple hosted clusters

Reduce dependency on Legacy Virtualization

Underlying virtualization layer is included with OSC entitlements

Scale to any cloud or hardware footprint

Linux ....

Your cloud or hardware footprint

(Bare metal, virtualization, public cloud, private cloud, edge, or a combination)

Scale your operations through repeatability

Automation ·············○

Linux ·············●

Your cloud or hardware footprint

(Bare metal, virtualization, public cloud, private cloud, edge, or a combination)
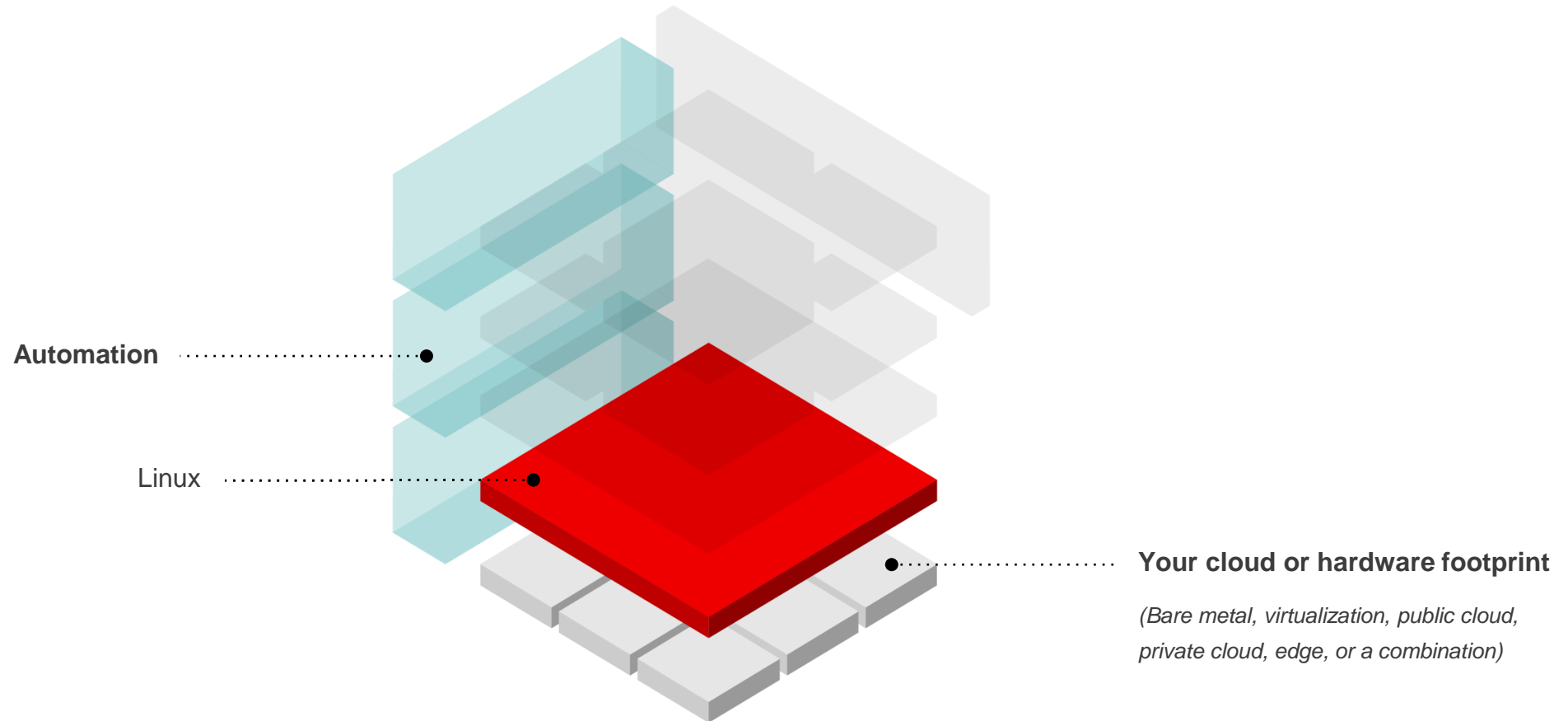
Scale with policy-driven deployment in Kubernetes

Developer tools

Integration services

Application runtimes

Process automation

Data services

Kubernetes management

Kubernetes

Linux

Your cloud or hardware footprint

(Bare metal, virtualization, public cloud, private cloud, edge, or a combination)
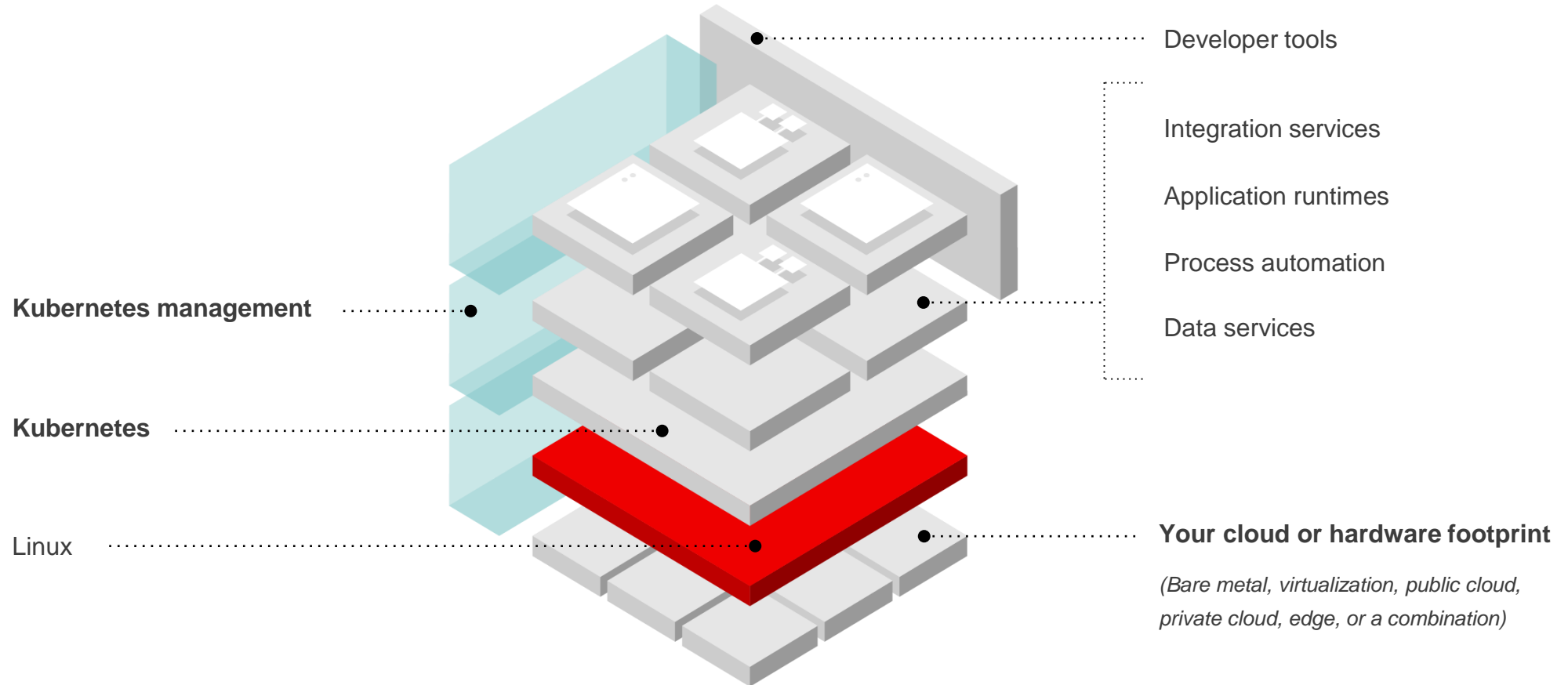
Open hybrid cloud with Red Hat

- **Red Hat Ansible Automation Platform**
- **Red Hat Advanced Cluster Management for Kubernetes**
- **Red Hat Advanced Cluster Security for Kubernetes**
- **Red Hat OpenShift Data Foundation**
- **Red Hat OpenShift**
- **Red Hat Insights**
- **Red Hat Smart Management**
- **Red Hat Enterprise Linux**

- **Red Hat CodeReady**
- **Red Hat Integration**
- **Red Hat Runtimes**
- **Red Hat Process Automation**
- **Red Hat Data Services**

Your cloud or hardware footprint

(Bare metal, virtualization, public cloud, private cloud, edge, or a combination)

gruppo
VEM

Thank you