

Red Hat Portfolio

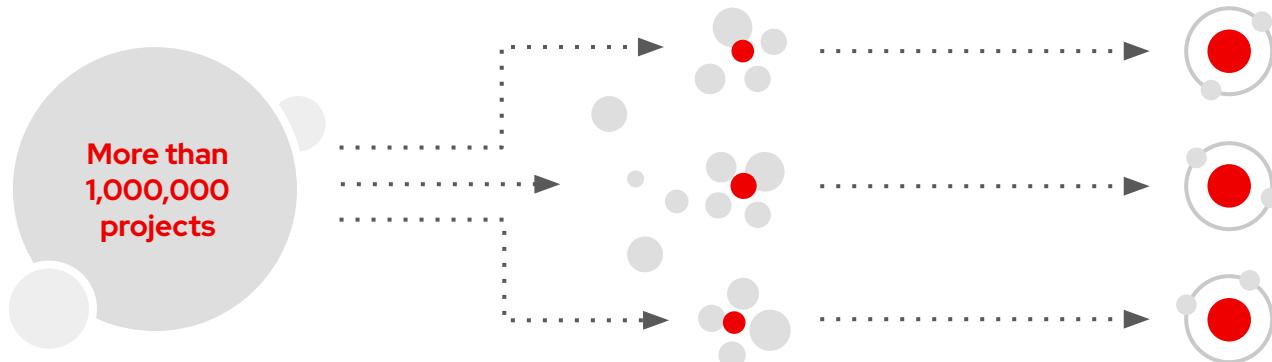
DETI - UA

Nassri Abokhalaf
Telco Senior Solution Architect

Sandra Moldoveanu
Program Manager

Open Source. Product development model

Where open culture meets technology



Participate

We participate in and create community-powered upstream projects.

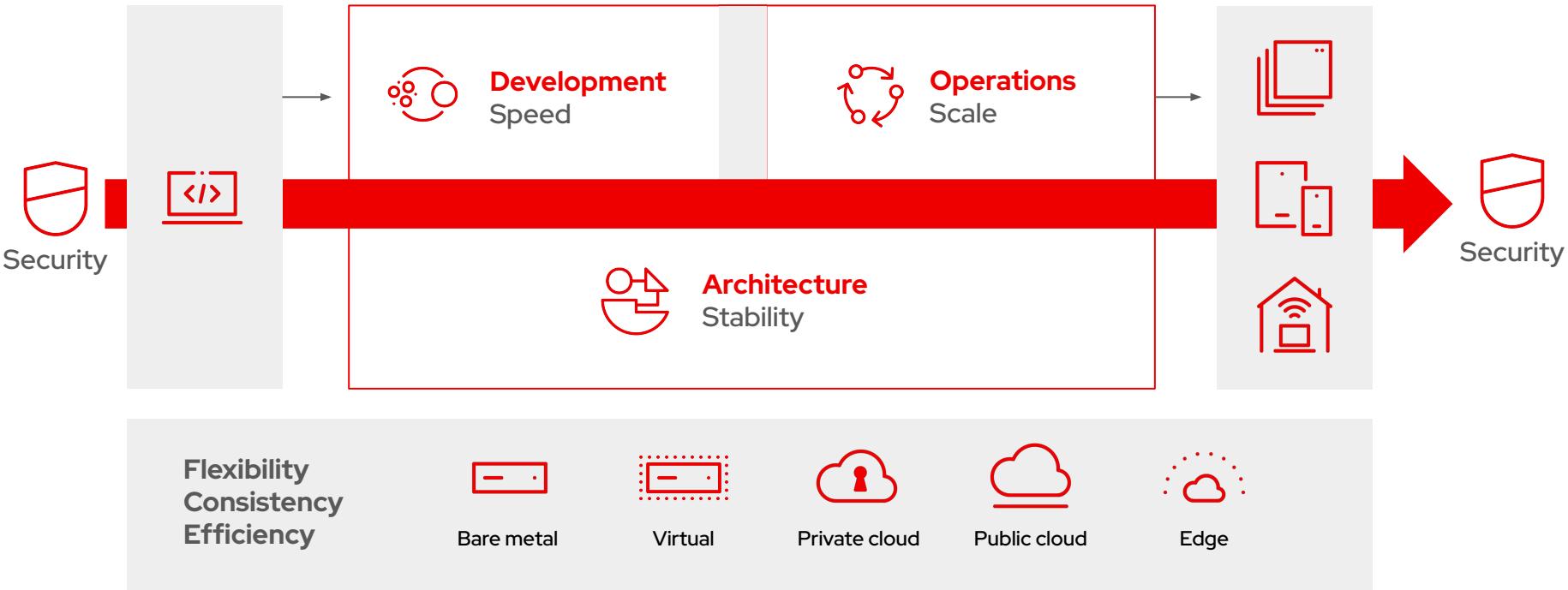
Integrate

We integrate upstream projects, fostering open community platforms.

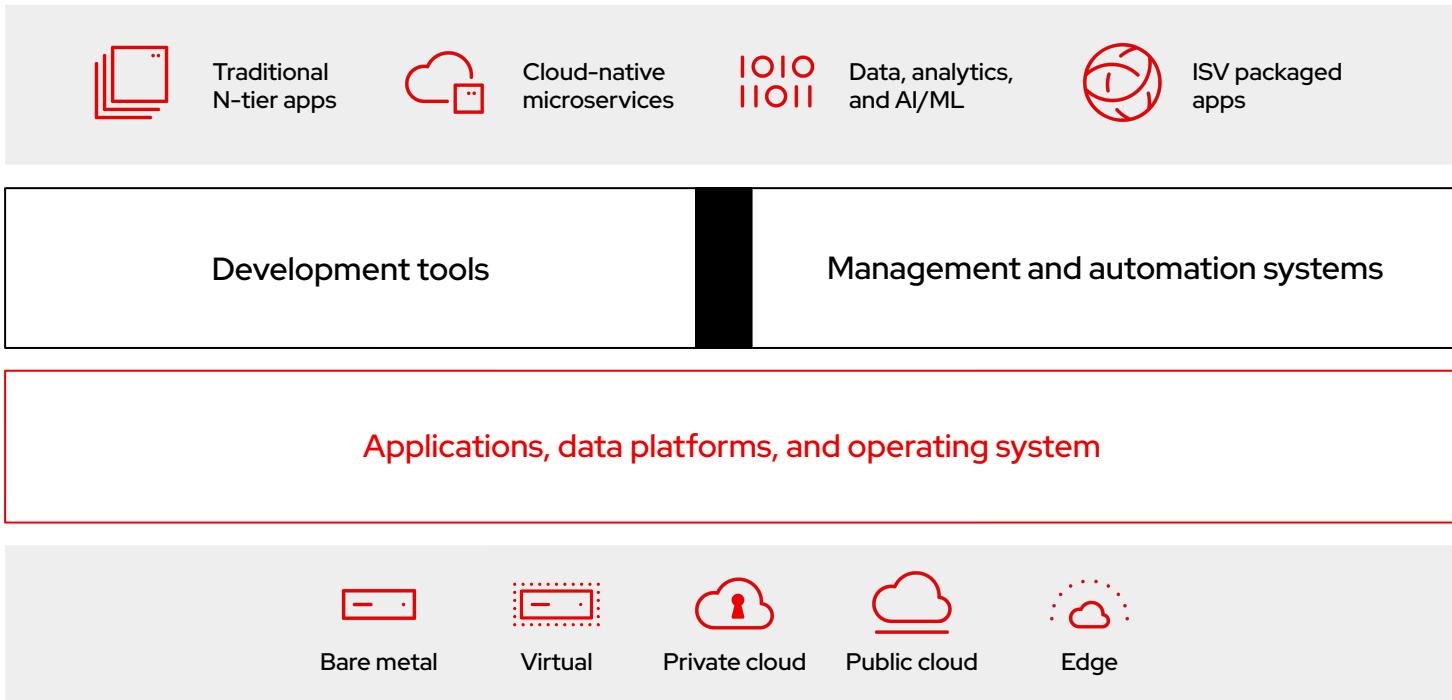
Stabilize

We commercialize these platforms together with a rich ecosystem of services and certifications.

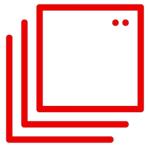
How do you deliver business innovation faster in a complex world?



Taking a hybrid cloud approach



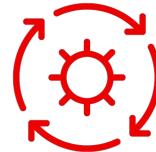
Which hybrid cloud outcome would help you deliver digital differentiation?



Deliver innovative applications faster



Architect a stable and security-focused hybrid cloud foundation



Manage and automate across hybrid cloud and edge



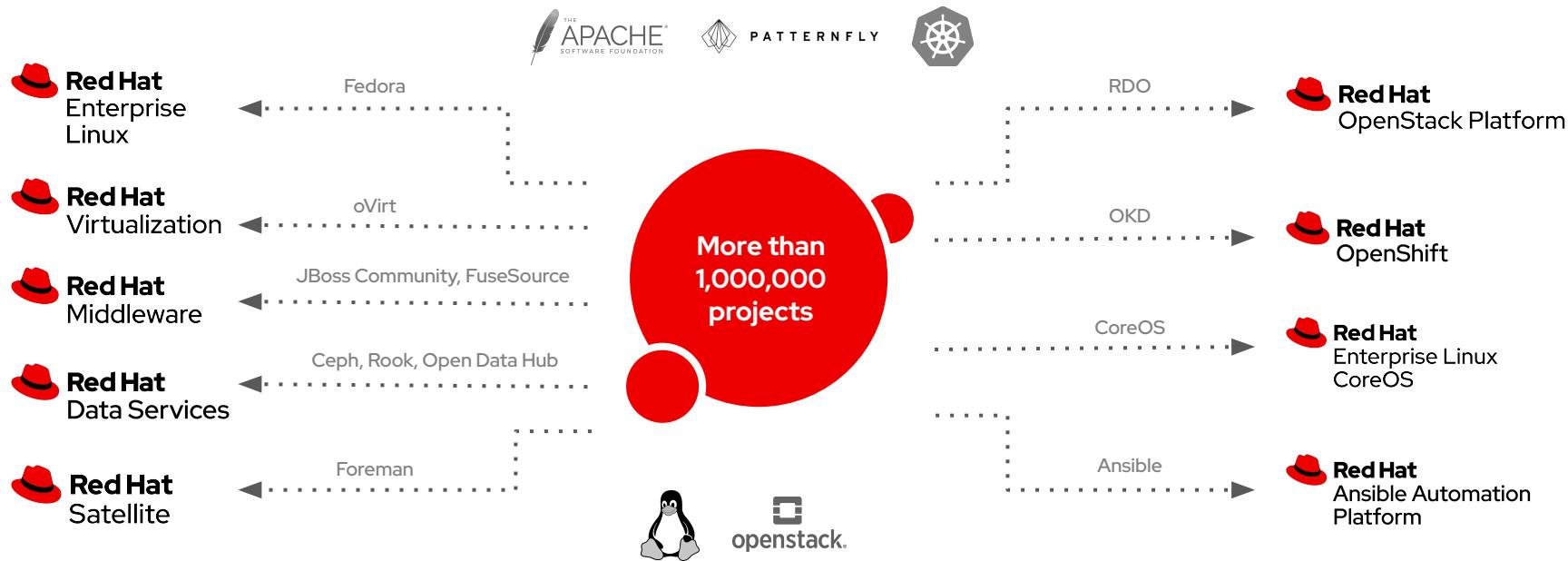
Put digital transformation into practice



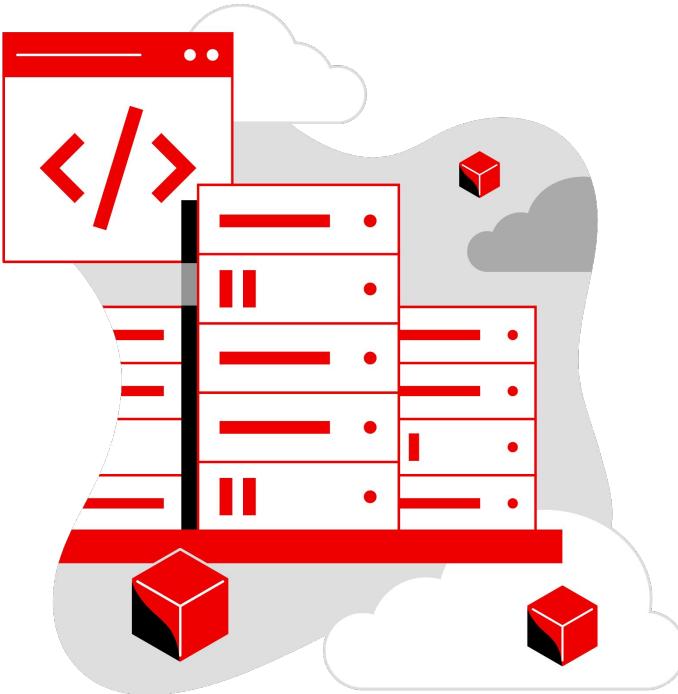
Adopt new global delivery models

From communities to enterprise

Build the platform



Upstream first development model.



Mission of Red Hat Enterprise Linux

Red Hat Enterprise Linux is your source
for safe and reliable Linux innovation
that makes your workloads successful.

A single open platform for application innovation

A complete DevSecOps platform that integrates with existing infrastructure, tools, and services



Empowering developers to innovate

Get applications to production sooner with a wide range of technologies and streamlined workflows

A cloud-like experience, everywhere

Full-stack and automated operations on a consistent foundation for on-premises or hybrid cloud infrastructures

Trusted enterprise Kubernetes

Continuous security, world-class support and services, and deep expertise to confidently run any application



Red Hat

Ansible Automation
Platform

What can I do using Ansible?

Update Management

Not only patches installations. Think about:

- Is the patches in compliance with the software stack?
- Test the service before install patches.
- Ensure the rollback.
-

Automated Provisioning

Not only the software provisioning. Think about:

- Do you have a resources definition in terms of CPU, Memory, Disks, Networks NICs...?
- Can you interact with the network artifacts to provide networking?
-

Deployment Automation

Not only the Apps deployment. Think about:

- Is the version available in the artifact repository?
- Is the parametrization needed by the Apps, applied in the environment? (aka AppServer, OS, DB)
- Do you have defined the functional tests?

Disaster Recovery Automation

Not only the failover. Think about:

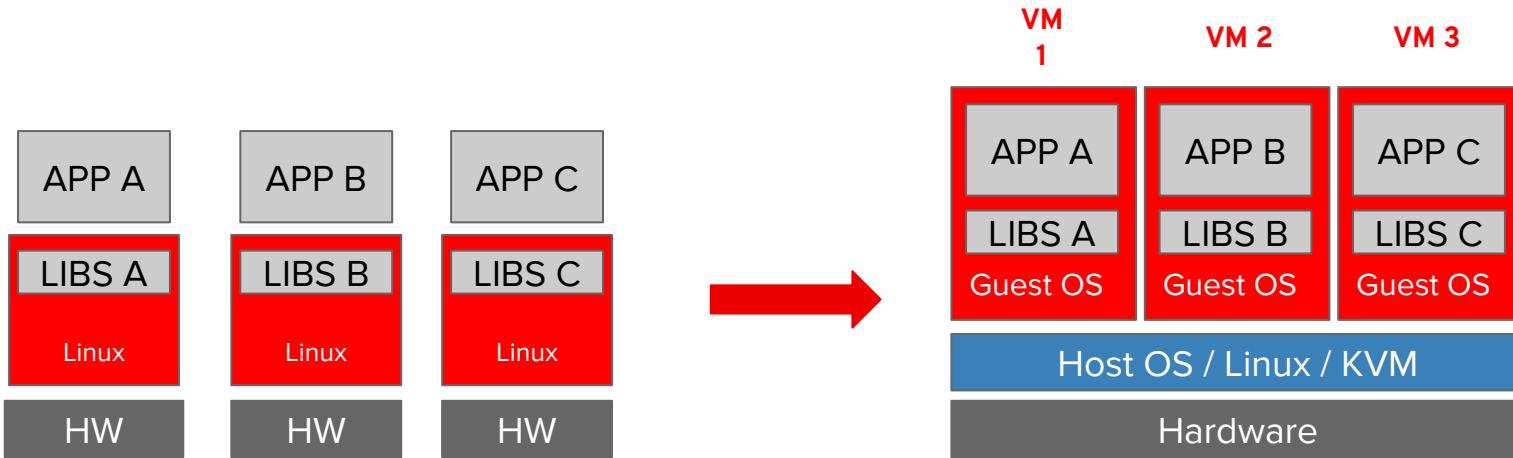
- Is the hardware of the recovery site with the correct firmware version?
- Is the correct configuration in the recovery site?
- Can you run a "dry" failover.
-



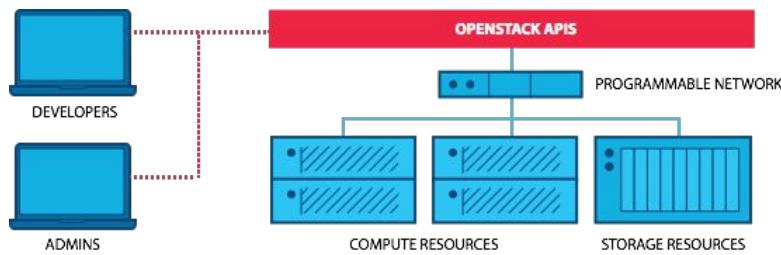
Red Hat

Telco Cloud Evolution

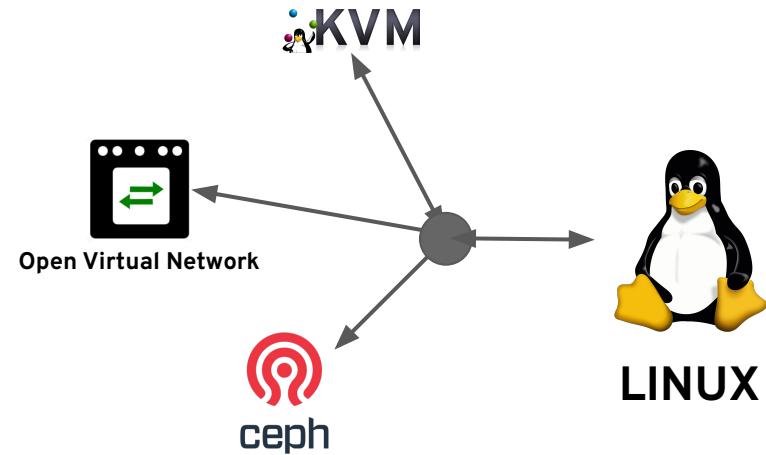
Virtual Machines



- HW/SW decoupling
- Better resource utilisation
- <https://www.redhat.com/en/topics/virtualization/what-is-virtualization>

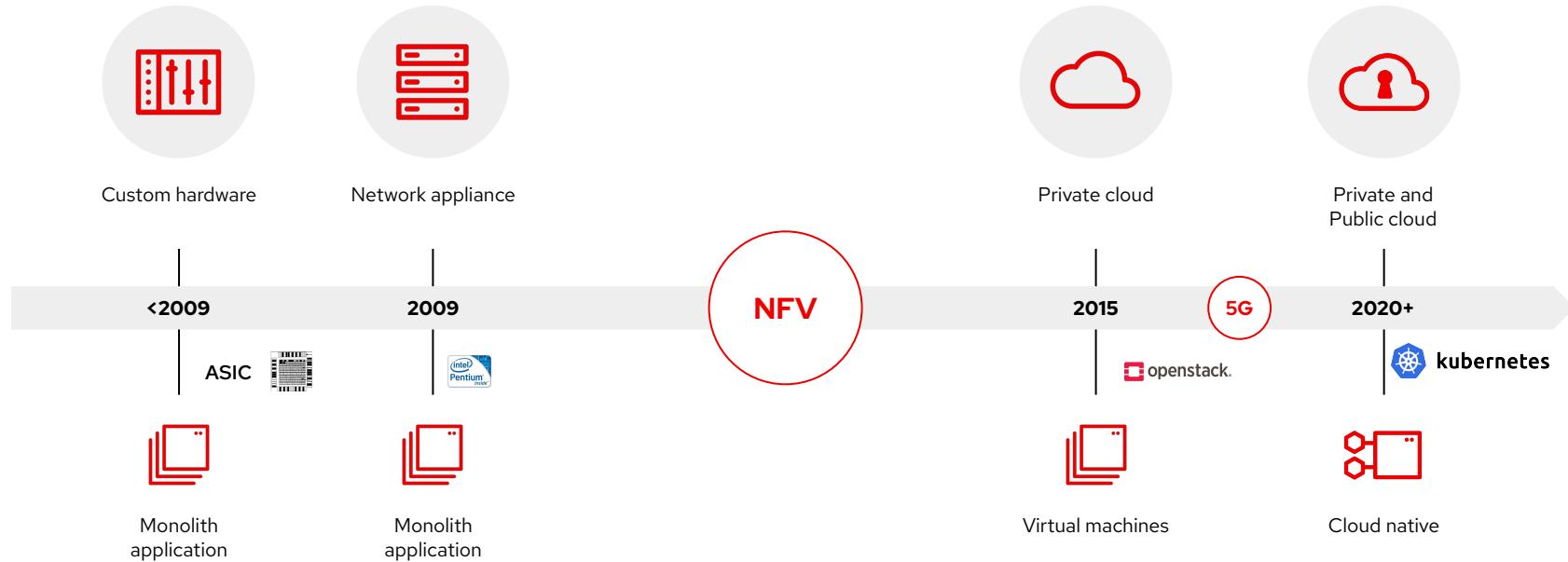


Programmable infrastructure that lays a common set of APIs on top of compute, networking and storage to provide a cloud infrastructure-as-a-service (IaaS)



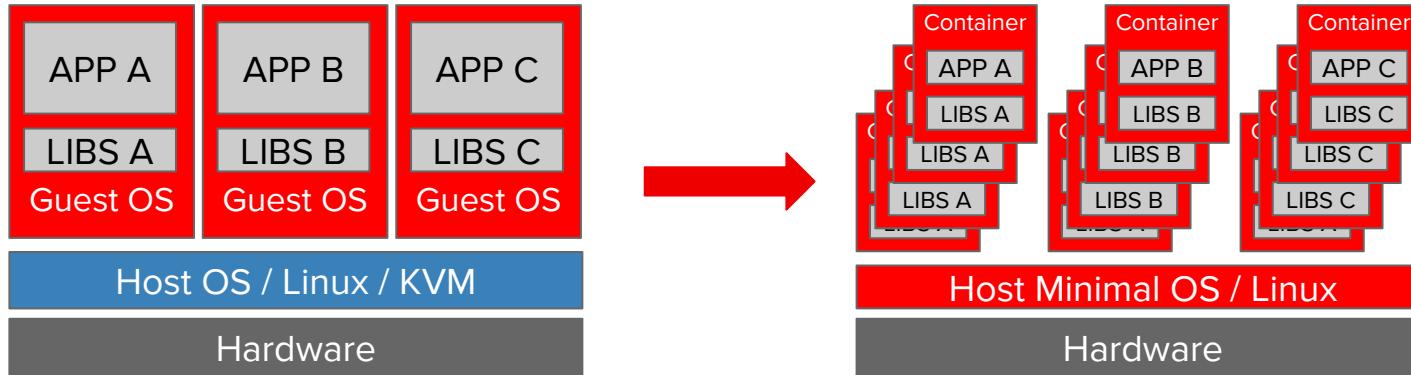
Source: <https://www.openstack.org/marketing>

NFV Journey - Cloud Native

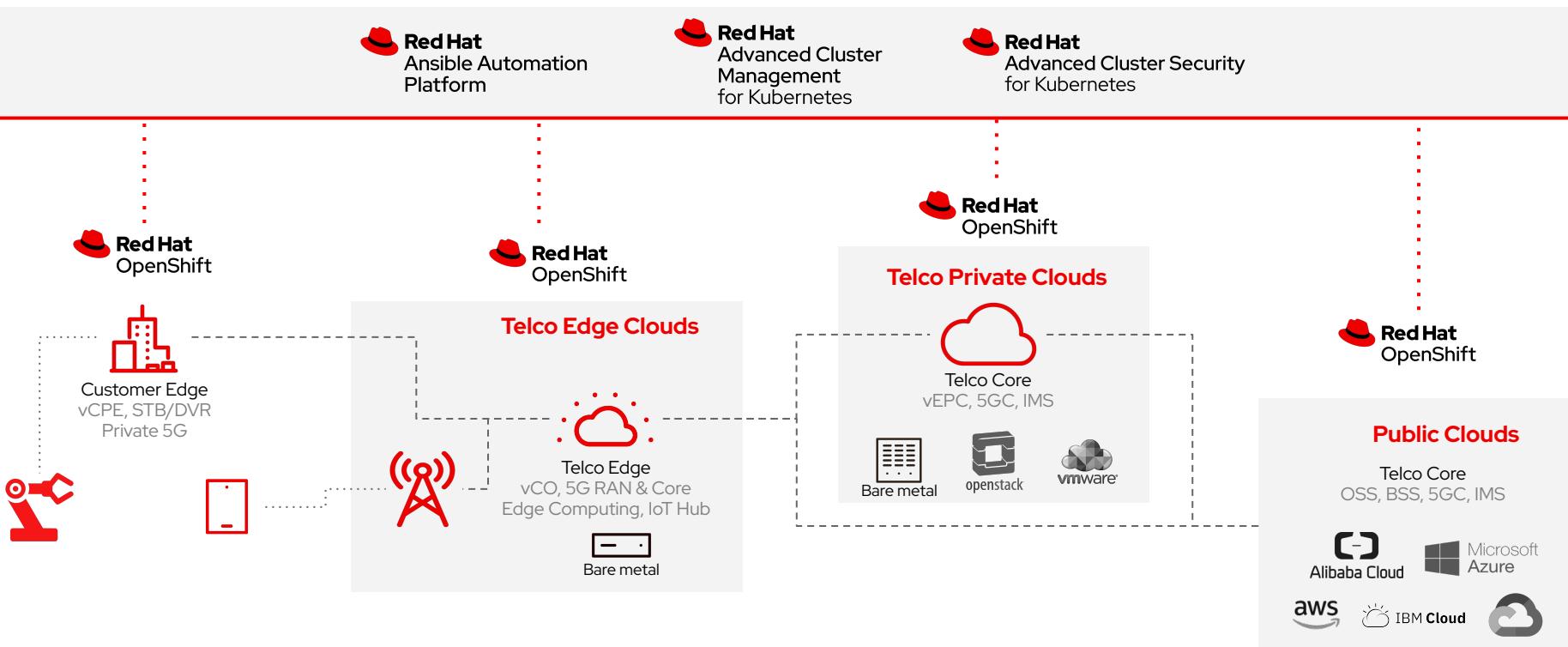


Linux Containers

- Packaging: standard, portable, self-contained image format + trusted registries
- Execution: lightweight isolated execution environment for Linux processes (cgroups, namespaces,...)



Enabling a uniform telco horizontal cloud



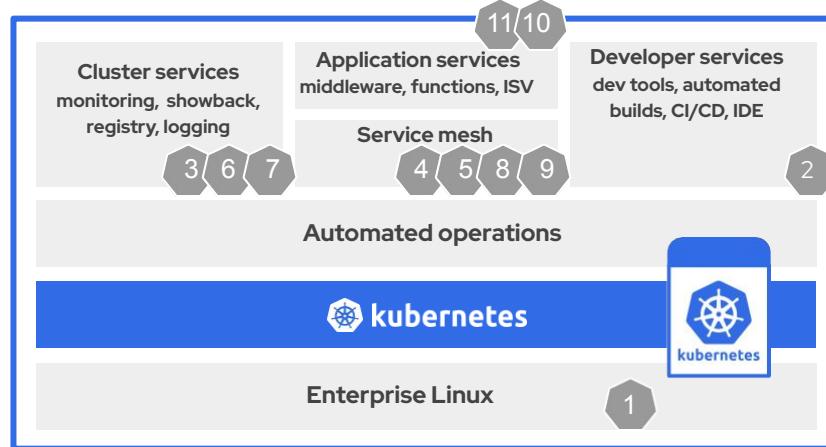
Container platforms are much more than just Kubernetes



kubernetes

Lacks many essential components

1. Operating system
2. Container runtime (CRI-O, Containerd, Docker, etc.).
3. Image registry
4. Software-defined networking
5. Load-balancer and routing
6. Log management
7. Container metrics and monitoring
8. Domain Name System (DNS)
9. Load balancing
10. Ingress
11. Role-based access control (RBAC)

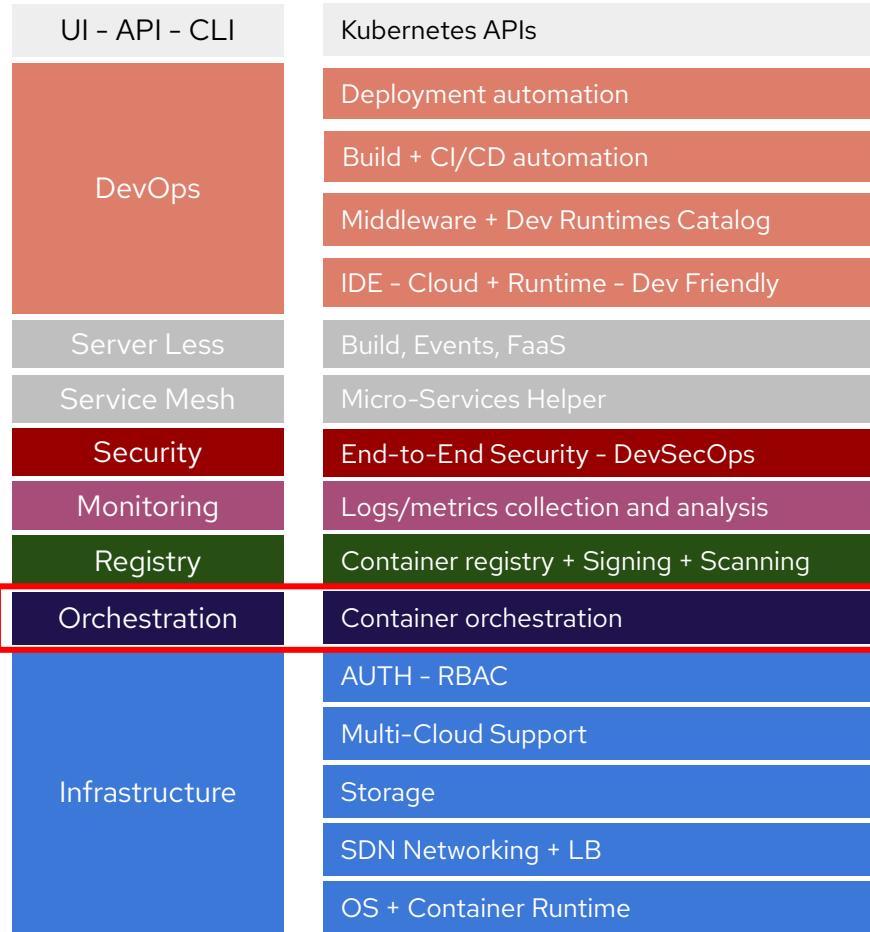


Operations (or third-party) must configure, integrate, operate and support these additional components to support apps in production.

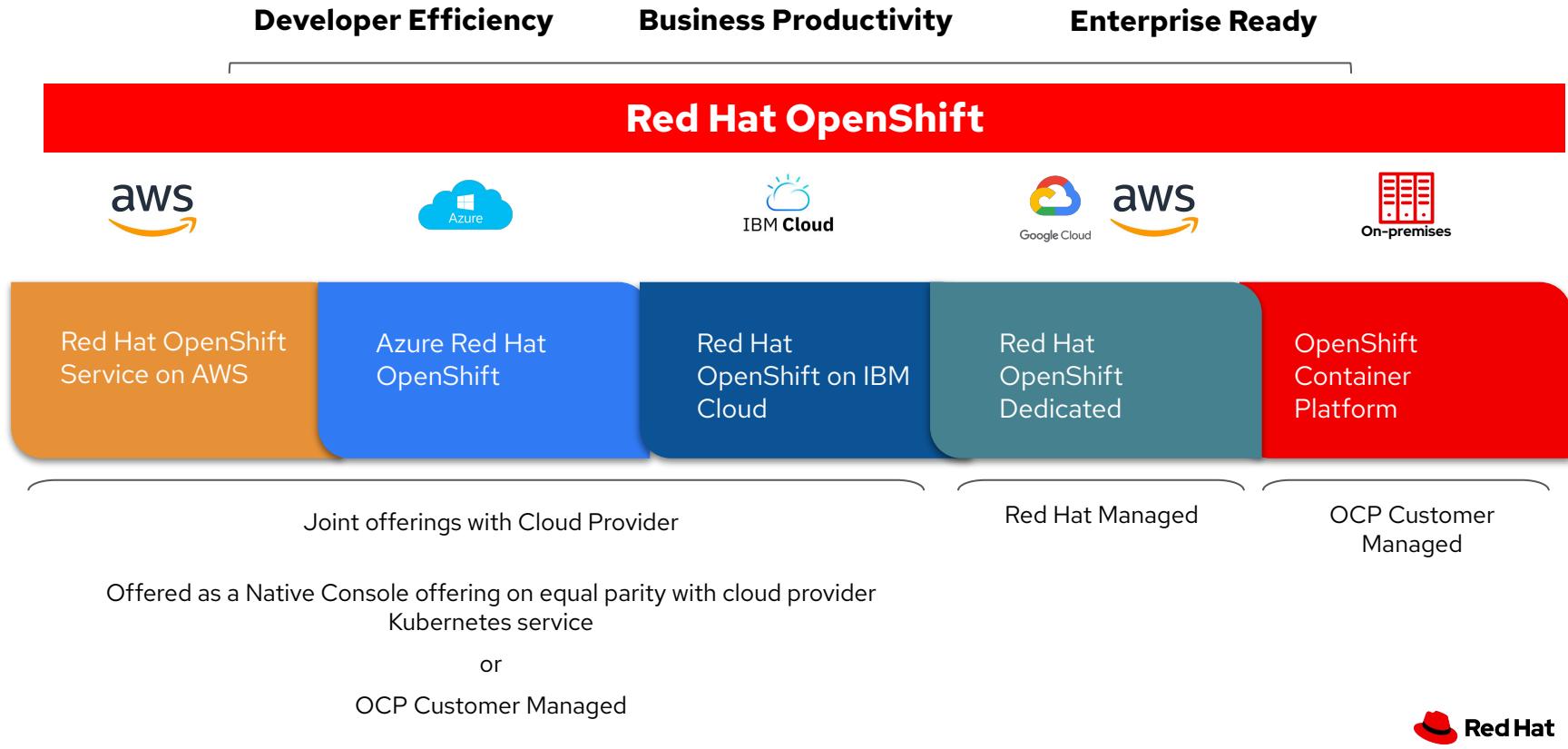
Every public and private cloud has different combinations of these components

What do you need to run containers in Production?

(Because Kubernetes
only covers this bit)



OpenShift offers the broadest set of hybrid cloud services



Build and run a platform *versus* a turnkey platform as a cloud service



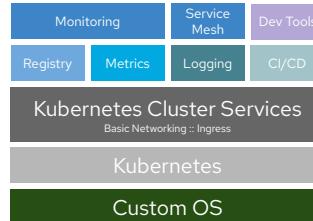
The Engine



xKS



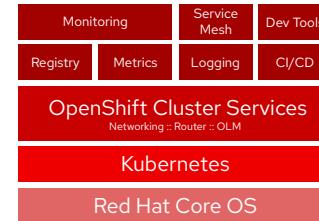
The Parts



xKS
plus 'native' services



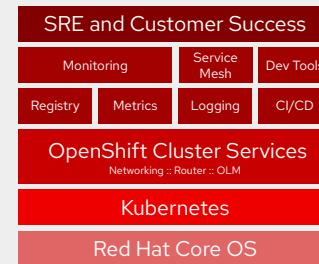
The Assembled Car



Self-managed
Red Hat OpenShift



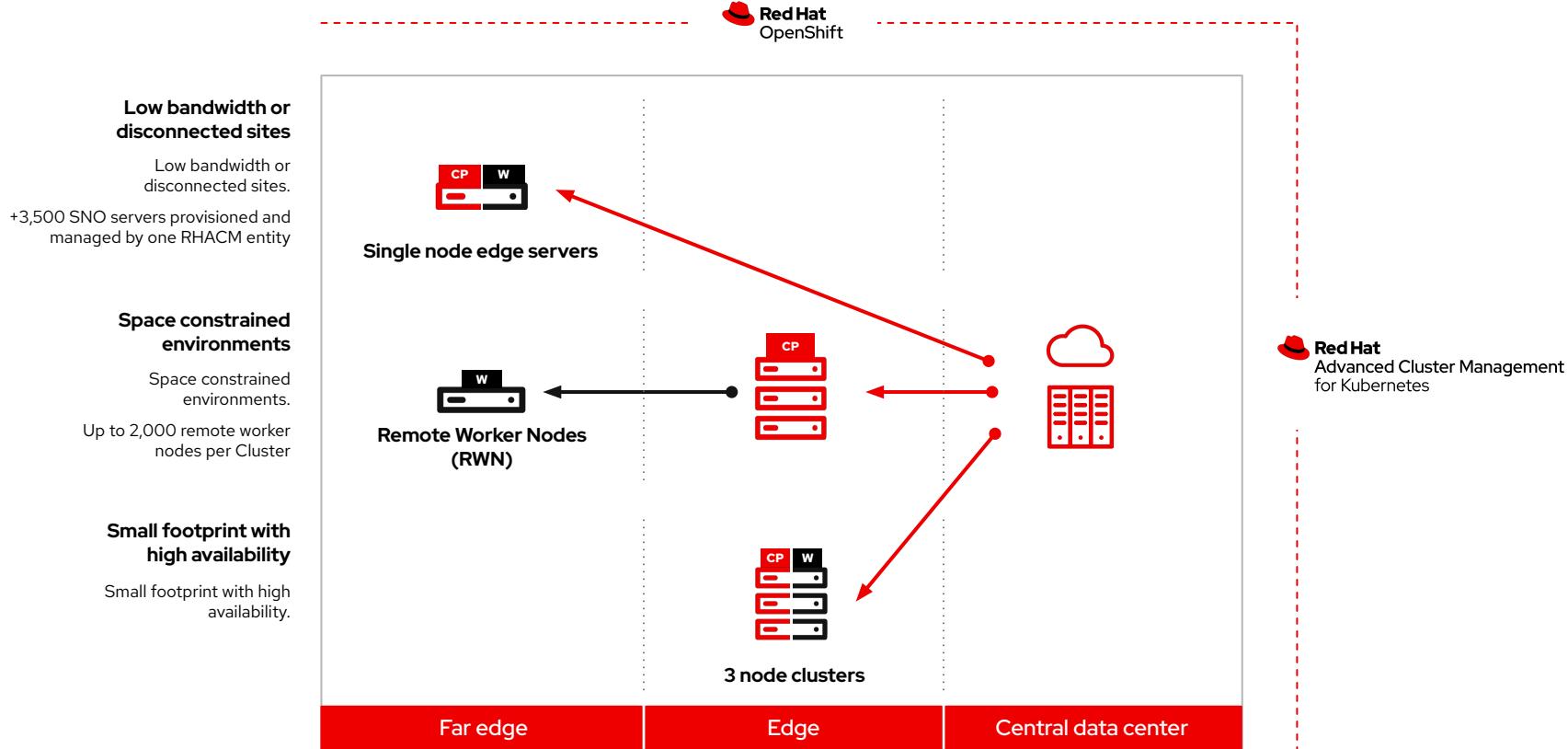
The Full Service



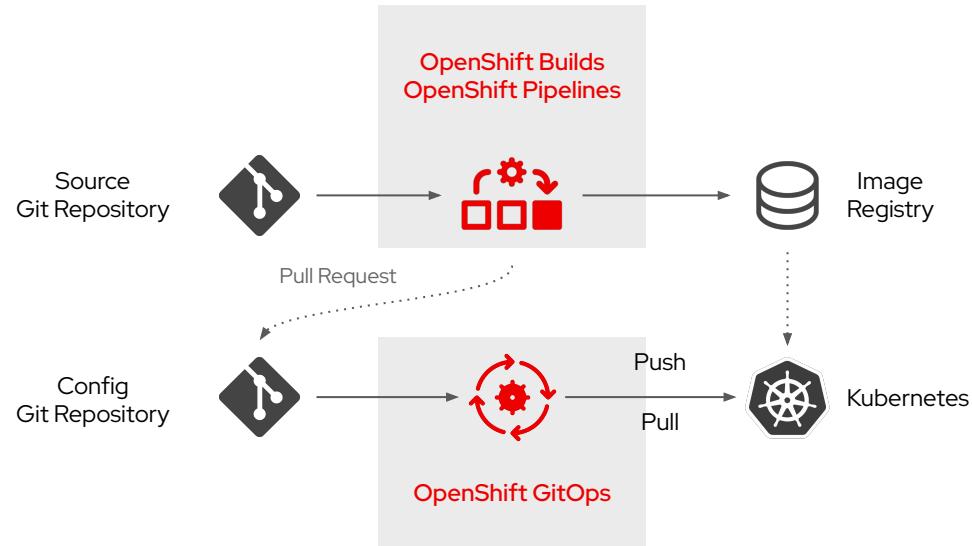
Red Hat OpenShift Service
on AWS



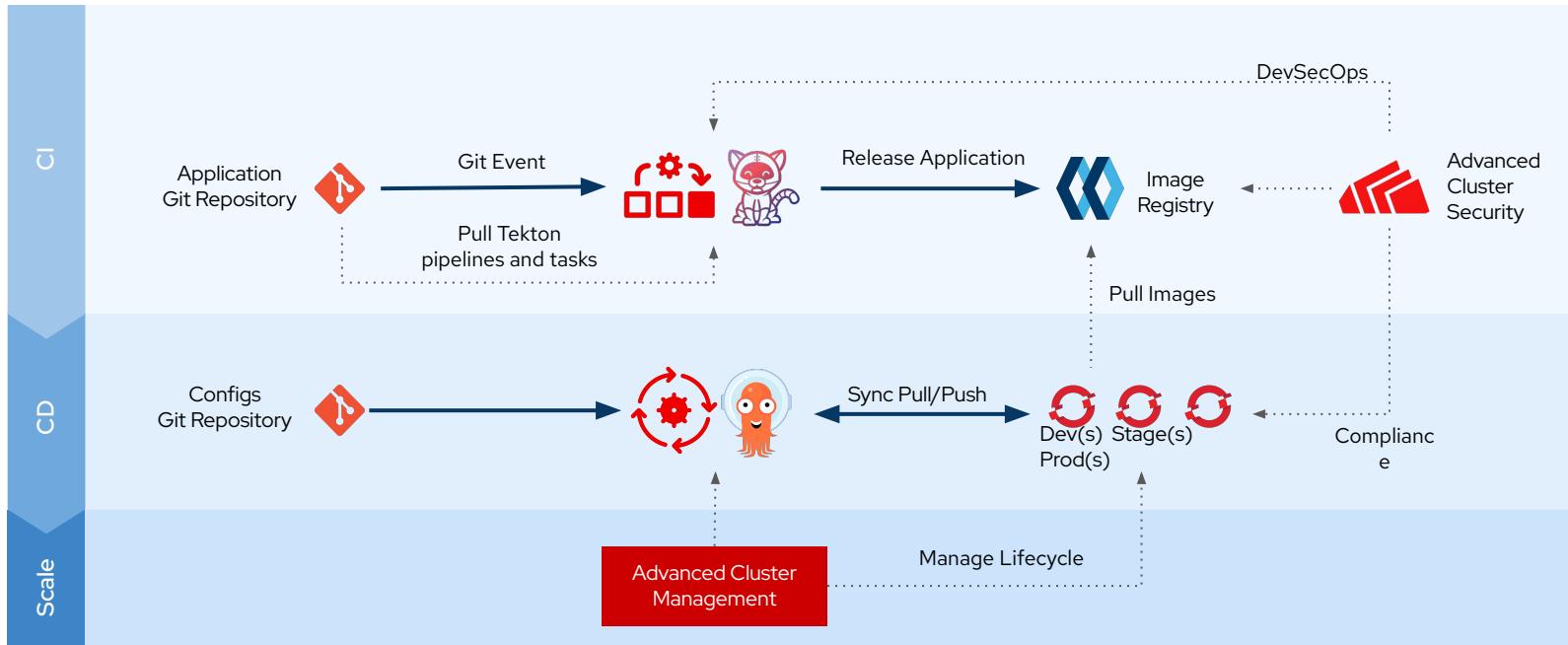
OpenShift Edge Deployments



The GitOps Application Delivery Model on OpenShift



Declarative Application Delivery with GitOps Workflows



Continuous Integration & Continuous Delivery



OpenShift Build

Automate building container images using Kubernetes tools

OpenShift Pipelines

Kubernetes-native on-demand delivery pipelines

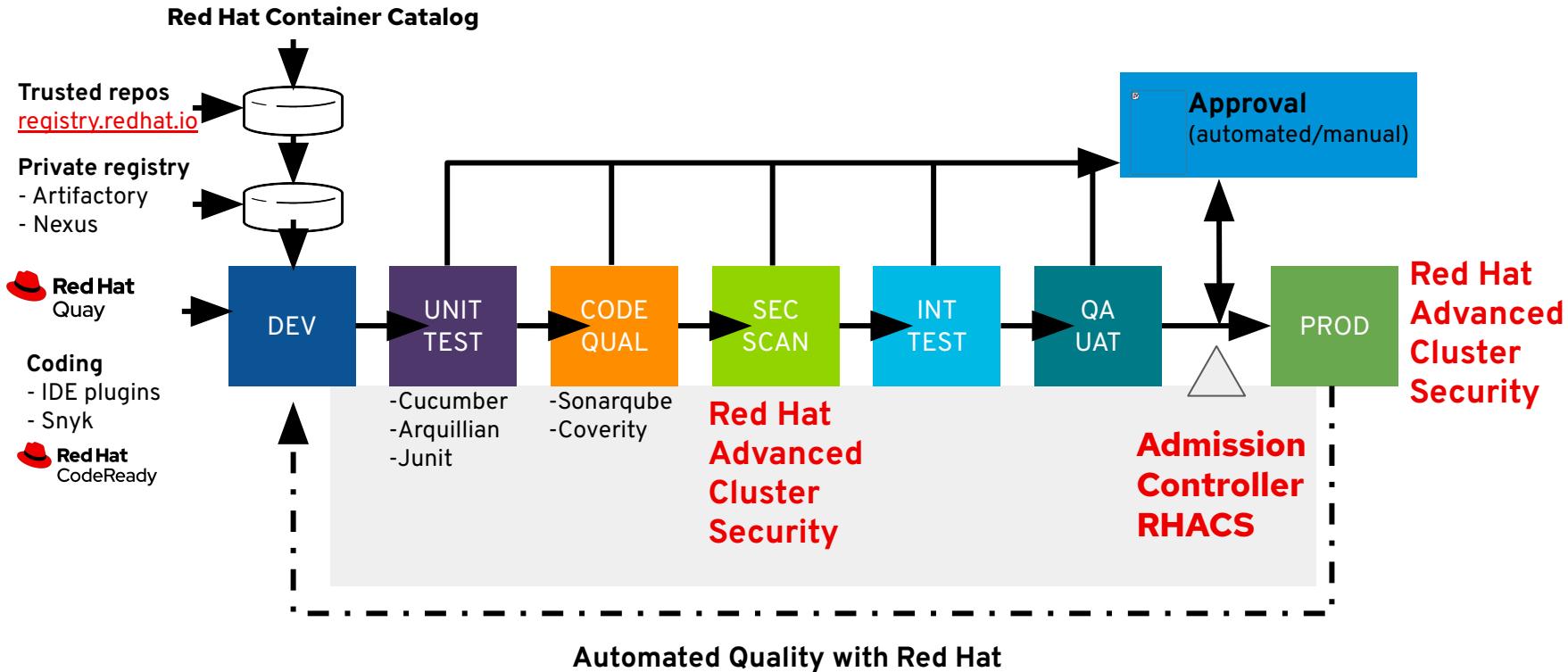
OpenShift GitOps

Declarative GitOps for multi-cluster continuous delivery

Ecosystem
Integrations

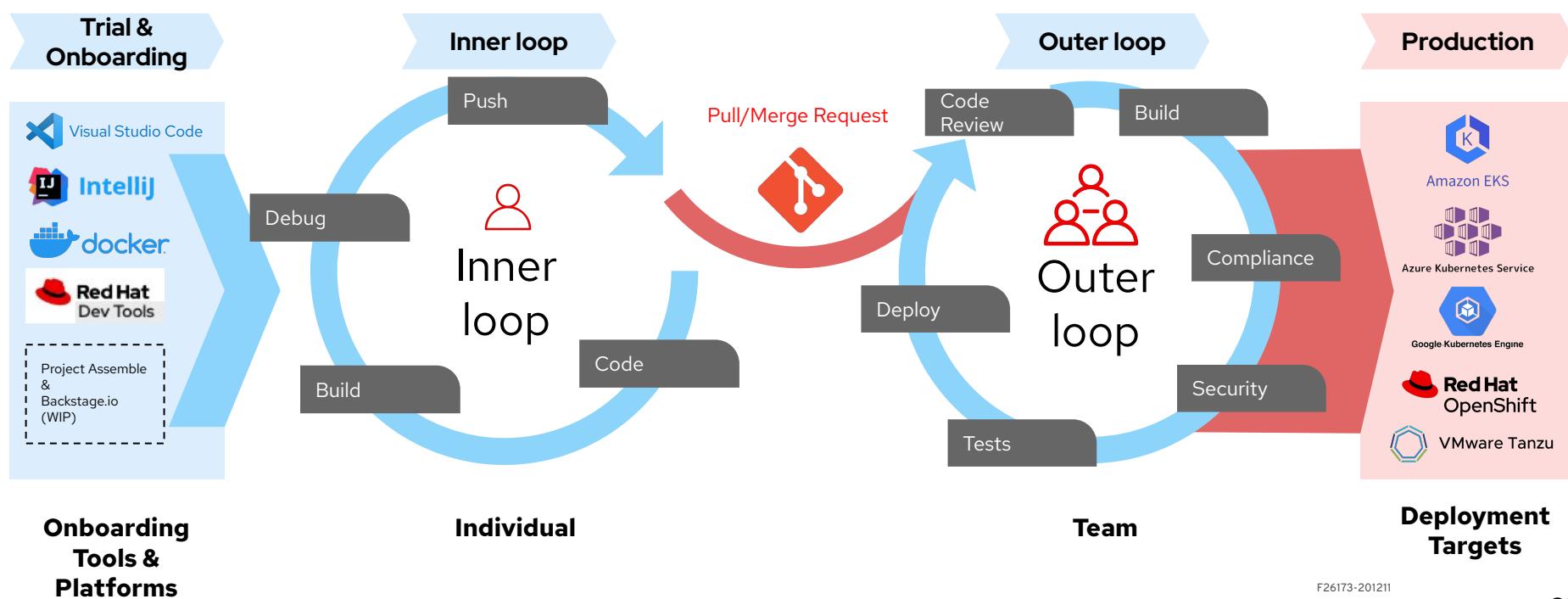


Securing your CI/CD Pipeline with Red Hat



The End to End Developer Flow

Developer Flow: Tools needed



Red Hat Tools for the Developer flow



General Development oriented

Trial and Onboarding	Inner Loop (for Code, Build, Debug and Push)	Outer Loop (for Code review, Compliance, Security, Test and Deploy)
 Developer Sandbox Fastest and least friction way, at zero cost, for a developer to try our OpenShift platform, key developer tools and services, and Red Hat cloud services. https://developers.redhat.com/developer-sandbox  OpenShift Local <i>Formerly known as "Red Hat CodeReady Containers"</i> Pre-built development environment, based on OpenShift v4, for quick container-based application development - on developer laptops. https://developers.redhat.com/products/openshift-local/overview	 Podman Desktop This upstream project enables developers to easily build and share containerized applications using Red Hat technologies. https://podman.io  Docker Desktop extension Enables deployment of local images to OpenShift directly from Docker Desktop. https://github.com/redhat-developer/openshift-dd-ext  OpenShift Dev Spaces <i>Formerly Red Hat CodeReady Workspaces</i> Centralized, shareable, in-browser Kubernetes-based Integrated Development Environment, focused on OpenShift customers. https://developers.redhat.com/products/openshift-dev-spaces/overview  IDE Extensions (for Visual Studio Code, IntelliJ, Eclipse) for Languages (Java, XML, YAML, JSON, Apache Camel) and Runtimes (Quarkus, EAP) Makes it easy for developers to build cloud-native and hybrid cloud applications with RH supported languages, and use RH preferred runtimes.	 App Studio Hosted, fully managed experience to build full stack applications, easily connect to leading cloud services, adopt DevSecOps practices, and deploy to any hybrid-cloud platform. https://developers.redhat.com/app-studio/overview  Plug-ins for CI/CD tools (GitHub Actions, Microsoft Azure DevOps, GitLab Runner, Jenkins) Provide templates for automated deployment of applications to OpenShift

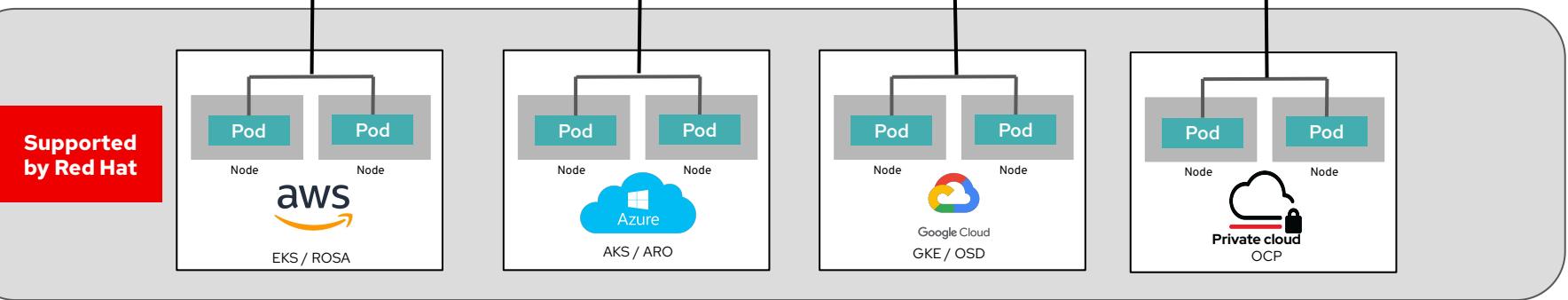
Advanced Cluster Security Cloud Service



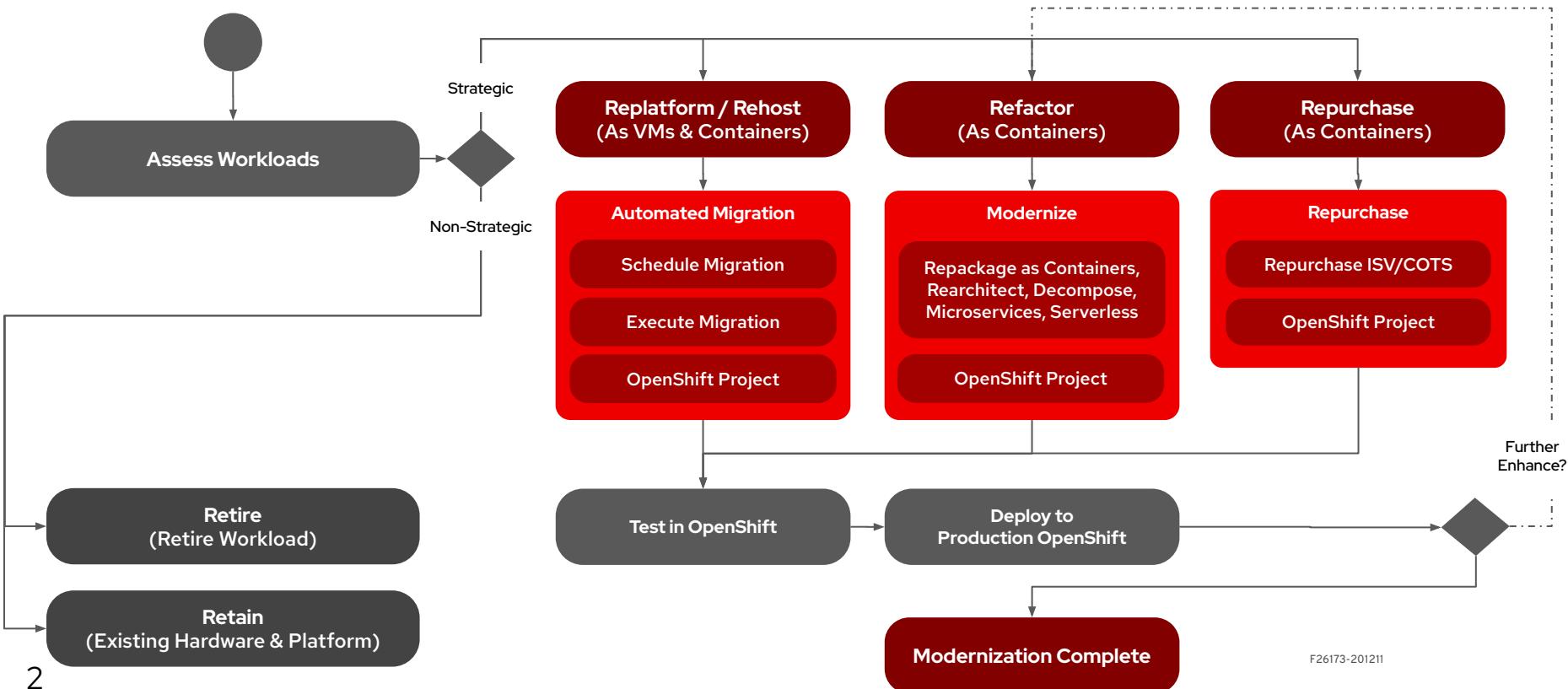
Start securing Kubernetes deployments in minutes

Secure any supported Kubernetes cluster across your hybrid cloud

Managed by Red Hat



6-R Framework for Modernizing with OpenShift



Red Hat Developer Deep Dives : Links to Content



Kubernetes

<dn.dev/kube-tutorial>
<dn.dev/kubemaster1>
<dn.dev/kubemaster2>
<dn.dev/kubemaster3>



Quarkus

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<dn.dev/quarkusmaster>



Istio

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<dn.dev/istiomaster>



Kafka

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<dn.dev/kafkamaster>



Knative

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<dn.dev/knativemaster>



Tekton

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<dn.dev/tektonmaster>



Argo CD

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<dn.dev/argocd-workshop>



Operator SDK

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<dn.dev/operatorsdk1>
<dn.dev/operatorsdk2>



Containers

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<dn.dev/containersmaster>



Spring Boot

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<dn.dev/springkubedeeplive>



Helm

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<dn.dev/helmdeepdive>



OpenShift

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<dn.dev/openshift-workshop>

Introducing Ansible Automation



Red Hat
Ansible Automation
Platform

Automate the deployment and management of automation

Do this...

Orchestrate

Manage Configurations

Deploy Applications

Provision

Deliver Continuously

Secure and Comply

On these...



Firewalls



Load Balancers



Applications



Containers



Clouds



Servers



Infrastructure



Storage



Network Devices



and more...



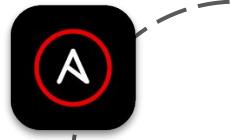
Red Hat Ansible Automation Platform

Consumers



servicenow™

Supported Integrations



Calculate, Plan, Report

Operate, Delegate, Control



Automation Controller
Formerly Tower

Workflows

Dashboards



API

Jobs

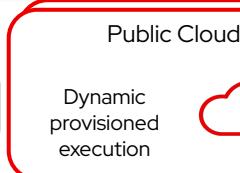
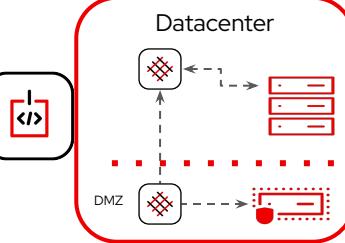
Auditing and logging



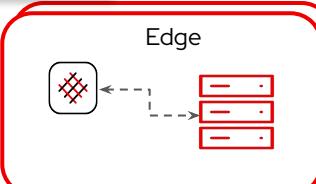
Job template

Centralized & Controlled
Content Repository

Private Automation Hub



Scale Across Remote Networks



Obrigado

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Award-winning support, training, and consulting services make

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