



The Kubernetes platform
for big ideas

Big ideas drive business innovation

Cloud
DevOps Digital transformation
Containers
Artificial intelligence
Internet of things
Open source communities
Open organization
Kubernetes

Business innovation is all around us.

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.

Trusted enterprise Kubernetes

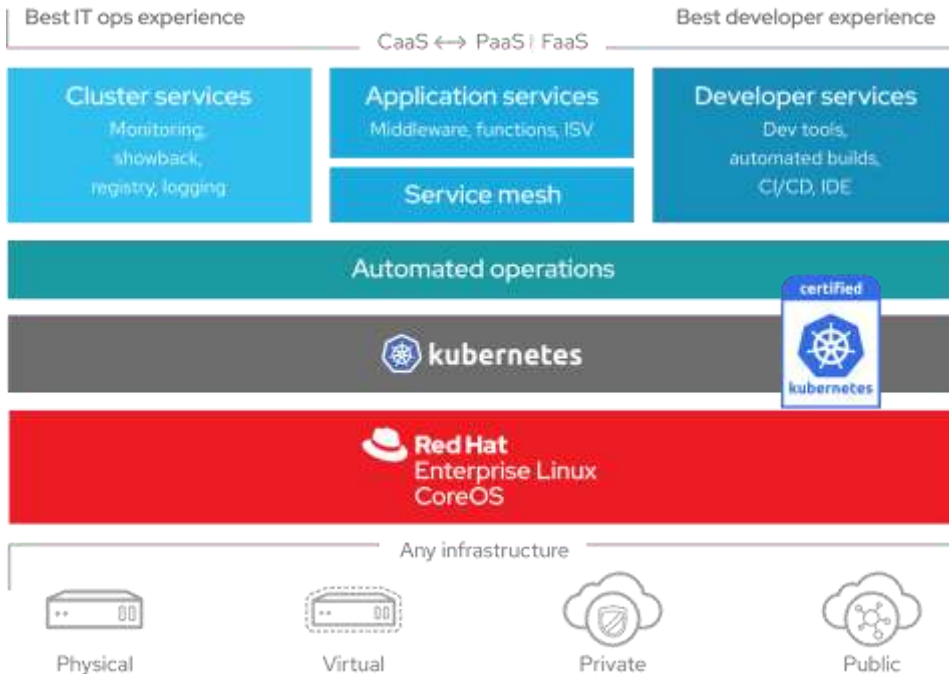


Trusted host, content,
platform

Full-stack automated
installation

Seamless updates

OpenShift 4 - A smarter Kubernetes platform



Automated, full-stack installation from the container host to application services

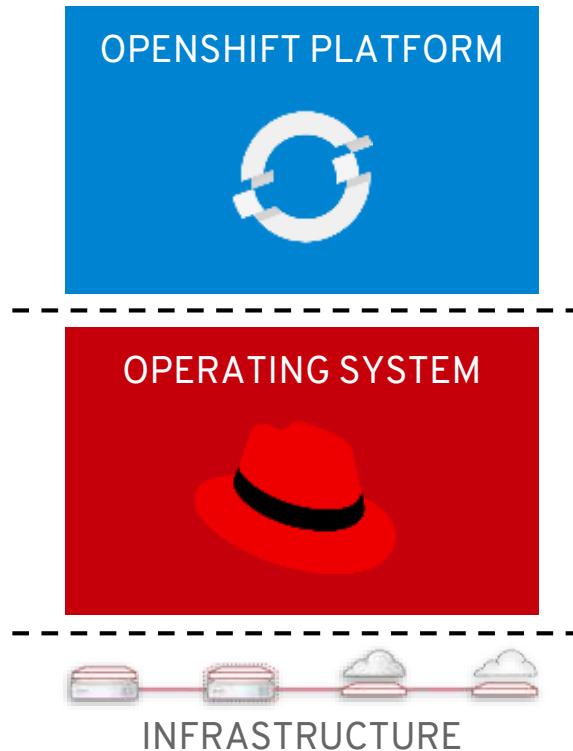
Seamless Kubernetes deployment to any cloud or on-premises environment

Autoscaling of cloud resources

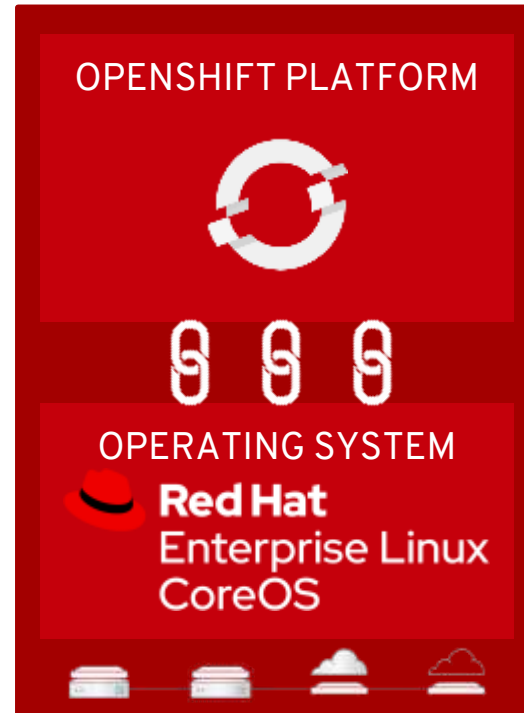
One-click updates for platform, services, and applications

Full-stack automated install

OPENSIFT 3 & 4



OPENSIFT 4 (only)



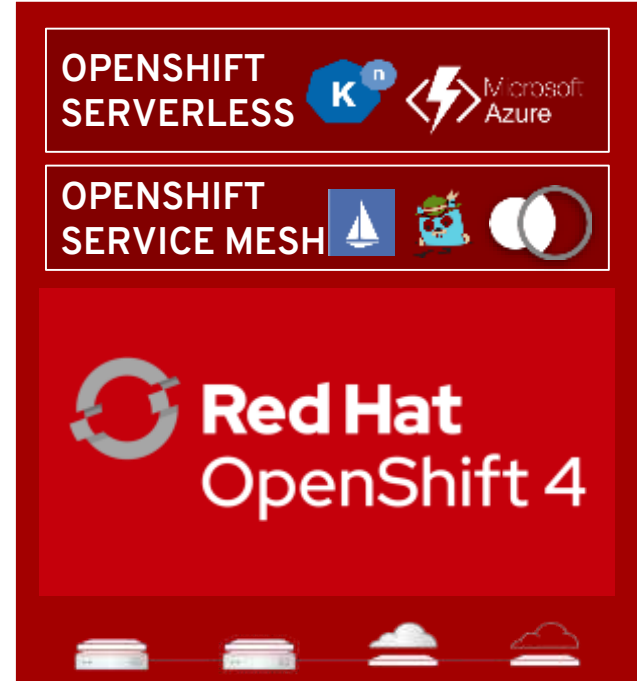
Building next-gen applications

OpenShift Service Mesh

- Integrated Service Mesh for enhanced security and network segmentation of microservices applications. Combines Istio, Kiali (UI), and Jaeger (Tracing) projects.

OpenShift Serverless

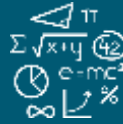
- Integrated serverless, enabling scale-to-zero FaaS services and event sources - built on the Knative framework.
- Support for Azure Functions
- Integrated with Camel-k for rich set of initial event sources: HTTP, Kafka, AMQP



Kubernetes-native day 2 management



Flexible app
architectures



No reinvention
of core concepts



Uniform deploy
and debug



Truly hybrid

Operators codify operational knowledge and workflows to automate life-cycle management of containerized applications with Kubernetes

Enabling greater developer productivity

CodeReady Workspaces

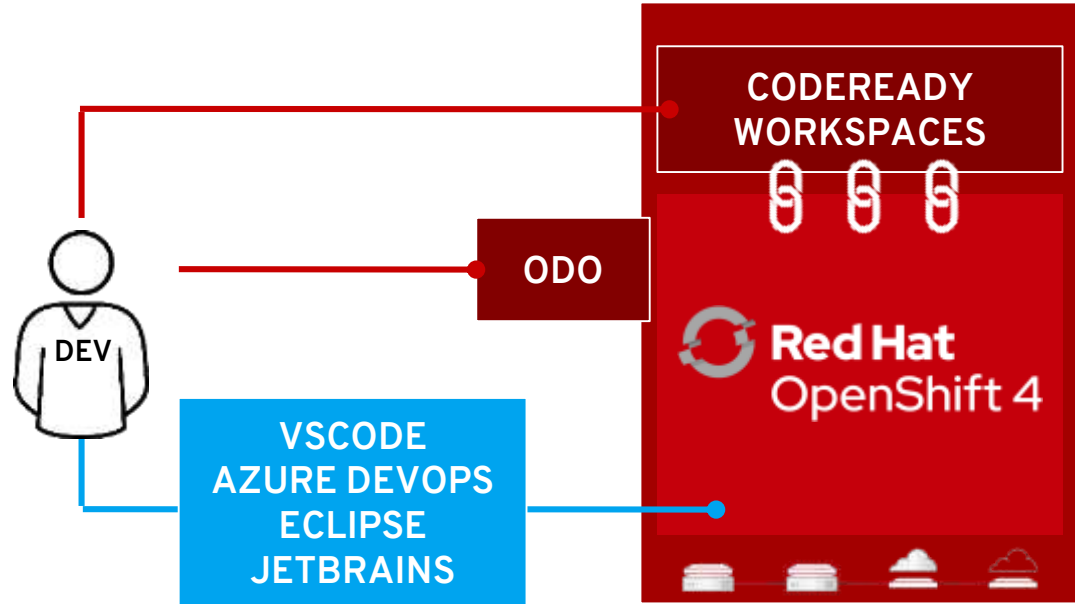
Web-Based IDE (Eclipse Che),
Collaborative Development,
integrated with CI/CD.

OpenShift ODO

Advanced developer CLI

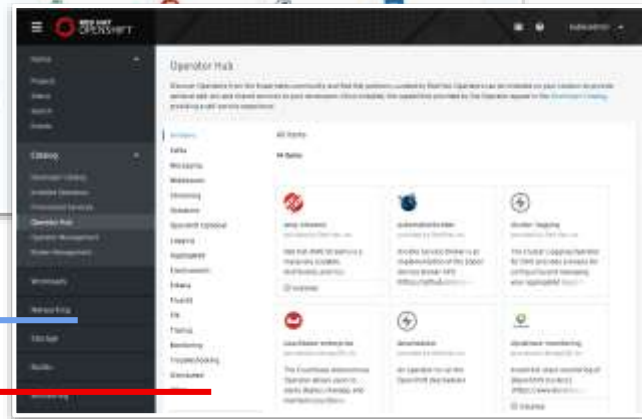
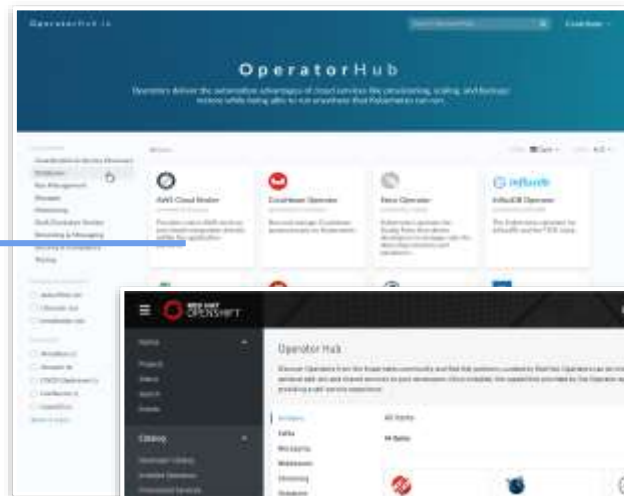
OpenShift Plugins

Integration plugins - VScode, Azure
DevOps, Eclipse IDE, JetBrains



OperatorHub and certified Operators

- OperatorHub.io launched by Red Hat, AWS, Microsoft and Google
- OpenShift Operator Certification
- OperatorHub integrated into OpenShift 4



COMMUNITY OPERATORS

OPENSIFT CERTIFIED OPERATORS

CodeReady Workspaces

The collaborative OpenShift-Native IDE. Free for any customer of OpenShift Dedicated or OpenShift Container Platform.

Container Workspaces



Workspace replicas to end “works on my machine” and enable team collaboration.

DevOps Integrations



Reference developer workspaces from any issue, failed build, or git notification.

Protect Source Code



Full access to source code without any of it landing on hard-to-secure laptops.

Based on the open Eclipse Che project

Red Hat Linux and Application Infrastructure

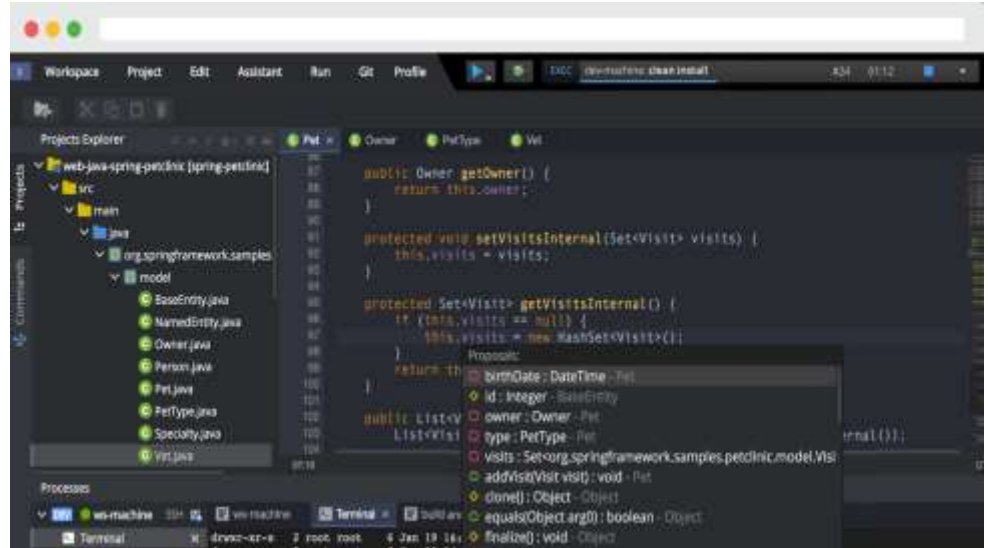
Plugin model for extensibility

Serverless support (coming soon)

Use It To: Replace VDI for devs, and enable true container-based DevOps.

CODEREADY WORKSPACES

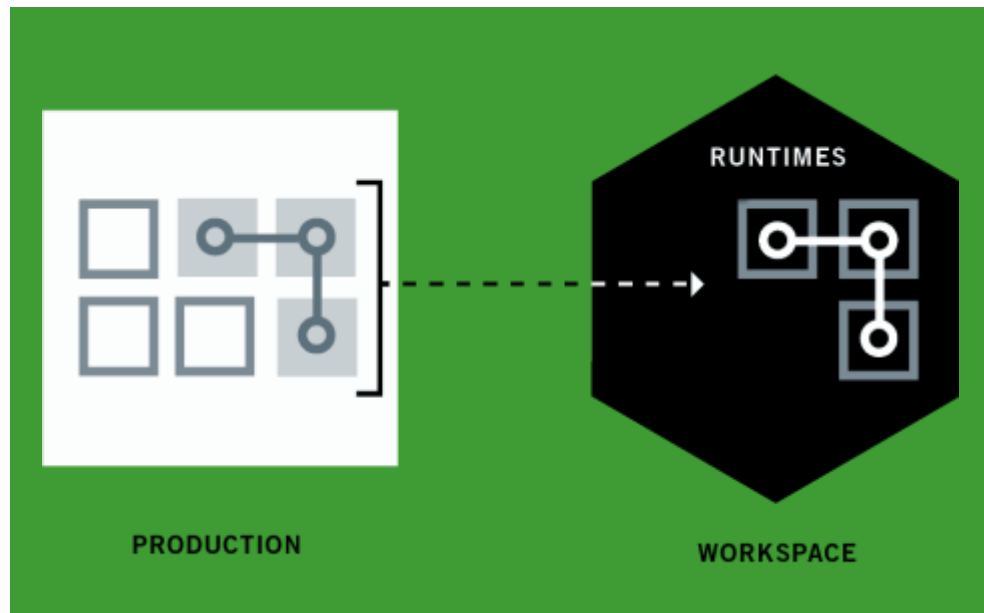
- Browser-based Web IDE + Dev Environment in pods
- Red Hat supported Eclipse Che
- Bundled with OCP/OSD SKU
- Available on OCP and OSD
- Enabled via an operator
- RHEL 8-based stacks (tools and runtimes)



#1: RUNTIMES FROM PRODUCTION

- Pull from private registries
- Start from images or recipes
- Use Pre-built or custom stacks
- Remote access on OpenShift


`(oc rsync)`



RED HAT® APPLICATION RUNTIMES

CONFIDENTIAL Designator

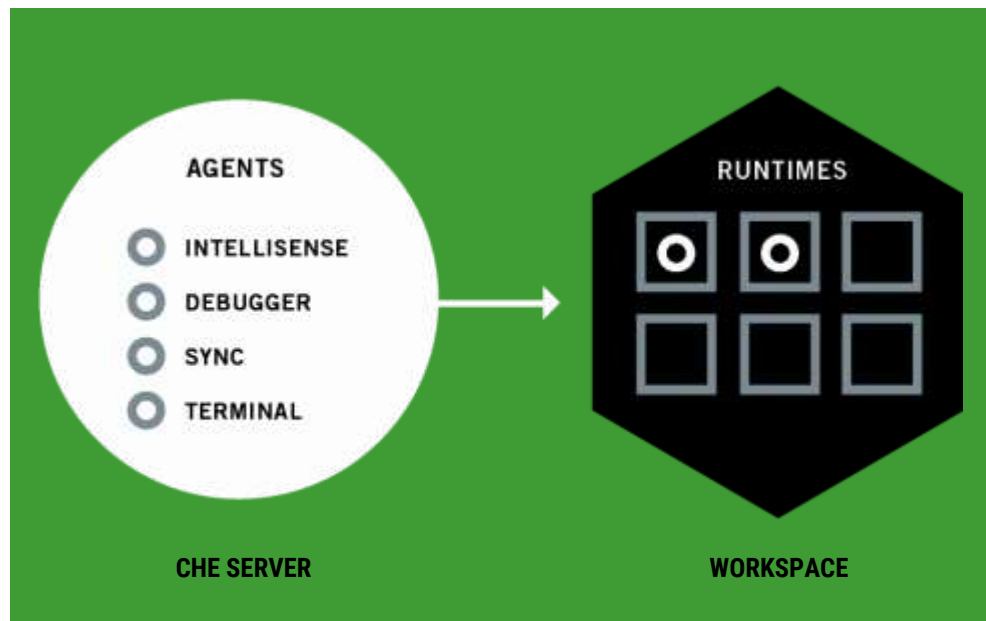
Offering lightweight runtimes and frameworks for highly-distributed **cloud native** architectures such as microservices, with distributed in-memory caching for fast data access, single sign-on for authentication and authorization, and durable messaging for reliable data transfer between existing and new applications.

LAUNCH SERVICE	
 RED HAT OPENSIFT Application Runtimes	RED HAT® DATA GRID
OpenJDK.	RED HAT® AMQ BROKER
RED HAT® SSO	RED HAT APPLICATION MIGRATION TOOLKIT

- Best-of-breed runtimes, frameworks and languages
- OpenShift & Kubernetes Services native integration
- Modernization and optimization initiatives
- Established middleware technologies (EAP)
- In-memory data grid
- Standards-based enterprise messaging
- SSO authentication

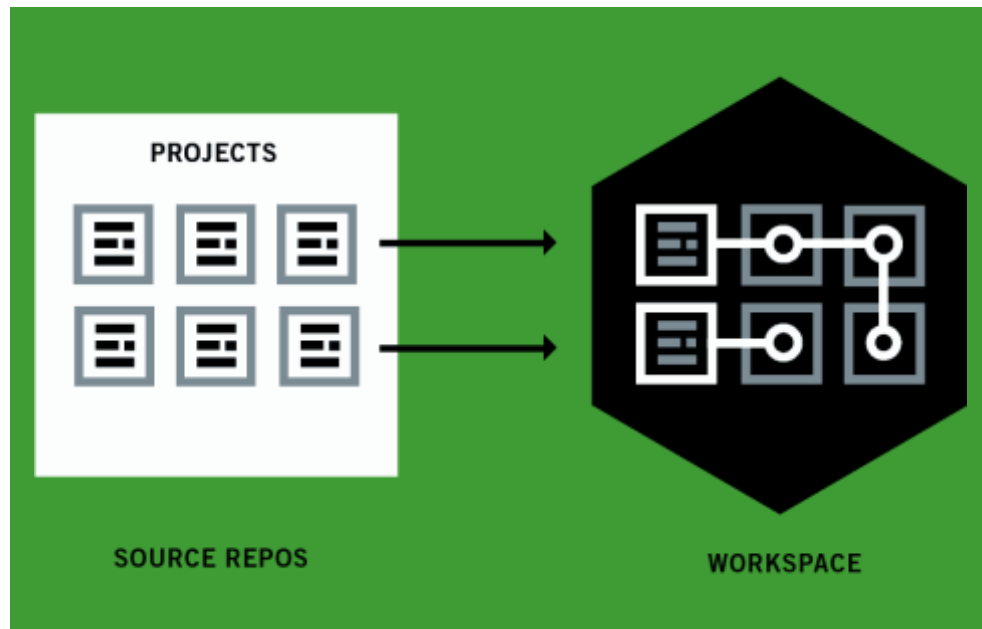
#2: “DEV MODE” THE WORKSPACE

- Language servers
- Autocomplete & refactoring
- Intelligent commands
- Debuggers
- Terminal access to pods



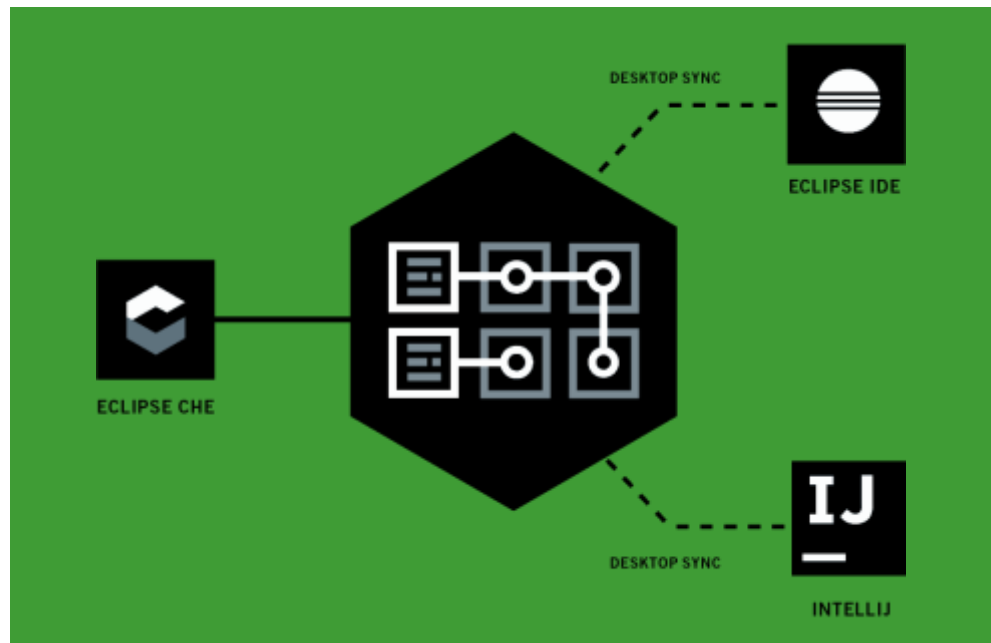
#3. IMPORT FROM VERSION CONTROL

- Any git server (or ZIP)
- Live sync from repo to container
- Private or public repos



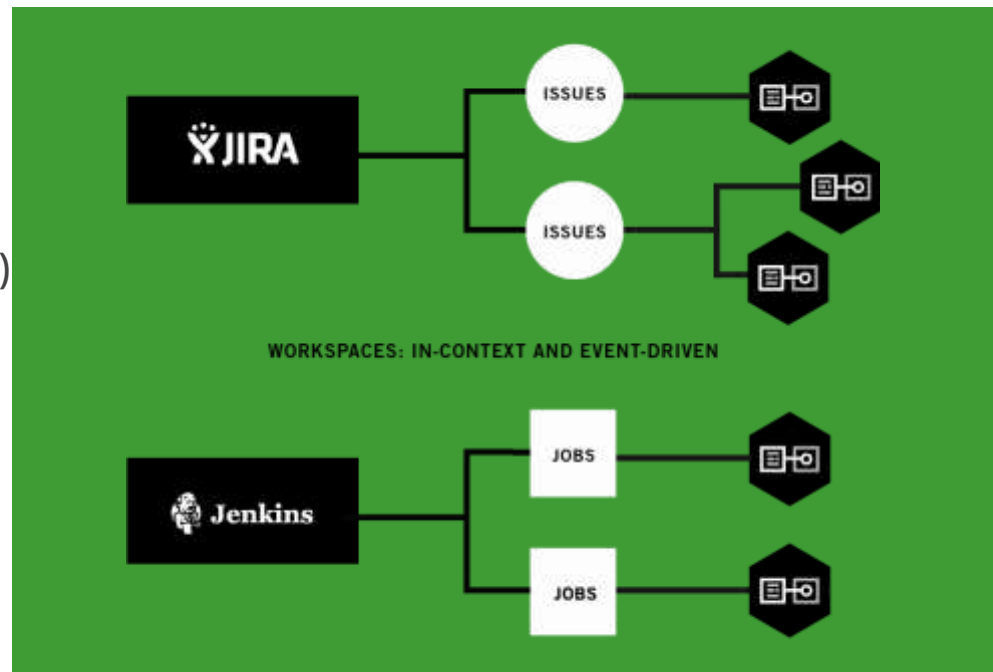
#4. DEVELOP WITH ANY IDE

- Eclipse Che browser IDE
- Desktop IDE support:
 - a) Mount & sync filesystem
 - b) Sync through git commit
- RESTful workspace APIs



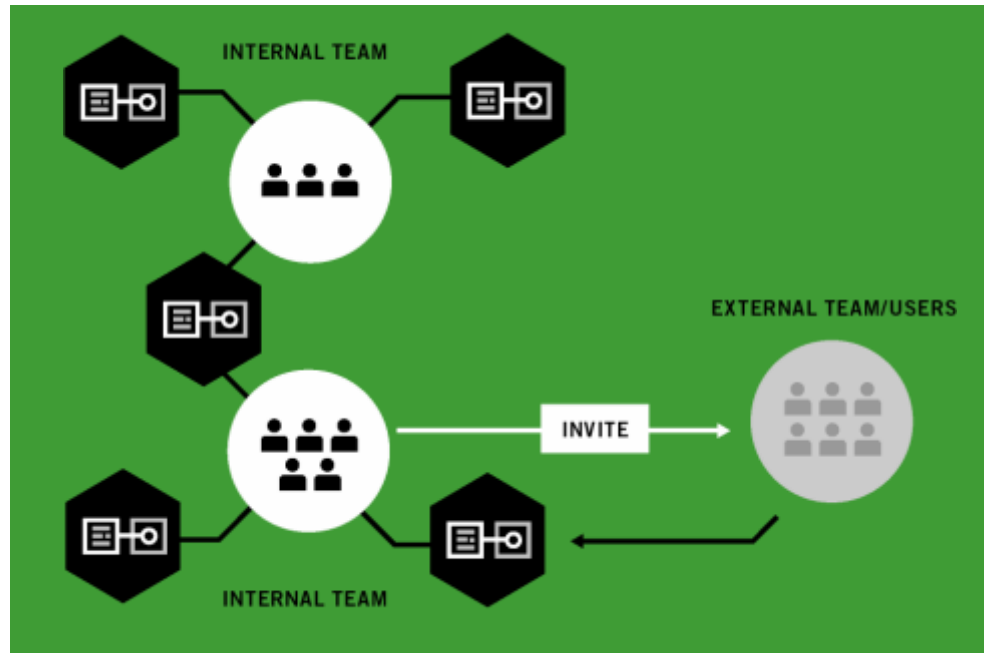
#5. PRIVATE TOOLCHAIN INTEGRATION

- Factories and Chefiles
(custom workspaces for any context)
- Place Factory URLs anywhere
- Workspace and platform APIs



#6. COLLABORATE WITH YOUR TEAM

- Team workspaces, stacks and samples
- One-click onboarding
- Resource limits per group
- RBAC security
- Pre-commit feedback



Understand the **code**
you **deploy**

Red Hat Services for OpenShift adoption

RED HAT OPEN INNOVATION LABS



EXPERIMENT

Rapidly build prototypes, do DevOps, and be agile.



CATALYZE INNOVATION

Bring modern application development back to your team.

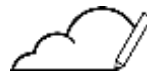


IMMERSE YOUR TEAM

Work side by side with experts in a residency-style engagement.

TO SHOW YOUR TEAMS HOW OPENSIFT AND MODERN DEVELOPMENT PRACTICES CAN DRIVE INNOVATION: START WITH A 4- TO 12-WEEK LABS RESIDENCY

RED HAT CONTAINER ADOPTION PROGRAM



FRAMEWORK FOR SUCCESSFUL CONTAINER ADOPTION AND I.T. TRANSFORMATION:

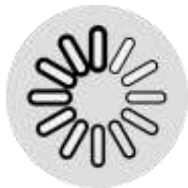
Mentoring, training, and side-by-side collaboration to:

- Create a production platform and team to run it
- Create end-to-end container-driven deployment automation
- Scale application onboarding expertise
- Guide new Kubernetes-native development
- Align business with IT through **included Red Hat Open Innovation Labs**

TO BEGIN A COMPREHENSIVE PROGRAM (INCLUDING OPEN INNOVATION LABS): START WITH THE 12-WEEK [RED HAT CONSULTING CONTAINER PLATFORM PILOT](#)

APPLICATION MIGRATION AND MODERNIZATION

Red Hat Consulting's Application Migration and Modernization engagement helps businesses introduce and fully integrate open source software to accelerate and optimize application life cycles and take advantage of emerging technologies, including modernized applications and infrastructure. As a result, organizations can:



Improve developer performance and productivity



Reduce total cost of ownership



Achieve business value faster



Devote more time to other initiatives that deliver value

RED HAT CONSULTING: APPLICATION MIGRATION AND MODERNIZATION

DISCOVERY SESSION

Discuss goals, solution approaches, and next steps to identify challenges as well as outline target state architecture and opportunities for change.

WORKSHOPS

Work with Red Hat consultants across 3-4 weeks to establish a plan to identify and test the technical and business risks of migration.

IMPLEMENTATION

Migrate in iterations and document findings, continuously validate implementations against the plan, and build skills with ongoing coaching and mentoring.

OpenShift deployments at Red Hat



Empowering innovation

Why: Innovation

Who: Any associate

What: Single cluster, public cloud

How much: 1,000+ apps



Development & build pipeline

Why: Development & build

Who: Engineering primarily

What: Single cluster in datacenter

How much: 689 projects across 34,530 containers



Mission-critical workloads

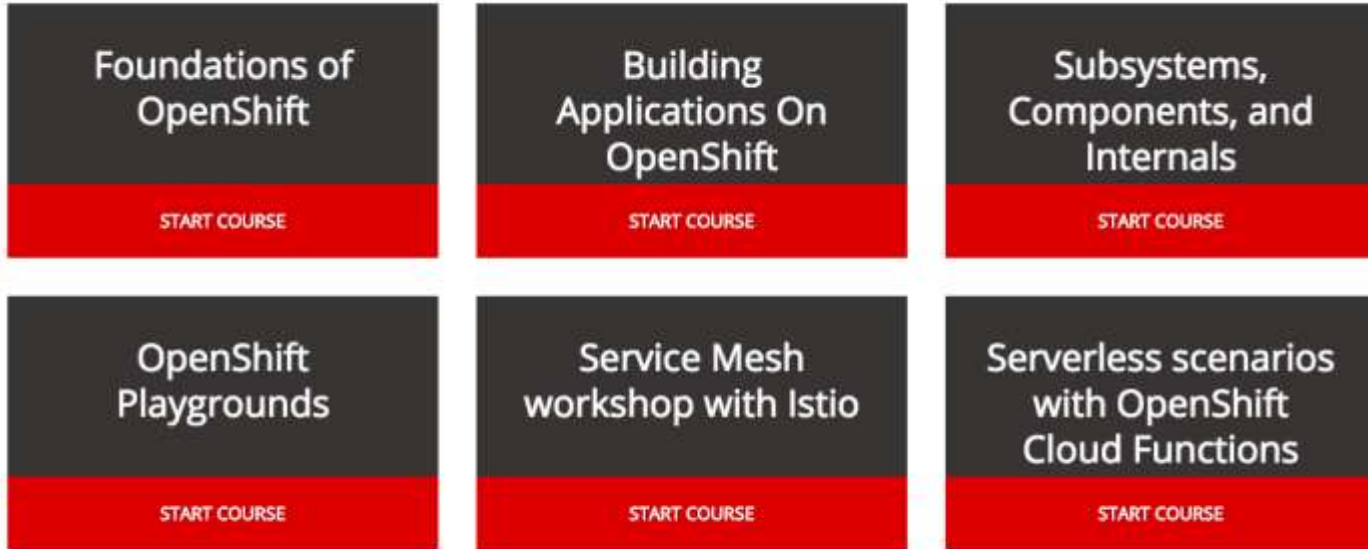
Why: Enterprise availability

Who: Mission-critical systems

What: 3x multi-site clusters



LEARN.OPENSIFT.COM



Interactive Learning Scenarios provide you with a pre-configured OpenShift instance, accessible from your browser without any downloads or configuration.

Thank You



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