RHUG Intro and Agenda

Red Hat

Agenda

- Introductions & Announcements
  - Richard Hofmeister
- Serving GenAI in an Enterprise World
  - Brian Ball
- RHEL 10
  - Brian Dumont
- Agnostic Edge Device Management
  - Josh Swanson

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Platform Release Schedule

All Dates Subject to Change

- OpenShift 4.19 : RELEASED
- OpenShift AI 2.23 : RELEASED
- Quay 3.15 : RELEASED
- ACM 2.14 : RELEASED
- Service Interconnect 2.1 : RELEASED
- Red Hat Ceph Storage 9 : Q4 2025
- OpenShift Data Foundation : Q4 2025
- RHEL 9.7 : Q4 2025
- RHEL 10.1 : Q4 2025
- AAP 2.6 : SOON™
- Red Hat Connectivity Link : Q4 2025

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Middleware Release Schedule

All Dates Subject to Change

- JBoss EAP 8.1 : RELEASED
- Developer Hub 1.7 : RELEASED
- Streams for Apache Kafka 3.0 : RELEASED
- OpenShift Dev Spaces 3.22 : RELEASED
- Developer Lightspeed : Q3 2025
- Quarkus 3.27 : Q4 2025
- OpenJDK 25 : Q4 2025
- Red Hat build of Apache Camel 4.14 : Q4 2025

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Upcoming ELS Dates

- EAP 7 : June 30, 2025
- JBoss Web Server : July 31, 2025
- Red Hat SSO : June 30, 2025
- OpenShift 4.14 : October 31, 2025
- OpenShift 4.16 : June 27, 2026

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Red Hat Summit
Connect

REGISTER TODAY!
Space is Limited

October 22, 2025

Red Hat Summit: Connect Detroit

The Westin Book Cadillac Detroit

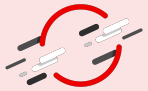
Register at:
red.ht/NASC2025MI

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Red Hat OpenShift 4.19 Highlights

Core



- Gateway API via OpenShift Service Mesh 3 for cluster ingress (GA)
- OVN-Kubernetes BGP support
- OpenShift Lightspeed (GA)
- Dynamic accelerator slicer (TP)
- Red Hat build of Kueue
- On-cluster image mode for OpenShift

Security



- Cert-manager support for routes certificates
- OpenShift on Confidential Nodes on Google Cloud (Intel TDX and AMD SEV-SNP)
- OpenShift on Confidential Nodes on Azure (AMD SEV-SNP)
- Confidential containers for IBM Z via IBM Hyper Protect Services

Virtualization



- Storage class migration
- OpenShift Virtualization on ARO (Preview) and OSD (Preview)
- Simplified installer for OpenShift Virtualization Engine
- OpenShift Virtualization hardening guide

OpenShift Platform Plus



- RHACS 4.8: policy as code, compliance scanning and external IPs
- RHACM 2.14 on-demand from AWS Marketplace
- Regional DR support multiple ODF storage classes

GA: Generally Available
TP: Technology Preview
VM: virtual machines

red.ht/whatsnew

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OpenShift 4.19 Supported Providers

Installation Experiences

aws
Outposts
Wavelength
Local Zones

Azure
Azure Stack Hub
Alibaba Cloud (Tech Preview)

IBM Cloud
IBM Power Systems
IBM Z and
IBM LinuxONE

Bare Metal

ORACLE
Cloud Infrastructure

Google Cloud

NUTANIX

vmware vSphere

Red Hat
OpenStack Services
on OpenShift

RED HAT OPENSTACK PLATFORM

Automated

Installer Provisioned Infrastructure

- Auto-provisions infrastructure
- *KS like
- Enables self-service

Full Control

User Provisioned Infrastructure

- Bring your own hosts
- You choose infrastructure automation
- Full flexibility
- Integrate ISV solutions

Interactive – Connected

Assisted Installer

- Hosted web-based guided experience
- Agnostic, bare metal, vSphere and Nutanix
- ISO driven

Local – Disconnected

Agent-based Installer

- Restricted network (disconnected / air -gapped)
- Automatable installations via CLI
- Bare metal, vSphere, SNO
- ISO driven

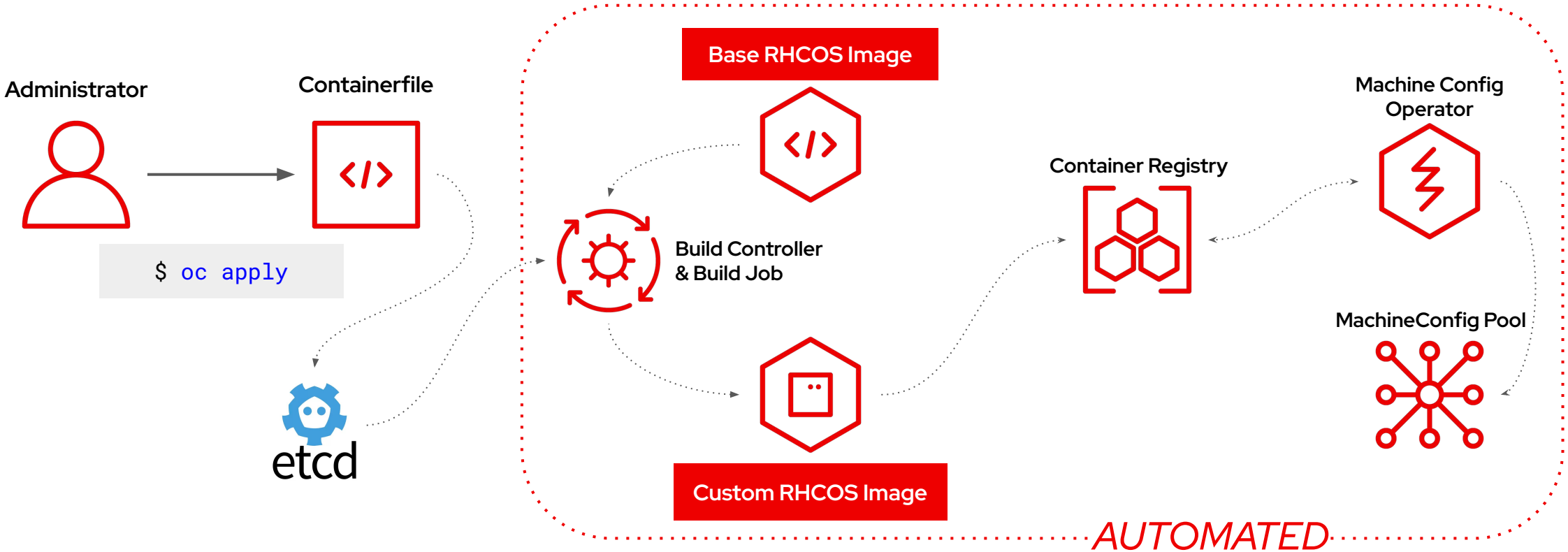
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Product Managers: Marcos Entenza (AWS, Azure, GCP, IBM Cloud, Oracle Cloud), Ju Lim (Alibaba), Ramon Acedo (BM, Nutanix, VMware), Linh Nguyen (BM), Peter Lauterbach (OCP Virtualization), Gil Rosenberg (OpenStack), Duncan Hardie (IBM Z & Power), Adel Zaalouk (HCP)

Cloud-native OS management

On-cluster image mode

RHEL CoreOS - ready to respond at scale



More at [Customize your Red Hat OpenShift nodes and keep them updated]

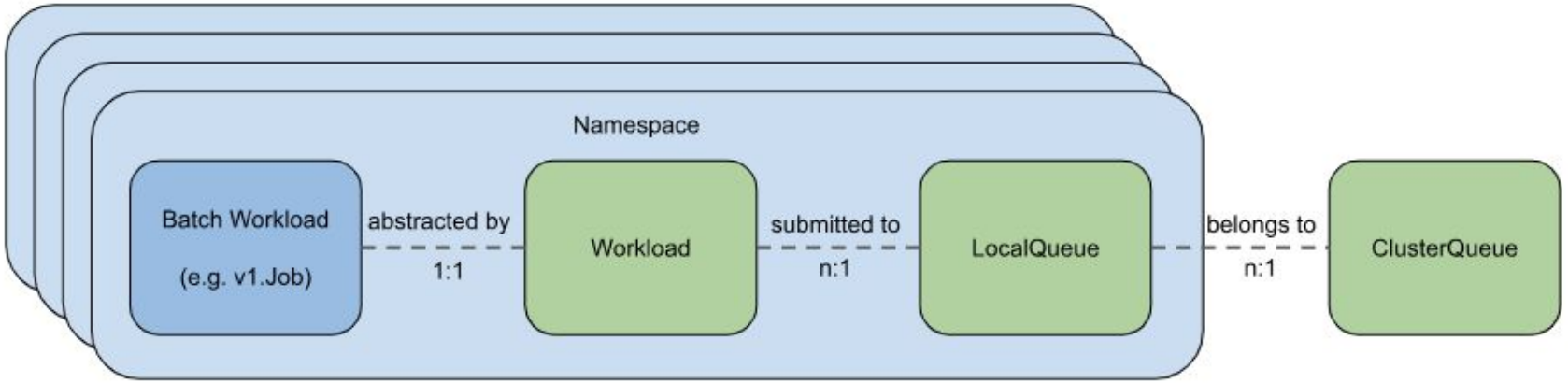
Product Manager: Mark Russell

Red Hat

Red Hat Build of Kueue

General Availability coming soon

Job queue management system that creates queues where group of jobs wait until resources to run those jobs are available in the cluster



Common Use Cases

- **ML training pipelines:** GPU scheduling optimization
- **Data processing:** process large datasets
- **Multi-tenant clusters:** fair resource allocation
- **Cost optimization:** efficient resource sharing

Key Benefits

- Fair Resource Sharing
- Optimal Job Placement
- Gang Scheduling

Product Managers: Duncan Hardie, Gaurav Singh

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OpenShift Virtualization Highlights

Modernize your operations with comprehensive lifecycle and infrastructure management

Flexible Infrastructure

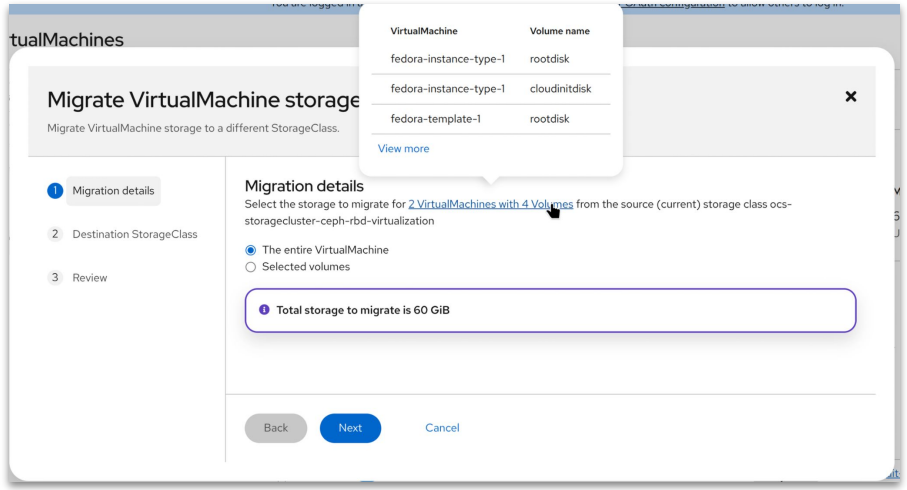
- Support additional public clouds ARO (TP), GCP and OSD (TP), OCI (TP)
- Single stack IPv6 (TP)
- Connect your VMs to the underlay network using OVN-K localnet
- Dynamically reconfigure VM storage with Storage LiveMigration

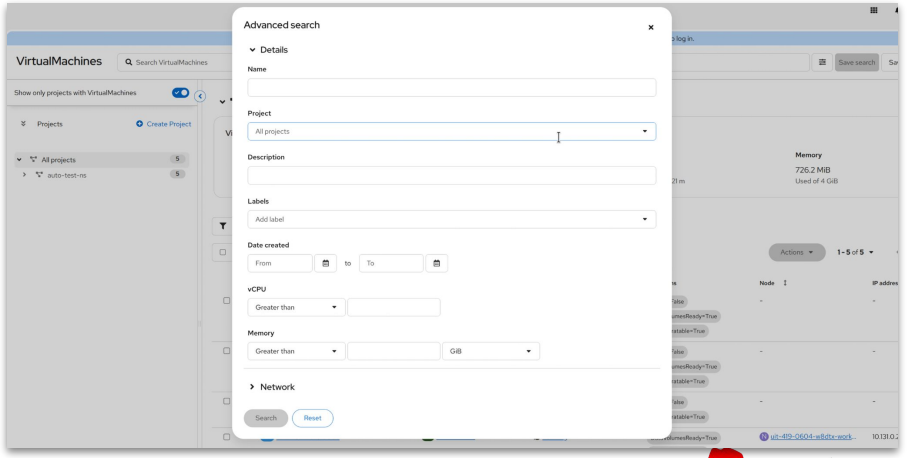
Improved infrastructure optimization

- Automatic VM workload balancing based on CPU resource utilization [TP]

Simplified VM Management

- Tree-view GA - enhanced with right-click for VM operations
- Advanced VMs search [TP]
- Protect VM from accidental deletion
- Multi-language support





Product Manager: Ronen Sde-Or

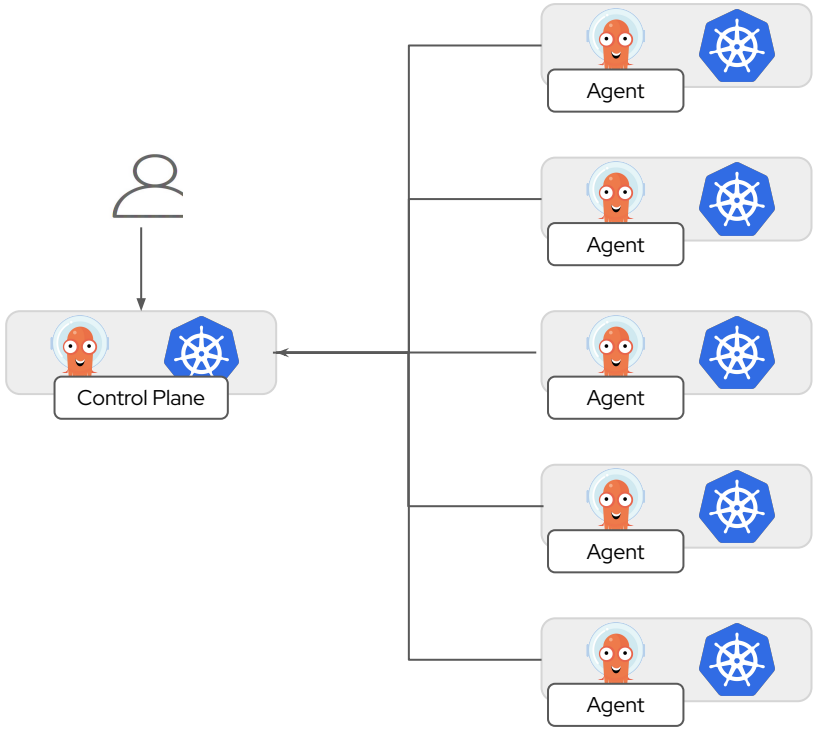
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Multi-cluster GitOps with Argo CD Agent

Tech Preview

- Available in OpenShift GitOps 1.17.0
- Soon available as an RHACM Add-On

- One way communication Agent -> Control plane
- Reduce the footprint of hub and spoke clusters
- Resilient and flexible network connectivity



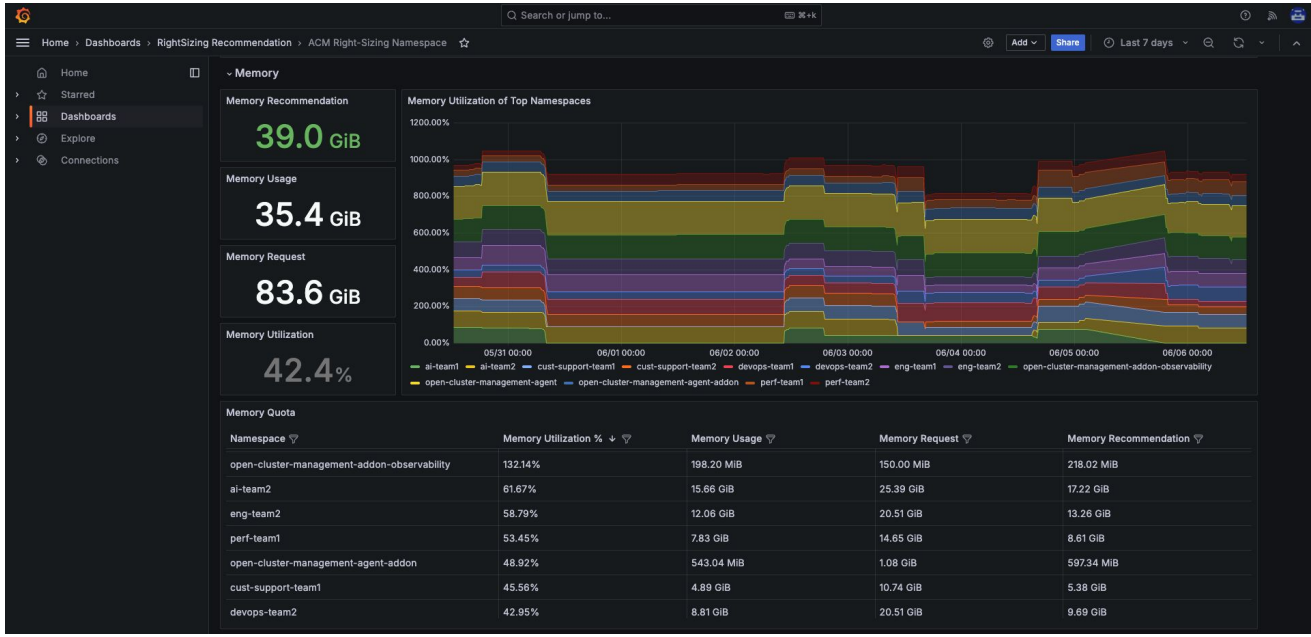
Product manager: Harriet Lawrence

Red Hat

Right Sizing Recommendations / namespace & cluster

Technology Preview with **Red Hat Advanced Cluster Management 2.14**

- **Right sizing recommendations at the namespace & cluster level**
  Policy-driven architecture using **PrometheusRule**
  Customizable data filtering via **ConfigMap**
  Feature works with OpenShift **labels** & **namespace** filters
- **Optimize workloads effectively**
  Identify underutilized and/or overprovisioned resources across managed clusters (CPU & Memory)
- **Multicluster observability operator (MCO) required**
  Make use of a dedicated Grafana dashboard in RHACM console



Product Managers: Vanessa Martini, Christian Stark

Red Hat

Red Hat Quay

Red Hat Quay 3.15

Important improvements and fixes for AI and Supply Chain Security

Improved Google Cloud Storage Support

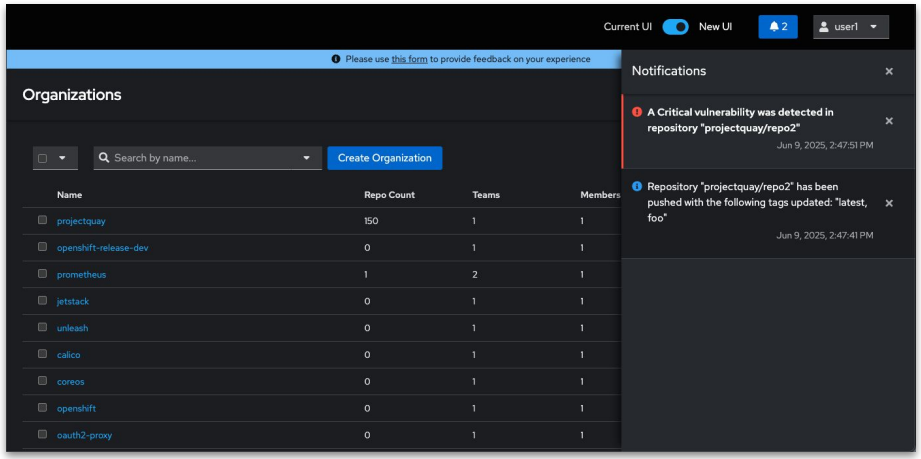
Uploads with layers larger than 4 GiB (e.g. LLMs as OCI artifacts) no longer time-out or consume excessive memory thanks to multi-part upload support

Reliable Vulnerability Scans for images partially pulled through a cache

Upon pull-through Quay now pulls all layers of the requested regardless to enable Clair vulnerability scanning

UI Improvements

We are adding UI notification support and improve the performance of listing all repositories available to a user



Product Manager: Daniel Messer

Red Hat

Console

Console: Unified Perspectives

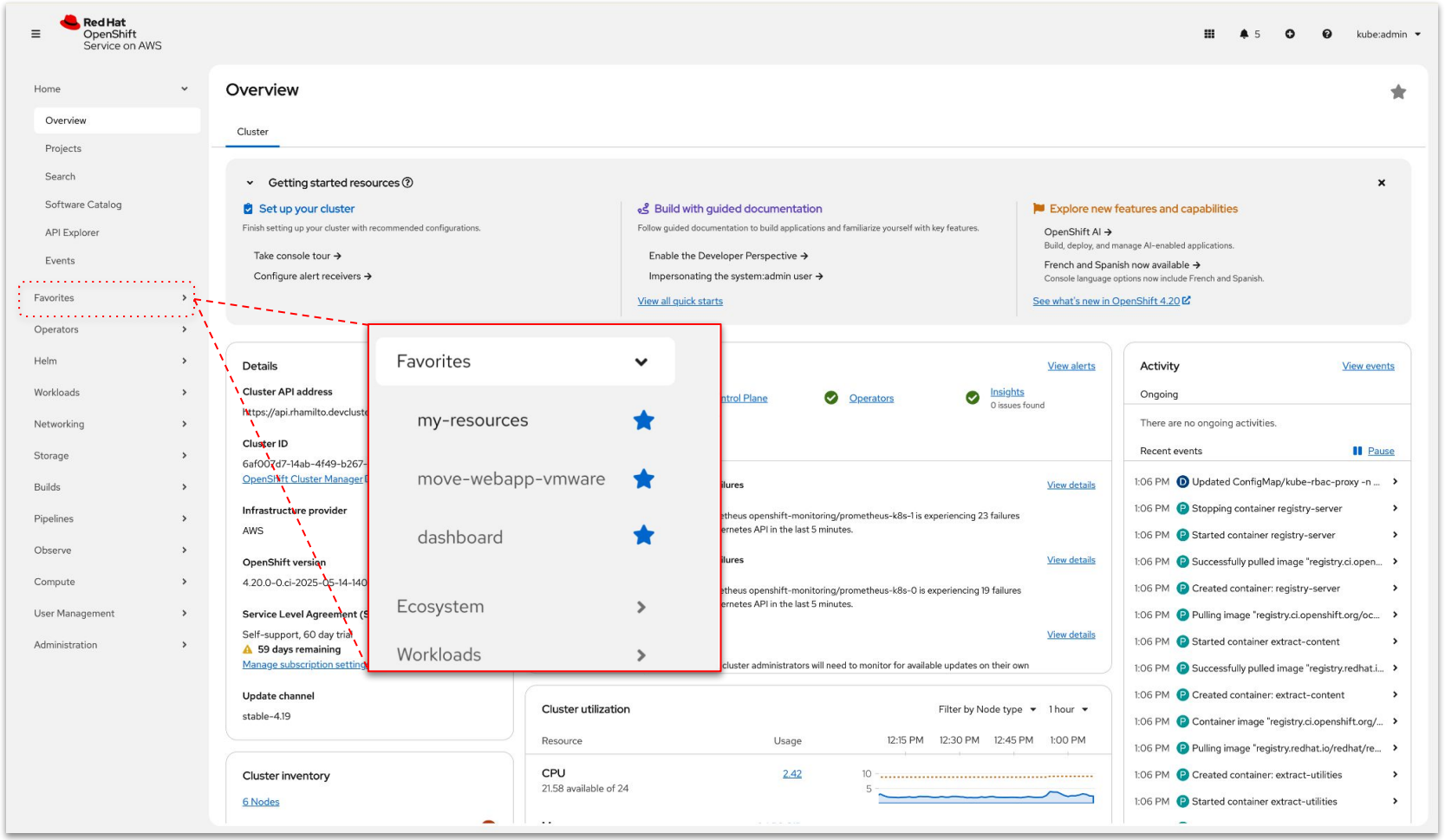
Admin & Dev views merged into a single view, streamlining the Openshift Console

Designed to...

- Reduce context switching, allowing users to complete end-to-end workflows without toggling views.
- Support hybrid roles, like Platform engineers, and reduce redundant workflows.

Comes with...

- New Guided Tour
- New favoriting Feature
- Improved Navigation
- Updated Design(Pattern Fly 6)
- Ability to re-enable Dev-only View



Product Manager: Ali Mobrem

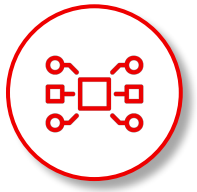
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OpenShift Dev Spaces

Version 3.21 is now available

Red Hat OpenShift Dev Spaces 3.21 is based on Eclipse Che 7.102





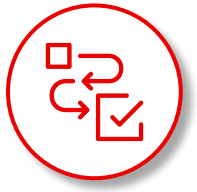
Connect Your Local JetBrains IDEs via JetBrains Gateway (Tech Preview)

You can now use JetBrains Gateway to connect your local JetBrains IDE (IDEA Ultimate, PyCharm, WebStorm, RubyMine, and CLion) to a remote Dev Spaces instance.



Customize settings, extensions, and product.json through a configmap

Administrators can now customize the settings.json, extensions.json, and product.json for VS Code using a configmap making editor customizations quicker and easier.



Configure two GitLab OAuth providers simultaneously

You can now configure two Gitlab OAuth providers on a single Dev Spaces instance which is especially useful for developers working on codebases hosted on both GitLab SaaS and on-premises



Configure user namespaces with an OpenShift Template

Admins can now leverage the OpenShift Template object and replicate the resources defined in it across the namespaces of all users such as: LimitRange, ResourceQuota ,NetworkPolicy, Role, and RoleBinding

Podman Desktop

5.9k !

Accepted as a Sandbox Cloud Native Computing Foundation (CNCF) project.

- **NEW:** Simpler registry mirroring configuration
- **NEW:** Improved Kubernetes Support - more objects are supported (pods, maps, secrets, etc.), new namespace switching and better performance!
- **NEW:** Search in Logs
- **NEW:** Prune only untagged images
- **NEW:** experimental features: status bar, tasks manager, and Kubernetes context monitoring

Extensions! Extensions! Extensions!

- **BootC**: Experiment with bootable containers on your desktop! Allows build, test and deployment of bootable containers.
- **Minc**: Start *MicroShift* in a container for development purposes.
- **RHEL VMs**: Run RHEL in VMs directly from Podman Desktop
- Podman Desktop is now available on RHEL 10

Release Notes



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Podman AI Lab

Providing an easy way for application developers to get started with AI

Local Inferencing

- GPU Acceleration Support
- Now leveraging **Ramalama**
- Support for OpenVino

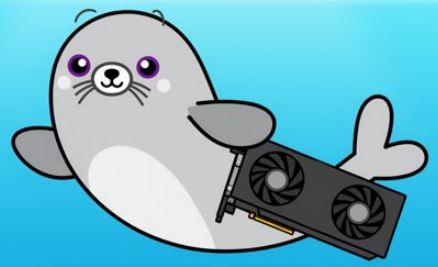
Experimentation Playground

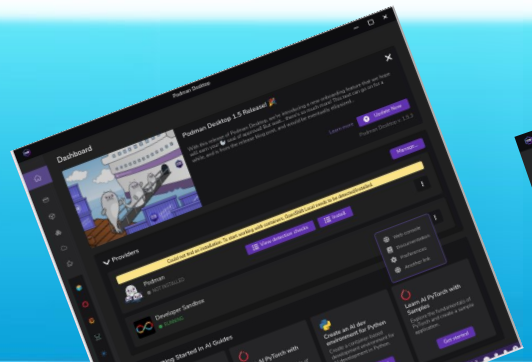
- Expanded Catalog of Recipes
- Access to Open AI API
- **Ollama** API compatibility
- MCP Support in Playground

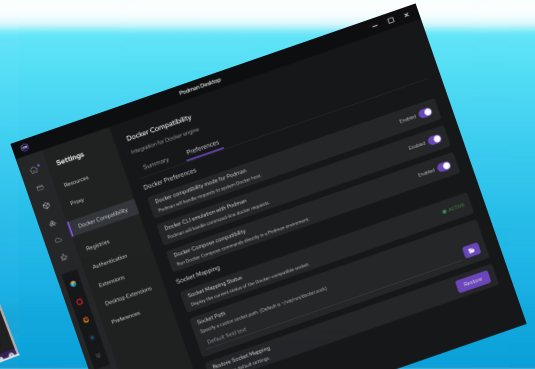
Agentic

- Easy start of **LLama Stack**
- Explore Llama Stack API
- Agents Recipes
- MCP Server Support
- **Podman MCP Server**

Try Podman NOW: podman-desktop.io







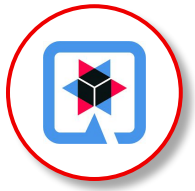
OpenShift Developer Experience

IDE Extensions and Cloud Developer Environment



OpenShift Toolkit for VS Code - 1.19.0

- IntelliJ OpenShift is no longer supported and has been removed from the JetBrains Marketplace
- OpenShift Pipeline Tasks in Cluster View has been added to the Application explorer
- Multiple K8s configuration files are supported when configured in KUBECONFIG environment variable



Quarkus Tools for VS Code and IntelliJ - 1.21.0

- Performance improvements in the Qute language server
- Support for Integer operators in Qute files
- Bug fixes/stability enhancements



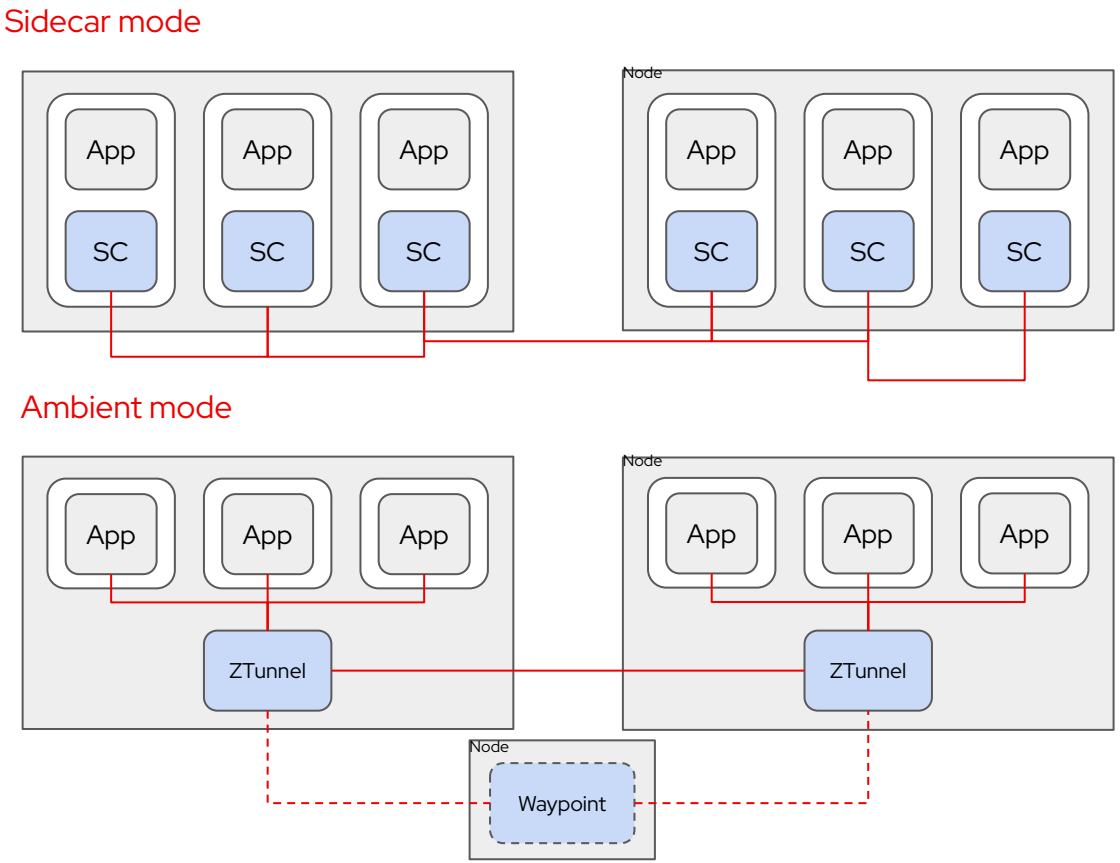
Language Server Protocol Plugin - 0.13.0

- Many performance improvements
- Language Server Installer API
- Debug Adapter Protocol (DAP) support
- Various LSP implementations

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OpenShift Service Mesh

- OpenShift **Service Mesh 3.1** is coming soon:
  - Based Istio 1.26 and Kiali 2.11
  - End to end Kubernetes Gateway API support with OCP 4.19+
  - **Istio Ambient mode - Technology Preview**
    - **Easier to adopt - no sidecars!**
    - **Significantly less resource usage**
    - ZTunnel for **lightweight pod to pod mTLS encryption**
    - Independently scalable Waypoints for L7 mesh features.
- OpenShift Service Mesh 3.1 will be supported on OCP 4.14+.



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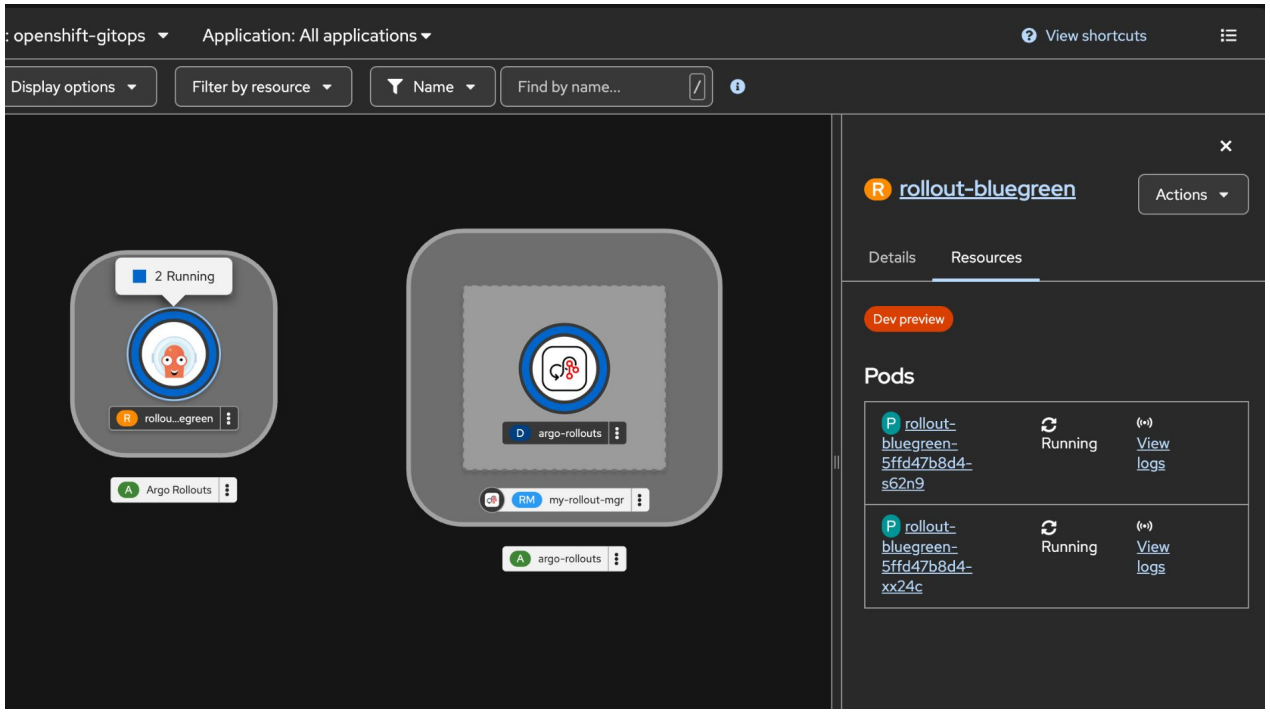
OpenShift GitOps

OpenShift GitOps **1.17** release

- Argo CD 3.0 and Argo Rollouts 1.8.0
- Argo CD Agent Tech Preview
- Argo Rollouts in the OpenShift Console

Customer requests:

- RFE-4607 JSON logging for all components



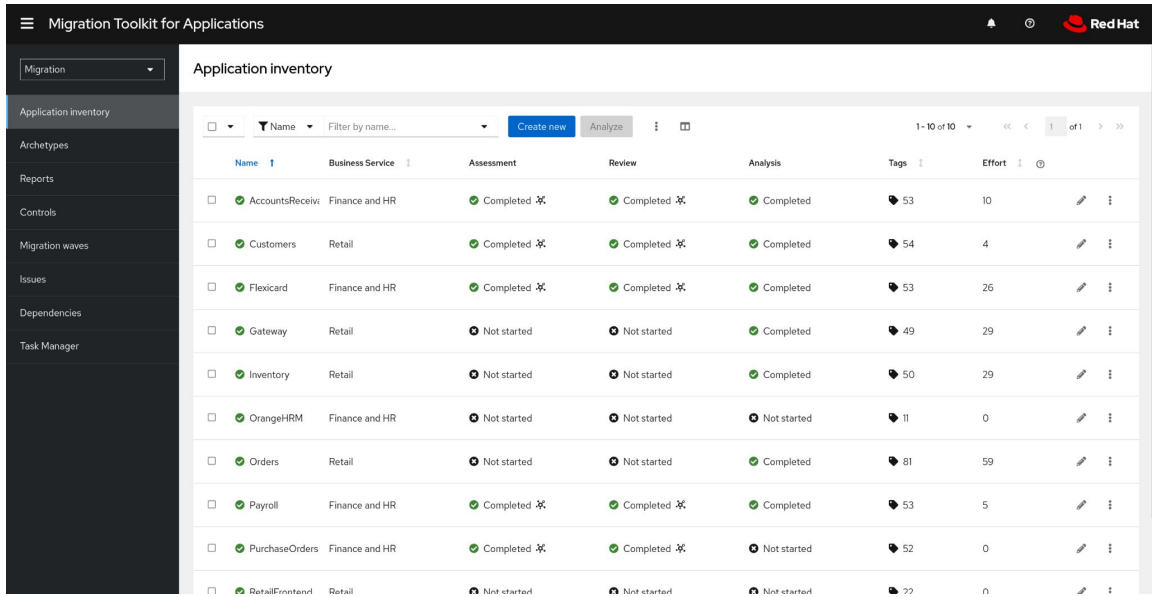
Product Manager: Harriet Lawrence

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Migration Toolkit for Applications

Migration Toolkit for Applications 7.3

- New Migration Paths: Spring Boot 2 to 3 and Spring Framework 5 to 6.
- Support for Node.js and Python analysis (Tech Preview)
- Assets Generation in the MTA CLI (Dev Preview)
  - Enable MTA to generate all assets required to deploy an application on OpenShift.
  - Integrated with the Helm templating engine
- Upgrade from Red Hat Single Sign On to the Red Hat Build of Keycloak



Product Manager: Siamak Sadeghianfar (on behalf of Ramón Román Nissen)

Red Hat

Red Hat Device Edge and MicroShift

Red Hat Device Edge with MicroShift is a Kubernetes distribution derived from OpenShift designed for small form factor devices and edge computing.

OpenShift AI Model Serving (TechPreview)

- Uses RHOAI RawDeployment mode based on kserve
- Deploy kserve manifests / models
- Use RHOAI supported ServingRuntimes also on MicroShift

Observability with OpenTelemetry (TechPreview)

- Send observability data like monitoring, events, logs from edge to central core
- Lightweight OTel collector - no local prometheus
- Use any OTLP compatible endpoint
- Allows for local persistent data buffering during dark network periods
- Pre-Defined baseline profiles for small/medium/large data collection

RHEL image mode (General Available)

- Simplify CI/CD by leveraging container tools for workload and the operating system (e.g. an OCI container registry, bootc etc.)
- base image with MicroShift already included available

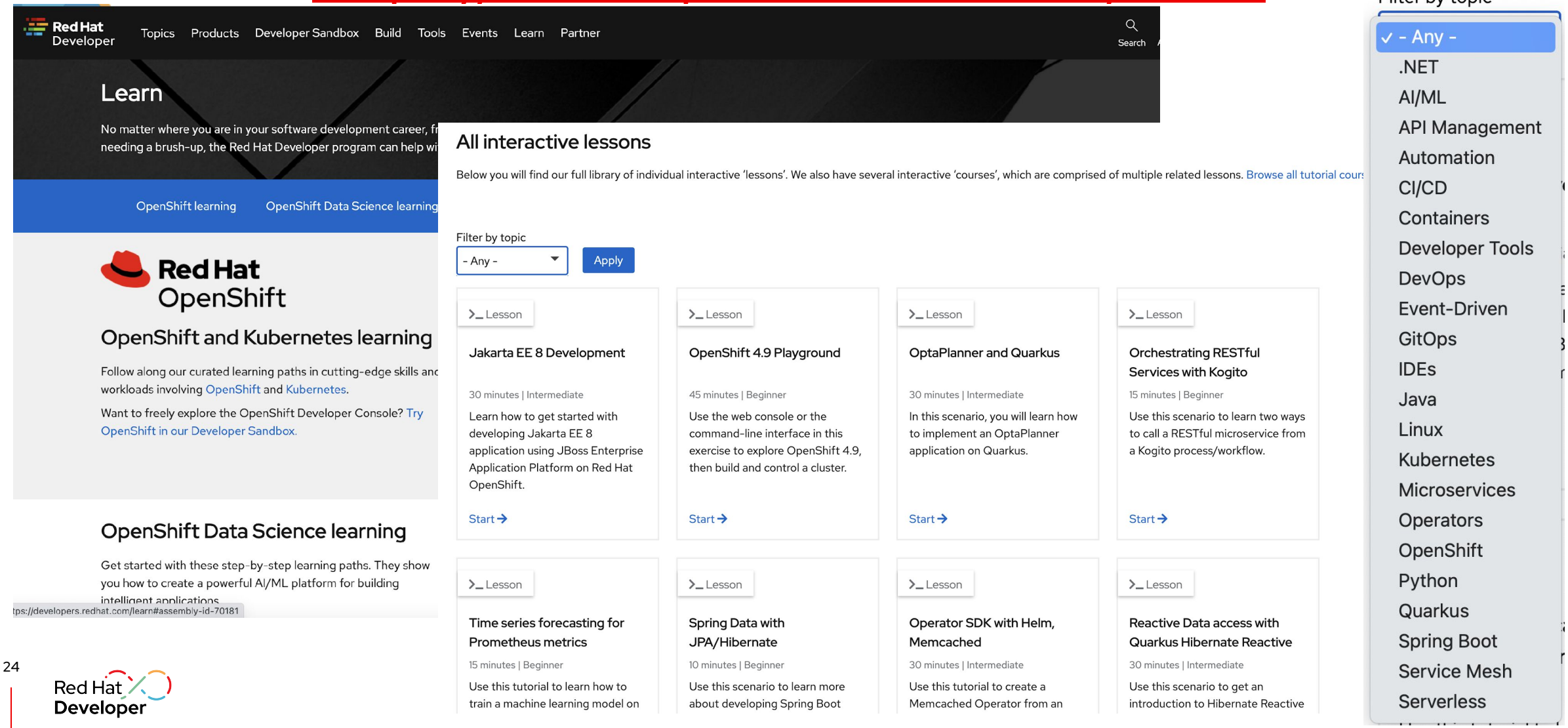
Enhanced config options

- Use custom certificates
- TLS Security Profiles / Cipher Configuration
- Support Client TLS / mTLS at ingress

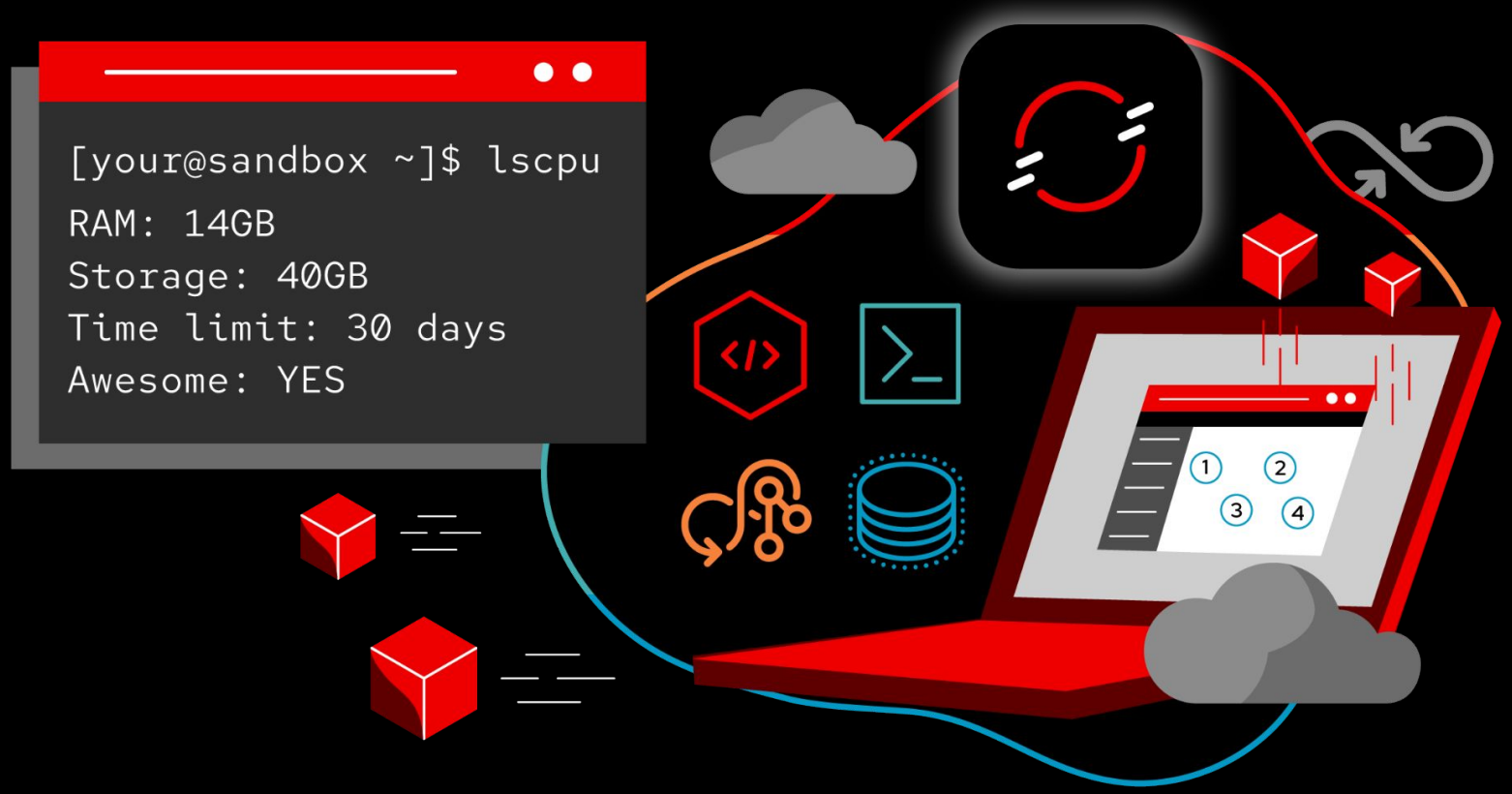
Product Manager: Daniel Fröhlich

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Richard Hofmeister

Senior App Dev Solutions Architect :: hofmeister@redhat.com :: 517-927-6303

LinkedIn :: Richard Hofmeister

Quarter	Speaker	Topic	Slide Deck
Q4 - 2022	Richard Hofmeister	Agenda	pdf
	Brian Dumont	Using the Insights API to apply Compliance Profiles	pdf
	Richard Hofmeister	Application Modernization With Konveyor	pdf
	Patrick Regan	What's New in RHEL 9	pdf
	Brad Krumme	Enterprise Architecture Patterns	pdf
Quarter	**Speaker**	**Topic**	**Slide Deck**
Q3 - 2022	Brian Dumont	Enterprise Automation	pdf
	Alan Patrick	Red Hat Satellite	pdf
	Jay Ryan	Managing Complex Workloads in a Kubernetes Native Environment	pdf
	David Brugger	Empowering Event Driven Architectures Across the Hybrid Cloud	pdf
	Andy Block	Introduction to GitOps and Secrets Management	pdf