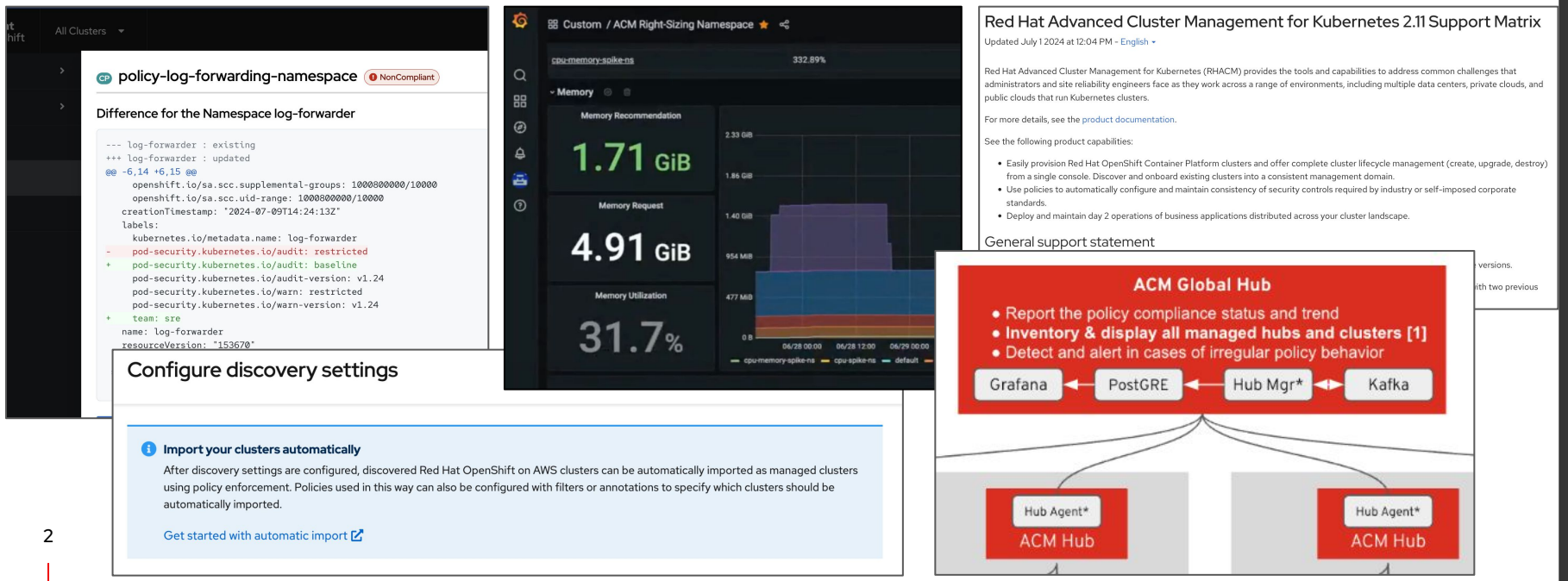
RHACM 2.11 Release Updates

ACM Product Management

July 2024

Red Hat

Red Hat Advanced Cluster Management 2.11

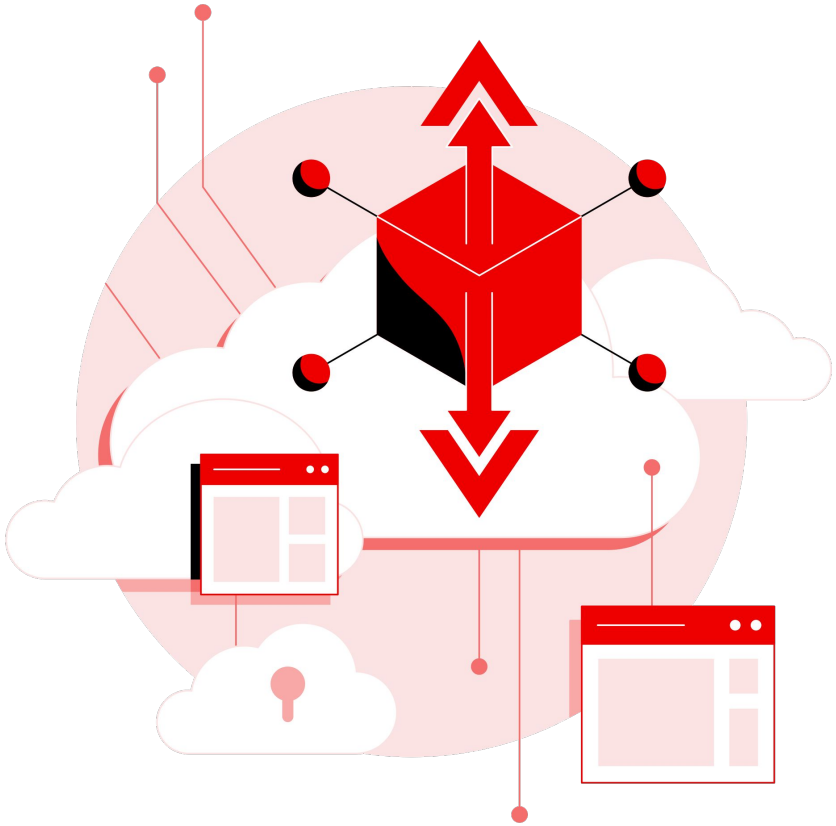


Welcome to the future of Kubernetes management. It's here, and it's powered by Red Hat Advanced Cluster Management 2.11.

Red Hat

Red Hat Advanced Cluster Management

What's new in 2.11 - **Highlights**



- Expanded Kubernetes support matrix
- Automated ROSA import - DP
- **Global** Hub **Search** - TP
- Enhanced OLM operator integration - **GA**
- Policy violation debug (diff) in the UI
- OpenShift Virtualization enhancements
- Right-sizing - Enhanced DP
- Fine-grained RBAC for RHACM Observability - TP

Extended Support Matrix

RHACM is committed to embracing Kubernetes diversity

Supported platforms for RHACM

RHACM has two main components:

- A server component called the "hub cluster" where the management tools and user interface run
- A client component that is installed on all Kubernetes clusters that can be managed by the "hub cluster"
- **Note:** You do not have to use a dedicated cluster for your hub cluster.

Platform	Supported for hub cluster	Supported for managed cluster
New Red Hat OpenShift Container Platform (RHOCP) 4.16, and later 4.16.x releases	✓	✓
Red Hat OpenShift Container Platform (RHOCP) (EUS) 4.15, and later 4.15.x releases	✓	✓
Red Hat OpenShift Container Platform (RHOCP) (EUS) 4.14, and later 4.14.x releases	✓	✓
RHOCP 3.11.784, and later 3.11.x releases (Deprecated)	✗	✓
Single node OpenShift (SNO)	✓	✓
Red Hat OpenShift Dedicated	✓	✓
RHOCP on IBM Cloud (RHOIC)	✓	✓
Microsoft Azure Red Hat OpenShift (ARO)	✓	✓
Red Hat OpenShift Service on AWS (ROSA)	✓	✓
Red Hat OpenShift Service on AWS with Hosted Control Planes (ROSA HCP)	✓	✓
RHOCP on bare metal	✓	✓
RHOCP on VMware vSphere	✓	✓

Supported platforms for RHACM

CNCF Conformant Kubernetes clusters

RHOCP on bare metal	✓	✓
RHOCP on VMware vSphere	✓	✓
Red Hat OpenShift Virtualization (RHOV)	✓	✓
RHOCP on Red Hat OpenStack Platform (RHOSP)	✓	✓
RHOCP on Arm	✓	✓
RHOCP on IBM Z	✓	✓
RHOCP on IBM Power Systems	✓	✓
RHOCP on AWS GovCloud	✓	✓
RHOCP on Microsoft Azure Government	✓	✓
Red Hat OpenShift Kubernetes Engine	✓	✓
Hosted control planes for RHOCP 4.14 and later	✓	✓
Amazon EKS (Kubernetes 1.29.0)	✗	✓
Amazon EKS Distro version 1.29.0-EKS-43840fb (Tech Preview)	✗	✓
Google GKE (Kubernetes 1.29.0)	✗	✓
IBM Cloud Kubernetes Service (Kubernetes 1.29.0)	✗	✓
oft AKS (Kubernetes 1.29.0)	✗	✓
CNCF Conformant Kubernetes clusters	✗	✓

In addition to already supporting management across OpenShift and public cloud Kubernetes services, we now include an expanded support matrix, including support for all distributions in the Certified Kubernetes Conformance Program.

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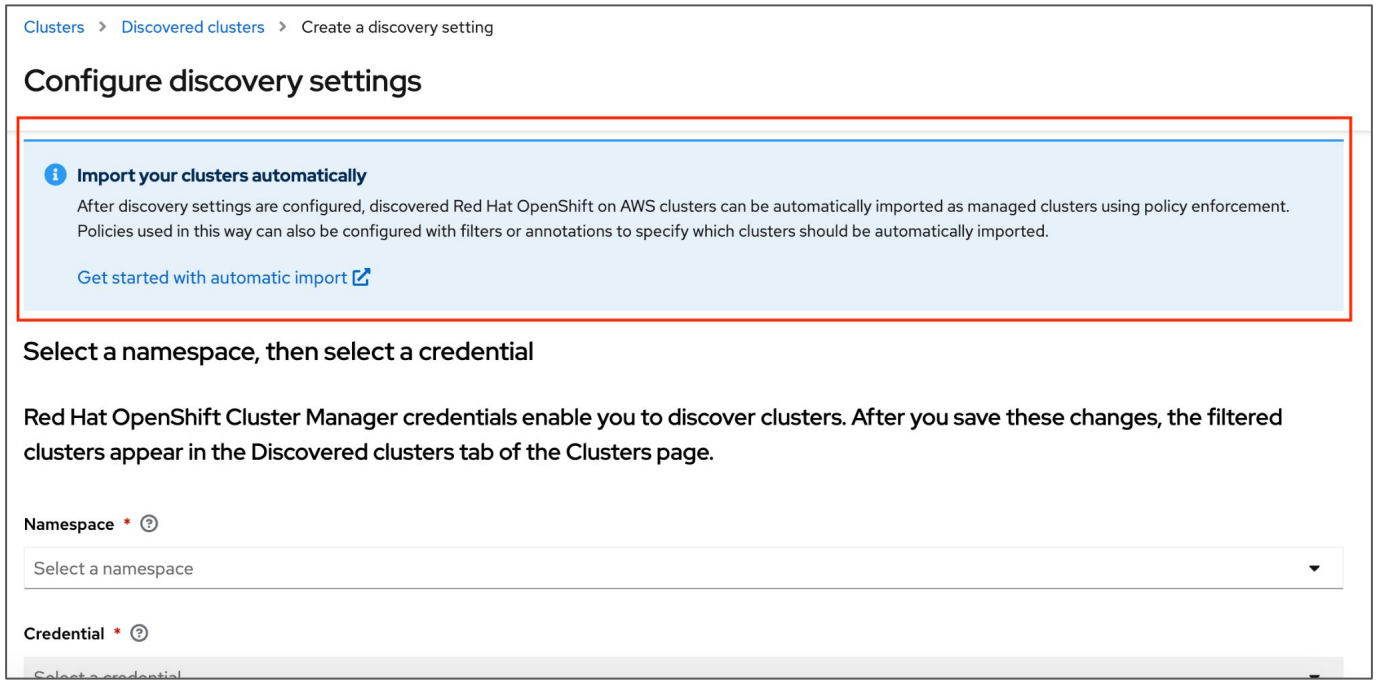
Automated ROSA import

Reduce time and manual errors in onboarding your existing ROSA clusters



The new automated discovery and import feature scans your AWS environment, identifies ROSA clusters, and imports them automatically into the management hub.

ROSA import documentation

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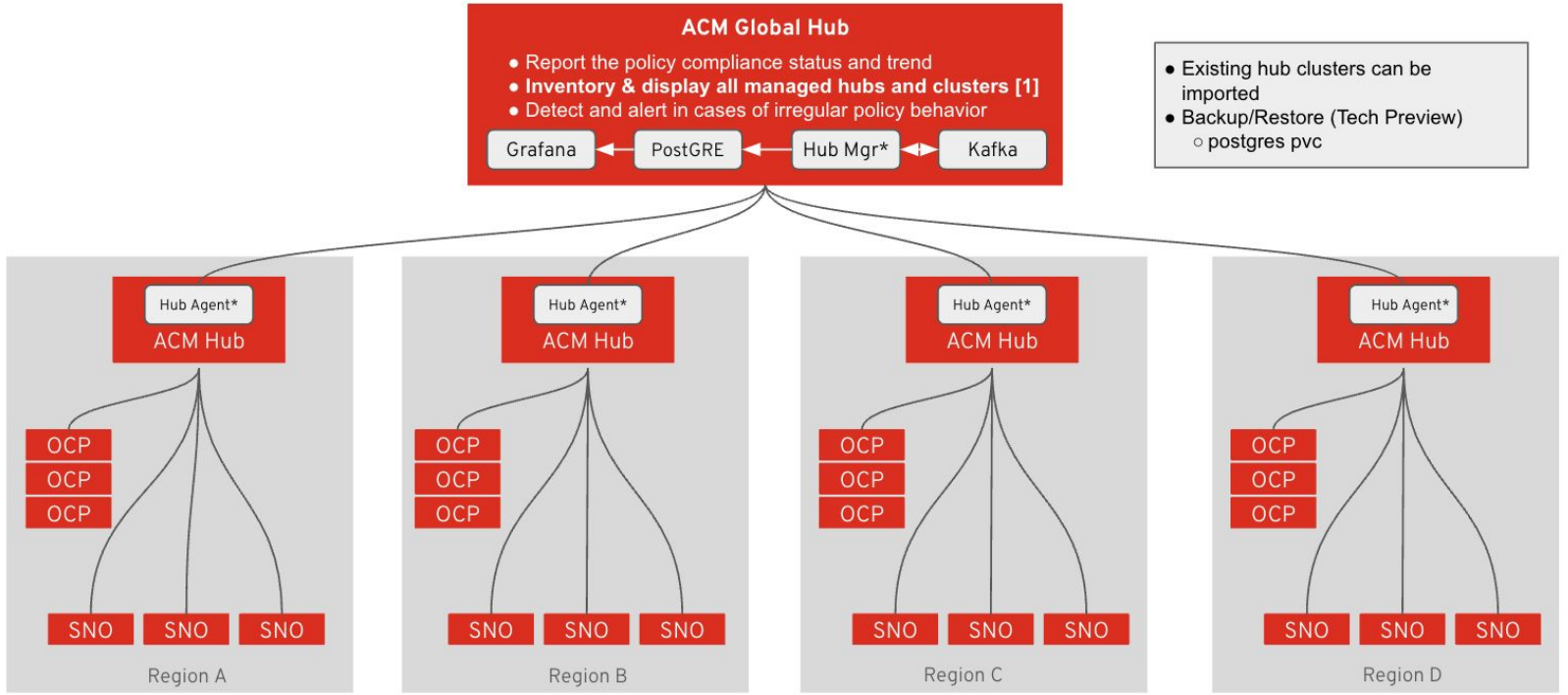
Global Hub - Global Search

Your Multicluster Command Center



Have a **unified management view** for all of your clusters across all hubs. Perform **cross-hub searches** to quickly find resources, regardless of location. Define and **personalize saved searches** that you regularly come back to and **export results to a CSV report** that can be used across adjacent teams.

Global Search documentation

[1] Global Inventory Search View technical preview now - ACM 2.11 (OCP 4.16)
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Operator Lifecycle Manager integration

Get improved operator management with Operator Policies

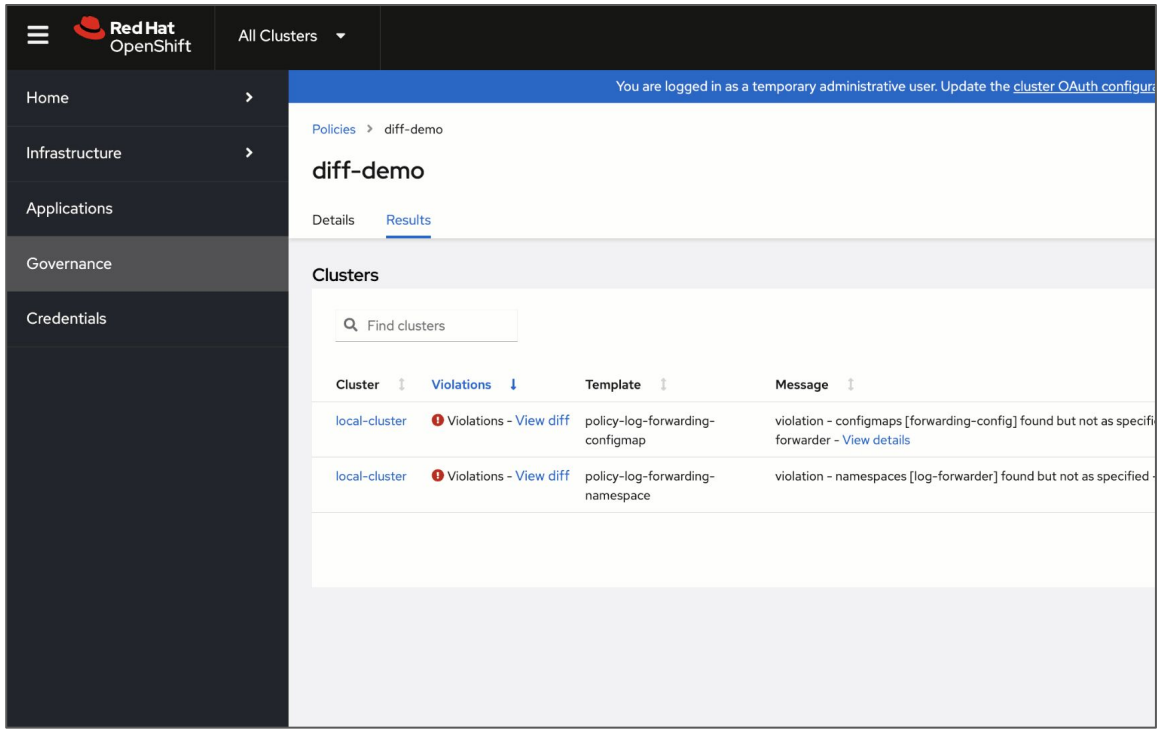
```yaml
apiVersion: policy.open-cluster-management.io/v1beta1
kind: OperatorPolicy
metadata:
  name: operatorpolicy-gatekeeper-operator
spec:
  remediationAction: inform
  severity: high
  complianceType: musthave
  subscription:
    name: gatekeeper-operator-product
    namespace: openshift-operators
    channel: stable
    source: redhat-operators
    sourceNamespace: openshift-marketplace
  upgradeApproval: Automatic
```

Users and customers streamline installation and management of operators at scale with native integration, ensuring seamless operations across clusters.

Operator Policy documentation

Policy violation debug

Policy “diff” now generally available in the UI



Visualize the “diff”-erence between the current state of configured resources vs. the desired state of the Policy using either the UI or API.

Policy Debug Log documentation

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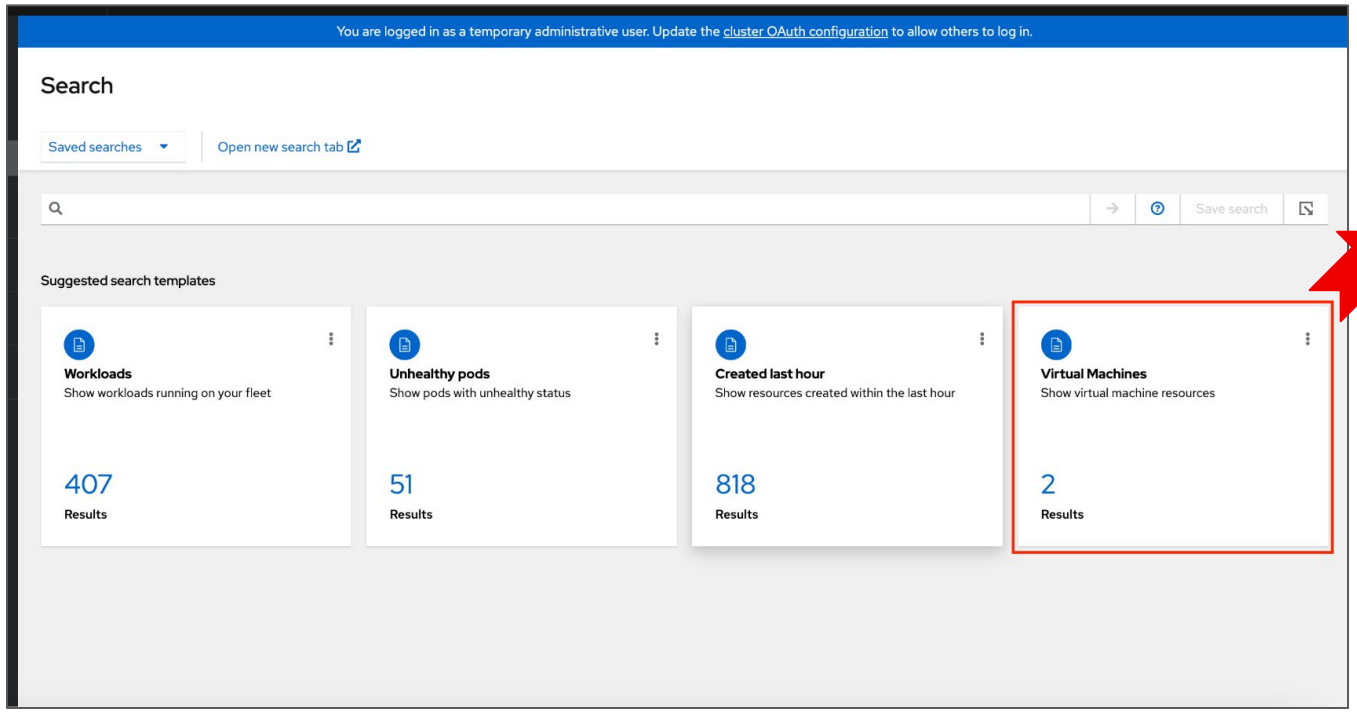
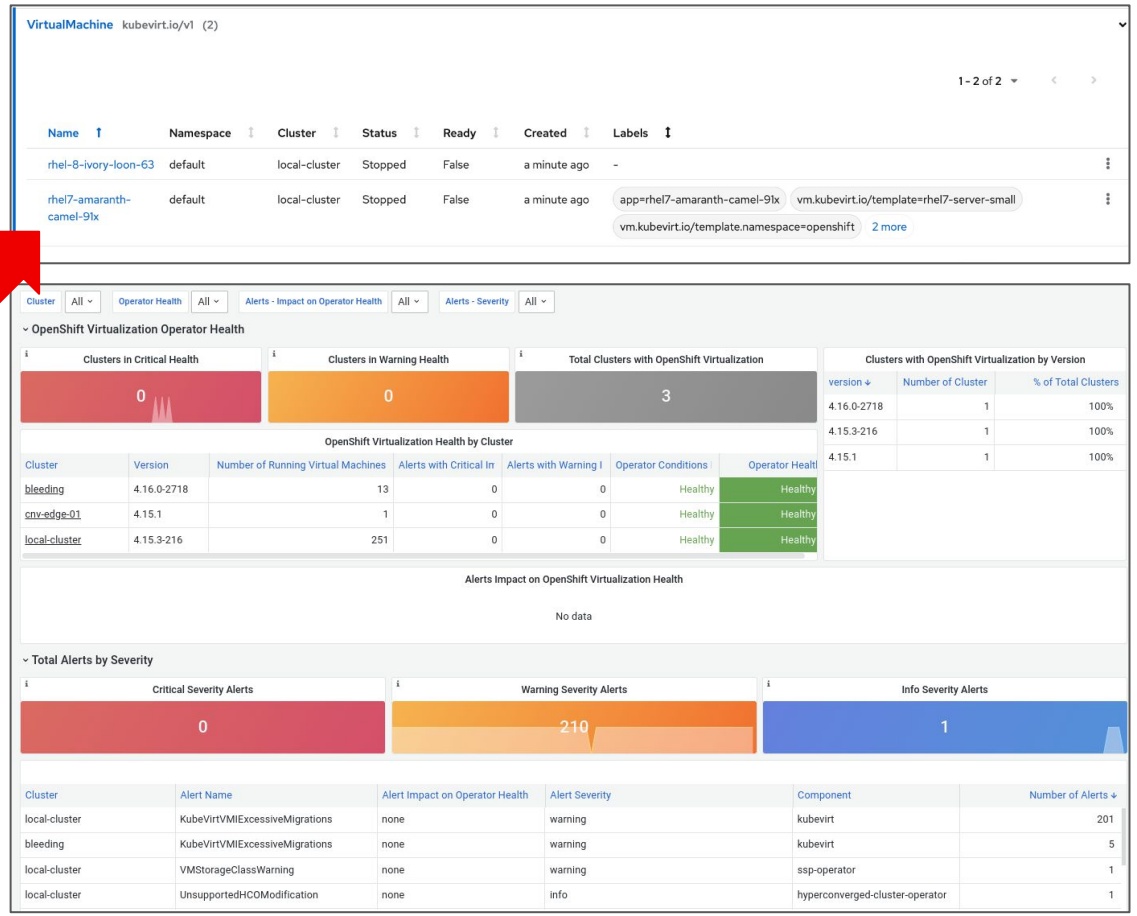
OpenShift Virtualization enhancements

Observe containerized and virtualized workloads across the hybrid cloud





Use enhanced Search to quickly see all virtual machines on your fleet. Gain deeper insights and visibility into your OpenShift Virtualization inventory with a ready-to-use dashboard.

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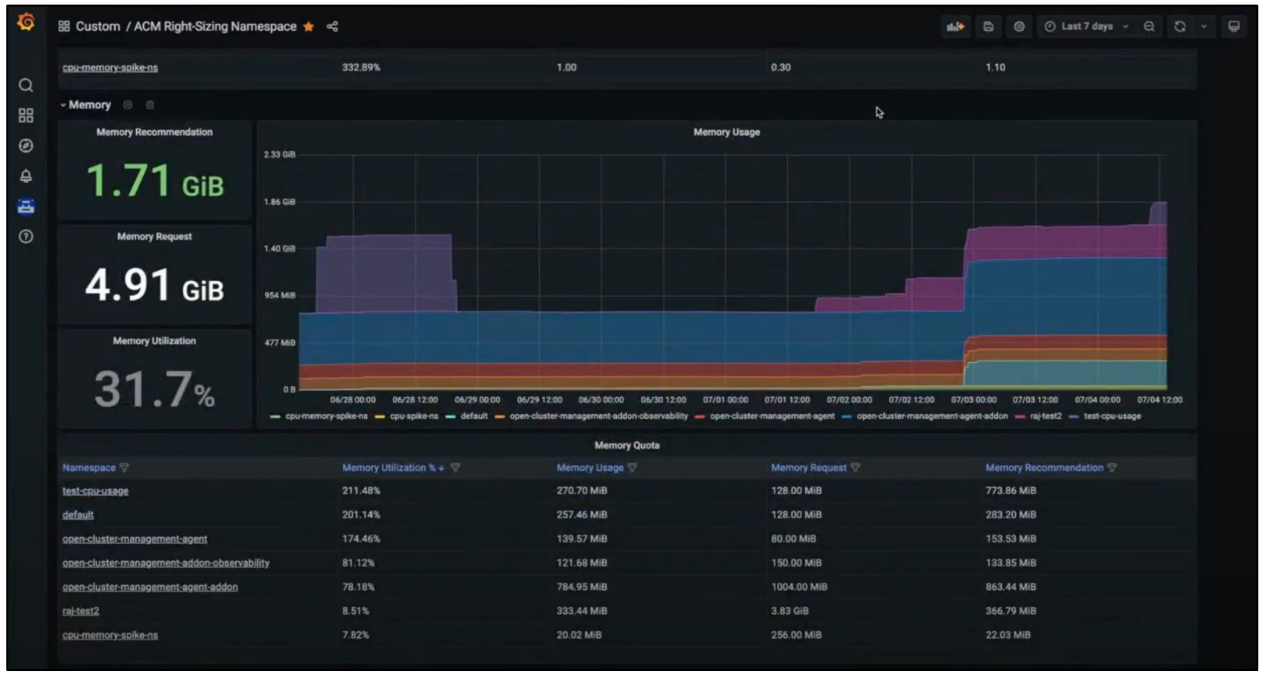
Right-sizing

Optimize resource allocation in cluster namespaces



RHACM's right-sizing analyzes cluster resource usage and provides recommendations for requests and limits, which can lead to significant cost savings.

Right-sizing explainer blog

Red Hat

Tech Preview (TP)

Fine-grained RBAC for RHACM Observability

Enhance security and reduce cognitive load with granular control over observability access.

```
kind: ClusterRole
apiVersion: rbac.authorization.k8s.io/v1
metadata:
  name: ocm-metrics-access
rules:
  - verbs:
      - metrics/open-cluster-management-agent
      - metrics/open-cluster-management-agent-addon
    apiGroups:
      - cluster.open-cluster-management.io
    resources:
      - managedclusters
    resourceNames:
      - devcluster1
      - devcluster2
```

```
kind: ClusterRoleBinding
apiVersion: rbac.authorization.k8s.io/v1
metadata:
  name: ocm-metrics-access-binding
subjects:
  - kind: User
    apiGroup: rbac.authorization.k8s.io
    name: user1
roleRef:
  apiGroup: rbac.authorization.k8s.io
  kind: ClusterRole
  name: ocm-metrics-access
```

Fine-grain RBAC provides namespace-level granularity by limiting access to specific namespaces. Each team in the organization may now only see metrics restricted to their own teams.

RBAC documentation

Red Hat

Other Enhancements

Enhanced control and insights features

```
apiVersion: observability.open-cluster-ma
kind: MultiClusterObservability
metadata:
  name: observability
spec:
  observabilityAddonSpec: {}
  instanceSize: minimal
  storageConfig:
    metricObjectStorage:
      name: thanos-object-storage
      key: thanos.yaml
```

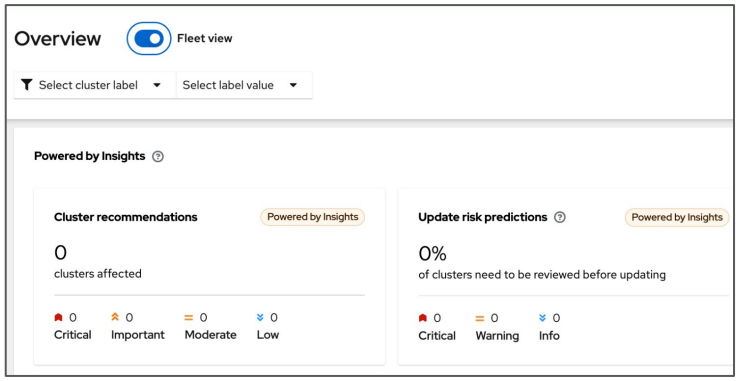
T-shirt sizing
RHACM Observability Stack

(DP)

Red Hat Device Edge

Multi-cluster Observability
for Red Hat Device Edge

(DP)



Upgrade risks in the Fleet View
Powered by Red Hat Insights

Open Policy Agent

Gatekeeper operator uplift
3.15.1

4.14 EUS → 4.16 EUS

EUS to EUS direct upgrades
in RHACM
documentation

These updates will help simplify operations across diverse Kubernetes environments, automate routine tasks, improve visibility into cluster health and performance and enhance their security posture.

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