

# RHACM 2.11

# Release Updates

**ACM Product Management**

July 2024



# 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.

**policy-log-forwarding-namespace** NonCompliant

Difference for the Namespace log-forwarder

```
--- log-forwarder : existing
+++ log-forwarder : updated
@@ -6,14 +6,15 @@
 openshift.io/sa.scc.supplemental-groups: 1000800000/10000
 openshift.io/sa.scc.uid-range: 1000800000/10000
 creationTimestamp: "2024-07-09T14:24:13Z"
 labels:
  kubernetes.io/metadata.name: log-forwarder
- pod-security.kubernetes.io/audit: restricted
+ pod-security.kubernetes.io/audit: baseline
 pod-security.kubernetes.io/audit-version: v1.24
 pod-security.kubernetes.io/warn: restricted
 pod-security.kubernetes.io/warn-version: v1.24
+ team: sre
 name: log-forwarder
 resourceVersion: "153670"
```

**Configure discovery settings**

**Import your clusters automatically**  
After discovery settings are configured, discovered Red Hat OpenShift on AWS clusters can be automatically imported as managed clusters using policy enforcement. Policies used in this way can also be configured with filters or annotations to specify which clusters should be automatically imported.  
[Get started with automatic import](#)

**Custom / ACM Right-Sizing Namespace**

**Memory**

Memory Recommendation: **1.71 GiB**

Memory Request: **4.91 GiB**

Memory Utilization: **31.7%**

2.33 GiB

1.86 GiB

1.40 GiB

954 MiB

477 MiB

0 B

06/28 00:00 06/28 12:00 06/29 00:00

cpu-memory-spike-ns cpu-spike-ns default

### Red Hat Advanced Cluster Management for Kubernetes 2.11 Support Matrix

Updated July 1 2024 at 12:04 PM - English

Red Hat Advanced Cluster Management for Kubernetes (RHACM) provides the tools and capabilities to address common challenges that administrators and site reliability engineers face as they work across a range of environments, including multiple data centers, private clouds, and public clouds that run Kubernetes clusters.

For more details, see the [product documentation](#).

See the following product capabilities:

- Easily provision Red Hat OpenShift Container Platform clusters and offer complete cluster lifecycle management (create, upgrade, destroy) from a single console. Discover and onboard existing clusters into a consistent management domain.
- Use policies to automatically configure and maintain consistency of security controls required by industry or self-imposed corporate standards.
- Deploy and maintain day 2 operations of business applications distributed across your cluster landscape.

General support statement

versions.  
with two previous

### ACM Global Hub

- Report the policy compliance status and trend
- **Inventory & display all managed hubs and clusters [1]**
- Detect and alert in cases of irregular policy behavior

Grafana ← PostGRE ← Hub Mgr\* ← Kafka

Hub Agent\*  
ACM Hub

Hub Agent\*  
ACM Hub

# 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
<b>New</b> 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)	✗	✓
Microsoft 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.

# Automated ROSA import

Reduce time and manual errors in onboarding your existing ROSA clusters

Clusters > Discovered clusters > Create a discovery setting

## Configure discovery settings

**i Import your clusters automatically**

After discovery settings are configured, discovered Red Hat OpenShift on AWS clusters can be automatically imported as managed clusters using policy enforcement. Policies used in this way can also be configured with filters or annotations to specify which clusters should be automatically imported.

[Get started with automatic import](#)

Select a namespace, then select a credential

Red Hat OpenShift Cluster Manager credentials enable you to discover clusters. After you save these changes, the filtered clusters appear in the Discovered clusters tab of the Clusters page.

Namespace \* ?

Select a namespace

Credential \* ?

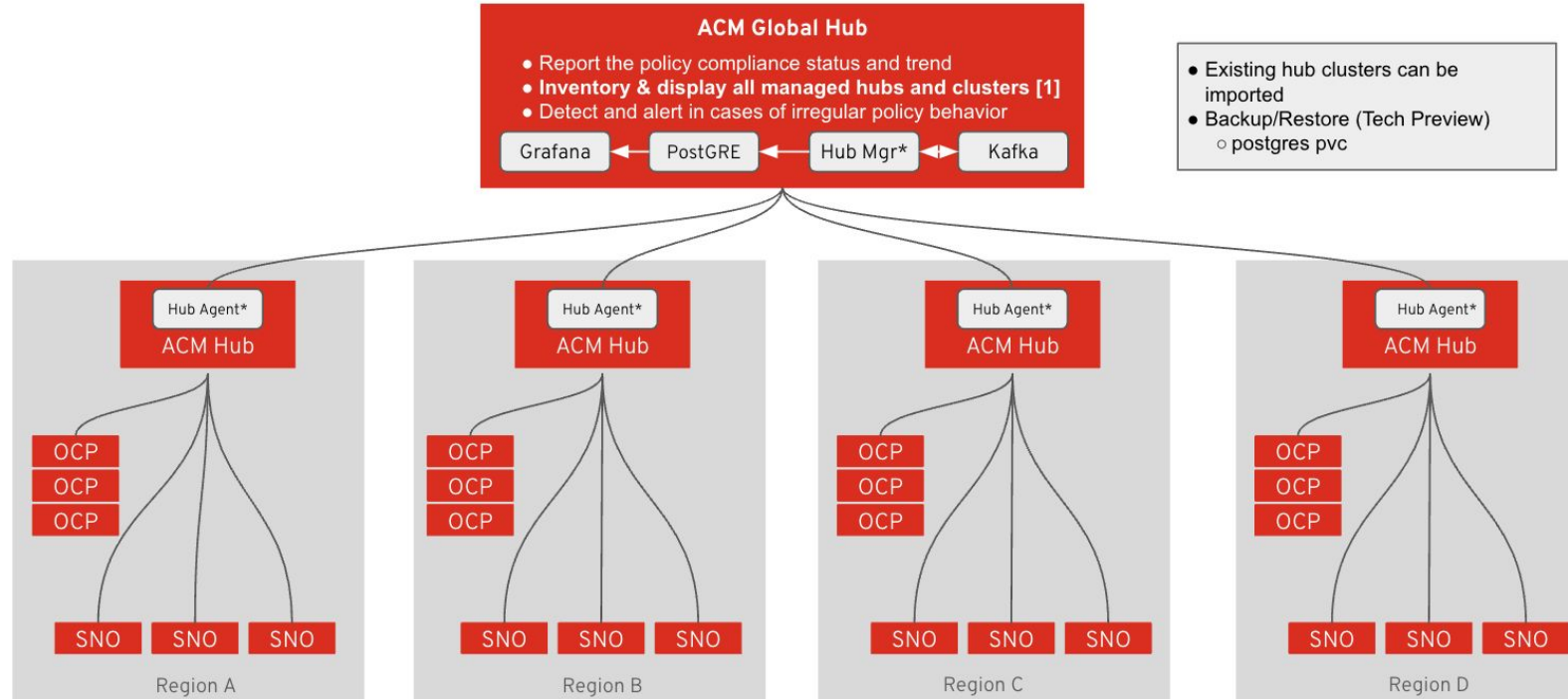
Select a credential

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](#)

# Global Hub – Global Search

## Your Multicenter 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](#)

# Operator Lifecycle Manager integration

## Get improved operator management with Operator Policies

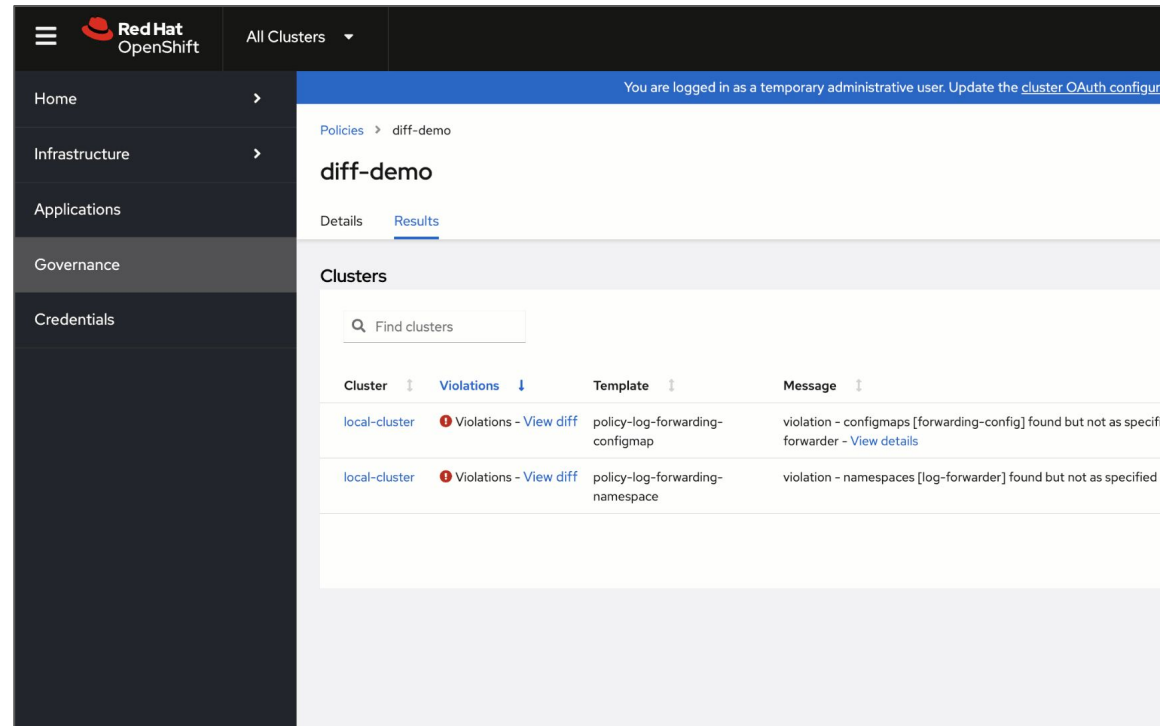
```
apiVersion: policy.open-cluster-management.io/v1beta1
kind: OperatorPolicy
metadata:
  name: operatorpolicy-gatekeeper-operator
spec:
  remediationAction: inform
  severity: high
  complianceType: musthave
  subscription:
    name: gatekeeper-operator-product
    namespace: openshift-operators
    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](#)



# OpenShift Virtualization enhancements

## Observe containerized and virtualized workloads across the hybrid cloud

You are logged in as a temporary administrative user. Update the [cluster OAuth configuration](#) to allow others to log in.

### Search

Saved searches [Open new search tab](#)

Q → Save search

#### Suggested search templates

**Workloads**  
Show workloads running on your fleet

407  
Results

**Unhealthy pods**  
Show pods with unhealthy status

51  
Results

**Created last hour**  
Show resources created within the last hour

818  
Results

**Virtual Machines**  
Show virtual machine resources

2  
Results

### VirtualMachine kubevirt.io/v1 (2)

1 - 2 of 2

Name	Namespace	Cluster	Status	Ready	Created	Labels
rhel8-ivory-loon-63	default	local-cluster	Stopped	False	a minute ago	
rhel7-amaranth-camel-9lx	default	local-cluster	Stopped	False	a minute ago	app=rhel7-amaranth-camel-9lx vm.kubevirt.io/template=rhel7-server-small vm.kubevirt.io/template.namespace=openshift

#### OpenShift Virtualization Operator Health

Clusters in Critical Health: 0

Clusters in Warning Health: 0

Total Clusters with OpenShift Virtualization: 3

Cluster	Version	Number of Running Virtual Machines	Alerts with Critical In	Alerts with Warning I	Operator Conditions	Operator Health
bleeding	4.16.0-2718	13	0	0	Healthy	Healthy
cnv-edge-01	4.15.1	1	0	0	Healthy	Healthy
local-cluster	4.15.3-216	251	0	0	Healthy	Healthy

#### Alerts impact on OpenShift Virtualization Health

No data

#### Total Alerts by Severity

Critical Severity Alerts: 0

Warning Severity Alerts: 210

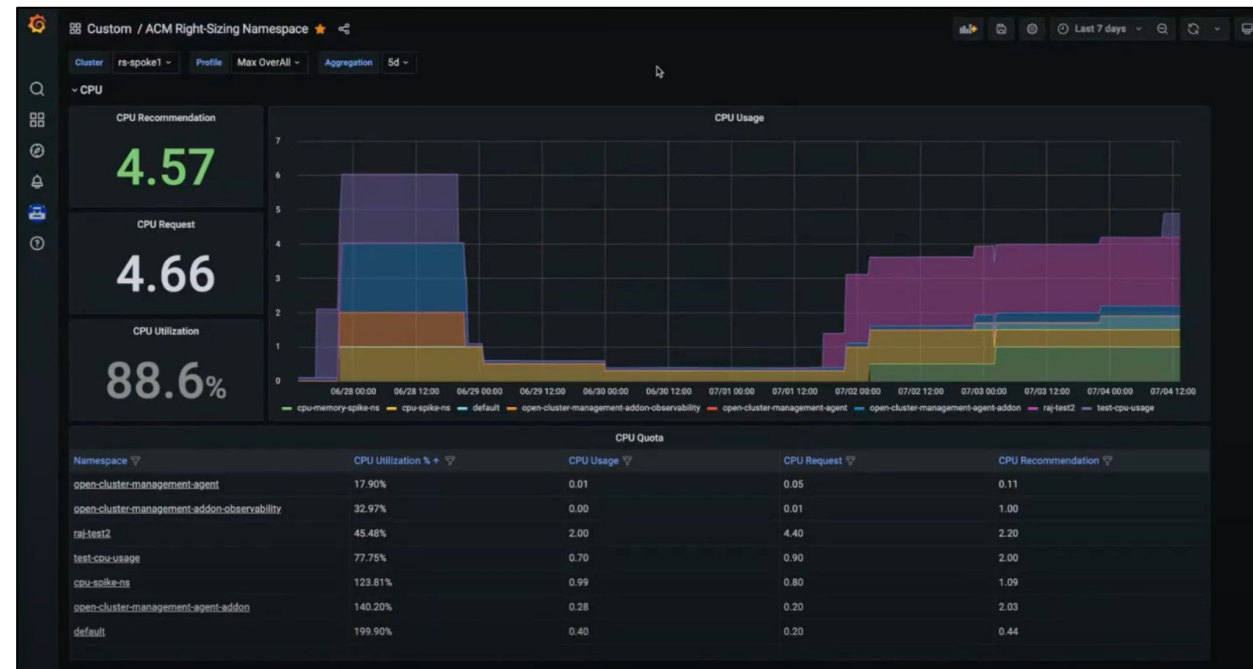
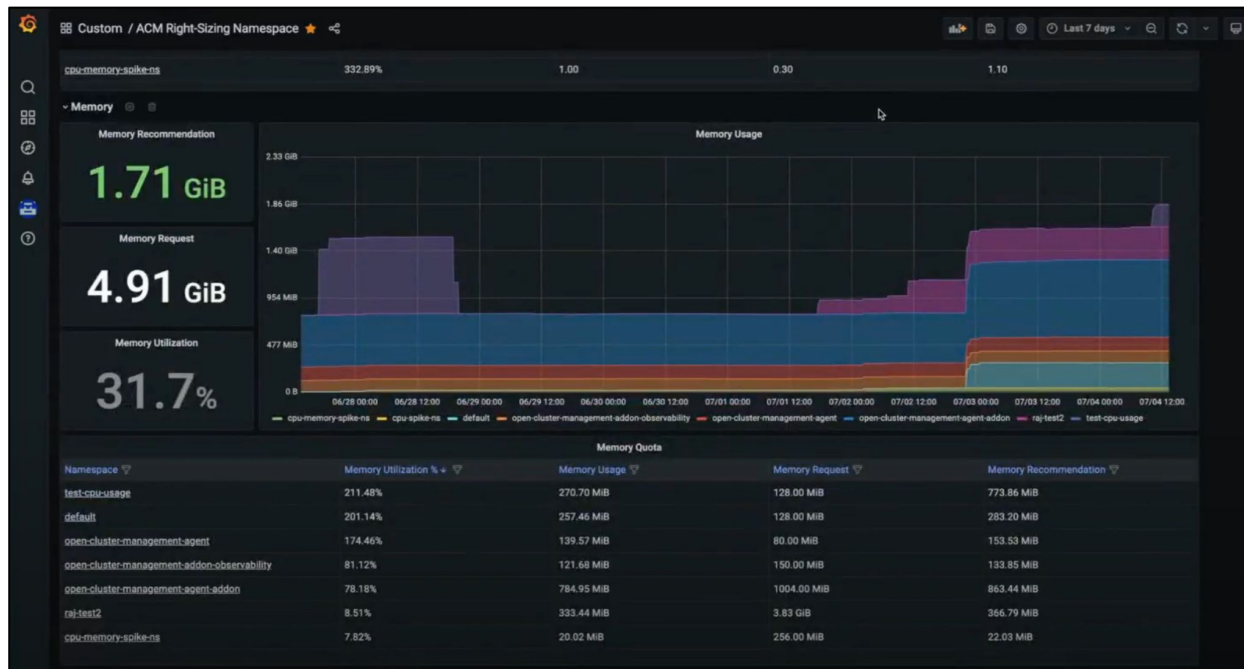
Info Severity Alerts: 1

Cluster	Alert Name	Alert Impact on Operator Health	Alert Severity	Component	Number of Alerts
local-cluster	KubeVirtVMIExcessiveMigrations	none	warning	kubevirt	201
bleeding	KubeVirtVMIExcessiveMigrations	none	warning	kubevirt	5
local-cluster	VMStorageClassWarning	none	warning	ssp-operator	1
local-cluster	UnsupportedHCOModification	none	info	hyperconverged-cluster-operator	1

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.

# 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](#)

# 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](#)

# 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
```

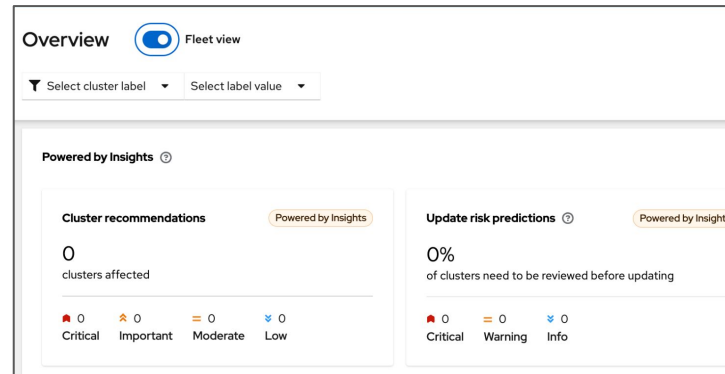
**T-shirt sizing**  
**RHACM Observability Stack**

[\(DP\)](#)



**Multi-cluster Observability**  
**for Red Hat Device Edge**

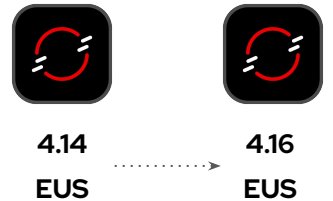
[\(DP\)](#)



**Upgrade risks in the Fleet View**  
**Powered by Red Hat Insights**



**Gatekeeper operator uplift**  
**3.15.1**



**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.

# Thank you

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