# **■** NetApp

# **Deployment**

**NetApp Solutions** 

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## **Deployment**

### **Deploy Advanced Cluster Management for Kubernetes**

#### **Prerequisites**

- 1. A Red Hat OpenShift cluster (greater than version 4.5) for the hub cluster
- 2. Red Hat OpenShift clusters (greater than version 4.4.3) for managed clusters
- Cluster-admin access to the Red Hat OpenShift cluster
- 4. A Red Hat subscription for Advanced Cluster Management for Kubernetes

Advanced Cluster Management is an add-on on for the OpenShift cluster, so there are certain requirements and restrictions on the hardware resources based on the features used across the hub and managed clusters. You need to take these issues into account when sizing the clusters. See the documentation here for more details.

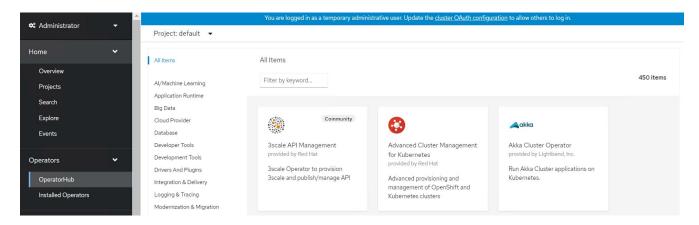
Optionally, if the hub cluster has dedicated nodes for hosting infrastructure components and you would like to install Advanced Cluster Management resources only on those nodes, you need to add tolerations and selectors to those nodes accordingly. For more details, see the documentation here.

Next: Installation.

### **Deploy Advanced Cluster Management for Kubernetes**

To install Advanced Cluster Management for Kubernetes on an OpenShift cluster, complete the following steps:

- 1. Choose an OpenShift cluster as the hub cluster and log into it with cluster-admin privileges.
- Navigate to Operators > Operators Hub and search for Advanced Cluster Management for Kubernetes.



3. Select Advanced Cluster Management for Kubernetes and click Install.



#### Latest version

2.2.3

#### Capability level

Basic Install

Seamless Upgrades

Full Lifecycle

Deep Insights

Auto Pilot

#### Provider type

Red Hat

#### Provider

Red Hat

#### Infrastructure features

Disconnected

Red Hat Advanced Cluster Management for Kubernetes provides the multicluster hub, a central management console for managing multiple Kubernetes-based clusters across data centers, public clouds, and private clouds. You can use the hub to create Red Hat OpenShift Container Platform clusters on selected providers, or import existing Kubernetes-based clusters. After the clusters are managed, you can set compliance requirements to ensure that the clusters maintain the specified security requirements. You can also deploy business applications across your clusters.

Red Hat Advanced Cluster Management for Kubernetes also provides the following operators:

- Multicluster subscriptions: An operator that provides application management capabilties including subscribing to resources from a channel and deploying those resources on MCH-managed Kubernetes clusters based on placement rules.
- Hive for Red Hat OpenShift: An operator that provides APIs for provisioning and performing initial
  configuration of OpenShift clusters. These operators are used by the multicluster hub to provide its
  provisioning and application-management capabilities.

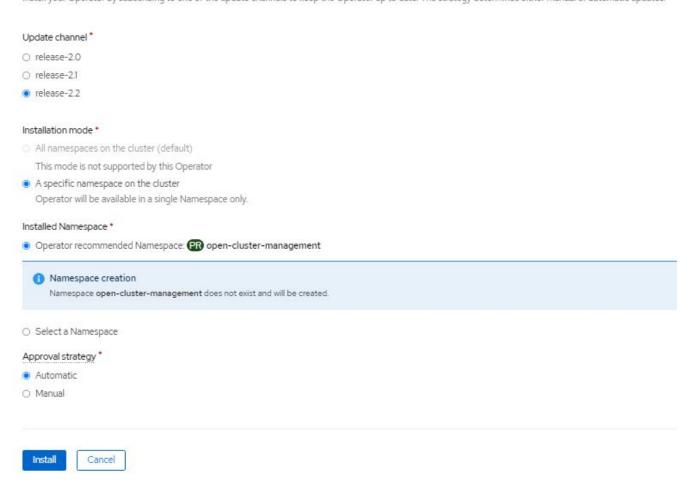
#### How to Install

Use of this Red Hat product requires a licensing and subscription agreement.

4. On the Install Operator screen, provide the necessary details (NetApp recommends retaining the default parameters) and click Install.

#### Install Operator

Install your Operator by subscribing to one of the update channels to keep the Operator up to date. The strategy determines either manual or automatic updates.



5. Wait for the operator installation to complete.



6. After the operator is installed, click Create MultiClusterHub.



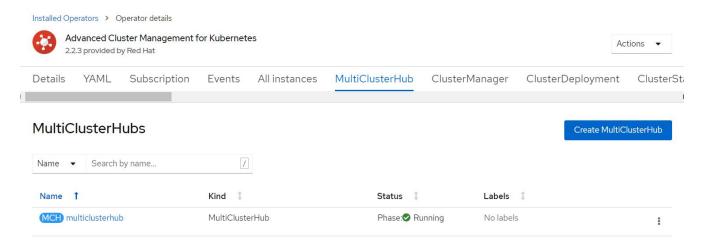
7. On the Create MultiClusterHub screen, click Create after furnishing the details. This initiates the installation of a multi-cluster hub.



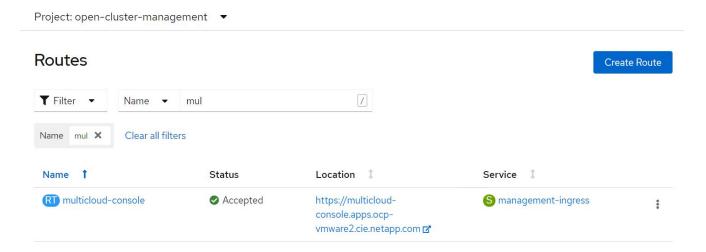
8. After all the pods move to the Running state in the open-cluster-management namespace and the operator moves to the Succeeded state, Advanced Cluster Management for Kubernetes is installed.



9. It takes some time to complete the hub installation, and, after it is done, the MultiCluster hub moves to Running state.



10. It creates a route in the open-cluster-management namespace. Connect to the URL in the route to access the Advanced Cluster Management console.



Next: Features - Cluster Lifecycle Management.

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