Features

NetApp Solutions

NetApp
October 05, 2022

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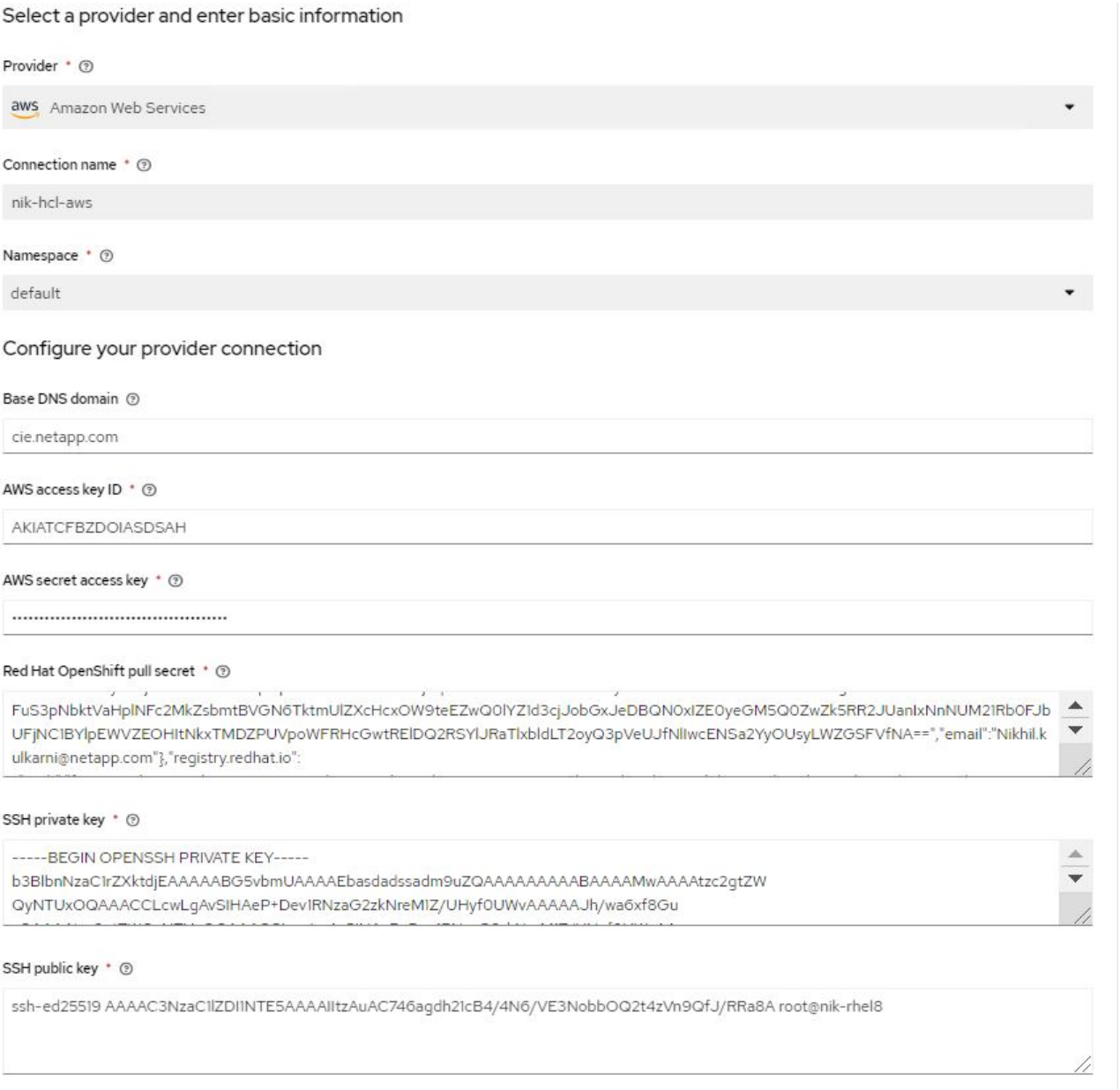
Features: Advanced Cluster Management for Kubernetes on Red Hat OpenShift with NetApp

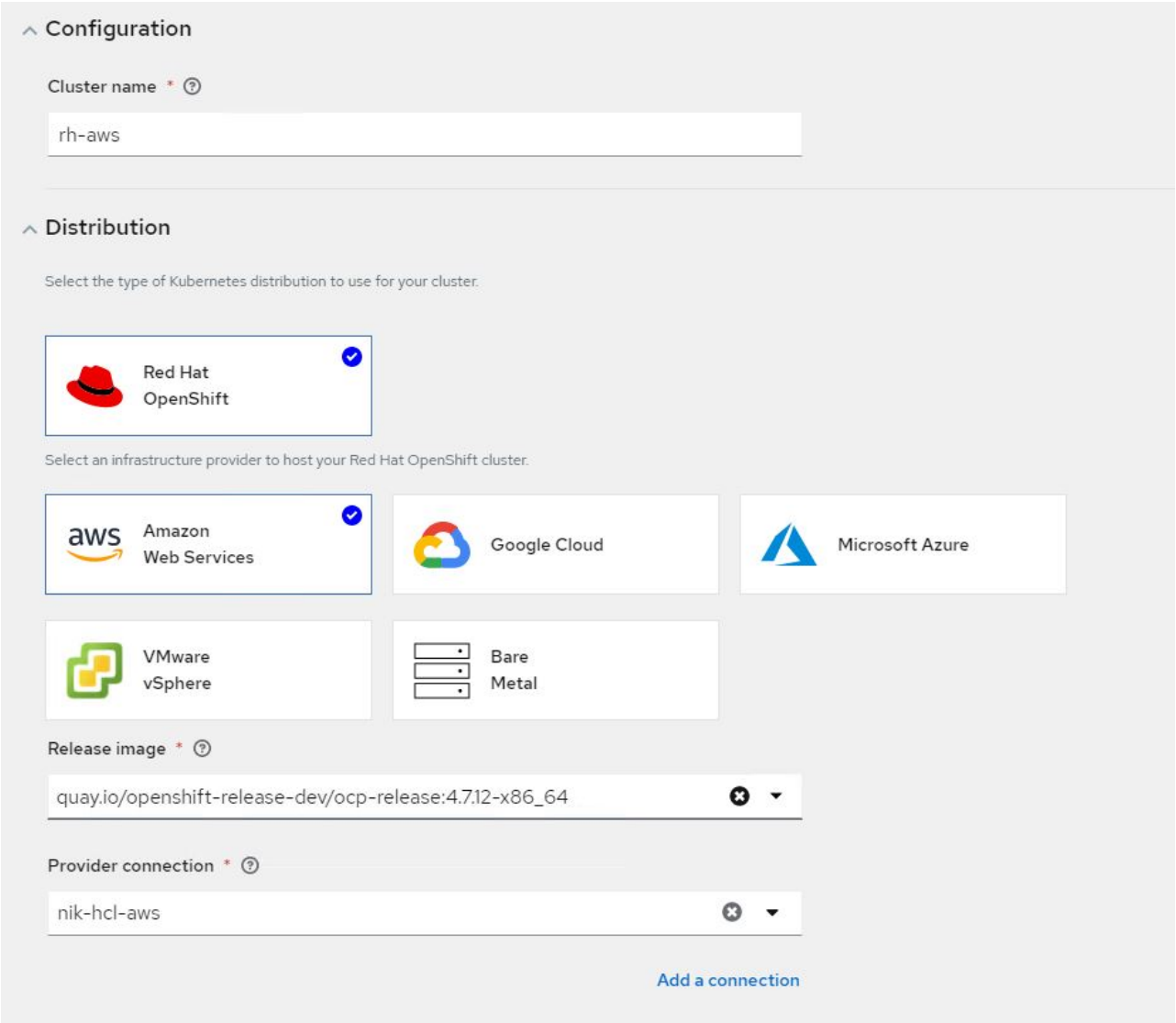
Cluster Lifecycle Management

To manage different OpenShift clusters, you can either create or import them into Advanced Cluster Management.

1. First navigate to Automate Infrastructures > Clusters.
2. To create a new OpenShift cluster, complete the following steps:
   a. Create a provider connection: Navigate to Provider Connections and click Add a Connection, provide all the details corresponding to the selected provider type and click Add.

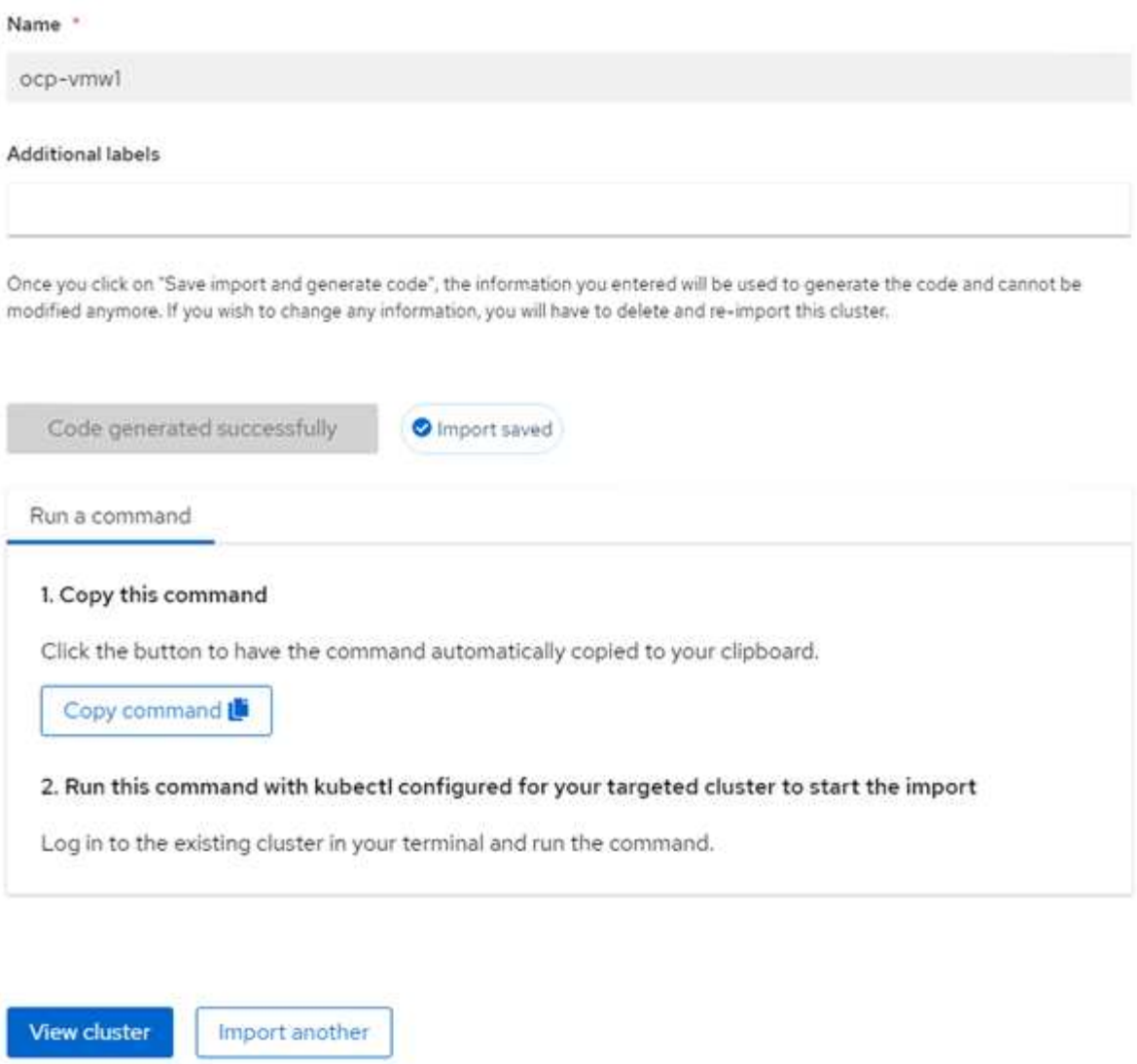


b. To create a new cluster, navigate to Clusters and click Add a Cluster > Create a Cluster. Provide the details for the cluster and the corresponding provider and click Create.



c. After the cluster is created, it appears in the cluster list with the status Ready.

3. To import an existing cluster, complete the following steps:
   a. Navigate to Clusters and click Add a Cluster > Import an Existing Cluster.
   b. Enter the name of the cluster and click Save Import and Generate Code. A command to add the existing cluster is displayed.
   c. Click Copy Command and run the command on the cluster to be added to the hub cluster. This initiates the installation of the necessary agents on the cluster, and, after this process is complete, the cluster appears in the cluster list with status Ready.



4. After you create and import multiple clusters, you can monitor and manage them from a single console.

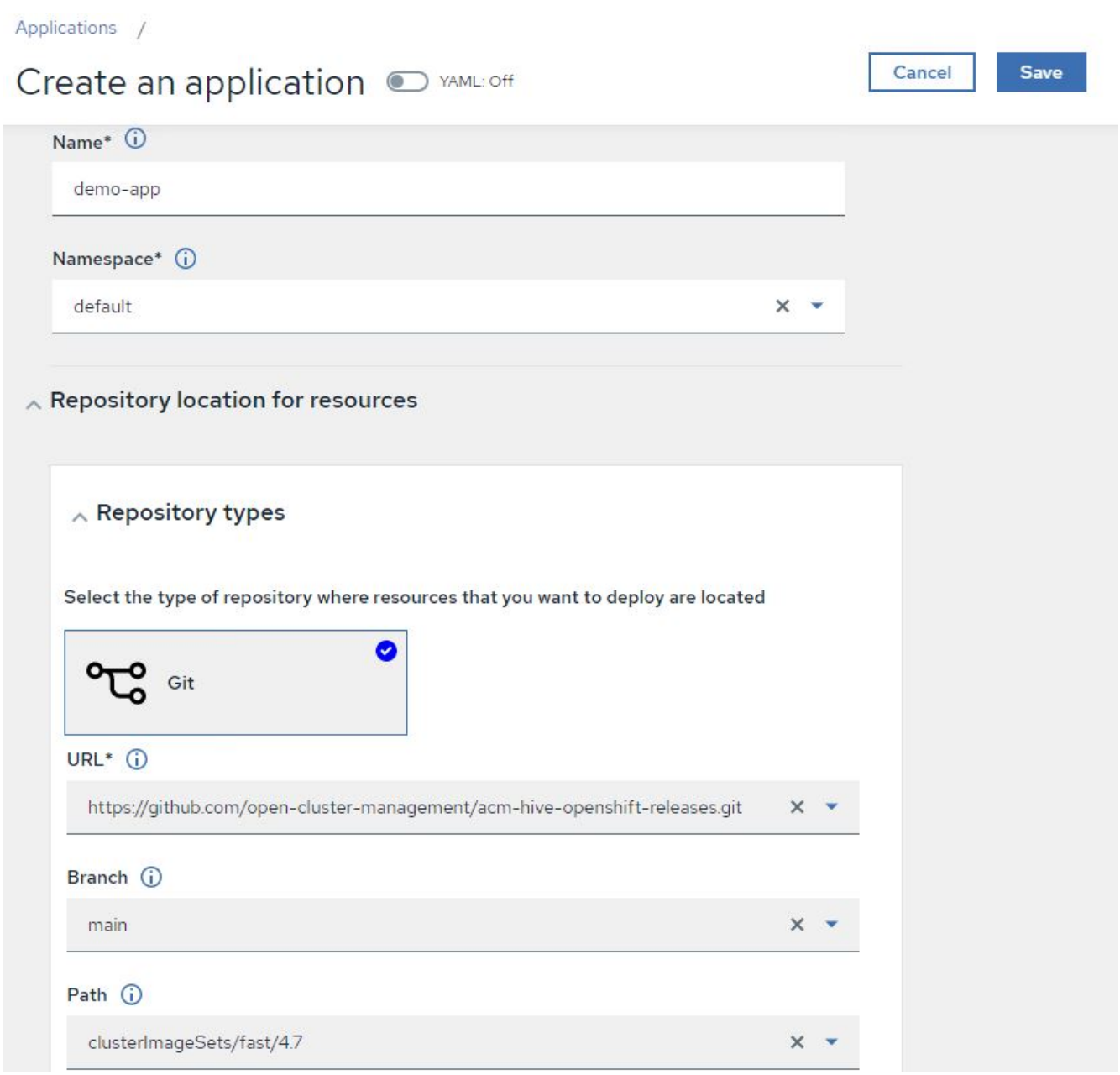
Next: Features - Application Lifecycle Management.

Features: Advanced Cluster Management for Kubernetes on Red Hat OpenShift with NetApp

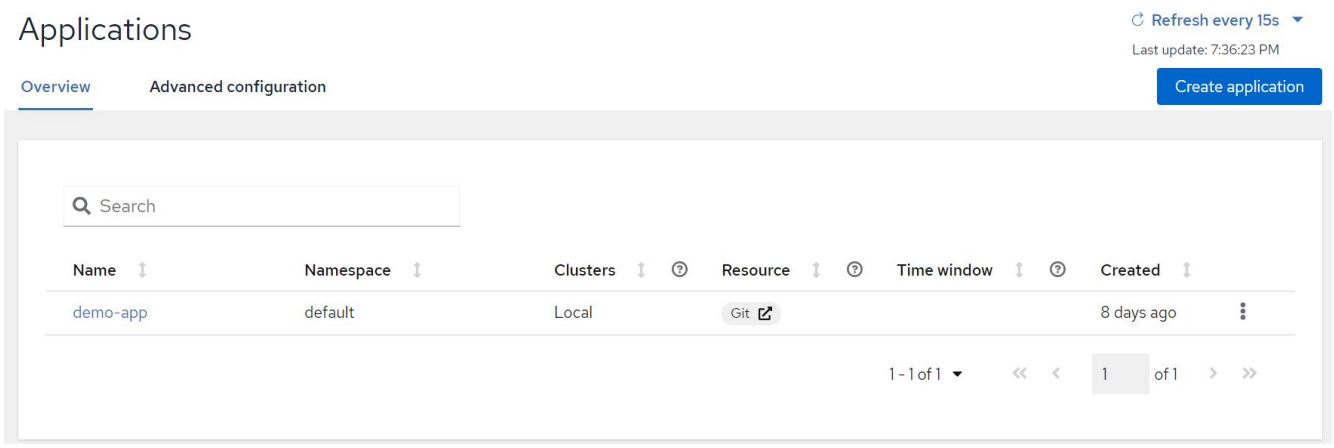
Application lifecycle management

To create an application and manage it across a set of clusters,

1. Navigate to Manage Applications from the sidebar and click Create Application. Provide the details of the application you would like to create and click Save.



2. After the application components are installed, the application appears in the list.



3. The application can now be monitored and managed from the console.

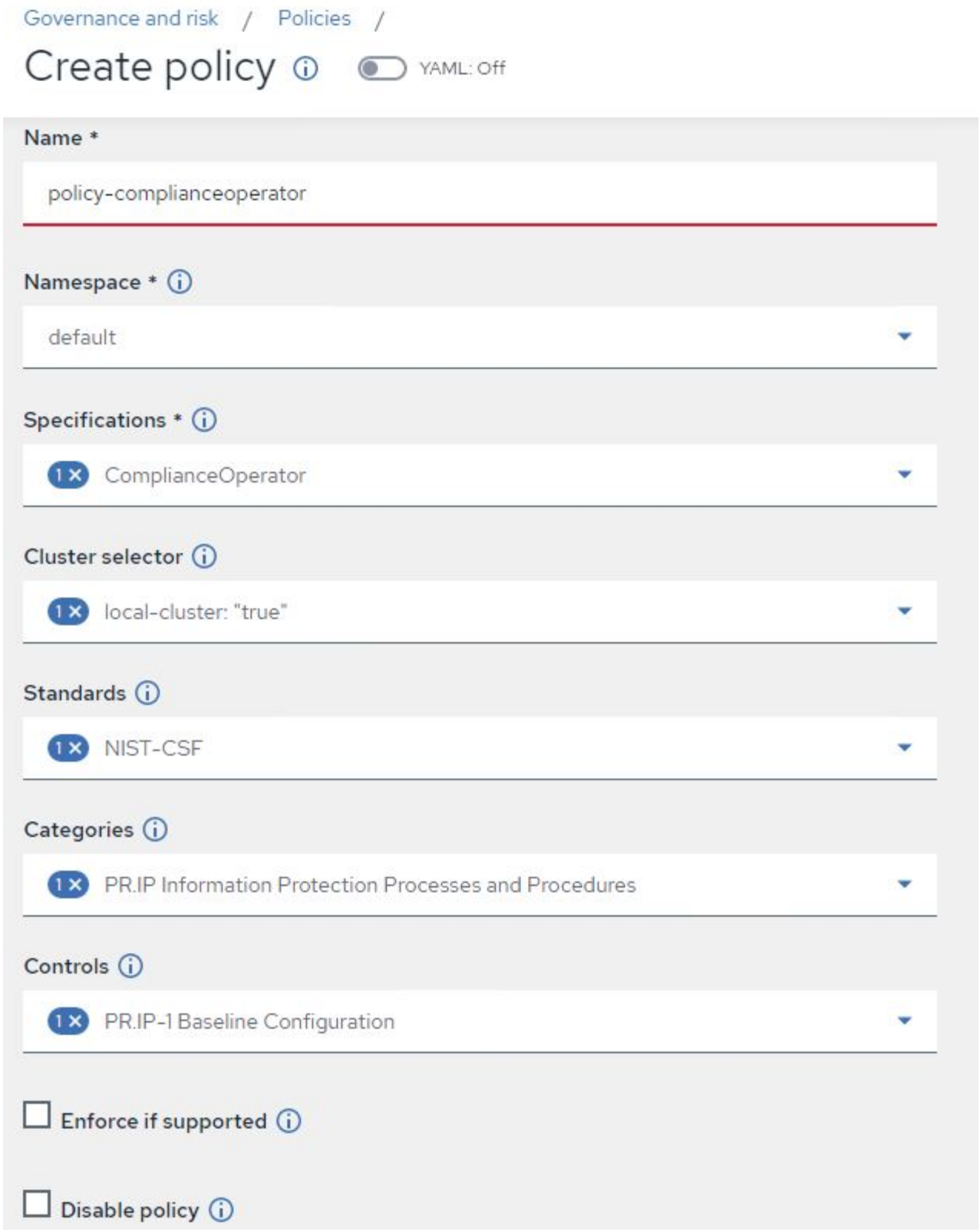
Next: Features - governance and risk.

Features: Advanced Cluster Management for Kubernetes on Red Hat OpenShift with NetApp

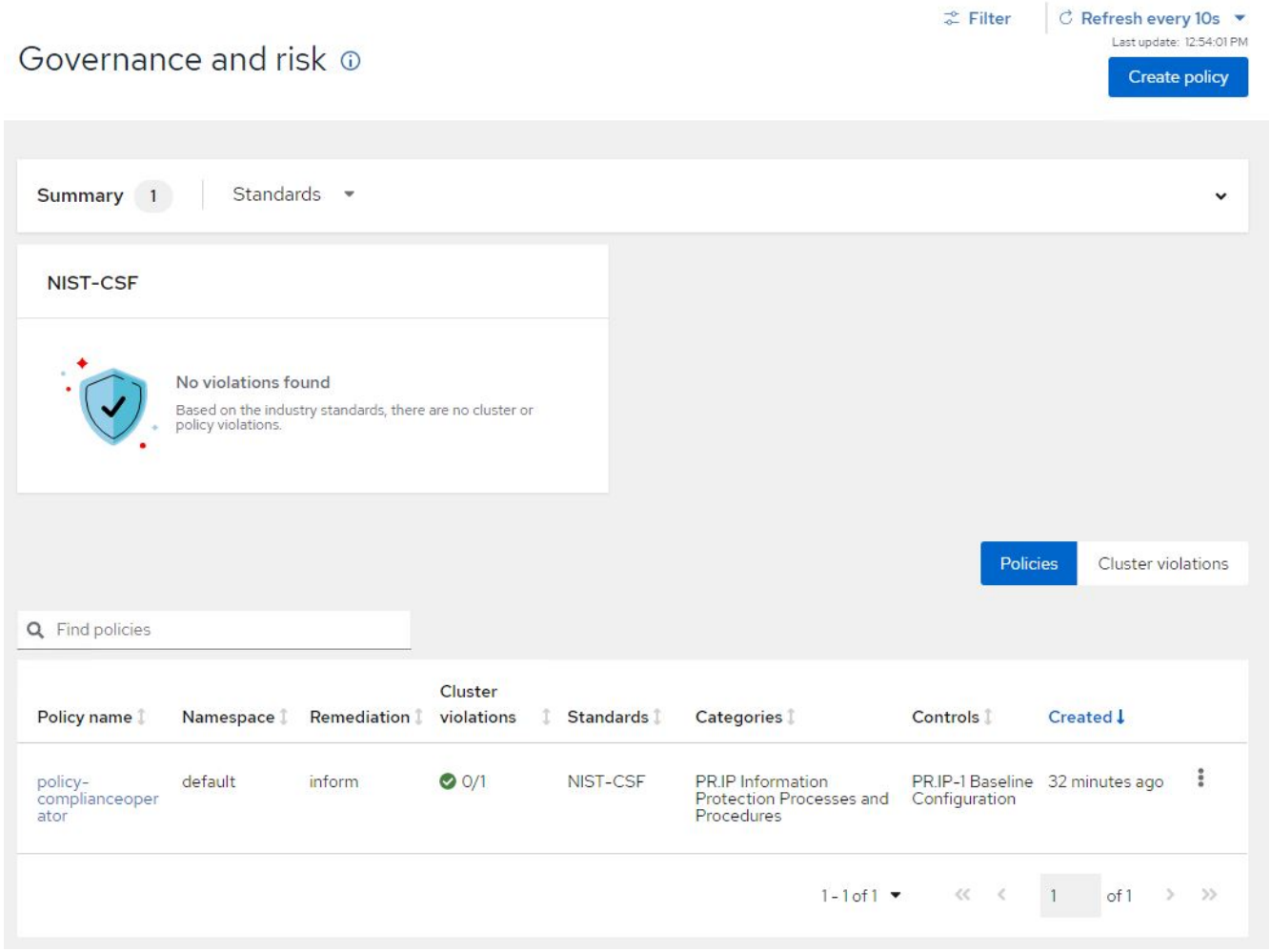
Governance and risk

This feature allows you to define the compliance policies for different clusters and make sure that the clusters adhere to it. You can configure the policies to either inform or remediate any deviations or violations of the rules.

1. Navigate to Governance and Risk from the sidebar.
2. To create compliance policies, click Create Policy, enter the details of the policy standards, and select the clusters that should adhere to this policy. If you want to automatically remediate the violations of this policy, select the checkbox Enforce if Supported and click Create.



3. After all the required policies are configured, any policy or cluster violations can be monitored and remediated from Advanced Cluster Management.



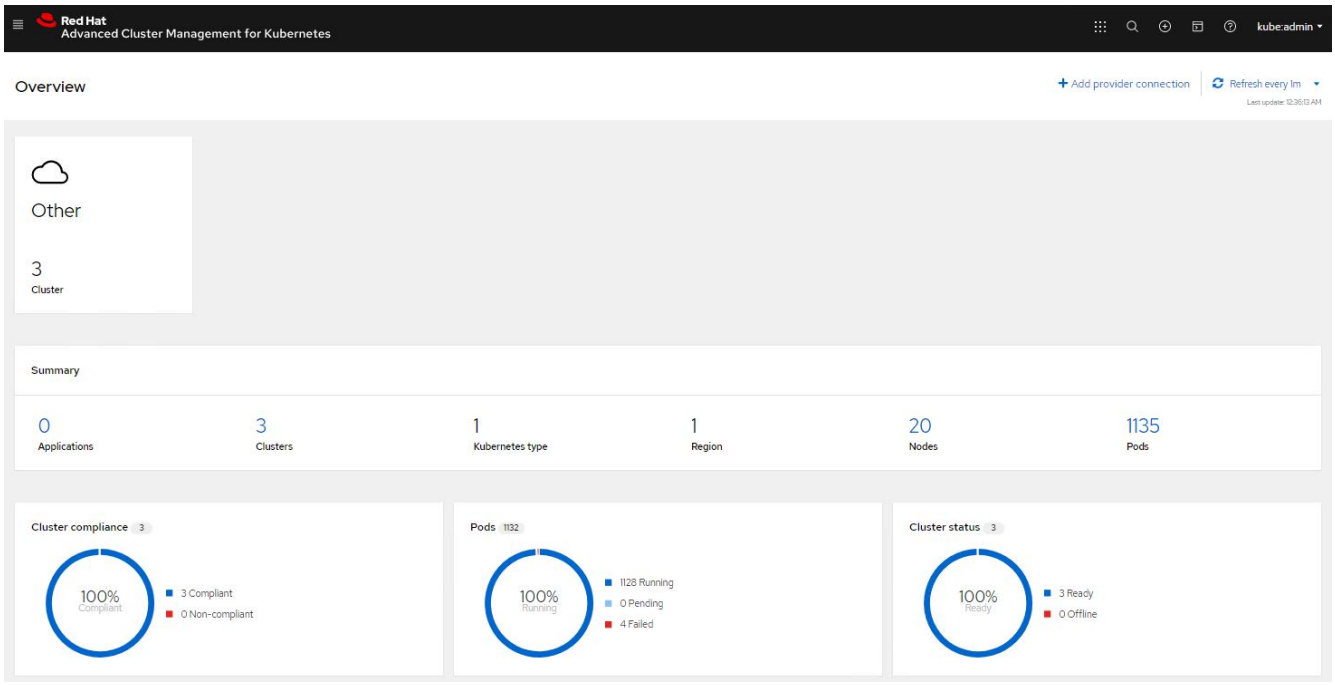
Next: Features - Observability.

Features: Advanced Cluster Management for Kubernetes on Red Hat OpenShift with NetApp

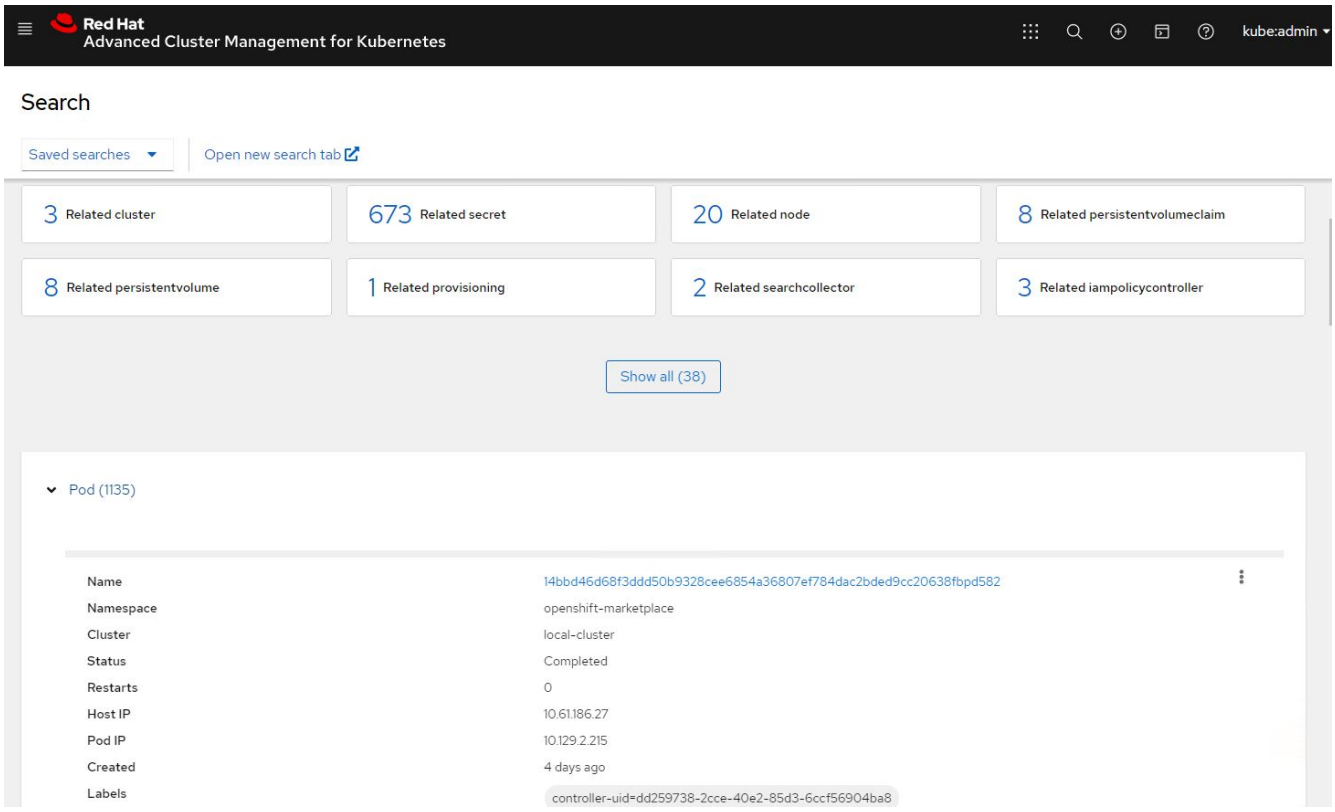
Observability

Advanced Cluster Management for Kubernetes provides a way to monitor the nodes, pods, and applications, and workloads across all the clusters.

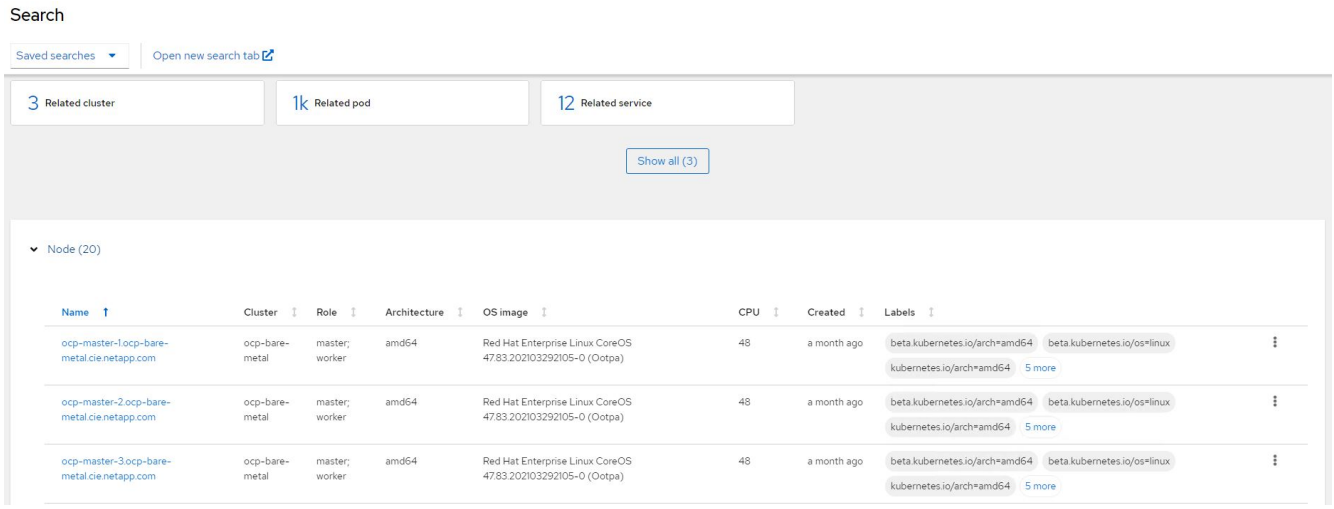
1. Navigate to Observe Environments > Overview.



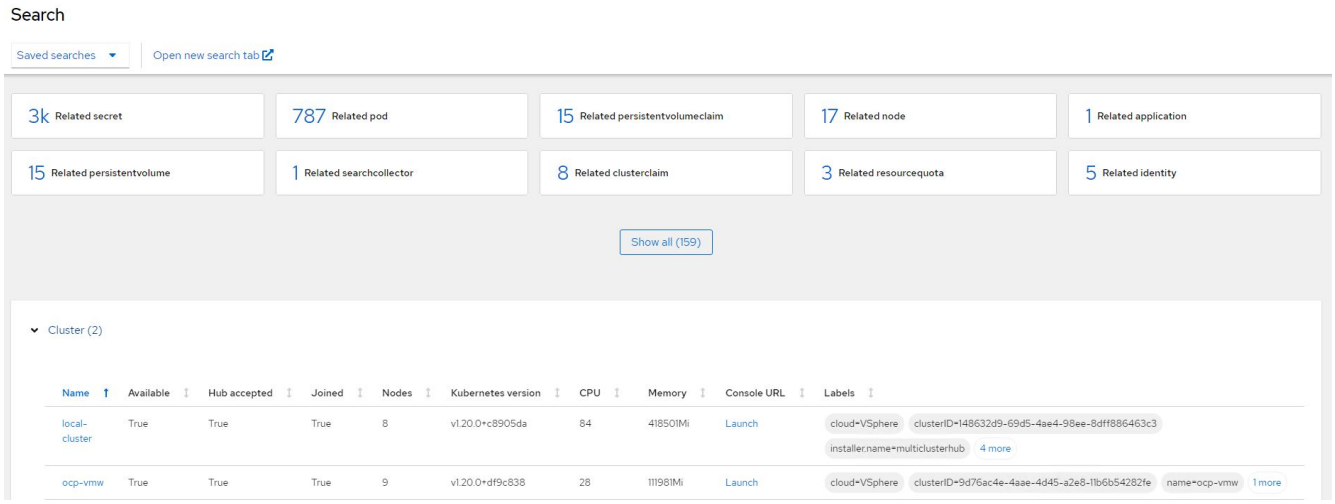
2. All pods and workloads across all clusters are monitored and sorted based on a variety of filters. Click Pods to view the corresponding data.



3. All nodes across the clusters are monitored and analyzed based on a variety of data points. Click Nodes to get more insight into the corresponding details.



4. All clusters are monitored and organized based on different cluster resources and parameters. Click Clusters to view cluster details.



Next: Features - Create Resources.

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Create resources on multiple clusters

Advanced Cluster Management for Kubernetes allows users to create resources on one or more managed clusters simultaneously from the console. As an example, if you have OpenShift clusters at different sites backed with different NetApp ONTAP clusters and want to provision PVC's at both sites, you can click the (+) sign on the top bar. Then select the clusters on which you want to create the PVC, paste the resource YAML, and click Create.

Create resource

Cancel Create

Clusters | Select the clusters where the resource(s) will be deployed.

2 × local-cluster, ocp-vmw

Resource configuration | Enter the configuration manifest for the resource(s).

YAML

```yaml
kind: PersistentVolumeClaim
apiVersion: v1
metadata:
  name: demo-pvc
spec:
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
      storage: 1Gi
  storageClassName: ocp-trident
```