Manage Kubernetes clusters

Kubernetes clusters

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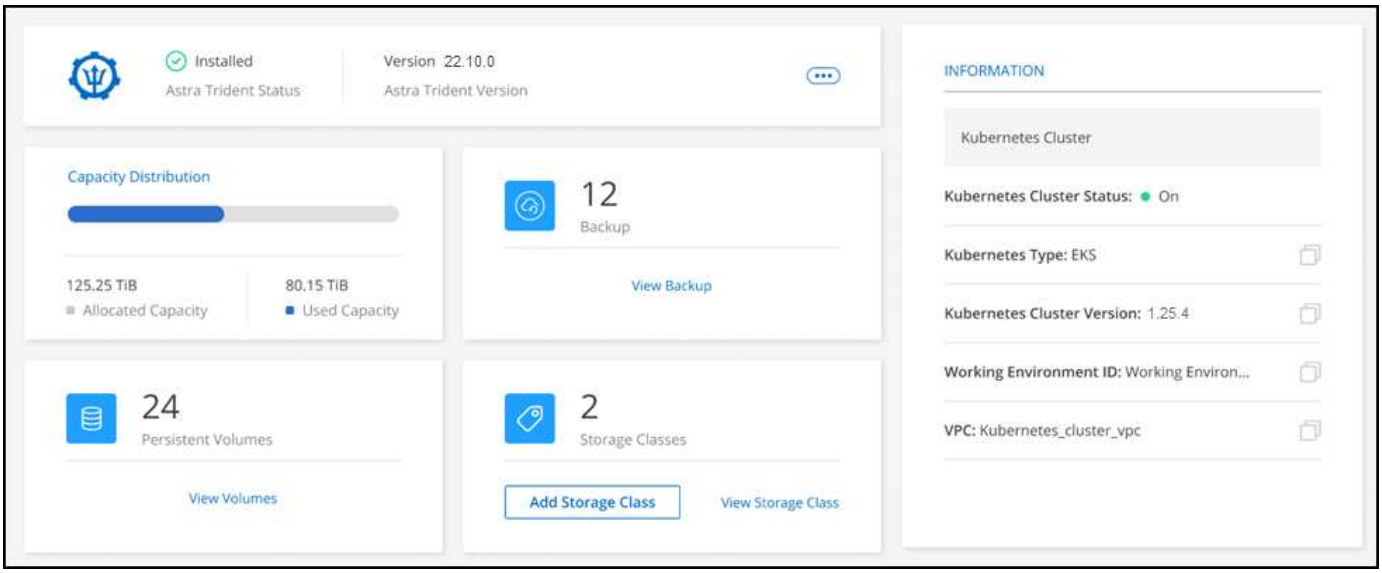
Manage Astra Trident

After you add a managed Kubernetes cluster to the Canvas, you can use BlueXP to confirm a compatible Astra Trident installation, install or upgrade Astra Trident to the latest version, or uninstall Astra Trident.

Astra Trident in BlueXP

After adding Kubernetes clusters to BlueXP, you can manage Astra Trident and your Kubernetes clusters from the overview page. To open the overview page, double-click the Kubernetes working environment on the Canvas.



Supported Astra Trident versions

One of the four most recent versions of Astra Trident deployed using the Trident operator—either manually or using Helm chart—is required. If Astra Trident is not installed, or an incompatible version of Astra Trident is installed, the cluster will show there is an action required.

> Astra Trident deployed using `tridentctl` is not supported. If you deployed Astra Trident using `tridentctl`, you cannot use BlueXP to manage your Kubernetes clusters or uninstall Astra Trident. You must uninstall using `tridentctl` and reinstall Astra Trident either manually using the Trident operator or in BlueXP using Install or upgrade Astra Trident.

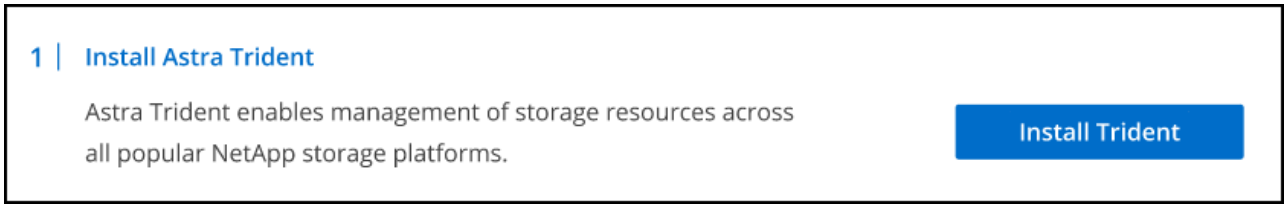
To learn more about Astra Trident, see Astra Trident documentation.

Install or upgrade Astra Trident

You can review your Astra Trident installation status and version on the overview page. If Astra Trident is not already installed, or an incompatible version is installed, you can manage that using BlueXP.

Steps

1. Double-click the Kubernetes working environment on the Canvas or click **Enter Working Environment**.
   a. If Astra Trident is not installed, click **Install Trident**.



   b. If an unsupported version of Astra Trident is installed, click **Upgrade Trident**.

> You cannot use BlueXP to upgrade from Astra Trident versions earlier than 21.01. To upgrade from an earlier version, refer to Upgrade with the operator.

Results

The latest version of Astra Trident is installed. You can now add storage classes.

Uninstall Astra Trident

If you installed Astra Trident using BlueXP or using the Trident operator (either Helm or manually), you can uninstall it using BlueXP.

> - After uninstalling Astra Trident you cannot create new persistent volumes, but existing volumes are still available.
> - While Astra Trident is uninstalled, backup is unavailable.
> - You can reinstall Astra Trident to the working environment at any time to continue managing clusters.

Uninstalling Astra Trident using BlueXP does not remove all Astra Trident services applied during installation. To completely remove Astra Trident, including all custom resource definitions (CRDs) it creates, refer to uninstall using the Trident operator

Steps

1. From the overview page, select the ellipses and **Uninstall Astra Trident**.

2. Select **Uninstall** to confirm and uninstall Astra Trident.

Results

Astra Trident is now uninstalled from the working environment. You can reinstall Astra Trident at any time.

Manage storage classes

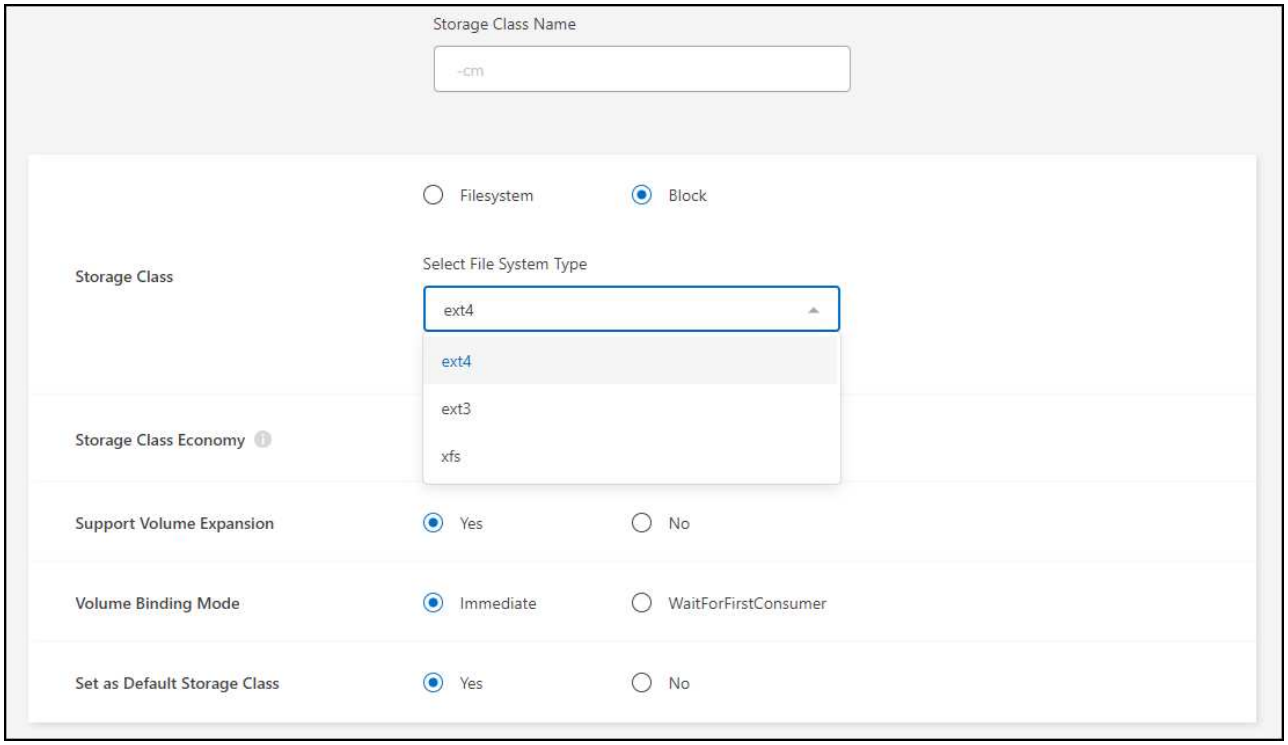
After you add a managed Kubernetes cluster to the Canvas, you can use BlueXP to manage storage classes.

> If no storage class is defined, the cluster will show there is an action required. Double-clicking the cluster on the Canvas opens the action page to add a storage class.

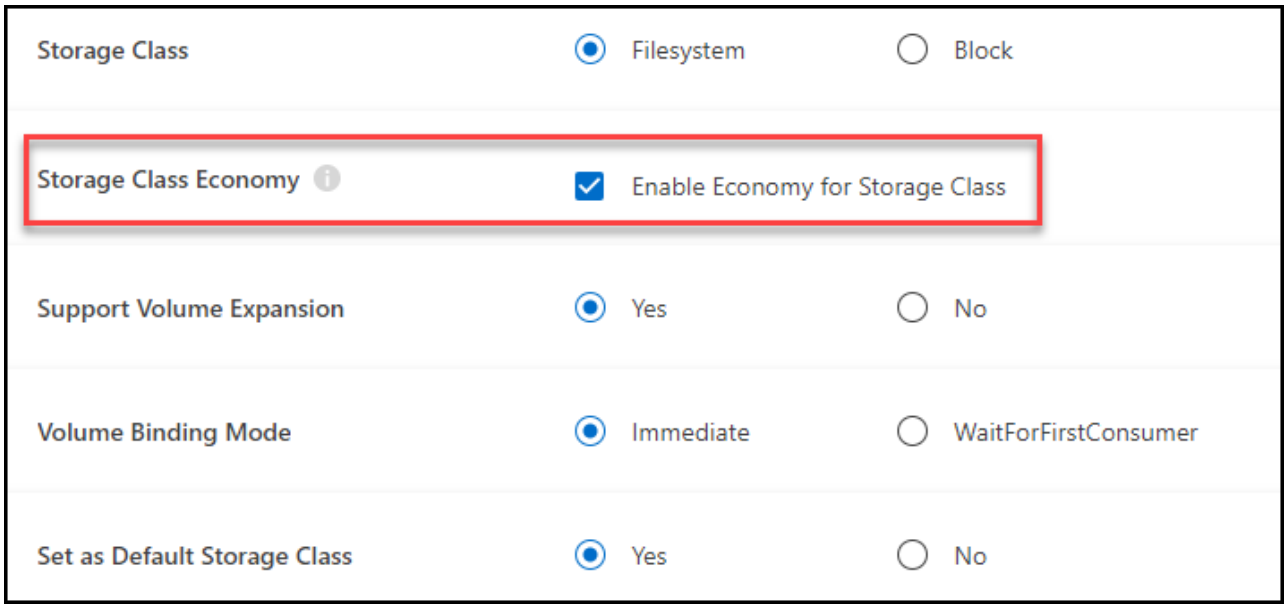
Add storage class

Steps

1. From the Canvas, drag and drop the Kubernetes working environment on to the Cloud Volumes ONTAP or Amazon FSx for ONTAP working environment to open the storage class wizard.
2. Provide a name for the storage class.
3. Select **Filesystem** or **Block** storage.
   a. For **Block** storage, select a File System Type (fstype)

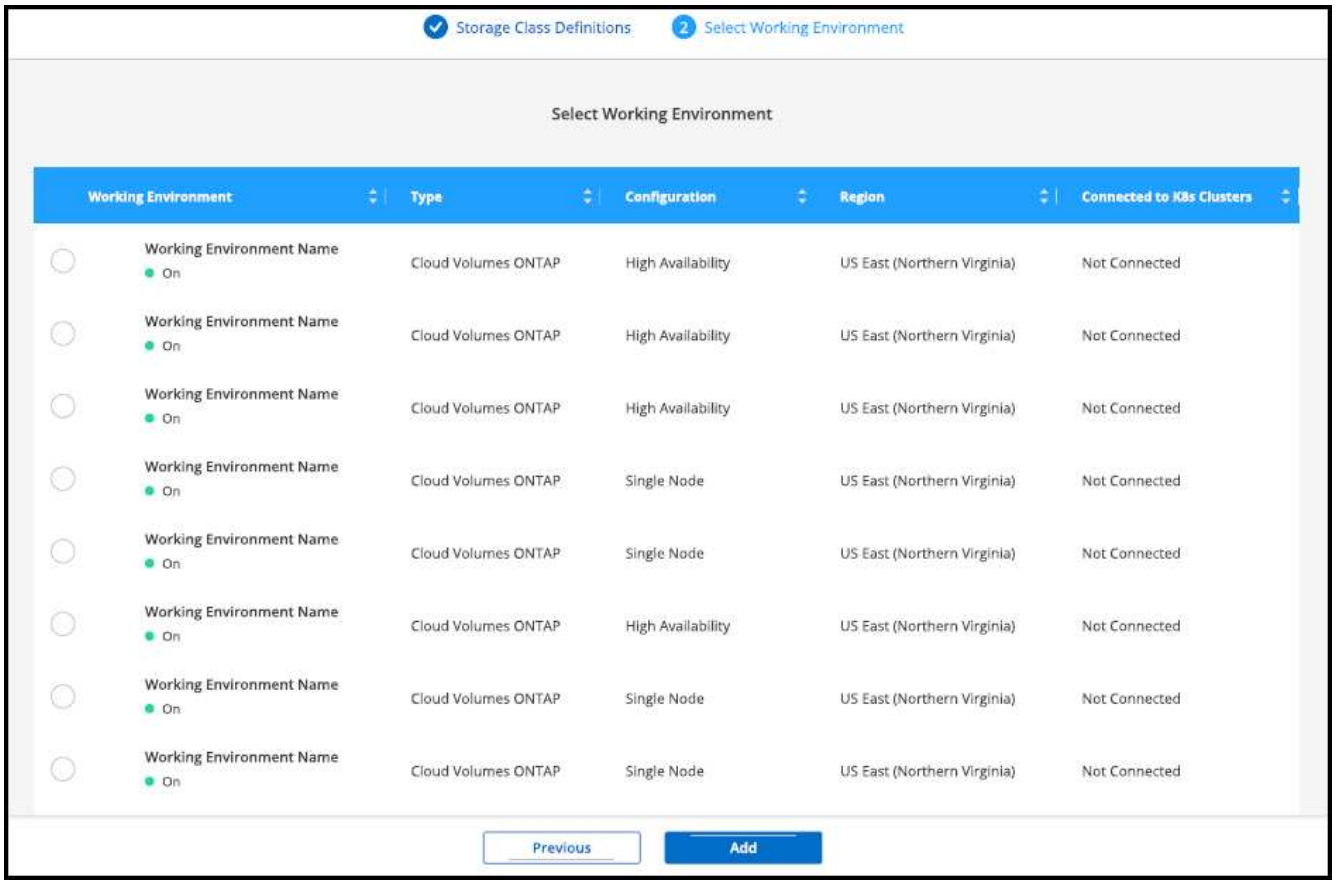


   b. For **Block** or **Filesystem** storage, you can select to enable storage class economy.



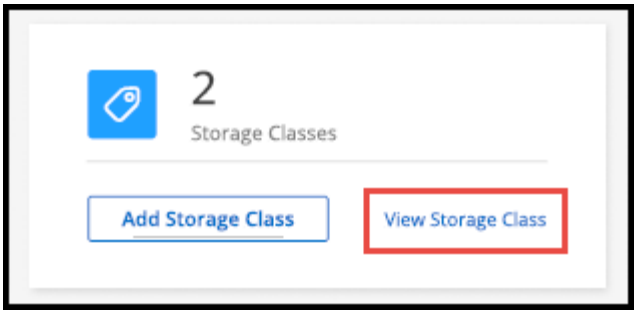
Backup and restore are not supported when using storage class economy.

4. Select options for volume expansion, volume binding, and default storage class. Click **Next**.
5. Select a working environment to connect to the cluster. Click **Add**.



Results

You can click to view the storage class from the resource page for the Kubernetes cluster.



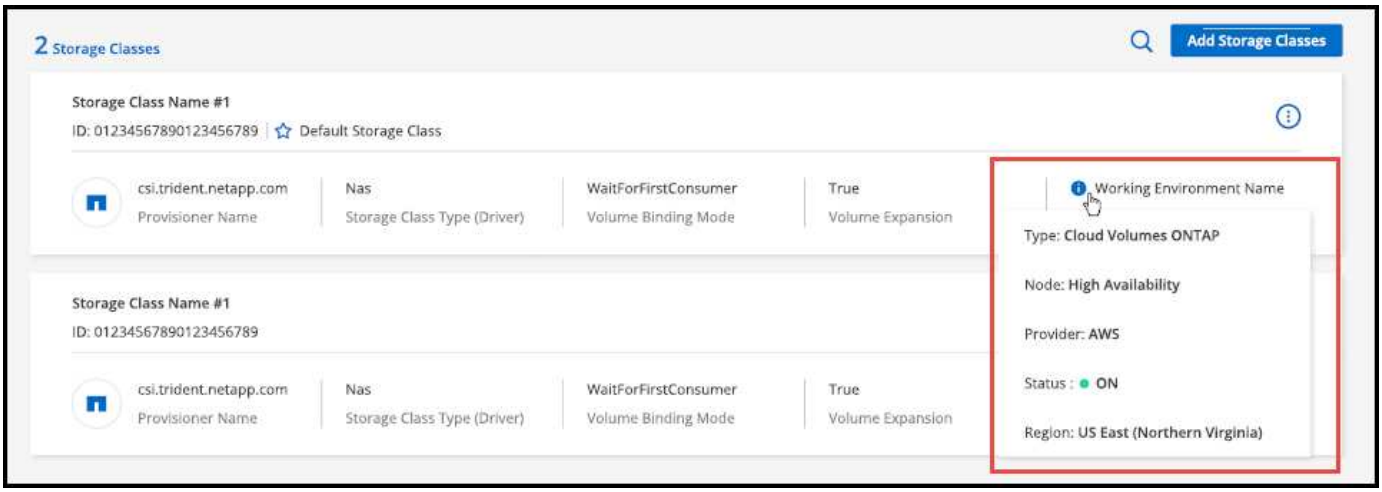
View working environment details

Steps

1. Double-click the Kubernetes working environment on the Canvas or click **Enter Working Environment**.
2. Click the **Storage Classes** tab.
3. Click the information icon to view details for the working environment.

Results

The working environment details panel opens.



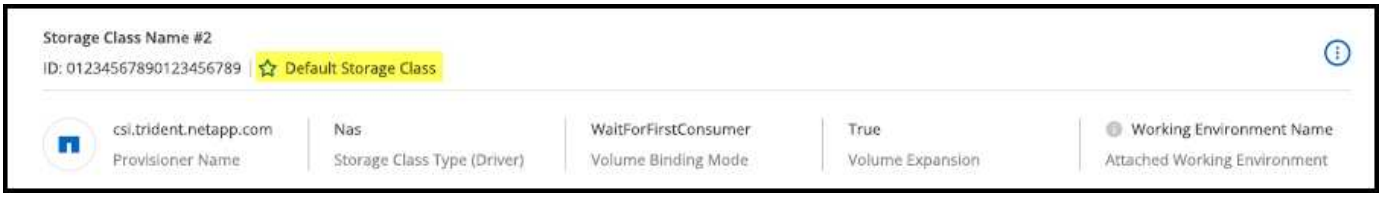
Set default storage class

Steps

1. Double-click the Kubernetes working environment on the Canvas or click **Enter Working Environment**.
2. Click the **Storage Classes** tab.
3. Click the action menu for the storage class and click **Set as Default**.

Results

The selected storage class is set as the default.



Remove storage class

Steps

1. Double-click the Kubernetes working environment on the Canvas or click **Enter Working Environment**.
2. Click the **Storage Classes** tab.
3. Click the action menu for the storage class and click **Set as Default**.

4. Click **Remove** to confirm removal of the storage class.

Results

The selected storage class is removed.

View persistent volumes

After you add a managed Kubernetes cluster to the Canvas, you can use BlueXP to view persistent volumes.

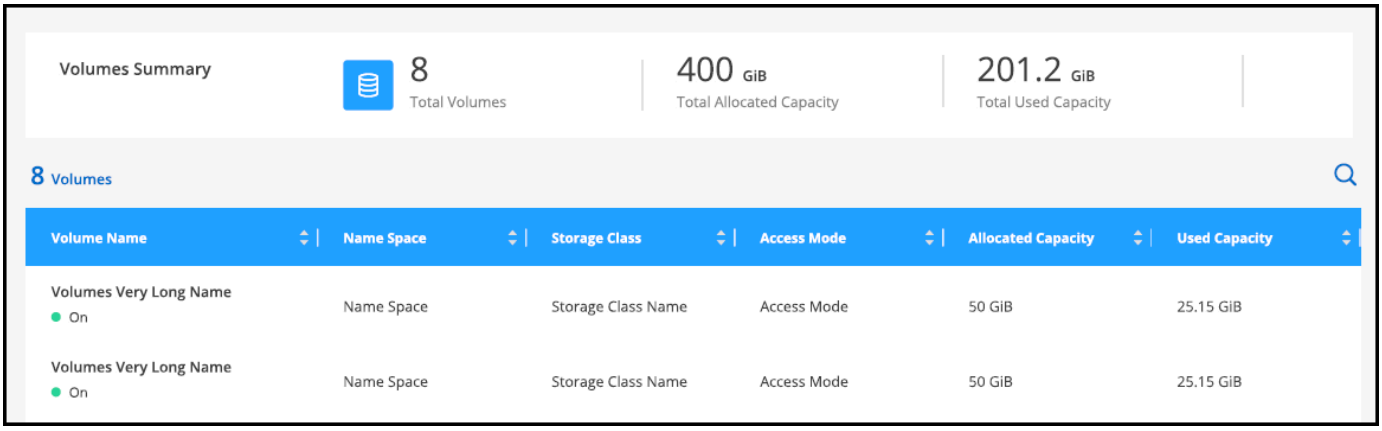
> BlueXP monitors the Kubernetes cluster for changes to the backend and updates the persistent volume table when new volumes are added. If automatic backup was configured on the cluster, backup is automatically enabled on the new persistent volumes.

Steps

1. Double-click the Kubernetes working environment on the Canvas or click **Enter Working Environment**.
2. Click **View Volumes** from the **Overview** tab or click the **Persistent Volumes** tab. If no persistent volumes are configured, see Provisioning for details on provisioning volumes in Astra Trident.

Results

A table of the configured persistent volumes displays.

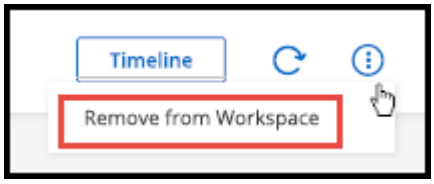


Remove Kubernetes clusters from the workspace

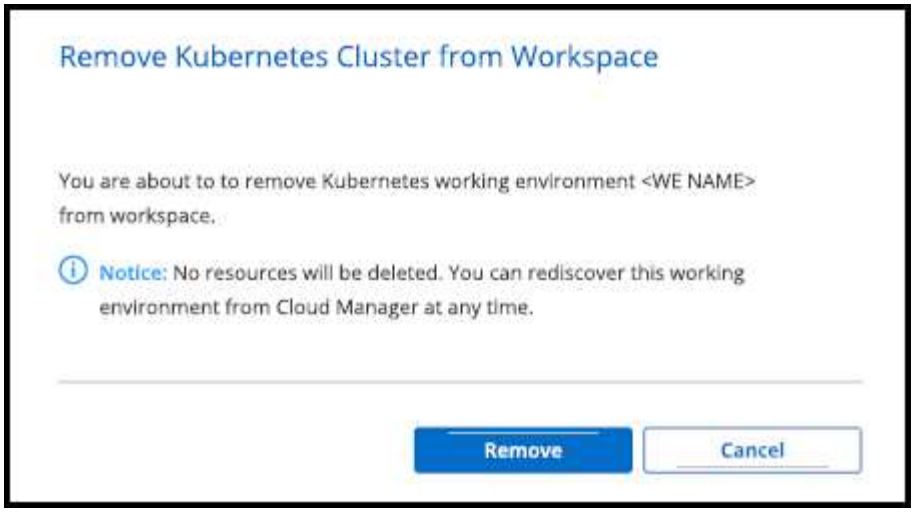
After you add a managed Kubernetes cluster to the Canvas, you can use BlueXP to remove clusters from the workspace.

Steps

1. Double-click the Kubernetes working environment on the Canvas or click **Enter Working Environment**.
2. At the top right of the page, select the actions menu and click **Remove from Workspace**.



3. Click **Remove** to confirm removal of the cluster from the workspace. You can rediscover this cluster at any time.



Results

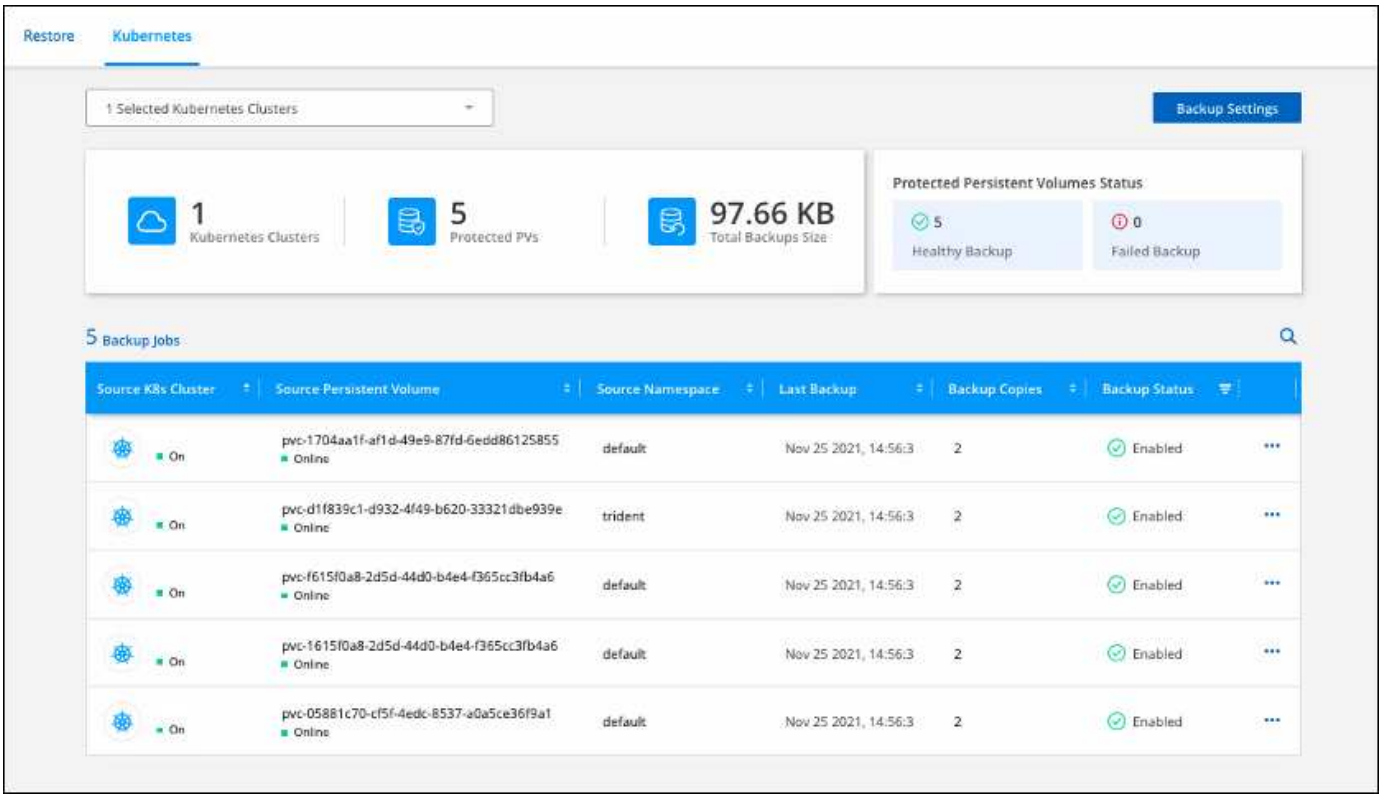
The Kubernetes cluster is removed from the workspace and is no longer visible on the Canvas.

Use NetApp cloud data services with Kubernetes clusters

After you add a managed Kubernetes cluster to the Canvas, you can use NetApp cloud data services for advanced data management.

You can use BlueXP backup and recovery to back up persistent volumes to object storage.

Learn how to protect your Kubernetes cluster data using BlueXP backup and recovery.



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