CDS vCenter Plugin User Guide

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Overview

The *CDS vCenter Plugin* integrates Commvault Distributed Storage (CDS) functionality into the VMware vSphere Client, a Web browser-based application that connects to the vCenter Server in order to manage a vSphere infrastructure.

Using the plugin, all operations can be performed from a single pane of glass using the vCenter user interface. You would otherwise have to continuously switch between CDS and vCenter.

The plugin includes the following features:

- *Storage management:* The plugin provides simplified Virtual Disk functions, such as creation, mounting to an ESXi host, resizing, deletion, and mounting to additional ESXi hosts.
- *VM management:* The plugin adds CDS management functions to the VMware menu, such as the VM-related operations of managing snapshots.

Here are a few general guidelines and caveats for the plugin:

- The plugin currently supports operations only for NFS Virtual Disks.
- You can currently manage operations for only one storage cluster at a time using the plugin.
- If you use both the CDS plugin snapshot feature and the native VMware snapshot operations on the same VM, there could be inconsistencies in the VM state. The CDS software will identify any VMware snapshots and will then generate an error message to prevent you from creating CDS snapshots on that same VM.
- Linked clones are not supported. Instead, you can use full clones.
- Cold migration is not supported.
- NFS 4.0 datastores cannot be created in the plugin, but can be created in the CDS WebUI and then exported to the plugin.
- Scheduling of snapshots on VMs residing on NFS 4.0 datastores is not supported.

Prerequisites

Note the following prerequisites when using the plugin.

Supported vCenter Appliance versions

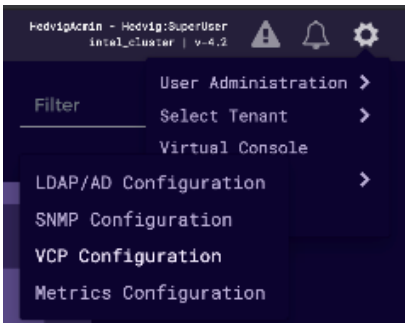
The plugin supports vCenter Appliance 6.7 Update 3j (6.7.0.45000) and above.

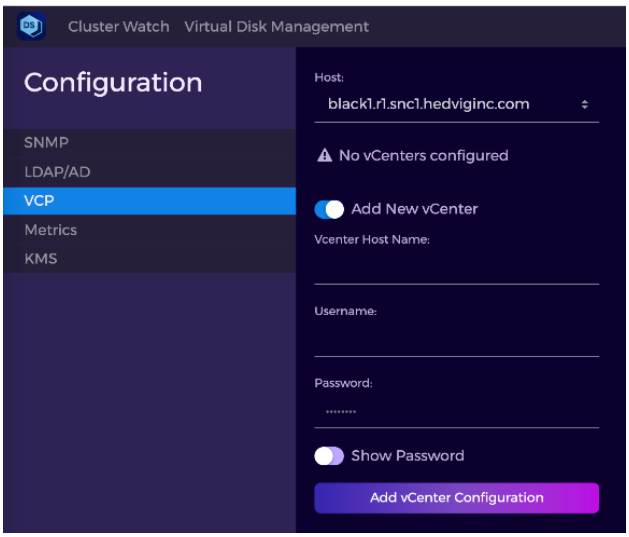
Backend cluster requirement

The backend cluster must be HTTPS enabled.

Registration with VCP credentials

Registration with VCP credentials is done in the CDS WebUI. Select **User -> Configuration -> VCP Configuration**, and complete the **VCP Configuration** dialog.

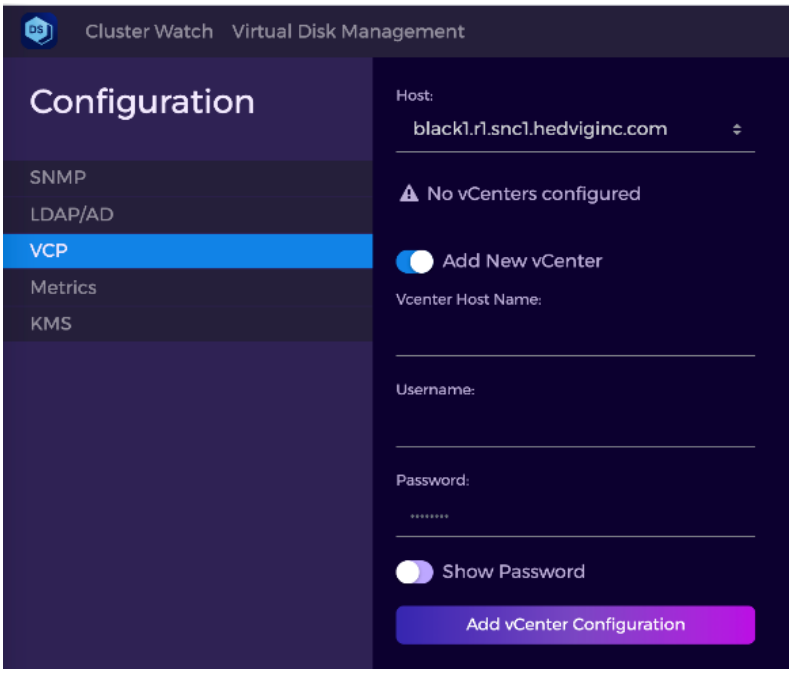




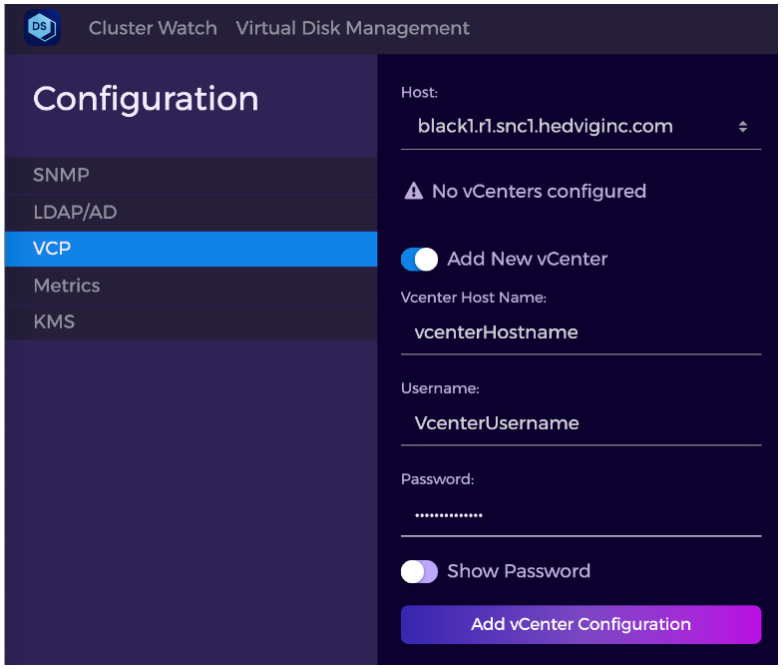
Setting up multiple vCenters

To connect multiple vCenters to the same storage cluster that is using the plugin, follow these steps.

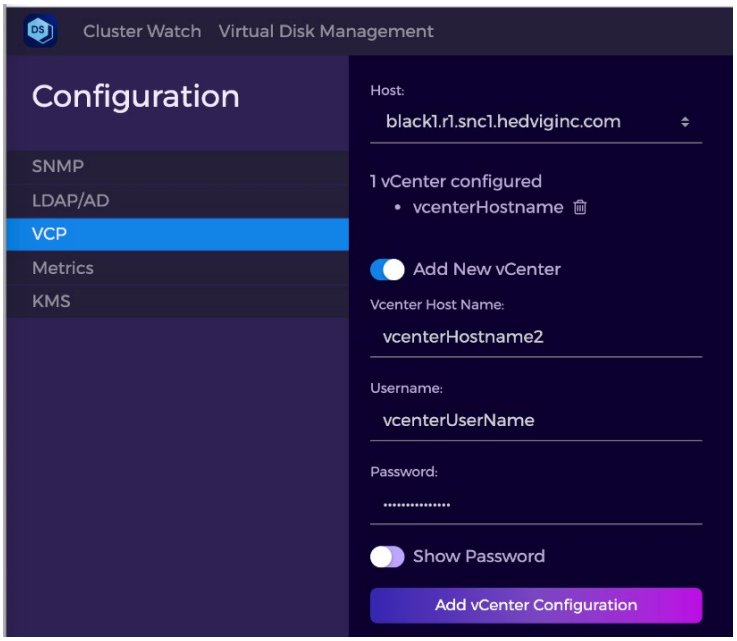
1. Go to the **Configuration** section of the CDS WebUI, and select **VCP**.



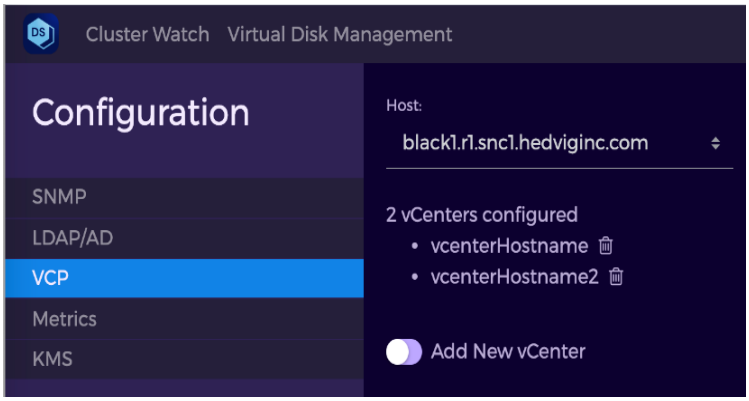
2. Select **Add New vCenter**, enter the **Vcenter Host Name**, **Username**, and **Password**, and select **Add vCenter Configuration**.



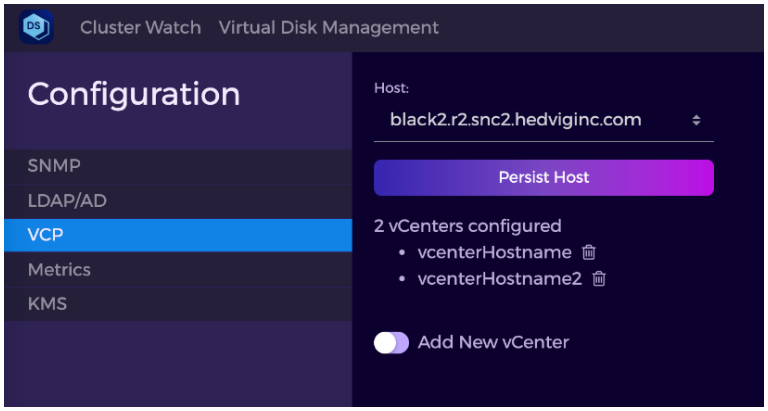
3. To add a second vCenter, again select **Add New vCenter**, enter the second **Vcenter Host Name**, **Username**, and **Password**, and select **Add vCenter Configuration**.



4. Notice that there are now 2 vCenters configured.

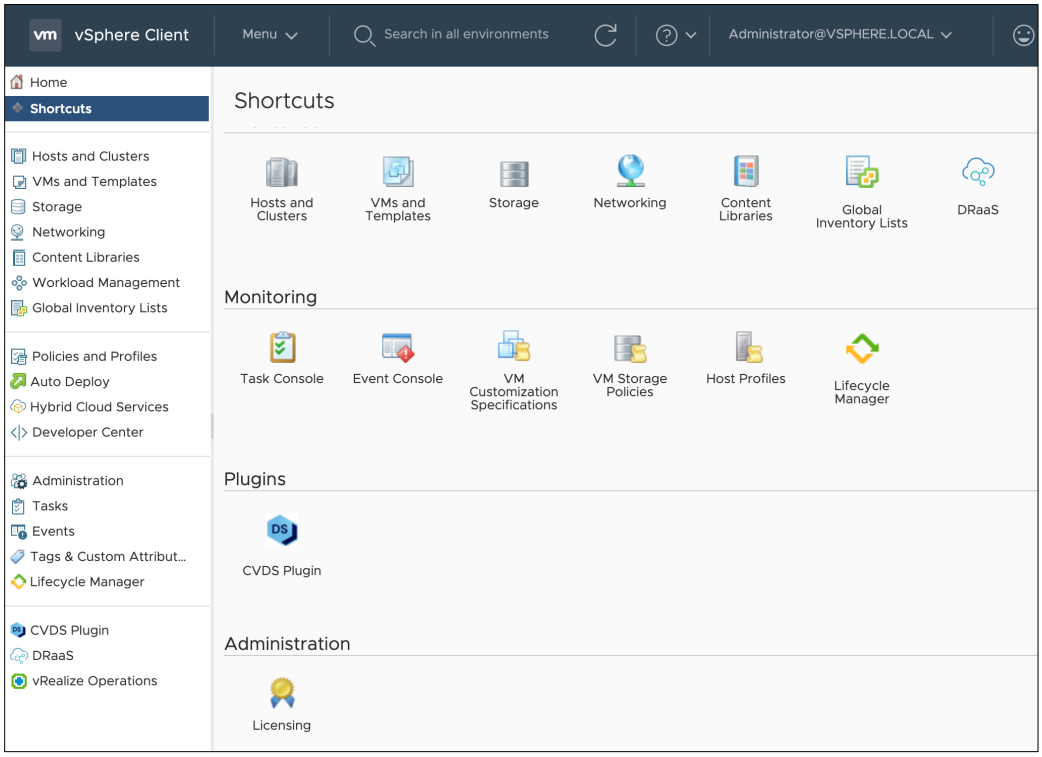


5. If you want to persist the host, choose a different host, and select **Persist Host**.

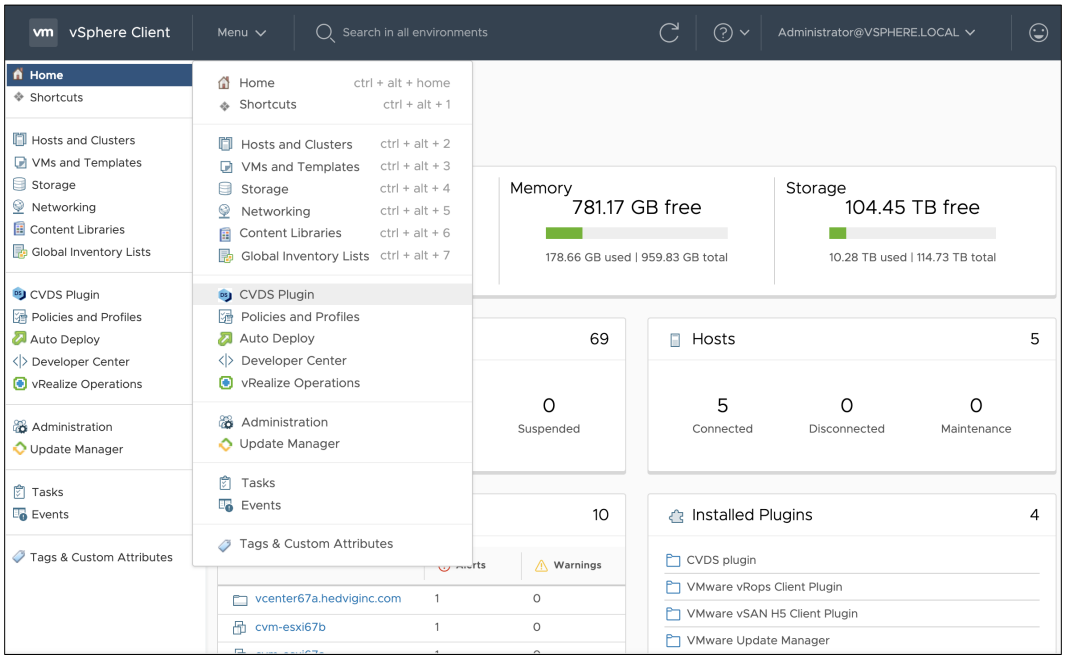


Logging into the plugin

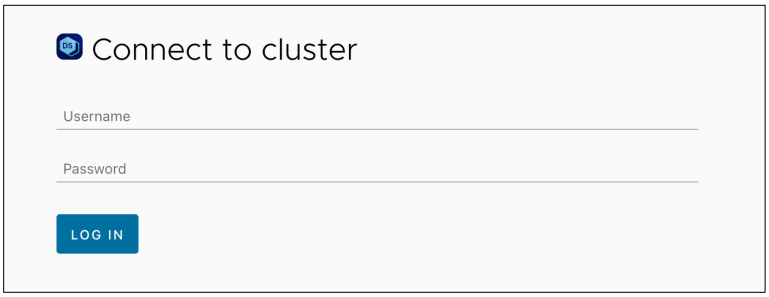
After you have installed the plugin, the CDS Plugin icon is displayed on the home page.



You can also view it from the vSphere Client menu.

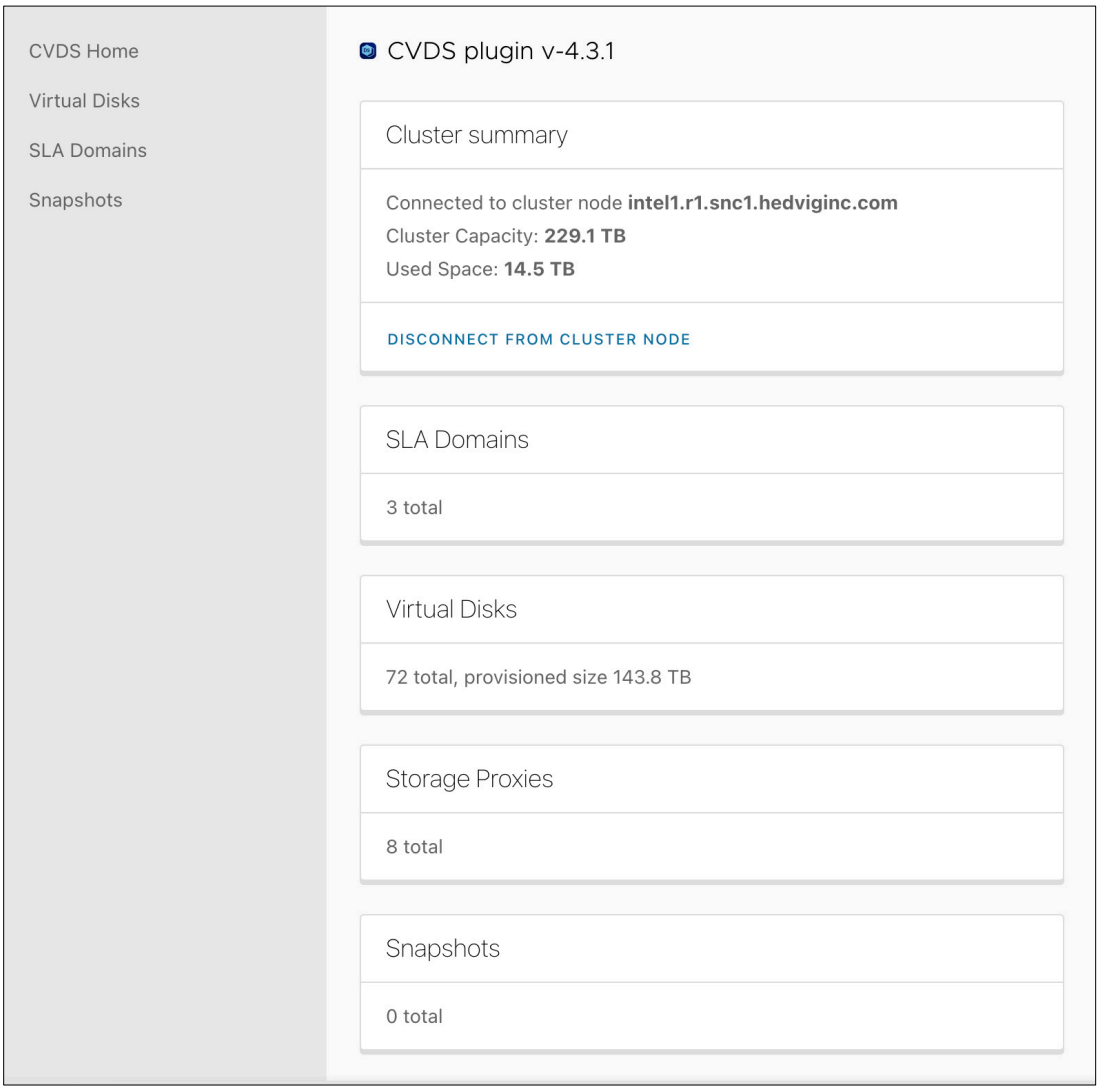


When you select the icon, the login page connects the plugin with your storage cluster.



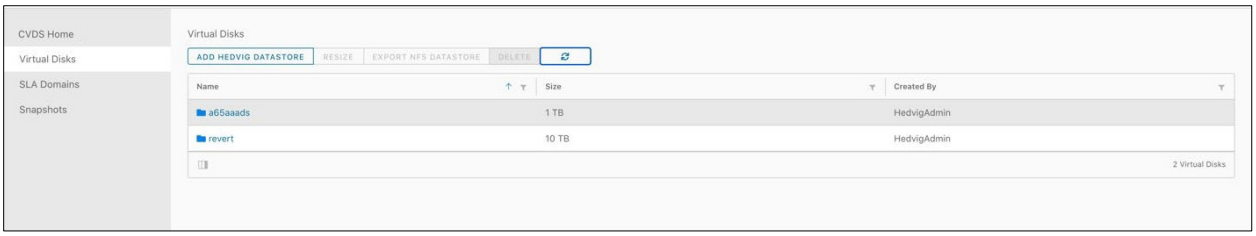
CDS Home page

The CDS Home page displays a summary of your storage cluster and the plugin.



Virtual Disks page

When you select Virtual Disks, all NFS Virtual Disks provisioned on the storage cluster are displayed.



From this page, you can create and view the Virtual Disks associated with your storage cluster.

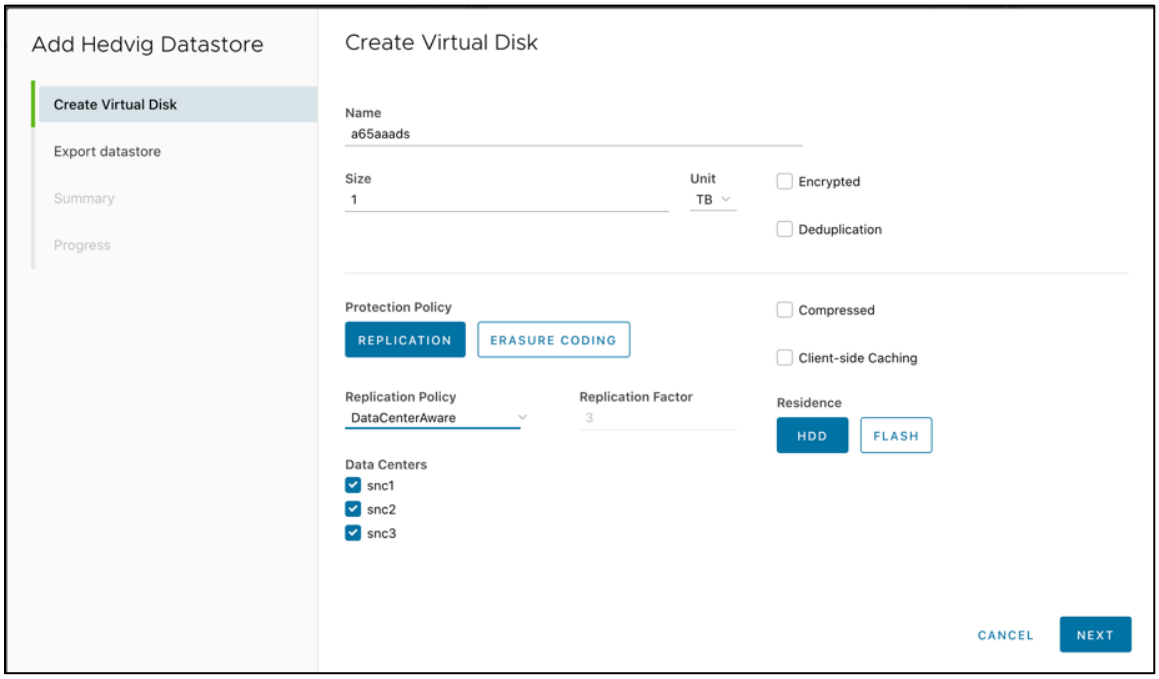
Adding a Hedvig Datastore

You have options when creating a Hedvig Datastore. The following sections describe how to create various Virtual Disks, from within the plugin.

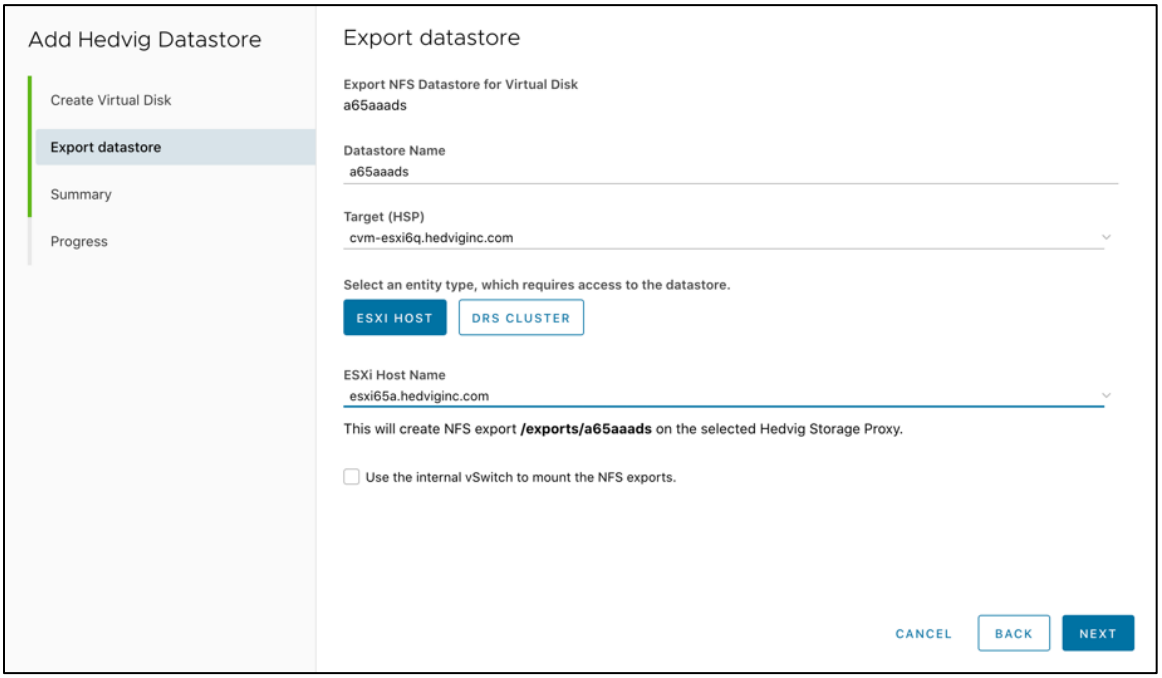
- *Creating a Data Center Aware Virtual Disk*
- *Creating a Compressed Data Center Aware Virtual Disk*
- *Creating a Deduplication-enabled Data Center Aware Virtual Disk*
- *Creating an Encrypted, Deduplication-enabled Data Center Aware Virtual Disk*
- *Creating a Rack Aware Virtual Disk*
- *Creating a Rack Aware Virtual Disk on another Data Center*
- *Creating a Virtual Disk and exporting with the DRS Cluster option*

Creating a Data Center Aware Virtual Disk

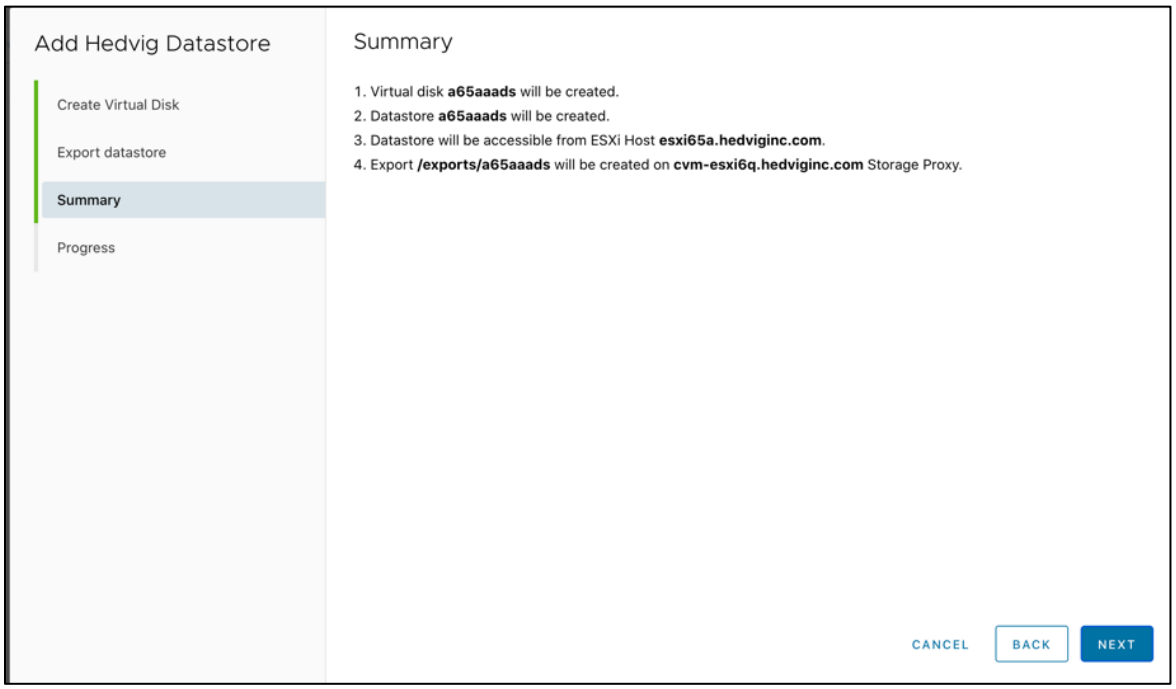
1. Create the Virtual Disk, selecting **Replication** as the **Protection Policy**, selecting **DataCenterAware** as the **Replication Policy**, and selecting the appropriate **Data Centers**.



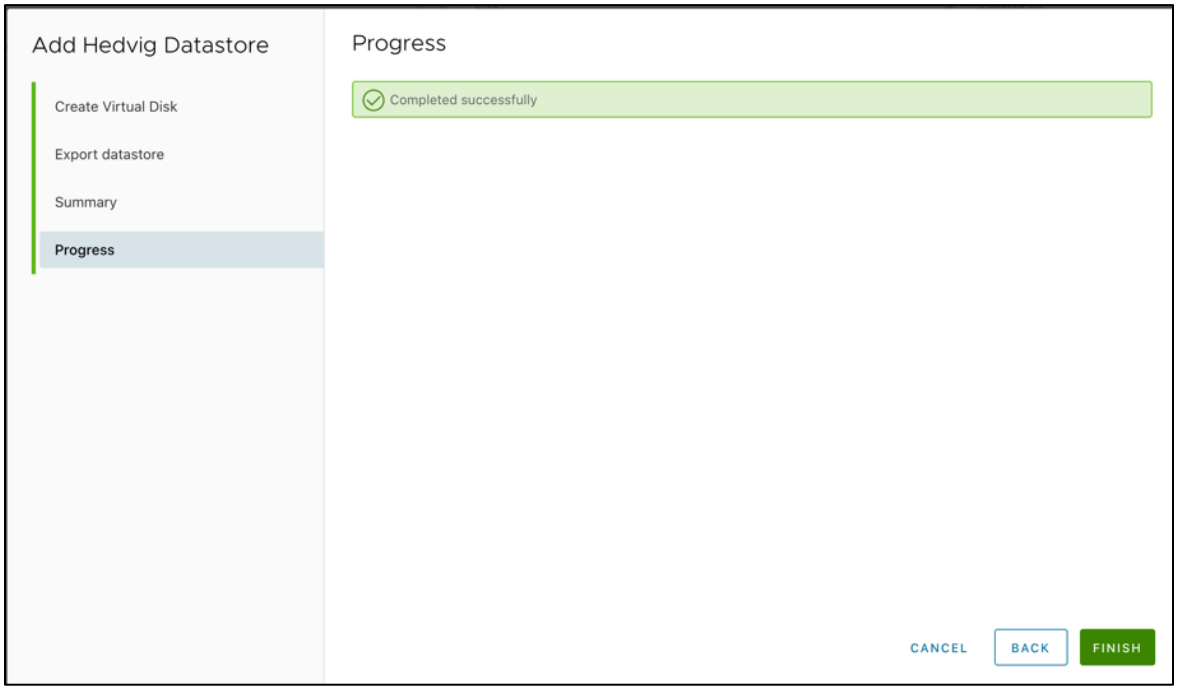
2. Export the datastore.



3. View the **Add Hedvig Datastore Summary**.

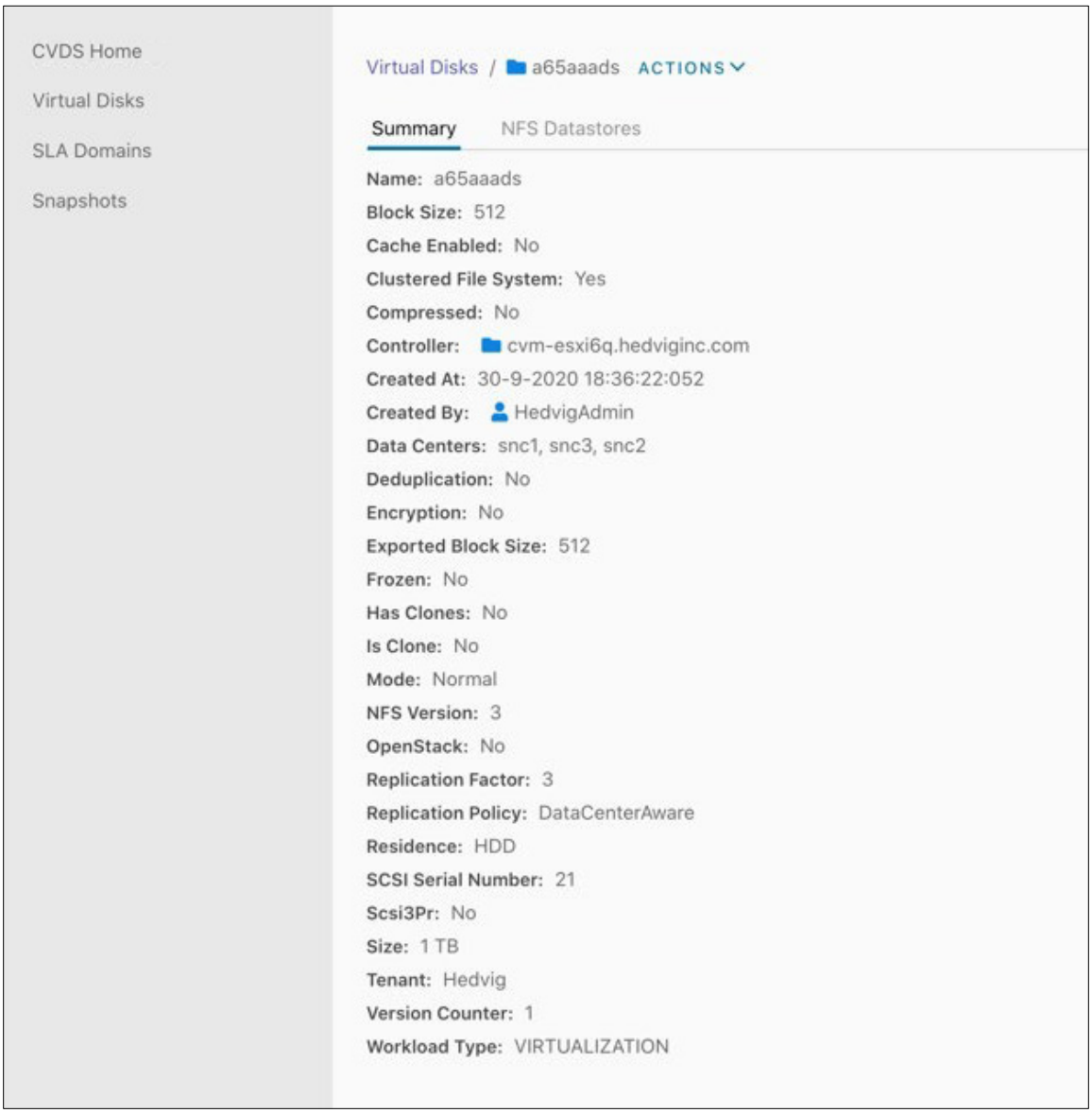


4. View the **Progress**.



5. Return to the Virtual Disks page to see that your newly created Virtual Disk has been added.

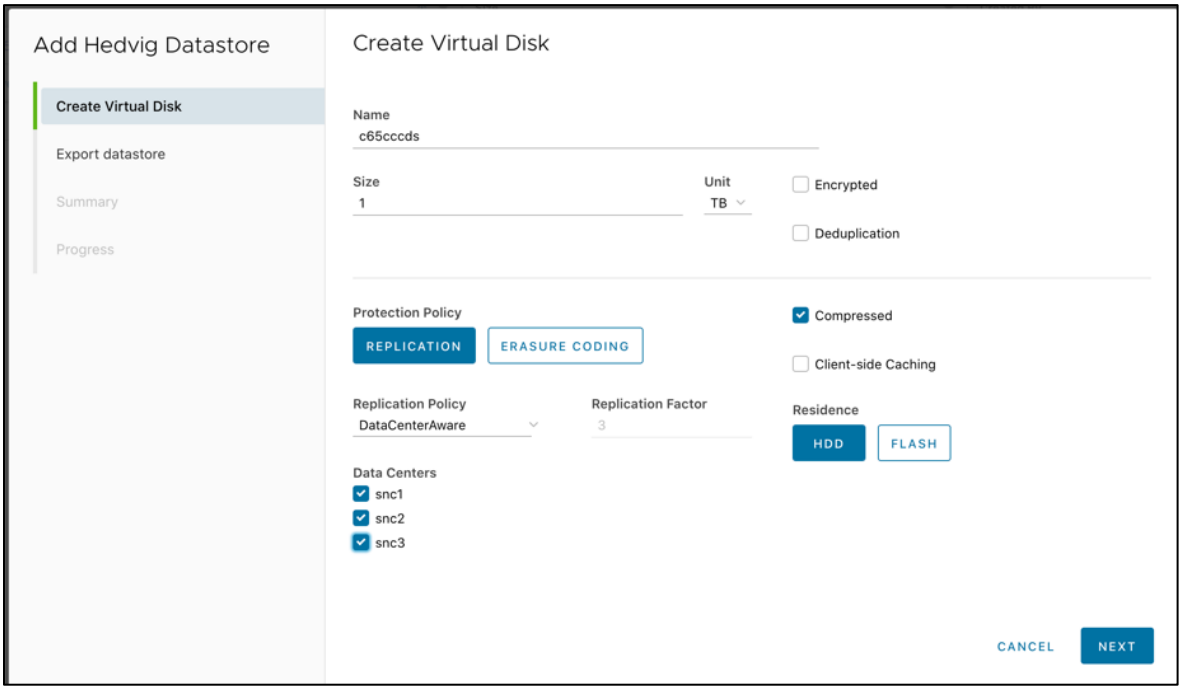
6. Review the **Virtual Disks Summary** for your Virtual Disk.



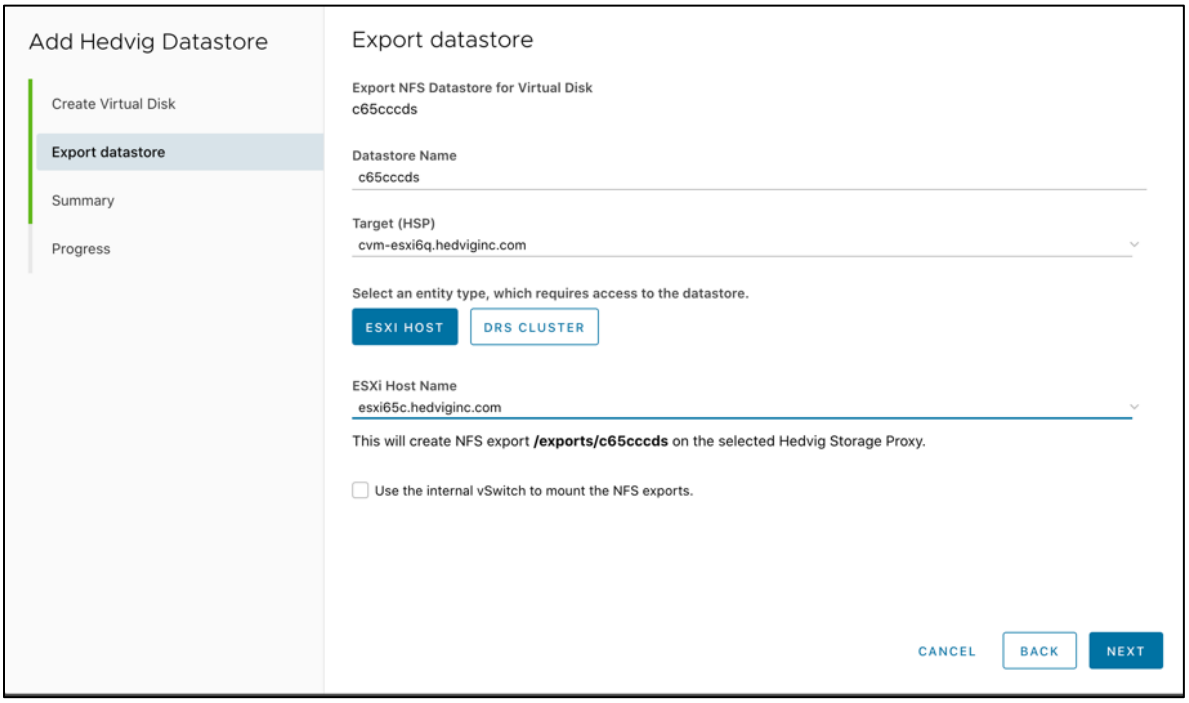
7. Review the **NFS Datastores** information to see the new datastore.

Creating a Compressed Data Center Aware Virtual Disk

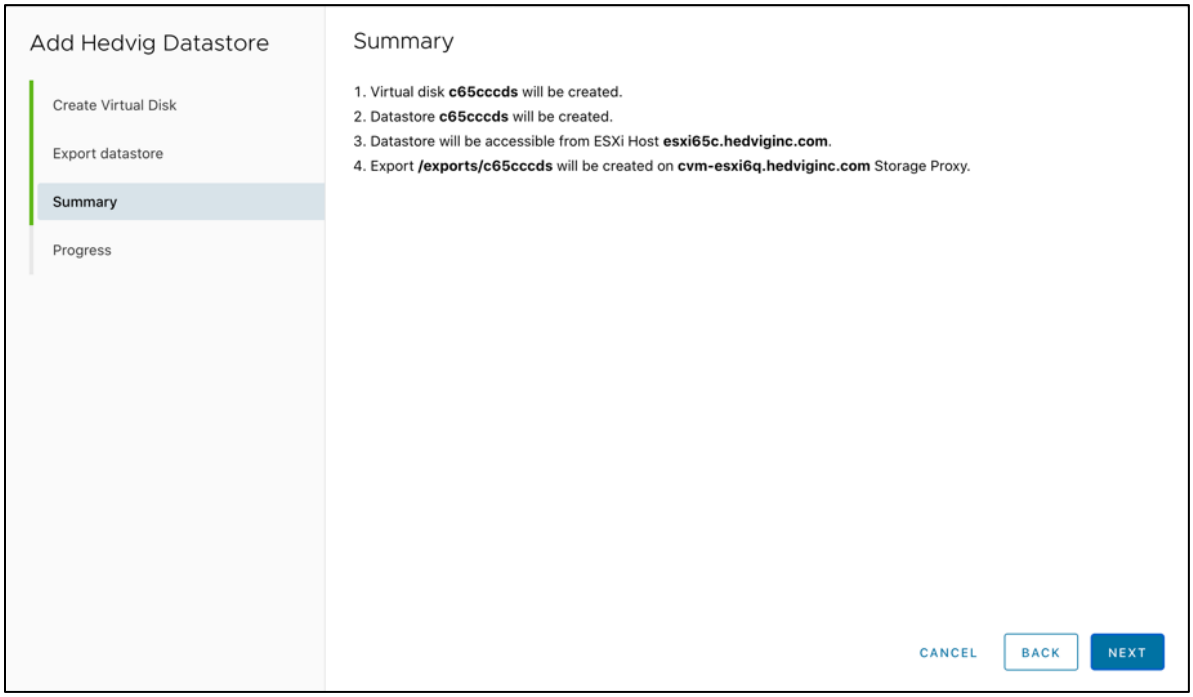
1. Create the Virtual Disk, selecting **Compressed** from the options, in addition to the previous options for Data Center Aware.



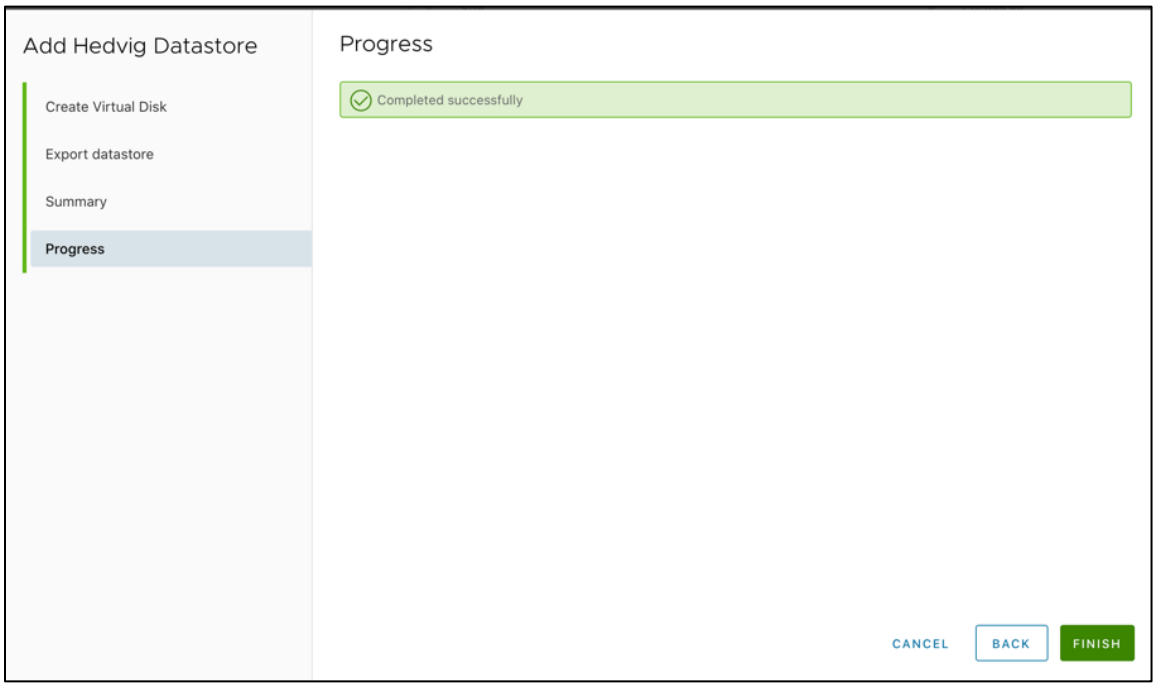
2. Export the datastore.



3. View the **Add Hedvig Datastore Summary**.

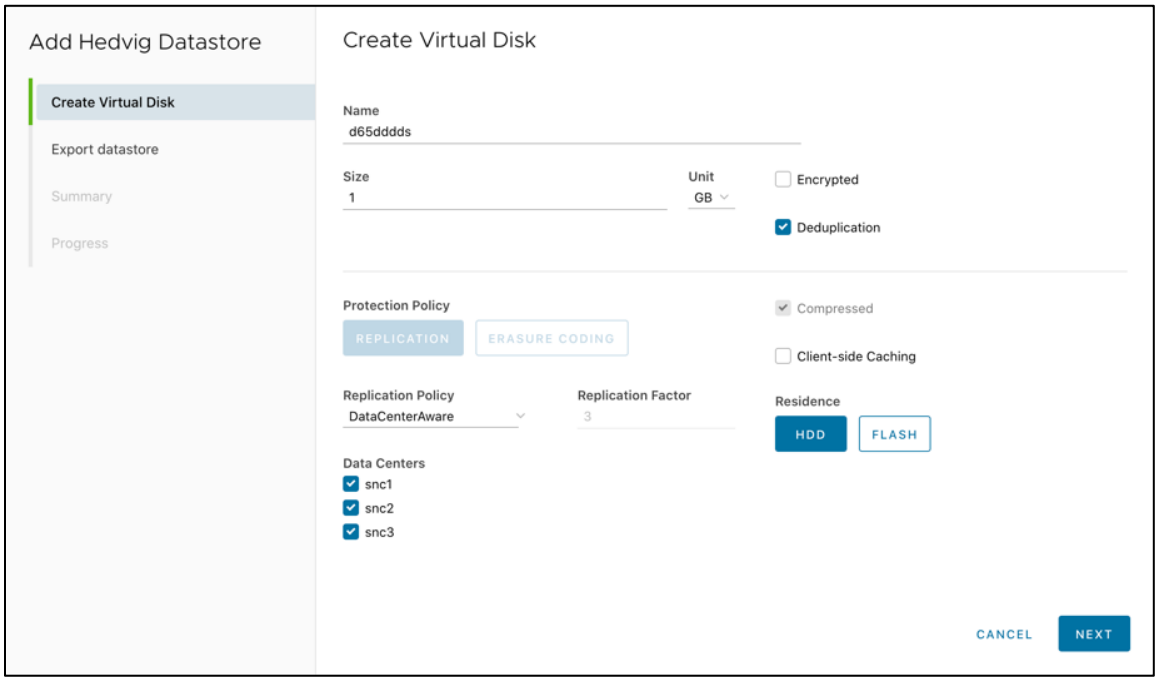


4. View the **Progress**.

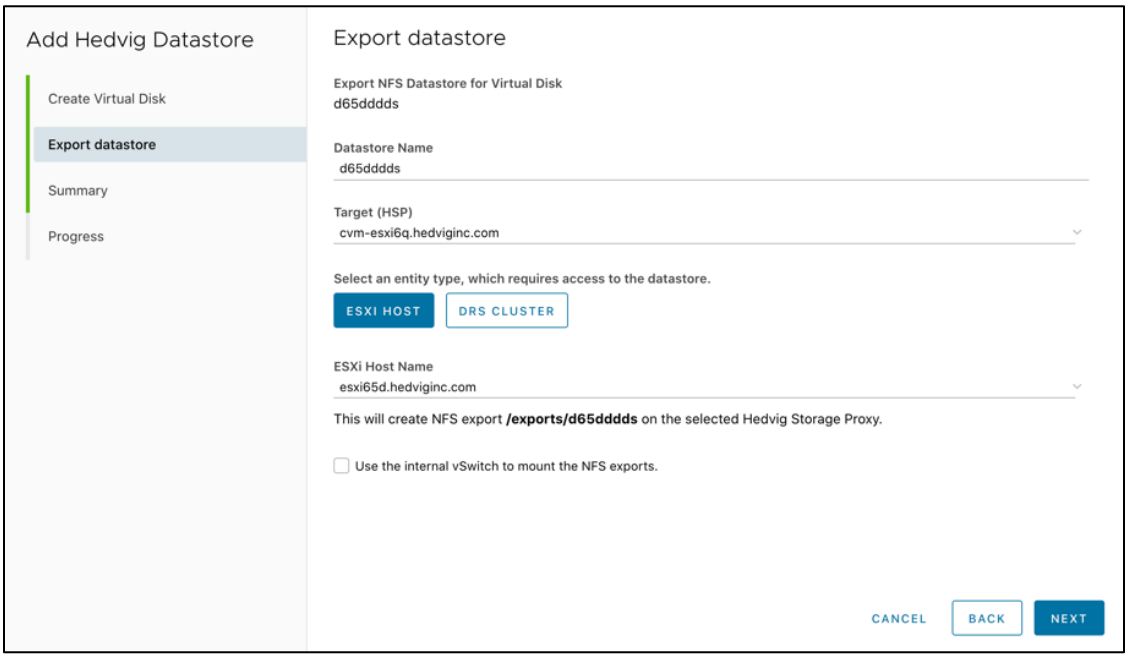


Creating a Deduplication-enabled Data Center Aware Virtual Disk

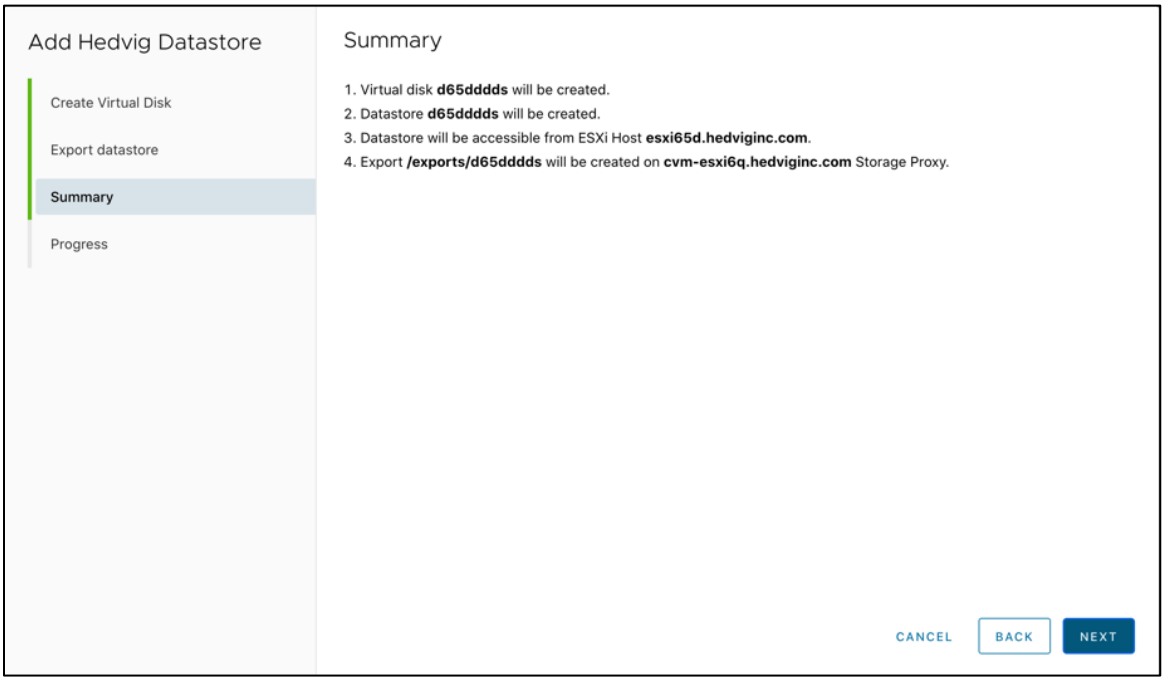
1. Create the Virtual Disk, selecting **Deduplication** from the options, in addition to the previous options for Data Center Aware. Notice that **Compressed** is automatically selected, as well.



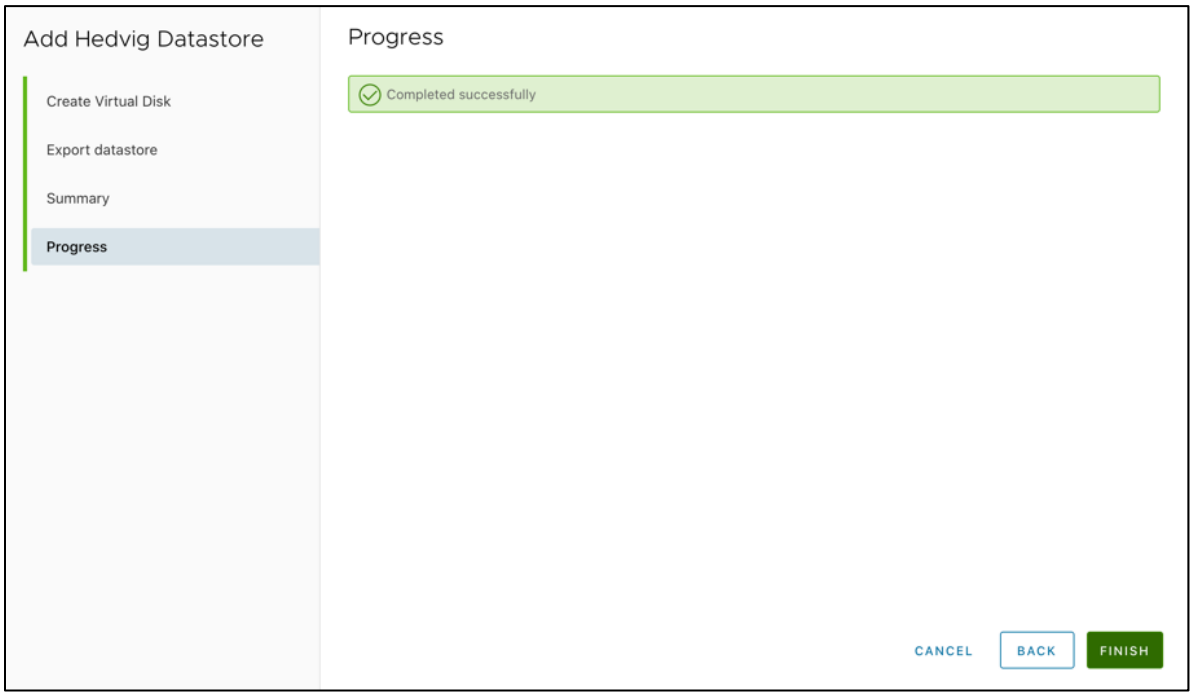
2. Export the datastore.



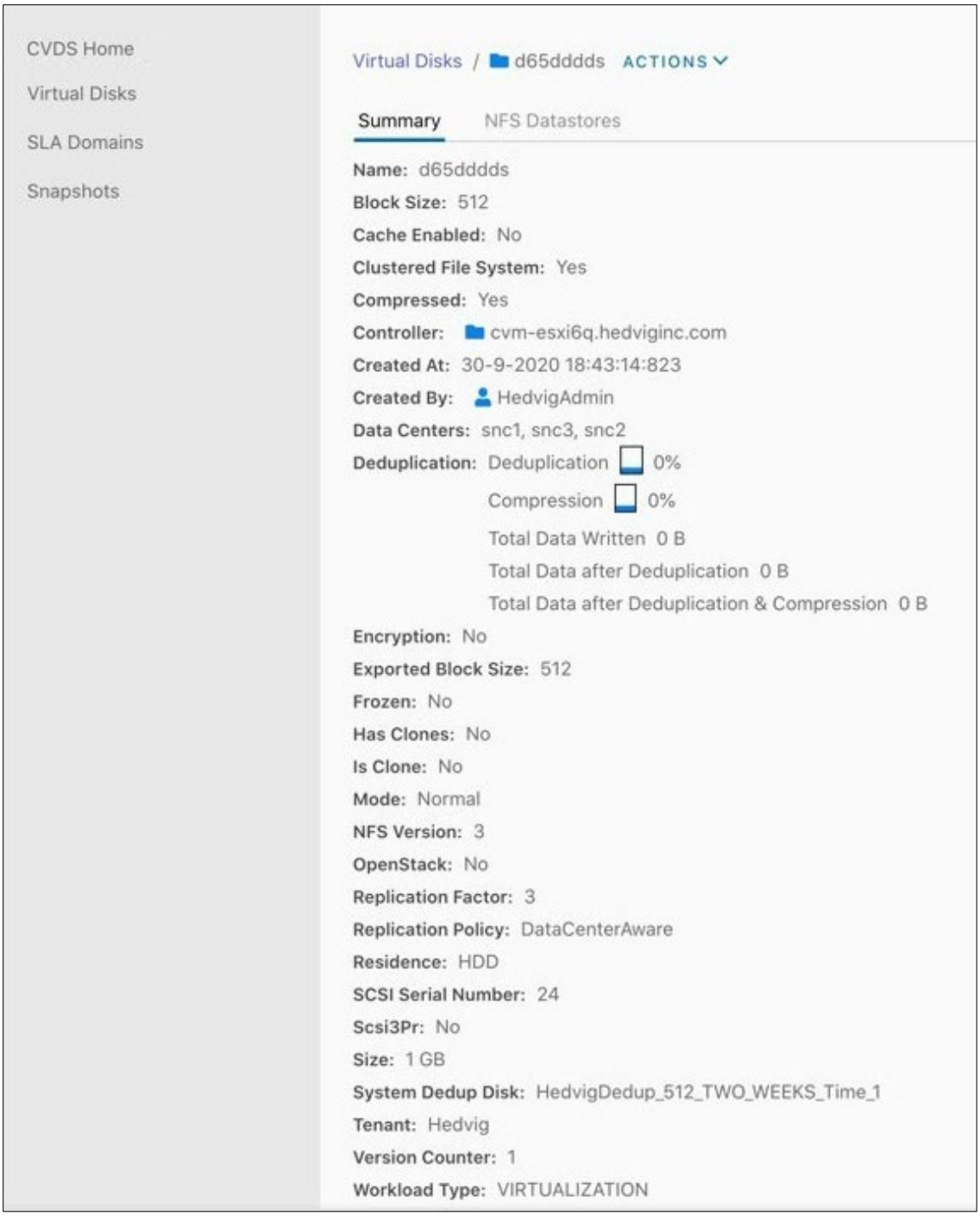
3. View the **Add Hedvig Datastore Summary**.



4. View the **Progress**.

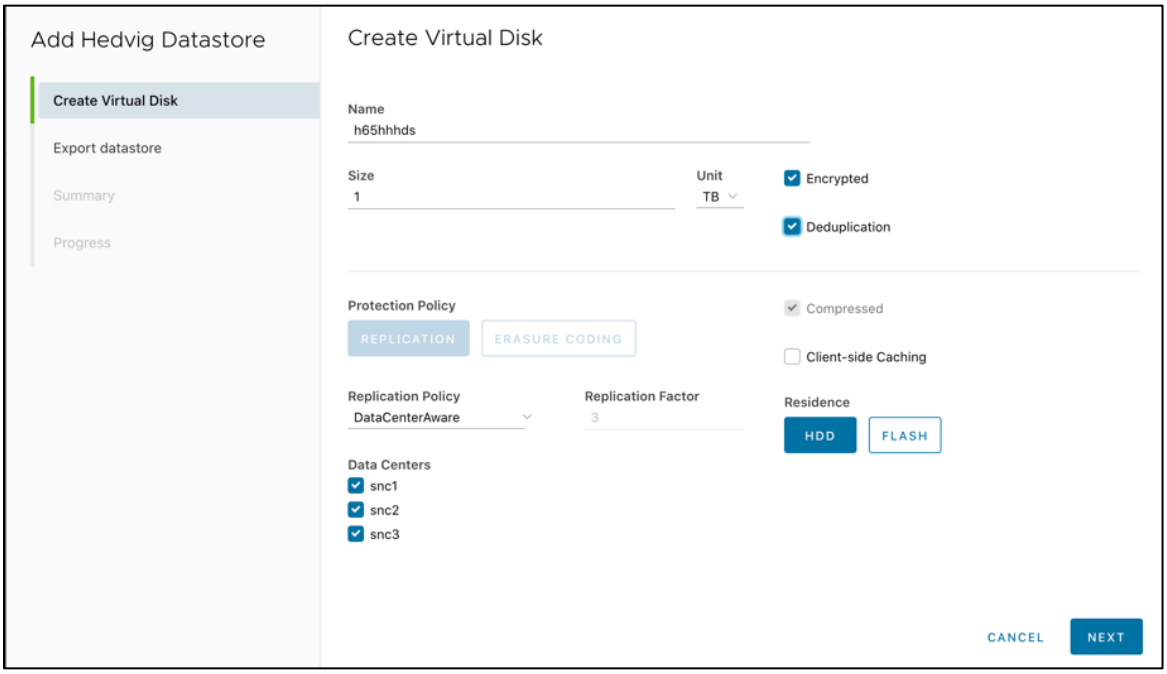


5. Review the **Virtual Disks Summary** for your Virtual Disk.

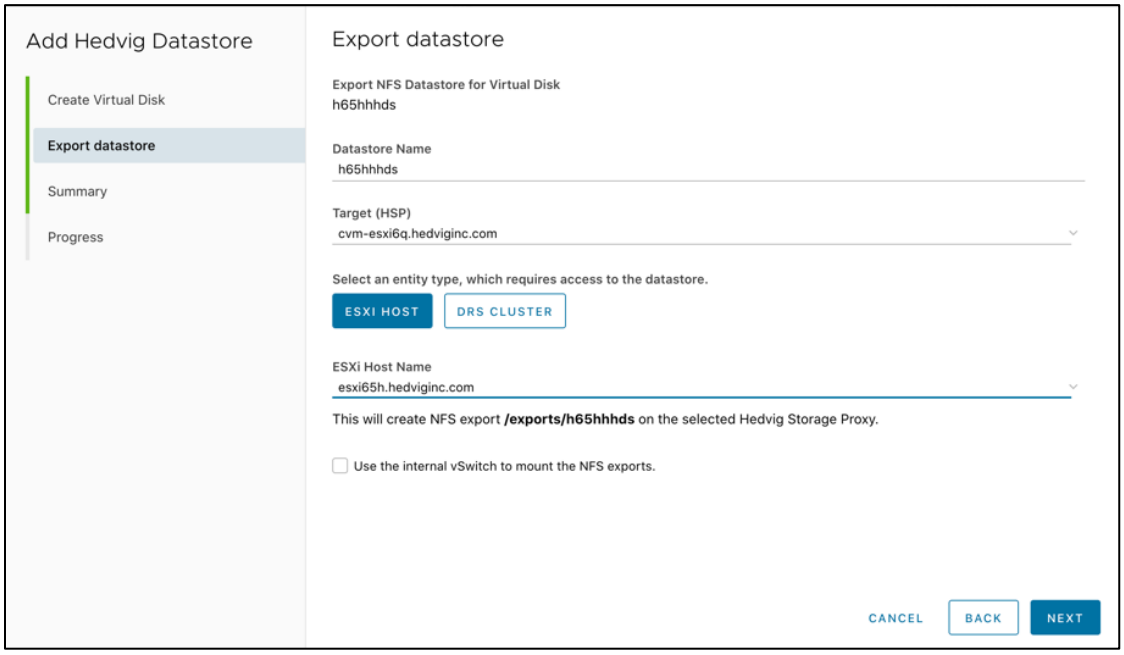


Creating an Encrypted, Deduplication-enabled Data Center Aware Virtual Disk

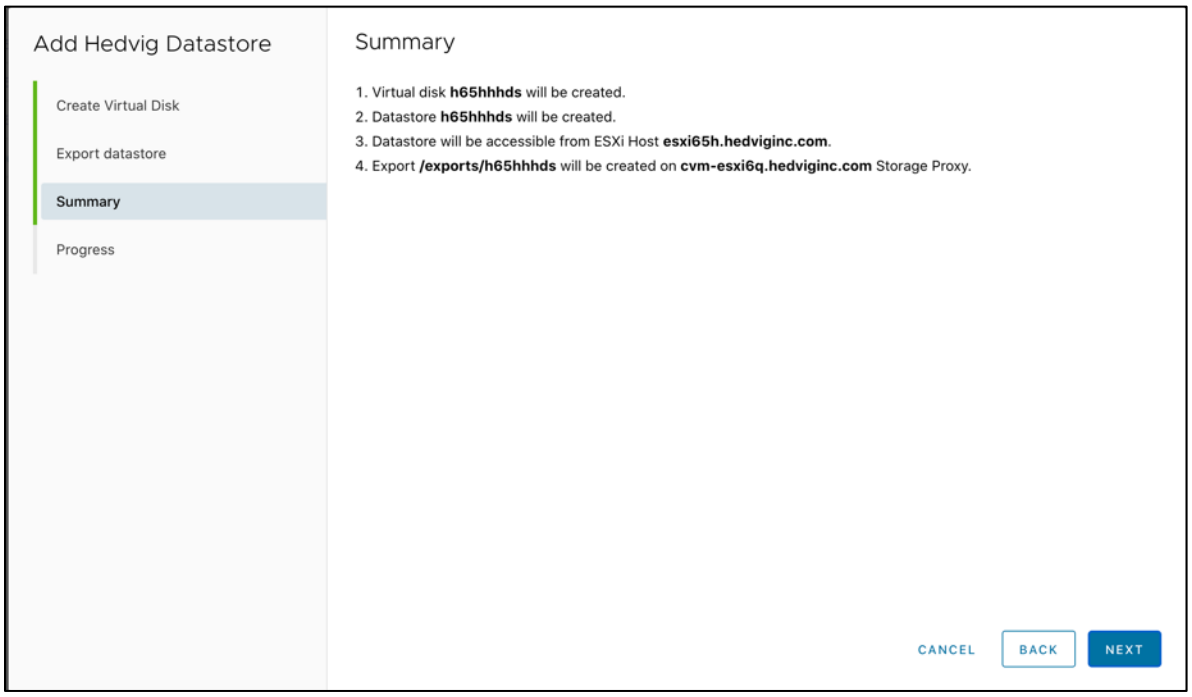
1. Create the Virtual Disk, selecting **Encryption** and **Deduplication** from the options, in addition to the previous options for Data Center Aware. Notice that **Compressed** is automatically selected, as well.



2. Export the datastore.

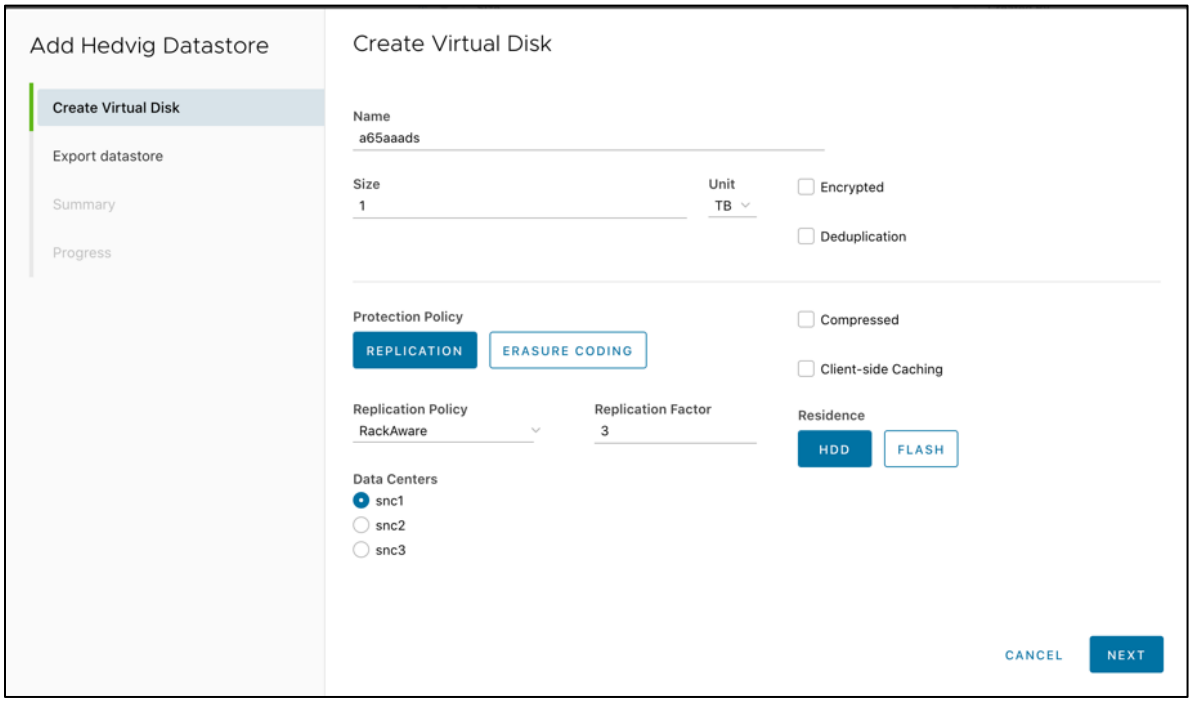


3. View the **Add Hedvig Datastore Summary**.

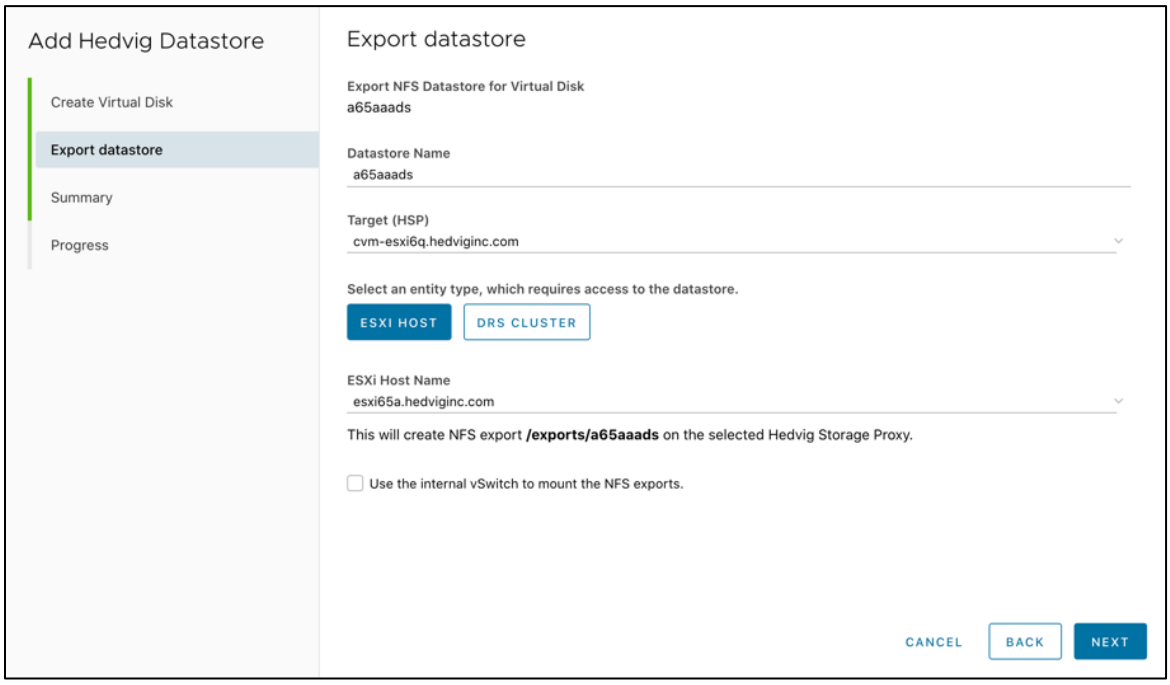


Creating a Rack Aware Virtual Disk

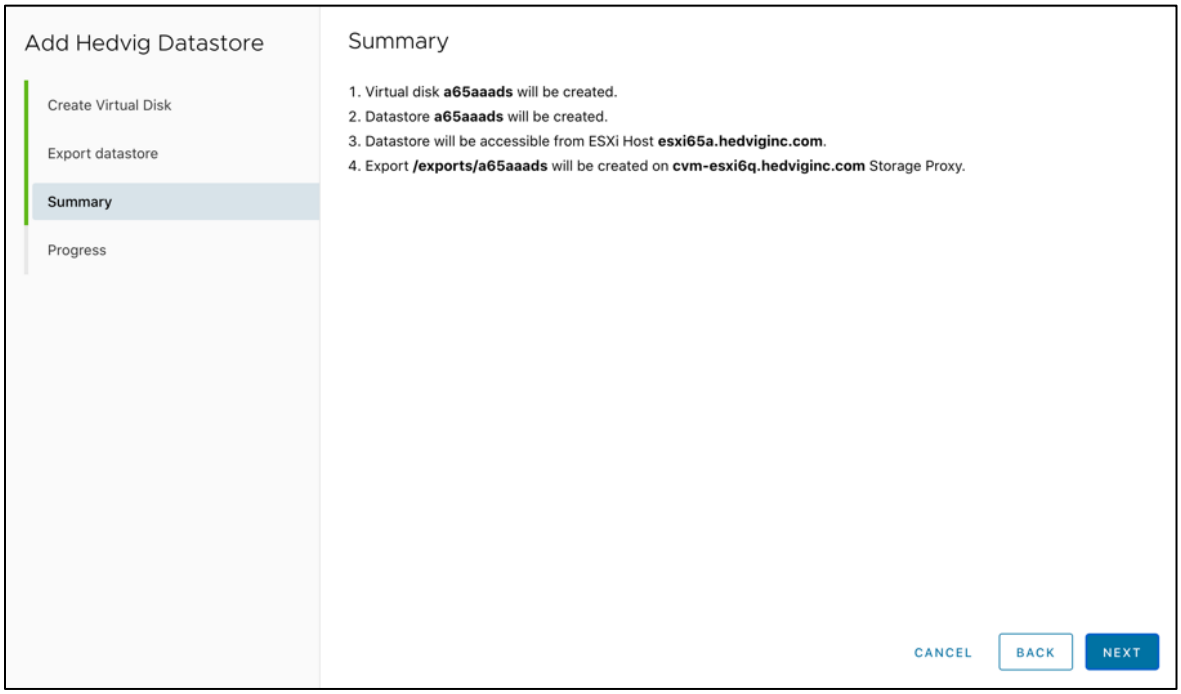
1. Create the Virtual Disk, selecting **Replication** as the **Protection Policy**, selecting **RackAware** as the **Replication Policy**, and selecting the appropriate **Data Centers**.



2. Export the datastore.

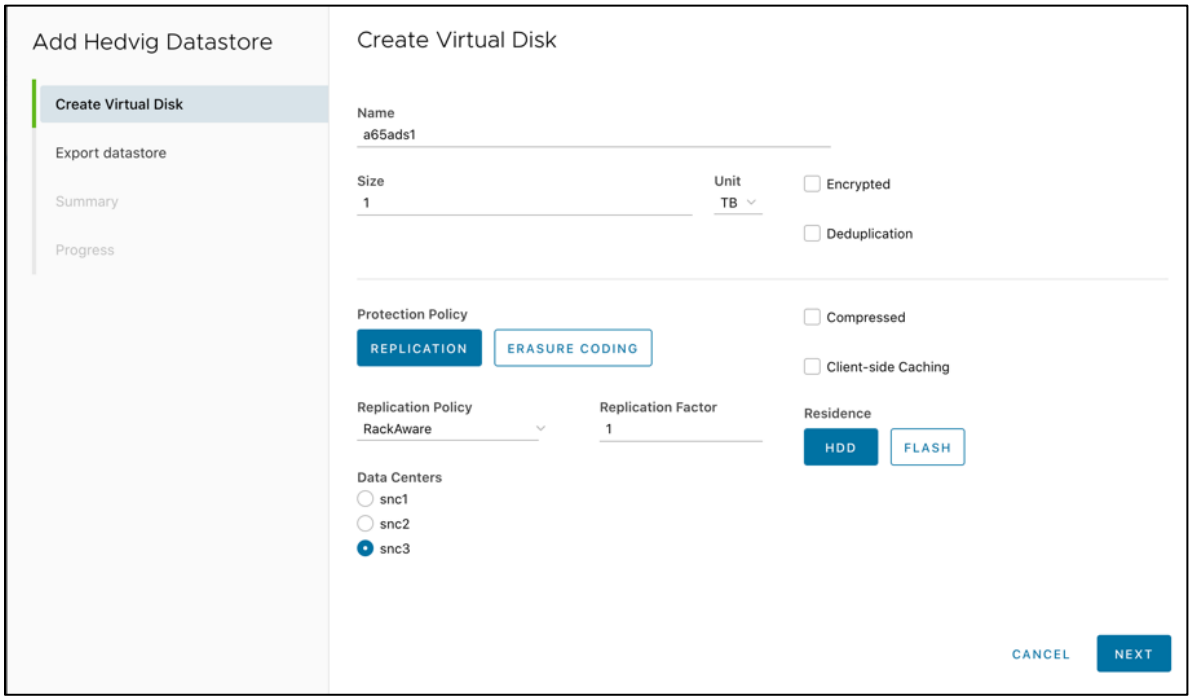


3. View the **Add Hedvig Datastore Summary**.

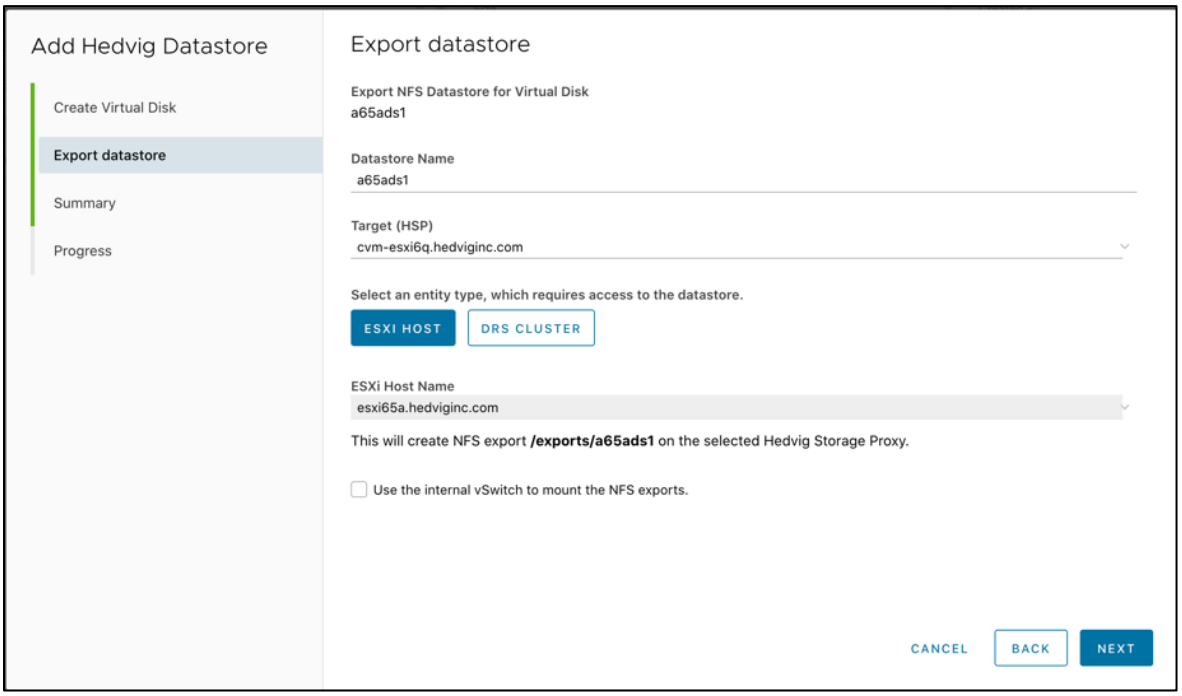


Creating a Rack Aware Virtual Disk on another Data Center

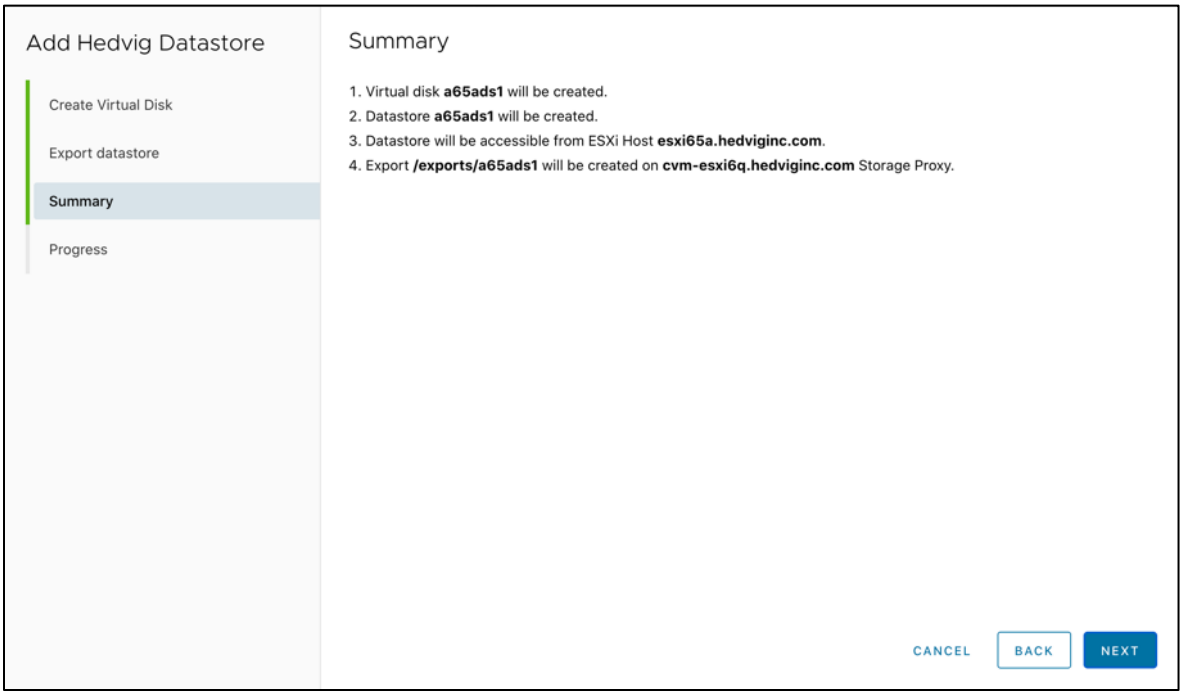
1. Create the Virtual Disk, selecting **Replication** as the **Protection Policy**, selecting **RackAware** as the **Replication Policy**, and selecting a different **Data Center**.



2. Export the datastore.

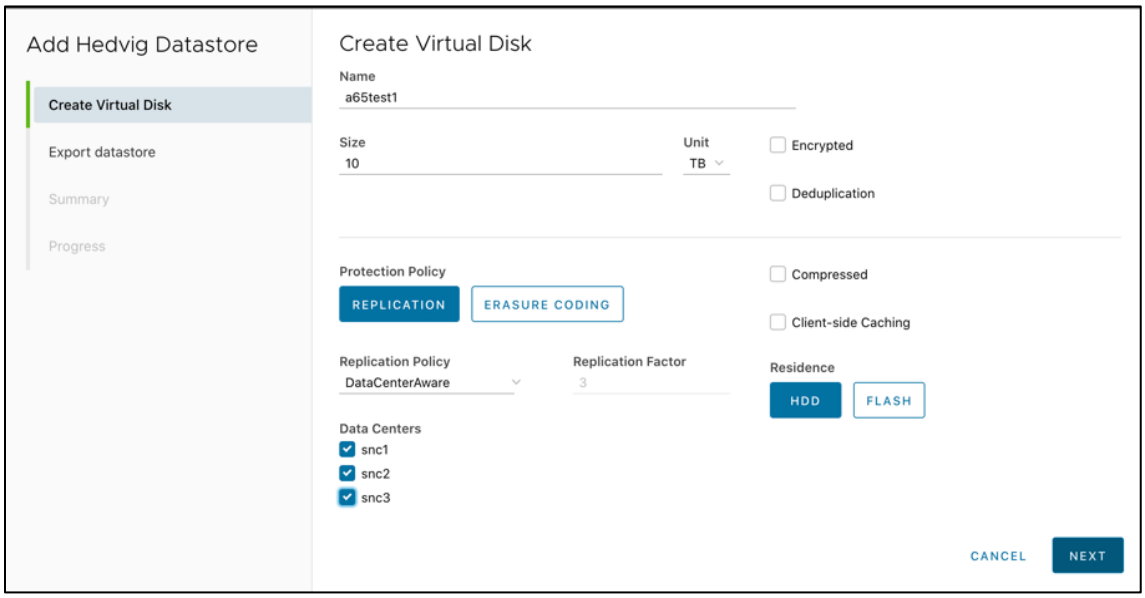


3. View the **Add Hedvig Datastore Summary**.

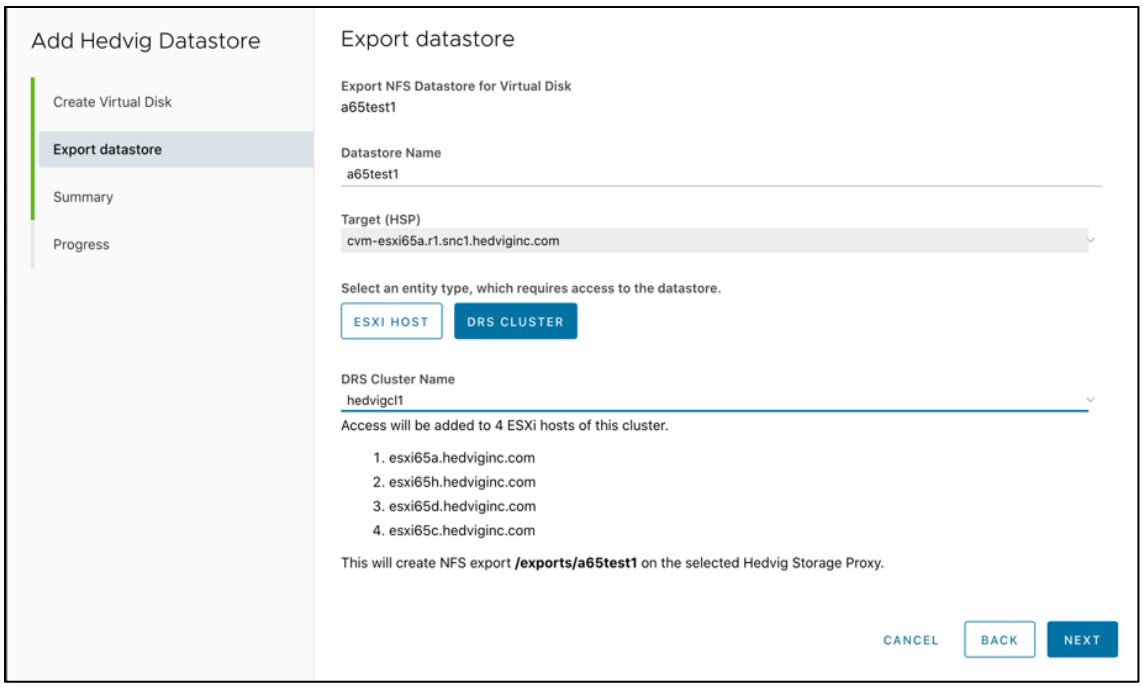


Creating a Virtual Disk and exporting with the DRS Cluster option

1. Create the Virtual Disk, with the desired options.

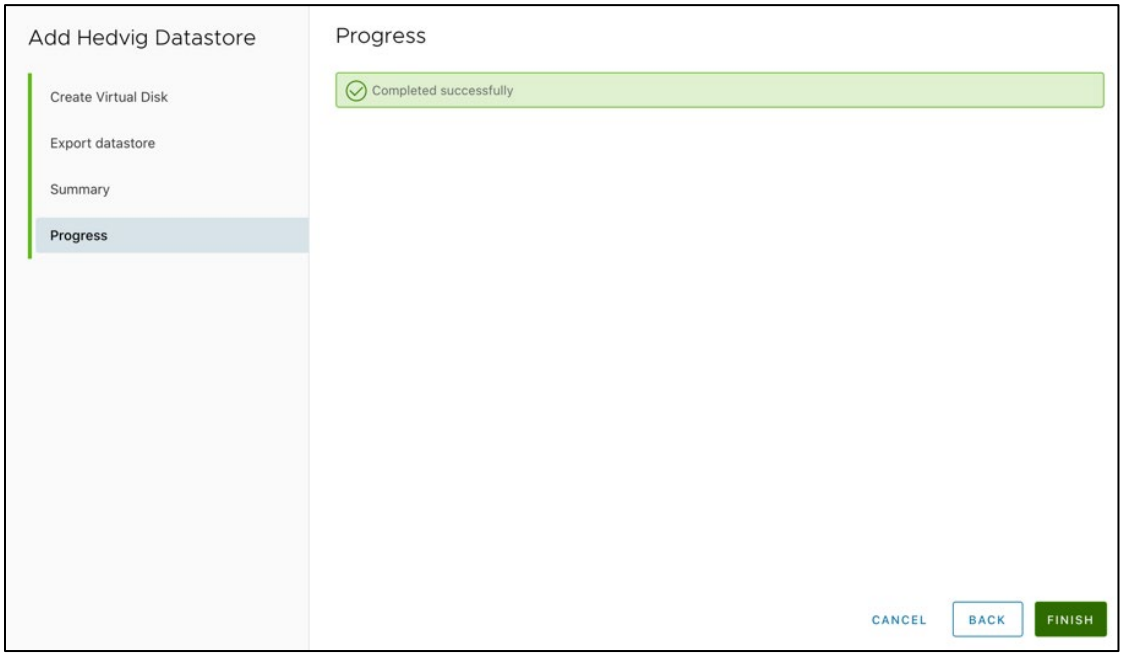


2. Export the datastore, selecting **DRS** (Distributed Resource Scheduler) **Cluster**.

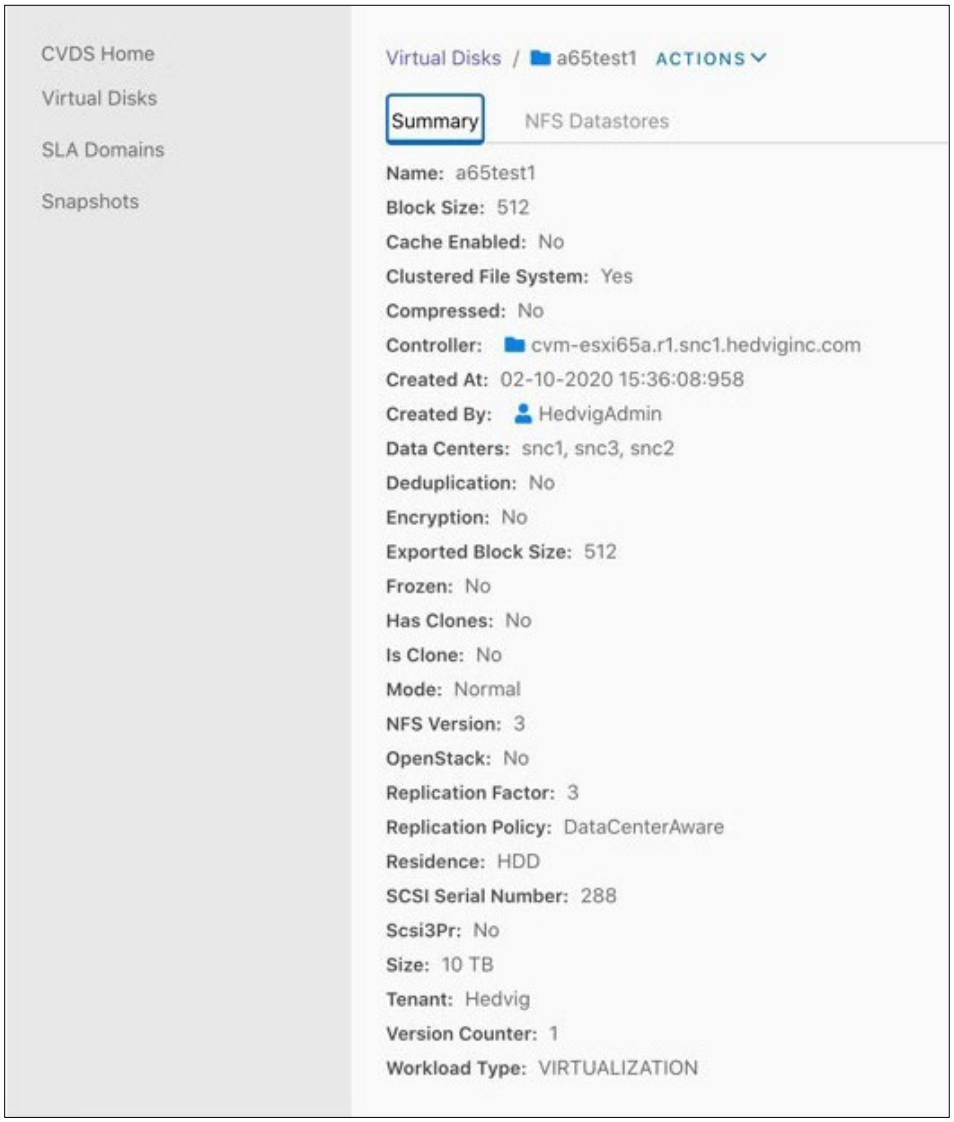


3. View the **Add Hedvig Datastore Summary**.

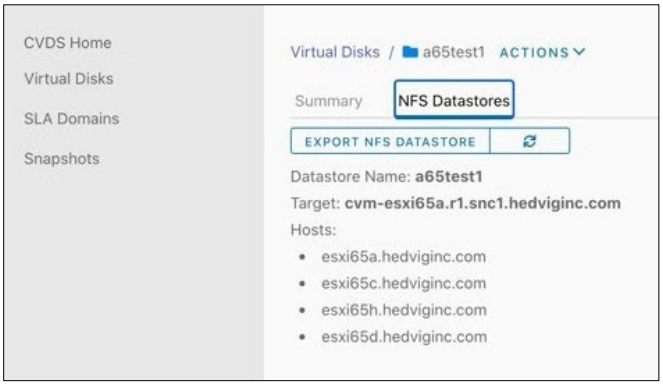
4. View the **Progress**.



5. Review the **Virtual Disks Summary** for your Virtual Disk.

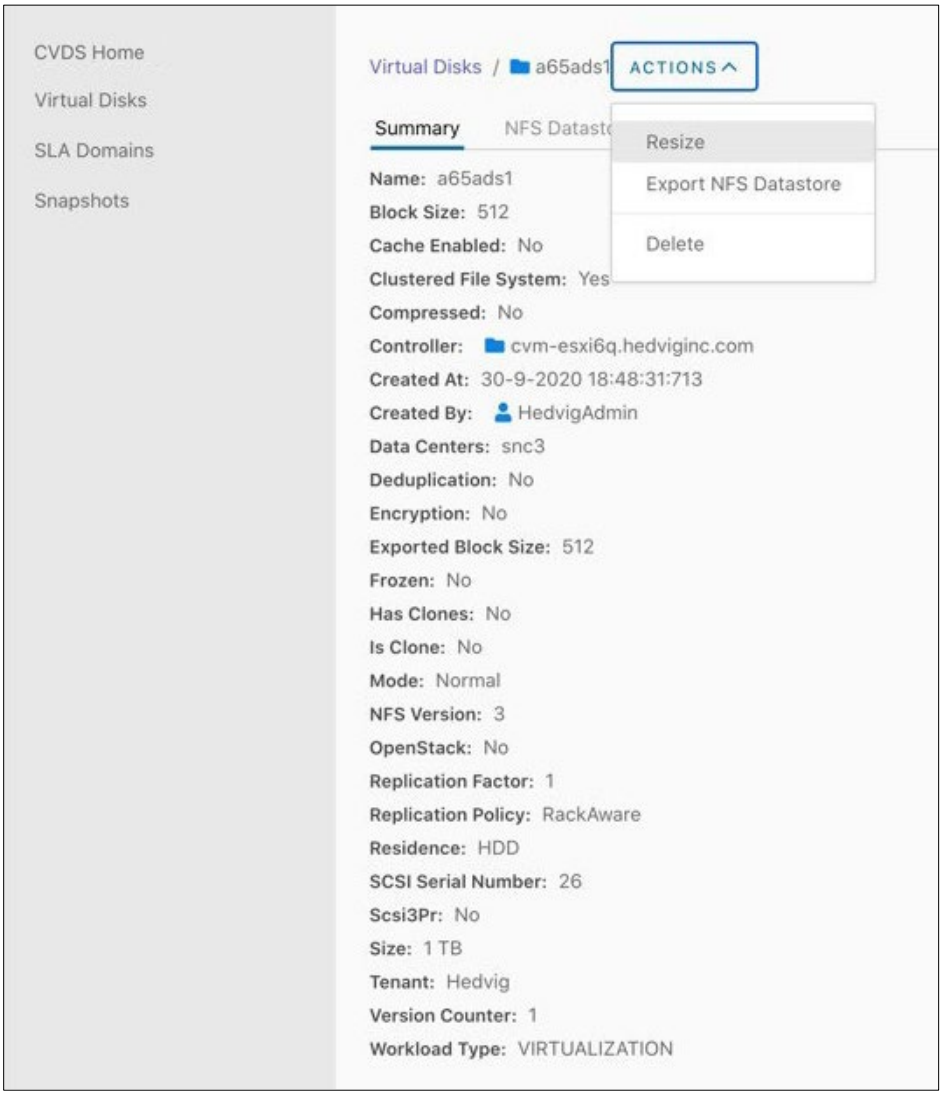


6. Review the **NFS Datastores** information to see the new datastore.

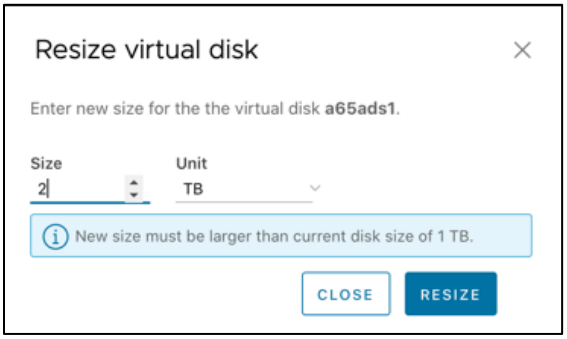


Resizing a Virtual Disk

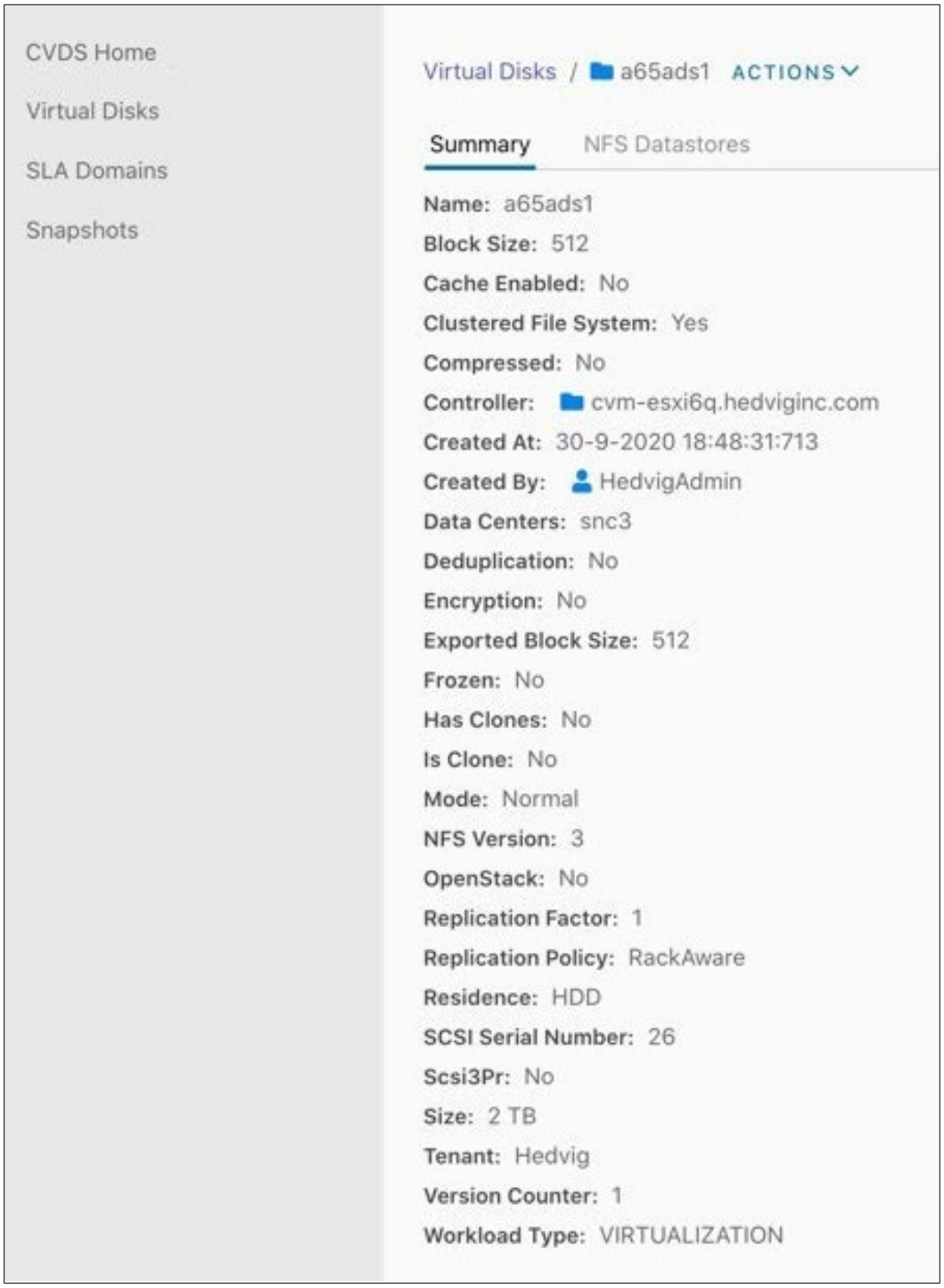
1. Select **Resize** from the **Actions** menu.



2. In the **Resize virtual disk** dialog, provide the new size. Note that you cannot choose a size smaller than the current size, that is, you cannot "shrink" the Virtual Disk.

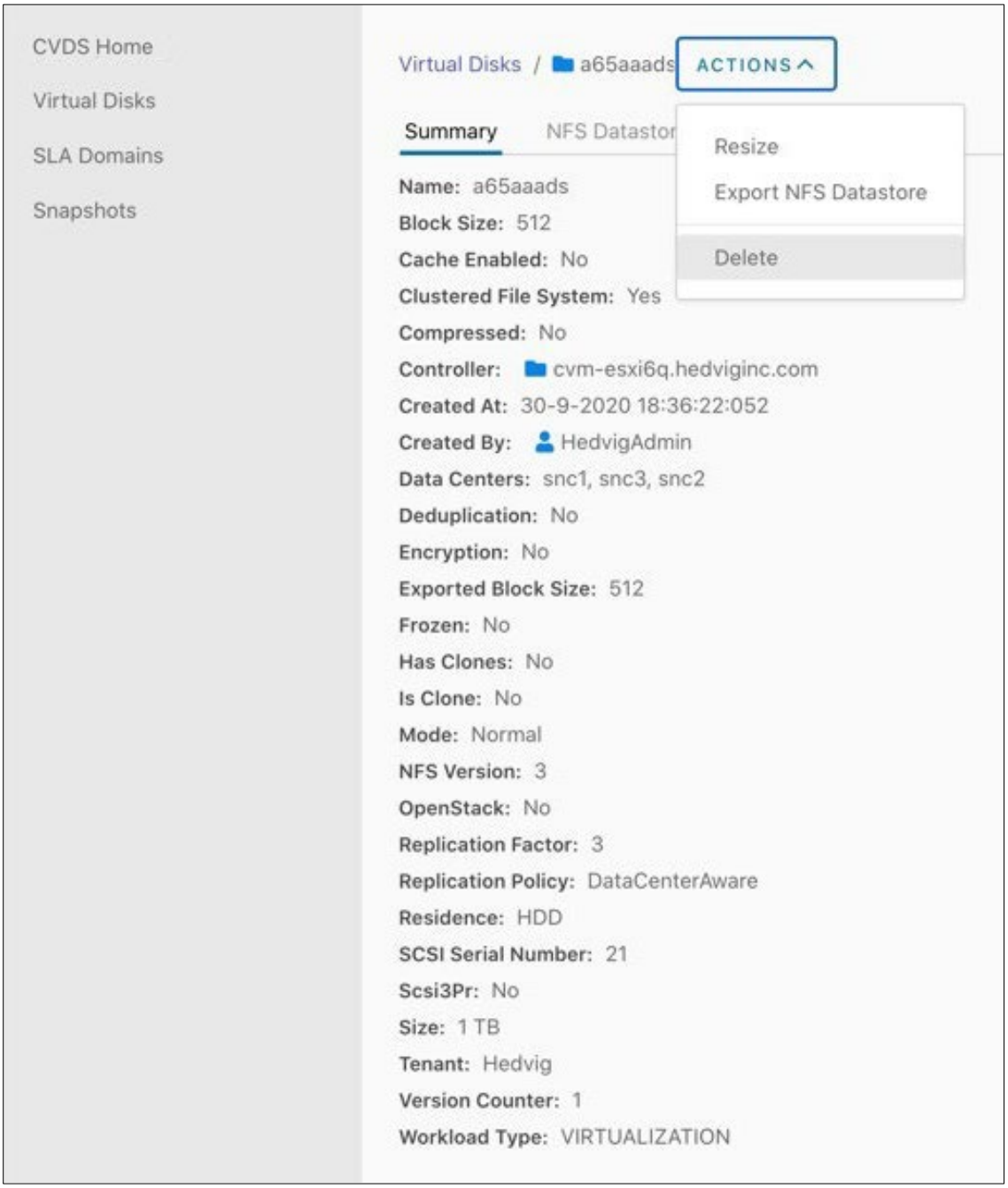


3. In the **Summary**, note that the new size of 2 TB is displayed.

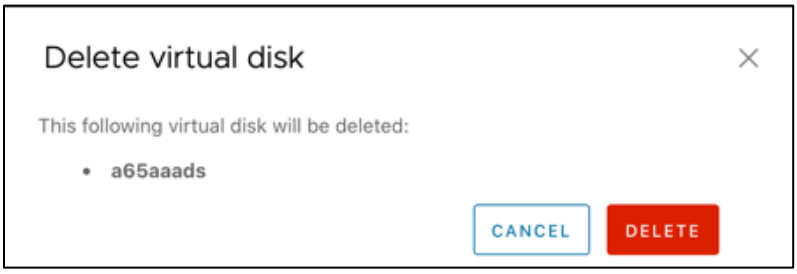


Deleting a Virtual Disk

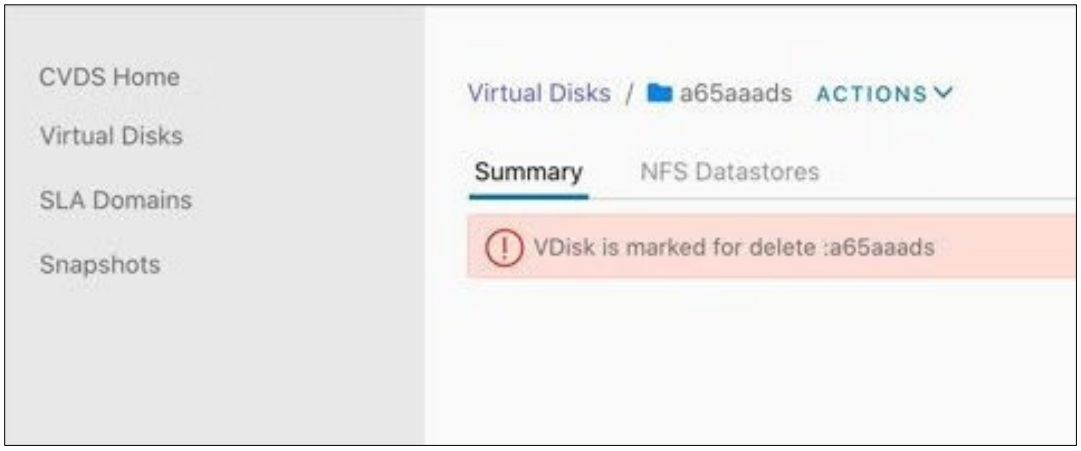
1. Select **Delete** from the **Actions** menu.



2. In the **Delete virtual disk** dialog, make sure that this is the Virtual Disk you want to delete.

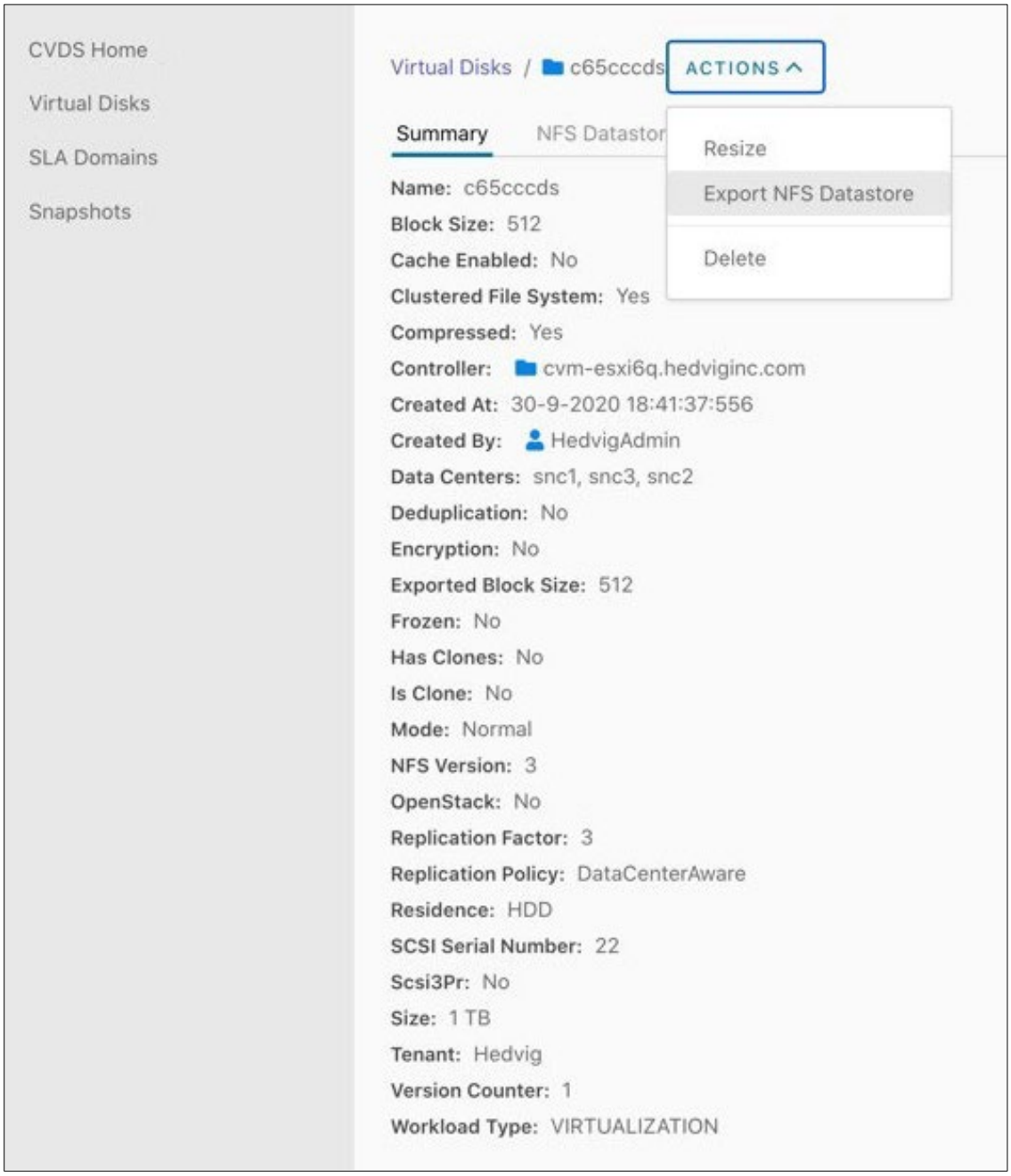


3. In the **Virtual Disks Summary**, note that this Virtual Disk is now marked for deletion.

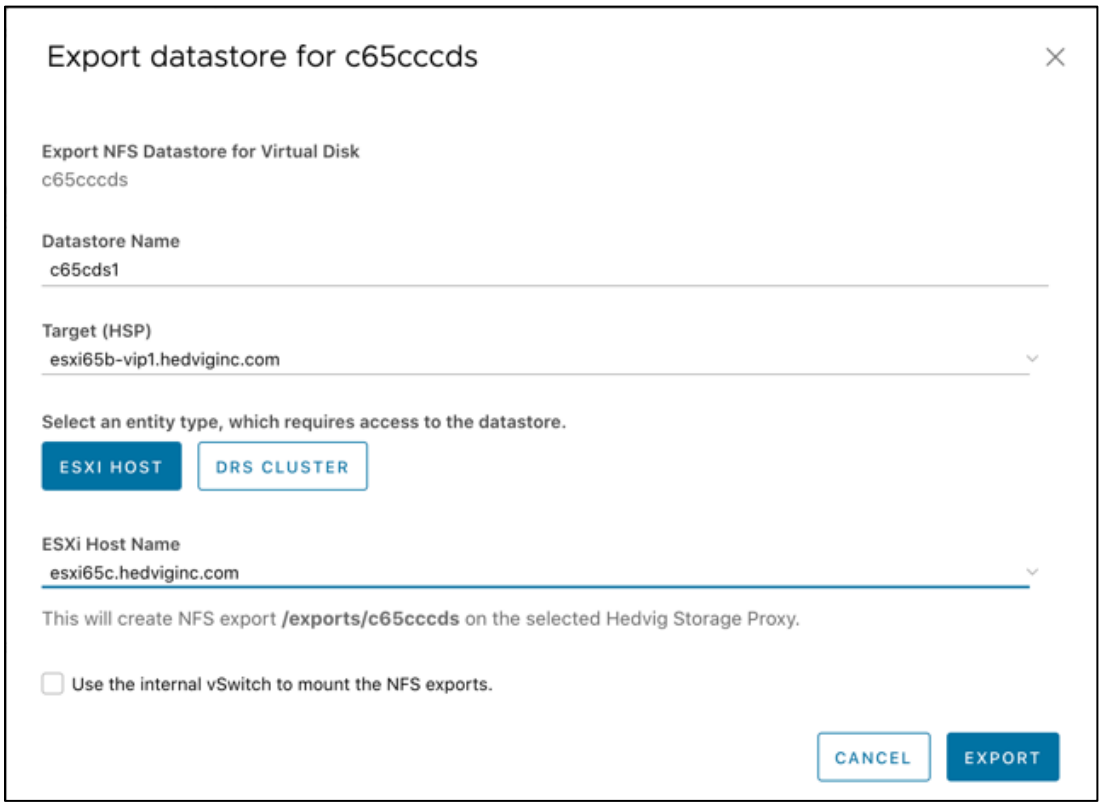


Exporting an NFS Datastore

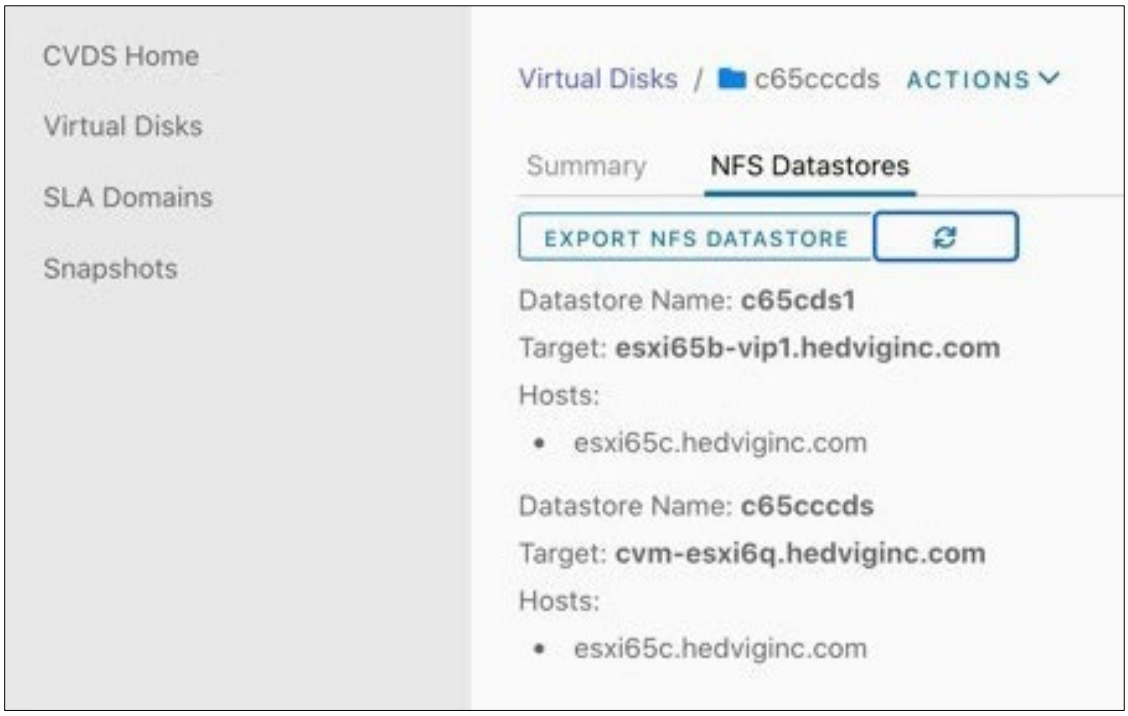
1. Select **Export NFS Datastore** from the **Actions** menu.



2. Complete the **Export datastore** dialog.



3. Review the **NFS Datastores** information to see the new datastore.



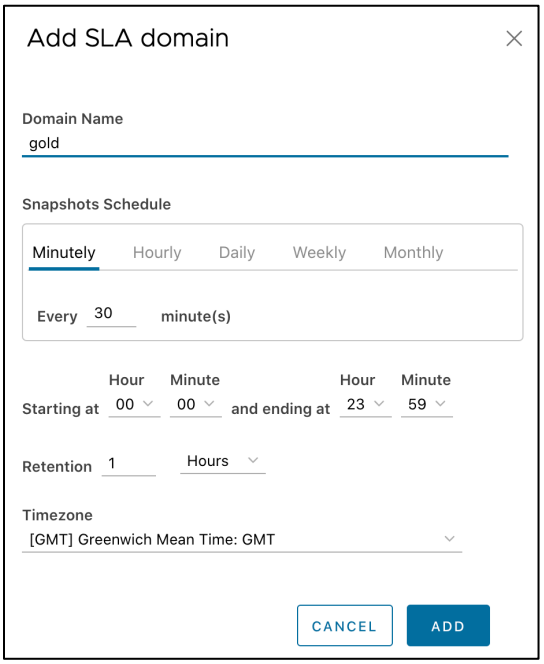
SLA Domains page

You can map every VM to an SLA Domain, which will schedule snapshot creation for the VM, based on the periodicity and retention of the mapped SLA Domain.

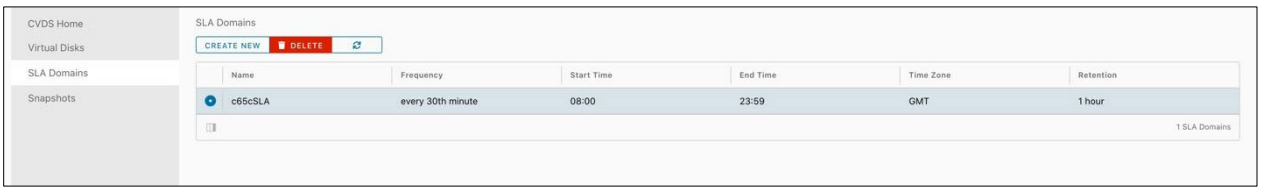
Adding an SLA Domain

1. When you select SLA Domains, all available SLA Domains are listed.

2. To create SLA Domains and schedule snapshots according to the periodicity and retention of the SLA Domain, use the **Add SLA domain** dialog.

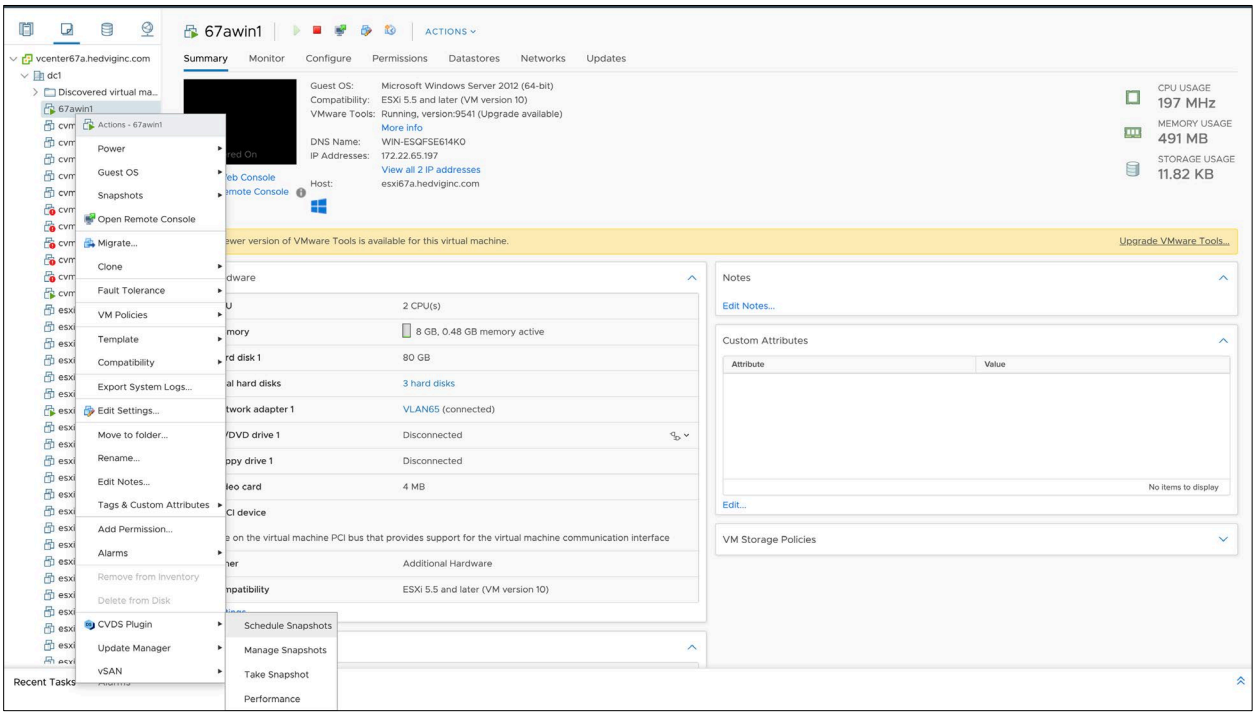


3. Now, the **SLA Domains** page shows the newly created SLA Domain.

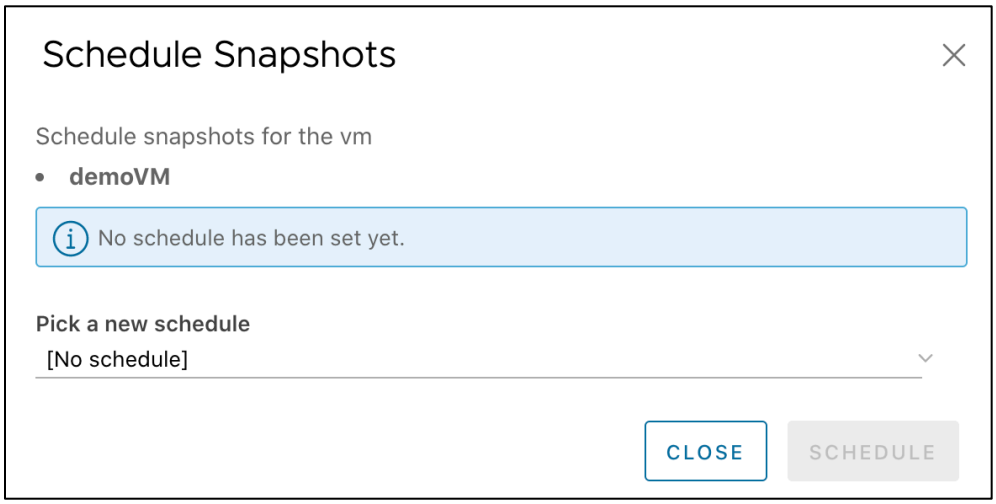


Scheduling snapshots

1. Select **Schedule Snapshots** from the vSphere Client menu.

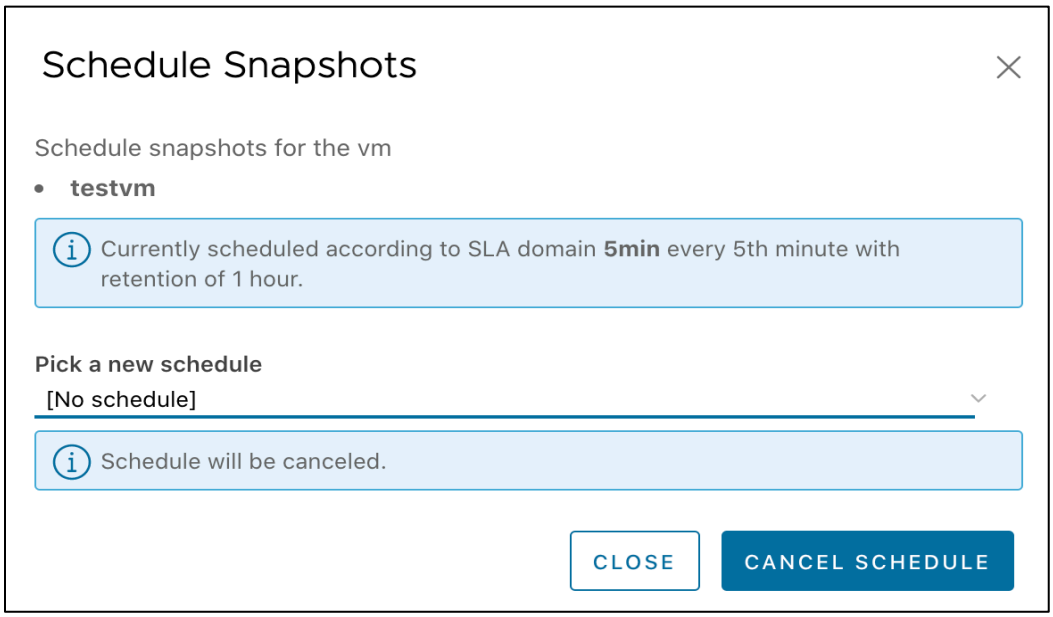


2. Complete the **Schedule Snapshots** dialog.



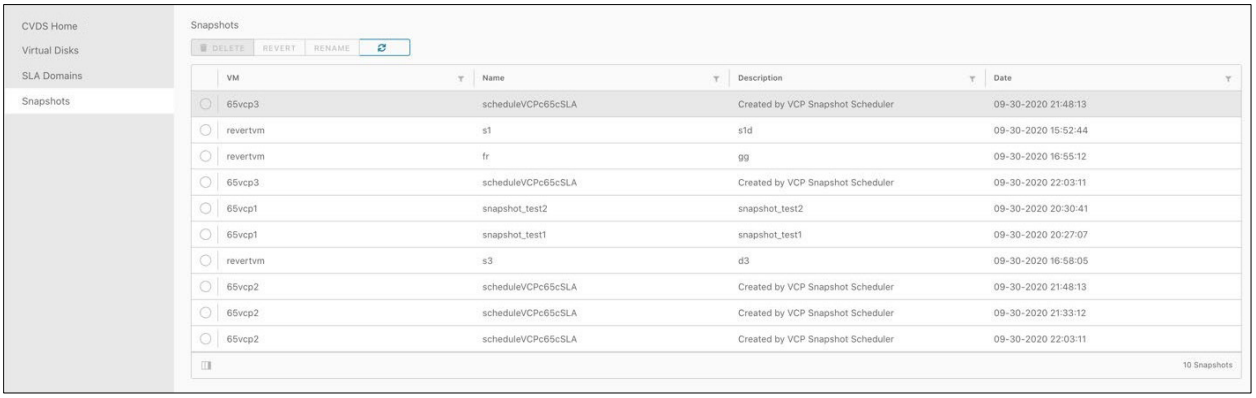
Note: You cannot use the VMware snapshot feature and the Schedule Snapshots feature in the same setup. The Schedule Snapshots feature expects no VMware snapshot to be present.

3. If you need to cancel a scheduled snapshot, select the **Cancel Schedule** button.



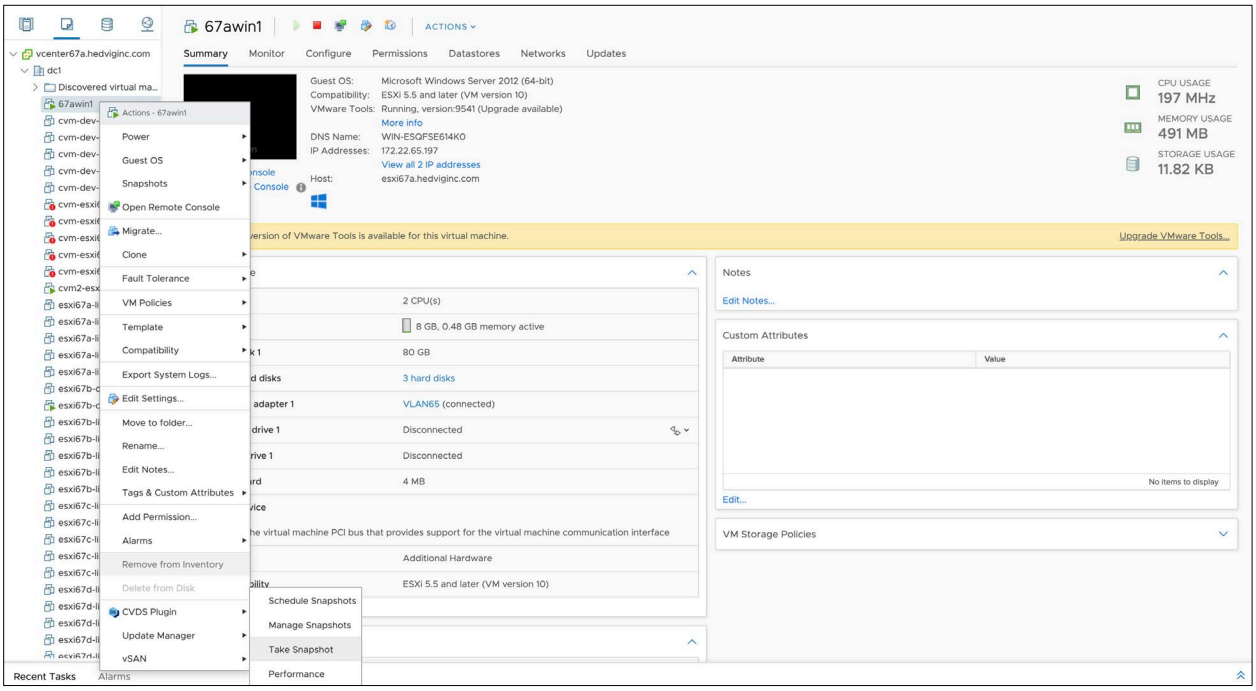
Snapshots page

The Snapshots page displays all of the snapshots for your system.

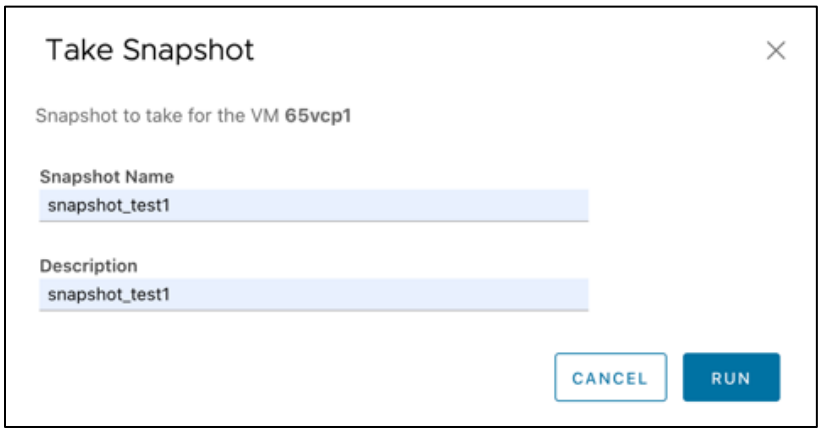


Taking snapshots

1. Select **Take Snapshots** from the vSphere Client menu.



2. Complete the **Take Snapshot** dialog.



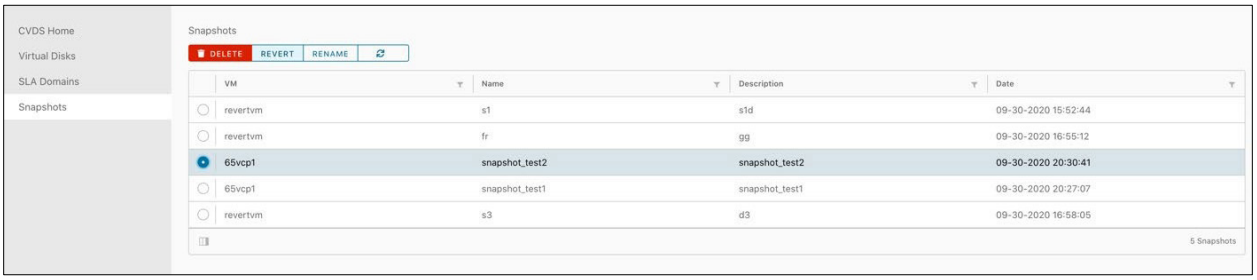
3. View the new snapshot on the **Snapshots** page.

Reverting to a previous snapshot

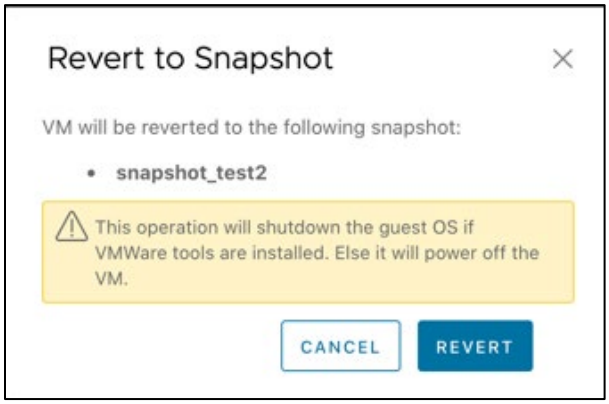
You can revert the current state of the VM to a given snapshot taken earlier.

1. Notice that there are two snapshots for 65vcp1 – snapshot_test1 and snapshot_test2, and suppose that you want to revert the VM back to the state that existed for snapshot_test2.

2. Select snapshot_test2, and then the **Revert** button.



3. Review the **Revert to Snapshot** dialog.



4. The VM has been reverted to snapshot_test2.