Power your NetApp HCI system off or on

HCI

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Power your NetApp HCI system off or on

Powering your NetApp HCI system off or on

You can power off or power on your NetApp HCI system if you have a scheduled outage, need to perform hardware maintenance, or need to expand the system. Use the following tasks to power off or power on your NetApp HCI system as required.

You might need to power off your NetApp HCI system under a number of different circumstances, such as:

- Scheduled outages
- Chassis fan replacements
- Firmware upgrades
- Storage or compute resource expansion

The following is an overview of the tasks you need to complete to power off a NetApp HCI system:

- Power off all virtual machines except the VMware vCenter server (vCSA).
- Power off all ESXi servers except the one hosting the vCSA.
- Power off the vCSA.
- Power off the NetApp HCI storage system.

The following is an overview of the tasks you need to complete to power on a NetApp HCI system:

- Power on all physical storage nodes.
- Power on all physical compute nodes.
- Power on the vCSA.
- Verify the system and power on additional virtual machines.

Find more information

- Firmware and driver versions in NetApp HCI and NetApp Element software

Power off compute resources for a NetApp HCI system

To power off NetApp HCI compute resources, you need to power off individual VMware ESXi hosts as well as the VMware vCenter Server Appliance in a certain order.

Steps

1. Log in to the vCenter instance controlling the NetApp HCI system and determine the ESXi machine hosting the vCenter Server Virtual Appliance (vCSA).
2. After you have determined the ESXi host running the vCSA, power down all other virtual machines other than the vCSA as follows:
   a. Select a virtual machine.
   b. Right-click and select **Power > Shut Down Guest OS**.

3. Power off all ESXi hosts that are not the ESXi host running the vCSA.
4. Power off the vCSA.

   This will cause the vCenter session to end because the vCSA disconnects during the power-off process. All virtual machines should now be shut down with only one ESXi host powered on.

5. Log in to the running ESXi host.
6. Verify that all virtual machines on the host are powered off.
7. Shut down the ESXi host.

   This disconnects any iSCSI sessions open to the NetApp HCI storage cluster.

Find more information

- Firmware and driver versions in NetApp HCI and NetApp Element software

Power off storage resources for a NetApp HCI system

When you power off storage resources for NetApp HCI, you need to use the `Shutdown` Element API method to properly halt the storage nodes.

Steps

After you power off the compute resources, you use a web browser to shut down all the nodes of the NetApp HCI storage cluster.

1. Log in to the storage cluster and verify that you are connected to the correct MVIP.
2. Verify that the iSCSI session count is zero.
3. Navigate to **Cluster > Nodes > Active**, and record the node IDs for all of the active nodes in the cluster.
4. To power off the NetApp HCI storage cluster, open a web browser and use the following URL to invoke the power off and halt procedure, where `{MVIP}` is the management IP address of the NetApp HCI storage system and the `nodes=[]` array includes the node IDs that you recorded in step 2. For example:

   ```
   https://{MVIP}/json-rpc/1.0?method=Shutdown&nodes=[1,2,3,4]&option=halt
   ```

5. Enter the cluster administrator user name and password.
6. Validate that the API call returned successfully by verifying that all storage cluster nodes are included in the `successful` section of the API result.

   You have successfully powered off all the NetApp HCI storage nodes.

Find more information

- Firmware and driver versions in NetApp HCI and NetApp Element software

Power on storage resources for a NetApp HCI system

You can power on NetApp HCI after the scheduled outage is complete.

Steps

1. Power on all the storage nodes using either the physical power button or the BMC.
2. If using the BMC, log in to each node and navigate to **Remote Control > Power Control > Power On Server**.
3. When all the storage nodes are online, log in to the NetApp HCI storage system and verify that all nodes are operational.

Find more information

- Firmware and driver versions in NetApp HCI and NetApp Element software

Power on compute resources for a NetApp HCI system

You can power on compute resources for a NetApp HCI system after the scheduled outage is complete.

Steps

1. Power on compute nodes using the same steps you performed for powering on the storage nodes.
2. When all the compute nodes are operational, log in to the ESXi host that was running the vCSA.
3. Log in to the compute host and verify that it sees all the NetApp HCI datastores. For a typical NetApp HCI system, you should see all the ESXi local datastores and at least the following shared datastores:

```
NetApp-HCI-Datastore-[01,02]
```

1. Assuming all storage is accessible, power on the vCSA and any other required virtual machines as follows:
   a. Select the virtual machines in the navigator, select all the virtual machines that you want to power on, and click the **Power on** button.
2. After you power on the virtual machines, wait for approximately 5 minutes and then use a web browser to navigate to the IP address or FQDN of the vCSA applicance.

   If you do not wait long enough, a message appears stating that the vSphere Client web server is initializing.
3. After the vSphere Client initializes, log in and verify that all ESXi hosts and virtual machines are online.

Find more information

- Firmware and driver versions in NetApp HCI and NetApp Element software