Inventory selection

HCI

NetApp
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Table of Contents

Inventory selection 1
Inventory selection and node compatibility 1
Select inventory 2

Inventory selection

Inventory selection and node compatibility

When choosing nodes for your deployment, some restrictions apply to the node configurations you can combine in the same deployment.

Storage node compatibility

NetApp HCI supports storage nodes and drives with SED (Self-encrypting drive) and FIPS 140-2 drive encryption capability. When deploying or expanding NetApp HCI, you can mix nodes with different reported levels of encryption, but NetApp HCI only supports the more basic form of encryption in this situation. For example, if you mix a storage node that is FIPS encryption capable with nodes that only support SED encryption, SED encryption is supported with this configuration, but FIPS drive encryption is not.

Adding storage nodes capable of FIPS drive encryption to the storage cluster does not automatically enable the FIPS drive encryption feature. After you deploy or expand an installation with FIPS-capable nodes, you need to manually enable FIPS drive encryption. See the Element Software User Guide for instructions.

All storage nodes must run the same minor version of Element software to be compatible in the same deployment. For example, you cannot mix a storage node running Element 11.3.1 with other storage nodes running Element 11.5.

Depending on node hardware configuration, H410S storage nodes might appear in the inventory list labeled as H300S, H500S, or H700S storage nodes.

NetApp HCI supports only certain storage node models in two-node or three-node storage clusters. For more information, see the Release Notes for your NetApp HCI version.

Compute node compatibility

Compute nodes must meet the following requirements to be selectable as inventory:

- The CPU generations in all compute nodes must match for proper VMware vMotion functionality. After you select a compute node from the inventory, you cannot select compute nodes with different CPU generations.
- You cannot intermix compute nodes with GPU-enabled compute nodes in the same compute cluster. If you select a GPU-enabled compute node, CPU-only compute nodes become unselectable, and vice versa.
- The software version running on the compute node must match the major and minor version of

the NetApp Deployment Engine hosting the deployment. If this is not the case, you need to reimage the compute node using the RTFI process. See the NetApp Knowledgebase articles regarding RTFI for instructions.

- The compute node must have the cabling configuration you selected on the Network Topology page to be selectable in the **Compute Nodes** list.
- The network cabling configurations for compute nodes of the same model must match within a single compute cluster.

Find more information

- NetApp HCI Documentation Center
- SolidFire and Element Software Documentation Center

Select inventory

On the **Inventory** page, the NetApp Deployment Engine automatically detects available compute and storage nodes, enabling you to select and add all NetApp HCI resources to the deployment. If a node does not meet the requirements for deployment, it is not selectable and problems are indicated as errors. You can position your cursor over the error in the node's row to see an explanation. When choosing node inventory on the Inventory page, the storage node that is hosting the NetApp Deployment Engine is automatically selected, and you cannot deselect it.

What you'll need

Jumbo frames must be enabled for proper inventory detection. If no nodes or only a subset of nodes appear in the inventory, verify that the switch ports used for NetApp HCI nodes (all SFP+/SFP28 interfaces) are configured with jumbo frames.

Steps

1. On the **Inventory** page, view the list of available nodes.

   If the system cannot detect any inventory, it displays an error. Correct the error before continuing. If your system uses DHCP for IP address assignment, the storage and compute resources might not appear in the inventory immediately.

2. Optional: If a resource does not appear in the inventory immediately, or if you address an error and need to refresh the inventory, click **Refresh Inventory**. You might need to refresh the inventory multiple times.
3. Optional: To filter the inventory on node attributes, such as node type:
   a. Click **Filter** in the header of the **Compute Nodes** or **Storage Nodes** lists.

b. Choose criteria from the drop-down lists.
c. Below the drop-down lists, enter information to satisfy the criteria.
d. Click **Add Filter**.
e. Clear individual filters by clicking **X** next to an active filter, or clear all filters by clicking **X** above the list of filters.

4. Select all compute nodes that shipped with your system from the **Compute Nodes** list.

   You need to select at least two compute nodes to proceed with deployment.

5. Select all storage nodes that shipped with your system from the **Storage Nodes** list.

   You need to select at least two storage nodes to proceed with deployment.

6. Optional: If a storage node selection box is flagged, that storage node exceeds 33% of the total storage cluster capacity. Do of the following:
   - Clear the selection box for the flagged storage node.
   - Select additional storage nodes to more equally distribute the storage cluster capacity between nodes.
7. Click **Continue**.

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