



Managing NetApp Accounts

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About Managing the NetApp Storage System

Cisco UCS Director supports the NetApp storage infrastructure. Cisco UCS Director provides auto-discovery, monitoring, and complete visibility that enables you to manage all NetApp filer components.

Cisco UCS Director enables you to monitor and manage various components of the NetApp storage system. To manage the NetApp storage system, you need to add a pod and create a NetApp account.

NetApp has two types of accounts:

- OnCommand manages and monitors all NetApp appliances (filers and NetCache appliances) within a network, by accessing global and detailed status reports of current and past activities. Cisco UCS Director discovers all storage elements in the NetApp account, such as aggregates, raid groups, disks, volumes, LUNs, Qtrees, and so on. Typically, the discovery process takes about 5 minutes or within a time interval that you configured in the **System Tasks** tab. To access the **System Tasks** tab, choose **Administration > System**.
- Data ONTAP is an operating system used by the NetApp filer. Data ONTAP has two modes:
 - Cluster mode—Defines an architecture that is made of a group of connected NetApp storage controllers (nodes) that share a global namespace (GNS). The physical NetApp storage controllers can have attached disk shelves, network interface cards (NICs), and flash cards. These components create a physical resource pool that is virtualized as a logical cluster to provide data access. Cisco UCS Director abstracts and virtualizes the physical equipment into logical resources, which allow

data operations to be moved in a nondisruptive way. Cluster administrators can administer the entire cluster and the SVMs within the cluster.

- **SVM** — SVM (formerly known as Vserver) is a secure virtual storage server that supports multiple protocols and unified storage. Each SVM is configured for the client and host access protocols such as iSCSI. Each SVM contains at least one volume and at least one logical interface. SVMs provide data access to clients without regard to physical storage or controller, similar to any storage system.

SVM administrator can administer SVMs and its resources such as volumes, protocols, and services, depending on the capabilities assigned by the cluster administrator.

Adding a Pod

A pod is a logical grouping of physical and virtual components, including one or more physical or virtual accounts, such as an HP account for computing or a NetApp ONTAP account for storage. Typically, a pod represents a single converged infrastructure stack, such as a FlexPod, Vblock, or VSPEX.

Step 1 On the menu bar, choose **Administration > Physical Accounts**.

Step 2 Click the **Pods** tab.

Step 3 Click **Add**.

Step 4 In the **Add Pod** dialog box, complete the following fields:

Name	Description
Name field	A descriptive name for the pod.
Site drop-down list	Choose the site where you want to add the pod. If your environment does not include sites, you can omit this step.
Type drop-down list	<p>Choose the type of pod that you want to add. This can be one of the following supported types:</p> <ul style="list-style-type: none"> • Flexpod • Generic • ExpressPod Medium • VSPEX • ExpressPod Small • Vblock <p>A generic pod does not require a specific pod license. You can add any type of physical or virtual component to a generic pod. If you choose any type of pod except the generic type, you must have a license for that pod type. In addition, the nongeneric pod types accommodate only specific physical and virtual components. For more information about pod licenses, see Cisco UCS Director Install and Upgrade Guides.</p>

Name	Description
Description field	(Optional) A description of the pod.
Address field	The physical location of the pod. For example, this field could include the city or other internal identification used for the pod.
Hide Pod check box	Check this check box to hide the pod if you do not want it to show in the Converged Check View . You can continue to add or delete accounts from the pod. For example, you can use this check box to ensure that a pod that does not have any physical or virtual elements is not displayed in the Converged Check View .

Step 5 Click Add.

What to Do Next

Add one or more accounts to the pod.

Adding a NetApp Account

Before You Begin

- Starting with Release 5.4, Cisco UCS Director uses the Transport Layer Security (TLS) protocol to discover a NetApp device. In NetApp devices, set the TLS option to ON by entering the command: `options tls.enable on`. This setting enables Cisco UCS Director to discover NetApp accounts.
- Add the pod to which this NetApp account belongs.
- Manually configure an aggregate on the ONTAP filer before you can use the filer management of Cisco UCS Director.

Step 1 From the **Administration** menu, choose **Physical Accounts**.

Step 2 Click the **Physical Accounts** tab.

Step 3 On the **Physical Accounts** page, click **Add**.

Step 4 In the **Add Account** dialog box, complete the following fields:

Name	Description
Pod drop-down list	Choose the pod to which this account belongs. Allowed pod types are Default , Generic , and Flexpod .

Name	Description
Category Type drop-down list	Choose the category type. You must choose Storage . This is the type of infrastructure for the account.
Account Type drop-down list	Choose one of the following account types that you want to use for this account: <ul style="list-style-type: none"> • NetApp ONTAP • NetApp OnCommand
Account Name field	A unique name that you assign to this account.
Server Address field	The IP address of the NetApp server. For a cluster configuration, this is the virtual IP address. For SVM account, this is the IP address of the SVM.
User ID field	The username that this account will use to access the NetApp server. This username must be a valid account in the NetApp server.
Password field	The password associated with the username.
Transport Type drop-down list	Choose one of the following transport types that you want to use for this account: <ul style="list-style-type: none"> • http • https
Port field	The port used to access the NetApp account.
Description field	(Optional) A description of this account.
Contact Email field	The email address that you can use to contact the administrator or other person responsible for this account.
Location field	The location of this account.
Service Provider field	(Optional) The name of the service provider associated with this account, if any.

Step 5 Click **Add**.

Cisco UCS Director tests the connection to the NetApp server. If that test is successful, it adds the NetApp account and discovers all infrastructure elements in the server that are associated with that account, including the server's information, slots, processors, memory, and NICs. This discovery process and inventory collection cycle takes few minutes to complete.

The polling interval configured on the **System Tasks** tab on the **Administration > System** window specifies the frequency of inventory collection. For more information about configuring the polling interval, see the *Cisco UCS Director Network Devices Management Guide*.

Testing the Connection to a NetApp Account

You can test the connection after you add an account to a pod.

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- Step 1** On the menu bar, choose **Administration > Physical Accounts**.
 - Step 2** Click the **Physical Accounts** tab.
 - Step 3** In the table, click the account for which you want to test the connection.
 - Step 4** Click **Test Connection**.
 - Step 5** When the connection test has completed, click **Close**.
-

What to Do Next

If the connection fails, verify the configuration of the account, including the username and password. If those items are correct, determine whether there is a network connectivity problem.

Verifying the Discovery of a NetApp Account

After you add a NetApp account to Cisco UCS Director, you can verify that the account is properly added and its relevant data has been collected. It can take few minutes to complete auto-discovery and populate the data.

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- Step 1** On the menu bar, choose **Physical > Storage**.
 - Step 2** In the left pane, choose the pod that includes the NetApp account that you want to verify.
 - Note** The left column tree structure lists nodes for **Sites**, **Unassigned Pods**, and **Multi-Domain Managers**. When a Sites node is expanded, all the pods for that site node are displayed. When you expand an Unassigned Pods node, all the pods that are not assigned to any site are displayed. When you expand the Multi-Domain Managers list, all multi-domain manager account types that you added to Cisco UCS Director are displayed.
 - Step 3** Click the **Storage Accounts** tab.
 - Step 4** In the table, click the account that you want to verify.
 - Step 5** Click **View Details**.

Cisco UCS Director displays the components of NetApp server at the filer level for both ONTAP and OnCommand account types. To view the components of the filer, choose the filer and click **View Details**.
 - Step 6** Click **Back** to return to the **Storage Accounts** tab.
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Requirements for Adding SVMs to UCS Director

After provisioning a SVM, you can directly add the SVM to Cisco UCS Director. Before you add a SVM, consider the following requirements:

- **User Account:** Use the default vsadmin account or any other user account created on the SVM. To use the default vsadmin account, unlock the vsadmin account and provide a password.
- **Access:** Enable access to the ontapi application for the selected user account. Also provide vsadmin role to the user account so that Cisco UCS Director performs the necessary read and write actions on the SVM.

The following example shows the role and access levels necessary to add a SVM.

```
a05-cluster::> security login show -SVM Goldfinger -username vsuser
```

```
SVM: Goldfinger
```

UserName	Application	Authentication Method	Role Name	Acct Locked
mynewuser	ontapi	password	vsadmin	no

- **Management LIF:** Associate a management LIF with the SVM. Set the LIF type to data and the data protocol to none.

Adding SVMs directly to Cisco UCS Director

Step 1 From the **Administration** menu, choose **Physical Accounts**.

Step 2 Click the **Physical Accounts** tab.

Step 3 On the **Physical Accounts** page, click **Add**.

Step 4 In the **Add Account** dialog box, complete the following fields:

Name	Description
Pod drop-down list	Choose Default .
Category Type drop-down list	Choose Storage .
Account Type drop-down list	Choose the NetApp ONTAP account.
Account Name field	Enter the unique name that you want to assign to this account.
Server Address field	Enter the IP address of the SVM.
User ID field	Enter the username that this account will use to access the NetApp server.
Password field	Enter the password associated with the username.

Name	Description
Transport Type drop-down list	Choose one of the following transport types that you want to use for this account: <ul style="list-style-type: none">• http• https
Port field	Enter the port used to access the NetApp account.
Description field	(Optional) A description of this account.
Contact Email field	(Optional) The email address that you can use to contact the person responsible for this account.
Location field	(Optional) The location of this account.
Service Provider field	(Optional) The name of the service provider associated with this account, if any.

Step 5 Click Add.

