Discover storage arrays

SANtricity 11.6

NetApp
August 29, 2024

Table of Contents

Discover storage arrays

Concepts

Considerations for discovering arrays

Before SANtricity Unified Manager can display and manage storage resources, it must discover the storage arrays you want to manage in your organization's network. You can discover multiple arrays or you can discover a single array.

Discovering multiple storage arrays

If you choose to discover multiple arrays, you enter a network IP address range and then Unified Manager attempts individual connections to each IP address in that range. Any storage array successfully reached appears on the **Discover** page and may be added to your management domain.

Discovering a single storage array

If you choose to discover a single array, you enter the single IP address for one of the controllers in the storage array and then the individual storage array is added.

> Unified Manager discovers and displays only the single IP address or IP address within a range assigned to a controller. If there are alternate controllers or IP addresses assigned to these controllers that fall outside of this single IP address or IP address range, then Unified Manager will not discover or display them. However, once you add the storage array, all associated IP addresses will be discovered and displayed in the **Manage** view.

User credentials

As part of the discovery process, you must supply the administrator password for each storage array you want to add.

Web services certificates

As part of the discovery process, Unified Manager verifies that the discovered storage arrays are using certificates by a trusted source. Unified Manager uses two types of certificate-based authentication for all connections that it establishes with the browser:

- **Trusted certificates**

  For arrays discovered by Unified Manager, you might need to install additional trusted certificates supplied by the Certificate Authority.

  Use the **Import** button to import these certificates. If you have connected to this array before, one or both controller certificates are either expired, revoked, or missing a root certificate or intermediate certificate in its certificate chain. You must replace the expired or revoked certificate or add the missing root certificate or intermediate certificate before managing the storage array.

- **Self-signed certificates**

  Self-signed certificates can also be used. If the administrator attempts to discover arrays without importing signed certificates, Unified Manager displays an error dialog box that allows the administrator to accept the

self-signed certificate. The storage array's self-signed certificate will be marked as trusted and the storage array will be added to Unified Manager.

If you do not trust the connections to the storage array, select **Cancel** and validate the storage array's security certificate strategy before adding the storage array to Unified Manager.

How tos

Discover multiple storage arrays

You discover multiple arrays to detect all storage arrays across the subnet where the management server resides and to automatically add the discovered arrays to your management domain.

About this task

Perform the following steps to discover multiple arrays.

Step1: Enter network address

You enter a network address range to search across the local sub-network. Any storage array successfully reached appears on the **Discover** page and might be added to your management domain.

About this task

If you need to stop the discovery operation for any reason, click **Stop Discovery**.

Steps

1. From the **Manage** page, select **Add/Discover**.

   The Add/Discover storage arrays dialog appears.

2. Select the **Discover all storage arrays within a network range** radio button.
3. Enter the starting network address and ending network address to search across your local sub-network, and then click **Start Discovery**.

   The discovery process starts. This discovery process can take several minutes to complete. The table on the **Discover** page is populated as the storage arrays are discovered.

   > If no manageable arrays are discovered, verify that the storage arrays are properly connected to your network and their assigned addresses are within range. Click **New Discovery Parameters** to return to the **Add/Discover** page.

4. Review the list of discovered storage arrays.
5. Select the checkbox next to any storage array that you want to add to your management domain, and then click **Next**.

   SANtricity Unified Manager performs a credential check on each array you are adding to the management domain. You might need to resolve any self-signed certificates and untrusted certificates associated with that array.

6. Click **Next** to proceed to the next step in the wizard.

7. Go to Step 2: Resolve self-signed certificates during discovery.

Step 2: Resolve self-signed certificates during discovery

As part of the discovery process, the system verifies that the storage arrays are using certificates by a trusted source.

Before you begin

- You must be logged in with a user profile that includes Security Admin permissions.

Steps

1. Do one of the following:
    - If you trust the connections to the discovered storage arrays, continue to the next card in the wizard. The self-signed certificates will be marked as trusted and the storage arrays will be added to SANtricity Unified Manager.
    - If you do not trust the connections to the storage arrays, select **Cancel** and validate each storage array's security certificate strategy before adding any of them to Unified Manager.
2. Click **Next** to proceed to the next step in the wizard.
3. Go to Step 3: Resolve untrusted certificates during discovery.

Step 3: Resolve untrusted certificates during discovery

Untrusted certificates occur when a storage array attempts to establish a secure connection to SANtricity Unified Manager, but the connection fails to confirm as secure. During the array discovery process, you can resolve untrusted certificates by importing a certificate authority (CA) certificate (or CA-signed certificate) that has been issued by a trusted third party.

Before you begin

- You must be logged in with a user profile that includes Security Admin permissions.
- You have generated a certificate signing request (.CSR file) for each controller in the storage array, and sent it to the CA.
- The CA returned trusted certificate files.
- The certificate files are available on your local system.

About this task

You may need to install additional trusted CA certificates if any of the following are true:

- You recently added a storage array.
- One or both certificates are expired.
- One or both certificates are revoked.
- One or both certificates are missing a root or intermediate certificate.

Steps

1. Select the check box next to any storage array that you want to resolve untrusted certificates for, and then select the **Import** button.

    A dialog box opens for importing the trusted certificate files.

2. Click **Browse** to select the certificate files for the storage arrays.

The file names display in the dialog box.

3. Click **Import**.

   The files are uploaded and validated.

   Any storage array with untrusted certificate issues that are unresolved will not be added to Unified Manager.

4. Click **Next** to proceed to the next step in the wizard.
5. Go to Step 4: Provide passwords.

Step 4: Provide passwords

You must enter the passwords for the storage arrays that you want to add to your management domain.

Before you begin

- The storage array must be correctly set up and configured.
- Storage array passwords must be set up using SANtricity System Manager's **Access Management** tile.

Steps

1. Enter the password for each storage array you want to add to SANtricity Unified Manager.
2. **Optional:** Associate storage arrays to a group: From the drop-down list, select the desired group to associate with the selected storage arrays.
3. Click **Finish**.

After you finish

The storage arrays are added to your management domain and associated with the selected group (if specified).

It can take several minutes for Unified Manager to connect to the specified storage arrays.

Discover single array

Use the Add/Discover Single Storage Array option to manually discover and add a single storage array to your organization's network.

Before you begin

- The storage array must be correctly set up and configured.
- Storage array passwords must be set up using SANtricity System Manager's Access Management tile.

Steps

1. From the **Manage** page, select **Add/Discover**.

   The **Add/Discover storage arrays** dialog box appears.

2. Select the **Discover a single storage array** radio button.
3. Enter the IP address for one of the controllers in the storage array, and then click **Start Discovery**.

It can take several minutes for SANtricity Unified Manager to connect to the specified storage array.

> The **Storage Array Not Accessible** message appears when the connection to the IP address of the specified controller is unsuccessful.

4. If prompted, resolve any self-signed certificates.

   As part of the discovery process, the system verifies that the discovered storage arrays are using certificates by a trusted source. If it cannot locate a digital certificate for a storage array, it prompts you to resolve the certificate that is not signed by a recognized certificate authority (CA) by adding a security exception.

5. If prompted, resolve any untrusted certificates.

   Untrusted certificates occur when a storage array attempts to establish a secure connection to SANtricity Unified Manager, but the connection fails to confirm as secure. Resolve untrusted certificates by importing a certificate authority (CA) certificate that has been issued by a trusted third party.

6. Click **Next**.
7. **Optional:** Associate the discovered storage array to a group: From the drop-down list, select the desired group to associate with the storage array.

   The "All" group is selected by default.

8. Enter the administrator password for the storage array that you want to add to your management domain, and then click **OK**.

After you finish

The storage array is added to SANtricity Unified Manager and, if specified, it is also added to the group you selected.

If automatic support data collection is enabled, support data is automatically collected for a storage array that you add.

Copyright information

Trademark information