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Dell PowerStore Setting Up PowerStore Manager

After completing the Initial Configuration Wizard (ICW), use this guide to configure support settings and learn how to use the primary features of the PowerStore system.

Topics:

Configuration walkthrough

Log in to PowerStore Manager using the IP address of the PowerStore cluster.

NOTE: You can log in with the Administrator (`admin`) account. The service user account cannot log in to PowerStore Manager.

Complete the following setup activities to take full advantage of the PowerStore features:

1. Configure Support Connectivity

   If you have already configured Support Connectivity from the ICW, you can skip this step.
2. Provide contact information for remote support
3. Configure storage network
4. Configure email and SMTP alert notification preferences
5. Enable CHAP
6. Enable SSH management
7. Enable HTTP Redirect

This guide also provides an overview of many common tasks that you can perform on a PowerStore cluster.

- Customize table views
- Customize login message
- Add users
- Import data from external storage systems
- Create data protection policies
- Configure storage resources
- Configure host access
- Upgrading the PowerStoreOS

Configure Support Connectivity

To resolve problems more quickly and easily, enable Support Connectivity.

For more information about Support Connectivity, including the benefits it provides and details about configuration types, see the context-sensitive help entry for this feature. For in-depth information about how this feature works, see the *PowerStore Security Configuration Guide*.

1. Select the **Settings** icon, and then select **Support Connectivity** in the **Support** section.
2. Click the **Connection Type** tab.
3. Select the Support Connectivity configuration to use: **Connect Directly** or **Connect via Secure Connect Gateway**.

Depending on the type of configuration that is selected, different information is required.

4. Enter the information that is required for your configuration type.
5. If the Support Connectivity feature is disabled, click the toggle button to enable the feature.
6. To enable APEX AIOps Observability, select the **Connect to APEX AIOps Observability** check box.
7. To allow authorized technical support agents to remotely troubleshoot issues, select the **Remote Support** check box.
8. Click **Apply**.

When Support Connectivity is enabled, you can click **Send Test Alert** to test connectivity.

Provide contact information for remote support

Ensure that the contact information is accurate and current so that Support can quickly contact the correct person in response to an issue.

1. Select the **Settings** icon, and then select **Support Connectivity** in the **Support** section.
2. Enter the contact information of the primary contact on the **Support Contacts** tab.
3. Click **Apply**.

Configure storage network

Configure the storage network for your PowerStore cluster.

1. Select the **Settings** icon, and then select **Network IPs** in the **Networking** section.
2. On the **Storage** tab, click **Create** to launch the **Create Storage Network** wizard.
3. Enter the network details, map the storage network to the ports on the appliances, and enter the network addressing information.
4. Click **Create**.

NOTE: You can add up to 32 storage networks per appliance, and you can configure up to 8 networks on each port of the 4-port card.

Configure email notification preferences

You can configure your system to send alert notifications to email subscribers.

For more information about SMTP server settings, see the context-sensitive help entry for this feature in PowerStore Manager.

1. Select the **Settings** icon, and then select **SMTP Server** in the **Networking** section.
2. If the SMTP Server feature if disabled, click the toggle button to enable the feature.
3. Add address of the SMTP server in the **Server Address** field.
4. Add the email address from which alert notifications are sent in the **From Email Address** field.
5. Click **Apply**.
   (Optional) Send a test email to verify that the SMTP server is set up correctly.
6. Click **Add/remove email subscribers** under Email Notifications.
7. To add an email subscriber, click **Add** and type the email address to which you want to send alert notifications in the **Email Address** field.

   When you add an email subscriber, you can select the severity level of the alert notifications that are sent to the email address.

   (Optional) To verify that the email address can receive alert notifications, select the check box for the email address, and click **Send Test Email**.

Configure CHAP authentication

Challenge Handshake Authentication Protocol (CHAP) authenticates iSCSI initiators (hosts) and targets (volumes and snapshots) to expose iSCSI storage while ensuring a secure, standard storage protocol.

Without CHAP authentication, any host that is connected to the same IP network as the system iSCSI ports can read from and write to the system. If your system is on a public network, using CHAP authentication is strongly recommended.

NOTE: If you plan to use CHAP authentication, you must set up and enable CHAP authentication before preparing volumes to receive data. If you prepare drives to receive data before you set up and enable CHAP authentication, you could lose access to the volumes.

For more information about CHAP authentication, including the benefits that it provides and details about implementation types, see the context-sensitive help entry in PowerStore Manager. For in-depth information about how this feature works, see the *PowerStore Security Configuration Guide*.

1. Select the **Settings** icon, and then select **iSCSI CHAP** in the **Security** section.
2. If the iSCSI CHAP feature is disabled, click the toggle button to enable the feature.
3. Select the type of CHAP authentication to use and click **Apply**.

Configure external SSH access

The SSH status for each appliance in a PowerStore cluster is displayed in PowerStore Manager under **Settings** > **Security** > **SSH Management**.

NOTE: For maximum appliance security, leave external SSH access disabled unless a remote service operation must be performed on an appliance. After performing the necessary service operations, disable external SSH access on the appliance to ensure that it remains secure.

For more information about SSH access, see the context-sensitive help entry for this feature in PowerStore Manager. For in-depth information about how this feature works, see the *PowerStore Security Configuration Guide*.

1. Select the **Settings** icon, and then select **SSH Management** in the **Security** section.
2. Select the appliances on which to enable SSH.
3. Click **Enable SSH**.

When the SSH service is enabled, use an SSH client to connect to the IP address of the appliance.

Accessing the appliance requires service account credentials and the service account enables users to perform the following functions:

- Run specialized appliance service scripts for monitoring and troubleshooting appliance settings and operations.
- Run a limited set of commands, which are assigned as a member of a nonprivileged Linux user account in restricted shell mode. This account does not have access to proprietary system files, configuration files, or user data.

To disable SSH access, follow the same steps, but click **Disable SSH** instead.

Enable HTTP Redirect

For security reasons, users cannot access PowerStore Manager using the HTTP protocol. Users must access PowerStore Manager using the more secure HTTPS protocol.

Enabling the HTTP Redirect feature automatically redirects HTTP requests to HTTPS.

1. Select the **Settings** icon, and then select **HTTP Redirect** in the **Security** section.
2. If the HTTP Redirect feature is disabled, click the toggle button to enable the feature.

Common tasks

Customize table views in PowerStore Manager

Customize PowerStore Manager table views to select columns to display, filter, and sort and to select the rows on which to perform actions.

1. To show or hide columns:
    a. Click **Show/Hide Table Columns** icon.
    b. Select the check boxes of the columns that you want to show, or clear the check boxes of columns that you do want to hide.

    NOTE: Some columns are shown by default and cannot be hidden.

    c. To automatically adjust the column widths to the size of the table contents, click **Autofit Columns**.
    d. To reset the columns back to the default view, click **Reset Columns**
2. To filter tables:
    a. Click the **Show Filters** icon to display the filter options for the table.
    b. Select one of the available default filters that appear above the table columns, or select specific filters from the **Add Filters** drop-down menu.
    c. To reset the filters back to the default view, click **Restore Default Filters**.
3. To sort a table by one or more columns:
    a. To sort the table by a single column, click the column name on which to sort the table.

    A column is sorted in ascending order by default. To change the sort order of a column, click the column name.
    - An up arrow is displayed next to the column name of a column that is sorted in ascending order.
    - A down arrow is displayed next to the column name of a column that is sorted in descending order.
    - If an up or down arrow is not displayed next to any column name, the table is not sorted by any column.

    b. To sort a table by a second column, hold the Shift key and click the column name of second column on which to sort the table.
    When a table is sorted by two columns, the number **2** is displayed next to the column name of the second column that is sorted.
    c. To sort a table by a third column, hold the Shift key and select the column name of third column on which to sort the table.
    When a table is sorted by three columns, the number **3** is displayed next to the column name of the third column that is sorted.
    d. Continue to hold the Shift key and click column names to sort by additional columns, as needed.
    e. To reset a multiple column sort, click any column name.

    For example, to sort the table on the **Volumes** page by multiple columns, hold the Shift key, and click the **Provisioned** column name and **Logical Used** column name. The table is sorted by the Provisioned column first and Logical Used column second.
4. To select rows:
    a. Select the row check boxes individually.
    b. Select the check box in the table header to select up to 100 sequential rows.

    NOTE: The table header check box is disabled when there are more than 100 rows in the table.

    c. To select a range of rows, select the first row, then hold the Shift key and select the last row.
    d. If selecting a row after the 100th row, hold the Shift key to select row 101 and higher.

Zooming in and out of the topology view

Use the Ctrl key and mouse wheel to zoom in and out of the panes of the topology view.

1. To display the topology view, select the check box of a volume or volume group from the Volumes or Volumes Groups page and select **More Actions** > **View Topology**.
2. Select the pane of the topology view to zoom in or out of.

    For example, to zoom into the information displayed on the right pane, place the mouse cursor over the right pane.

3. To zoom into the selected pane, press the Ctrl key and scroll up using the mouse wheel.
4. To zoom out of the selected pane, press the Ctrl key and scroll down using the mouse wheel.

Customize the login message

A login message can be displayed on the login screen of PowerStore Manager.

The system administrator can provide a login message to communicate important information to the users of the PowerStore cluster.

1. Select the **Settings** icon, and then select **Login Message** in the **Security** section.
2. If the Login Message feature is disabled, click the toggle button to enable the feature.
3. Enter the login message in the **Message** field.
4. Click **Apply**.

Add users

Add user accounts with specific roles and privileges for different management tasks.

A PowerStore system ships with a default **`admin`** account that has the Administrator role. Use this account to create additional accounts to enable user access. To grant users privileges to perform specific tasks, select the corresponding role for those actions.

For more information about user account types, roles, and privileges, see the context-sensitive help entry for this feature in PowerStore Manager. For in-depth information about how this feature works, see the *PowerStore Security Configuration Guide*.

1. Select the **Settings** icon, and then select **Users** in the **Security** section.
2. Click **Add**.
3. In the **Add User** panel:
   - Enter a user name in the **Username** field.
   - Select a role for the account from the **User Role** drop-down menu.
   - Enter a password in the **New Password** and **Verify Password** fields.
4. Click **Apply**.

Import data from external storage systems

Use the Importing External Storage to PowerStore tool to import data from your existing supported storage systems.

You can import data from the following storage platforms to a PowerStore cluster:

- Dell Peer Storage (PS) Series
- Dell Storage Center (SC) Series
- Dell Unity Series
- Dell VNX2 Series
- Dell XtremIO X1 and XtremIO X2 (agentless import only)
- Dell PowerMax and VMAX3 (agentless import only)
- NetApp AFF A-Series

Import of the following block storage resources is supported:

- LUNs and volumes
- Consistency groups and volume groups
- Thick and thin clones

PowerStoreOS 3.x and later also supports importing file storage resources.

Before beginning the import process, ensure that you review the prerequisites and take necessary preconfiguration actions. For more information, see the context-sensitive help entry for this feature. For in-depth information about how this feature works, see the *PowerStore Importing External Storage to PowerStore Guide*.

Create data protection policies

Use snapshot and data replication rules to protect your data.

Snapshots are point-in-time copies of data that are stored in an application, volume, or volume group. You can take snapshots manually or configure the system to automatically take snapshots on a schedule with snapshot rules.

Data replication duplicates storage data to a remote system to protect against failure of the production storage system. To use data replication, you must create a remote system connection. You can configure the system to automatically start a replication session to meet a specified recovery point objective (RPO) with replication rules.

Remote backup rules are a set of parameters that allow the PowerStore cluster to back up volumes and volume groups to a PowerProtect DD appliance. The rules specify the destination system on which backups are created, the frequency of the backup operation, and the retention time of the backups.

You can combine up to four snapshot rules with a replication rule and remote backup rule to create a protection policy for a storage resource. The protection policy automatically manages snapshots or replication operations according to the selected rules. You can apply a specific policy to a storage resource based on the business need or criticality of the data.

For more information about snapshots, replications, remote backup rules, and protection policies, see the context-sensitive help entries for these features in PowerStore Manager. For in-depth information about how to use these features, see the *PowerStore Protecting Your Data Guide*.

1. Under **Protection**, select **Protection Policies**.
2. To configure a snapshot rule, click **Snapshot Rules** and then click **Create**.

   On the **Create Snapshot Rule** panel, enter a name for the rule and configure the settings o use.
3. To configure a replication rule, click **Replication Rules** and then click **Create**.

   On the **Create Replication Rule** panel, enter a name for the rule and configure the settings to use.
4. To configure a remote backup rule, click **Remote Backup Rules** and then click **Create**.

   On the **Create Remote Backup Rule** panel, enter a name for the rule, select destination, and configure the settings to use.
5. To configure a protection policy, click **Protection Policies** and then click **Create**.

   On the **Create Protection Policy** panel, enter a name and description for the policy, then select the rules to assign to the policy.

   You can configure new snapshot, replication, and remote backup rules from this panel.

Configure storage resources

A PowerStore cluster provides a unified platform on which multiple types of storage resources can be configured.

To configure storage resources, click **Storage**, select the type of storage resource you want to configure, and then click **Create** on the page for that resource type.

You can configure the following types of storage resources:

- Volumes
- Volume groups
- Storage containers
- File systems
- NAS servers

For more information about configuring storage resources, see the context-sensitive help entries for these resource types in PowerStore Manager. For in-depth information about configuring and managing storage resources types, see the following PowerStore guides:

- *PowerStore Configuring Volumes Guide*
- *PowerStore Configuring NFS Guide*
- *PowerStore Configuring SMB Guide*

Configure host access

To enable a host to access storage, define a host configuration and associate it with a storage resource.

For more information about hosts and host groups, see the context-sensitive help entries for this feature in PowerStore Manager. For in-depth information about how to configure your hosts, see the E-Lab Host Connectivity Guides.

1. Under **Compute**, select **Host Information**.
2. To add a host configuration, click **Add Host**.
3. Complete the steps in the **Add Host** wizard.
   The host is added to the **Hosts and Host Groups** table.
4. To add hosts to a host group, click **Add Host Group**.

   This option is only available if there are hosts that can be added to a host group.
5. Enter a name and description for the host group, select the hosts to include, and then click **Create**.
   The host group is added to the **Hosts and Host Groups** table.

Upgrading the PowerStoreOS

For the latest features and improvements, upgrade to the latest available version of the PowerStoreOS.

For instructions on upgrading the PowerStoreOS, see the *PowerStore Software Upgrade Guide*.

Additional Resources

As part of an improvement effort, revisions of the software and hardware are periodically released. Some functions that are described in this document are not supported by all versions of the software or hardware currently in use. The product release notes provide the most up-to-date information about product features. Contact your service provider if a product does not function properly or does not function as described in this document.

NOTE: PowerStore X model customers: For the latest how-to technical manuals and guides for your model, download the *PowerStore 3.2.x Documentation Set* from the PowerStore Documentation page at dell.com/powerstoredocs.

Where to get help

Support, product, and licensing information can be obtained as follows:

- **Product information**—For product and feature documentation or release notes, go to the PowerStore Documentation page at dell.com/powerstoredocs.
- **Troubleshooting**—For information about products, software updates, licensing, and service go to Dell Support and locate the appropriate product support page.
- **Technical support**—For technical support and service requests, go to Dell Support and locate the **Service Requests** page. To open a service request, you must have a valid support agreement. Contact your Sales Representative for details about obtaining a valid support agreement or to answer any questions about your account.

Online help

You can access help topics by selecting **Online Help** from the help ? menu in PowerStore Manager.

In addition, many of the features in PowerStore Manager have dedicated context-specific help topics. If context-specific help is available for the screen that you are viewing, a link to that help page is displayed above the **Online Help** entry in the help menu.

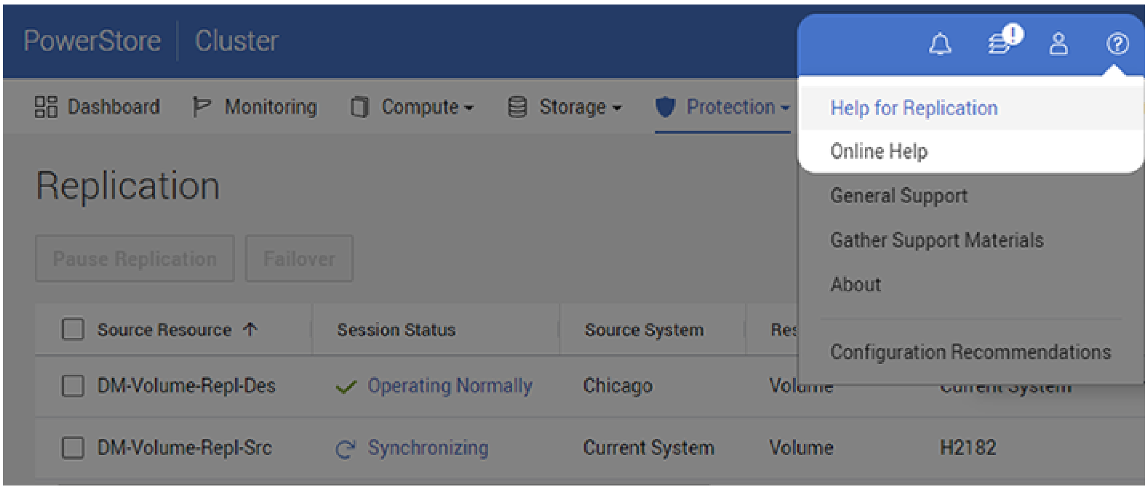

Figure 1. Help links in PowerStore Manager

Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your product.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.