



# Manage snapshot volumes

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# Table of Contents

- Manage snapshot volumes ..... 1
  - Convert snapshot volume to read-write mode ..... 1
  - Change the volume settings for a snapshot volume ..... 2
  - Copy snapshot volume ..... 3
  - Re-create snapshot volume ..... 4
  - Disable snapshot volume ..... 5
  - Delete snapshot volume ..... 5

# Manage snapshot volumes

## Convert snapshot volume to read-write mode

You can convert a read-only snapshot volume or a snapshot consistency group snapshot volume to read-write mode if needed.

A snapshot volume that is converted to read-write accessible contains its own reserved capacity. This capacity is used to save any subsequent modifications made by the host application to the base volume without affecting the referenced snapshot image.

### Steps

1. Select **Storage** › **Snapshots**.

2. Select the **Snapshot Volumes** tab.

The Snapshot Volumes table appears and displays all the snapshot volumes associated with the storage array.

3. Select the read-only snapshot volume you want to convert, and then click **Convert to Read/Write**.

The Convert to Read/Write dialog box appears with the **Reserve Capacity** step activated. The Volume Candidate table displays only the candidates that support the reserved capacity specified.

4. To allocate the reserved capacity for the read-write snapshot volume, do one of the following actions:

- **Accept the default settings** — Use this recommended option to allocate the reserved capacity for the snapshot volume with the default settings.
- **Allocate your own reserved capacity settings to meet your data storage needs** — Allocate the reserved capacity using the following guidelines.
  - The default setting for reserved capacity is 40% of the capacity of the base volume, and usually this capacity is sufficient.
  - The capacity needed varies, depending on the frequency and size of I/O writes to the volume.

5. Select **Next** to review or edit settings.

The Edit Settings dialog box appears.

6. Accept or specify the settings for the snapshot volume as appropriate, and then select **Finish** to convert the snapshot volume.

## Field details

Setting	Description
<b>Reserved capacity settings</b>	
Alert me when...	<p>Use the spinner box to adjust the percentage point at which the system sends an alert notification when the reserved capacity for a snapshot group is nearing full.</p> <p>When the reserved capacity for the snapshot volume exceeds the specified threshold, the system sends an alert, allowing you time to increase reserved capacity or to delete unnecessary objects.</p>

## Change the volume settings for a snapshot volume

You can change the settings for a snapshot volume or snapshot consistency group snapshot volume to rename it, enable or disable SSD caching, or change the host, host cluster, or logical unit number (LUN) assignment.

### Steps

1. Select **Storage > Snapshots**.
2. Click the **Snapshot Volumes** tab.
3. Select the snapshot volume that you want to change, and then click **View/Edit Settings**.

The Snapshot Volume Settings dialog box appears.

4. View or edit the settings for the snapshot volume as appropriate.

## Field details

Setting	Description
<b>Snapshot volume</b>	
Name	You can change the name for the snapshot volume.
Assigned to	You can change the host or host cluster assignment for the snapshot volume.
LUN	You can change the LUN assignment for the snapshot volume.
SSD Cache	You can enable/disable read-only caching on solid state disks (SSDs).
<b>Associated objects</b>	
Snapshot image	You can view the snapshot images associated with the snapshot volume. A snapshot image is a logical copy of volume data, captured at a particular point-in-time. Like a restore point, snapshot images allow you to roll back to a known good data set. Although the host can access the snapshot image, it cannot directly read or write to it.
Base volume	You can view the base volume associated with the snapshot volume. A base volume is the source from which a snapshot image is created. It can be a thick or thin volume and is typically assigned to a host. The base volume can reside in either a volume group or disk pool.
Snapshot group	You can view the snapshot group associated with the snapshot volume. A snapshot group is a collection of snapshot images from a single base volume.

## Copy snapshot volume

You can perform a Copy Volume process on a snapshot volume or a snapshot consistency group snapshot volume.

### About this task

You can copy a snapshot volume to the target volume as performed in a normal Copy Volume operation. However, snapshot volumes cannot remain online during the copy volume process.

### Steps

1. Select **Storage > Snapshots**.
2. Select the **Snapshot Volumes** tab.

The Snapshot Volumes table appears and displays all the snapshot volumes associated with the storage array.

3. Select the snapshot volume that you want to copy, and then select **Copy Volume**.

The Copy Volume dialog box appears, prompting you to select a target.

4. Select the target volume to be used as the copy destination, and then click **Finish**.

## Re-create snapshot volume

You can re-create a snapshot volume or a snapshot consistency group snapshot volume that you previously disabled. Re-creating a snapshot volume takes less time than creating a new one.

### Before you begin

- The snapshot volume must be in either an Optimal or Disabled state.
- All member snapshot volumes must be in a Disabled state before you can re-create the snapshot consistency group snapshot volume.

### About this task

You cannot re-create an individual member snapshot volume; you can re-create only the overall snapshot consistency group snapshot volume.



If the snapshot volume or snapshot consistency group snapshot volume is part of an online copy relationship, you cannot perform the re-create option on the volume.

### Steps

1. Select **Storage > Snapshots**.

2. Select the **Snapshot Volumes** tab.

The Snapshot Volumes table appears and displays all the snapshot volumes associated with the storage array.

3. Select the snapshot volume that you want to re-create, and then select **Uncommon Tasks > Recreate**.

The Recreate Snapshot Volume dialog box appears.

4. Select one of the following options:

- **An existing snapshot image created from volume <name>**

Select this option to indicate an existing snapshot image from which to re-create the snapshot volume.

- **A new (instant) snapshot image of volume <name>**

Select this option to create a new snapshot image from which to re-create the snapshot volume.

5. Click **Recreate**.

### Results

System Manager performs the following actions:

- Deletes all `write` data on any associated snapshot repository volume.

- Snapshot volume or snapshot consistency group snapshot volume parameters remain the same as the previously disabled volume parameters.
- Retains the original names for the snapshot volume or snapshot consistency group snapshot volume.

## Disable snapshot volume

You can disable a snapshot volume or a snapshot volume in a snapshot consistency group when you no longer need it or want to temporarily stop using it.

### About this task

Use the Disable option if one of these conditions applies:

- You are finished with the snapshot volume or snapshot consistency group snapshot volume for the time being.
- You intend to re-create the snapshot volume or snapshot consistency group snapshot volume (that is designated as read-write) at a later time and want to retain the associated reserved capacity so you do not need to create it again.
- You want to increase the storage array performance by stopping write activity to a read-write snapshot volume.

If the snapshot volume or snapshot consistency group snapshot volume is designated as read-write, this option also lets you stop any further write activity to its associated reserved capacity volume. If you decide to re-create the snapshot volume or snapshot consistency group snapshot volume, you must choose a snapshot image from the same base volume.



If the snapshot volume or snapshot consistency group snapshot volume is part of an online copy relationship, you cannot perform the Disable option on the volume.

### Steps

1. Select **Storage > Snapshots**.
2. Select the **Snapshot Volumes** tab.

System Manager displays all the snapshot volumes associated with the storage array.

3. Select the snapshot volume that you want to disable, and then select **Uncommon Tasks > Disable**.
4. Confirm that you want to perform the operation, and then click **Disable**.

### Results

- The snapshot volume remains associated with its base volume.
- The snapshot volume retains its World Wide Name (WWN).
- If read-write, the snapshot volume retains its associated reserved capacity.
- The snapshot volume retains any host assignments and access. However, read-write requests fail.
- The snapshot volume loses its association with its snapshot image.

## Delete snapshot volume

You can delete a snapshot volume or a snapshot consistency group snapshot volume

that is no longer needed for backup or software application testing purposes.

You can also specify whether you want to delete the snapshot reserved capacity volume associated with a `read-write` snapshot volume or retain the snapshot reserved capacity volume as an unassigned volume.

### About this task

Deleting a base volume automatically deletes any associated snapshot volume or consistency group snapshot volume. You cannot delete a snapshot volume that is in a volume copy with a status of **In Progress**.

### Steps

1. Select **Storage** › **Snapshots**.
2. Select the **Snapshot Volumes** tab.

System Manager displays all the snapshot volumes associated with the storage array.

3. Select the snapshot volume that you want to delete, and then select **Uncommon Tasks** › **Delete**.
4. Confirm that you want to perform the operation, and then click **Delete**.

### Results

System Manager performs the following actions:

- Deletes all member snapshot volumes (for a snapshot consistency group snapshot volume).
- Removes all associated host assignments.



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