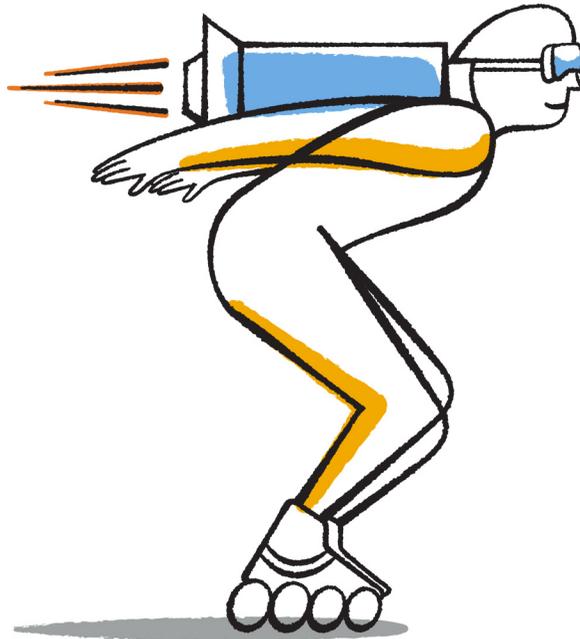




NetApp®

Clustered Data ONTAP® 8.3

Volume Restore Using SnapVault® Express Guide



NetApp, Inc.
495 East Java Drive
Sunnyvale, CA 94089
U.S.

Telephone: +1 (408) 822-6000
Fax: +1 (408) 822-4501
Support telephone: +1 (888) 463-8277
Web: www.netapp.com
Feedback: doccomments@netapp.com

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Contents

| | |
|---|-----------|
| Deciding whether to use this guide | 4 |
| Volume restore workflow | 5 |
| Identifying the SnapVault backup destination volume | 6 |
| Restoring data from a SnapVault backup | 7 |
| Verifying the restore operation | 8 |
| Where to find additional information | 10 |
| Copyright information | 11 |
| Trademark information | 12 |
| How to send your comments | 13 |
| Index | 14 |

Deciding whether to use this guide

This guide describes how to quickly restore a volume from a SnapVault backup in clustered Data ONTAP when there is a data loss.

You should use this guide if you want to restore from the SnapVault backup in the following way:

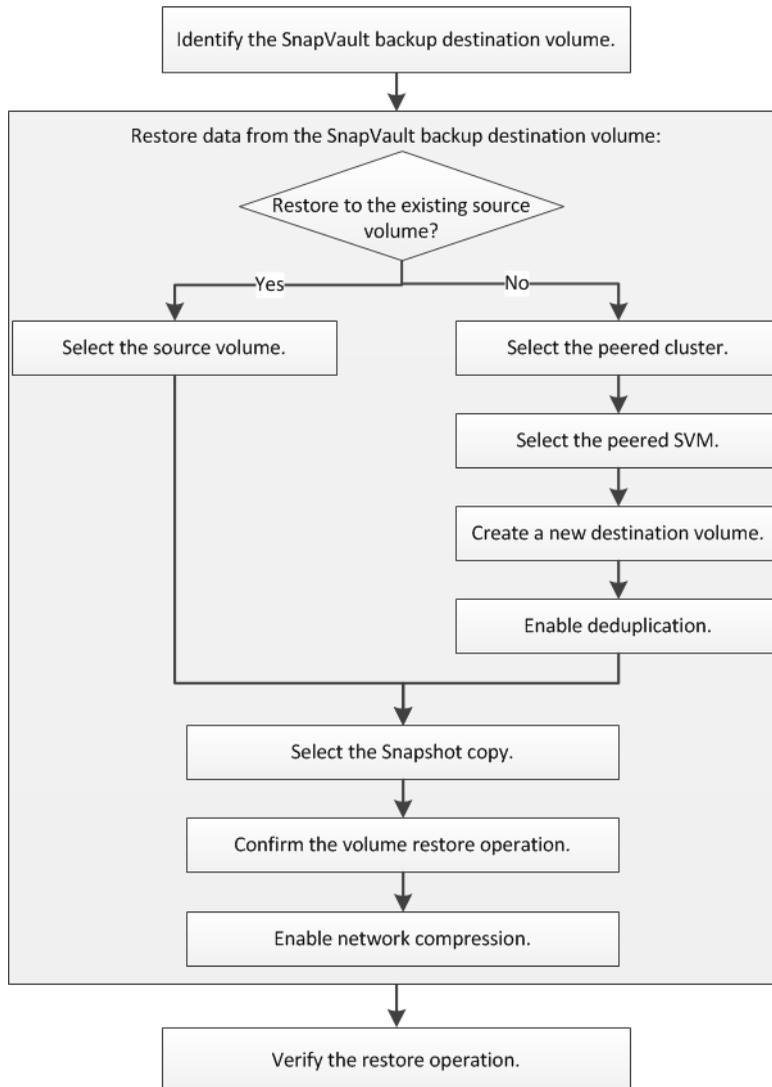
- You are working with clusters running Data ONTAP 8.3 or later.
- You are a cluster administrator.
- You have configured the SnapVault relationship following the procedure described in the *Volume Backup Using SnapVault Preparation Express Guide*.
[Clustered Data ONTAP 8.3 Volume Backup Using SnapVault Express Guide](#)
- You do not want to perform a single file or LUN restore.
- You want to use best practices, not explore every available option.
- You do not want to read a lot of conceptual background.
- You want to use OnCommand System Manager, not the command-line interface or an automated scripting tool.

If these assumptions are not correct for your situation, or if you want more conceptual background information, you should see the following resources:

- [Clustered Data ONTAP 8.3 Data Protection Guide](#)
- [NetApp Technical Report 4015: SnapMirror Configuration and Best Practices Guide for Clustered Data ONTAP](#)
- [NetApp Technical Report 4183: SnapVault Best Practices Guide](#)
- [NetApp Documentation: OnCommand Workflow Automation \(current releases\)](#)
OnCommand Workflow Automation enables you to run prepackaged workflows that automate management tasks such as the workflows described in Express Guides.

Volume restore workflow

When your source volume is unavailable or data is corrupted, you can perform a restore from a SnapVault backup. Restoring a volume from a SnapVault backup involves selecting the SnapVault destination volume, restoring either to a new volume or existing volume, and verifying the restore operation.



Identifying the SnapVault backup destination volume

You must identify the backup destination volume from which you want to restore data when the data in the source volume is corrupted or lost.

About this task

You must perform this task from the **source** cluster.

Steps

1. Enter the URL **https://IP-address-of-cluster-management-LIF** in a web browser and log in to System Manager using your cluster administrator credential.
2. Expand the **Storage Virtual Machines** hierarchy in the left navigation pane.
3. Select the source SVM that contains the source volume, and then select **Storage > Volumes**.
4. Select the source volume in the Volumes list, and then click the **Data Protection** bottom tab to identify the destination volume in the SnapMirror relationship and the name of the SVM that contains the volume.

Volumes

| Name | Aggregate | Status | Thin Provisioned | % Used | Available Space | Total Space | Storage Efficiency |
|-------------------|-----------|--------|------------------|--------|-----------------|-------------|--------------------|
| Vol1 | aggr3 | Online | No | 6 | 18.87 MB | 20 MB | Disabled |
| Vol2 | aggr3 | Online | No | 5 | 18.86 MB | 20 MB | Disabled |
| dest_SVM_sourc... | aggr3 | Online | No | 5 | 18.87 MB | 20 MB | Disabled |
| dest_SVM_vo1_0... | aggr1 | Online | No | 5 | 42.62 MB | 45 MB | Disabled |
| source_SVM_root | aggr1 | Online | No | 5 | 18.86 MB | 20 MB | Disabled |

| Destination Stor... | Destination Volume | Is Healthy | Relationship State | Transfer Status | Type | Lag Time | Policy |
|---------------------|-----------------------|------------|--------------------|-----------------|-------|-------------------|------------|
| dest_SVM | source_SVM_Vol2_vault | Yes | Snapmirrored | Idle | Vault | 7 hr(s) 13 min(s) | XDPDefault |

Details | Space Allocation | Snapshot Copies | Storage Efficiency | **Data Protection**

Restoring data from a SnapVault backup

After selecting the SnapVault backup destination volume, you must perform the restore operation either to a new volume to test the backed-up data or to an existing volume to restore the lost or corrupted data.

About this task

You must perform this task from the **destination** cluster.

Steps

1. Expand the **Storage Virtual Machines** hierarchy in the left navigation pane.
2. Select the SVM that contains the SnapVault backup destination volume, and then click **Protection**.
3. Select the SnapVault relationship between the source and the destination volumes, and then click **Operations > Restore**.
4. In the **Restore** dialog box, restore the data to the original source volume or a new volume:

| If you want to restore to... | Then... |
|------------------------------|---|
| The original source volume | Select Source volume . |
| A new volume | <ol style="list-style-type: none"> a. Select Other volume. b. Select the peered cluster and the peered SVM for the volume. c. Select a peered SVM from the list. d. If the SVM is not peered, create the SVM peer relationship: <ol style="list-style-type: none"> i. Select the SVM ii. Click Authenticate. iii. Enter the cluster administrator's credentials of the peered cluster, and then click Create. e. Select New Volume. f. If you want to change the default name, displayed in the format <i>destination_SVM_name_destination_volume_name_</i>restore, specify a new name and select the containing aggregate for the volume. g. Select the Enable dedupe check box. |

8 | Volume Restore Using SnapVault Express Guide

Restore to

Source volume Other volume

Cluster: cluster-2
✔ Cluster peering status is healthy.

Storage Virtual Machine: source_SVM(peered)

Volume: New Volume Select Volume

Volume name: dest_SVM_source_SVM_Vol2_vault_resto Aggregate: aggr3

Enable dedupe 740.76 MB available (of 784.35 MB)

5. Select either the latest Snapshot copy or select a specific Snapshot copy that you want to restore.
6. Select the **OK to restore the volume from the Snapshot copy** check box.
7. Select the **Enable Network Compression** check box to compress the data that is being transferred during the restore operation.
8. Click **Restore**.

During the restore process, the volume being restored is changed to read-only. After the restore operation finishes, the temporary relationship is removed and the restored volume is changed to read/write.

Configuration

Latest Snapshot copy: "daily.2014-09-11_0010" 09/11/2014 00:10:00

Select Snapshot copy:

Browse...

OK to restore the volume from the Snapshot copy

Enable Network Compression

Restore Cancel

9. Click **OK** in the message box.

Verifying the restore operation

After performing the restore operation from the SnapVault backup destination volume, you must verify the status of the restore operation on the source cluster.

About this task

You must perform this task from the **source** cluster.

Steps

1. Expand the **Storage Virtual Machines** hierarchy in the left navigation pane.
2. Select the source SVM that contains the source volume, and then select **Storage > Volumes**.
3. Select the source volume in the Volumes list, and then click the **Data Protection** bottom tab to identify the destination volume in the SnapMirror relationship and the name of the SVM that contains the volume.

The Type field displays **Restore** temporarily. After the restore operation is completed, the field displays **Vault**.

You should troubleshoot any issues in the SnapVault relationships. The troubleshooting procedures for SnapMirror relationships are also applicable to SnapVault relationships.

NetApp Technical Report 4015: SnapMirror Configuration and Best Practices Guide for Clustered Data ONTAP

Volumes

| Name | Aggregate | Status | Thin Provisioned | % Used | Available Space | Total Space | Storage Efficiency |
|--------------------|-----------|--------|------------------|--------|-----------------|-------------|--------------------|
| Vol1 | aggr3 | Online | No | 6 | 18.67 MB | 20 MB | Disabled |
| Vol2 | aggr3 | Online | No | 5 | 18.81 MB | 20 MB | Disabled |
| dest_SVM_source... | aggr3 | Online | No | 5 | 18.87 MB | 20 MB | Disabled |
| dest_SVM_vo1_04... | aggr1 | Online | No | 5 | 42.62 MB | 45 MB | Disabled |
| source_SVM_root | aggr1 | Online | No | 5 | 18.86 MB | 20 MB | Disabled |

| Source Storage Virtual Machine | Source Volume | Is Healthy | Relationship State | Transfer Status | Type | Lag Time | Policy |
|--------------------------------|-----------------------|------------|--------------------|-----------------|---------|------------------|--------|
| dest_SVM | source_SVM_Vol2_vault | Yes | Snapmirrored | Idle | Restore | 5 hr(s) 6 min(s) | |

| | | | | |
|---------|------------------|-----------------|--------------------|-----------------|
| Details | Space Allocation | Snapshot Copies | Storage Efficiency | Data Protection |
|---------|------------------|-----------------|--------------------|-----------------|

Where to find additional information

Additional information is available to help you to manage the SnapVault backup relationships and to use other methods of data protection to protect the availability of your data resources.

Express guides

- [*Clustered Data ONTAP 8.3 Volume Disaster Recovery Preparation Express Guide*](#)
Describes how to quickly configure a destination volume on a different Data ONTAP cluster in preparation for disaster recovery.
- [*Clustered Data ONTAP 8.3 Volume Disaster Recovery Express Guide*](#)
Describes how to quickly activate a destination volume from a different Data ONTAP cluster after a disaster, as well as how to restore the SnapMirror relationship to its original state by reactivating the source volume after its recovery.

Comprehensive guides

- [*Clustered Data ONTAP 8.3 Data Protection Guide*](#)
Describes how to plan and manage disaster recovery and disk-to-disk backup of clustered systems.
- [*Clustered Data ONTAP 8.3 Data Protection Tape Backup and Recovery Guide*](#)
Describes how to back up and recover data using tape backup and recovery features in clusters, using NDMP and dump technologies.

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You can also contact us in the following ways:

- NetApp, Inc., 495 East Java Drive, Sunnyvale, CA 94089 U.S.
- Telephone: +1 (408) 822-6000
- Fax: +1 (408) 822-4501
- Support telephone: +1 (888) 463-8277

Index

- B**
 - backup vault relationships
 - requirements for using Express Guide to configure [4](#)
 - where to get additional information about [10](#)
- C**
 - comments
 - how to send feedback about documentation [13](#)
- D**
 - data protection
 - where to get additional information about backup [10](#)
 - destination volumes
 - identifying the SnapVault backup for restore [6](#)
 - documentation
 - how to send feedback about [13](#)
- E**
 - express guides
 - requirements for using Volume Backup using SnapVault [4](#)
- F**
 - feedback
 - how to send comments about documentation [13](#)
 - flowcharts
 - volume restore workflow [5](#)
- I**
 - identifying
 - SnapVault backup destination volume for restore [6](#)
 - information
 - how to send feedback about improving documentation [13](#)
- R**
 - relationships
 - requirements for using Express Guide to configure backup vault [4](#)
 - where to get additional information about backup vault [10](#)
 - restore operations
 - from a SnapVault backup [7](#)
 - from SnapVault backup, verifying the status [8](#)
 - identifying destination volume for [6](#)
 - volume restore workflow [5](#)
- S**
 - SnapVault backup
 - identifying the destination volume [6](#)
 - restoring from [7](#)
 - verifying restore operation status [8](#)
 - workflow to restore volume from [5](#)
 - suggestions
 - how to send feedback about documentation [13](#)
- V**
 - vaults
 - volume restore workflow [5](#)
 - where to get additional information about backup [10](#)
 - verifying
 - restore from a SnapVault backup [8](#)
 - volumes
 - requirements for using Express Guide to restore [4](#)
 - restoring from a SnapVault backup [7](#)
- W**
 - workflows
 - volume restore flowchart [5](#)