



Volume disaster recovery workflow

System Manager Classic

NetApp

September 05, 2025

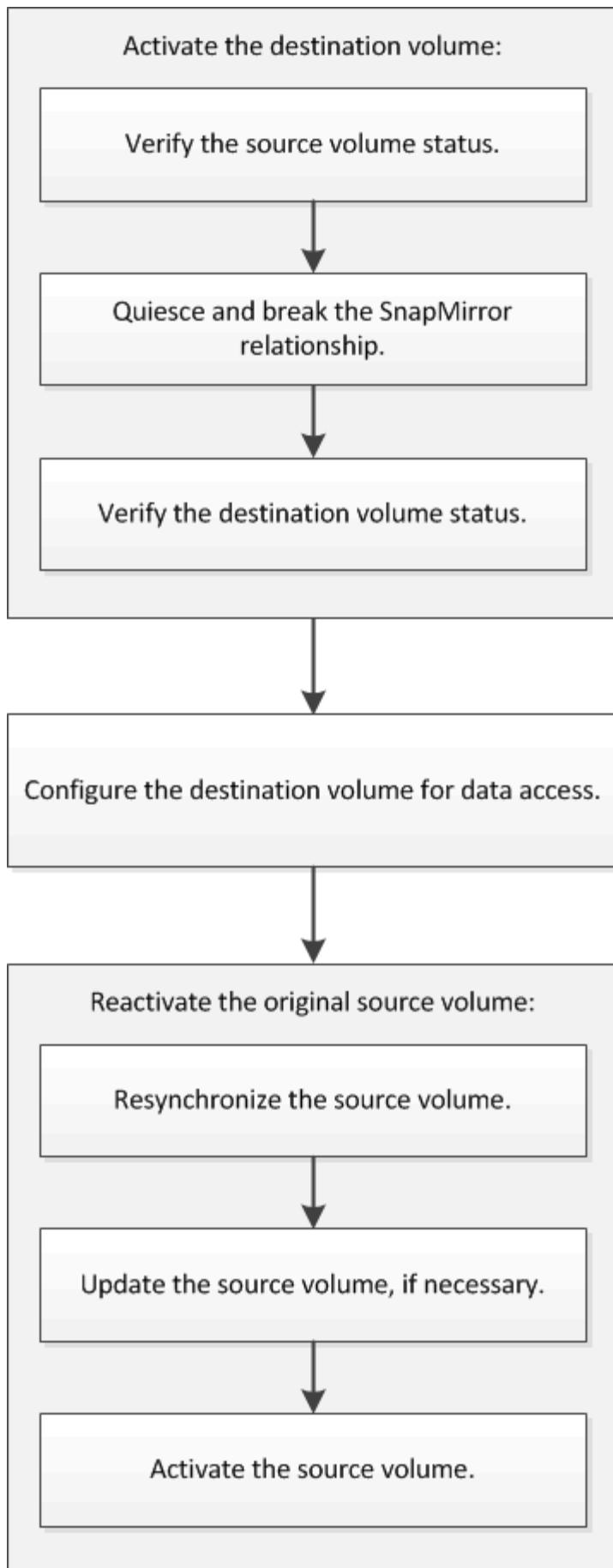
This PDF was generated from https://docs.netapp.com/us-en/ontap-system-manager-classic/volume-disaster-recovery/task_verifying_source_volume_status.html on September 05, 2025. Always check docs.netapp.com for the latest.

Table of Contents

Volume disaster recovery workflow	1
Activate the destination volume	3
Verify the status of the source volume	3
Break the SnapMirror relationship	4
Verify the destination volume status	5
Configure the destination volume for data access	7
Procedure	7
What to do next	8
Reactivate the source volume	8
Resynchronize the source volume	8
Update the source volume	9
Reactivate the source volume	10

Volume disaster recovery workflow

The volume disaster recovery workflow includes activating the destination volume, configuring the destination volume for data access, and reactivating the original source volume.



Additional information is available to help you to manage the volume-level disaster recovery relationships and provides other methods of disaster recovery to protect the availability of your data resources.

- [Volume backup using SnapVault](#)

Describes how to quickly configure backup vault relationships between volumes that are located in different ONTAP clusters.

- [Volume restore management using SnapVault](#)

Describes how to quickly restore a volume from a backup vault in ONTAP.

Activate the destination volume

When the source volume is unable to serve data due to events such as data corruption, accidental deletion or an offline state, you must activate the destination volume to provide data access until you recover the data on the source volume. Activation involves stopping future SnapMirror data transfers and breaking the SnapMirror relationship.

Verify the status of the source volume

When the source volume is unavailable, you must verify that the source volume is offline and then identify the destination volume that must be activated for providing data access.

About this task

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

Steps

1. Navigate to the **Volumes** window.
2. Select the source volume, and then verify that the source volume is offline.
3. Identify the destination volume in the SnapMirror relationship.
 - Beginning with ONTAP 9.3: Double-click the source volume to view the details, and then click **PROTECTION** to identify the destination volume in the SnapMirror relationship and the name of the SVM that contains the volume.



The screenshot shows the ONTAP Volumes window with the following details:

Health	Destination SVM	Destination Volume	Destination Clu...	Relationship...	Transfer S...	Type	Lag Time	Policy
Green	svm2	vol_mirror_mt_d12	bltmy12	Snapmirrored	Idle	Version-Flexible	45 min(0)	MirrorAllSnapshot

- ONTAP 9.2 or earlier: Click the **Data Protection** tab at the bottom of the Volumes page to identify the destination volume in the SnapMirror relationship and the name of the SVM that contains the volume.

The screenshot shows a table of storage volumes and a detailed view of a SnapMirror relationship. The table columns include Name, Aggregate, Status, Thin Pro., % Used, Available, Total Sp., Storage, Is Volu..., and Encrypted. The detailed view shows Destination St., Destination Vo..., Is Healthy, Relationship St., Transfer Status, Type, Lag Time, and Policy. The policy is set to DPDefault.

Name	Aggregate	Status	Thin Pro.	% Used	Available	Total Sp.	Storage	Is Volu...	Encrypted
svm1_svm1_root...	aggr2	Online	No	5	970.48 MB	1 GB	Disabled	No	No
svm1_vvol123_vault	aggr2	Online	No	5	121.35 MB	128.02 MB	Enabled	No	No
VOL1	aggr3	Offline	NA	NA	NA	NA	Disabled	No	No
svm2_root	aggr1	Online	No	5	971.12 MB	1 GB	Disabled	No	No

Destination St...	Destination Vo...	Is Healthy	Relationship St...	Transfer Status	Type	Lag Time	Policy
svm1	VOL1	Yes	Snapmirrored	Idle	Mirror	7 day(s) 12 hr(s)	DPDefault

Break the SnapMirror relationship

You must quiesce and break the SnapMirror relationship to activate the destination volume. After quiescing, future SnapMirror data transfers are disabled.

Before you begin

The destination volume must be mounted on the destination SVM namespace.

About this task

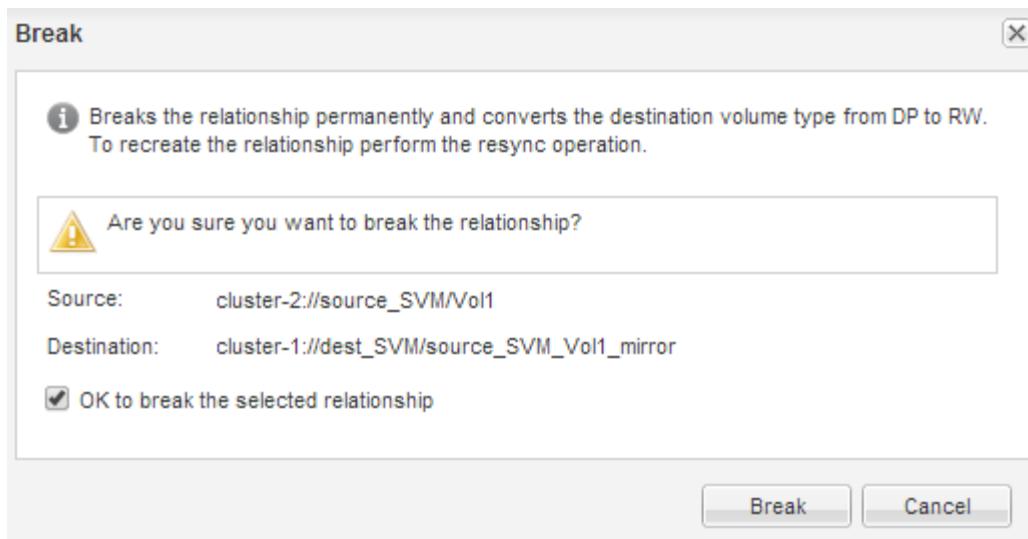
You must perform this task from the **destination** cluster.

Steps

1. Depending on the System Manager version that you are running, perform one of the following steps:
 - ONTAP 9.4 or earlier: Click **Protection > Relationships**.
 - Beginning with ONTAP 9.5: Click **Protection > Volume Relationships**.
2. Select the SnapMirror relationship between the source and the destination volumes.
3. Click **Operations > Quiesce** to disable future data transfers.
4. Select the confirmation check box, and then click **Quiesce**.

The quiesce operation might take some time; you must not perform any other operation on the SnapMirror relationship until the transfer status is displayed as **Quiesced**.

5. Click **Operations > Break**.
6. Select the confirmation check box, and then click **Break**.



The SnapMirror relationship is in **Broken Off** state.

Source Sto...	Source Vol...	Destinatio...	Destinatio...	Is Healthy...	Relationship...	Transfer St...	Relationship...	Lag Time...	Policy Name...	Policy Type...
svm1	svm1_root	svm1_svm1_r...	svm2	Yes	Snapmirrored	Idle	Mirror	26 min(s)	DPDefault	Asynchronous
svm1	vol1	svm1_vol1_m...	svm2	Yes	Broken Off	Idle	Mirror	None	DPDefault	Asynchronous
<hr/>										
Source Location:	svm1.vol1	Is Healthy:	Yes	Transfer Status:	Idle					
Destination Location:	svm2:svm1_vol1_mirror	Relationship State:	Broken Off	Current Transfer Type:	None					
Source Cluster:	cluster-1	Network Compression Ratio:	Not Applicable	Current Transfer Error:	None					
Destination Cluster:	cluster-1			Last Transfer Error:	None					
Transfer Schedule:	hourly			Last Transfer Type:	Update					
Data Transfer Rate:	Unlimited			Latest Snapshot Timestamp:	02/22/2017 13:05:00					
Lag Time:	None			Latest Snapshot Copy:	snspmirror:9b4dea7c-e6d0-11e6-644a-00a1981a1bda_2149622820.2017					

Verify the destination volume status

After breaking the SnapMirror relationship, you must verify that the destination volume has read/write access and that the destination volume settings match the settings of the source volume.

About this task

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

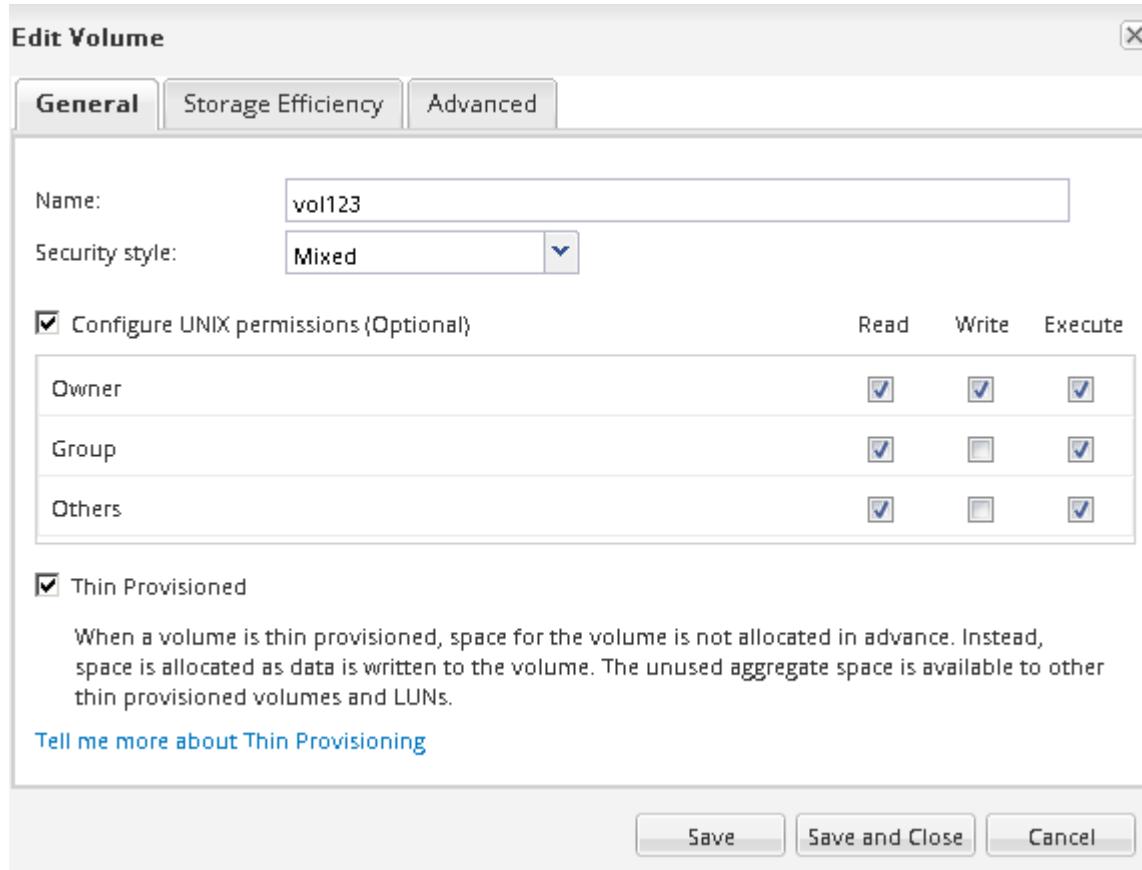
Steps

1. Navigate to the **Volumes** window.
2. Select the destination volume from the **Volumes** list, and then verify that the destination volume type is **rw**, which indicates read/write access.
3. Verify that the volume settings such as thin provisioning, deduplication, compression, and autogrow on the destination volume match the settings of the source volume.

You can use the volume settings information that you noted after creating the SnapMirror relationship to verify the destination volume settings.

4. If the volume settings do not match, modify the settings on the destination volume as required:

- Click **Edit**.
- Modify the general settings, storage efficiency settings, and advanced settings for your environment, as required.
- Click **Save and Close**.



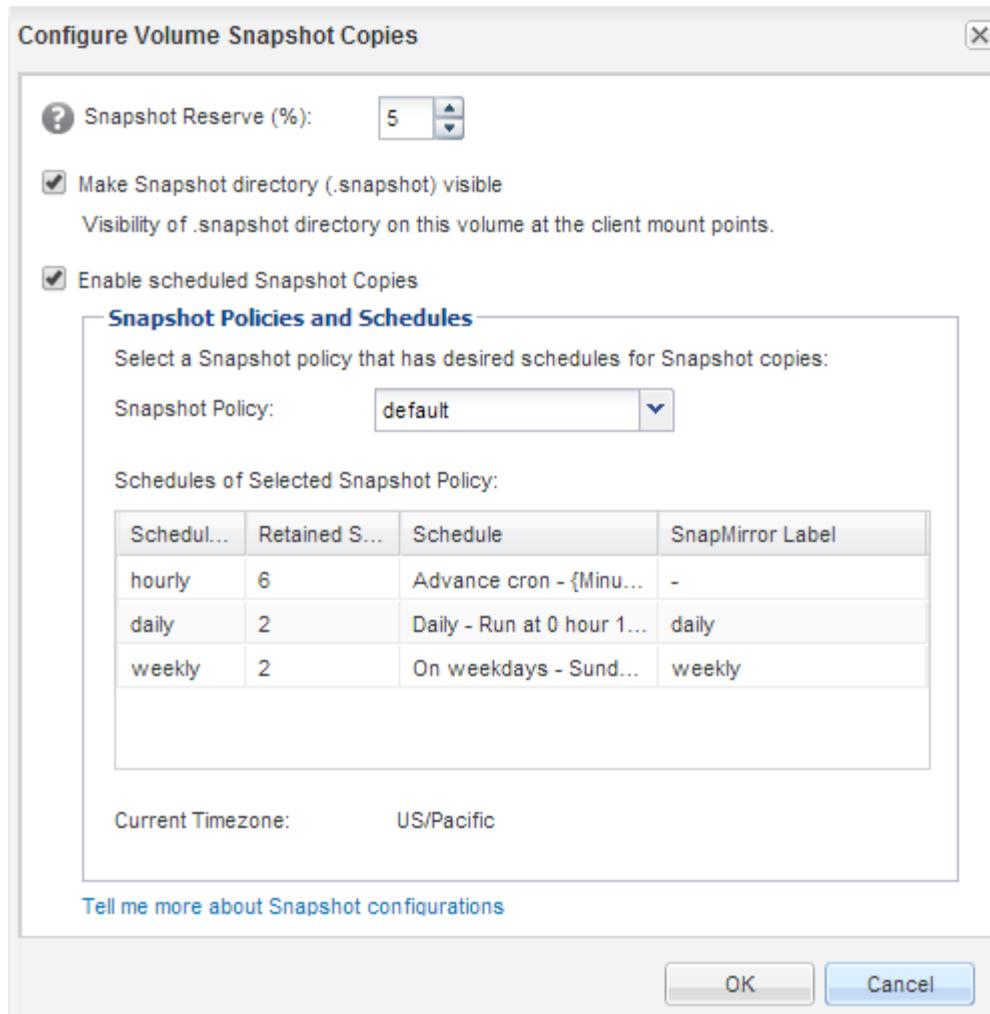
- Verify that the columns in the **Volumes** list are updated with the appropriate values.

- Enable Snapshot copy creation for the destination volume.
 - Depending on your ONTAP version, navigate to the **Configure Volume Snapshot Copies** page in one of the following ways:

Beginning with ONTAP 9.3: Select the destination volume, and then click **Actions > Manage Snapshots > Configure**.

ONTAP 9.2 or earlier: Select the destination volume, and then click **Snapshot Copies > Configure**.

 - Select the **Enable scheduled Snapshot Copies** check box, and then click **OK**.



[Tell me more about Snapshot configurations](#)

OK

Cancel

Configure the destination volume for data access

After activating the destination volume, you must configure the volume for data access. NAS clients and SAN hosts can access the data from the destination volume until the source volume is reactivated.

About this task

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

Procedure

- NAS environment:
 - Mount the NAS volumes to the namespace using the same junction path that the source volume was mounted to in the source SVM.
 - Apply the appropriate ACLs to the CIFS shares at the destination volume.
 - Assign the NFS export policies to the destination volume.
 - Apply the quota rules to the destination volume.
 - Redirect clients to the destination volume by performing the necessary steps such as changing the DNS name resolution.

- f. Remount the NFS and CIFS shares on the clients.
- SAN environment:
 - a. Map the LUNs to the appropriate initiator group to make the LUNs in the volume available to the SAN clients.
 - b. For iSCSI, create iSCSI sessions from the SAN host initiators to the SAN LIFs.
 - c. On the SAN client, perform a storage re-scan to detect the connected LUNs.

What to do next

You should resolve the problem that caused the source volume to become unavailable. You must bring the source volume back online when possible, and then resynchronize and reactivate the source volume.

Related information

[ONTAP 9 Documentation Center](#)

Reactivate the source volume

When the source volume becomes available, you must resynchronize the data from the destination volume to the source volume, update any modifications after the resynchronization operation, and activate the source volume.

Resynchronize the source volume

When the source volume is online, you must resynchronize the data between the destination volume and the source volume to replicate the latest data from the destination volume.

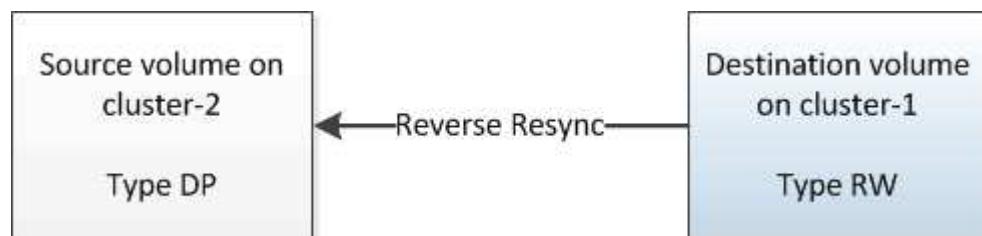
Before you begin

The source volume must be online.

About this task

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

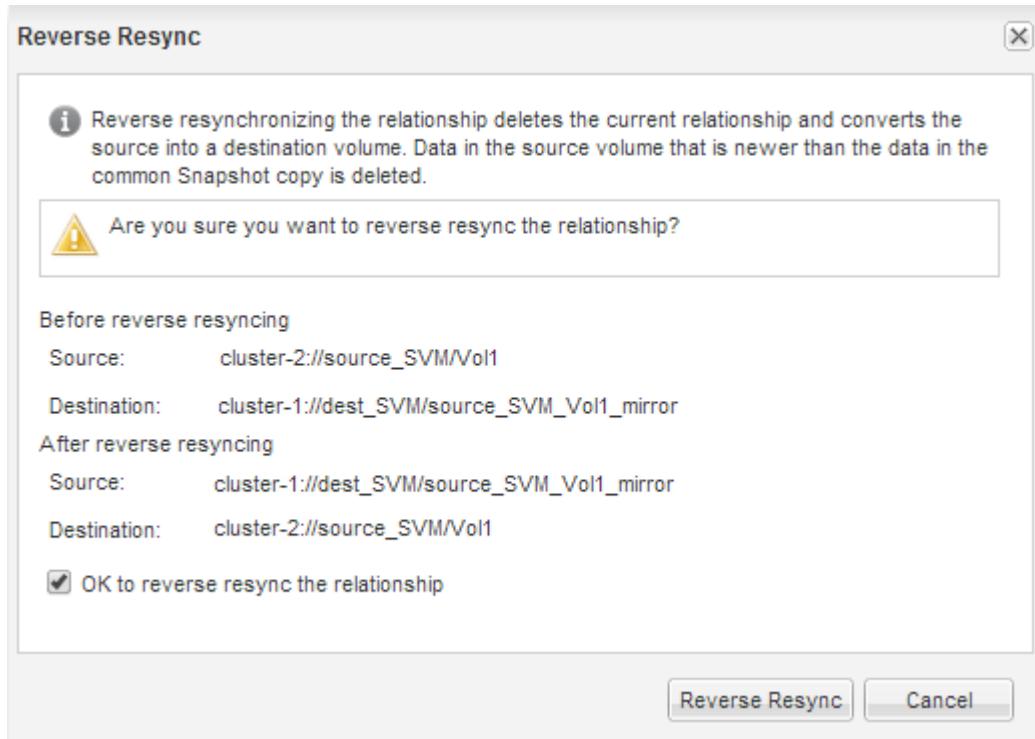
The following image shows that the data is replicated from the active destination volume to the read-only source volume:



Steps

1. Depending on the System Manager version that you are running, perform one of the following steps:
 - ONTAP 9.4 or earlier: Click **Protection > Relationships**.
 - Beginning with ONTAP 9.5: Click **Protection > Volume Relationships**.

2. Select the SnapMirror relationship between the source and destination volumes.
3. Make a note of the transfer schedule and the policy configured for the SnapMirror relationship.
4. Click **Operations > Reverse Resync**.
5. Select the confirmation check box, and then click **Reverse Resync**.



Beginning with ONTAP 9.3, the SnapMirror policy of the relationship is set to `MirrorAllSnapshots` and the mirror schedule is set to `None`.

If you are running ONTAP 9.2 or earlier, the SnapMirror policy of the relationship is set to `DPDefault` and the mirror schedule is set to `None`.

6. On the source cluster, specify a SnapMirror policy and schedule that match the protection configuration of the original SnapMirror relationship:
 - a. Depending on the System Manager version that you are running, perform one of the following steps:
 - ONTAP 9.4 or earlier: Click **Protection > Relationships**.
 - Beginning with ONTAP 9.5: Click **Protection > Volume Relationships**.
 - b. Select the SnapMirror relationship between the resynchronized source volume and the destination volume, and then click **Edit**.
 - c. Select the SnapMirror policy and schedule, and then click **OK**.

Update the source volume

After resynchronizing the source volume, you might want to ensure that all the latest changes are updated on the source volume before activating the source volume.

About this task

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

Steps

1. Depending on the System Manager version that you are running, perform one of the following steps:
 - ONTAP 9.4 or earlier: Click **Protection > Relationships**.
 - Beginning with ONTAP 9.5: Click **Protection > Volume Relationships**.
2. Select the SnapMirror relationship between the source and the destination volumes, and then click **Operations > Update**.
3. Perform an incremental transfer from the recent common Snapshot copy between the source and destination volumes.
 - Beginning with ONTAP 9.3: Select the **As per policy** option.
 - ONTAP 9.2 or earlier: Select the **On demand** option.
4. **Optional:** Select **Limit transfer bandwidth to** in order to limit the network bandwidth used for transfers, and then specify the maximum transfer speed.
5. Click **Update**.
6. Verify that the transfer status is **Idle** and last transfer type is **Update** in the **Details** tab.

The screenshot shows the System Manager interface for managing relationships. The main window displays a table of relationships between Source Storage and Destination Storage. The table includes columns for Source Storage, Source Volume, Destination Storage, Destination Volume, Is Healthy, Relationship State, Transfer Status, Relationship, Lag Time, Policy Name, and Policy Type. Three relationships are listed: one between svm1 and svm1_root (Is Healthy: Yes, Relationship State: Snapmirrored, Transfer Status: Idle, Relationship: Mirror, Lag Time: 44 min(s)), one between svm1 and vol123 (Is Healthy: Yes, Relationship State: Snapmirrored, Transfer Status: Idle, Relationship: Vault, Lag Time: 4 hr(s) 56 min(s)), and one between svm2 and svm1_volt_m (Is Healthy: Yes, Relationship State: Snapmirrored, Transfer Status: Idle, Relationship: Mirror, Lag Time: 2 min(s)).

The bottom part of the screenshot shows the 'Details' tab for the relationship between svm2 and svm1_volt_m. The tab displays various details about the relationship, including:

Source Location:	Destination Location:	Relationship State:	Transfer Status:
svm2:svm1_volt_m:mirror	svm1:volt	Is Healthy: Yes	Transfer Status: Idle
Destination Cluster:	Source Cluster:	Relationship State: Snapmirrored	Current Transfer Type: None
Transfer Schedule:	Destination Cluster:	Network Compression Ratio:	Current Transfer Error: None
Data Transfer Rate:	Transfer Schedule:	Not Applicable	Last Transfer Error: None
Log Time:	Data Transfer Rate:	Last Transfer Type: Update	Latest Snapshot Timestamp: 02/22/2017 16:47:18
			Latest Snapshot Copy: snapmirror:20d58fe5-e6d0-11e6-b4fe-0a0981a1b08_2149622807_2017-1

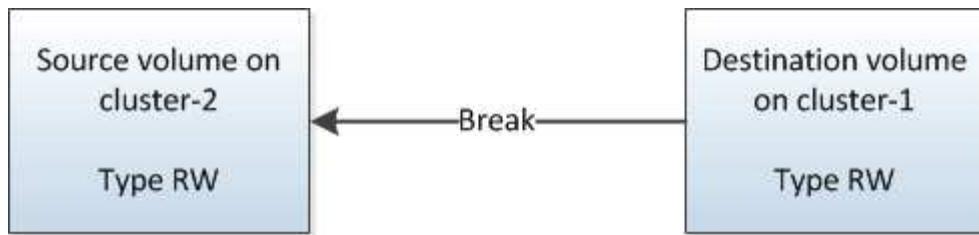
Reactivate the source volume

After resynchronizing the data from the destination volume to the source volume, you must activate the source volume by breaking the SnapMirror relationship. You should then resynchronize the destination volume to protect the reactivated source volume.

About this task

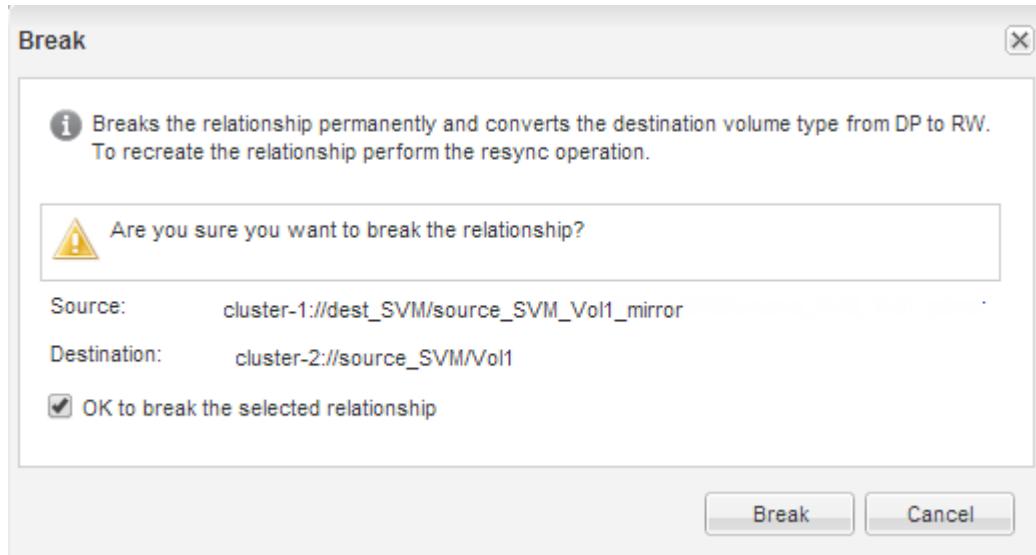
Both the break and reverse resync operations are performed from the **source** cluster.

The following image shows that the source and destination volumes are read/write when you break the SnapMirror relationship. After the reverse resync operation, the data is replicated from the active source volume to the read-only destination volume.

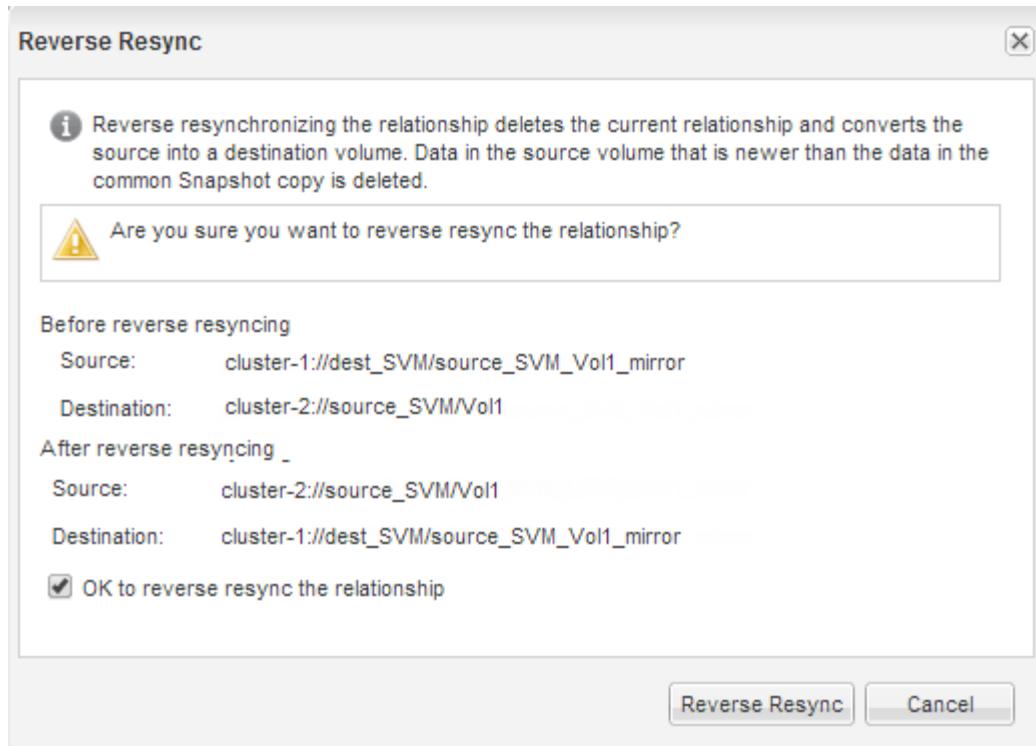


Steps

1. Depending on the System Manager version that you are running, perform one of the following steps:
 - ONTAP 9.4 or earlier: Click **Protection > Relationships**.
 - Beginning with ONTAP 9.5: Click **Protection > Volume Relationships**.
2. Select the SnapMirror relationship between the source and the destination volumes.
3. Click **Operations > Quiesce**.
4. Select the confirmation check box, and then click **Quiesce**.
5. Click **Operations > Break**.
6. Select the confirmation check box, and then click **Break**.



7. Click **Operations > Reverse Resync**.
8. Select the confirmation check box, and then click **Reverse Resync**.



Beginning with ONTAP 9.3, the SnapMirror policy of the relationship is set to `MirrorAllSnapshots` and the SnapMirror schedule is set to `None`.

If you are running ONTAP 9.2 or earlier, the SnapMirror policy of the relationship is set to `DPDefault` and the SnapMirror schedule is set to `None`.

9. Navigate to the source volume in the volumes page, and verify that the SnapMirror relationship you created is listed and the relationship state is `Snapmirrored`.
10. On the destination cluster, specify a SnapMirror policy and schedule that match the protection configuration of the original SnapMirror relationship for the new SnapMirror relationship:
 - a. Depending on the System Manager version that you are running, perform one of the following steps:
 - ONTAP 9.4 or earlier: Click **Protection > Relationships**.
 - Beginning with ONTAP 9.5: Click **Protection > Volume Relationships**.
 - b. Select the SnapMirror relationship between the reactivated source and the destination volumes, and then click **Edit**.
 - c. Select the SnapMirror policy and schedule, and then click **OK**.

Results

The source volume has read/write access and is protected by the destination volume.

Copyright information

Copyright © 2025 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.