## Contents

- Deciding whether to use this guide ............................................................. 4
- **Volume restore workflow** ................................................................. 5
  - Identifying the SnapVault backup destination volume ................................ 5
  - Restoring data from a SnapVault backup ............................................... 6
  - Verifying the restore operation ............................................................ 8
- **Where to find additional information** ............................................... 9
- Copyright information ............................................................................. 10
- Trademark information ........................................................................... 11
- How to send comments about documentation and receive update notifications ............................................................ 12
- Index ............................................................................................................. 13
Deciding whether to use the Volume Restore Using SnapVault Express Guide

This guide describes how to quickly restore a volume from a SnapVault backup in 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 ONTAP 9.
• You are a cluster administrator.
• You have configured the SnapVault relationship following the procedure described in the Volume Backup Using SnapVault Preparation 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 ONTAP command-line interface or an automated scripting tool.

Cluster management using System Manager

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

• Data protection
• 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 SnapVault 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 \texttt{https://IP-address-of-cluster-management-LIF} in a web browser and log in to System Manager using your cluster administrator credential.

2. Navigate to the \textbf{Volumes} window.

3. Identify the destination volume in the SnapVault relationship and the name of the SVM that contains the volume:
   - ONTAP 9.3 or later: Double-click the volume to view the details, and then click \textit{PROTECTION}.
   - ONTAP 9.2 or earlier: Click the \textit{Data Protection} tab at the bottom of the Volumes window.

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 \textbf{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 \textit{Protection > Relationships}.
   - Starting with ONTAP 9.5: Click \textit{Protection > Volume Relationships}.

2. Select the SVM that contains the SnapVault backup destination volume, and then click \textit{Operations > Restore}.

3. In the \textbf{Restore} dialog box, restore the data to the original source volume or a new volume:

<table>
<thead>
<tr>
<th>If you want to restore to...</th>
<th>Then...</th>
</tr>
</thead>
<tbody>
<tr>
<td>The original source volume</td>
<td>Select \textbf{Source volume}.</td>
</tr>
</tbody>
</table>
If you want to restore to... Then...

A new volume

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:
   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 destination_SVM_name_destination_volume_name_restore, specify a new name and select the containing aggregate for the volume.
g. Select the Enable dedupe check box.

4. Select either the latest Snapshot copy or select a specific Snapshot copy that you want to restore.

5. Select the OK to restore the volume from the Snapshot copy check box.

6. Select the Enable Network Compression check box to compress the data that is being transferred during the restore operation.

7. 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.
8. 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. Navigate to the Volumes window.

2. Select the source volume in the volumes list and perform one of the following actions, depending on your ONTAP version:

   - Starting 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.

   - ONTAP 9.2 or earlier: 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.

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

• *Volume disaster recovery express preparation*
  Describes how to quickly configure a destination volume on a different ONTAP cluster in preparation for disaster recovery.

• *Volume disaster express recovery*
  Describes how to quickly activate a destination volume from a different 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.

Power guide

• *Data protection*
  Describes how to prevent data loss using Snapshot copies and SnapMirror replication to a remote system.

Comprehensive guides

• *Data protection using tape backup*
  Describes how to back up and recover data using tape backup and recovery features in clusters, using NDMP and dump technologies.

• *ONTAP concepts*
  Describes conceptual information about ONTAP clusters in preparation for disaster recovery.
Copyright information

Copyright © 2018 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.

Data contained herein pertains to a commercial item (as defined in FAR 2.101) and is proprietary to NetApp, Inc. The U.S. Government has a non-exclusive, non-transferrable, non-sublicensable, 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).
Trademark information

NETAPP, the NETAPP logo, and the marks listed on the NetApp Trademarks page are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.

How to send comments about documentation and receive update notifications

You can help us to improve the quality of our documentation by sending us your feedback. You can receive automatic notification when production-level (GA/FCS) documentation is initially released or important changes are made to existing production-level documents.

If you have suggestions for improving this document, send us your comments by email.

doccomments@netapp.com

To help us direct your comments to the correct division, include in the subject line the product name, version, and operating system.

If you want to be notified automatically when production-level documentation is released or important changes are made to existing production-level documents, follow Twitter account @NetAppDoc.

You can also contact us in the following ways:

• NetApp, Inc., 1395 Crossman Ave., Sunnyvale, CA 94089 U.S.
• Telephone: +1 (408) 822-6000
• Fax: +1 (408) 822-4501
• Support telephone: +1 (888) 463-8277
Index

A
about this guide
deciding whether to use the Volume Restore Using SnapVault Express Guide 4

B
backup vault relationships
where to get additional information about 9

C
comments
how to send feedback about documentation 12

D
data protection
where to get additional information about backup 9
destination volumes
identifying the SnapVault backup for restore 5
documentation
how to receive automatic notification of changes to 12
how to send feedback about 12

E
express guides
requirements for using Volume Backup using SnapVault 4

F
feedback
how to send comments about documentation 12
flowcharts
volume restore workflow 5

I
information
how to send feedback about improving documentation 12

R
relationships
where to get additional information about backup vault 9
restore operations
from a SnapVault backup 6
from SnapVault backup, verifying the status 8
identifying destination volume for restore 5
volume restore workflow 5

S
SnapVault backup
identifying the destination volume 5
restoring from 6
verifying restore operation status 8
workflow to restore volume from 5
suggestions
how to send feedback about documentation 12

T
Twitter
how to receive automatic notification of documentation changes 12

V
vaults
volume restore workflow 5
where to get additional information about backup 9
verifying
restore from a SnapVault backup 8
volumes
restoring from a SnapVault backup 6

W
workflows
volume restore flowchart 5