

# Restore files from a SnapMirror destination volume

ONTAP 9

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# Restore files from a SnapMirror destination volume

## Restore a single file, LUN, or NVMe namespace from a SnapMirror destination

You can restore a single file, LUN, a set of files or LUNs from a Snapshot copy, or an NVMe namespace from a SnapMirror destination volume. Beginning with ONTAP 9.7, you can also restore NVMe namespaces from a SnapMirror Synchronous destination. You can restore files to the original source volume or to a different volume.

### What you'll need

To restore a file or LUN from a SnapMirror Synchronous destination (supported beginning with ONTAP 9.5), you must first delete and release the relationship.

#### About this task

The volume to which you are restoring files or LUNs (the destination volume) must be a read-write volume:

- SnapMirror performs an *incremental restore* if the source and destination volumes have a common Snapshot copy (as is typically the case when you are restoring to the original source volume).
- Otherwise, SnapMirror performs a baseline restore, in which the specified Snapshot copy and all the data blocks it references are transferred to the destination volume.

### **Steps**

1. List the Snapshot copies in the destination volume:

volume snapshot show -vserver SVM -volume volume

For complete command syntax, see the man page.

The following example shows the Snapshot copies on the <code>vserverB:secondary1</code> destination:

| cluster_dst               | ::> volume s | napshot show -vserver vs | erverB | -volume | secondary1 |
|---------------------------|--------------|--------------------------|--------|---------|------------|
| Vserver<br>Used%          | Volume       | Snapshot                 | State  | Size    | Total%     |
|                           |              |                          |        |         |            |
| vserverB<br>0%            | secondary1   | hourly.2013-01-25_0005   | valid  | 224KB   | 0%         |
| 0%                        |              | daily.2013-01-25_0010    | valid  | 92KB    | 0%         |
|                           |              | hourly.2013-01-25_0105   | valid  | 228KB   | 0%         |
| 0%                        |              | hourly.2013-01-25_0205   | valid  | 236KB   | 0%         |
| 0%                        |              | hourly.2013-01-25_0305   | valid  | 244KB   | 0%         |
| 0%                        |              | hourly.2013-01-25_0405   | valid  | 244KB   | 0%         |
| 0%                        |              | hourly.2013-01-25_0505   | valid  | 244KB   | 0%         |
| 0%                        |              |                          |        |         |            |
| 7 entries were displayed. |              |                          |        |         |            |

2. Restore a single file or LUN or a set of files or LUNs from a Snapshot copy in a SnapMirror destination volume:

```
snapmirror\ restore\ -source-path\ SVM:volume | cluster://SVM/volume, ... -destination-path\ SVM:volume | cluster://SVM/volume, ... -source-snapshot\ snapshot\ -file-list\ source\_file\_path, @destination\_file\_path
```

For complete command syntax, see the man page.



You must run this command from the destination SVM or the destination cluster.

The following command restores the files file1 and file2 from the Snapshot copy daily.2013-01-25\_0010 in the original destination volume secondary1, to the same location in the active file system of the original source volume primary1:

```
cluster_dst::> snapmirror restore -source-path vserverB:secondary1
-destination-path vserverA:primary1 -source-snapshot daily.2013-01-
25_0010 -file-list /dir1/file1,/dir2/file2
```

[Job 3479] Job is queued: snapmirror restore for the relationship with destination vserverA:primary1

The following command restores the files file1 and file2 from the Snapshot copy daily.2013-01-25\_0010 in the original destination volume secondary1, to a different location in the active file system of the original source volume primary1.

The destination file path begins with the @ symbol followed by the path of the file from the root of the original source volume. In this example, file1 is restored to /dir1/file1.new and file2 is restored to /dir2.new/file2 on primary1:

```
cluster_dst::> snapmirror restore -source-path vserverB:secondary1
-destination-path vserverA:primary1 -source-snapshot daily.2013-01-
25_0010 -file-list
/dir/file1,@/dir1/file1.new,/dir2/file2,@/dir2.new/file2

[Job 3479] Job is queued: snapmirror restore for the relationship with destination vserverA:primary1
```

The following command restores the files file1 and file3 from the Snapshot copy daily.2013-01-25\_0010 in the original destination volume secondary1, to different locations in the active file system of the original source volume primary1, and restores file2 from snap1 to the same location in the active file system of primary1.

In this example, the file file1 is restored to /dir1/file1.new and file3 is restored to /dir3.new/file3:

```
cluster_dst::> snapmirror restore -source-path vserverB:secondary1
-destination-path vserverA:primary1 -source-snapshot daily.2013-01-
25_0010 -file-list
/dir/file1,@/dir1/file1.new,/dir2/file2,/dir3/file3,@/dir3.new/file3

[Job 3479] Job is queued: snapmirror restore for the relationship with destination vserverA:primary1
```

### Restore the contents of a volume from a SnapMirror destination

You can restore the contents of an entire volume from a Snapshot copy in a SnapMirror destination volume. You can restore the volume's contents to the original source volume or to a different volume.

#### About this task

The destination volume for the restore operation must be one of the following:

• A read-write volume, in which case SnapMirror performs an *incremental restore*, provided that the source and destination volumes have a common Snapshot copy (as is typically the case when you are restoring to the original source volume).



The command fails if there is not a common Snapshot copy. You cannot restore the contents of a volume to an empty read-write volume.

• An empty data protection volume, in which case SnapMirror performs a *baseline restore*, in which the specified Snapshot copy and all the data blocks it references are transferred to the source volume.

Restoring the contents of a volume is a disruptive operation. SMB traffic must not be running on the SnapVault primary volume when a restore operation is running.

If the destination volume for the restore operation has compression enabled, and the source volume does not have compression enabled, disable compression on the destination volume. You need to re-enable compression after the restore operation is complete.

Any quota rules defined for the destination volume are deactivated before the restore is performed. You can use the volume quota modify command to reactivate quota rules after the restore operation is complete.

### **Steps**

1. List the Snapshot copies in the destination volume:

```
volume snapshot show -vserver SVM -volume volume
```

For complete command syntax, see the man page.

The following example shows the Snapshot copies on the vserverB: secondary1 destination:

| Vserver<br>Used% | Volume     | Snapshot               | State | Size  | Total% |
|------------------|------------|------------------------|-------|-------|--------|
|                  |            |                        |       |       |        |
| wserverB<br>0%   | secondary1 | hourly.2013-01-25_0005 | valid | 224KB | 0%     |
| 0%               |            | daily.2013-01-25_0010  | valid | 92KB  | 0%     |
| 0%               |            | hourly.2013-01-25_0105 | valid | 228KB | 0%     |
| 0%               |            | hourly.2013-01-25_0205 | valid | 236KB | 0%     |
| 0%               |            | hourly.2013-01-25_0305 | valid | 244KB | 0%     |
| 0%               |            | hourly.2013-01-25_0405 | valid | 244KB | 0%     |
| 0%               |            | hourly.2013-01-25_0505 | valid | 244KB | 0%     |

2. Restore the contents of a volume from a Snapshot copy in a SnapMirror destination volume:

```
snapmirror restore -source-path SVM:volume|cluster://SVM/volume, ...
-destination-path SVM:volume|cluster://SVM/volume, ... -source-snapshot snapshot
```

For complete command syntax, see the man page.



You must run this command from the destination SVM or the destination cluster.

The following command restores the contents of the original source volume primary1 from the Snapshot copy daily.2013-01-25 0010 in the original destination volume secondary1:

```
cluster_dst::> snapmirror restore -source-path vserverB:secondary1
-destination-path vserverA:primary1 -source-snapshot daily.2013-01-
25_0010

Warning: All data newer than Snapshot copy daily.2013-01-25_0010 on volume vserverA:primary1 will be deleted.

Do you want to continue? {y|n}: y

[Job 34] Job is queued: snapmirror restore from source vserverB:secondary1 for the snapshot daily.2013-01-25_0010.
```

3. Remount the restored volume and restart all applications that use the volume.

### Other ways to do this in ONTAP

| To perform these tasks with  | See this content                               |
|--|--|
| The redesigned System Manager (available with ONTAP 9.7 and later) | Restore a volume from an earlier Snapshot copy |
| System Manager Classic (available with ONTAP 9.7 and earlier)      | Volume restore using SnapVault overview        |

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