



Transitioning a stand-alone volume

ONTAP 7-Mode Transition

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Transitioning a stand-alone volume involves creating a SnapMirror relationship, performing a baseline transfer, performing incremental updates, monitoring the data copy operation, breaking the SnapMirror relationship, and moving client access from the 7-Mode volume to the clustered Data ONTAP volume.

- The cluster and SVM must already be set up.
- You must have reviewed the information about preparing for transition.

Preparing for transition

Steps

1. Copy data from the 7-Mode volume to the clustered Data ONTAP volume:
 - a. If you want to configure the TCP window size for the SnapMirror relationship between the 7-Mode system and the SVM, create a SnapMirror policy of type `async-mirror` with the `window-size-for-tdp-mirror` option.

You must then apply this policy to the TDP SnapMirror relationship between the 7-Mode system and the SVM.

You can configure the TCP window size in the range of 256 KB to 7 MB for improving the SnapMirror transfer throughput so that the transition copy operations get completed faster. The default value of TCP window size is 2 MB.

```
cluster1::> snapmirror policy create -vserver vs1 -policy tdp_policy
-window-size-for-tdp-mirror 5MB -type async-mirror
```

- b. Use the `snapmirror create` command with the relationship type as TDP to create a SnapMirror relationship between the 7-Mode system and the SVM.

If you have created a SnapMirror policy to configure the TCP window size, you must apply the policy to this SnapMirror relationship.

```
cluster1::> snapmirror create -source-path system7mode:dataVol120
-destination-path vs1:dst_vol -type TDP -policy tdp_policy
Operation succeeded: snapmirror create the relationship with
destination vs1:dst_vol.
```

- c. Use the `snapmirror initialize` command to start the baseline transfer.

```
cluster1::> snapmirror initialize -destination-path vs1:dst_vol
Operation is queued: snapmirror initialize of destination
vs1:dst_vol.
```

d. Use the `snapmirror show` command to monitor the status.

```
cluster1::>snapmirror show -destination-path vs1:dst_vol

                Source Path: system7mode:dataVol20
                Destination Path: vs1:dst_vol
                Relationship Type: TDP
Relationship Group Type: none
                SnapMirror Schedule: -
                SnapMirror Policy Type: async-mirror
                SnapMirror Policy: DPDefault
                Tries Limit: -
                Throttle (KB/sec): unlimited
                **Mirror State: Snapmirrored**
                Relationship Status: Idle
File Restore File Count: -
                File Restore File List: -
                Transfer Snapshot: -
                Snapshot Progress: -
                Total Progress: -
Network Compression Ratio: -
                Snapshot Checkpoint: -
                Newest Snapshot: vs1(4080431166)_dst_vol.1
Newest Snapshot Timestamp: 10/16 02:49:03
                Exported Snapshot: vs1(4080431166)_dst_vol.1
Exported Snapshot Timestamp: 10/16 02:49:03
                Healthy: true
                Unhealthy Reason: -
Constituent Relationship: false
                Destination Volume Node: cluster1-01
                Relationship ID: 97b205a1-54ff-11e4-9f30-
005056a68289
                Current Operation ID: -
                Transfer Type: -
                Transfer Error: -
                Current Throttle: -
Current Transfer Priority: -
                Last Transfer Type: initialize
                Last Transfer Error: -
                Last Transfer Size: 152KB
Last Transfer Network Compression Ratio: 1:1
                Last Transfer Duration: 0:0:6
                Last Transfer From: system7mode:dataVol20
Last Transfer End Timestamp: 10/16 02:43:53
                Progress Last Updated: -
                Relationship Capability: 8.2 and above
```

```
Lag Time: -
Number of Successful Updates: 0
  Number of Failed Updates: 0
Number of Successful Resyncs: 0
  Number of Failed Resyncs: 0
Number of Successful Breaks: 0
  Number of Failed Breaks: 0
      Total Transfer Bytes: 155648
Total Transfer Time in Seconds: 6
```

- e. Depending on whether you want to update the clustered Data ONTAP volume manually or by setting up a SnapMirror schedule, perform the appropriate action:

If you want to...

Update transfers manually

Then...

i. Use the `snapmirror update` command.

```
cluster1::> snapmirror update
-destination-path vs1:dst_vol
```

ii. Use the `snapmirror show` command to monitor the data copy status.

```
cluster1::> snapmirror show
-destination-path vs1:dst_vol
```

```
Source Path:
system7mode:dataVol20
```

```
Destination Path: vs1:dst_vol
```

```
Relationship Type: TDP
                    Relationship
```

```
Group Type: none
```

```
SnapMirror Schedule: -
                    SnapMirror
```

```
Policy Type: async-mirror
```

```
SnapMirror Policy: DPDefault
```

```
Tries Limit: -
```

```
Throttle (KB/sec): unlimited
```

```
Mirror State: Snapmirrored
```

```
...
```

```
                    Number of
Failed Updates: 0
```

```
                    Number of
Successful Resyncs: 0
```

```
                    Number of
Failed Resyncs: 0
```

```
                    Number of
Successful Breaks: 0
```

```
                    Number of
Failed Breaks: 0
```

```
                    Total
Transfer Bytes: 278528
```

```
                    Total Transfer Time
in Seconds: 11
```

If you want to...	Then...
Perform scheduled update transfers	<p data-bbox="883 159 1487 260">i. Use the <code>job schedule cron create</code> command to create a schedule for update transfers.</p> <pre data-bbox="915 296 1487 474">cluster1::> job schedule cron create -name 15_minute_sched -minute 15</pre> <p data-bbox="883 510 1487 611">ii. Use the <code>snapmirror modify</code> command to apply the schedule to the SnapMirror relationship.</p> <pre data-bbox="915 646 1487 825">cluster1::> snapmirror modify -destination-path vs1:dst_vol -schedule 15_minute_sched</pre> <p data-bbox="883 861 1487 921">iii. Use the <code>snapmirror show</code> command to monitor the data copy status.</p>

2. If you have a schedule for incremental transfers, perform the following steps when you are ready to perform cutover:

a. Use the `snapmirror quiesce` command to disable all future update transfers.

```
cluster1::> snapmirror quiesce -destination-path vs1:dst_vol
```

b. Use the `snapmirror modify` command to delete the SnapMirror schedule.

```
cluster1::> snapmirror modify -destination-path vs1:dst_vol -schedule ""
```

c. If you quiesced the SnapMirror transfers earlier, use the `snapmirror resume` command to enable SnapMirror transfers.

```
cluster1::> snapmirror resume -destination-path vs1:dst_vol
```

3. Wait for any ongoing transfers between the 7-Mode volumes and the clustered Data ONTAP volumes to finish, and then disconnect client access from the 7-Mode volumes to start cutover.

4. Use the `snapmirror update` command to perform a final data update to the clustered Data ONTAP volume.

```
cluster1::> snapmirror update -destination-path vs1:dst_vol
Operation is queued: snapmirror update of destination vs1:dst_vol.
```

5. Use the `snapmirror show` command to verify that the last transfer was successful.

6. Use the `snapmirror break` command to break the SnapMirror relationship between the 7-Mode volume and the clustered Data ONTAP volume.

```
cluster1::> snapmirror break -destination-path vs1:dst_vol
[Job 60] Job succeeded: SnapMirror Break Succeeded
```

7. If your volumes have LUNs configured, at the advanced privilege level, use the `lun transition 7-mode show` command to verify that the LUNs were transitioned.

You can also use the `lun show` command on the clustered Data ONTAP volume to view all of the LUNs that were successfully transitioned.

8. Use the `snapmirror delete` command to delete the SnapMirror relationship between the 7-Mode volume and the clustered Data ONTAP volume.

```
cluster1::> snapmirror delete -destination-path vs1:dst_vol
```

9. Use the `snapmirror release` command to remove the SnapMirror relationship information from the 7-Mode system.

```
system7mode> snapmirror release dataVol20 vs1:dst_vol
```

You must delete the SVM peer relationship between the 7-Mode system and the SVM when all of the required volumes in the 7-Mode system are transitioned to the SVM.

Related information

[Resuming a failed SnapMirror baseline transfer](#)

[Recovering from a failed LUN transition](#)

[Configuring a TCP window size for SnapMirror relationships](#)

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