Create a replication relationship

ONTAP 9

NetApp
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The relationship between the source volume in primary storage and the destination volume in secondary storage is called a *data protection relationship*. You can use the `snapmirror create` command to create a data protection relationship from an Element source to an ONTAP destination, or from an ONTAP source to an Element destination.

You can use SnapMirror to replicate Snapshot copies of an Element volume to an ONTAP destination system. In the event of a disaster at the Element site, you can serve data to clients from the ONTAP system, then reactivate the Element source volume when service is restored.

Before you begin

- The Element node containing the volume to be replicated must have been made accessible to ONTAP.
- The Element volume must have been enabled for SnapMirror replication.
- If you are using the “mirror-vault” policy type, a SnapMirror label must have been configured for the Element Snapshot copies to be replicated.

> You can perform this task in the Element software web UI only. For more information, see the Element documentation.

About this task

You must specify the Element source path in the form *`hostip:`*`/lun/`*`name`*, where “lun” is the actual string “lun” and `name` is the name of the Element volume.

An Element volume is roughly equivalent to an ONTAP LUN. SnapMirror creates a LUN with the name of the Element volume when a data protection relationship between Element software and ONTAP is initialized. SnapMirror replicates data to an existing LUN if the LUN meets the requirements for replicating from Element software to ONTAP.

Replication rules are as follows:

- An ONTAP volume can contain data from one Element volume only.
- You cannot replicate data from an ONTAP volume to multiple Element volumes.

In ONTAP 9.3 and earlier, a destination volume can contain up to 251 Snapshot copies. In ONTAP 9.4 and later, a destination volume can contain up to 1019 Snapshot copies.

Step

1. From the destination cluster, create a replication relationship from an Element source to an ONTAP destination:

   ```
   snapmirror create -source-path hostip:/lun/name -destination-path SVM:volume
   |cluster://SVM/volume -type XDP -schedule schedule -policy policy
   ```

For complete command syntax, see the man page.

The following example creates a SnapMirror DR relationship using the default `MirrorLatest` policy:

```
cluster_dst::> snapmirror create -source-path 10.0.0.11:/lun/0005
-destination-path svm_backup:volA_dst -type XDP -schedule my_daily
-policy MirrorLatest
```

The following example creates a unified replication relationship using the default `MirrorAndVault` policy:

```
cluster_dst:> snapmirror create -source-path 10.0.0.11:/lun/0005
-destination-path svm_backup:volA_dst -type XDP -schedule my_daily
-policy MirrorAndVault
```

The following example creates a unified replication relationship using the `Unified7year` policy:

```
cluster_dst::> snapmirror create -source-path 10.0.0.11:/lun/0005
-destination-path svm_backup:volA_dst -type XDP -schedule my_daily
-policy Unified7year
```

The following example creates a unified replication relationship using the custom `my_unified` policy:

```
cluster_dst::> snapmirror create -source-path 10.0.0.11:/lun/0005
-destination-path svm_backup:volA_dst -type XDP -schedule my_daily
-policy my_unified
```

After you finish

Use the `snapmirror show` command to verify that the SnapMirror relationship was created. For complete command syntax, see the man page.

Create a relationship from an ONTAP source to an Element destination

Beginning with ONTAP 9.4, you can use SnapMirror to replicate Snapshot copies of a LUN created on an ONTAP source back to an Element destination. You might be using the LUN to migrate data from ONTAP to Element software.

Before you begin

- The Element destination node must have been made accessible to ONTAP.
- The Element volume must have been enabled for SnapMirror replication.

About this task

You must specify the Element destination path in the form *hostip:*/lun/*name*, where “lun” is the actual string “lun” and `name` is the name of the Element volume.

Replication rules are as follows:

- The replication relationship must have a policy of type “async-mirror”.

  You can use a default or custom policy.

- Only iSCSI LUNs are supported.
- You cannot replicate more than one LUN from an ONTAP volume to an Element volume.
- You cannot replicate a LUN from an ONTAP volume to multiple Element volumes.

Step

1. Create a replication relationship from an ONTAP source to an Element destination:

   `snapmirror create -source-path` *`SVM:volume|cluster://SVM/volume`* `-destination -path` *`hostip:`*`/lun/`*`name`* `-type XDP -schedule schedule -policy` *`policy`*

   For complete command syntax, see the man page.

   The following example creates a SnapMirror DR relationship using the default `MirrorLatest` policy:

   ```
   cluster_dst::> snapmirror create -source-path svm_1:volA_dst
   -destination-path 10.0.0.11:/lun/0005 -type XDP -schedule my_daily
   -policy MirrorLatest
   ```

   The following example creates a SnapMirror DR relationship using the custom `my_mirror` policy:

   ```
   cluster_dst::> snapmirror create -source-path svm_1:volA_dst
   -destination-path 10.0.0.11:/lun/0005 -type XDP -schedule my_daily
   -policy my_mirror
   ```

After you finish

Use the `snapmirror show` command to verify that the SnapMirror relationship was created. For complete command syntax, see the man page.