Installation and setup using the ONTAP CLI

ONTAP 9

NetApp
March 10, 2022

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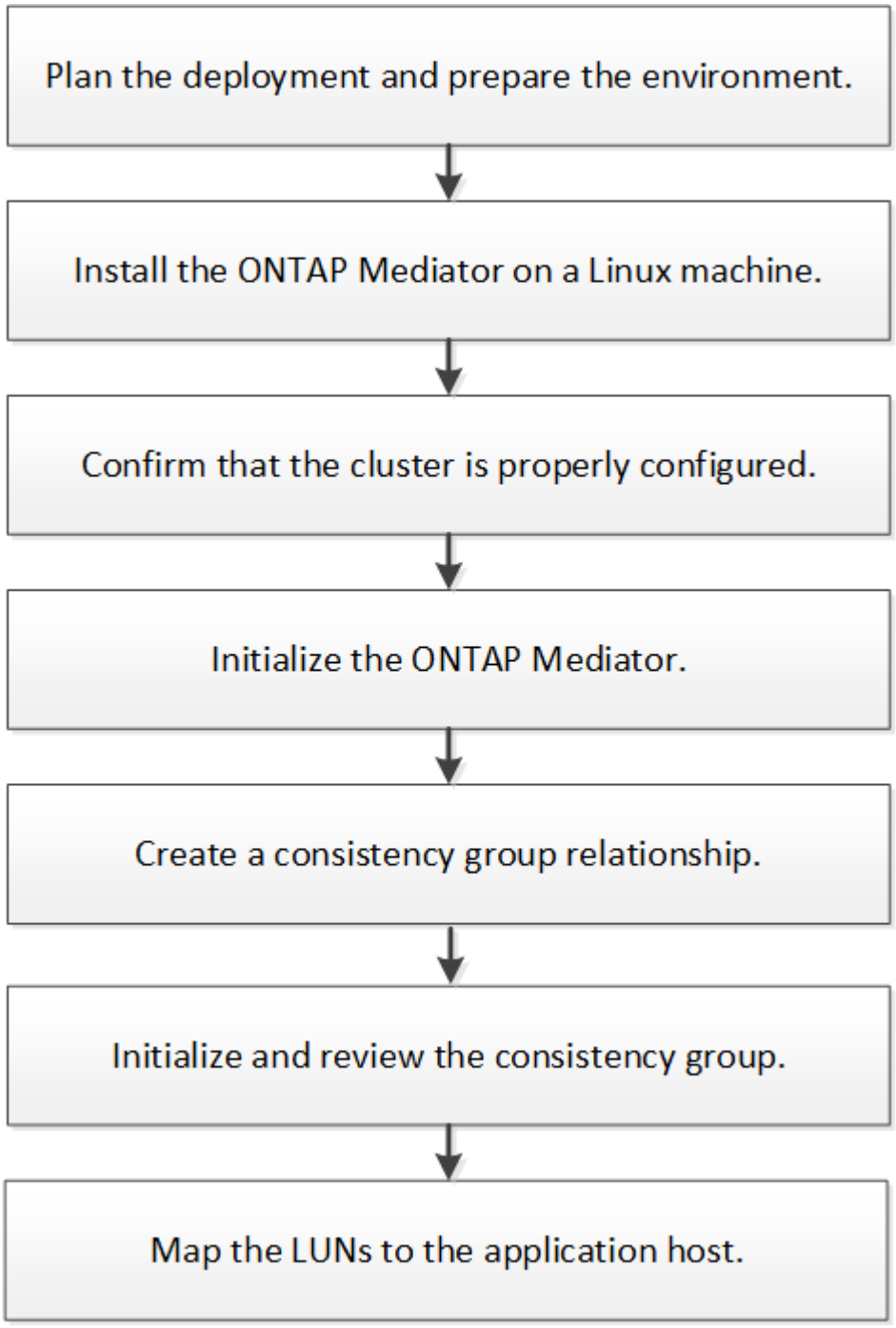
High level deployment workflow

You can use the following workflow to install and implement the SnapMirror Business Continuity solution.



Initialize the ONTAP Mediator

You must initialize Mediator on one of your cluster peers before SM-BC can perform

planned and automatic unplanned failover operations.

About this task

You can initialize Mediator from either cluster. When you issue the `mediator add` command on one cluster, Mediator is automatically added on the other cluster.

Steps

1. Initialize Mediator on one of the clusters:

   ```
   snapmirror mediator add -mediator-address IP_Address -peer-cluster
   cluster_name -username user_name
   ```

   Example

   ```
   cluster1::> snapmirror mediator add -mediator-address 192.168.10.1 -peer
   -cluster cluster2 -username mediatoradmin
   Notice: Enter the mediator password.

   Enter the password: ******
   Enter the password again: ******
   ```

2. Check the status of the Mediator configuration:

   ```
   snapmirror mediator show
   ```

   ```
   Mediator Address Peer Cluster     Connection Status Quorum Status
   ---------------- ---------------- ----------------- -------------
   192.168.10.1     cluster-2        connected         true
   ```

   `-quorum-status` indicates whether the SnapMirror consistency group relationships are synchronized with Mediator.

Create a consistency group relationship

You must create a SM-BC consistency group which also establishes the synchronous consistency group relationship.

This workflow applies to users in ONTAP 9.8 and 9.9.1. If using these ONTAP CLI commands beginning with ONTAP 9.10.1, they will still work to create a consistency group, however, it is recommended that you manage consistency groups with System Manager or the ONTAP REST API.

Before you begin

The following prerequisites and restrictions apply:

- You must be a cluster or storage VM administrator

- You must have a SnapMirror Synchronous license
- The destination volumes must be type DP
- The primary and the secondary storage VM must be in a peered relationship
- All constituent volumes in a consistency group must be in a single Storage VM
- You cannot establish SM-BC consistency group relationships across ASA clusters and non-ASA clusters
- The name of the consistency group must be unique

About this task

You must create the consistency group relationship from the destination cluster. You can map up to 12 constituents using the `cg-item-mappings` parameter on the `snapmirror create` command.

Steps

1. Create a consistency group and constituent relationship. This example creates two consistency groups: cg_src with constituent volumes vol1 and vol2, and cg_dist with constituent volumes vol1_dr and vol2_dr.

   ```
   destination::> snapmirror create -source-path vs1_src:/cg/cg_src -destination
   -path vs1_dst:/cg/cg_dst -cg-item-mappings
   vol_src1:@vol_dst1,vol_src2:@vol_dst2 -policy AutomatedFailOver
   ```

Initialize a consistency group

After creating a consistency group, you must initialize it.

> This workflow applies to users in ONTAP 9.8 and 9.9.1. If using these ONTAP CLI commands beginning with ONTAP 9.10.1, they will still work to initialize a consistency group, however, is recommended that you manage consistency groups with System Manager or the ONTAP REST API.

Before you begin

You must be a cluster or storage VM administrator.

About this task

You initialize the consistency group from the destination cluster.

Steps

1. Sign in to the ONTAP CLI at the destination cluster and initialize the consistency group:

   ```
   destination::>snapmirror initialize -destination-path vs1_dst:/cg/cg_dst
   ```

2. Confirm that the initialization operation completed successfully. The status should be `InSync`.

   ```
   snapmirror show
   ```

Mapping LUNs to the application hosts

You must create an igroup on each cluster so you can map LUNs to the initiator on the application host.

About this task

You should perform this configuration on both the source and destination clusters.

Steps

1. Create an igroup on each cluster:

   ```
   lun igroup create -igroup name -protocol fcp|iscsi -ostype os -initiator
   initiator_name
   ```

   Example

   ```
   lun igroup create -igroup ig1 -protocol iscsi -ostype linux -initiator
   -initiator iqn.2001-04.com.example:abc123
   ```

2. Map LUNs to the igroup:

   ```
   lun map -path path_name -igroup igroup_name
   ```

   Example:

   ```
   lun map -path /vol/src1/11 -group ig1
   ```

3. Verify the LUNs are mapped:

   ```
   lun show
   ```

4. On the application host, discover the new LUNs.