Installation and setup

ONTAP System Manager

NetApp
November 07, 2020

This PDF was generated from https://docs.netapp.com/us-en/ontap/smbc_install_high_level_deployment_workflow.html on November 07, 2020. Always check docs.netapp.com for the latest.

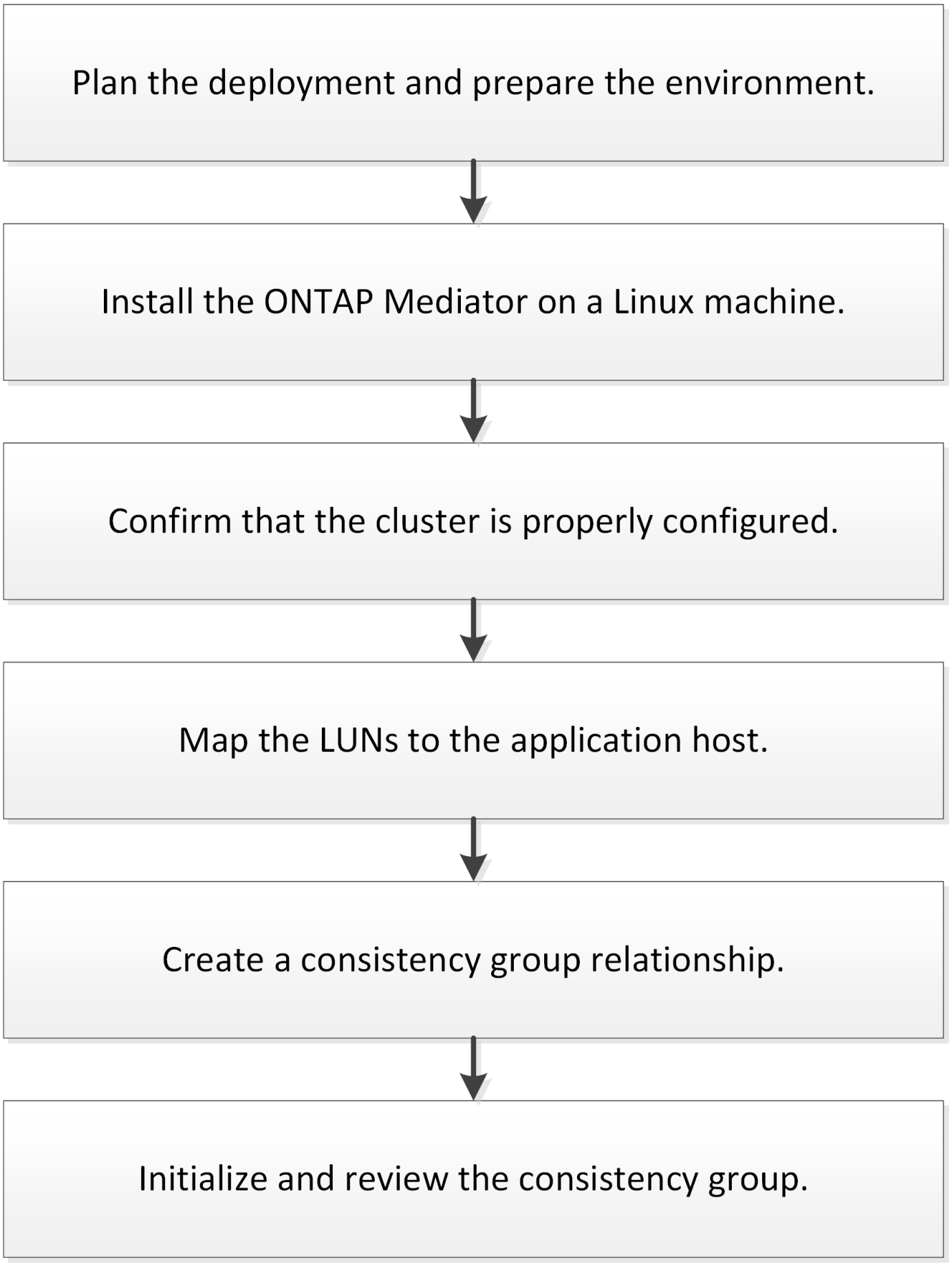
Table of Contents

Installation and setup 1
- High level deployment workflow 1
- Installing the ONTAP Mediator 3
- Confirm the ONTAP cluster configuration 3
- Mapping LUNs to the application hosts 4
- Creating a consistency group relationship 5
- Initializing a consistency group 6

Installation and setup

High level deployment workflow

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


Plan the deployment and prepare the environment.
Install the ONTAP Mediator on a Linux machine.
Confirm that the cluster is properly configured.
Map the LUNs to the application host.
Create a consistency group relationship.
Initialize and review the consistency group.

Installing the ONTAP Mediator

You must install the ONTAP Mediator, which includes accepting the licensing agreement, before you can configure and use the SnapMirror Business Continuity solution.

Before you begin

The following software is required:

- ONTAP Mediator 1.2 or later
- One of the following Linux distributions:
  - RHEL 7.6 or 7.7
  - CentOS 8.0 or 8.1

About this task

You should install the ONTAP Mediator at an external site that is physically separated from the two ONTAP clusters.

Steps

1. Sign into the Linux system that will host the ONTAP Mediator.
2. Download the mediator installation package from the ONTAP Mediator page.

   NetApp Downloads: ONTAP Mediator

3. Install the ONTAP Mediator and respond to all prompts as required:

   ```
   ./ontap-mediator_1.2
   ```

4. Optionally replace the self-signed SSL and certificate authority (CA) with the third party validated SSL Certificate and CA. Copy the contents of the ca.crt file from the ONTAP Mediator directory:

   ```
   /opt/netapp/lib/ontap_mediator/ontap_mediator/server_config
   ```

5. At the ONTAP CLI, install the certificate on both the local and peer cluster:

   ```
   security certificate install -type server-ca -vserver cserverName
   ```

Confirm the ONTAP cluster configuration

You should make sure that your source and destination clusters are configured properly.

About this task

Proceed through each of the following steps. For each step, you should confirm that the specific

configuration has been performed. Use the link included after each step to get more information as needed.

Steps

1. Confirm that a cluster peering relationship exists between the clusters.

   Configure peer relationships

2. Confirm that the Storage VMs are created on each cluster.

   Creating an SVM

3. Confirm that a peer relationship exists between the Storage VMs on each cluster.

   Creating an SVM peering relationship

4. Confirm that the volumes exist for your LUNs.

   Creating and managing volumes

5. Confirm that at least one SAN LIF is created on each node in the cluster.

   Considerations for LIFs in a cluster SAN environment

   Creating a LIF

6. Confirm that the necessary LUNs are created and mapped to igroup, which is used to map LUNs to the initiator on the application host.

   Create LUNs and map igroups

7. Rescan the application host to discover any new LUNs.

Mapping LUNs to the application hosts

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

About this task

You should perform this configuration at the source cluster.

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.

Creating a consistency group relationship

You must create a SnapMirror consistency group which also establishes the synchronous consistency group relationship.

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

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: srccg with constituent volumes vol1 and vol2, and dstcg 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
   ```

Initializing a consistency group

After creating a consistency group, you must initialize it.

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
   ```

Copyright Information

Copyright © 2020 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.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

Trademark Information

NETAPP, the NETAPP logo, and the marks listed at http://www.netapp.com/TM are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.