Provision SAN storage

ONTAP System Manager

NetApp
May 14, 2020

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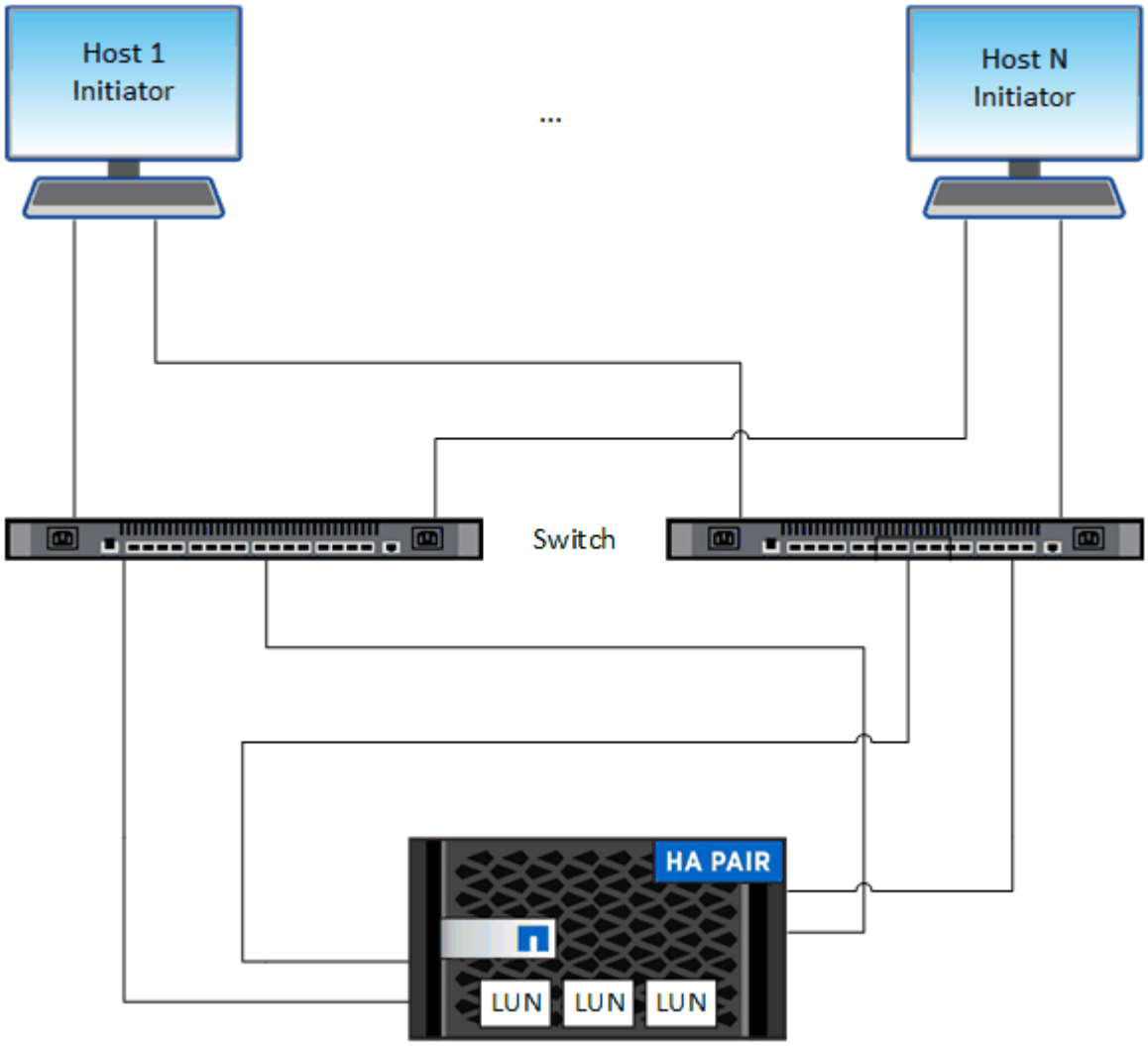
SAN Overview

You can use the iSCSI and FC protocols to provide storage in a SAN environment.



With iSCSI and FC, storage targets are called LUNs (logical units) and are presented to hosts as standard block devices. You create LUNs and then map them to initiator groups (igroups). Initiator groups are tables of FC host WWPs and iSCSI host node names and control which initiators have access to which LUNs.

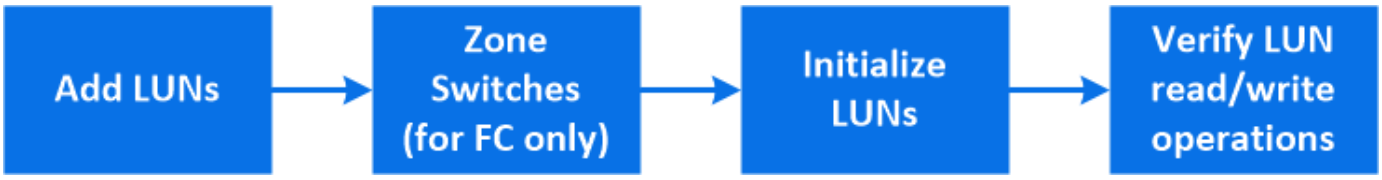
FC targets connect to the network through FC switches and host-side adapters and are identified by world-wide port names (WWPNs). iSCSI targets connect to the network through standard Ethernet network adapters (NICs), TCP offload engine (TOE) cards with software initiators, converged network adapters (CNAs) or dedicated host bust adapters (HBAs) and are identified by iSCSI qualified names (IQNs).

Learn more about SAN.

Provision SAN storage for VMware datastores

Create LUNs to provide storage for an ESXi host using the FC or iSCSI SAN protocol. LUNs appear as disks to the ESXi host.

This procedure creates new LUNs on an existing storage VM. Your FC or iSCSI protocol should already be set up.



Steps

1. In ONTAP System Manager, click **Storage** > **LUNs** and then click Add.

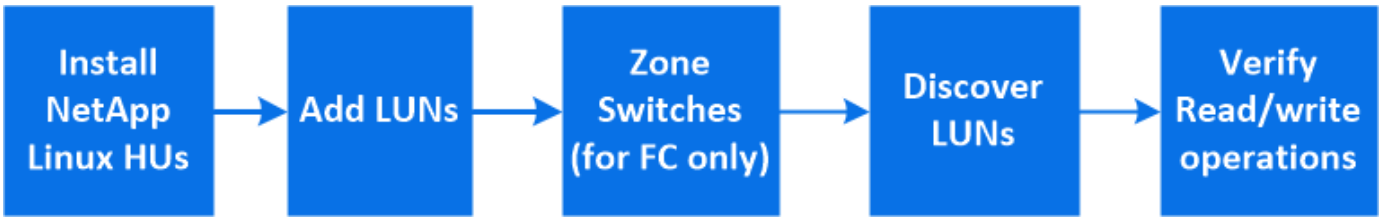
   If you need to create a new initiator group, click **More Options**.

2. For FC, zone your FC switches by WWPN. Use one zone per initiator and include all target ports in each zone.
3. Use Virtual Storage Console (VSC) for VMware vSphere, to discover and initialize the LUN and to verify that the ESXi hosts can write and read data on the LUN.

Provision SAN storage for Linux servers

Create LUNs to provide storage for a Linux server using the FC or iSCSI SAN protocol. LUNs appear to Linux as SCSI disk devices.

This procedure creates new LUNs on an existing storage VM. Your FC or iSCSI protocol should already be set up. You need to know the initiator identifiers (FC WWPN or iSCSI iqn) for your Linux server.



Steps

1. On your Linux server, install the NetApp Linux Host Utilities package.
2. In ONTAP System Manager, click **Storage** > **LUNs** and then click **Add**.

   If you need to create a new initiator group, click **More Options**.

3. For FC, zone your FC switches by WWPN. Use one zone per initiator and include all target ports in

each zone.

4. On your Linux server, discover the new LUNs:

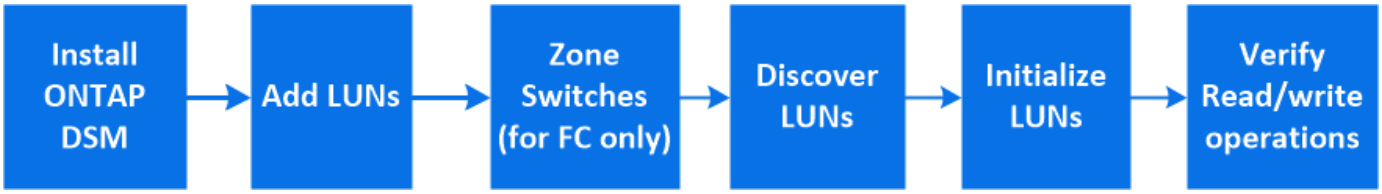
   ```
   /usr/bin/rescan-scsi-bus.sh
   ```

5. Optionally partition the LUNs and create file systems.
6. Verify the Linux server can write and read data on the LUN.

Provision SAN storage for Windows servers

Create LUNs to provide storage for a Windows server using the FC or iSCSI SAN protocol. LUNs appear as disks to the Windows host.

This procedure creates new LUNs on an existing storage VM. Your FC or iSCSI protocol should already be set up.



Steps

1. On your Windows server, install Data ONTAP DSM for Windows MPIO.
2. In ONTAP System Manager, click **Storage** > **LUNs**, and then click **Add**.

   If you need to create a new initiator group, click **More Options**.

3. For FC, zone your FC switches by WWPN. Use one zone per initiator and include all target ports in each zone.
4. On your Windows server, discover the new LUN.
5. Initialize the LUN and optionally format it with a file system.
6. Verify the Windows server can write and read data on the LUN.