



# Provision SAN storage

## ONTAP System Manager

NetApp

October 30, 2020

This PDF was generated from [https://docs.netapp.com/us-en/ontap/concept\\_san\\_provision\\_overview.html](https://docs.netapp.com/us-en/ontap/concept_san_provision_overview.html) on October 30, 2020. Always check docs.netapp.com for the latest.

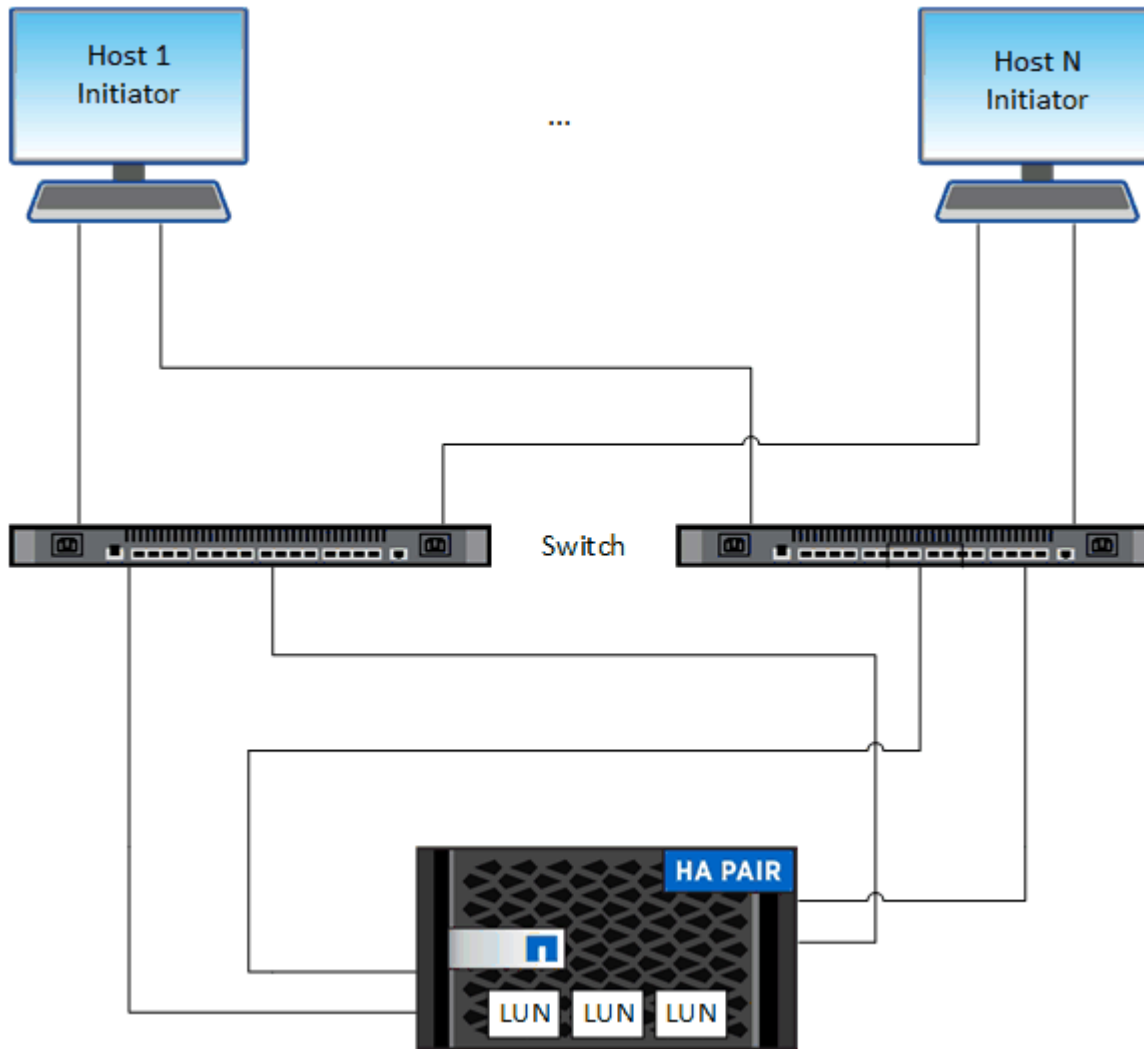
# Table of Contents

- Provision SAN storage ..... 1
  - SAN Overview ..... 1
  - Provision SAN storage for VMware datastores ..... 2
  - Provision SAN storage for Linux servers ..... 2
  - Provision SAN storage for Windows servers ..... 3

# Provision SAN storage

## 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 WWPNs 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 bus 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**.

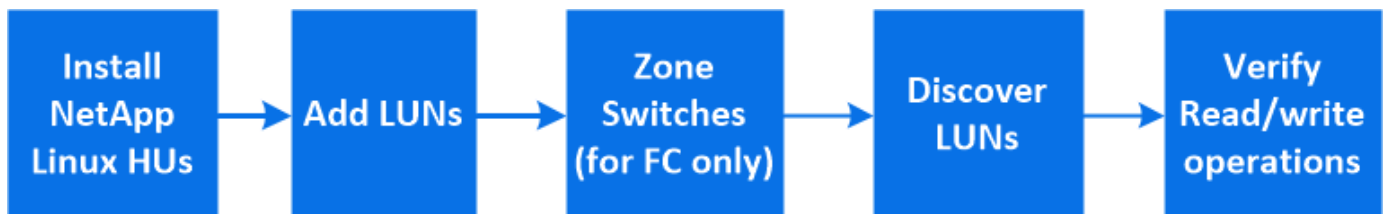
If you need to create a new initiator group, click **More Options**.

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:

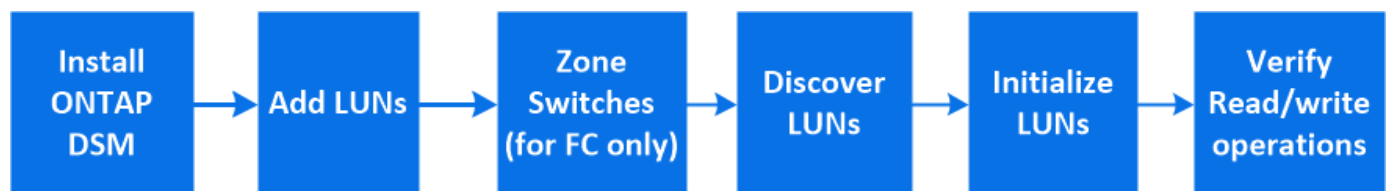
```
/usr/bin/rescan-scsi-bus.sh
```

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.

## 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.