



vSphere VMFS datastore - Fibre Channel storage backend with ONTAP

NetApp Solutions

Dorian Henderson, Josh Powell, Suresh Thoppay
July 20, 2021

This PDF was generated from https://docs.netapp.com/us-en/netapp-solutions/hybrid-cloud/vsphere_ontap_auto_block_fc.html on August 18, 2021. Always check docs.netapp.com for the latest.

Table of Contents

- vSphere VMFS datastore - Fibre Channel storage backend with ONTAP 1
 - About this task 1
 - What you need 1
 - Provisioning a VMFS datastore 1

vSphere VMFS datastore - Fibre Channel storage backend with ONTAP

About this task

This section covers the creation of a VMFS datastore with ONTAP Fibre Channel (FC) storage.

For automated provisioning, use one of these scripts: [\[PowerShell\]](#), [\[Ansible\]](#), or [\[Terraform\]](#).

What you need

- The basic skills necessary to manage a vSphere environment and ONTAP
- An ONTAP storage system (FAS/AFF/CVO/ONTAP Select/ASA) running ONTAP 9.8 or later
- ONTAP credentials (SVM name, userID, and password)
- ONTAP WWPN of host, target, and SVM and LUN information
- [The completed FC configuration worksheet](#)
- vCenter Server credentials
- vSphere host(s) information
 - vSphere 7.0 or later
- Fabric switch(es)
 - With connected ONTAP FC data ports and vSphere hosts
 - With the N_port ID virtualization (NPIV) feature enabled
 - Create a single initiator single target zone.
 - Create one zone for each initiator (single initiator zone).
 - For each zone, include a target that is the ONTAP FC logical interface (WWPN) for the SVMs. There should be at least two logical interfaces per node per SVM. Do not use the WWPN of the physical ports.
- An ONTAP Tool for VMware vSphere deployed, configured, and ready to consume.

Provisioning a VMFS datastore

To provision a VMFS datastore, complete the following steps:

1. Check compatibility with the [Interoperability Matrix Tool \(IMT\)](#)
2. Verify that the [FCP Configuration is supported](#).

ONTAP tasks

1. [Verify that you have an ONTAP license for FCP](#).
 - a. Use the `system license show` command to check that FCP is listed.
 - b. Use `licen se add -license-code <license code>` to add the license.
2. Make sure that the FCP protocol is enabled on the SVM.

- a. [Verify the FCP on an existing SVM.](#)
 - b. [Configure the FCP on an existing SVM.](#)
 - c. [Create s new SVM with the FCP.](#)
3. Make sure that FCP logical interfaces are available on an SVM.
 - a. Use `Network Interface show` to verify the FCP adapter.
 - b. When an SVM is created with the GUI, logical interfaces are a part of that process.
 - c. To rename network interfaces, use `Network Interface modify`.
4. [Create and Map a LUN.](#) Skip this step if you are using ONTAP tools for VMware vSphere.

VMware vSphere tasks

1. Verfiy that HBA drivers are installed. VMware supported HBAs have drivers deployed out of the box and should be visible in the [Storage Adapter Information](#).
2. [Provision a VMFS datastore with ONTAP Tools.](#)

Copyright Information

Copyright © 2021 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.