



# **vSphere VMFS Datastore - NVMe/FC with ONTAP**

NetApp Solutions

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# vSphere VMFS Datastore - NVMe/FC with ONTAP

## About this task

This section covers the creation of a VMFS datastore with ONTAP storage using NVMe/FC.

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

## What you need

- Basic skills needed to manage a vSphere environment and ONTAP.
- [Basic understanding of NVMe/FC](#).
- 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 for host, target, and SVMs and LUN information
- [A completed FC configuration worksheet](#)
- vCenter Server
- vSphere host(s) information (vSphere 7.0 or later)
- Fabric switch(es)
  - With ONTAP FC data ports and vSphere hosts connected.
  - With the N\_port ID virtualization (NPIV) feature enabled.
  - Create a single initiator 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 physical ports.

## Provision VMFS datastore

1. Check compatibility with the [Interoperability Matrix Tool \(IMT\)](#).
2. [Verify that the NVMe/FC configuration is supported](#).

## ONTAP tasks

1. [Verify the ONTAP license for FCP](#).  
Use the `system license show` command and check if NVMe\_oF is listed.  
Use `license add -license-code <license code>` to add a license.
2. Verify that NVMe protocol is enabled on the SVM.
  - a. [Configure SVMs for NVMe](#).
3. Verify that NVMe/FC Logical Interfaces are available on the SVMs.
  - a. Use `Network Interface show` to verify the FCP adapter.
  - b. When an SVM is created with the GUI, logical interfaces are as part of that process.

c. To rename the network interface, use the command `Network Interface modify`.

4. [Create NVMe namespace and subsystem](#)

## VMware vSphere Tasks

1. Verify that HBA drivers are installed. VMware supported HBAs have the drivers deployed out of the box and should be visible at [Storage Adapter Information](#)
2. [Perform vSphere Host NVMe driver installation and validation tasks](#)
3. [Create VMFS Datastore](#)

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