



# **vSphere VMFS datastore - Fibre Channel storage backend with ONTAP**

## **NetApp Solutions**

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# 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 compatability 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.](#)

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