



# **Traditional File Storage Provisioning**

## **NetApp Solutions**

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# vSphere traditional file storage provisioning with ONTAP

VMware vSphere supports following NFS protocols, both of which support ONTAP.

- [NFS Version 3](#)
- [NFS Version 4.1](#)

If you need help selecting the correct NFS version for vSphere, check [this comparison of NFS client versions](#).

## Reference

[vSphere datastore and protocol features: NFS](#)

## vSphere NFS datastore - Version 3 with ONTAP

### About this task

Creation of NFS version 3 datastore with ONTAP NAS storage.

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

### What you need

- The basic skill necessary to manage a vSphere environment and ONTAP.
- An ONTAP storage system (FAS/AFF/CVO/ONTAP Select/Cloud Volume Service/Azure NetApp Files) running ONTAP 9.8 or later
- ONTAP credentials (SVM name, userID, password)
- ONTAP network port, SVM, and LUN information for NFS
  - [A completed NFS configuration worksheet](#)
- vCenter Server credentials
- vSphere host(s) information for vSphere 7.0 or later
- NFS VMKernel adapter IP information
- Network switch(es)
  - with ONTAP system network data ports and connected vSphere hosts
  - VLAN(s) configured for NFS
  - (Optional) link aggregation configured for ONTAP network data ports
- ONTAP Tool for VMware vSphere deployed, configured, and ready to consume

### Steps

- Check compatibility with the [Interoperability Matrix Tool \(IMT\)](#)
  - [Verify that the NFS configuration is supported.](#)
- Complete the following ONTAP and vSphere tasks.

## ONTAP tasks

1. [Verify the ONTAP license for NFS.](#)
  - a. Use the `system license show` command and check that NFS is listed.
  - b. Use `license add -license-code <license code>` to add a license.
2. [Follow the NFS configuration workflow.](#)

## VMware vSphere Tasks

[Follow the workflow for NFS client configuration for vSphere.](#)

## Reference

[vSphere datastore and protocol features: NFS](#)

## What's next?

After these tasks are completed, the NFS datastore is ready to consume for provisioning virtual machines.

# vSphere NFS Datastore - Version 4.1 with ONTAP

## About this task

This section describes the creation of an NFS version 4.1 datastore with ONTAP NAS 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
- ONTAP Storage System (FAS/AFF/CVO/ONTAP Select/Cloud Volume Service/Azure NetApp Files) running ONTAP 9.8 or later
- ONTAP credentials (SVM name, userID, password)
- ONTAP network port, SVM, and LUN information for NFS
- [A completed NFS configuration worksheet](#)
- vCenter Server credentials
- vSphere host(s) information vSphere 7.0 or later
- NFS VMKernel adapter IP information
- Network switch(es)
  - with ONTAP system network data ports, vSphere hosts, and connected
  - VLAN(s) configured for NFS
  - (Optional) link aggregation configured for ONTAP network data ports
- ONTAP Tools for VMware vSphere deployed, configured, and ready to consume

## Steps

- Check compatibility with the [Interoperability Matrix Tool \(IMT\)](#).
  - [Verify that the NFS configuration is supported.](#)
- Complete the ONTAP and vSphere Tasks provided below.

## ONTAP tasks

1. [Verify ONTAP license for NFS](#)
  - a. Use the `system license show` command to check whether NFS is listed.
  - b. Use `license add -license-code <license code>` to add a license.
2. [Follow the NFS configuration workflow](#)

## VMware vSphere tasks

[Follow the NFS Client Configuration for vSphere workflow.](#)

## What's next?

After these tasks are completed, the NFS datastore is ready to consume for provisioning virtual machines.

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