



Provision NAS storage for both Windows and Linux using both NFS and SMB/CIFS

ONTAP 9

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June 16, 2021

This PDF was generated from https://docs.netapp.com/us-en/ontap/task_nas_provision_nfs_and_smb.html on July 15, 2021. Always check docs.netapp.com for the latest.

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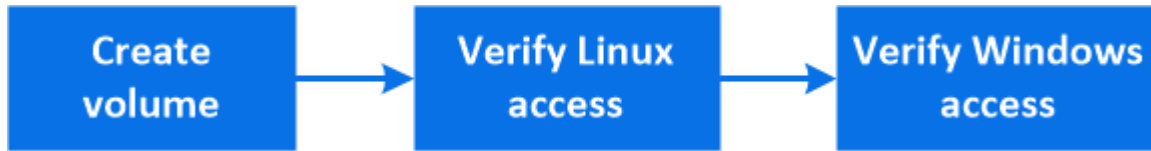
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Provision NAS storage for both Windows and Linux using both NFS and SMB/CIFS

Create volumes to provide storage for clients using either the NFS or SMB/CIFS protocol.

This procedure creates new volumes on an [existing storage VM enabled for both NFS and SMB protocols](#).



You can create FlexVol volumes, or for large file systems with high performance requirements, you can create FlexGroup volumes. See also [Provision NAS storage for large file systems using FlexGroup volumes](#).

You can also save the specifications of this volume to an Ansible Playbook. For more details, go to [Use Ansible Playbooks to add or edit volumes or LUNs](#).

Steps

1. Add a new volume in a storage VM enabled for both NFS and SMB/CIFS.
 - a. Click **Storage > Volumes** and then click **Add**.
 - b. Enter a name, select the storage VM, and enter a size. Only storage VMs configured with both the NFS and SMB protocols are listed. If only one storage VM configured with the NFS and SMB protocols is available, the **Storage VM** field is not shown.
 - c. Click **More Options** and select **Share via NFS**.

The default setting grants full access to all users. You can add more restrictive rules to the export policy later.

- d. Select **Share via SMB/CIFS**.

The share is created with a default Access Control List (ACL) set to "Full Control" for the **Everyone** group. You can add restrictions to the ACL later.

- e. If you click **Save** at this point, System Manager uses system defaults to create and add a FlexVol volume.

Alternatively, you can continue to enable any additional required services such as authorization, quality of service, and data protection. Refer to [Customize the volume configuration](#), then return here to complete the following steps.

2. On a Linux client, verify that the export is accessible.
 - a. Create and mount the volume using the network interface of the storage VM.
 - b. On the newly mounted volume, create a test file, write text to it, and then delete the file.
3. On a Windows client, do the following to verify that the share is accessible.
 - a. In Windows Explorer, map a drive to the share in the following format:
`_SMB_Server_Name__Share_Name_`
 - b. On the newly created drive, create a test file, write text to it, and then delete the file.

After verifying access, you can [restrict client access with the volume's export policy](#), [restrict client access with the share ACL](#), and set any desired ownership and permissions on the exported and shared volume.

Customize the volume configuration

You can customize the volume configuration when you add volumes instead of accepting the system defaults.

Procedure

After clicking **More options**, select the functionality you need and enter the required values.

- Cache for remote volume.
- Performance service level (quality of service, QoS).

Starting with ONTAP 9.8, you can specify a Custom QoS policy or disable QoS, in addition to the default Value selection.

- To disable QoS, select **Custom, Existing**, then **none**.
- If you select **Custom** and specify an existing service level, a local tier is automatically chosen.
- Starting with ONTAP 9.9.1, if you choose to create a custom performance service level, you can use System Manager to manually select the local tier (**Manual placement**) on which you want to place the volume you are creating.

This option is not available if you select the remote cache or FlexGroup volume options.

- FlexGroup volumes (select **Distribute volume data across the cluster**).

This option is not available if you previously selected **Manual placement** under **Performance Service Level**. Otherwise, the volume you are adding becomes a FlexVol volume by default.

- Access permissions for the protocols for which the volume is configured.
- Data protection with SnapMirror (local or remote), then specify the protection policy and settings for the destination cluster from the pull-down lists.
- Click **Save** to create the volume and add it to the cluster and storage VM.



After you save the volume, return to [Step 2 in the workflow](#) to complete multiprotocol provisioning for Windows and Linux servers.

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