



# Azure NetApp Files

## Cloud Manager

NetApp

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# Azure NetApp Files

## Learn about Azure NetApp Files

Azure NetApp Files enables enterprises to migrate and run their performance-intensive and latency-sensitive core, business-critical applications in Azure with no need to refactor for the cloud.

### Features

- Support for multiple protocols enables "lift & shift" of both Linux & Windows applications to run seamlessly in Azure.
- Multiple performance tiers allow for close alignment with workload performance requirements.
- Leading certifications including SAP HANA, GDPR, and HIPPA enables migration of the most demanding workloads to Azure.

### Additional features in Cloud Manager

- Migrate NFS or SMB data to Azure NetApp Files directly from Cloud Manager. Data migrations are powered by NetApp's Cloud Sync service. [Learn more.](#)
- Using Artificial Intelligence (AI) driven technology, Cloud Compliance can help you understand data context and identify sensitive data that resides in your Azure NetApp Files accounts. [Learn more.](#)

### Cost

[View Azure NetApp Files pricing.](#)

Note that your subscription and charging are maintained by the Azure NetApp Files service and not by Cloud Manager.

### Supported regions

[View supported Azure regions.](#)

### Requesting access

You need to be granted access to Azure NetApp Files by [submitting an online request](#). You'll need to wait for approval from the Azure NetApp Files team before you can proceed.

## Getting help

For technical support issues associated with Azure NetApp Files, use the Azure portal to log a support request to Microsoft. Select your associated Microsoft subscription and select the **Azure NetApp Files** service name under **Storage**. Provide the remaining information required to create your Microsoft support request.

For issues related to Cloud Sync and Azure NetApp Files, you can start with NetApp using your Cloud Sync serial number directly from the Cloud Sync service. You will need to access the Cloud Sync service through the link in Cloud Manager. [View the process to enable Cloud Sync support.](#)

## Related links

- [NetApp Cloud Central: Azure NetApp Files](#)
- [Azure NetApp Files documentation](#)
- [Cloud Sync documentation](#)

## Setting up Azure NetApp Files

Create an Azure NetApp Files working environment in Cloud Manager to create and manage NetApp accounts, capacity pools, volumes, and snapshots.

### Quick start

Get started quickly by following these steps or scroll down to the remaining sections for full details.



#### Request access

[Submit an online request](#) to be granted access to Azure NetApp Files.



#### Set up an Azure AD application

From Azure, grant permissions to an Azure AD application and copy the application (client) ID, the directory (tenant) ID, and the value of a client secret.



#### Create an Azure NetApp Files working environment

In Cloud Manager, click **Add Working Environment > Microsoft Azure > Azure NetApp Files** and then provide details about the AD application.

## Requesting access

You need to be granted access to Azure NetApp Files by [submitting an online request](#). You'll need to wait for approval from the Azure NetApp Files team before you can proceed.

## Setting up an Azure AD application

Cloud Manager needs permissions to set up and manage Azure NetApp Files. You can grant the required permissions to an Azure account by creating and setting up an Azure AD application and by obtaining the Azure credentials that Cloud Manager needs.

### Creating the AD application

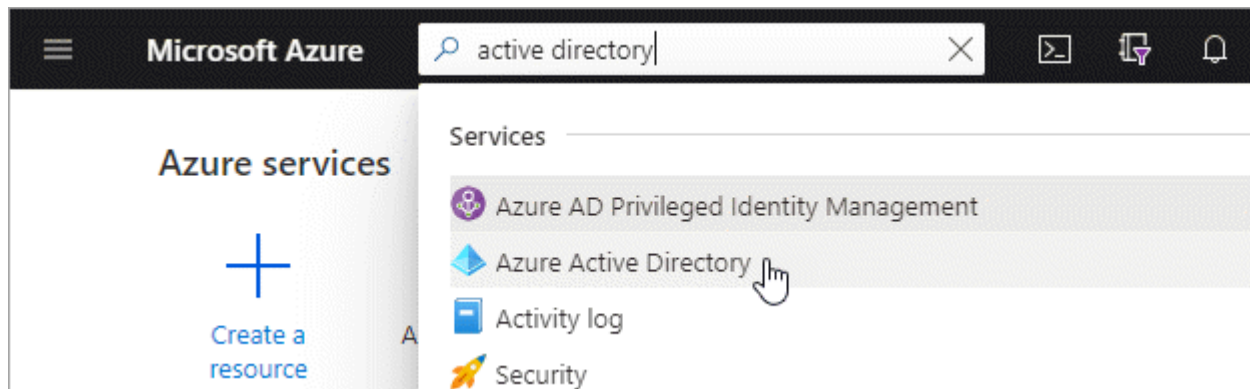
Create an Azure Active Directory (AD) application and service principal that Cloud Manager can use for role-based access control.

#### *Before you begin*

You must have the right permissions in Azure to create an Active Directory application and to assign the application to a role. For details, refer to [Microsoft Azure Documentation: Required permissions](#).

#### *Steps*

1. From the Azure portal, open the **Azure Active Directory** service.



2. In the menu, click **App registrations**.
3. Create the application:
  - a. Click **New registration**.
  - b. Specify details about the application:
    - **Name:** Enter a name for the application.
    - **Account type:** Select an account type (any will work with Cloud Manager).
    - **Redirect URI:** You can leave this blank.
  - c. Click **Register**.
4. Copy the **Application (client) ID** and the **Directory (tenant) ID**.

Home > NetApp HCL | App registrations >

## azure-netapp-files

Search (Ctrl+/) << Delete Endpoints

- Overview
- Quickstart
- Integration assistant (preview)
- Manage

Display name : azure-netapp-files

Application (client) ID : e461f4ca-9d9a-4aec-8f39-fc842b684c97

Directory (tenant) ID : 8e21f23a-10b9-46fb-9d50-720ef604be98

Object ID : a910846e-a497-4838-a3bc-9c2c01625056


When you create the Azure NetApp Files working environment in Cloud Manager, you need to provide the application (client) ID and the directory (tenant) ID for the application. Cloud Manager uses the IDs to programmatically sign in.

5. Create a client secret for the application so Cloud Manager can use it to authenticate with Azure AD:
  - a. Click **Certificates & secrets > New client secret**.
  - b. Provide a description of the secret and a duration.
  - c. Click **Add**.
  - d. Copy the value of the client secret.

**Client secrets**

A secret string that the application uses to prove its identity when requesting a token. Also can be referred to as application password.

[+ New client secret](#)

Description	Expires	Value	Copy to clipboard
Azure NetApp Files	7/30/2022	3gywMgvF1rxtle8jU1po6~...	

### Result

Your AD application is now setup and you should have copied the application (client) ID, the directory (tenant) ID, and the value of the client secret. You need to enter this information in Cloud Manager when you add an Azure NetApp Files working environment.

### Assigning the app to a role

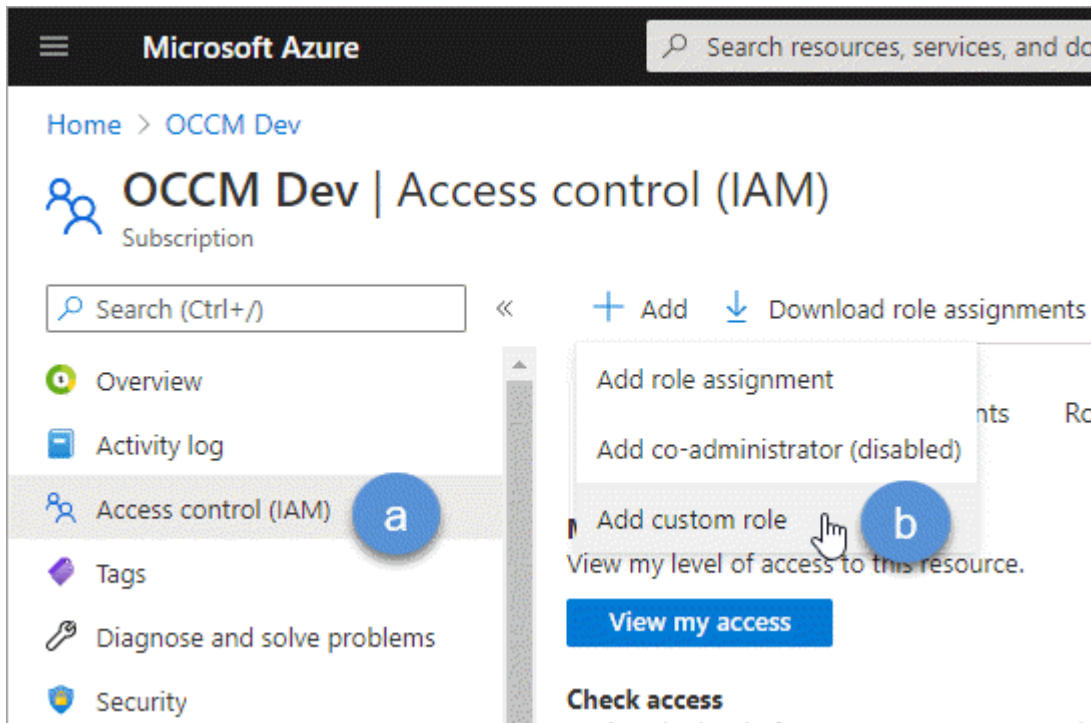
You must bind the service principal to your Azure subscription and assign it a custom role that has the required permissions.

## Steps

### 1. Create a custom role in Azure.

The following steps describe how to create the role from the Azure portal.

- a. Open the subscription and click **Access control (IAM)**.
- b. Click **Add > Add custom role**.



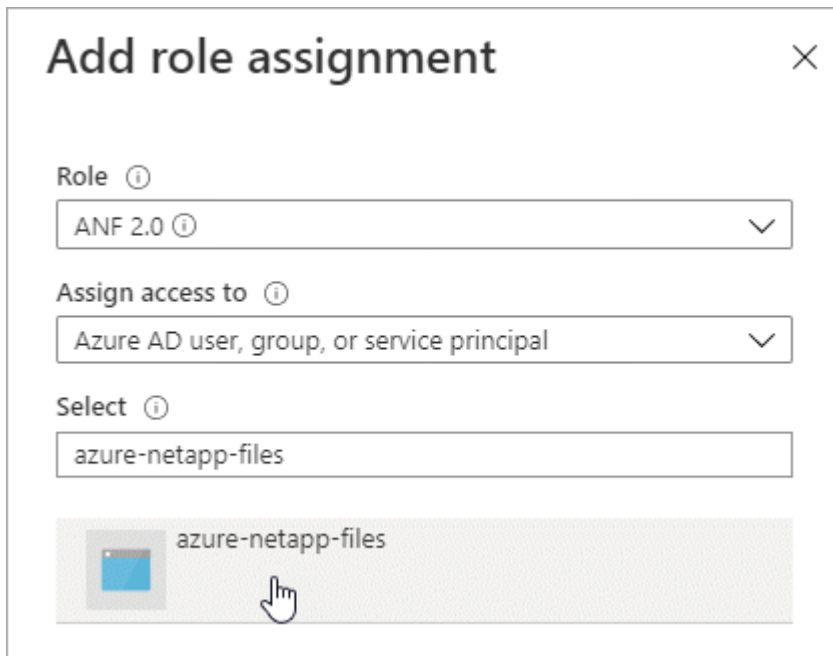
- c. In the **Basics** tab, enter a name and description for the role.
- d. Click **JSON** and click **Edit** which appears at the top right of the JSON format.
- e. Add the following permissions under *actions*:

```
"actions": [  
  "Microsoft.NetApp/*",  
  "Microsoft.Resources/resources/read",  
  "Microsoft.Resources/subscriptions/resourceGroups/read",  
  "Microsoft.Resources/subscriptions/resourcegroups/resources/read",  
  "Microsoft.Resources/subscriptions/resourceGroups/write",  
  "Microsoft.Network/virtualNetworks/read",  
  "Microsoft.Insights/Metrics/Read"  
],
```

- f. Click **Save**, click **Next**, and then click **Create**.
- ### 2. Now assign the application to the role that you just created:
- a. From the Azure portal, open the subscription and click **Access control (IAM) > Add > Add role**

**assignment.**

- b. Select the custom role that you created.
- c. Keep **Azure AD user, group, or service principal** selected.
- d. Search for the name of the application (you can't find it in the list by scrolling).



**Add role assignment** ✕

Role ⓘ  
ANF 2.0 ⓘ

Assign access to ⓘ  
Azure AD user, group, or service principal

Select ⓘ  
azure-netapp-files

azure-netapp-files

- e. Select the application and click **Save**.

The service principal for Cloud Manager now has the required Azure permissions for that subscription.

## Creating an Azure NetApp Files working environment

Set up an Azure NetApp Files working environment in Cloud Manager so you can start creating volumes.

1. From the Working Environments page, click **Add Working Environment**.
2. Select **Microsoft Azure** and then **Azure NetApp Files**.
3. Provide details about the AD application that you previously set up.



### Azure NetApp Files Credentials

Working Environment Name

ANF

Application (client) ID

e461f4ca-9d9a-4aec-8f39-fc842b684c97

Client Secret

.....

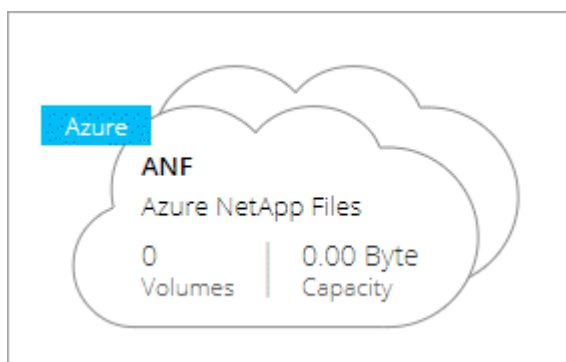
Directory (tenant) ID

8e21f23a-10b9-46fb-9d50-720ef604be98

4. Click **Add**.

#### Result

You should now have an Azure NetApp Files working environment.



#### What's next?

[Start creating and managing volumes.](#)

## Creating and managing volumes for Azure NetApp Files

After you set up your working environment, you can create and manage Azure

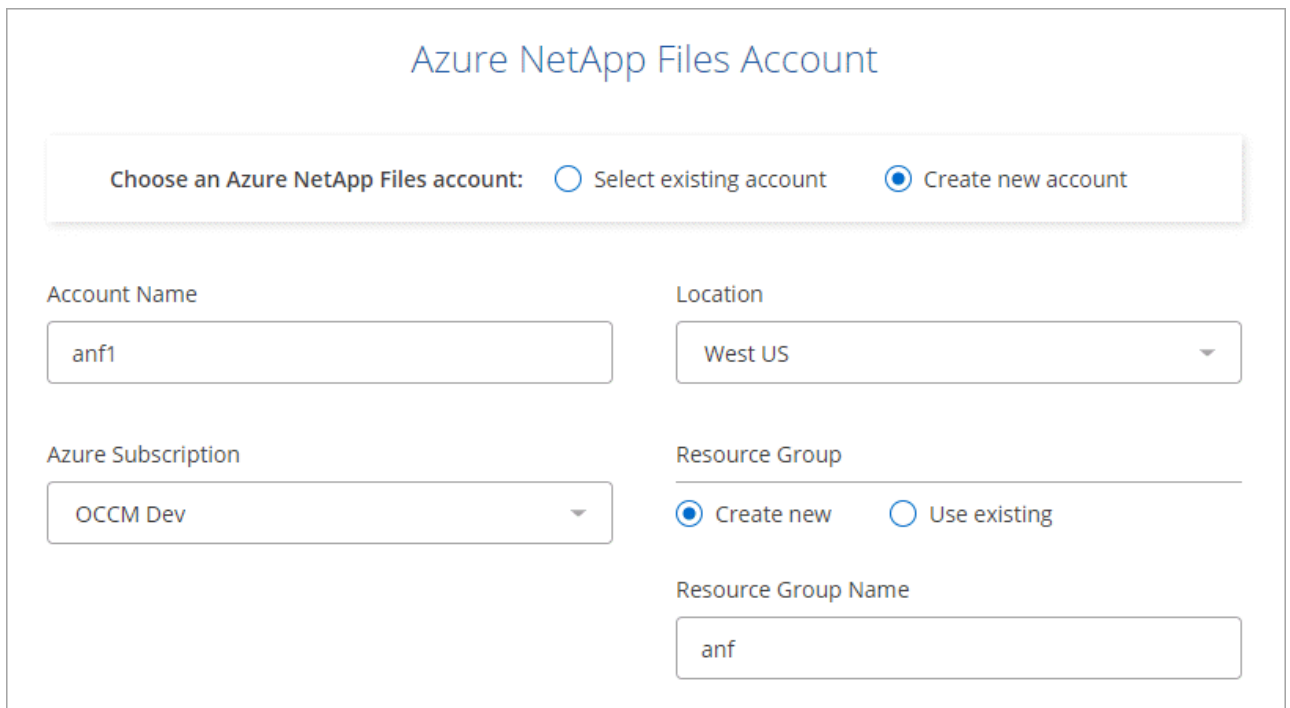
NetApp Files accounts, capacity pools, volumes, and snapshots.

## Creating volumes

You can create NFS or SMB volumes in a new or existing Azure NetApp Files account.

### Steps

1. Open the Azure NetApp Files working environment.
2. Click **Add New Volume**.
3. Provide the required information on each page:
  - **Azure NetApp Files Account:** Choose an existing Azure NetApp Files account or create a new account.



The screenshot shows the 'Azure NetApp Files Account' creation form. At the top, it says 'Choose an Azure NetApp Files account:' with two radio buttons: 'Select existing account' (unselected) and 'Create new account' (selected). Below this, there are four input fields arranged in a 2x2 grid. The top-left field is 'Account Name' with the value 'anf1'. The top-right field is 'Location' with a dropdown menu showing 'West US'. The bottom-left field is 'Azure Subscription' with a dropdown menu showing 'OCCM Dev'. The bottom-right field is 'Resource Group' with two radio buttons: 'Create new' (selected) and 'Use existing' (unselected). Below the 'Resource Group' radio buttons is a text input field for 'Resource Group Name' with the value 'anf'.

- **Capacity Pool:** Select an existing capacity pool or create a new capacity pool.

If you create a new capacity pool, you need to specify a size and select a [service level](#).

The minimum size for the capacity pool is 4 TB. You can specify a size in multiples of 4 TB.

- **Details & Tags:** Enter a volume name and size, the VNet and subnet where the volume should reside, and optionally specify tags for the volume.
- **Protocol:** Choose the NFS or SMB protocol and enter the required information.

Here's an example of details for NFS.

### Protocol

Select the volume's protocol:
 ☒ NFS Protocol
 ☐ SMB Protocol

Volume Path

Select NFS Version:
 ☒ NFSv3
 ☐ NFSv4.1

Allowed Client & Access
 

☒ Read & Write
 ☐ Read Only
 ✕

☒ Read & Write
 ☐ Read Only
 ✕

Here's an example of details for SMB. You'll need to provide Active Directory information when you set up your first SMB volume.

### Protocol

Select the volume's protocol:
 ☐ NFS Protocol
 ☒ SMB Protocol

Protocol
 

Share Name

Active Directory
 

Choose an Active Directory connection joined to your Azure NetApp Files account

Active Directory
 

▼

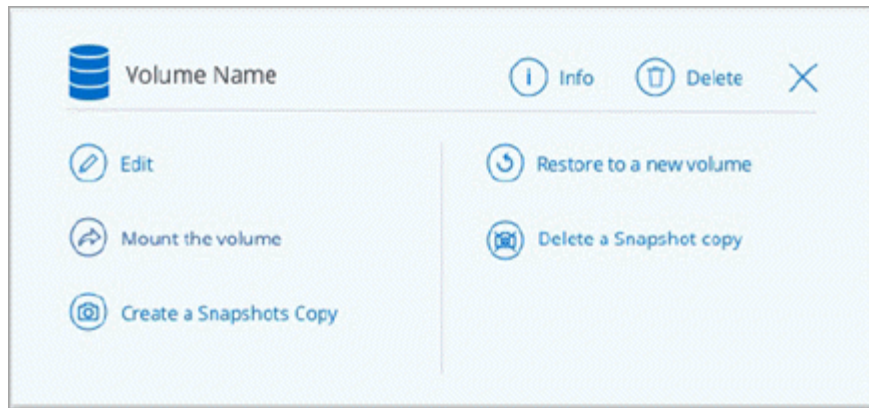
4. Click **Add Volume**.

## Mounting volumes

Access mounting instructions from within Cloud Manager so you can mount the volume to a host.

### Steps

1. Open the working environment.
2. Hover over the volume and select **Mount the volume**.



3. Follow the instructions to mount the volume.

## Editing a volume's size and tags

After you create a volume, you can modify its size and tags at any time.

### Steps

1. Open the working environment.
2. Hover over the volume and select **Edit**.
3. Modify the size and tags as needed.
4. Click **Apply**.

## Managing Snapshot copies

Snapshot copies provide a point-in-time copy of your volume. Create Snapshot copies, restore the data to a new volume, and delete Snapshot copies.

### Steps

1. Open the working environment.
2. Hover over the volume and choose one of the available options to manage Snapshot copies:
  - **Create a Snapshot copy**
  - **Restore to a new volume**
  - **Delete a Snapshot copy**
3. Follow the prompts to complete the selected action.

## Deleting volumes

Delete the volumes that you no longer need.

### Steps

1. Open the working environment.

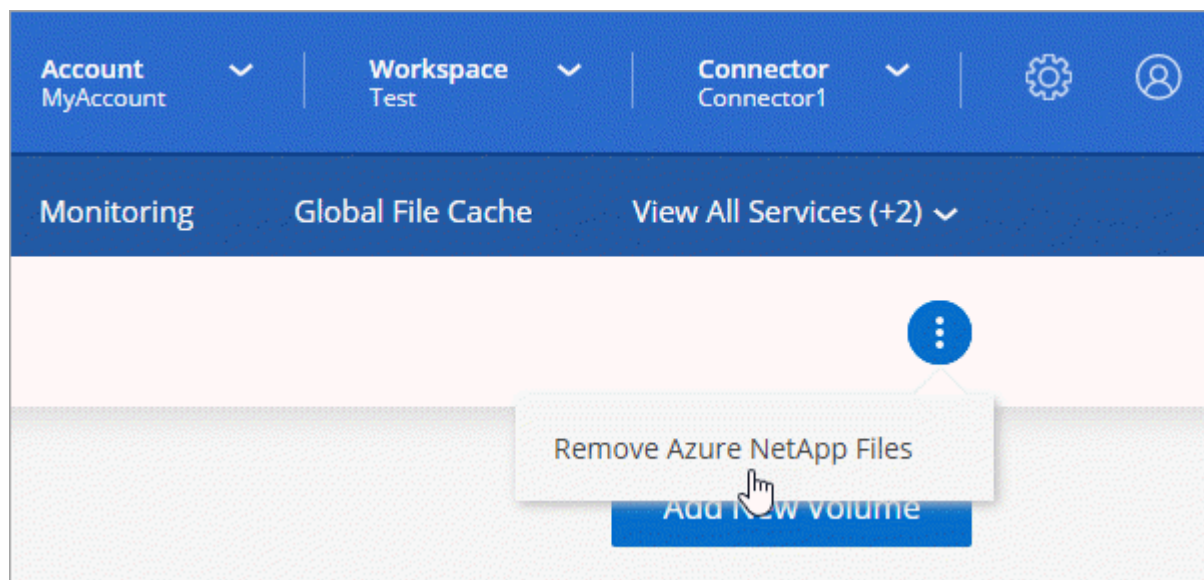
2. Hover over the volume and click **Delete**.
3. Confirm that you want to delete the volume.

## Removing Azure NetApp Files

This action removes Azure NetApp Files from Cloud Manager. It doesn't delete your Azure NetApp Files account or volumes. You can add Azure NetApp Files back to Cloud Manager at any time.

### Steps

1. Open the Azure NetApp Files working environment.
2. At the top right of the page, select the actions menu and click **Remove Azure NetApp Files**.



3. Click **Remove** to confirm.

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