



# **Creating a Connector in Azure from Cloud Manager**

## **Cloud Manager**

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# Creating a Connector in Azure from Cloud Manager

An Account Admin needs to deploy a *Connector* before you can use most Cloud Manager features. [Learn when a Connector is required](#). The Connector enables Cloud Manager to manage resources and processes within your public cloud environment.

This page describes how to create a Connector in Azure directly from Cloud Manager. You also have the option to [create the Connector from the Azure Marketplace](#), or to [download the software and install it on your own host](#).

These steps must be completed by a user who has the Account Admin role. A Workspace Admin can't create a Connector.



When you create your first Cloud Volumes ONTAP working environment, Cloud Manager will prompt you to create a Connector if you don't have one yet.

## Setting up Azure permissions to create a Connector

Before you can deploy a Connector from Cloud Manager, you need to ensure that your Azure account has the correct permissions.

### Steps

1. Create a custom role using the Azure policy for the Connector:
  - a. Download the [Azure policy for the Connector](#).



Right-click the link and click **Save link as...** to download the file.

- b. Modify the JSON file by adding your Azure subscription ID to the assignable scope.

### Example

```
"AssignableScopes": [  
  "/subscriptions/d333af45-0d07-4154-943d-c25fbzzzzzzz"  
],
```

- c. Use the JSON file to create a custom role in Azure.

The following example shows how to create a custom role using the Azure CLI 2.0:

```
az role definition create --role-definition  
C:\Policy_for_Setup_As_Service_Azure.json
```

You should now have a custom role called *Azure SetupAsService*.

2. Assign the role to the user who will deploy the Connector from Cloud Manager:
  - a. Open the **Subscriptions** service and select the user's subscription.

- b. Click **Access control (IAM)**.
- c. Click **Add > Add role assignment** and then add the permissions:
  - Select the **Azure SetupAsService** role.



Azure SetupAsService is the default name provided in the [Connector deployment policy for Azure](#). If you chose a different name for the role, then select that name instead.

- Assign access to an **Azure AD user, group, or application**.
- Select the user account.
- Click **Save**.

### Result

The Azure user now has the permissions required to deploy the Connector from Cloud Manager.

## Creating a Connector in Azure

Cloud Manager enables you to create a Connector in Azure directly from its user interface.

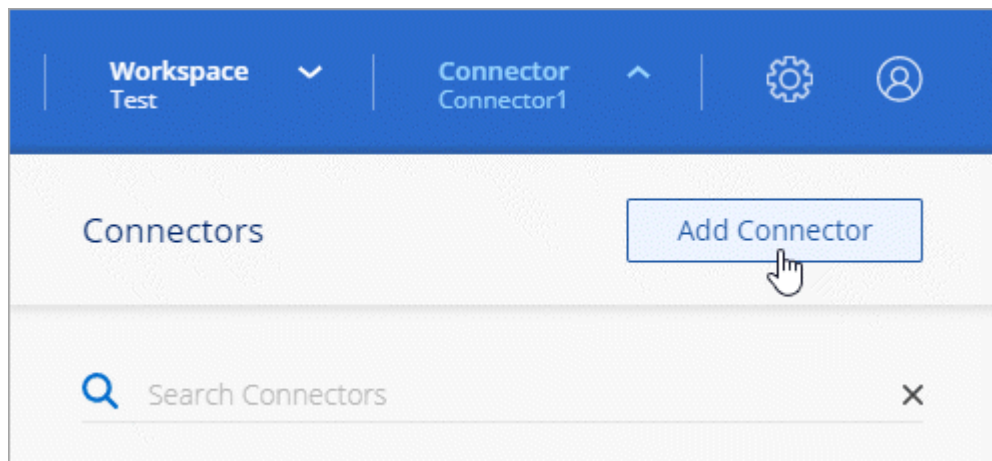
### What you'll need

- The [required permissions](#) for your Azure account.
- An Azure subscription.
- A VNet and subnet in your Azure region of choice.
- If you don't want Cloud Manager to automatically create an Azure role for the Connector, then you'll need to create your own [using this policy](#).

These permissions are for the Connector instance. It's a different set of permissions than what's provided in the first bullet above.

### Steps

1. If you're creating your first Working Environment, click **Add Working Environment** and follow the prompts. Otherwise, click the **Connector** drop-down and select **Add Connector**.



2. Choose **Microsoft Azure** as your cloud provider.

Remember that the Connector must have a network connection to the type of working environment that you're creating and the services that you're planning to enable.

[Learn more about networking requirements for the Connector.](#)

3. Follow the steps in the wizard to create the Connector:

- **Get Ready:** Review what you'll need.
- If you're prompted, log in to your Microsoft account, which should have the required permissions to create the virtual machine.

The form is owned and hosted by Microsoft. Your credentials are not provided to NetApp.



If you're already logged in to an Azure account, then Cloud Manager will automatically use that account. If you have multiple accounts, then you might need to log out first to ensure that you're using the right account.

- **VM Authentication:** Choose an Azure subscription, a location, a new resource group or an existing resource group, and then choose an authentication method.
- **Details:** Enter a name for the instance, specify tags, and choose whether you want Cloud Manager to create a new role that has the required permissions, or if you want to select an existing role that you set up with [the required permissions](#).

Note that you can choose the subscriptions associated with this role. Each subscription that you choose provides the Connector with permissions to deploy Cloud Volumes ONTAP in those subscriptions.

- **Network:** Choose a VNet and subnet, whether to enable a public IP address, and optionally specify a proxy configuration.
- **Security Group:** Choose whether to create a new security group or whether to select an existing security group that allows inbound HTTP, HTTPS, and SSH access.



There's no incoming traffic to the Connector, unless you initiate it. HTTP and HTTPS provide access to the [local UI](#), which you'll use in rare circumstances. SSH is only needed if you need to connect to the host for troubleshooting.

- **Review:** Review your selections to verify that your set up is correct.

4. Click **Add**.

The virtual machine should be ready in about 7 minutes. You should stay on the page until the process is complete.

### After you finish

You need to associate a Connector with workspaces so Workspace Admins can use those Connectors to create Cloud Volumes ONTAP systems. If you only have Account Admins, then associating the Connector with workspaces isn't required. Account Admins have the ability to access all workspaces in Cloud Manager by default. [Learn more.](#)

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