



# GCP

## Cloud Manager

NetApp  
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# GCP

## Google Cloud projects, permissions, and accounts

A service account provides Cloud Manager with permissions to deploy and manage Cloud Volumes ONTAP systems in the same project as Cloud Manager, or in different projects.

### Project and permissions for Cloud Manager

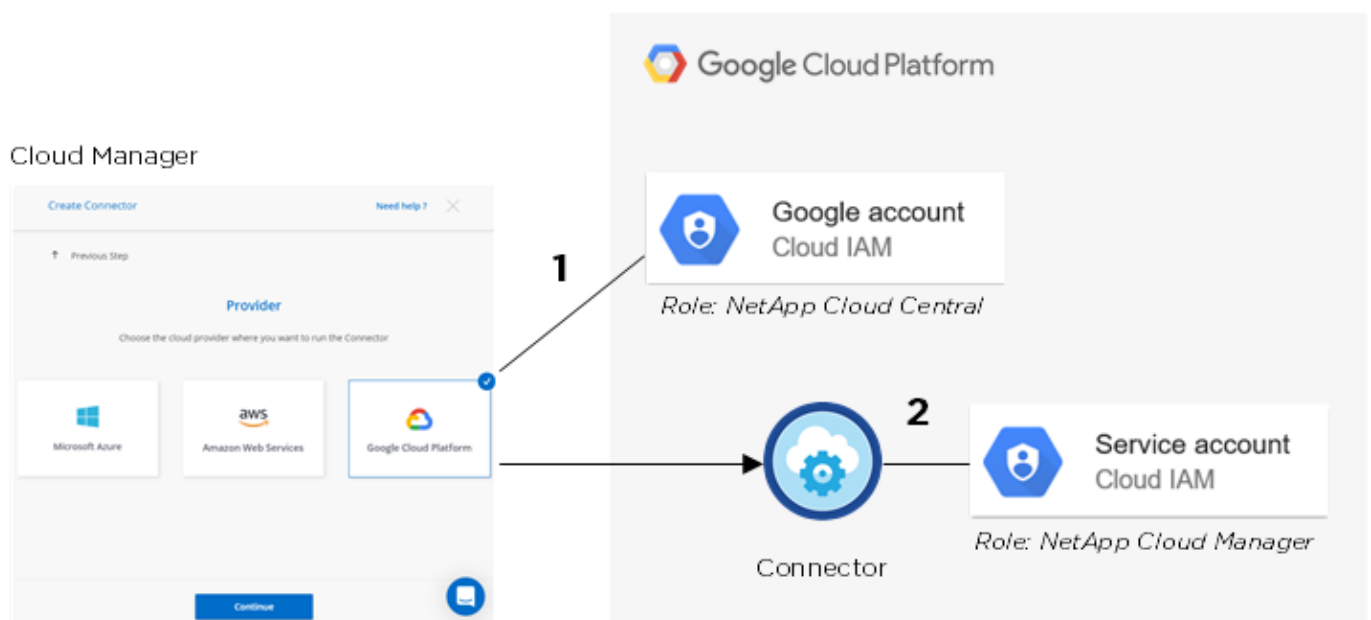
Before you can deploy Cloud Volumes ONTAP in Google Cloud, you must first deploy a Connector in a Google Cloud project. The Connector can't be running on your premises, or in a different cloud provider.

Two sets of permissions must be in place before you deploy a Connector directly from Cloud Manager:

1. You need to deploy a Connector using a Google account that has permissions to launch the Connector VM instance from Cloud Manager.
2. When deploying the Connector, you are prompted to select a [service account](#) for the VM instance. Cloud Manager gets permissions from the service account to create and manage Cloud Volumes ONTAP systems on your behalf. Permissions are provided by attaching a custom role to the service account.

We have set up two YAML files that include the required permissions for the user and the service account. [Learn how to use the YAML files to set up permissions.](#)

The following image depicts the permission requirements described in numbers 1 and 2 above:



## Project for Cloud Volumes ONTAP

Cloud Volumes ONTAP can reside in the same project as the Connector, or in a different project. To deploy Cloud Volumes ONTAP in a different project, you need to first add the Connector service account and role to that project.

- [Learn how to set up service account \(see step 2\).](#)
- [Learn how to deploy Cloud Volumes ONTAP in GCP and select a project.](#)

## Account for data tiering



Cloud Manager requires a GCP account for Cloud Volumes ONTAP 9.6, but not for 9.7 and later. If you want to use data tiering with Cloud Volumes ONTAP 9.7 or later, then follow step 4 in [Getting started with Cloud Volumes ONTAP in Google Cloud Platform](#).

Adding a Google Cloud account to Cloud Manager is required to enable data tiering on a Cloud Volumes ONTAP 9.6 system. Data tiering automatically tiers cold data to low-cost object storage, enabling you to reclaim space on your primary storage and shrink secondary storage.

When you add the account, you need to provide Cloud Manager with a storage access key for a service account that has Storage Admin permissions. Cloud Manager uses the access keys to set up and manage a Cloud Storage bucket for data tiering.

After you add a Google Cloud account, you can then enable data tiering on individual volumes when you create, modify, or replicate them.

- [Learn how to set up and add GCP accounts to Cloud Manager.](#)
- [Learn how to tier inactive data to low-cost object storage.](#)

## Managing GCP credentials and subscriptions for Cloud Manager

You can manage two types of Google Cloud Platform credentials from Cloud Manager: the credentials that are associated with the Connector VM instance and storage access keys used with a Cloud Volumes ONTAP 9.6 system for [data tiering](#).

### Associating a Marketplace subscription with GCP credentials

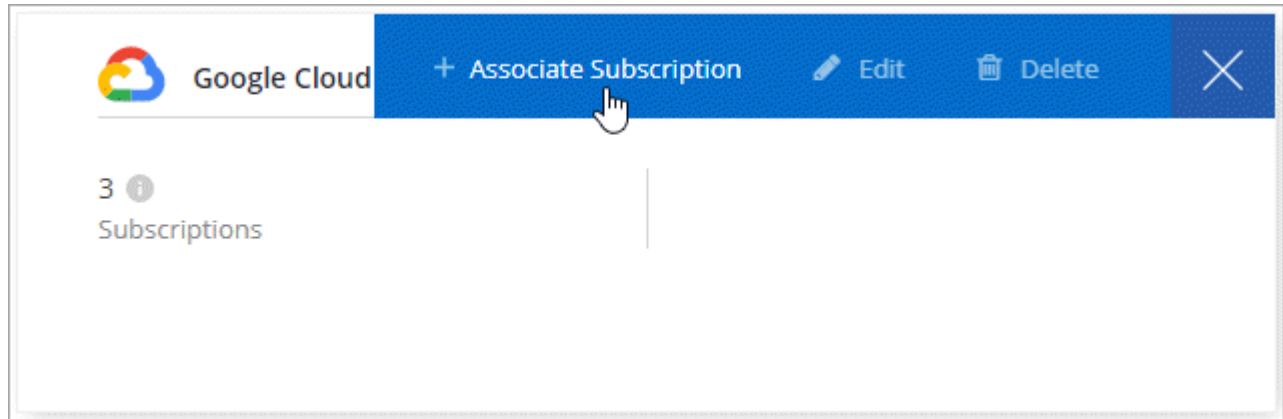
When you deploy a Connector in GCP, Cloud Manager creates a default set of credentials that are associated with the Connector VM instance. These are the credentials that Cloud Manager uses to deploy Cloud Volumes ONTAP.

At any time, you can change the Marketplace subscription that's associated with these credentials. The

subscription enables you to create a pay-as-you-go Cloud Volumes ONTAP system, and to use other NetApp cloud services.

#### Steps

1. In the upper right of the Cloud Manager console, click the Settings icon, and select **Credentials**.
2. Hover over a set of credentials and click the action menu.
3. From the menu, click **Associate Subscription**.



4. Select a Google Cloud project and subscription from the down-down list or click **Add Subscription** and follow the steps to create a new subscription.

A screenshot of a form for selecting a Google Cloud project and subscription. The form has two dropdown menus. The first dropdown is labeled 'Google Cloud Project' and has 'OCCM-Dev' selected. The second dropdown is labeled 'Subscription' and has 'GCP subscription for staging' selected, preceded by a green circle icon. Below these dropdowns is a horizontal line, and then a blue button with a plus sign and the text 'Add Subscription'.

5. Click **Associate**.

## Setting up and adding GCP accounts for data tiering with Cloud Volumes ONTAP 9.6

If you want to enable a Cloud Volumes ONTAP 9.6 system for [data tiering](#), you need to provide Cloud Manager with a storage access key for a service account that has Storage Admin permissions. Cloud Manager uses the access keys to set up and manage a Cloud Storage bucket for data tiering.



If you want to use data tiering with Cloud Volumes ONTAP 9.7 or later, then follow step 4 in [Getting started with Cloud Volumes ONTAP in Google Cloud Platform](#).

## Setting up a service account and access keys for Google Cloud Storage

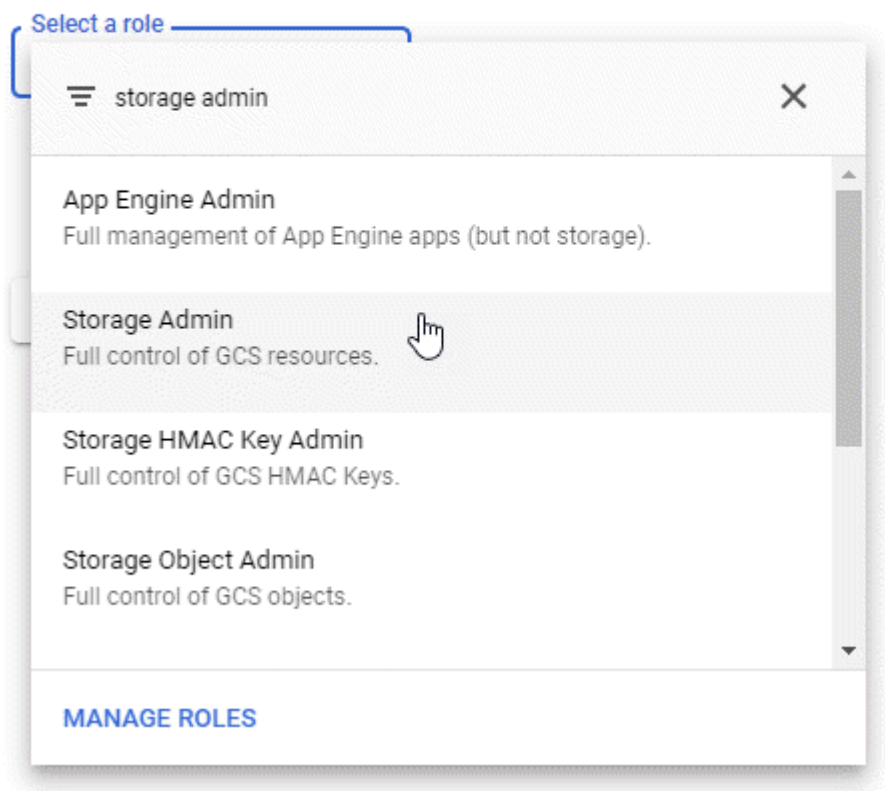
A service account enables Cloud Manager to authenticate and access Cloud Storage buckets used for data tiering. The keys are required so that Google Cloud Storage knows who is making the request.

### Steps

1. Open the GCP IAM console and [create a service account that has the Storage Admin role](#).

### Service account permissions (optional)

Grant this service account access to My Project 99247 so that it has permission to complete specific actions on the resources in your project. [Learn more](#)



2. Go to [GCP Storage Settings](#).
3. If you're prompted, select a project.
4. Click the **Interoperability** tab.
5. If you haven't already done so, click **Enable interoperability access**.
6. Under **Access keys for service accounts**, click **Create a key for a service account**.
7. Select the service account that you created in step 1.

## Select a service account

Email	Name	Keys
<input checked="" type="radio"/> data-tiering-for-netapp@top-monitor-250116.iam.gserviceaccount.com	data tiering for netapp	—

[CANCEL](#) [CREATE KEY](#) | [CREATE NEW ACCOUNT](#)

8. Click **Create Key**.

9. Copy the access key and secret.

You'll need to enter this information in Cloud Manager when you add the GCP account for data tiering.

### Adding a GCP account to Cloud Manager

Now that you have an access key for a service account, you can add it to Cloud Manager.

#### *What you'll need*

You need to create a Connector before you can change Cloud Manager settings. [Learn how](#).

#### *Steps*

1. In the upper right of the Cloud Manager console, click the Settings icon, and select **Credentials**.



2. Click **Add Credentials** and select **Google Cloud**.

3. Enter the access key and secret for the service account.

The keys enable Cloud Manager to set up a Cloud Storage bucket for data tiering.

4. Confirm that the policy requirements have been met and then click **Create Account**.

#### *What's next?*

You can now enable data tiering on individual volumes on a Cloud Volumes ONTAP 9.6 system when you create, modify, or replicate them. For details, see [Tiering inactive data to low-cost object storage](#).

But before you do, be sure that the subnet in which Cloud Volumes ONTAP resides is configured for

Private Google Access. For instructions, refer to [Google Cloud Documentation: Configuring Private Google Access](#).



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