



Getting started with Cloud Volumes ONTAP in Google Cloud Platform

Cloud Manager

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Get started with Cloud Volumes ONTAP by setting up GCP and then deploying Cloud Manager software from NetApp Cloud Central.

Cloud Manager must be installed in Google Cloud Platform in order to deploy Cloud Volumes ONTAP in GCP.



Set up your networking

Enable outbound internet access from the target VPC so Cloud Manager and Cloud Volumes ONTAP can contact several endpoints.

This step is important because Cloud Manager can't deploy Cloud Volumes ONTAP without outbound internet access. If you need to limit outbound connectivity, refer to the list of endpoints for [Cloud Manager](#) and [Cloud Volumes ONTAP](#).



Set up GCP permissions and projects

Make sure that two sets of permissions are in place:

- a. Ensure that the GCP user who deploys Cloud Manager from NetApp Cloud Central has the permissions in the [Cloud Central policy for GCP](#).

[You can create a custom role using the YAML file](#) and then attach it to the user. You'll need to use the gcloud command line to create the role.

- b. Set up a service account that has the permissions that Cloud Manager needs to create and manage Cloud Volumes ONTAP systems in projects.

You'll associate this service account with the Cloud Manager VM in step 5.

- [Create a role in GCP](#) that includes the permissions defined in the [Cloud Manager policy for GCP](#). Again, you'll need to use the gcloud command line.

The permissions contained in this YAML file are different than the permissions in step 2a.

- [Create a GCP service account and apply the custom role that you just created](#).
- If you want to deploy Cloud Volumes ONTAP in other projects, [grant access by adding the service account with the Cloud Manager role to that project](#). You'll need to repeat this step for each project.

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Set up GCP for data tiering

Two requirements must be met to tier cold data from Cloud Volumes ONTAP 9.7 to low-cost object storage (a Google Cloud Storage bucket):

a. [Set up a service account for data tiering.](#)

- Assign the predefined *Storage Admin* role to the tiering service account.
- Add the Cloud Manager service account as a *Service Account User* to the tiering service account.

You can provide the user role [in step 3 of the wizard when you create the tiering service account](#), or [grant the role after the service account was created](#).

You'll need to select the tiering service account later when you create a Cloud Volumes ONTAP working environment. This tiering service account is different from the Cloud Manager service account that you created in step 2.

b. [Configure the Cloud Volumes ONTAP subnet for Private Google Access.](#)

If you want to use data tiering with Cloud Volumes ONTAP 9.6, [then follow these steps](#).

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Enable Google Cloud APIs

[Enable the following Google Cloud APIs in your project](#). These APIs are required to deploy Cloud Manager and Cloud Volumes ONTAP.

- Cloud Deployment Manager V2 API
- Cloud Logging API
- Cloud Resource Manager API
- Compute Engine API
- Identity and Access Management (IAM) API

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Launch Cloud Manager from NetApp Cloud Central

Cloud Manager software is required to deploy and manage Cloud Volumes ONTAP. It takes just a few minutes to launch a Cloud Manager instance in GCP from [Cloud Central](#).

When you choose GCP as the cloud provider, you're prompted by Google to log in to your account and to grant permissions. Clicking "Allow" grants access to the compute APIs needed to deploy Cloud Manager.



Launch Cloud Volumes ONTAP using Cloud Manager

Once Cloud Manager is ready, just click Create, select the type of system that you would like to deploy, and complete the steps in the wizard. After 25 minutes, your first Cloud Volumes ONTAP system should be up and running.

Watch the following video for a walk through of these steps:

► https://docs.netapp.com/us-en/occm/media/video_getting_started_gcp.mp4 (video)

Related links

- [Evaluating](#)
- [Networking requirements for Cloud Manager](#)
- [Networking requirements for Cloud Volumes ONTAP in GCP](#)
- [Firewall rules for GCP](#)
- [What Cloud Manager does with GCP permissions](#)
- [Launching Cloud Volumes ONTAP in GCP](#)
- [Downloading and installing the Cloud Manager software on a Linux host](#)

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