



# **Aggregate administration**

## **Cloud Volumes ONTAP**

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# Aggregate administration

## Create aggregates

You can create aggregates yourself or let Cloud Manager do it for you when it creates volumes. The benefit of creating aggregates yourself is that you can choose the underlying disk size, which enables you to size your aggregate for the capacity or the performance that you need.



All disks and aggregates must be created and deleted directly from Cloud Manager. You should not perform these actions from another management tool. Doing so can impact system stability, hamper the ability to add disks in the future, and potentially generate redundant cloud provider fees.

### Steps

1. On the Canvas page, double-click the name of the Cloud Volumes ONTAP instance on which you want to manage aggregates.
2. Click the menu icon, and then click **Advanced > Advanced allocation**.
3. Click **Add Aggregate** and then specify details for the aggregate.

## AWS

- If you're prompted to choose a disk type and disk size, refer to [Plan your Cloud Volumes ONTAP configuration in AWS](#).
- If you're prompted to enter the aggregate's capacity size, then you're creating an aggregate on a configuration that supports the Amazon EBS Elastic Volumes feature. The following screenshot shows an example of a new aggregate comprised of gp3 disks.



[Learn more about support for Elastic Volumes.](#)

## Azure

For help with disk type and disk size, refer to [Plan your Cloud Volumes ONTAP configuration in Azure](#).

## Google Cloud

For help with disk type and disk size, refer to [Plan your Cloud Volumes ONTAP configuration in Google Cloud](#).

4. Click **Go**, and then click **Approve and Purchase**.

# Manage aggregates

Manage aggregates yourself by adding disks, viewing information about the aggregates, and by deleting them.



All disks and aggregates must be created and deleted directly from Cloud Manager. You should not perform these actions from another management tool. Doing so can impact system stability, hamper the ability to add disks in the future, and potentially generate redundant cloud provider fees.

## Before you begin

If you want to delete an aggregate, you must have first deleted the volumes in the aggregate.

## About this task

If an aggregate is running out of space, you can move volumes to another aggregate by using System

Manager.

### Steps

1. On the Canvas page, double-click the Cloud Volumes ONTAP working environment on which you want to manage aggregates.
2. Click the menu icon and then click **Advanced > Advanced allocation**.
3. Manage your aggregates:

Task	Action
View information about an aggregate	Select an aggregate and click <b>Info</b> .
Create a volume on a specific aggregate	Select an aggregate and click <b>Create volume</b> .
Add disks to an aggregate	<ol style="list-style-type: none"><li>a. Select an aggregate and click <b>Add disks</b>.</li><li>b. Select the number of disks that you want to add and click <b>Add</b>.</li></ol> <div> All disks in an aggregate must be the same size.</div>
Increase the capacity of an aggregate that supports Amazon EBS Elastic Volumes	<ol style="list-style-type: none"><li>a. Select an aggregate and click <b>Increase capacity</b>.</li><li>b. Enter the additional capacity that you'd like to add and then click <b>Add</b>.</li></ol> <p>Note that you must increase the capacity of the aggregate by a minimum of 256 GiB or 10% of the aggregate's size.</p> <p>For example, if you have a 1.77 TiB aggregate, 10% is 181 GiB. That's lower than 256 GiB, so the size of the aggregate must be increased by the 256 GiB minimum.</p>
Delete an aggregate	<ol style="list-style-type: none"><li>a. Select an aggregate that does not contain any volumes and click <b>Delete</b>.</li><li>b. Click <b>Delete</b> again to confirm.</li></ol>

## Manage capacity settings on a Connector

Each Connector has settings that determines how it manages aggregate capacity for Cloud Volumes ONTAP.

These settings affect all Cloud Volumes ONTAP systems managed by a Connector. If you have another Connector, it can be configured differently.

### Required permissions

Account Admin privileges are required to modify Connector settings.

### Steps

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

2. Under **Capacity**, modify any of the following settings:

### **Capacity Management Mode**

Choose whether Cloud Manager notifies you of storage capacity decisions or whether Cloud Manager automatically manages capacity requirements for you.

[Learn how Capacity Management Mode works.](#)

### **Free Space Ratio**

Triggers a notification when the free space ratio on an aggregate drops below the specified threshold.

The free space ratio is calculated as follows:

$$(\text{aggregate capacity} - \text{total used capacity on the aggregate}) / \text{aggregate capacity}$$

### **Free Space Ratio for Data Tiering**

Defines how much free space is required on the performance tier (disks) when tiering data to a capacity tier (object storage).

The ratio is important for disaster recovery scenarios. As data is read from the capacity tier, Cloud Volumes ONTAP moves data to the performance tier to provide better performance. If there isn't sufficient space, then Cloud Volumes ONTAP can't move the data.

3. Click **Save**.

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