



# Managing data tiering from your clusters

## Cloud Manager

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# Managing data tiering from your clusters

Now that you’ve set up data tiering from your ONTAP clusters, you can tier data from additional volumes, change a volume’s tiering policy, and more.


## Tiering data from additional volumes

Set up data tiering for additional volumes at any time—for example, after creating a new volume.


### Steps

- 1. At the top of Cloud Manager, click **Tiering**.
- 2. From the **Cluster Dashboard**, click **Tier Volumes** for the cluster.
- 3. On the **Tier Volumes** page, set up tiering for each volume.


[Learn more about volume tiering policies.](#)



You don’t need to configure the object storage because it was already configured when you initially set up tiering for the cluster. ONTAP will tier inactive data from these volumes to the same object store.

- To select a tiering policy for just one volume, click the  icon, select a tiering policy, and optionally adjust the cooling days.

3 Volumes ⓘ

<input type="checkbox"/>	Volume Name	SVM Name	Volume Size	Used Size	Snapshot Used Size	Cold Data	Tier Status	Tiering Policy
<input type="checkbox"/>	vol1	svm_AFF1	50 GB	5.21 MB	864 KB	3.65 MB   70 %	✓ Tiered Volume	All user data
<input type="checkbox"/>	vol2	svm_AFF1	200 GB	4.11 MB	424 KB	2.88 MB   70 %	✓ Tiered Volume	Cold snapshots 
<input type="checkbox"/>	vol3	svm_AFF1	200 GB	3.96 MB	424 KB	2.77 MB   70 %	✓ Tiered Volume	Cold snapshots

- To select a tiering policy for several volumes, select multiple volumes, click **Modify selected volumes**, select a tiering policy, and optionally adjust the cooling days.


3 Volumes ⓘ | 2 selected Modify selected volumes

<input type="checkbox"/>	Volume Name	SVM Name	Volume Size	Used Size	Snapshot Used Size	Cold Data	Tier Status	Tiering Policy
<input type="checkbox"/>	vol1	svm_AFF1	50 GB	3.54 MB	444 KB	2.47 MB   70 %	✓ Tiered Volume	All user data
<input checked="" type="checkbox"/>	vol2	svm_AFF1	200 GB	1 MB	0 B	716.8 KB   70 %	✓ Tiered Volume	Cold snapshots
<input checked="" type="checkbox"/>	vol3	svm_AFF1	200 GB	1 MB	0 B	716.8 KB   70 %	✓ Tiered Volume	Cold snapshots

# Changing a volume's tiering policy

Changing the tiering policy for a volume changes how ONTAP tiers cold data to object storage. The change starts from the moment that you change the policy—it changes only the subsequent tiering behavior for the volume.

## Steps

1. At the top of Cloud Manager, click **Tiering**.
2. From the **Cluster Dashboard**, click **Tier Volumes** for the cluster.
3. Click the  icon, select a tiering policy, optionally adjust the cooling days, and click **Apply**.

[Learn more about volume tiering policies.](#)

# Managing tiering settings on aggregates

Each aggregate has two settings that you can adjust: the tiering fullness threshold and whether inactive data reporting is enabled.

## Tiering fullness threshold

Setting the threshold to a lower number reduces the amount of data required to be stored on the performance tier before tiering takes place. This might be useful for large aggregates that contain little active data.

Setting the threshold to a higher number increases the amount of data required to be stored on the performance tier before tiering takes place. This might be useful for solutions designed to tier only when aggregates are near maximum capacity.

## Inactive data reporting

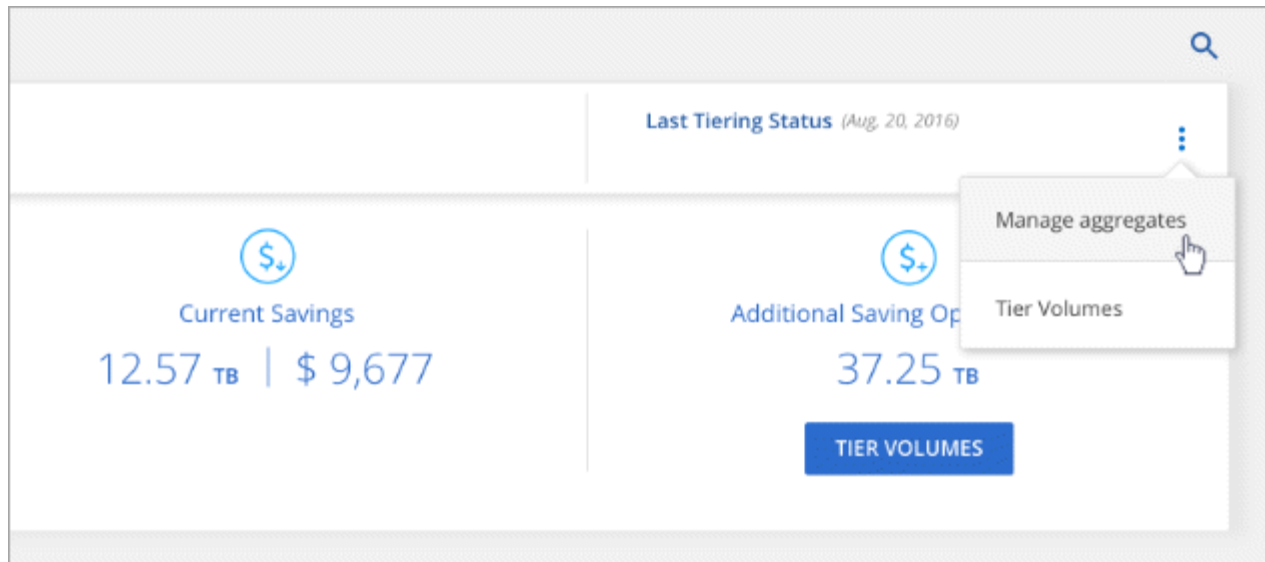
Inactive data reporting (IDR) uses a 31-day cooling period to determine which data is considered inactive. The amount of cold data that is tiered is dependent on the tiering policies set on volumes. This amount might be different than the amount of cold data detected by IDR using a 31-day cooling period.



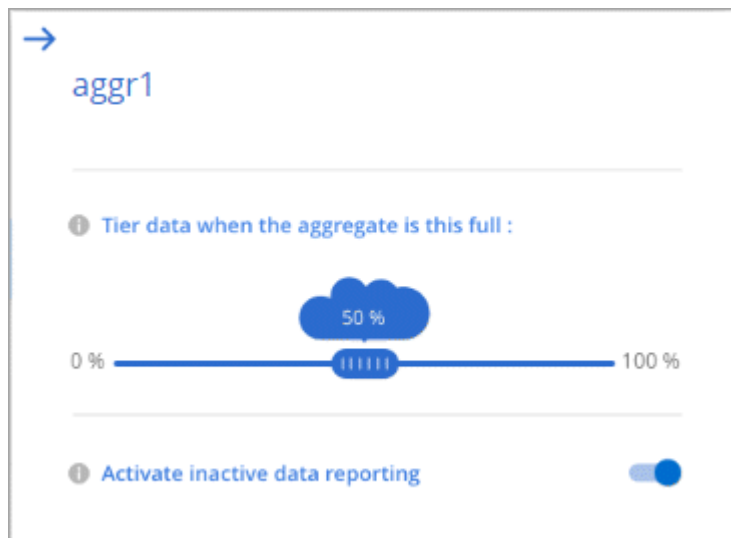
It's best to keep IDR enabled because it helps to identify your inactive data and savings opportunities. IDR must remain enabled if data tiering was enabled on an aggregate.

## Steps

1. At the top of Cloud Manager, click **Tiering**.
2. From the **Cloud Tiering** page, click the menu icon for a cluster and select **Manage Aggregates**.



3. On the **Manage Aggregates** page, click the  icon for an aggregate in the table.
4. Modify the fullness threshold and choose whether to enable or disable inactive data reporting.



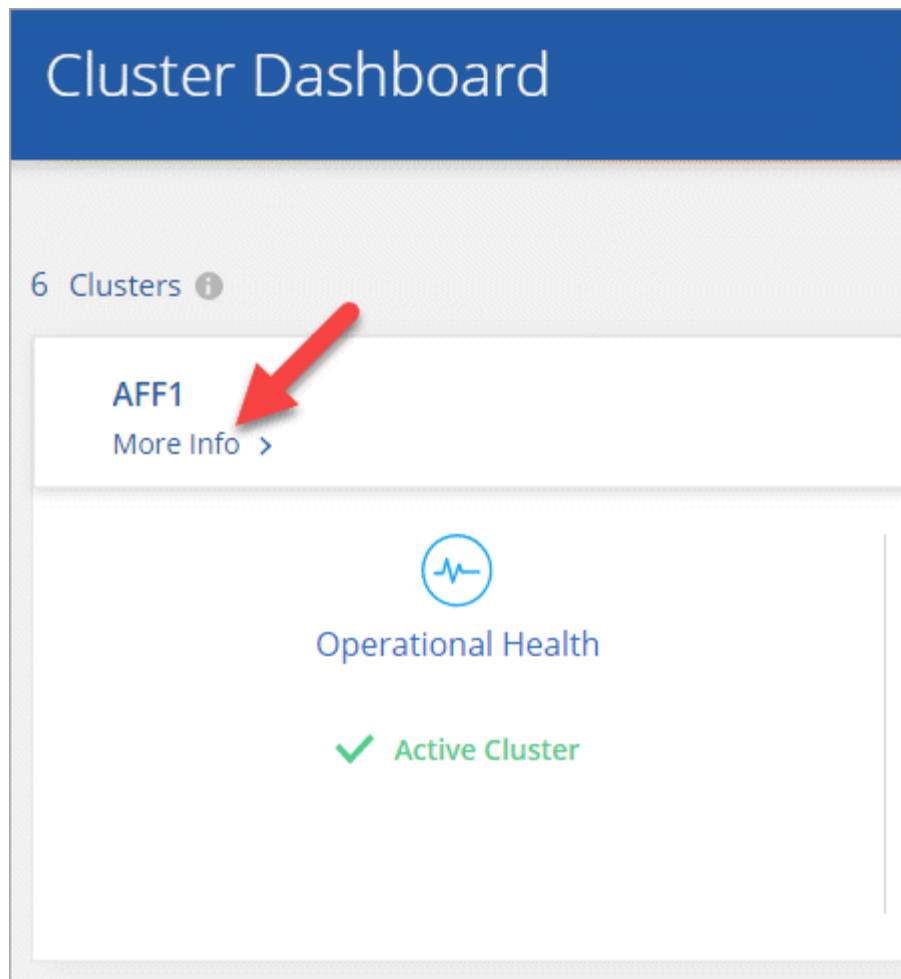
5. Click **Apply**.

## Reviewing tiering info for a cluster

You might want to see how much data is in the cloud tier and how much data is on disks. Or, you might want to see the amount of hot and cold data on the cluster's disks. Cloud Tiering provides this information for each cluster.

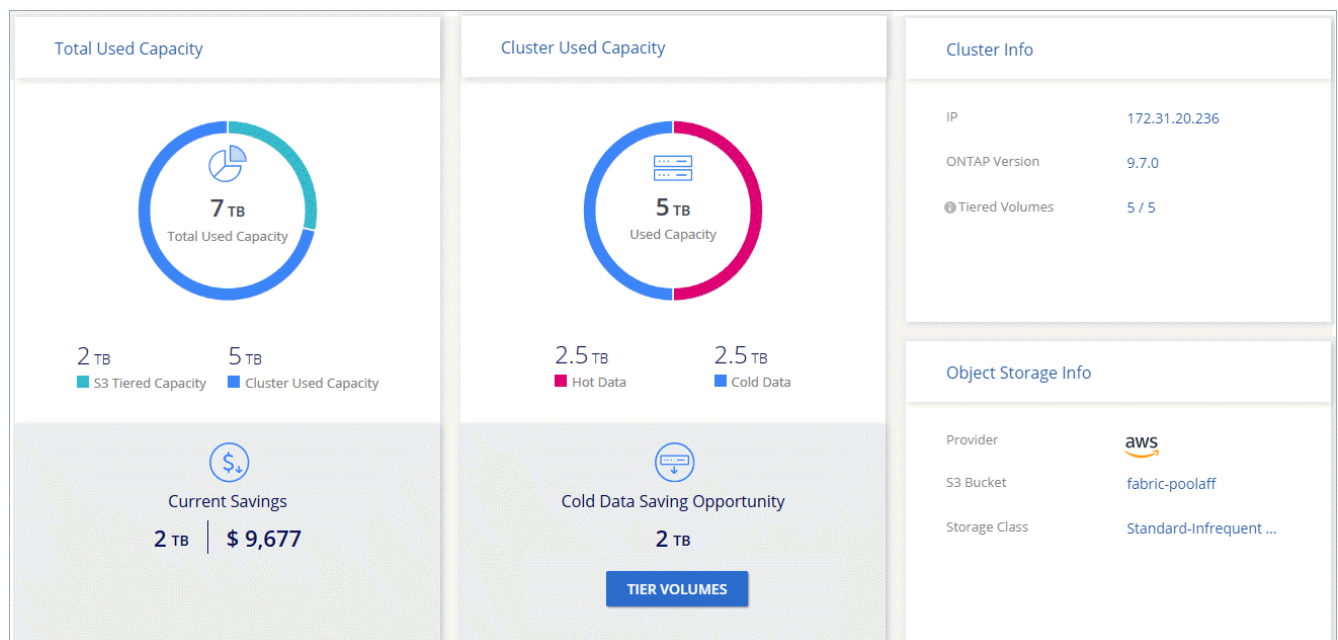
### Steps

1. At the top of Cloud Manager, click **Tiering**.
2. From the **Cluster Dashboard**, click **More info** for a cluster.



3. Review details about the cluster.

Here's an example:

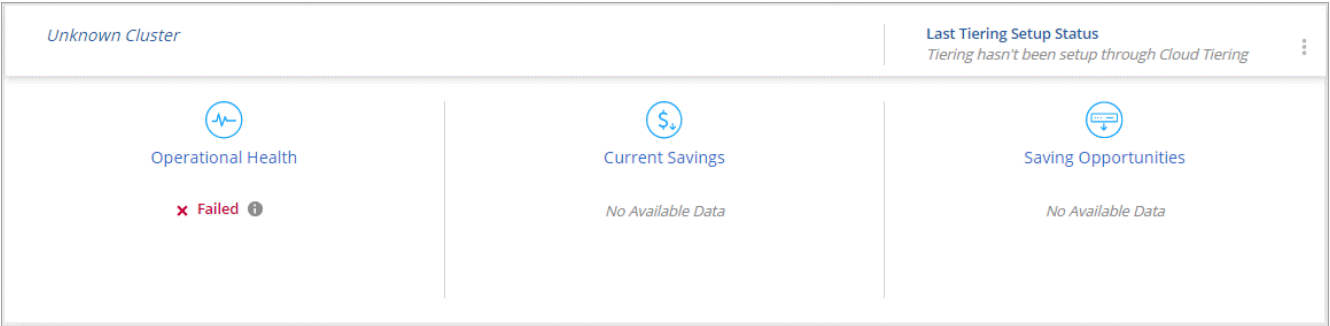



# Fixing operational health

Failures can happen. When they do, Cloud Tiering displays a "Failed" operational health status on the Cluster Dashboard. The health reflects the status of the ONTAP system and Cloud Manager.

## Steps

1. Identify any clusters that have an operational health of "Failed."



2. Hover over the  icon to see the failure reason.
3. Correct the issue:
  - a. Verify that the ONTAP cluster is operational and that it has an inbound and outbound connection to your object storage provider.
  - b. Verify that Cloud Manager has outbound connections to the Cloud Tiering service, to the object store, and to the ONTAP clusters that it discovers.

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