



Extend to the cloud

ONTAP System Manager

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Extend to the cloud

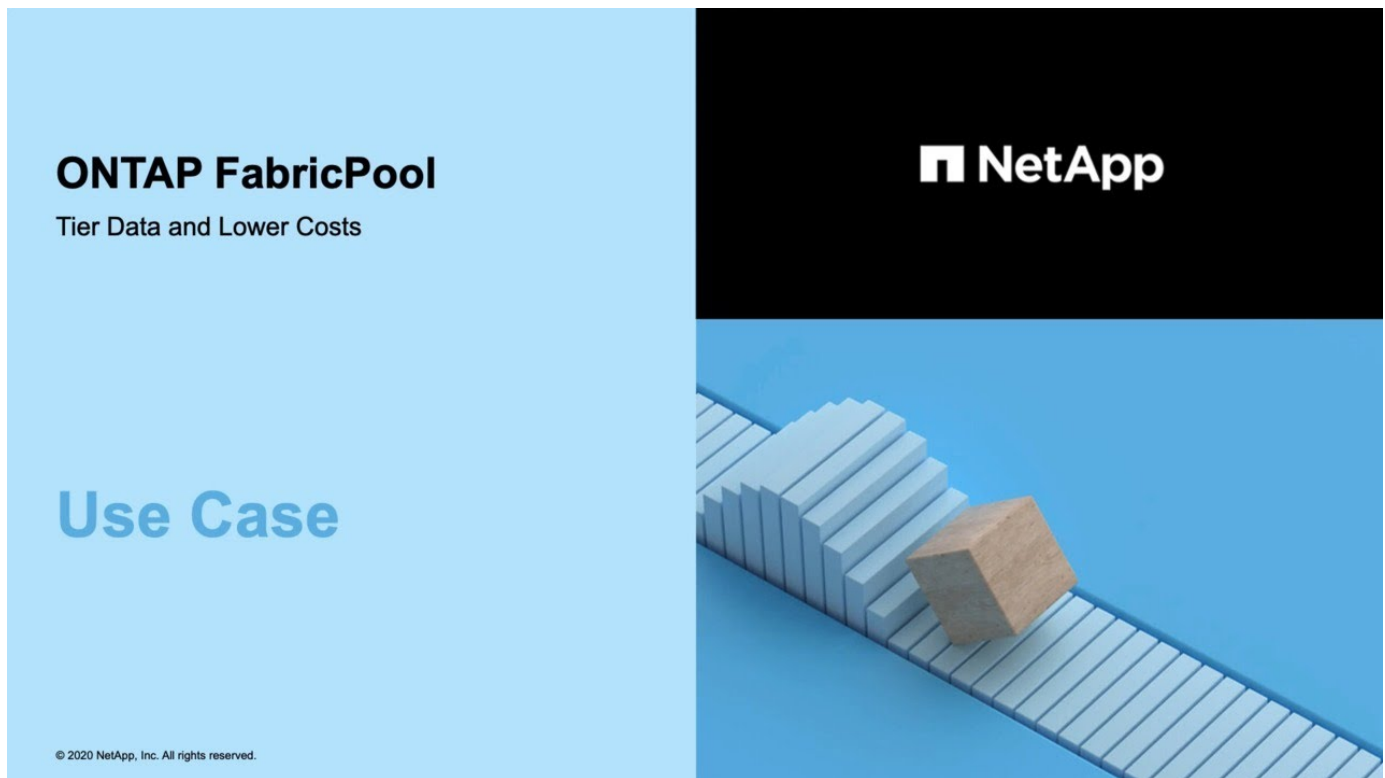
Cloud overview

You can use FabricPool to automatically tier data depending on how frequently the data is accessed.

FabricPool is a hybrid storage solution that uses an all flash (all SSD) aggregate as the performance tier and an object store as the cloud tier. Using a FabricPool helps you reduce storage cost without compromising performance, efficiency, or protection.

The cloud tier can be located on NetApp StorageGRID or ONTAP S3 (beginning with ONTAP 9.8), or one of the following service providers:

- Alibaba cloud
- Amazon S3
- Google Cloud
- IBM cloud
- Microsoft Azure Blob Storage



Add a connection to the cloud

Starting with ONTAP 9.9, you can use System Manager to add a connection to the cloud.

You start by using NetApp Cloud Insights to configure a collector. During the configuration process, you copy a pairing code that is generated by Cloud Insights, and then you log on to a cluster using System Manager. There, you add a cloud connection using that pairing code. The rest of the process is completed in Cloud

Insights.

Steps

1. In Cloud Insights, during the process to configure a collector, copy the generated pairing code.
2. Using System Manager 9.9, log on to the cluster.
3. Go to **Cluster > Settings**.
4. In the Cloud Connections section, select **Add** to add a connection.
5. Enter a name for the connection, and paste the pairing code in the space provided.
6. Click **Add**.
7. Return to Cloud Insights to complete the configuration of the collector.



For additional information about using Cloud Insights, refer to [Cloud Insights Cloud Agent documentation](#).

Tier data to cloud

Storing data in tiers can enhance the efficiency of your storage system. You can manage storage tiers by using FabricPool to store data in a tier, based on how frequently the data is accessed.

This procedure sets up an object store as the cloud tier for FabricPool. Keep in mind that once you attach to a local tier (aggr) the cloud tier cannot be unattached.

A FabricPool license is not required when using StorageGRID or ONTAP S3 as the cloud tier or when using Amazon S3, Google Cloud Storage, or Microsoft Azure Blob Storage as the cloud tier for Cloud Volumes for ONTAP. A FabricPool license is required for other cloud tier locations.

If you are tiering to ONTAP S3, there are additional requirements:

- * There must be an entry for the remote ONTAP S3 server's hostname in the DNS server configured for the admin storage VM, including the S3 server's FQDN name and the IP addresses on its network interfaces.
- * [Intercluster network interfaces](#) must be configured on both local and remote clusters, although cluster peering is not required.

You also have the option to create a volume tiering policy in System Manager.

Steps

1. Click **Storage > Tiers > Add Cloud Tier** and select the object store provider you want to use.
2. If you want to create a cloud mirror, click **Add as FabricPool Mirror**.

A FabricPool mirror provides a method for you to seamlessly replace a data store, and it helps to ensure that your data is available in the event of disaster.

ONTAP FabricPool

Tier Data And Lower Costs

Tech Clip

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Tier data to local bucket


Beginning with ONTAP 9.8, you can tier data to local object storage using ONTAP S3.

Tiering data to a local bucket provides a simple alternative to moving data to a different local tier. This procedure uses an existing bucket on the local cluster, or you can let ONTAP automatically create a new storage VM and a new bucket.

Keep in mind that once you attach to a local tier (aggr) the cloud tier cannot be unattached.

An S3 license is required for this workflow, which creates a new S3 server and new bucket, or uses existing ones. A FabricPool license is not required for this workflow.

Step

1. Tier data to a local bucket: click **Tiers**, select a tier, then click .
 - You have the option to create a new tier (ONTAP S3) or use an existing one.
 - You have the option to edit an existing volume tiering policy.

Create tags for tiering objects

Starting in ONTAP 9.8, you can create object tags to help you classify and sort tiering objects for easier data management. You can set tags only on FabricPool volumes attached to StorageGRID. These tags are retained during a volume move.

Steps


1. Navigate to **Storage > Tiers > Volumes**.
2. Locate the volume you want to tag and select **Click to enter tags**.

Enable inactive data reporting

Starting in ONTAP 9.8, you can enable inactive data reporting to show how much inactive data can be tiered to the cloud.

You can enable inactive data reporting on HDD aggregates.

Steps

1. Choose one of the following options:
 - When you have existing HDD aggregates, navigate to **Storage > Tiers** and click  for the aggregate on which you want to enable inactive data reporting.
 - When no cloud tiers are configured, navigate to **Dashboard** and click the **Enable inactive data reporting** link under **Capacity**.

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