Add or move volumes to FabricPool as needed

ONTAP 9

NetApp
January 25, 2022

This PDF was generated from https://docs.netapp.com/us-en/ontap/fabricpool/create-volume-task.html on January 25, 2022. Always check docs.netapp.com for the latest.

Table of Contents

Add or move volumes to FabricPool as needed 1
Create a volume for FabricPool 1
Move a volume to FabricPool 2

Add or move volumes to FabricPool as needed

Create a volume for FabricPool

You can add volumes to FabricPool by creating new volumes directly in the FabricPool-enabled aggregate or by moving existing volumes from another aggregate to the FabricPool-enabled aggregate.

When you create a volume for FabricPool, you have the option to specify a tiering policy. If no tiering policy is specified, the created volume uses the default `snapshot-only` tiering policy. For a volume with the `snapshot-only` or `auto` tiering policy, you can also specify the tiering minimum cooling period.

What you'll need

- Setting a volume to use the `auto` tiering policy or specifying the tiering minimum cooling period requires ONTAP 9.4 or later.
- Using FlexGroup volumes requires ONTAP 9.5 or later.
- Setting a volume to use the `all` tiering policy requires ONTAP 9.6 or later.
- Setting a volume to use the `-cloud-retrieval-policy` parameter requires ONTAP 9.8 or later.

Steps

1. Create a new volume for FabricPool by using the `volume create` command.
   - The `-tiering-policy` optional parameter enables you to specify the tiering policy for the volume.

     You can specify one of the following tiering policies:

     - `snapshot-only` (default)
     - `auto`
     - `all`
     - `backup` (deprecated)
     - `none`

       Types of FabricPool tiering policies

   - The `-cloud-retrieval-policy` optional parameter enables cluster administrators with the advanced privilege level to override the default cloud migration or retrieval behavior controlled by the tiering policy.

     You can specify one of the following cloud retrieval policies:

     - `default`

       The tiering policy determines what data is pulled back, so there is no change to cloud data retrieval with `default` cloud-retrieval-policy. This means the behavior is the same as in pre-ONTAP 9.8 releases:

       - If the tiering policy is `none` or `snapshot-only`, then "default" means that any client-driven data read is pulled from the cloud tier to performance tier.

        - If the tiering policy is `auto`, then any client-driven random read is pulled but not sequential reads.
        - If the tiering policy is `all` then no client-driven data is pulled from the cloud tier.
    - `on-read`

      All client-driven data reads are pulled from the cloud tier to performance tier.

    - `never`

      No client-driven data is pulled from the cloud tier to performance tier

    - `promote`
        - For tiering policy `none`, all cloud data is pulled from the cloud tier to the performance tier
        - For tiering policy `snapshot-only`, all active filesystem data is pulled from the cloud tier to the performance tier.
  - The `-tiering-minimum-cooling-days` optional parameter in the advanced privilege level enables you to specify the tiering minimum cooling period for a volume that uses the `snapshot-only` or `auto` tiering policy.

    Beginning with ONTAP 9.8, you can specify a value between 2 and 183 for the tiering minimum cooling days. If you are using a version of ONTAP earlier than 9.8, you can specify a value between 2 and 63 for the tiering minimum cooling days.

Example of creating a volume for FabricPool

The following example creates a volume called “myvol1” in the “myFabricPool” FabricPool-enabled aggregate. The tiering policy is set to `auto` and the tiering minimum cooling period is set to 45 days:

```
cluster1::*> volume create -vserver myVS -aggregate myFabricPool
-volume myvol1 -tiering-policy auto -tiering-minimum-cooling-days 45
```

Related information

FlexGroup volumes management

Move a volume to FabricPool

When you move a volume to FabricPool, you have the option to specify or change the tiering policy for the volume with the move. Beginning with ONTAP 9.8, when you move a non-FabricPool volume with inactive data reporting enabled, FabricPool uses a heat map to read tierable blocks, and moves cold data to the capacity tier on the FabricPool destination.

What you’ll need

You must understand how changing the tiering policy might affect how long it takes for data to become cold and be moved to the cloud tier.

What happens to the tiering policy when you move a volume

About this task

If a non-FabricPool volume has inactive data reporting enabled, when you move a volume with tiering-policy `auto` or `snapshot-only` to a FabricPool, FabricPool reads the temperature tierable blocks from a heat map file and uses that temperature to move the cold data directly to the capacity tier on the FabricPool destination.

You should not use the `-tiering-policy` option on volume move if you are using ONTAP 9.8 and you want FabricPools to use inactive data reporting information to move data directly to the capacity tier. Using this option causes FabricPools to ignore the temperature data and instead follow the move behavior of releases prior to ONTAP 9.8.

Step

1. Use the `volume move start` command to move a volume to FabricPool.

   The `-tiering-policy` optional parameter enables you to specify the tiering policy for the volume.

   You can specify one of the following tiering policies:

   - `snapshot-only` (default)
   - `auto`
   - `all`
   - `none`
     Types of FabricPool tiering policies

Example of moving a volume to FabricPool

The following example moves a volume named “myvol2” of the "vs1" SVM to the "dest_FabricPool" FabricPool-enabled aggregate. The volume is explicitly set to use the `none` tiering policy:

```
cluster1::> volume move start -vserver vs1 -volume myvol2
-destination-aggregate dest_FabricPool -tiering-policy none
```

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