NetApp Volume Caching

Volume caching

NetApp
January 13, 2026

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NetApp Volume Caching

Release notes

What's new in Volume Caching

Learn what's new in Volume Caching.

06 October 2025

BlueXP Volume Caching is now Volume Caching

BlueXP Volume Caching has been renamed to Volume Caching.

You can access it from the NetApp Console left navigation bar by selecting **Mobility** > **Volume caching**.

BlueXP is now NetApp Console

The NetApp Console, built on the enhanced and restructured BlueXP foundation, provides centralized management of NetApp storage and NetApp Data Services across on-premises and cloud environments at enterprise grade—delivering real-time insights, faster workflows, and simplified administration, that is highly secure and compliant.

For details on what's changed, see the NetApp Console release notes.

04 June 2023

BlueXP Volume Caching

BlueXP Volume Caching, a feature of ONTAP 9 software, is a remote caching capability that simplifies file distribution, reduces WAN latency by bringing resources closer to where your users and compute resources are, and lowers WAN bandwidth costs. Volume caching provides a persistent, writable volume in a remote place. You can use BlueXP Volume Caching to speed up access to data or to offload traffic from heavily accessed volumes. Cache volumes are ideal for read-intensive workloads, especially where clients need to access the same data repeatedly.

With BlueXP Volume Caching, you have caching capabilities for the cloud, specifically for Amazon FSx for NetApp ONTAP, Cloud Volumes ONTAP, and on-premises as working environments.

Learn more about Volume caching.

Known limitations of Volume Caching

Known limitations identify platforms, devices, or functions that are not supported by this release of the service, or that do not interoperate correctly with it.

Limitation in copying cache export policy rules

The cache export policy rules are not copied to the cache volume in the following situations:

- When the source volume's system is Amazon FSx for NetApp ONTAP or Cloud Volumes ONTAP, and the cache volume is ONTAP 9.10.1 or earlier.

- When the source volume's system is any version of ONTAP, and the cache volume is ONTAP 9.10.1 or earlier.

Workaround: You should manually create the rules for the cache volume.

Cache creation fails for storage VMs with same name

If the source and destination clusters use storage VMs with the same name, the cache is not created.

Workaround: Use different names for the source and destination storage VMs.

Delay in displaying new or recently-edited export policies

When creating a cache, you might not be able to see a recently-created or edited export policy on the list.

Workaround: Retry in a few minutes.

Cache creation fails when destination has only CIFS protocol enabled

Cache creation fails if the source or destination cluster has ONTAP 9.10.1 or earlier, and the destination cluster has only the CIFS protocol enabled.

Workaround: Use a destination cluster running ONTAP 9.11.1 or later, or with both the CIFS and NFS protocols configured.

Get started

Learn about Volume Caching

Volume caching, a feature of ONTAP 9 software, is a remote caching capability that simplifies file distribution, reduces WAN latency by bringing resources closer to where your users and compute resources are, and lowers WAN bandwidth costs. Volume caching provides a persistent, writable volume in a remote place. You can use Volume caching to speed up access to data or to offload traffic from heavily accessed volumes. Cache volumes are ideal for read-intensive workloads, especially where clients need to access the same data repeatedly.

With Volume Caching, you have caching capabilities for the cloud, specifically for Amazon FSx for NetApp ONTAP, Cloud Volumes ONTAP, and on-premises as working environments.

Volume caching also provides branch office access to corporate datasets. By serving *hot data*, data that needs to be accessed frequently from multiple controllers in a cluster, you can increase the performance delivered to key applications. And, by caching hot data local to users at multiple locations around the world, you can enhance their collaboration by enabling simultaneous access to centralized datasets while also reducing the response time they receive when accessing the hot data.

NetApp Console

Volume caching is accessible through the NetApp Console.

The NetApp Console provides centralized management of NetApp storage and data services across on-premises and cloud environments at enterprise grade. The Console is required to access and use NetApp data services. As a management interface, it enables you to manage many storage resources from one interface. Console administrators can control access to storage and services for all systems within the enterprise.

You don’t need a license or subscription to start using NetApp Console and you only incur charges when you need to deploy Console agents in your cloud to ensure connectivity to your storage systems or NetApp data services. However, some NetApp data services accessible from the Console are licensed or subscription-based.

Learn more about the NetApp Console.

What is a cache?

A cache is a temporary storage location that resides between a host and the source of data. The objective of a cache is to store frequently accessed portions of source data in a way that allows the data to be served faster than it would be by fetching the data from the source. Caches are most beneficial in read-intensive environments where data is accessed more than once and is shared by multiple hosts. A cache system is faster than the system with data source, which is achieved through a faster storage system and proximity of the cache storage space to the host.

Benefits of Volume Caching

Volume caching offers the following benefits:

- Accelerate performance in a hybrid cloud infrastructure

- Remove cloud silos by caching data from one cloud provider to another
- Lower storage costs
- Collaborate across geographic locations
- Ability to adapt to changing IT environments faster
- On-demand or subscription-based Volume Caching hosted in the cloud

What you can do with Volume Caching

Volume caching provides you with full use of several NetApp technologies to accomplish the following goals:

- Cache data from one cloud provider to another
- View and edit a cache export policy
- Resize an existing cache
- Delete a cache

Cost

NetApp doesn't charge you for Volume Caching, but you'll need to check your cloud provider for applicable data ingress and egress charges.

Licensing

No special ONTAP licenses are needed for Volume Caching.

How Volume Caching works

A cache volume is a sparsely populated volume that is backed by a source volume. The cache volume can be on the same cluster as or on a different cluster than that of the source volume.

The cache volume provides access to data in the source volume without requiring that all the data be in the cache volume. Data storage in the caching volume is efficiently managed by retaining only the hot data (working, or recently used data).

Volume caching reads requests if the cache volume contains the data requested by the client. Otherwise, the Volume Caching service requests the data from the source volume and stores the data before serving the client request. Subsequent requests for the data are then served directly from the cache volume. This improves performance when the same data is accessed repeatedly, because after the first request, the data no longer must travel across the network or be served from an overloaded system.

Volume caching prerequisites

Get started by verifying the readiness of your operational environment, login, network access, and web browser.

To use Volume Caching, you should ensure that your environment meets all requirements.

- ONTAP 9.8 and later
  - Cluster Admin ONTAP permissions

    - Intercluster LIFs on the clusters
- In the NetApp Console:
    - The Console agent needs to be set up in the NetApp Console. All source and target clusters must be on the same Console agent. Refer to the BlueXP Quick start and Learn about Console agents.
    - The working environment should be set up.
    - The clusters should be added in the target working environment and in an ON or degraded state.
    - Standard NetApp Console requirements. Refer to NetApp Console requirements.

Quick start for Volume Caching

Here's an overview of the steps needed to get started with Volume Caching. The links within each step take you to a page that provides more details.

Review prerequisites

Ensure your environment meets these requirements.

Set up Volume Caching

Set up vlume caching.

What's next?

Here's what you might do next.

- Create a cache.
- Manage a cache, edit a cache, resize a cache, or delete a cache.
- Monitor Volume Caching operations.

Set up Volume Caching

To use Volume Caching, perform a few steps to set it up.

- Review prerequisites to ensure that your environment is ready.
- Create a Console agent.
- Create systems that can support Volume Caching.

Create a Console agent in the NetApp Console

The next step is to create a Console agent in the NetApp Console.

To create a Console agent before using Volume Caching, refer to the NetApp Console documentation that describes How to create a Console agent.

Create systems

If you haven't done so already, you need to create the systems for the source and target.

- Create an Amazon FSx for ONTAP system
- Launch Cloud Volumes ONTAP in AWS
- Launch Cloud Volumes ONTAP in Azure
- Launch Cloud Volumes ONTAP in GCP
- Add existing Cloud Volumes ONTAP systems
- Discover ONTAP clusters

Access Volume Caching

You use the NetApp Console to access the Volume Caching option.

To log in to the NetApp Console, you can use your NetApp Support Site credentials. Learn more about logging in.

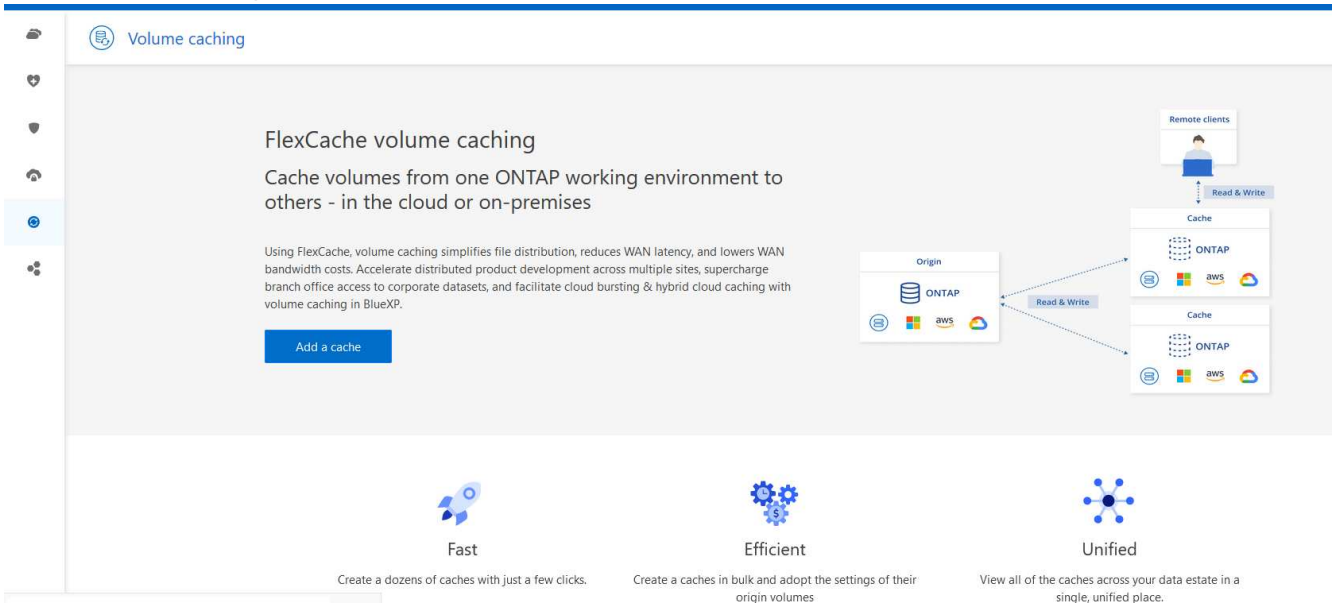
Steps

1. Open a web browser and go to the NetApp console.

   The NetApp Console login page appears.

2. Log in to the Console.
3. From the Console left navigation, select **Mobility** > **Volume caching**.

   The Volume Caching Dashboard appears.



If a Console agent is not set up, the option **Add a Console agent** appears. Refer to Set up Volume Caching.

Frequently asked questions for Volume Caching

This FAQ can help if you’re just looking for a quick answer to a question.

What’s the Volume Caching URL?
For the URL, in a browser, enter: https://console.netapp.com/ to access the BlueXP console.

Do you need a license to use Volume Caching?
A NetApp License File (NLF) is not required.

How do you enable Volume Caching?
Volume caching does not require any enablement. The Volume Caching option automatically appears on the NetApp Console left navigation.

Use Volume Caching

Use Volume Caching overview

Using Volume Caching, you can accomplish the following goals:

- Create a cache.
- View cache details.
- Change the export policy and resize a cache.
- Monitor Volume Caching operations on the NetApp Console Audit page.

Create a cache using Volume Caching

Volume caching provides a persistent, writable volume in a remote place. You can use Volume caching to speed up access to data or to offload traffic from heavily accessed volumes. Cached volumes are ideal for read-intensive workloads, especially where clients need to access the same data repeatedly. You can create Volume Caching between Amazon FSx for ONTAP, Cloud Volumes ONTAP, and on-premises ONTAP with one or more source volumes from the source system as the cache source. You then choose the storage virtual machine for the cache volumes.

The cached volume can be on the same cluster or a different cluster than that of the source volume. The volumes you select to cache must belong to the same storage VM and the storage VMs must use the same protocols.

If volumes are not eligible for caching, they are greyed out so that you cannot select them.

You can enter the size for cached volumes as a percentage of source volume size.

The IPSpace used by the cached volume depends on the IPSpace used by the source storage VM.

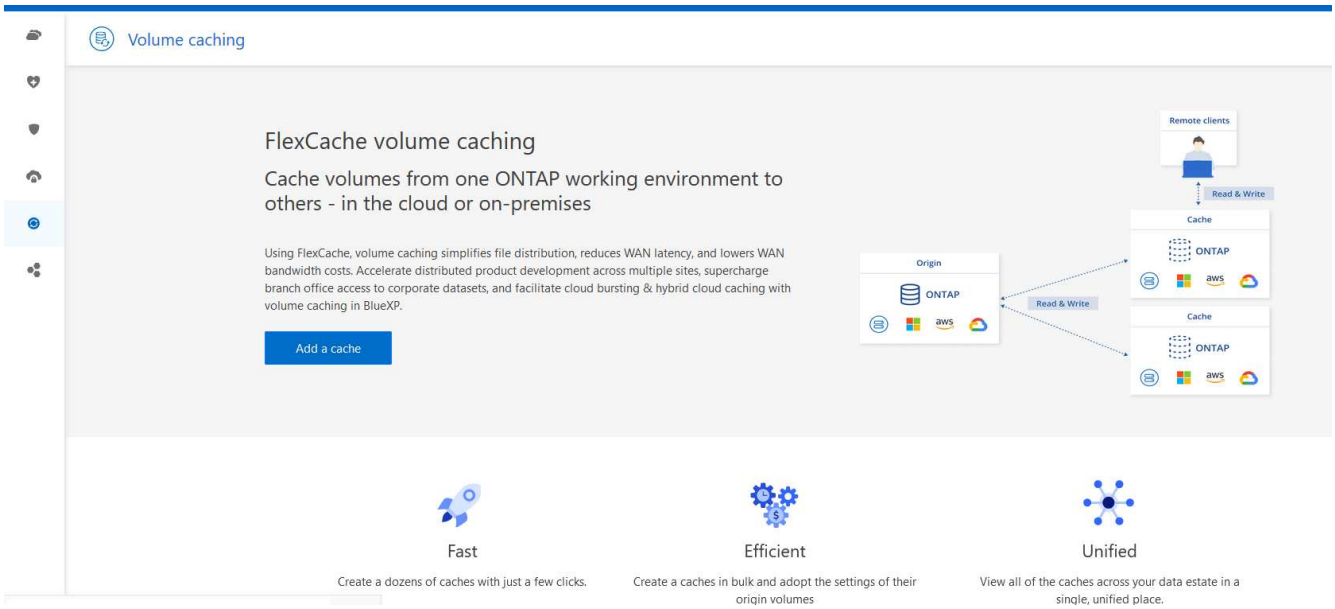
The cached volume name uses a suffix of `_cache` added to the original volume name.

Steps from the Volume Caching landing page

1. Log in to the NetApp Console.
2. Select **Mobility** > **Volume caching** from the left navigation.

   You'll land on the Volume Caching Dashboard page. When you first start with the Volume Caching option, you need to add the cache information. Later, the Dashboard appears instead and displays data about the caches.

If you have not yet set up a NetApp Console agent, the option **Add a Console agent** appears instead of the **Add a cache**. In this case, you need to set up the Console agent first. Refer to the NetApp Console Quick start.



3. Select **Add a cache**.
4. In the Cache data page, select the system source and target cache and select **Start caching wizard**.
5. In the Configure your caches page, select the volume or volumes you want to cache.

   You can select up to 50 volumes.

6. Scroll down the page to make additional changes to the VM details or volume size.
7. Enter the size for cache volumes as a percentage of the source volume size.

   A good rule of thumb is that the cache volume size should be about 15% of the source volume size.

8. Check the **Cache access** box to replicate the NFS export policy rules and the SMB/CIFS share configuration from the source volume to the target cache volume.

   Then the NFS export policy rules and SMB/CIFS share in the source volume will be replicated to the cache volume. If the SMB/CIFS protocol isn't enabled on the cache storage VM, the SMB/CIFS share will not replicate.

9. Optionally, enter the cache name prefix.

   The suffix of `_cache` is appended to the name in the format: `<user-specified prefix>_<source volume name>_cache`

10. Select **Create caches**.

    The new cache appears on the Caching list. The cache volume name will show `_cache` as a suffix to the source volume name.

11. To see the progress of the operation, from the NetApp Console menu, select **Administration** > **Audit**.

Steps from the NetApp Console Systems page

1. From the NetApp Console Systems page, select the working environment.
2. Select the source system and drag it to the destination.

3. Select **Volume caching**.

   This creates a cache volume from the source to the destination.

4. In the right pane, in the Caching option box, select **Add**.
5. In the Cache data page, select the system you want to cache and select **Start cache wizard**.

6. In the Configure your caches page, select the volume or volumes you want to cache.

   You can select up to 50 volumes.

7. Scroll down the page to make additional changes to the VM details or volume size.
8. Enter the size for cache volumes as a percentage of the source volume size.

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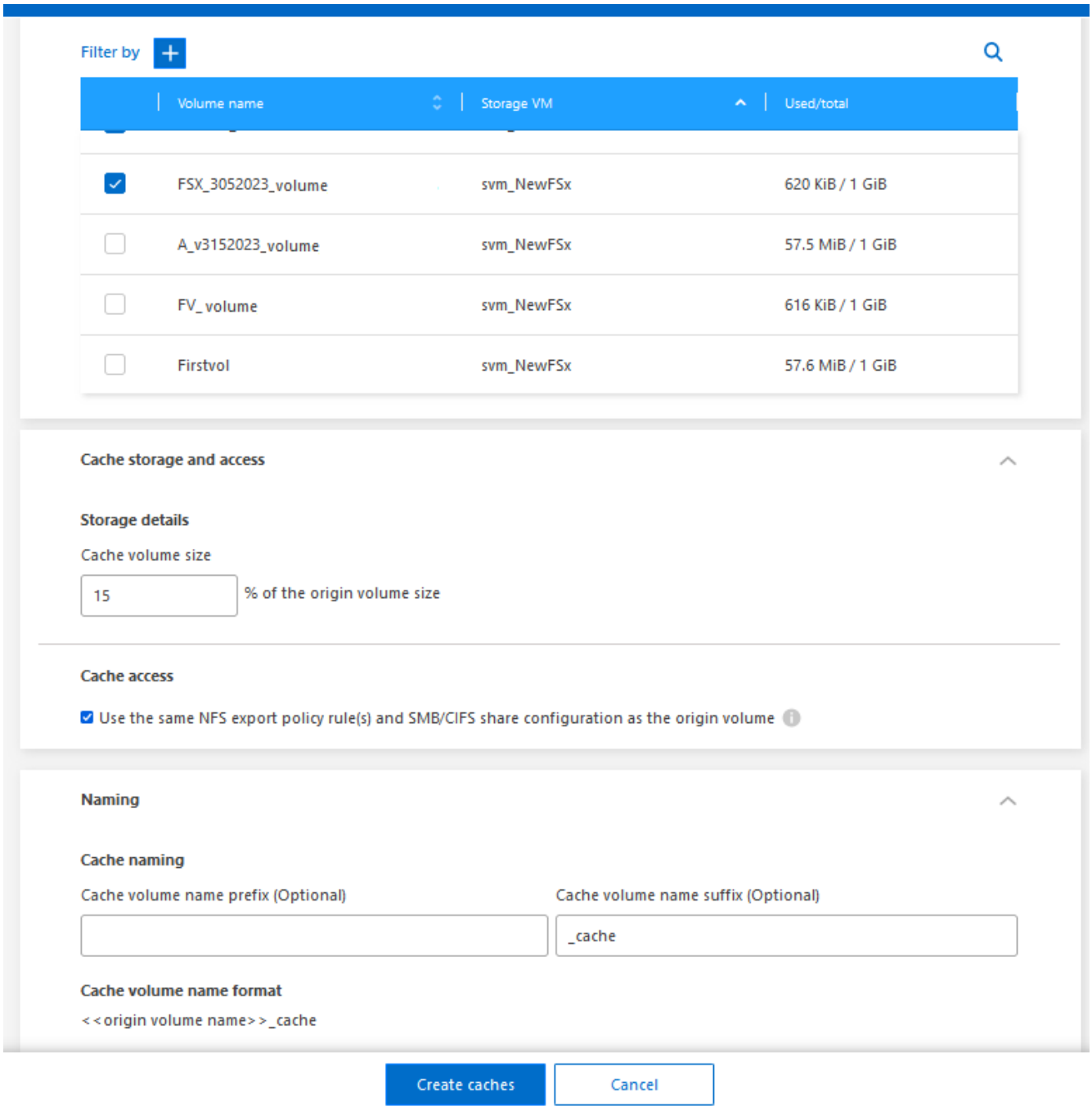

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   Then the NFS export policy rules and SMB/CIFS share in the source volume will be replicated to the cache volume. If the SMB/CIFS protocol isn't enabled on the cache storage VM, the SMB/CIFS share will not replicate.

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    The suffix of `_cache` is appended to the name in the format: `<user-specified prefix>_<source`

`volume name>_cache`

11. Select **Create caches**.

    The new cache appears on the Caching list. The cache volume name will show `_cache` as a suffix to the source volume name.

12. To see the progress of the operation, from the NetApp Console menu, select **Administration** > **Audit**.

Manage a cache

You can edit a cache, change the export policy, resize a cache, and delete a cache.

With Volume Caching, you can accomplish these goals:

- View cache details.
- Assign a different export policy to a cache.
- Edit a Volume Caching and change its size, etc. Edit will have the option to view and change other properties, and more properties will be added in edit in upcoming releases.
- Resize an existing cache based on a percentage of the original volume size.
- Delete a cache.

View cache details

For each caching, you can see the original volume, the working environment, the cache volume, and more.

Steps

1. From the NetApp Console left navigation, select **Mobility** > **Volume caching**.

   You can view the list of cache volumes created at the destination system. The list of caches displays the cache details.

2. To filter the list, select the **Filter by +** option.
3. Select a row and select the **Actions …** option on the right.
4. Select **View and edit details**.
5. Review the details.

Edit a cache

You can change the name, volume size, and export policy for a cache.

Steps

1. From the NetApp Console left navigation, select **Mobility** > **Volume Caching**.
2. Select a row and select the **Actions …** option on the right.
3. Select **View and edit details**.
4. In the Basic configuration tab, optionally, change the cache name and cache volume size.
5. Optionally, expand the Cache access tab, and modify these values:

a. The mount path.

b. An export policy that is different from the existing one.

6. To change SMB/CIFS share details or the export policy rules, click the option to access NetApp System Manager.
7. Select **Save**.

Assign a different cache export policy

You can assign a different export policy to a cache.

The source export policy rules should be applied to the target cluster.

You can assign an existing export policy to a cache. You cannot change the export policy rules. If you need to change the export policies, you can use NetApp System Manager.

Steps

1. From the NetApp Console left navigation, select **Mobility** > **Volume Caching**.
2. Select a row and select the **Actions …** option on the right.
3. Select **Change export policy**.
4. Select the export policy you want to assign to the cache.
5. Select **Save**.

Resize a cache

You can change the size of the cache volume based on a percentage of the source volume.

Steps

1. From the NetApp Console left navigation, select **Mobility** > **Volume Caching**.
2. Select a row and select the **Actions …** option on the right.
3. Select **Resize**.
4. Enter a new percentage of the origin volume size.

   The cache volume will resize to the new percentage.

5. Select **Save**.

Delete a cache

If you no longer need the cache, you can delete it. This deletes the Volume Caching relationship and deletes the target volume cache.

Steps

1. From the NetApp Console left navigation, select **Mobility** > **Volume Caching**.
2. Select a row and select the **Actions …** option on the right.
3. Select **Delete**.
4. Check the box.

5. Select **Delete**.

Monitor Volume Caching jobs on the Audit page

You can monitor all Volume Caching jobs and determine their progress by using the NetApp Console Audit page.

Steps

1. From the NetApp Console menu, select **Administration** > **Audit**.
2. Optionally, filter by time, service, action, agent, resource, user, or status.
3. Explore all caches and the operations.

Knowledge and support

Register for support

Unresolved directive in support/task-support-registration.adoc - include::https://raw.githubusercontent.com/NetAppDocs/cloud-manager-family/main/_include/support-registration.adoc[]

Get help

Unresolved directive in support/task-get-help.adoc - include::https://raw.githubusercontent.com/NetAppDocs/cloud-manager-family/main/_include/get-help.adoc[]

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