



volume snapshot commands

ONTAP 9.12.1 commands

NetApp
December 14, 2022

Table of Contents

- volume snapshot commands 1
 - volume snapshot compute-reclaimable 1
 - volume snapshot create 1
 - volume snapshot delete 2
 - volume snapshot modify-snaplock-expiry-time 3
 - volume snapshot modify 4
 - volume snapshot partial-restore-file 5
 - volume snapshot prepare-for-revert 7
 - volume snapshot rename 7
 - volume snapshot restore-file 8
 - volume snapshot restore 9
 - volume snapshot show-delta 10
 - volume snapshot show 11
 - volume snapshot autodelete modify 17
 - volume snapshot autodelete show 20
 - volume snapshot policy add-schedule 22
 - volume snapshot policy create 23
 - volume snapshot policy delete 27
 - volume snapshot policy modify-schedule 27
 - volume snapshot policy modify 28
 - volume snapshot policy remove-schedule 29
 - volume snapshot policy show 30

volume snapshot commands

volume snapshot compute-reclaimable

Calculate the reclaimable space if specified snapshots are deleted

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot compute-reclaimable` command calculates the volume space that can be reclaimed if one or more specified Snapshot copies are deleted.

The command heavily uses system's computational resources so it can reduce the performance for client requests and other system processes. Therefore, the queries that use query operators (*, |, etc.), are disabled for this command. You should not specify more than three Snapshot copies per query. Snapshot copies must be specified as a comma-separated list with no spaces after the commas.

Parameters

-vserver <vserver name> - Vserver Name

This specifies the Vserver on which the volume is located.

-volume <volume name> - Volume Name

This specifies the volume for which reclaimable space is to be calculated.

-snapshots <snapshot name>,... - List of Snapshots

This specifies one or more than one Snapshot copies that are to be considered for deletion. If you list more than one Snapshot copy, specify a comma-separated list with no spaces after the commas.

Examples

The following example calculates the space that can be reclaimed if the Snapshot copy named `hourly.2008-01-10_1505` is deleted on a volume named `vol3`, which is a part of the Vserver named `vs0`:

```
cluster1::> volume snapshot compute-reclaimable -vserver vs0
-volume vol3 -snapshots hourly.2008-01-10_1505
```

volume snapshot create

Create a snapshot

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot create` command creates a Snapshot copy of a specified volume.

Parameters

-vserver <vserver name> - Vserver

This specifies the Vserver that contains the volume on which the snapshot is to be created.

-volume <volume name> - Volume

This specifies the volume where a Snapshot copy is to be created.

-snapshot <snapshot name> - Snapshot

This specifies the name of the Snapshot copy that is to be created.

[-comment <text>] - Comment

This optionally specifies a comment for the Snapshot copy.

[-foreground {true|false}] - Foreground Process

If you use this option and select *false*, the Snapshot copy creation process runs in the background. If you use this option and select *true*, the Snapshot copy creation process runs in the foreground. The default is *true*.

[-snapmirror-label <text>] - Label for SnapMirror Operations

If you specify this option, the Snapshot copy is created with the SnapMirror Label that you specify. If this option is not specified, the Snapshot copy is created with no SnapMirror Label. The SnapMirror Label is used by the Vaulting subsystem when you back up Snapshot copies to the Vault Destination.

[-expiry-time <MM/DD/YYYY HH:MM:SS>] - Expiry Time

If you specify this option, the Snapshot copy is created with the expiry time that you specify. The expiry time indicates the time at which the Snapshot copy becomes eligible for deletion.

[-snaplock-expiry-time {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm] | infinite}] - SnapLock Expiry Time

This optionally specifies a snaplock-expiry-time for the Snapshot copy. A Snapshot copy with an expiry time cannot be deleted until the expiry time has elapsed. This option takes effect only on volumes with snapshot-locking-enabled set to true. If this option is not specified, the Snapshot copy will not be under retention.

Examples

The following example creates a Snapshot copy named `vol3_snap` on a volume named `vol3` on a Vserver named `vs0`. The Snapshot copy is given the comment "Single snapshot" and the operation runs in the background.

```
cluster1::> volume snapshot create -vserver vs0 -volume vol3 -snapshot
vol3_snapshot -comment "Single snapshot" -foreground false
```

volume snapshot delete

Delete a snapshot

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot delete` command deletes a Snapshot copy from a specified volume.

Parameters

-vserver <vserver name> - Vserver

This specifies the Vserver that contains the volume on which the specified Snapshot copy is saved.

-volume <volume name> - Volume

This specifies the volume from which a Snapshot copy is to be deleted.

-snapshot <snapshot name> - Snapshot

This specifies the Snapshot copy that is to be deleted.

[-foreground {true|false}] - Foreground Process

If you use this option and set it to `false`, the delete operation runs as a background process. If you specify this option and set it to `true`, the operation runs as a foreground process. The default is `true`.

[-force <true>] - Force Delete

If you use this switch, the Snapshot copy is immediately deleted without generating any confirmation messages. If you do not use this option the operation generates confirmation messages and the operation is disallowed on application tagged volumes. Passing in a value of `true` is supported, but not required. The `force` switch is typically used for scripting applications where users cannot directly confirm the delete operation.

[-ignore-owners <true>] - Ignore Snapshot Owners

If you use this switch, the command ignores other processes that might be accessing the Snapshot copy. If you do not use this option the operation exhibits default behavior and checks the owners tags before allowing the deletion to occur. Passing in a value of `true` is supported, but not required.

Examples

The following example deletes a Snapshot copy named `vol3_daily` from a volume named `vol3` on a Vserver named `vs0`:

```
cluster1::> volume snapshot delete -vserver vs0 -volume vol3 -snapshot
vol3_daily
```

volume snapshot modify-snaplock-expiry-time

Modify expiry time of a SnapLock Snapshot copy

Availability: This command is available to `cluster` and `Vserver` administrators at the `admin` privilege level.

Description

The `volume snapshot modify-snapshot-expiry-time` extends `snaplock` expiry time of an existing

Snapshot copy.

Parameters

-vserver <vserver name> - Vserver

This specifies the Vserver that contains the volume on which the Snapshot copy is located.

-volume <volume name> - Volume

This specifies the volume where a Snapshot copy is to be located.

-snapshot <text> - Snapshot

This specifies the name of the Snapshot copy locked by SnapLock whose snaplock expiry time needs to be modified.

[-expiry-time {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm] | infinite}] - SnapLock Expiry Time

Specifies the new snaplock expiry that is applied to Snapshot copy locked by SnapLock.

If this option value is *infinite*, then a retention period that never expires is applied to the Snapshot copy.

Examples

The following example extends the retention period of a Snapshot copy *snap1* to *"03/03/2020 00:00:00"*:

```
cluster1::> volume snapshot modify-snaplock-expiry-time -vserver vs1
-volume voll1 -snapshot snap1 -expiry-time "03/03/2020 00:00:00"
cluster1::>
```

The following example extends the retention period of a Snapshot copy *snap2* to *infinite*:

```
cluster1::> volume snapshot modify-snaplock-expiry-time -vserver vs1
-volume voll1 -snapshot snap2 -expiry-time infinite
cluster1::>
```

```
cluster1::> volume snapshot show -vserver vs1 -fields snaplock-expiry-time
vserver volume snapshot snaplock-expiry-time
-----
vs1      voll1  snap1  3/3/2020 00:00:00 +05:30
vs1      voll1  snap2  infinite
```

volume snapshot modify

Modify snapshot attributes

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot modify` command enables you to change the text comment associated with a Snapshot copy.

Parameters

-vserver <vserver name> - Vserver

This specifies the Vserver that contains the volume on which the specified Snapshot copy is saved.

-volume <volume name> - Volume

This specifies the volume whose Snapshot copy is to be modified.

-snapshot <snapshot name> - Snapshot

This specifies the Snapshot copy whose text comment is to be modified.

[-comment <text>] - Comment

This specifies the new comment for the Snapshot copy.

[-snapmirror-label <text>] - Label for SnapMirror Operations

This specifies the SnapMirror Label for the Snapshot copy. The SnapMirror Label is used by the Vaulting subsystem when you back up Snapshot copies to the Vault Destination. If an empty label ("") is specified, the existing label will be deleted.

[-expiry-time <MM/DD/YYYY HH:MM:SS>] - Expiry Time

This specifies the expiry time for the Snapshot copy. The expiry time indicates the time at which the Snapshot copy becomes eligible for deletion. If an expiry time of ("0") is specified, the existing expiry time will be deleted.

Examples

The following example modifies the comment of a Snapshot copy named `vol3_snapshot` of a volume named `vol3` on a Vserver named `vs0`. The comment is changed to "Pre-upgrade snapshot".

```
cluster1::> volume snapshot modify -vserver vs0 -volume vol3
-snapshot vol3_snapshot -comment "Pre-upgrade snapshot"
```

volume snapshot partial-restore-file

Restore part of a file from a snapshot

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot partial-restore-file` command enables you to restore a range of bytes in a file from the version of the file saved in the Snapshot copy. This command is intended to be used to restore particular pieces of LUNs, NVMe namespaces, and NFS or CIFS container files that are used by a host to store multiple sources of data. For example, a host might be storing multiple user databases in the same LUN.

A partial file restore can be used to restore one of those databases in the LUN without touching other databases stored in the LUN. This command is not intended for restoring parts of normal user-level files that are stored in the volume. You should use [volume snapshot restore-file](#) command to restore normal user-level files. The volume for the partial-restore should be online during this operation.

For LUNs and NVMe namespaces, this command is supported across all LUN and NVMe namespace source and destination objects with equal logical block sizes.

Parameters

-vserver <vserver name> - Vserver Name

This specifies the Vserver which contains the volume.

[-volume <volume name>] - Volume Name

This specifies the volume in which the Snapshot copy is saved.

-s, -snapshot <snapshot name> - Snapshot Name

This specifies the Snapshot copy which contains the version of file from which a range of bytes is restored. The source file, LUN, or NVMe namespace must be present in the Snapshot copy.

-path <text> - Filepath

This specifies the relative path to the file, LUN, or NVMe namespace which is partially restored from the Snapshot copy. You should specify the `-volume` option so that the file, LUN, or NVMe namespace is searched and restored from the Snapshot copy of the specified volume. If you do not specify the `-volume` then the file, LUN, or NVMe namespace is searched and restored from the Snapshot copy of the root volume. The destination file, LUN, or NVMe namespace must be present in the active file system.

-start-byte <integer> - Starting Byte Offset (Multiple of 4096)

This specifies the starting byte offset in the file to partially restore. The first byte of the file is byte zero. The start byte must be a multiple of 4096. In addition, the start byte must not exceed the size of the source or destination file.

-byte-count <integer> - Number of Bytes to Restore (Multiple of 4096)

This specifies the total number of bytes to restore, beginning at the `-start-byte` value. The `-byte-count` option must be a multiple of 4096. The maximum number of bytes that can be restored is 16 MB. The byte count must not exceed the range of the source or destination file.

Examples

The following example restores first 4096 bytes in the file `foo.txt` inside the volume `vol3` from the Snapshot copy `vol3_snap`:

```
cluster1::> volume snapshot partial-restore-file -vserver vs0 -volume vol3
-snapshot vol3_snap -path /foo.txt -start-byte 0 -byte-count 4096
```

Related Links

- [volume snapshot restore-file](#)

volume snapshot prepare-for-revert

Deletes multiple Snapshot copies of the current File System version.

Availability: This command is available to *cluster* administrators at the *advanced* privilege level.

Description

This command will delete all Snapshot copies that have the format used by the current version of ONTAP. It will fail if Snapshot copy polices are enabled, or if Snapshot copies have an owner.



Snapshot policies must be disabled prior to running this command.

Parameters

-node <nodename> - Node

The name of the node.

Examples

The following example prepares the Snapshot copies for revert.

```
cluster1::*> volume snapshot prepare-for-revert -node node1
```

volume snapshot rename

Rename a snapshot

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot rename` command renames a Snapshot copy.



You cannot rename a Snapshot copy that is created as a reference copy during the execution of the `volume move` command.

Parameters

-vserver <vserver name> - Vserver

This specifies the Vserver that contains the volume on which the specified Snapshot copy is to be renamed

-volume <volume name> - Volume

This specifies the volume that contains the Snapshot copy to be renamed.

-snapshot <snapshot name> - Snapshot

This specifies the Snapshot copy that is to be renamed.

-new-name <snapshot name> - Snapshot New Name

This specifies the new name for the Snapshot copy.

[-force <>true>] - Force Rename

If this parameter is specified, the Snapshot copy rename operation is allowed on application tagged volumes. Otherwise, the operation is disallowed on application tagged volumes.

Examples

The following example renames a Snapshot copy named `vol3_snap` on a volume named `vol3` and a Vserver named `vs0`. The Snapshot copy is renamed to `vol3_snap_archive`.

```
cluster1::> volume snapshot rename -vserver vs0 -volume vol3
-snapshot vol3_snap -new-name vol3_snap_archive
```

volume snapshot restore-file

Restore a file from a snapshot

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot restore-file` command enables you to restore a single file to a version saved in the Snapshot copy. You can restore a file over an existing copy of the file in the parent read-write volume or to a different location within the same parent read-write volume. If the destination file for the restore operation does not exist, a new file is created with the same version as the one saved in the Snapshot copy. If the destination file for the restore operation exists, then it is overwritten by the version from the Snapshot copy. This operation is used to restore normal user-level files, LUNs and NVMe namespaces. The command also supports restoring normal user-level files with streams. The command fails if you try to restore directories (and their contents). During the restore operation the parent read-write volume should remain online. The command fails if the destination path for the restore operation is in a different volume than the source volume.

Parameters

-vserver <vserver name> - Vserver Name

This specifies the Vserver which contains the volume.

[-volume <volume name>] - Volume Name

This specifies the volume which contains the specified Snapshot copy.

-s, -snapshot <snapshot name> - Snapshot Name

This specifies the Snapshot copy from which the file is restored.

-path <text> - Filepath

This specifies the relative path to the file which is restored from the Snapshot copy. You should specify the `-volume` option so that the file is searched and restored from the Snapshot copy of the specified volume. If you do not specify the `-volume` then the file is searched and restored from the Snapshot copy of the root volume.

[-r, -restore-path <text>] - Restore Filepath

This option specifies the destination location inside the volume where the file is restored. If you do not specify this option, the file is restored at the same location referred by `-path` option. If you specify `-restore-path` option, then it should refer to a relative path location within the same volume which contains the source file. If you do not specify `-volume` along with the relative path, the file is restored in the root volume.

[-split-disabled <>true>] - Disable Space Efficient LUN Splitting

If you use this option and set it to `true`, space efficient LUN or NVMe namespace clone split is not allowed during the restore operation. If you use this option and set it to `false` or do not use this option, then space efficient LUN or NVMe namespace clone split is allowed during the restore operation.

[-ignore-streams <>true>] - Ignore Streams

If you use this parameter, the file is restored without its streams. By default, the streams are restored.

Examples

The following example restores a file `foo.txt` from the Snapshot copy `vol3_snap` inside the volume `vol3` contained in a Vserver `vs0`:

```
cluster1::> volume snapshot restore-file -vserver vs0 -volume vol3
-snapshot vol3_snap -path /foo.txt
```

volume snapshot restore

Restore the volume to a snapshot.

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot restore` command restores a Snapshot copy to be the read-write parent volume for the volume family. This replaces the current working copy of the volume with the Snapshot copy that results in a loss of all changes made since the Snapshot copy was created.



You should manually update all the SnapMirror relationships of a volume immediately after you restore its Snapshot copy. Not doing so can result in unusable SnapMirror relationships that must be deleted and re-created.

After the restore is complete, the size of the flexible volume will be set to either the current volume size or the snapshot size - whichever is greater.

Parameters

-vserver <vserver name> - Vserver

This specifies the Vserver that contains the volume on which the specified Snapshot copy to be restored is saved.

-volume <volume name> - Volume

This specifies the parent read-write volume whose Snapshot copy is to be restored to take its place.

-snapshot <snapshot name> - Snapshot

This specifies the Snapshot copy that is to be restored to be the read-write parent volume.

[-force <true>] - Force Restore

If you use this parameter, the Snapshot copy is restored even if the volume has one or more newer Snapshot copies which are currently used as reference Snapshot copy by SnapMirror. If a restore is done in this situation, this will cause future SnapMirror transfers to fail. The SnapMirror relationship may be repaired using [snapmirror resync](#) command if a common Snapshot copy is found between the source and destination volume. If there is no common Snapshot copy between the source and the destination volume, a baseline SnapMirror copy would be required. If you use this parameter, the operation is also allowed on application tagged volumes.

[-preserve-lun-ids {true|false}] - Preserve LUN Identifiers

This option enables you to select whether the Snapshot copy restore needs to be non-disruptive to clients due to LUN or NVMe namespace identifiers changing. If you use this option and set it to *true*, or choose to not use this option at all, the `volume snapshot restore` command fails if the system determines that it cannot be non-disruptive with regards to LUN or NVMe namespace identifiers. If you use this option and set it to *false*, the restore operation proceeds even if this might cause client-visible effects. In this case, administrators should take the LUNs or NVMe namespaces offline before proceeding.

Examples

The following example restores a Snapshot copy named `vol3_snap_archive` to be the parent read-write volume for the volume family. The existing read-write volume is named `vol3` and is located on a Vserver named `vs0`:

```
cluster1::> volume snapshot restore -vserver vs0 -volume vol3
-snapshot vol3_snap_archive
```

Related Links

- [snapmirror resync](#)

volume snapshot show-delta

Computes delta between two Snapshot copies

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot show-delta` command returns the number of bytes that changed between two Snapshot copies or a Snapshot copy and the active filesystem. This is calculated from the number of blocks that differ multiplied by the block size. The command also shows the time elapsed between the Snapshot copies in seconds.

Queries that use query operators (`*`, `|`, etc.) are disabled for this command to avoid performance degradation

for client requests.

Parameters

-vserver <vserver name> - Vserver Name

This specifies the Vserver on which the volume is located.

-volume <volume name> - Volume Name

This specifies the volume for which the delta is to be calculated.

-snapshot1 <snapshot name> - First Snapshot Name

This specifies the first Snapshot copy for the comparison.

[-snapshot2 <snapshot name>] - Second Snapshot Name

This specifies the second Snapshot copy for the comparison. If the field is not specified, it is assumed to be the Active File System.

Examples

The following example shows the bytes changed and the time separating the two Snapshots copies:

```
cluster1::> volume snapshot show-delta -vserver vs0 -volume vol2
-snapshot1 one snapshot2 two
A total of 139264 bytes (34 blocks) are different. Elapsed time between
the Snapshot copies: 1s.
```

volume snapshot show

Display a list of snapshots

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot show` command displays information about Snapshot copies. The command output depends on the parameters specified with the command. If no parameters are specified, the command displays a table with the following information about all the available Snapshot copies:

- Vserver name
- Volume name
- Snapshot copy name
- State
- Size
- Percentage of total blocks in the parent volume
- Percentage of used blocks in the parent volume

To display a detailed list view with additional information, run the command and select the `-instance` view. In addition to the above mentioned information about the Snapshot copies, the detailed list view provides the following additional information:

- Creation time
- Snapshot busy
- List of the Snapshot copy's owners
- Comment associated with the Snapshot copy
- SnapMirror Label associated with the Snapshot copy
- 7-Mode Snapshot
- Constituent Snapshot
- Expiry Time
- SnapLock Expiry Time

At the advanced or higher privilege level the detailed view provides the following additional information:

- Snapshot copy's Dataset ID
- Snapshot copy's master Dataset ID
- Number of consistency points in the Snapshot copy
- Internal status of the Snapshot copy
- File system version
- File system block format
- Physical Snap ID
- Logical Snap ID
- Database record owner
- Snapshot tags
- Instance UUID
- Version UUID
- Node
- AFS used size
- Compression savings size
- Deduplication savings size
- Vbn0 savings size
- Reserved size
- Logical used size
- Performance metadata size
- Status of FlexGroup Qtree support in the Snapshot copy



For Snapshot copies whose parent volume is a FlexGroup, some information is not available and empty values will be displayed. This information includes:

- State
- Size
- Percentage of total blocks in the parent volume
- Percentage of used blocks in the parent volume

All information is available for Snapshot copies whose parent volume is a FlexGroup Constituent.

At the admin and advanced privilege level, Snapshot copies whose parent volume is a FlexGroup Constituent are not displayed by default. To display these, run the command and set the `is-constituent` to `true`. At the diagnostic or higher privilege level, all Snapshot copies are displayed by default.

The list view is automatically enabled if a single Snapshot copy is specified by using the `-vserver`, `-volume` and `-snapshot` options together.

A preformatted query for displaying the time-related information is available by specifying the `-time` format specifier. This displays a table that contains the following fields for all the available Snapshot copies:

- Vserver name
- Volume name
- Snapshot copy name
- Creation time

By using the `-fields` option you can choose to print only the certain fields in the output. This presents the selected fields in a table view. This is ideal when you want additional information to be different from the information that is provided by the default table view, but would like it in a format which is visually easy to compare.

You can specify additional parameters to display the information that matches only those parameters. For example, to display information only about Snapshot copies of the load-sharing volumes, run the command with the `-volume-type LS` parameter. If you specify multiple filtering parameters, only those Snapshot copies that match all the specified parameters are displayed.

Parameters

{ [-fields <fieldname>,...]

If you specify the `-fields <fieldname>`, ... parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

| [-time]

If the `-time` format is specified, the command displays time related information about all entries.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <vserver name>] - Vserver

If you use this parameter, the Snapshot copies located only on the specified Vserver will be displayed.

[`-volume <volume name>`] - Volume

If you use this parameter only Snapshot copies located on the specified volume will be displayed.

[`-snapshot <snapshot name>`] - Snapshot

If you use this parameter only Snapshot copies matching the specified name will be displayed.

[`-dsid <integer>`] - Snapshot Data Set ID

If this parameter is specified, the command displays information only about the Snapshot copy that has the specified data set ID.

[`-msid <integer>`] - Snapshot Master Data Set ID

If this parameter is specified, the command displays information only about the Snapshot copy that has the specified master data set ID.

[`-create-time <Date>`] - Creation Time

If this parameter is specified, the command displays information only about the Snapshot copies that match the specified creation time.

[`-busy {true|false}`] - Snapshot Busy

If this parameter is specified, the command displays information only about the Snapshot copies that have the specified busy status.

[`-owners <text>,...`] - List of Owners

If this parameter is specified, the command displays information only about the Snapshot copies that are owned by the specified list of owners.

[`-size {<integer>[KB|MB|GB|TB|PB]}`] - Snapshot Size

If this parameter is specified, the command displays information only about the Snapshot copies that have the specified size. The size is specified as a character specifying the unit of measurement after a number specifying the size in the mentioned unit of measurement: k (kilobytes), m (megabytes), g (gigabytes), or t (terabytes). If the unit of measurement is not specified, bytes are used as the unit, and the specified number is rounded up to the nearest 4 KB. You may also use an inequality such as `>10 MB` as input.

[`-blocks <percent>`] - Percentage of Total Blocks

If this parameter is specified, the command displays information only about the Snapshot copies that have the specified percentage of total blocks on their parent volumes. You may also use an inequality such as `>10` as input.

[`-usedblocks <percent>`] - Percentage of Used Blocks

If this parameter is specified, the command displays information only about the Snapshot copies that have the specified percentage of used blocks on their parent volumes. You may also use an inequality such as `>10` as input.

[`-cpcount <integer>`] - Consistency Point Count

If this parameter is specified, the command displays information only about the Snapshot copies that have the specified number of consistency points. You may also use an inequality such as `<100` as input.

[`-comment <text>`] - Comment

If this parameter is specified, the command displays information only about the Snapshot copies that have the specified comment text. You may also specify an inequality such as `!"-"` as input.

[-fs-version <text>] - File System Version

If you use this parameter the only Snapshot copies displayed are those that were created when the file system was of a specific release. This parameter is helpful especially when you need to upgrade to newer software release and want to know the Snapshot copies that will be impacted by the upgrade process.

[-logical-snap-id <integer>] - Logical Snap ID

If you use this parameter only those Snapshot copies which have the specified logical snapshot ID will be shown. Logical snapshot ids are internal implementation details of volume Snapshot copies.

[-is-7-mode {true|false}] - 7-Mode Snapshot

If you use this parameter only those Snapshot copies which have the specified value are shown. This value is *true* for the Snapshot copies that exist on the volume that was in 7-mode configuration and then transitioned to a clustered configuration. In such a scenario, the volume is in a clustered configuration and the existing Snapshot copies are still in the 7-mode configuration.

[-snapmirror-label <text>] - Label for SnapMirror Operations

If you use this parameter, only those Snapshot copies that have the specified SnapMirror Label value are shown.

[-state {valid|invalid|partial|pre-conversion}] - Snapshot State

If you use this parameter only those Snapshot copies which have the specified state will be shown.

[-is-constituent {true|false}] - Constituent Snapshot

If you use this parameter, only those Snapshot copies whose parent volume is a constituent volume of a FlexGroup will be shown.

[-node <nodename>] - Node

If you use this parameter only those Snapshot copies that are located on the specified storage system are shown.

[-inofile-version <integer>] - Snapshot Inofile Version

If this parameter is specified, the command displays information only about the Snapshot copies whose inode files are at the specified version.

[-expiry-time <MM/DD/YYYY HH:MM:SS>] - Expiry Time

If you use this parameter only those Snapshot copies that have the specified expiry time are shown.

[-compression-type {none|secondary|adaptive}] - Compression Type

If you use this parameter only those Snapshot copies that have the specified compression type are shown.

[-snaplock-expiry-time {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm] | infinite}] - SnapLock Expiry Time

If you use this parameter only those Snapshot copies that have the specified snaplock expiry time are shown.

[-application-io-size <Application I/O Size>] - Application IO Size

If you use this parameter only those Snapshot copies that have the specified application IO size are shown.

[-is-qtree-caching-enabled {true|false}] - Is Qtree Caching Support Enabled

If you use this parameter, only those Snapshot copies of FlexGroups or origin of a FlexCache volumes that

have the specified Qtree caching status are shown.

Examples

The following example displays default information about all Snapshot copies of a volume named vol1:

```
cluster1::> volume snapshot show -volume vol1

---Blocks
---
Vserver  Volume  Snapshot              Size Total%
Used%
-----
cluster1 vol1
          one           68KB    0%
33%
          two           72KB    0%
34%
2 entries were displayed.
```

The following example displays Snapshot copies which are older than 1 hour, limiting the output to wanted fields:

```
cluster1::> volume snapshot show -create-time <1h -fields create-time,
size
vserver  volume  snapshot  create-time          size
-----
cluster1 vol1   one       Mon Nov 17 10:23:42 2014 68KB
cluster1 vol1   two       Mon Nov 17 10:23:44 2014 72KB
2 entries were displayed.
```

The following example displays detailed information about a specific Snapshot copy, using the 'snap' alias:

```

cluster1::> snap show -volume voll -snapshot one -instance
Vserver: cluster1

                Volume: voll
                Snapshot: one
                Snapshot Data Set ID: 4294968322
                Snapshot Master Data Set ID: 6442451970
                Creation Time: Mon Nov 17 10:23:42 2014
                Snapshot Busy: false
                List of Owners: -
                Snapshot Size: 68KB
                Percentage of Total Blocks: 0%
                Percentage of Used Blocks: 33%
                Consistency Point Count: 4
                Comment: -
                File System Version: 9.0
                7-Mode Snapshot: false
                Label for SnapMirror Operations: -
                Constituent Snapshot: false
                Node: node1
                Snapshot Inofile Version: 3
                Expiry Time: -
                SnapLock Expiry Time: -

```

volume snapshot autodelete modify

Modify autodelete settings

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot autodelete modify` command enables you to modify Snapshot autodelete and LUN, NVMe namespace or file clone autodelete policy settings. Based on the defined policy, automatic deletion of Snapshot copies and LUN, NVMe namespace or file clones is triggered. Automatic deletion of Snapshot copies and LUN, NVMe namespace or file clones is useful when you want to automatically reclaim space consumed by the Snapshot copies and LUN, NVMe namespace or file clones from the volume when it is low in available space. LUN, NVMe namespace or file clone autodelete follows Snapshot copy autodelete. This command works only on a read-write parent volume. You cannot setup automatic Snapshot copy deletion and automatic LUN, NVMe namespace or file clone deletion for read-only volumes.

Parameters

-vserver <vserver name> - Vserver Name

This specifies the Vserver on which the volume is located.

-volume <volume name> - Volume Name

This specifies the volume whose autodelete policy has to be modified.

[-enabled {true|false}] - Enabled

This option specifies whether automatic deletion of Snapshot copies and LUN, NVMe namespace or file clones is enabled or disabled. If set to *true*, automatic deletion of Snapshot copies and LUN, NVMe namespace or file clones is enabled. If set to *false*, automatic deletion of Snapshot copies and LUN, NVMe namespace or file clones is disabled.

[-commitment {try|disrupt|destroy}] - Commitment

This option specifies which Snapshot copies and LUN, NVMe namespace or file clones can be automatically deleted to reclaim back space. + When set to *try*, the Snapshot copies which are not locked by any application and the LUN, NVMe namespace or file clones which are not configured as preserved are deleted. + When set to *disrupt*, the Snapshot copies which are not locked by data backing functionalities (such as volume clones, LUN clones, NVMe namespace clones and file clones) and LUN, NVMe namespace or file clones which are not configured as preserved are deleted. In the *disrupt* mode, the Snapshot copies locked by data protection utilities such as Snapmirror and Volume Move can be deleted. If such a locked Snapshot copy is deleted during the data transfer, the transfer is aborted. + When set to *destroy*, the Snapshot copies locked by the data backing functionalities are deleted. In addition, all the LUN, NVMe namespace or file clones in the volume are deleted.

[-defer-delete {scheduled|user_created|prefix|none}] - Defer Delete

This option determines the order in which Snapshot copies can be deleted. + Possible values are as follows:

- When set to *scheduled*, scheduled Snapshot copies are the last to be deleted.
- When set to *user_created*, user Snapshot copies are the last to be deleted.
- When set to *prefix*, Snapshot copies matching a certain prefix are the last to be deleted.
- When set to *none*, no defer deletion order is honored.

This option is not applicable for LUN, NVMe namespace or file clones.

[-delete-order {newest_first|oldest_first}] - Delete Order

This option specifies if the oldest Snapshot copy and the oldest LUN, NVMe namespace or file clone or the newest Snapshot copy and the newest LUN, NVMe namespace or file clone are deleted first.

[-defer-delete-prefix <text>] - Defer Delete Prefix

This option specifies the prefix string for the `-defer-delete prefix` parameter. The option is not applicable for LUN, NVMe namespace or file clones.

[-target-free-space <percent>] - Target Free Space

This option specifies the free space percentage at which the automatic deletion of Snapshot copies and LUN, NVMe namespace or file clones must stop. Depending on the `-trigger` Snapshot copies and LUN, NVMe namespace or file clones are deleted until you reach the target free space percentage.

[-trigger {volume|snap_reserve|(DEPRECATED)-space_reserve}] - Trigger

This option specifies the condition which starts the automatic deletion of Snapshot copies and LUN, NVMe

namespace or file clones. + Setting this option to *volume* triggers automatic deletion of Snapshot copies and LUN, NVMe namespace or file clones when the volume reaches threshold capacity and the volume space reserved for Snapshot copies is exceeded. + Setting the option to *snap_reserve* triggers automatic deletion of Snapshot copies and LUN, NVMe namespace or file clones when the space reserved for Snapshot copies reaches threshold capacity. + Setting the option to (DEPRECATED)-*space_reserve* triggers automatic deletion of Snapshot copies when reserved space in the volume reaches threshold capacity and the volume space reserved for Snapshot copies is exceeded. +



The option *space_reserve* is deprecated.

The threshold capacity is determined by the size of the volume as follows:

- If the volume size is less than 20 GB, the autodelete threshold is 85%.
- If the volume size is equal to or greater than 20 GB and less than 100 GB, the autodelete threshold is 90%.
- If the volume size is equal to or greater than 100 GB and less than 500 GB, the autodelete threshold is 92%.
- If the volume size is equal to or greater than 500 GB and less than 1 TB, the autodelete threshold is 95%.
- If the volume size is equal to or greater than 1 TB, the autodelete threshold is 98%.

[*-destroy-list* <text>] - Destroy List

This option specifies a comma separated list of data backing functions which are affected if the automatic deletion of the Snapshot copy backing that service is triggered. The possible values for this option are *lun_clone*, *fileclone*, *lun_clone*, *sfsr*, *vol_clone*, *cifs_share*, or *none*. Except *none*, all the other options can be combined as a comma separated list. Note that "lun_clone", "file_clone" and "sfsr" individually are not valid values. Only pairs "lun_clone,file_clone" and "lun_clone,sfsr" are supported.



For the purposes of autodelete, *lun_clone* includes both LUNs and NVMe namespaces.

If you specify *vol_clone*, the cloned volume backed by the Snapshot copy is deleted. + If you specify *lun_clone*, and a LUN or NVMe namespace is in the process of being cloned when autodelete is triggered, the cloning operation is aborted. Any access to this LUN or NVMe namespace will result in an error being reported to the client. + If you specify *file_clone*, and the file cloning operation is in progress when autodelete is triggered, the cloning operation is aborted. Any access to this file will result in an error being reported to the client. + If you specify *sfsr*, and the file restore is in progress when autodelete is triggered, the restore operation is aborted. + If the Snapshot copy is locked either by a *lun_clone* or *file_clone* or both, the *-destroy-list* must be set to *lun_clone,file_clone*. + If the Snapshot copy is locked either by a *lun_clone* or *sfsr* operation or both, the *-destroy-list* must be set to *lun_clone,file_clone*. The options *file_clone* and *sfsr* are equivalent to each other. + If you set *-destroy-list* to *lun_clone,file_clone* and the Snapshot copy is backing a file clone or *sfsr* operation, both the operations are aborted. This is also the case when you set *-destroy-list* to *lun_clone,sfsr*. + LUN, NVMe namespace or file clone autodelete is applicable only if *-destroy-list* contains *lun_clone* and *file_clone*

Examples

The following example enables Snapshot autodelete and sets the trigger to *snap_reserve* for volume *vol3* which is part of the Vserver *vs0*:

```
cluster1::> volume snapshot autodelete modify -vserver vs0 -volume vol3
-enabled true -trigger snap_reserve
```

The following example enables Snapshot autodelete and LUN, NVMe namespace or file clone autodelete for volume `vol3` which is part of the Vserve `vs0`:

```
cluster1::> volume snapshot autodelete modify -vserver vs0 -volume vol3
-enabled true -trigger volume -commitment try -delete-order oldest_first
-destroy-list lun_clone,file_clone
```

volume snapshot autodelete show

Display autodelete settings

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot autodelete show` command displays information about Snapshot autodelete policies. The command output depends on the parameters specified with the command. If no parameters are specified, the command displays a table with the following information about all the available Snapshot autodelete policies:

- Vserver name
- Volume name
- Option name
- Option value

To display a detailed list view with additional information, run the command and select the `-instance` view. The detailed list view provides the following information:

- Vserver name
- Volume name
- Enabled
- Commitment
- Defer Delete
- Delete Order
- Defer Delete Prefix
- Target Free Space
- Trigger
- Destroy List
- Is Constituent Volume

By using the `-fields` option you can choose to print only the certain fields in the output. This presents the selected fields in a table view. This is ideal when you want additional information to be different from the information that is provided by the default table view, but would like it in a format which is visually easy to compare.

You can specify additional parameters to display the information that matches only those parameters. For example, to display information only about Snapshot autodelete policies which are enabled, run the command with `-enabled true` parameter. If you specify multiple filtering parameters, only those policies that match all the specified parameters are displayed.

Parameters

{ [-fields <fieldname>,...]

This option allows you to print only certain fields in the output.

| [-instance] }

This option allows you to print a detailed list view.

[-vserver <vserver name>] - Vserver Name

If this parameter and the `-volume` parameter are specified, the command displays detailed autodelete policy information about the specified volume. If this parameter is specified by itself, the command displays autodelete policy information about volumes on the specified Vserver.

[-volume <volume name>] - Volume Name

If this parameter and the `-vserver` parameter are specified, the command displays detailed autodelete policy information about the specified volume. If this parameter is specified by itself, the command displays autodelete policy information about all volumes matching the specified name.

[-enabled {true|false}] - Enabled

If this parameter is specified, the command displays information about autodelete policies that match the specified parameter value.

[-commitment {try|disrupt|destroy}] - Commitment

If this parameter is specified, the command displays information about autodelete policies that match the specified commitment value.

[-defer-delete {scheduled|user_created|prefix|none}] - Defer Delete

If this parameter is specified, the command displays information about autodelete policies that match the specified defer deletion criterion.

[-delete-order {newest_first|oldest_first}] - Delete Order

If this parameter is specified, the command displays information about autodelete policies that match the specified deletion order.

[-defer-delete-prefix <text>] - Defer Delete Prefix

If this parameter is specified, the command displays information about autodelete policies that match the prefix used for deferring deletion.

[-target-free-space <percent>] - Target Free Space

If this parameter is specified, the command displays information about autodelete policies that match the specified target free space.

[`-trigger {volume|snap_reserve| (DEPRECATED) -space_reserve}`] - Trigger

If this parameter is specified, the command displays information about autodelete policies that match the specified trigger condition.

[`-destroy-list <text>`] - Destroy List

If this parameter is specified, the command displays information about autodelete policies that match the specified value.

[`-is-constituent {true|false}`] - Is Constituent Volume

If this parameter is specified, the command displays information about autodelete policies for the constituent volumes of FlexGroups.

Examples

The following example displays Snapshot autodelete policy settings for volume vol3 which is inside the Vserver vs0:

```
cluster1::> volume snapshot autodelete show -vserver vs0 -volume vol3
```

| Vserver | Volume | Option Name | Option Value |
|---------|--------|---------------------|-----------------|
| vs0 | vol3 | Enabled | false |
| | | Commitment | try |
| | | Trigger | volume |
| | | Target Free Space | 20% |
| | | Delete Order | oldest_first |
| | | Defer Delete | user_created |
| | | Defer Delete Prefix | (not specified) |
| | | Destroy List | none |

volume snapshot policy add-schedule

Add a schedule to snapshot policy

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot policy add-schedule` command adds a schedule to a Snapshot policy. You can create a schedule by using the [job schedule cron create](#) or [job schedule interval create](#) commands.

Parameters

`-vserver <vserver name>` - Vserver Name

This specifies the Vserver on which a Snapshot policy schedule is to be added.

-policy <snapshot policy> - Snapshot Policy Name

This specifies the Snapshot policy to which a schedule is to be added.

-schedule <text> - Schedule Name

This specifies the schedule that is to be added to the Snapshot policy.

-count <integer> - Maximum Snapshot Copies for Schedule

This specifies the maximum number of Snapshot copies that can be taken by the specified schedule. The total count of all the Snapshot copies to be retained for the policy cannot be more than 1023.

[-prefix <text>] - Snapshot Copy Name Prefix for Schedule

This option specifies the prefix with which Snapshot copies will be created for the added schedule. Every schedule has only one prefix. Once a prefix gets associated with a schedule, you cannot update the prefix. If some prefix is already associated with the schedule and you do not specify this parameter, then the previously defined prefix is used. The command fails if you try to update an existing prefix for a schedule. If no prefix is associated with the schedule and you do not specify this parameter, then schedule name is be used as the prefix.

[-snapmirror-label <text>] - Label for SnapMirror Operations

This specifies the SnapMirror Label identified with a Snapshot copy when it is created for the added schedule. The SnapMirror Label is used by the Vaulting subsystem when you back up Snapshot copies to the Vault Destination.

[-retention-period <snaplock minmax period>] - SnapLock Retention Period

This specifies the retention period for Snapshot copies created by the schedule.

Examples

The following example adds a schedule named midnight to the Snapshot policy named snappolicy_nightly on Vserver vs0. The schedule can take a maximum of five Snapshot copies.

```
cluster1::> volume snapshot policy add-schedule -vserver vs0 -policy
snappolicy_nightly -schedule midnight -count 5 -retention-period "7 days"
```

Related Links

- [job schedule cron create](#)
- [job schedule interval create](#)

volume snapshot policy create

Create a new snapshot policy

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot policy create` command creates a Snapshot policy. A Snapshot policy includes

at least one schedule, up to a maximum of five schedules, and a maximum number of Snapshot copies per schedule. You can create a schedule by using the [job schedule cron create](#) or [job schedule interval create](#) commands. When applied to a volume, the Snapshot policy specifies the schedule on which Snapshot copies are taken and the maximum number of Snapshot copies that each schedule can take. The total count of all the Snapshot copies to be retained for the policy cannot be more than 1023.

Parameters

-vserver <vserver name> - Vserver Name

This specifies the Vserver on which the Snapshot policy is to be created.

-policy <snapshot policy> - Snapshot Policy Name

This specifies the Snapshot policy that is to be created.

-enabled {true|false} - Snapshot Policy Enabled

This specifies whether the Snapshot policy is enabled.

[-comment <text>] - Comment

This option specifies a text comment for the Snapshot policy.

-schedule1 <text> - Schedule1 Name

This specifies the name of the first schedule associated with the Snapshot policy.

-count1 <integer> - Maximum Snapshot Copies for Schedule1

This specifies the maximum number of Snapshot copies that can be taken by the first schedule.

[-prefix1 <text>] - Snapshot Copy Name Prefix for Schedule1

This option specifies the prefix associated with the first schedule. Every schedule has only one prefix. The command fails if you try to update an existing prefix. If you do not specify this parameter and there is no prefix associated with the schedule, the schedule name is used as the prefix. If you do not specify this parameter and there is already a prefix associated with the schedule from a previous invocation of the command, then that prefix is used.

[-snapmirror-label1 <text>] - Label for SnapMirror Operations for Schedule1

This specifies the SnapMirror Label of the first schedule associated with the Snapshot policy. Once specified, all Snapshot copies created for that schedule have the SnapMirror Label assigned to them. The SnapMirror Label is used by the Vaulting subsystem when you back up Snapshot copies to the Vault Destination.

[-retention-period1 <snaplock minmax period>] - SnapLock Retention Period

This specifies the retention period for Snapshot copies that can be taken by the first schedule. If this parameter is specified, the `-schedule1` parameter must also be specified. The default is no retention period.

[-schedule2 <text>] - Schedule2 Name

This option specifies the name of the second schedule associated with the Snapshot policy. If this parameter is specified, the `-count2` parameter must also be specified.

[-count2 <integer>] - Maximum Snapshot Copies for Schedule2

This option specifies the maximum number of Snapshot copies that can be taken by the second schedule. If

this parameter is specified, the `-schedule2` parameter must also be specified.

[`-prefix2 <text>`] - Snapshot Copy Name Prefix for Schedule2

This option specifies the prefix associated with the second schedule. If this parameter is specified, `-schedule2` and `-count2` parameters must also be specified. Every schedule has only one prefix. The command fails if you try to update an existing prefix. If you do not specify this parameter and there is no prefix associated with the schedule, the schedule name is used as the prefix. If you do not specify this parameter and there is already a prefix associated with the schedule from a previous invocation of the command, then that prefix is used.

[`-snapmirror-label2 <text>`] - Label for SnapMirror Operations for Schedule2

This specifies the SnapMirror Label of the second schedule associated with the Snapshot policy. Once specified, all Snapshot copies created for that schedule have the SnapMirror Label assigned to them. The SnapMirror Label is used by the Vaulting subsystem when you back up Snapshot copies to the Vault Destination.

[`-retention-period2 <snaplock minmax period>`] - SnapLock Retention Period

This specifies the retention period for Snapshot copies that can be taken by the second schedule. If this parameter is specified, the `-schedule2` parameter must also be specified. The default is no retention period.

[`-schedule3 <text>`] - Schedule3 Name

This option specifies the name of the third schedule associated with the Snapshot policy. If this parameter is specified, the `-count3` parameter must also be specified.

[`-count3 <integer>`] - Maximum Snapshot Copies for Schedule3

This option specifies the maximum number of Snapshot copies that can be taken by the third schedule. If this parameter is specified, the `-schedule3` parameter must also be specified.

[`-prefix3 <text>`] - Snapshot Copy Name Prefix for Schedule3

This option specifies the prefix associated with the third schedule. If this parameter is specified, `-schedule3` and `-count3` parameters must also be specified. Every schedule has only one prefix. The command fails if you try to update an existing prefix. If you do not specify this parameter and there is no prefix associated with the schedule, the schedule name is used as the prefix. If you do not specify this parameter and there is already a prefix associated with the schedule from a previous invocation of the command, then that prefix is used.

[`-retention-period3 <snaplock minmax period>`] - SnapLock Retention Period

This specifies the retention period for Snapshot copies that can be taken by the third schedule. If this parameter is specified, the `-schedule3` parameter must also be specified. The default is no retention period.

[`-snapmirror-label3 <text>`] - Label for SnapMirror Operations for Schedule3

This specifies the SnapMirror Label of the third schedule associated with the Snapshot policy. Once specified, all Snapshot copies created for that schedule have the SnapMirror Label assigned to them. The SnapMirror Label is used by the Vaulting subsystem when you back up Snapshot copies to the Vault Destination.

[`-schedule4 <text>`] - Schedule4 Name

This option specifies the name of the fourth schedule associated with the Snapshot policy. If this parameter is specified, the `-count4` parameter must also be specified.

[-count4 <integer>] - Maximum Snapshot Copies for Schedule4

This option specifies the maximum number of Snapshot copies that can be taken by the fourth schedule. If this parameter is specified, the `-schedule4` parameter must also be specified.

[-prefix4 <text>] - Snapshot Copy Name Prefix for Schedule4

This option specifies the prefix associated with the fourth schedule. If this parameter is specified, `-schedule4` and `-count4` parameters must also be specified. Every schedule has only one prefix. The command fails if you try to update an existing prefix. If you do not specify this parameter and there is no prefix associated with the schedule, the schedule name is used as the prefix. If you do not specify this parameter and there is already a prefix associated with the schedule from a previous invocation of the command, then that prefix is used.

[-retention-period4 <snaplock minmax period>] - SnapLock Retention Period

This specifies the retention period for Snapshot copies that can be taken by the fourth schedule. If this parameter is specified, the `-schedule4` parameter must also be specified. The default is no retention period.

[-snapmirror-label4 <text>] - Label for SnapMirror Operations for Schedule4

This specifies the SnapMirror Label of the fourth schedule associated with the Snapshot policy. Once specified, all Snapshot copies created for that schedule have the SnapMirror Label assigned to them. The SnapMirror Label is used by the Vaulting subsystem when you back up Snapshot copies to the Vault Destination.

[-schedule5 <text>] - Schedule5 Name

This option specifies the name of the fifth schedule associated with the Snapshot policy. If this parameter is specified, the `-count5` parameter must also be specified.

[-count5 <integer>] - Maximum Snapshot Copies for Schedule5

This option specifies the maximum number of Snapshot copies that can be taken by the fifth schedule. If this parameter is specified, the `-schedule5` parameter must also be specified.

[-prefix5 <text>] - Snapshot Copy Name Prefix for Schedule5

This option specifies the prefix associated with the fifth schedule. If this parameter is specified, `-schedule5` and `-count5` parameters must also be specified. Every schedule has only one prefix. The command fails if you try to update an existing prefix. If you do not specify this parameter and there is no prefix associated with the schedule, the schedule name is used as the prefix. If you do not specify this parameter and there is already a prefix associated with the schedule from a previous invocation of the command, then that prefix is used.

[-retention-period5 <snaplock minmax period>] - SnapLock Retention Period

This specifies the retention period for Snapshot copies that can be taken by the fifth schedule. If this parameter is specified, the `-schedule5` parameter must also be specified. The default is no retention period.

[-snapmirror-label5 <text>] - Label for SnapMirror Operations for Schedule5

This specifies the SnapMirror Label of the fifth schedule associated with the Snapshot policy. Once specified, all Snapshot copies created for that schedule have the SnapMirror Label assigned to them. The SnapMirror Label is used by the Vaulting subsystem when you back up Snapshot copies to the Vault Destination.

Examples

The following example creates a Snapshot policy named `snappolicy_4hrs` on a Vserver named `vs0`. The policy runs on a single schedule named `4hrs` with a prefix `every_4_hour` and has a maximum number of five Snapshot copies.

```
cluster1::> volume snapshot policy create -vserver vs0 -policy
snappolicy_4hrs
-schedule1 4hrs -count1 5 -prefix1 every_4_hour -retention-period1 "8
hours"
```

Related Links

- [job schedule cron create](#)
- [job schedule interval create](#)

volume snapshot policy delete

Delete a snapshot policy

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot policy delete` command deletes a Snapshot policy.

Parameters

-vserver <vserver name> - Vserver Name

This specifies the Vserver on which the Snapshot policy is to be deleted.

-policy <snapshot policy> - Snapshot Policy Name

This specifies the Snapshot policy that is to be deleted.

Examples

The following example deletes a Snapshot policy named `snappolicy_hourly` on Vserver `vs0`:

```
cluster1::> volume snapshot policy delete -vserver vs0 -policy
snappolicy_hourly
```

volume snapshot policy modify-schedule

Modify a schedule within snapshot policy

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot policy modify-schedule` command modifies the maximum number of Snapshot copies that can be taken by a Snapshot policy's schedule.

Parameters

-vserver <vserver name> - Vserver Name

This specifies the Vserver on which a Snapshot policy schedule is to be modified.

-policy <snapshot policy> - Snapshot Policy Name

This specifies the Snapshot policy whose schedule is to be modified.

-schedule <text> - Schedule Name

This specifies the schedule that is to be modified.

[-newcount <integer>] - Maximum Snapshot Copies for Schedule

This specifies the maximum number of Snapshot copies that can be taken by the specified schedule. The total count of all the Snapshot copies to be retained for the policy cannot be more than 1023.

[-newsnapmirror-label <text>] - Label for SnapMirror Operations

This specifies the SnapMirror Label identified with a Snapshot copy when it is created for the specified schedule. The SnapMirror Label is used by the Vaulting subsystem when you back up Snapshot copies to the Vault Destination. If an empty label ("") is specified, the existing label will be deleted.

[-newretention-period <snaplock minmax period>] - SnapLock Retention Period

This specifies the retention period for Snapshot copies created by the schedule.

Examples

The following example changes the maximum number of Snapshot copies from five to four for a schedule named `midnight` on a Snapshot policy named `snappolicy_nightly` on Vserver `vs0`:

```
cluster1::> volume snapshot policy modify-schedule -vserver vs0 -policy
snappolicy_nightly -schedule midnight -newcount 4 -newretention-period "7
days"
```

volume snapshot policy modify

Modify a snapshot policy

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot policy modify` command enables you to modify the description associated with a Snapshot policy and whether the policy is enabled or disabled.

Parameters

-vserver <vserver name> - Vserver Name

This specifies the Vserver on which the Snapshot policy is to be modified.

-policy <snapshot policy> - Snapshot Policy Name

This specifies the Snapshot policy that is to be modified.

[-enabled {true|false}] - Snapshot Policy Enabled

This optionally specifies whether the Snapshot policy is enabled.

[-comment <text>] - Comment

This specifies the comment text for the Snapshot policy.

[-snapmirror-labels <text>,...] - Label for SnapMirror Operations

This optionally specifies a comma separated list of SnapMirror labels that are applied to the schedules in the Snapshot policy. Each label in the list applies to only one schedule in the Snapshot policy (maximum of 5 SnapMirror labels), the first label applying to the first schedule, the second label applying to the second schedule, and so on. You can have a maximum of five SnapMirror labels, which corresponds to the maximum number of schedules a Snapshot policy can have. If an empty string ("") is specified, the existing labels will be deleted from all the schedules.

Examples

The following example changes the description of a Snapshot policy named `snappolicy_wknd` on Vserver `vs0` to "Runs only on weekends":

```
cluster1::> volume snapshot policy modify -vserver vs0 -policy
snappolicy_wknd -comment "Runs only on weekends"
```

volume snapshot policy remove-schedule

Remove a schedule from snapshot policy

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot policy remove-schedule` command removes a schedule from a Snapshot policy.

Parameters

-vserver <vserver name> - Vserver Name

This specifies the Vserver on which a Snapshot policy schedule is to be removed.

-policy <snapshot policy> - Snapshot Policy Name

This specifies the Snapshot policy from which a schedule is to be removed.

-schedule <text> - Schedule Name

This specifies the schedule that is to be removed from the Snapshot policy.

Examples

The following example removes a schedule named hourly from a Snapshot policy named snappolicy_daily on Vserver vs0:

```
cluster1::> volume snapshot policy remove-schedule -vserver vs0 -policy
snappolicy_daily -schedule hourly
```

volume snapshot policy show

Show snapshot policies

Availability: This command is available to *cluster* and *Vserver* administrators at the *admin* privilege level.

Description

The `volume snapshot policy show` command displays the following information about Snapshot policies:

- Vserver name
- Snapshot policy name
- Number of schedules in the policy
- Comment for the policy
- Individual schedule names
- Maximum number of Snapshot copies associated with each schedule
- Snapshot copy name prefixes for the schedules
- SnapMirror Labels associated with the schedules

Parameters

{ [-fields <fieldname>,...]

If you specify the `-fields <fieldname>`, ... parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

| [-revert-incompatible]

If this parameter is specified, the command displays Snapshot policies that are not supported in Data ONTAP 8.2. The total Snapshot copy count in the policy needs to be reduced to be equal to or less than the supported count for the revert operation to succeed.

| [-instance] }

If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-vserver <vserver name>] - Vserver Name

If this parameter is specified, the command displays Snapshot policies on the specified Vserver.

[-policy <snapshot policy>] - Snapshot Policy Name

If this parameter is specified, the command displays detailed information about the specified Snapshot policy.

[-enabled {true|false}] - Snapshot Policy Enabled

If this parameter is specified, the command displays detailed information only about the Snapshot policy or policies that have the specified enabled value.

[-comment <text>] - Comment

If this parameter is specified, the command displays information only about the Snapshot policy or policies that have the specified comment.

[-total-schedules <integer>] - Total Number of Schedules in This Policy

If this parameter is specified, the command displays information only about the Snapshot policy or policies that have the specified total number of schedules.

[-schedules <text>, ...] - Schedule Name

If this parameter is specified, the command displays information only about the Snapshot policy or policies that have the specified list of schedules.

[-counts <integer>, ...] - Maximum Snapshots for the Schedule

If this parameter is specified, the command displays information only about the Snapshot policy or policies that have the specified list of maximum numbers of Snapshot copies per schedule.

[-prefixes <text>, ...] - Prefix Name

If this parameter is specified, the command displays information only about the Snapshot policy or policies that have the specified list of prefixes.

[-snapmirror-labels <text>, ...] - Label for SnapMirror Operations

If this parameter is specified, the command displays information only about the Snapshot policies that have the specified SnapMirror Label. When you specify a list of SnapMirror labels, the command displays all the Snapshot policies that contain any of the SnapMirror Labels specified in the list.

[-policy-owner <text>] - Owner of the policy

If this parameter is specified, the command displays information only about the Snapshot policies that have the specified policy owner.

[-total-count <integer>] - Total Number of Snapshots in This Policy

If this parameter is specified, the command displays information only about the Snapshot policies that have the specified total number of Snapshot copies.

[-retention-periods <snaplock minmax period>, ...] - SnapLock Retention Period

If this parameter is specified, the command displays information only about the Snapshot policy or policies that have the specified retention-period set.

Examples

The following example displays information about all Snapshot policies:

```
cluster1::> volume snapshot policy show
Vserver: cm

Policy Name          Number of Is
                    Schedules Enabled Comment
-----
default              3 false   Default policy with hourly,
daily weekly schedules.
  Schedule          Count    Prefix          SnapMirror
Label
-----
  hourly             6     hourly         -
  daily              2     daily           -
  weekly             2     weekly          -

default-1weekly      3 false   Default policy with 6 hourly, 2
daily 1 weekly schedule.
  Schedule          Count    Prefix          SnapMirror
Label
-----
  hourly             6     hourly         -
  daily              2     daily           -
  weekly             1     weekly          -

none                  0 false   Policy for no automatic
snapshots.
  Schedule          Count    Prefix          SnapMirror
Label
-----
  -                  -     -              -

Vserver: vs0

Policy Name          Number of Is
                    Schedules Enabled Comment
-----
p1                   1 false   -
  Schedule          Count    Prefix          SnapMirror
Label
```

```

-----
weekly                2    weekly                -
p2                    2 true    -
Schedule              Count    Prefix                SnapMirror
Label
-----
hourly                6    hourly                -
daily                 2    daily                 -

```

5 entries were displayed.

Copyright information

Copyright © 2022 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.