Recover files and folders using Previous Versions

ONTAP 9

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Recover files and folders using Previous Versions

Recover files and folders using previous versions overview

The ability to use Microsoft Previous Versions is applicable to file systems that support Snapshot copies in some form and have them enabled. Snapshot technology is an integral part of ONTAP. Users can recover files and folders from Snapshot copies from their Windows client by using the Microsoft Previous Versions feature.

Previous Versions functionality provides a method for users to browse through the Snapshot copies or to restore data from a Snapshot copy without a storage administrator's intervention. Previous Versions is not configurable. It is always enabled. If the storage administrator has made Snapshot copies available on a share, then the user can use Previous Versions to perform the following tasks:

- Recover files that were accidentally deleted.
- Recover from accidentally overwriting a file.
- Compare versions of file while working.

The data stored in Snapshot copies is read-only. Users must save a copy of a file to another location to make any changes to the file. Snapshot copies are periodically deleted; therefore, users need to create copies of files contained in Previous Versions if they want to indefinitely retain a previous version of a file.

Requirements for using Microsoft Previous Versions

Before you can use Previous Versions with your CIFS server, you need to know which versions of ONTAP and SMB, and which Windows clients, support it. You also need to know about the Snapshot copy setting requirement.

ONTAP version requirements

Supports Previous Versions.

SMB protocol version requirements

For storage virtual machine (SVM), ONTAP supports Previous Versions on all versions of SMB.

Windows client requirements

Before a user can use Previous Versions to access data in Snapshot copies, the Windows client must support the feature.

For the latest information about which Windows clients support Previous Versions, see the Interoperability Matrix.

NetApp Interoperability Matrix Tool

Requirements for Snapshot copy settings

To use Previous Versions to access data in Snapshot copies, an enabled Snapshot policy must be associated to the volume containing the data, clients must be able to access to the Snapshot data, and Snapshot copies must exist.

Use the Previous Versions tab to view and manage Snapshot copy data

Users on Windows client machines can use the Previous Versions tab on the Windows Properties window to restore data stored in Snapshot copies without needing to involve the storage virtual machine (SVM) administrator.

About this task

You can only use the Previous Versions tab to view and manage data in Snapshot copies of data stored on the SVM if the administrator has enabled Snapshot copies on the volume containing the share, and if the administrator configures the share to show Snapshot copies.

Steps

1. In Windows Explorer, display the contents of the mapped drive of the data stored on the CIFS server.
2. Right-click the file or folder in the mapped network drive whose Snapshot copies you want to view or manage.
3. Click **Properties**.

   Properties for the file or folder you selected are displayed.

4. Click the **Previous Versions** tab.

   A list of available Snapshot copies of the selected file or folder is displayed in the Folder versions: box. The listed Snapshot copies are identified by the Snapshot copy name prefix and the creation timestamp.

5. In the **Folder versions:** box, right-click the copy of the file or folder that you want to manage.
6. Perform the appropriate action:

If you want to…	Do the following…
View data from that Snapshot copy	Click **Open**.
Create a copy of data from that Snapshot copy	Click **Copy**.

   Data in Snapshot copies is read-only. If you want to make modifications to files and folders listed in the Previous Versions tab, you must save a copy of the files and folders that you want to modify to a writable location and make modifications to the copies.

7. After you finish managing Snapshot data, close the **Properties** dialog box by clicking **OK**.

   For more information about using the Previous Versions tab to view and manage Snapshot data, consult the Microsoft TechNet Library.

Related information

Determine whether Snapshot copies are available for Previous Versions use

You can view Snapshot copies from the Previous Versions tab only if an enabled Snapshot policy is applied to the volume containing the share, and if the volume configuration allows access to Snapshot copies. Determining Snapshot copy availability is helpful when assisting a user with Previous Versions access.

Steps

1. Determine whether the volume on which the share data resides has automatic Snapshot copies enabled and whether clients have access to Snapshot directories: `volume show -vserver vserver-name -volume volume-name -fields vserver,volume,snapdir-access,snapshot-policy,snapshot-count`

   The output displays what Snapshot policy is associated with the volume, whether client Snapshot directory access is enabled, and the number of available Snapshot copies.

2. Determine whether the associated Snapshot policy is enabled: `volume snapshot policy show -policy policy-name`
3. List the available Snapshot copies: `volume snapshot show -volume volume_name`

   For more information about configuring and managing Snapshot policies and Snapshot schedules, see Data Protection.

Example

The following example displays information about Snapshot policies associated with the volume named “data1” that contains the shared data and available Snapshot copies on “data1”.

```
cluster1::> volume show -vserver vs1 -volume data1 -fields
vserver,volume,snapshot-policy,snapdir-access,snapshot-count
vserver  volume snapdir-access snapshot-policy snapshot-count
-------- ------ -------------- --------------- --------------
vs1      data1  true           default         10

cluster1::> volume snapshot policy show -policy default
Vserver: cluster1
                   Number of Is
Policy Name        Schedules Enabled Comment
------------------ --------- ------- ---------------------------------
default                   3 true    Default policy with hourly, daily &
weekly schedules.
    Schedule         Count     Prefix                  SnapMirror Label
    ---------------- -----     ----------------------- -------------------
    hourly               6     hourly                  -
    daily                2     daily                   daily
    weekly               2     weekly                  weekly

cluster1::> volume snapshot show -volume data1
                                                                 ---Blocks---
Vserver  Volume  Snapshot                  State        Size Total% Used%
-------- ------- ------------------------- -------- -------- ------ -----
vs1      data1
                 weekly.2012-12-16_0015    valid       408KB     0%    1%
                 daily.2012-12-22_0010     valid       420KB     0%    1%
                 daily.2012-12-23_0010     valid       192KB     0%    0%
                 weekly.2012-12-23_0015    valid       360KB     0%    1%
                 hourly.2012-12-23_1405    valid       196KB     0%    0%
                 hourly.2012-12-23_1505    valid       196KB     0%    0%
                 hourly.2012-12-23_1605    valid       212KB     0%    0%
                 hourly.2012-12-23_1705    valid       136KB     0%    0%
                 hourly.2012-12-23_1805    valid       200KB     0%    0%
                 hourly.2012-12-23_1905    valid       184KB     0%    0%
```

Related information

Creating a Snapshot configuration to enable Previous Versions access

Data protection

Create a Snapshot configuration to enable Previous Versions access

The Previous Versions functionality is always available, provided that client access to Snapshot copies is enabled and provided that Snapshot copies exist. If your Snapshot

copy configuration does not meet these requirements, you can create a Snapshot copy configuration that does.

Steps

1. If the volume containing the share to which you want to allow Previous Versions access does not have an associated Snapshot policy, associate a Snapshot policy to the volume and enable it by using the `volume modify` command.

   For more information about using the `volume modify` command, see the man pages.

2. Enable access to the Snapshot copies by using the `volume modify` command to set the `-snap-dir` option to `true`.

   For more information about using the `volume modify` command, see the man pages.

3. Verify that Snapshot policies are enabled and that access to Snapshot directories is enabled by using the `volume show` and `volume snapshot policy show` commands.

   For more information about using the `volume show` and `volume snapshot policy show` commands, see the man pages.

   For more information about configuring and managing Snapshot policies and Snapshot schedules, see Data Protection.

Related information

Data protection

Guidelines for restoring directories that contain junctions

There are certain guidelines you should keep in mind when using Previous Versions to restore folders that contain junction points.

When using Previous Versions to restore folders that have child folders that are junction points, the restore can fail with an `Access Denied` error.

You can determine whether the folder that you are attempting to restore contains a junction by using the `vol show` command with the `-parent` option. You can also use the `vserver security trace` commands to create detailed logs about file and folder access issues.

Related information

Creating and managing data volumes in NAS namespaces

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