Plan the Hyper-V or SQL Server over SMB configuration

ONTAP 9

NetApp
June 14, 2022

This PDF was generated from https://docs.netapp.com/us-en/ontap/smb-hyper-v-sql/volume-config-worksheet-reference.html on June 14, 2022. Always check docs.netapp.com for the latest.

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Plan the Hyper-V or SQL Server over SMB configuration

Complete the volume configuration worksheet

The worksheet provides an easy way to record the values that you need when creating volumes for SQL Server and Hyper-V over SMB configurations.

For each volume, you must specify the following information:

- storage virtual machine (SVM) name

  The SVM name is the same for all volumes.

- Volume name
- Aggregate name

  You can create volumes on aggregates located on any node in the cluster.

- Size
- Junction path

You should keep the following in mind when creating volumes used to store application server data:

- If the root volume does not have NTFS security style, you must specify the security style as NTFS when you create the volume.

  By default, volumes inherit the security style of the SVM root volume.

- Volumes should be configured with the default volume space guarantee.
- You can optionally configure the autosize space management setting.
- You should set the option that determines the Snapshot copy space reserve to `0`.
- The Snapshot policy applied to the volume must be disabled.

  If the SVM Snapshot policy is disabled, then you do not need to specify a Snapshot policy for the volumes. The volumes inherit the Snapshot policy for the SVM. If the Snapshot policy for the SVM is not disabled and is configured to create Snapshot copies, you must specify a Snapshot policy at the volume level, and that policy must be disabled. Shadow copy service-enabled backups and SQL Server backups manage Snapshot copy creation and deletion.

- You cannot configure load-sharing mirrors for the volumes.

Junction paths on which you plan to create shares that the application servers use should be chosen so that there are no junctioned volumes below the share entry point.

For example, if you want to store virtual machine files on four volumes named “vol1”, “vol2”, “vol3”, and “vol4”, you can create the namespace shown in the example. You can then create shares for the application servers at the following paths: `/data1/vol1`, `/data1/vol2`, `/data2/vol3`, and `/data2/vol4`.

```
                    Junction                        Junction
Vserver Volume      Active   Junction Path          Path Source
------- ----------- -------- -------------------    -----------
vs1     data1        true     /data1                RW_volume
vs1     vol1         true     /data1/vol1           RW_volume
vs1     vol2         true     /data1/vol2           RW_volume
vs1     data2        true     /data2                RW_volume
vs1     vol3         true     /data2/vol3           RW_volume
vs1     vol4         true     /data2/vol4           RW_volume
```

Types of information	Values
Volume 1: Volume name, aggregate, size, junction path	
Volume 2: Volume name, aggregate, size, junction path	
Volume 3: Volume name, aggregate, size, junction path	
Volume 4: Volume name, aggregate, size, junction path	
Volume 5: Volume name, aggregate, size, junction path	
Volume 6: Volume name, aggregate, size, junction path	
Additional volumes: Volume name, aggregate, size, junction path	

Complete the SMB share configuration worksheet

Use this worksheet to record the values that you need when creating continuously available SMB shares for SQL Server and Hyper-V over SMB configurations.

Information about SMB shares properties and configuration settings

For each share, you must specify the following information:

- storage virtual machine (SVM) name

  The SVM name is the same for all shares

- Share name
- Path
- Share properties

  You must configure the following two share properties:

  - `oplocks`
  - `continuously-available`

The following share properties must not be set:

- `homedirectory attributecache`
- `branchcache`
- `access-based-enumeration`

> With change notify disabled, Windows 2012 Server does not refresh the Explorer window, which causes an inconsistent view of directory contents.

  - Symlinks must be disabled (the value for the `-symlink-properties` parameter must be null [""]).

Information about share paths

If you are using Remote VSS to back up Hyper-V files, the choice of share paths to use when making SMB connections from the Hyper-V servers to the storage locations where the virtual machine files are stored is important. Although shares can be created at any point in the namespace, paths for shares that the Hyper-V servers use should not contain junctioned volumes. Shadow copy operations cannot be performed on share paths that contain junction points.

SQL Server cannot cross junctions when creating the database directory structure. You should not create share paths for SQL server that contain junction points.

For example, given the namespace shown, if you want to store virtual machine files or database files on volumes “vol1”, “vol2”, “vol3”, and “vol4”, you should create shares for the application servers at the following paths: `/data1/vol1`, `/data1/vol2`, `/data2/vol3`, and `/data2/vol4`.

```
                    Junction                        Junction
Vserver Volume      Active   Junction Path          Path Source
------- ----------- -------- --------------------   -----------
vs1     data1        true     /data1                RW_volume
vs1     vol1         true     /data1/vol1           RW_volume
vs1     vol2         true     /data1/vol2           RW_volume
vs1     data2        true     /data2                RW_volume
vs1     vol3         true     /data2/vol3           RW_volume
vs1     vol4         true     /data2/vol4           RW_volume
```

> Although you can create shares on the `/data1` and `/data2` paths for administrative management, you must not configure the application servers to use those shares to store data.

Planning worksheet

Types of information	Values
Volume 1: SMB share name and path	
Volume 2: SMB share name and path	
Volume 3: SMB share name and path	
Volume 4: SMB share name and path	
Volume 5: SMB share name and path	
Volume 6: SMB share name and path	
Volume 7: SMB share name and path	
Additional volumes: SMB share names and paths	

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