Contents

QUICK START GUIDE

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BackupAssist Version 6

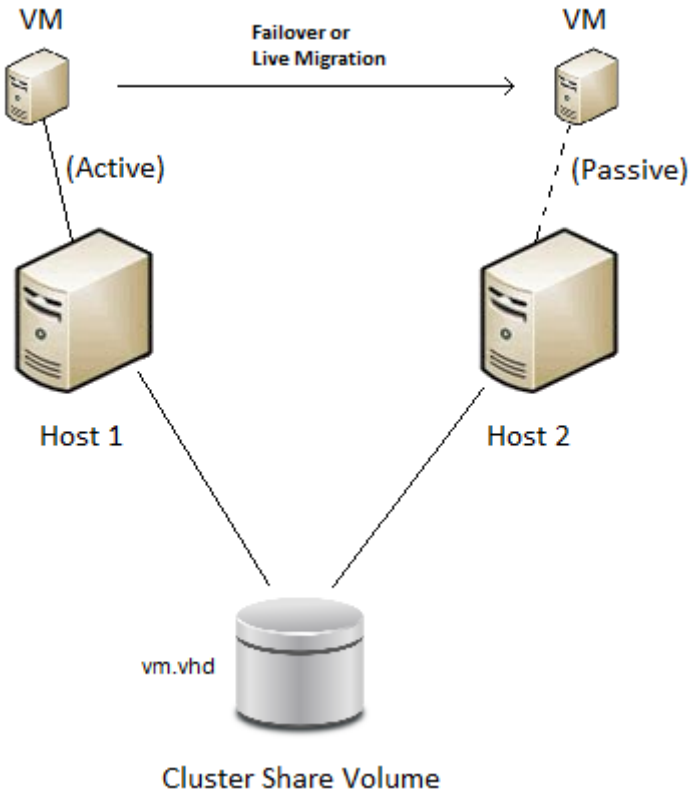
www.BackupAssist.com

1. Introduction

This quick start guide is intended to assist new users to configure the BackupAssist jobs necessary to back up Microsoft Hyper-V hosts that utilize a Cluster Shared Volume (CSV).

When stored on a Cluster Share Volume the virtual machine's files (virtual hard disks (VHDs) and configuration files) present as a shared resource between the hosts. As the files on the CSV are shared, access to the virtual machine's files must be coordinated so that only the one host accesses a virtual machine's files at any time.

The following diagram depicts a simplified configuration with a small cluster of two hosts with a single virtual machine (VM) which may fail-over at any time from Host 1 to Host 2. This virtual machine will only be active on a single host at any time which is referred to as the 'active node'. The other node is referred to as a 'passive node'. Other virtual machines added to this cluster may be active on either host at any point in time.



When a fail-over or migration occurs, one or more of the virtual machines will no longer be active on the original host. Therefore, BackupAssist must be installed and licensed on each of the hosts. A BackupAssist job must be created on each of the hosts to back up all virtual machines which are active on that host at the time the backup runs. This can be done by selecting the entire Hyper-V VSS application from each job, which automatically finds active virtual machines at the time the back up runs.

Because back up of the Cluster Share Volume must be coordinated, the BackupAssist jobs on each of the hosts must have their start times staggered. The scheduled start time of the jobs on each of the hosts must be set at least 5 minutes apart. This will allow BackupAssist sufficient time to initialize and coordinate its access to the CSV. BackupAssist will then automatically delay the second job so that it will not commence until the first job has completed.

2. Supported Engines

BackupAssist can back up hosts using a CSV via four available engines. The following table lists the benefits of each engine:

Engine	Benefits for CSV backup
File replication	File replication backups are instantly available with no need to restore. The VHDs stored on the destination media may be used immediately by simply reconfiguring the virtual machine to point to the VHD on the backup media.
Rsync	The Rsync engine is highly efficient for backing up small virtual machines (less than 50 GB in size) and allows back up to many destinations including cloud storage.
Zip	Real-time data compression and reduced storage requirements with the simplicity of a single file archive. Fully compliant with the zip 64 standard makes for simplistic restore. Additional support for zip-to-tape (requires add-on).
Imaging (Via staging disk)	In order to back up a CSV, BackupAssist first creates a backup on an staging disk. The imaging backup is then performed from the staging disk to the destination media. In the event that a recovery is required, the most recent backup is instantly available from the staging disk!

Imaging via staging disk

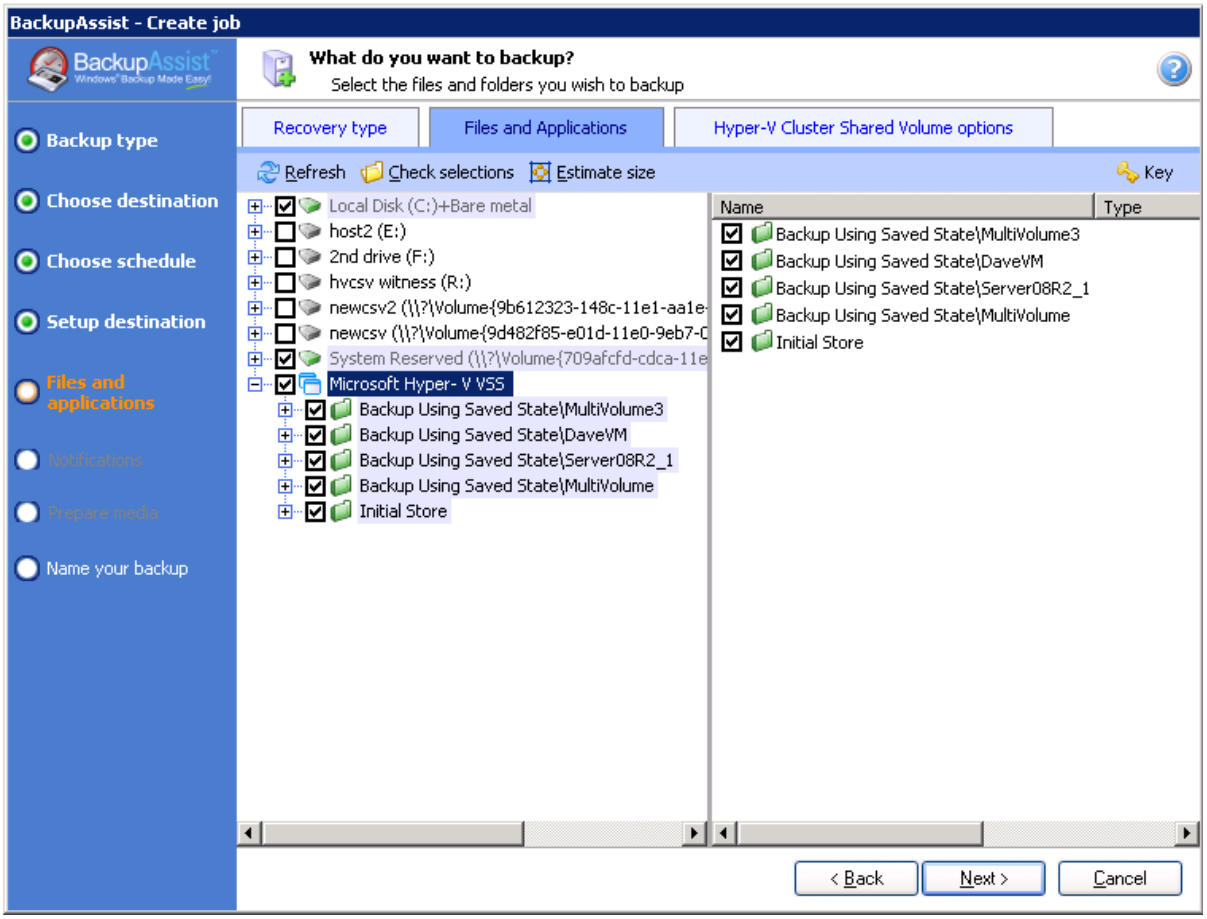
A new feature in BackupAssist v6.3 is the ability to perform an imaging backup via an intermediate staging disk. During an imaging backup all virtual machines on the host are first automatically backed up to the locally attached staging disk, and then an imaging backup is run which efficiently stores a backup with history on removable media, or any other compatible destination.

The backup made on the intermediate staging disk is created in a folder \LocalCSVBackup and will be overwritten each time a back up is run. It is important that the staging disk is only used for the purpose of the CSV backup, as the entire content of the staging disk will imaged to the backup destination each time the backup is run.

3. Configuring the backup job

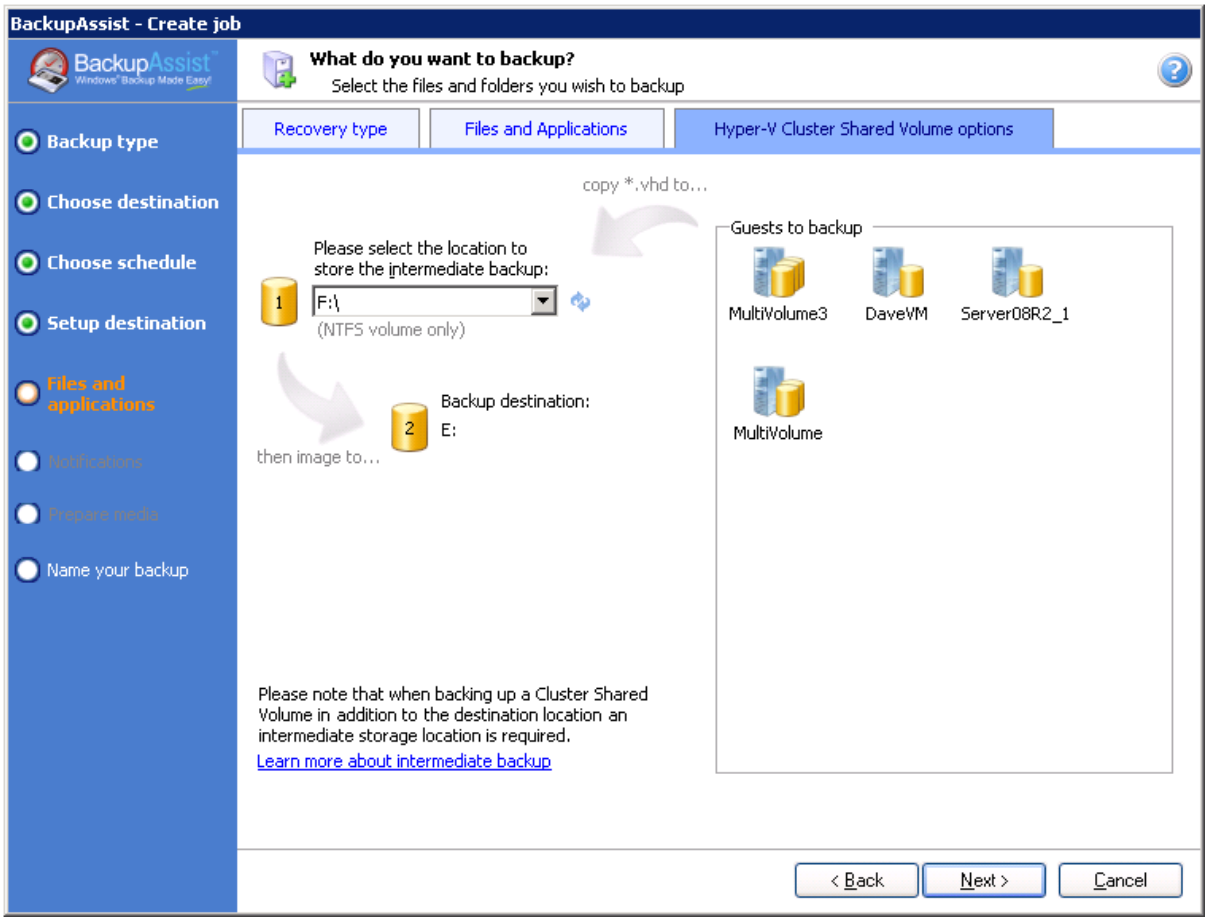
When configuring a BackupAssist job to backup the Microsoft Hyper-V virtual machines, it is important to select the top level selection, **Microsoft Hyper-V VSS** node and leave all child selections checked by default. This will allow the BackupAssist job to automatically update its configuration so that all active virtual machines on the host are backed up.

See screen-shot below:



Click **Next** to advance to the next step in the wizard.

If backing up via the imaging engine you will be prompted to the enter location of the intermediate staging disk. Select the location to store the intermediate backup in step 1 of the following dialog. If using any other engine this step will be skipped.



4. Quick recovery from staging disk (Imaging backups only)

In the event that a virtual machine's VHD is rendered unusable, BackupAssist provides administrators a great way to get back up and running as quickly as possible – via a pre-created differencing VHD on the staging disk!

Just configure a new virtual machine and select the differencing VHD from the staging disk (located in the QuickRestore folder). Within moments your virtual machine will be operational again with minimal data loss.

When ready to perform a migration back to the server, the differencing VHD stored on the staging disk along with the last back up from the staging disk can be merged together and installed on the server.

5. Appendix — Configuring a Hyper-V Cluster Share Volume

Overview of Failover Clusters

The following link provides an entry point into the Microsoft TechNet documentation for configuring Failover Clusters.

http://technet.microsoft.com/en-us/library/cc754482.aspx