BackupAssist™ v9

New Features

Quick Start Guide

Contents

1. BackupAssist v8 and v9

BackupAssist v9 introduces a set of new features to help back up, restore and recover data. The table below provides a comparison of the new v9 features, and the existing BackupAssist v8 features.

Feature comparison

	BackupAssist v8	BackupAssist v9
Hyper-V guest monitoring	None	Dedicated Hyper-V tab NEW
Hyper-V guest recovery	With Restore console	Dedicated guest recovery tool NEW Rapid VM Recovery tool NEW
RecoverAssist media options	Bootable media	Bootable media Bootable Backup Media NEW
Data Containers	VHD 2TB limit	VHD 2TB limit VHDX 64TB limit NEW *
Guided restore process	User interface and Restore Console.	Simplified interface with Integrated Restore Console. NEW
Job creation destination checks	Destination present	Destination present Can write to destination NEW Create and test a Data container NEW

* For Windows Server 2012 R1/R2 and Windows 8/8.1

Restore and recovery comparison

One of the big changes in v9 is the new set of recovery features for Hyper-V guests. In the past, restores of host data and guests was performed using the Restore Console. V9 sees the guest restore become a recovery feature with its own tool in the Recovery tab. This provides a consistent interface, beside the new **Rapid VM Recovery** tool, which allows you to run a guest from its backup.

Hyper-V Granular Restores are still performed using an add-on, but the add-on is now called **Hyper-V Advanced**. The *Hyper-V Advanced* add-on includes Rapid VM Recovery.

V9 also sees the introduction of the **Integrated Restore Console**. This replaces the v8 Restore Console and is part of a new streamlined process where more of the restore takes place inside the BackupAssist UI. The *Integrated Restore Console* is a versatile tool that can be used to restore files and folders, VSS applications, Exchange and SQL servers, and to perform Granular Hyper-V restores.

The *Integrated Restore Console* is part of a simpler and more consistent restore process. Backups are now selected in the BackupAssist UI, and the *Integrated Restore Console* is used to select the files to restore, the restore destination, and to initiate the restore operation.

Now, let's take a closer look at each of these new features, and how to use them.

2. Hyper-V Tab

When you install BackupAssist on a server with the Hyper-V role installed, a Hyper-V tab will appear. The tab lists all guests on the server, including those without BackupAssist. At a glance, you can see what guests are active, what guests are being backed up and when the last successful backup ran. You can also begin a granular restore or a guest recovery.

Hyper-V tab columns

The Hyper-V tab lists all of the guests on the Hyper-V host, and uses columns to provide information about the guests. You can sort the guests by selecting a columns' heading.

The **Name** column displays the name of the guest. To the left of the name are two icon columns. One column shows if the guest has an error, alert or warning, the other column, the guest's configuration. The configuration icon will indicate if the guest uses CSV and if it is running an Exchange Server.

Hyper-guest

Hyper-guest on a CSV

Hyper-guest running Exchange Server

The **Status** column shows if a guest is running, backing up, saved, paused or off. Guests can be started and stopped using the Microsoft Hyper-V Manager.

The **Size** column shows the total size of the guest's virtual disk and configuration files, on the host.

The **Backups** column shows the results of the last 5 backups. The icons indicate if the backup was successful, had a warning or failed. Mouse over an icon to display any warnings, errors or messages.

The **available** column shows how many backups are available for restoring to the guest, and the **last successful** column shows when the last successful backup job ran.

Guest details view

When you select a guest, a details panel will display guest information at the bottom of the tab. The information provided includes links to the backup jobs configured for that guest, and the results of recent backups. The results are displayed as icons below the relevant backup job.

Selecting the job's result icon will open the backup report for that backup.

Hyper-V Tab menu

The Hyper-V Tab's menu can be used to access BackupAssist's guest restore and guest recovery tools.

Granular Guest Restore

This button starts the guided restore process for the selected guest. This process will use the *Integrated Restore Console* to restore files and folders from inside the guest. Hyper-V Granular Restore can also be accessed from the BackupAssist Restore tab.

Granular Guest Restore is a licensed feature that requires the *Hyper-V Advanced* add-on.

Full VM Recovery

This button will take you directly into the *Full VM Recovery* process with the highlighted guest already selected. The Full VM Recovery console will be used to recover the guest to the current host. *Full VM Recovery* can also be accessed from the BackupAssist Recovery tab.

Full VM Recovery is included in the base BackupAssist license.

Rapid VM Recovery.

This button starts a *Rapid VM Recovery*, which will use the current Hyper-V host to run a guest from its backup. This means if the guest that was backed up becomes unavailable, the backup can be used to resume that guest's functions within seconds, while a recovery of the guest is planned and scheduled.

When you select the *Rapid VM Recovery* button, you will be asked to confirm if you want to proceed with a *Rapid VM Recovery* for the selected guest.
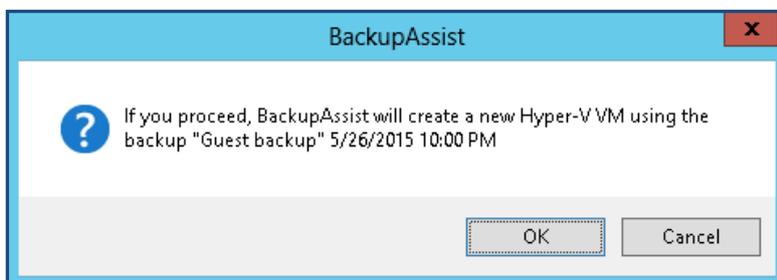
Rapid VM Recovery is a licensed feature that requires the Hyper-V Advanced add-on.

3. Rapid VM Recovery

BackupAssist v9 introduces a new Hyper-V guest recovery feature called Rapid VM Recovery.

Rapid VM Recovery allows you to spin up a single guest from its backup destination to keep critical systems online. This interim solution takes only seconds, and provides business continuity until a suitable time can be found to perform a *Full VM Recovery* of the guest, which could take many hours.

The new *Rapid VM Recovery* feature is located in the BackupAssist Recover tab, alongside the new **Full VM Recovery** option. A *Full VM Recovery* allows you to recover a guest to a Hyper-V host server. In v8, this is a general restore function but v9 sees guest protection expand into a set of dedicated features.

Recovery options

- Guest with no business critical functions - **Full VM Recovery**
- Guest that has business critical functions - **Rapid VM Recovery** then a planned **Full VM Recovery**
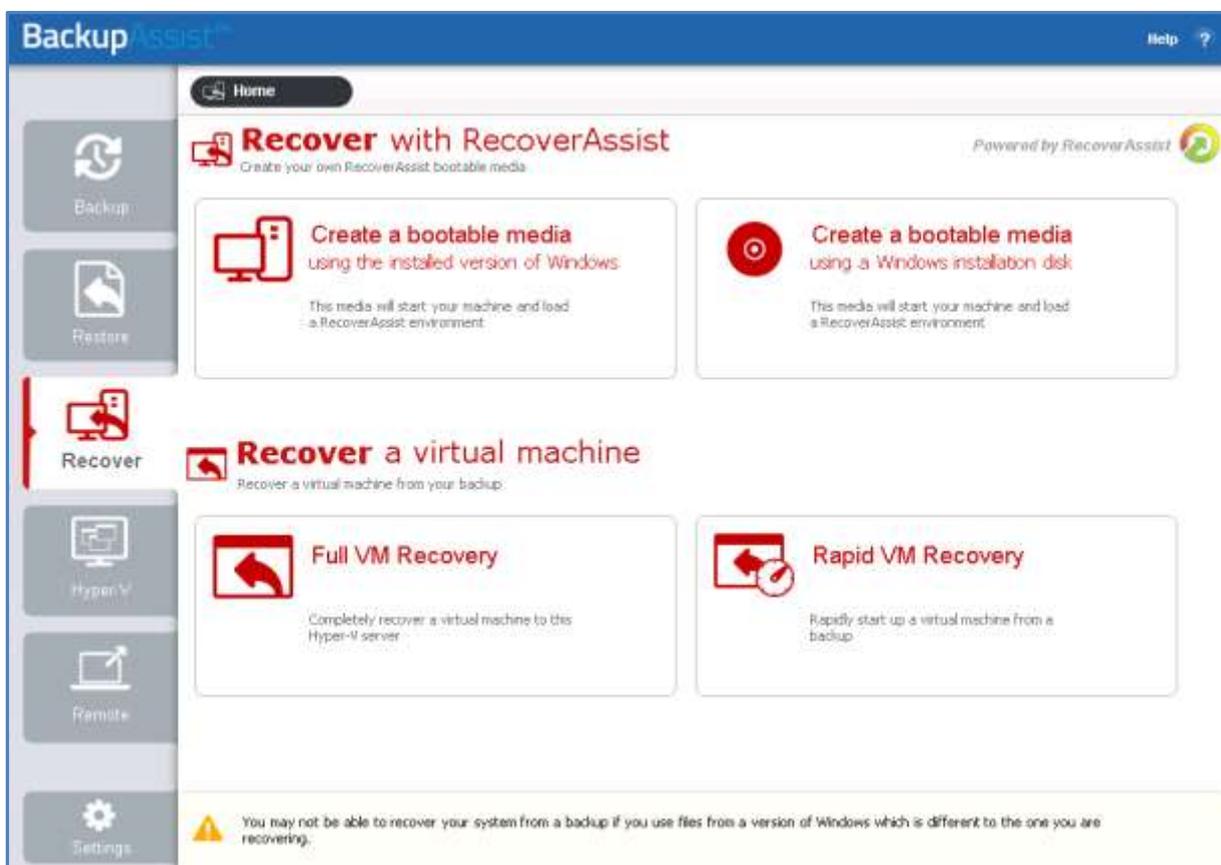
A *Rapid VM Recovery* allows you to schedule a time to perform a recovery that your business can prepare for, while a *Full VM Recovery* can result in significant downtime and a loss of business hours.

VM Recovery licensing

Rapid VM Recovery is part of **Hyper-V Advanced** add-on and requires a *Hyper-V Advanced* license. Contact your BackupAssist reseller or distributor for pricing information, or visit BackupAssist.com.

Full VM Recovery is a standard feature that is included with the base BackupAssist license, and requires a BackupAssist license once the initial trial period has expired.

VM recovery support

The Hyper-V guest recovery options support the following backup types:

- **Full VM Recovery** is available for System Protection, File Protection and File Archiving backups.
- **Rapid VM Recovery** supports System Protection backups.

How Rapid VM Recovery works

When a Rapid VM Recovery is started, the Hyper-V host running BackupAssist will access a guest backup and spin up the guest from its backup location. This rapidly recovered VM will function as a live guest and perform the functions of the guest whose backup was used. Any data changes that occur while the rapidly recovered VM is running are managed by the Hyper-V host and stored on the host server. No data in the guest backup is changed.

Rapid VM Recovery manager

When a rapidly recovered VM is running, selecting the Recover tab's *Rapid VM Recovery* button will open the **Rapid VM Recovery manager**.

The Rapid VM Recovery Manager has two functions:

Perform Full Recovery

This will stop the rapidly recovered VM and perform a full recovery of the VM back to the Hyper-V host server. The recovery will give you two options:

- Recover using the original backup, and discard any changes made to the rapidly recovered VM.
- Recover using the original backup, merged with any changes made to the VM's data while it was rapidly recovered. This allows the recovered VM to pick up where the rapidly recovered VM left off.

Discard the Rapid VM

This will stop the rapidly recovered VM, discard any changes made to the guest's data since it was rapidly recovered, and remove the VM instance from the Hyper-V Manager.

4. Bootable Backup Media

If you create a System Protection bare-metal backup on an external USB hard disk, the media can be made into a *Bootable Backup Media*. The backup media can be used to boot into a RecoverAssist recovery environment and recover the server, without a separate boot disk.

The backup media will be made bootable the first time the job runs unless you deselect the **Make media bootable with RecoverAssist** tick box on the *Set up destination* step.
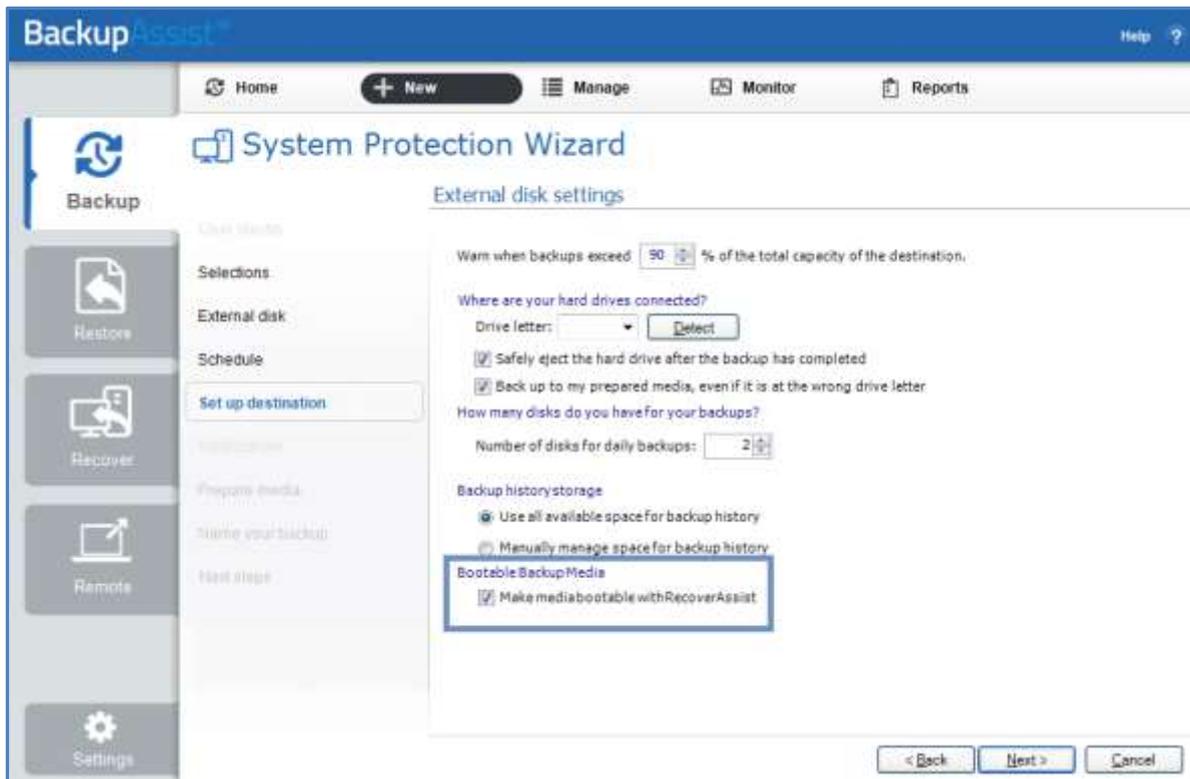
When creating a backup job, selecting *Prepare* on the *Prepare media* step will generate a *Destination Check Report*. This report will advise if the backup media cannot be made bootable. After you run the backup job, the backup report's *Recovery* section will note if the backup media was made bootable or if the boot information was updated.

If the media is not bootable, you will need to run the RecoverAssist builder, to manually make the backup media bootable, or make a separate, standalone RecoverAssist media.

Manually making a Bootable Backup Media

If there is a problem with the media's partition/s or format, and it cannot be made bootable, you can use the RecoverAssist builder to manually make a Bootable Backup Media. Just run one of the Recover tab's *Create a bootable media* options. These options will allow you to re-format the media, if required, and make it bootable.

5. VHDX Data containers

BackupAssist v9 supports VHDX Data containers for Windows Server 2012 R1/R2. The Data container option is selected on the backup *Destination* screen and configured in the *Set up destination* screen.

- A VHDX Data container will be created if the Data container's size is set at 2TB or more, or if it is allowed to *Use all available space* on a destination that is 2TB or larger.

- If you configure the Data container to be 2TB or smaller, or allow a Data container to grow into the available space on a destination that is 2TB or less, the Data container will use VHD.

Data container options

Windows Server 2008 - 2TB limit
- Uses VHD Data containers.

Windows Server 2012 R1/R2 and Window 8/8.1 - up to 64TB
- Uses VHD for Data containers 2TB and smaller (Required by default for Linux-based NAS devices).
- Uses VHDX for Data containers larger than 2TB.

Migrating from VHD to VHDX

If there is no VHD Data container at the backup destination, a Windows Server 2012 backup job will create a VHDX Data container when a backup job runs. You can therefore change from VHD to VHDX by archiving and removing the existing VHD Data container, and allowing the backup job to create a VHDX container when it runs next. The backup job must of course be configured to create a 2TB or larger Data container. Alternatively, you can convert the VHD to VHDX.

Microsoft provides instructions on converting VHD to VHDX using Hyper-V Manager and PowerShell.

6. Improved guided restore

The BackupAssist v9 Restore tab has a new, simplified layout. The SQL and Exchange restore options are now shown beside their add-ons, below a Files, Folders and (other VSS) Applications button.

If you are on a Hyper-V Server, the top row will display a button for restoring Hyper-V Host files and a button for Hyper-V Granular Restore. With the full guest restore now a recovery option, the protection of Hyper-V data has evolved into a set of dedicated restore and recovery tools.

Hyper-V Server

Non Hyper-V machine
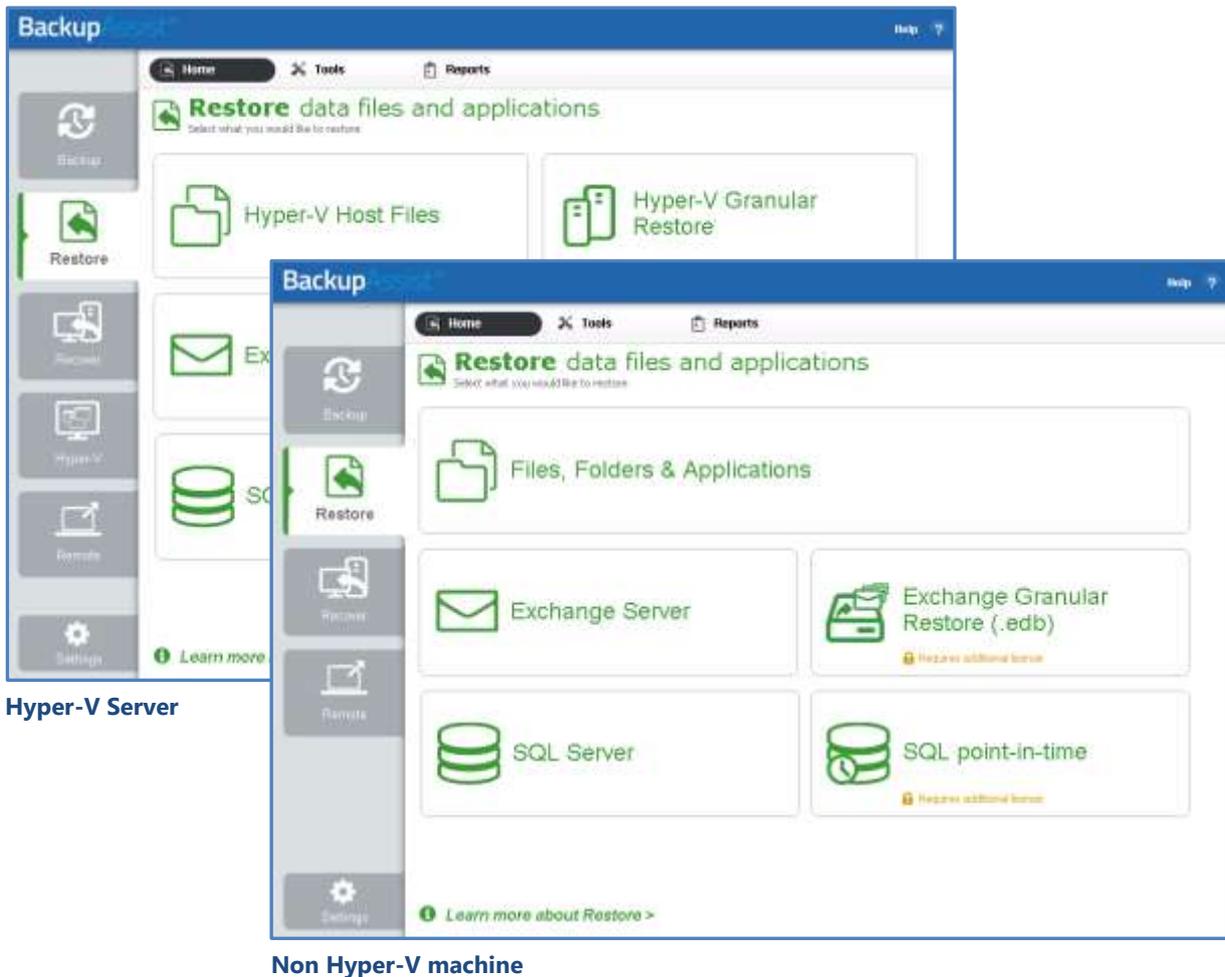
New guided restore process

Selecting a restore option leads to the new guided restore steps, which take place within the UI. The UI is used to locate and select the required backup. In v8, this step takes place in the Restore Console.

If you are performing a Hyper-V Granular restore, the process will include a screen to select the guest that you want to restore files from. In BackupAssist v8, this was done by the Granular Restore tool.

Backup selection

The guided restore UI uses tabs to filter the backups by date.

- The *Last 7 days* and *Last 30 days* tabs can be used to display the backups within those ranges.
- The *Custom* tab allows you to select a specific date range and display backups for that range.

Backup selection UI allows you to display all of the backups, filter them and make your selection.
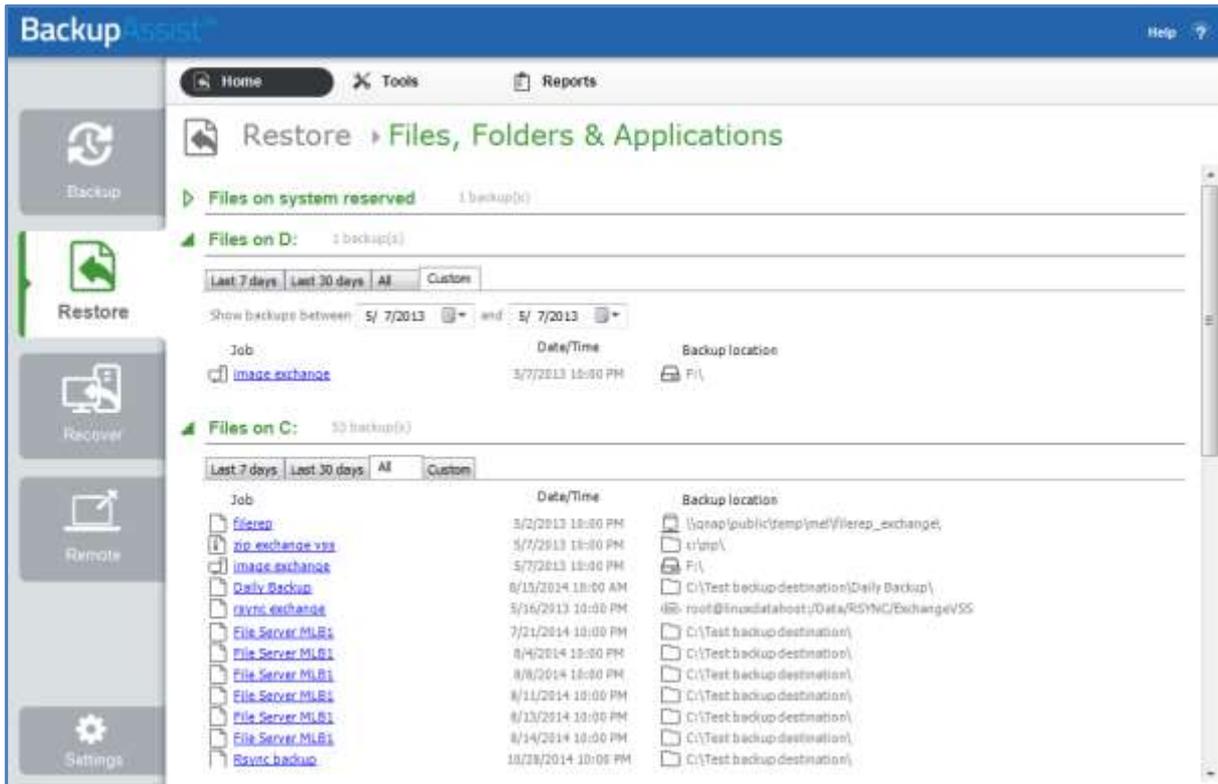
Integrated Restore Console

Clicking on a backup's name will open the new **Integrated Restore Console**. The console is used to select the data to be restored, the restore destination and to start the restore process. The console will display data based on the type of restore you selected on the main screen.

For Example, if you selected Exchange Server, it will display the Exchange Server as a VSS selection.
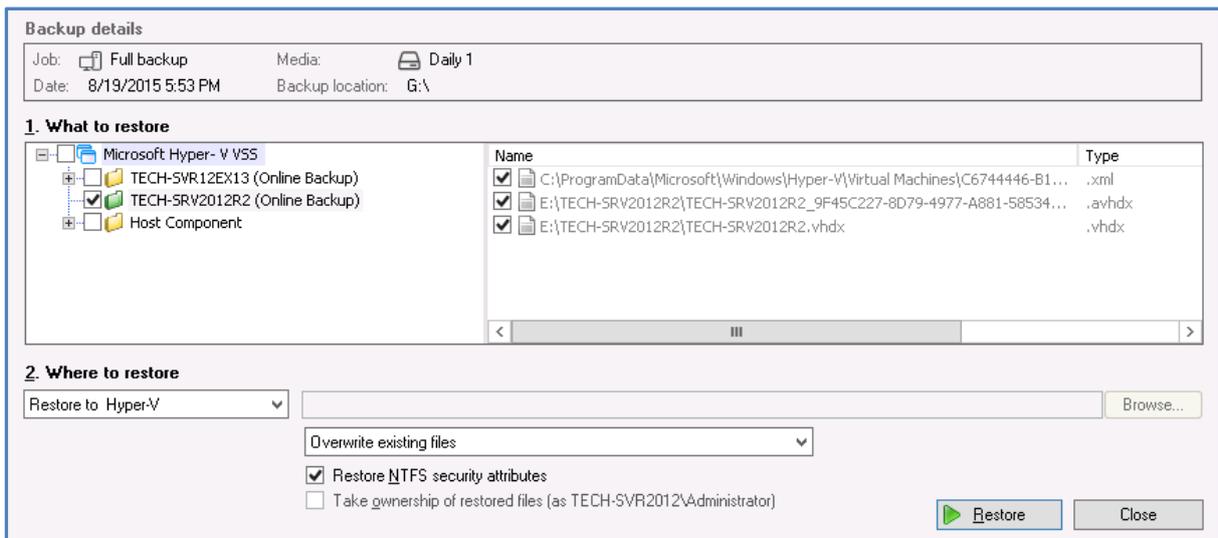
The *Integrated Restore Console* is used to restore files and folders, VSS applications, Exchange and SQL servers, and to perform Hyper-V Granular restores.

7. On-Demand Analysis

BackupAssist v9 includes a feature that allows your backup destination to be checked when you create a backup job. The checks performed will be based on the destination selected, and include whether data can be written to the destination and if the backup job has the necessary NAS permissions. On Windows Server 2012 R1/R2, if BitLocker is selected and the backup destination is empty, this process will encrypt the backup destination. The process will also create and test-mount a Data container.

Fixed media checks are performed on the **Set up destination** step, and removable media checks are performed when you *Prepare* the media on the **Prepare media** step.

Set up destination

If you are using a *Local media & Local network* destination, a *Check destination* button will be available to check your backup destination for possible problems. After the checks have been completed, the results can be viewed by selecting the *Report* link.

Prepare Media

If you selected a portable media device as your backup destination, you will be given the option to prepare and label the media.

Selecting *Prepare* will also perform a destination check and the results can be viewed by selecting the *Report* link. The report will advise if any problems were detected with the backup media.