Exchange Server Protection

User Guide

This guide applies to Windows Server 2008 and later.

For Windows Server 2003, refer to the Exchange Server Protection whitepaper.

BackupAssist User Guides explain how to create and modify backup jobs, create backups and perform restores. These steps are explained in more detail in a guide's respective whitepaper.

Whitepapers should be used as the main reference documents when planning your backups and your data protection strategy. Whitepapers include important considerations, configuration explanations and the implementation information needed to use BackupAssist effectively.

backupassist.com

Contents

1. Overview

BackupAssist can perform a live backup of your Exchange Server Information Store database. Having a backup of this database allows you to perform a complete restore of your Microsoft Exchange Server.

This guide explains how to protect your Exchange Server using BackupAssist File Protection, File Archiving and System Protection. These backups use Microsoft Volume Shadow Copy Service (VSS) technology to protect your Exchange Server while it is running.

For information on protecting individual mailboxes, calendars and mail items on your Exchange Server, refer to the Exchange Granular Restore whitepaper, linked in the documentation section below.

Documentation

More information on Exchange Protection can be found in the Exchange Protection whitepaper.

The whitepaper contains comprehensive information and should be referred to when planning a backup strategy using BackupAssist's Exchange Protection solutions.

Other BackupAssist documentation can be accessed through the Documentation webpage

Recommended reading:

- To backup and restore Exchange mails, see the Exchange Granular Restore User Guide

Licensing

Exchange Server Protection is a standard feature included with the BackupAssist license. Restoring individual mail items requires the *Exchange Granular Restore Add-on* license. Contact your local BackupAssist reseller or distributor for pricing information, or visit www.BackupAssist.com.

For instructions on how to activate / deactivate license keys, visit our Licensing BackupAssist page.

Supported platforms

To back up and restore your Exchange Server Information Store using BackupAssist you need:

- Windows Server 2003, 2008/R2 or 2012/R2
- Windows Small Business Server (SBS) 2003, 2008 or 2011
- Microsoft Exchange Server 2003, 2007, 2010 or 2013

Windows Server support for the backup types used to protect Exchange databases

	Windows XP, Vista, 7 and 8	Windows Server 2003	Windows Server 2008/R2	Windows Server 2012/R2
File Protection	✖	✔	✔	✔
File Archiving	✖	✔	✔	✔
System Protection	✖	✖	✔	✔

2. Backup considerations

Exchange VM Detection

If your backup job contains a Hyper-V guest with an Exchange Server, the authentication information for that guest should be entered into the **Exchange VM Detection** tab on the **Selection** screen when you create the backup job. With these credentials, BackupAssist can detect what guests have an Exchange Server, and list the EDB file available for each guest when you perform a restore using the Exchange Granular Restore console

The Exchange VM Detection tab will appear when the Hyper-V role is installed and running on the server. If you are backing up multiple Exchange guests, each one should have the same username and password.

The Hyper-V process is automated but the restore requires both the *Exchange Granular Restore Add-on and the Hyper-V Granular Restore Add-on* licenses.

VSS Application backups

The Volume Shadow Copy Service (VSS) is a Microsoft Windows Service that creates a copy of an application's data so the data can be backed up while the application is running. This means the data will not change or be locked while a backup is taking place. BackupAssist is VSS-aware, so File Protection, File Archiving and System Protection backups can detect VSS applications such as Exchange, SQL, Hyper-V and SharePoint. BackupAssist will display a VSS application as an application container during the *Destination* step of the backup job's creation. You can select the container or individual components and BackupAssist will select the files that need to be backed up.

In some cases, only applications that are running will be detected. If an application is not listed, try re-starting the application and the VSS service and then click the *Refresh* button in BackupAssist.

Restore vs. Recovery

A restore is the process of accessing a backup and restoring it to the original (or a new) location, if your data is lost, corrupted or if you want an earlier version of that data. However, if your computer cannot start itself, you may need to perform a recovery.

A recovery is the process by which a computer is recovered after hardware has been replaced or an operating system failure has occurred, and your computer can no longer start itself. To perform a recovery you need a bootable media to start your computer, and an image backup that the bootable media can use to recover your operating system, data and applications.

For more information on data recovery, see the [Recover tab & RecoverAssist Whitepaper.](#)

Backup user identity

Backup jobs require an administrator account with read access to the data source, and full read-write access to the backup's destination. It is recommended that a dedicated backup account is created for this purpose. The account's details are entered using the *Backup user identity* option on the *Settings* tab, and your backup jobs will be launched using these credentials.

3. Creating an Exchange Server Protection backup

 The following instructions describe how to create an Exchange Server backup job for the Exchange Server Information Store database, using BackupAssist.

This section explains how to back up Exchange on a Windows Server 2008, SBS 2008 or later O/S. To back up Exchange on Windows Server 2003, refer to the Exchange Server Protection Whitepaper.

To enable the Exchange 2003 or 2007 VSS writer, please refer to this blog article.

Launch BackupAssist and follow the steps outlined below:

1. Select the **Backup** tab, and click **Create a new backup Job**

2. Select **System Protection, File Protection** or **File Archiving**.

   If this is the first time you have created a backup job, you will be asked to provide a *Backup user identity* if one has not been defined. See the BackupAssist settings, whitepaper for guidance.

   The following instructions use *System Protection* to explain the Exchange VSS back up process.
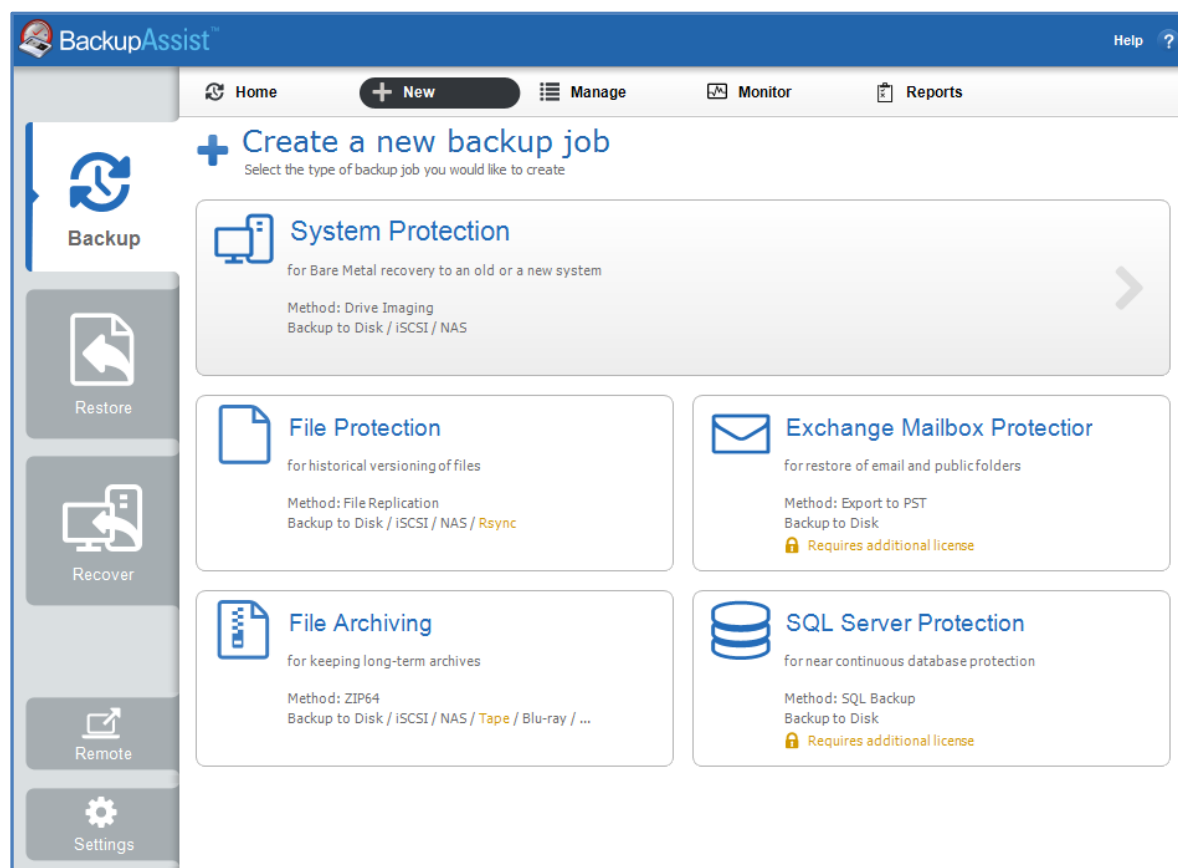

Figure 1: New backup job – backup type selection screen

Back up instructions specific to each backup type, can be found in these whitepapers:

- BackupAssist System Protection   BackupAssist System Protection whitepaper
- BackupAssist File Protection   BackupAssist File Protection whitepaper
- BackupAssist File Archiving   BackupAssist File Archiving whitepaper

3. **Selections:** The selections screen is used to select the data and applications that you would like to back up. Any local Exchange Servers detected will be displayed here as application containers.

   An Exchange VM Detection tab will be available if you are backing up an Exchange VM guest.

   You can select an entire VSS application or choose individual components. To back up your Exchange Server, select the Microsoft Exchange container.

   If your local Exchange Server is not listed in the *Selections* screen, try restarting Exchange and the VSS service and click the *Refresh* button in BackupAssist.
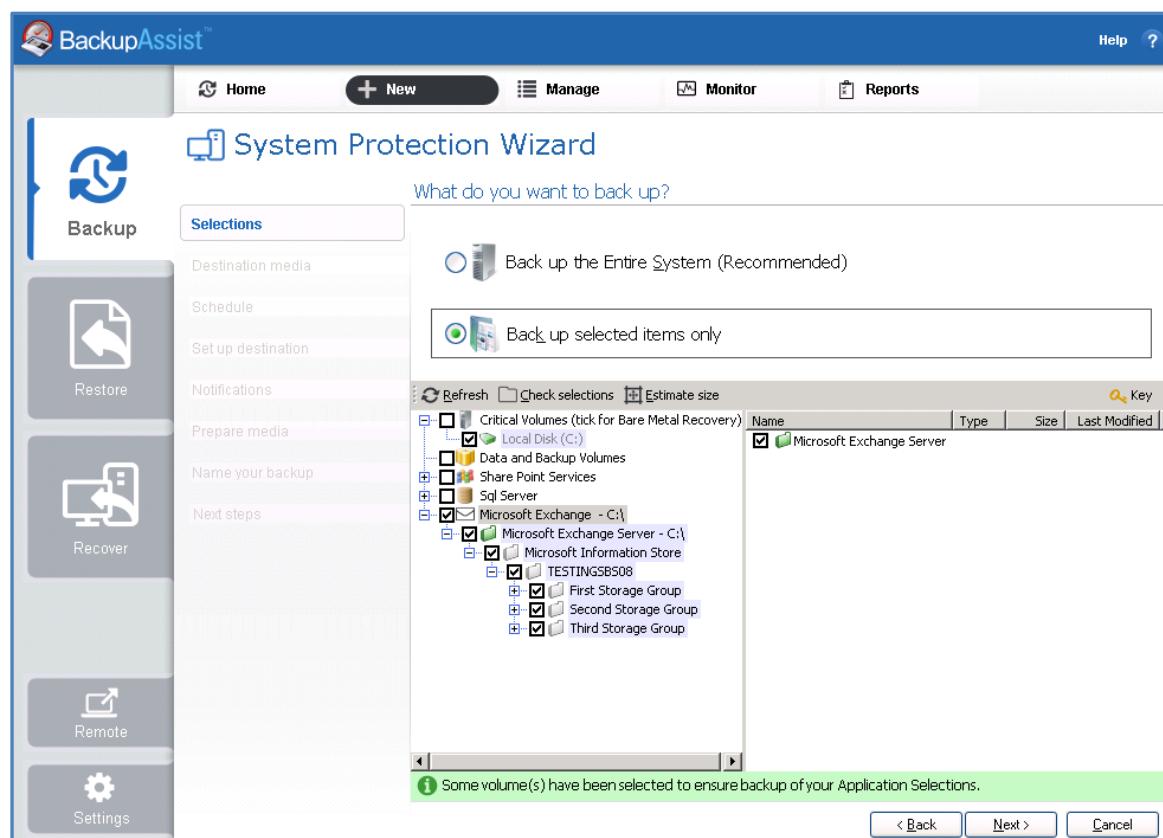

Figure 2: New backup job – Exchange Server VSS selection

- For System Protection backups, VSS applications will be backed up as part of a *Backup up the Entire System* selection. In the example above, *Back up selected items only*, was chosen and the Exchange Server application container was selected.

- To learn how to create a bare-metal backup using System Protection (for use in a recovery), see the BackupAssist System Protection whitepaper.

- For File Protection, File Archiving and System Protection backups, the top level *Microsoft Exchange* and *Exchange Server* application containers should be selected.

4. **Destination media:** The destination screen is used to select the type of media that you want to back your data up to. This step's name will change to the media type selected, when you click next.

   Select a device for your backup destination, and click **Next.**

5. **Schedule:** This screen is used to select when and how you would like the backup job to run, and how long you would like the backup to be retained for. A selection of pre-configured schedules, called schemes, will be displayed.

- The schemes available will depend on the type of destination media selected in step 4.
- Clicking on a scheme will display information about the schedule used.
- The schedule can be customized after the backup job has been created.

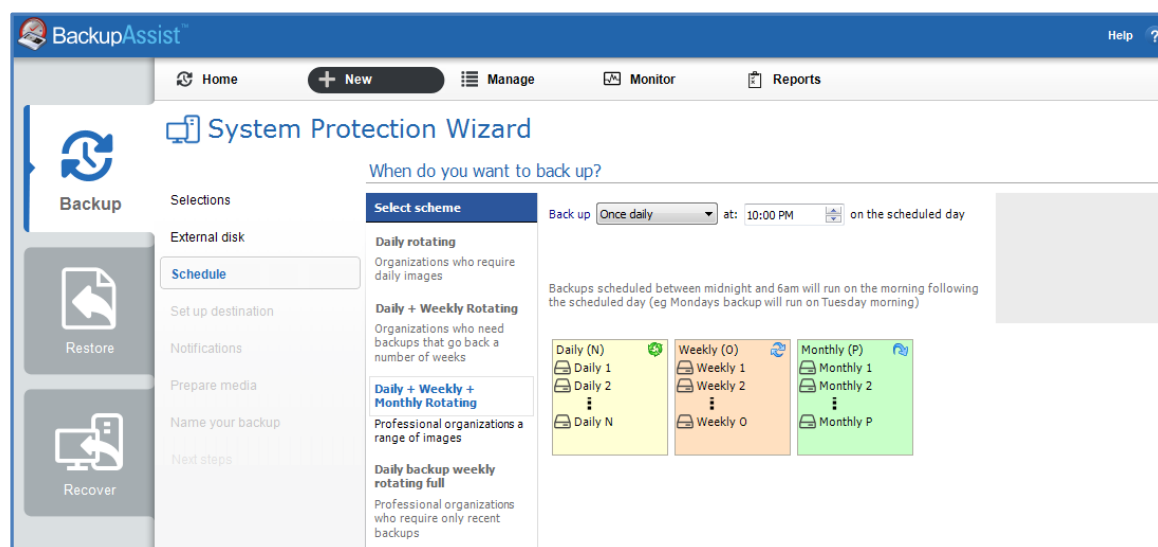Select an appropriate scheme, and click **Next**.

Figure 3: New backup job – Schedule selection

For more information about creating custom schedules, refer to the Backup tab whitepaper.

6. **Set up destination:** This screen is used to configure the location of the media selected in step 4.

The options presented will change with the type of media selected.

Configure your backup destination, and click **Next**.

➢ **Mail Server:** If you have not configured an SMTP mail server for BackupAssist, you will be prompted to provide those details after the backup destination step has been completed.

7. **Notifications:** Once a backup job has completed, BackupAssist can send an email to inform selected recipients of the result. This email notification can be enabled during the creation of a backup job, if the mail server has been configured.

To enable email notifications:

a. Select, **Add an email report notification.**

b. Enter recipients into the **Send reports to this email address** field.

c. Enter recipients into the **Also send reports to this email address** field. You can then select the condition under which the email should be sent, using the drop-down box.

After the backup job has been created, you can modify the notifications by adding and removing recipients, setting additional notification conditions and including print and file notification types.

To learn more about notification options, see the BackupAssist Backup tab whitepaper.

8. **Prepare media:** If you selected a portable media device as your backup destination (such as an external HDD or a RDX drive) you will be given the option to prepare the media for BackupAssist. BackupAssist will write a label onto the media so that it can recognise what media has been attached, and determine if it is the correct media for your backup schedule.

To enable media detection:

a. Select, **Let BackupAssist keep track of your media.**

b. Select what you would like BackupAssist to do, *if the wrong media is inserted*.

c. Select what you would like BackupAssist to do, *if new or unrecognized media is inserted*.

BackupAssist will display all removable media that are currently attached, along with a text field and drive designation drop-down box, which can be used to provide a label for the media.

To prepare your media:

d. Enter the name and drive designation to be used for each media device listed.

e. Select **Prepare** for each media device listed.

BackupAssist will now write the label to the media so that it is able to recognize the media and ensure that the correct media is being used on the correct day. For example, if you put an RDX drive in on Tuesday but it was labeled Wednesday, BackupAssist will warn you that the incorrect media has been detected.
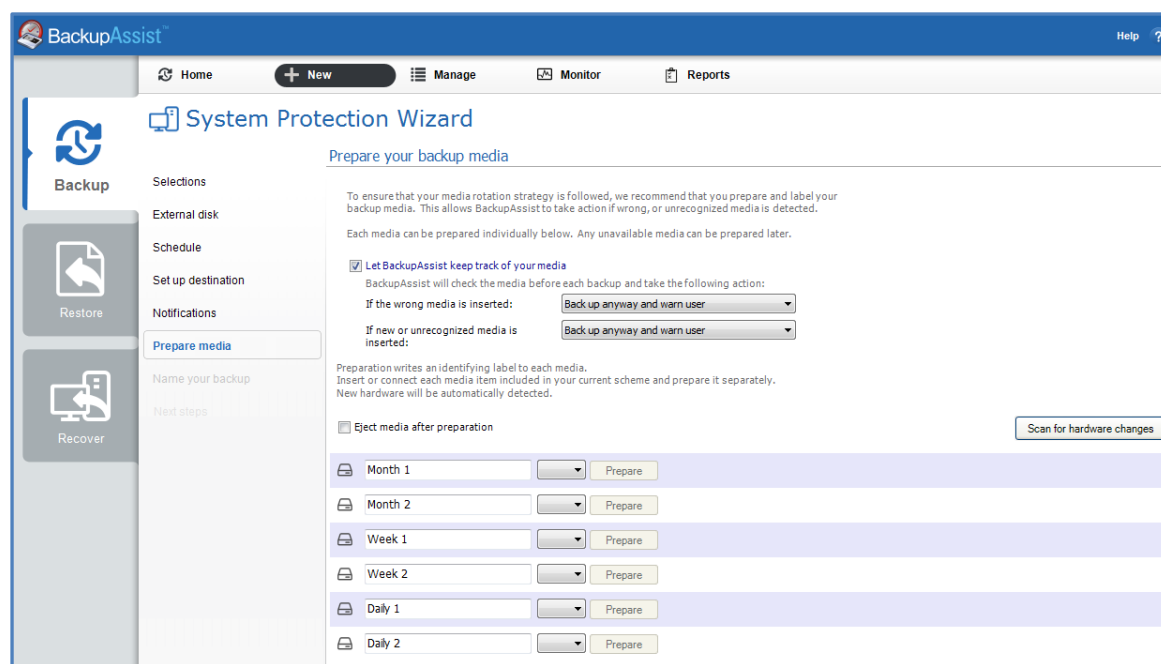

Figure 4: New backup job – Prepare media

9. **Name your backup:** Provide a name for your backup job, and click **Finish**.

▶ **Your Exchange Server (VSS) backup job has now been created.**

Important: Once a backup job has been created, it should be reviewed and run using the *Manage* menu. This menu provides additional options to configure your backup. See the section, Exchange Server backup management, for more information.

Important: Once a backup job has been run and a backup created, a MANUAL test restore should be performed to ensure the backup is working as intended. To perform a test restore, refer to the section, Restoring Exchange Server backups.

4. Restoring Exchange Server backups

This section describes the process of restoring an Exchange Server that was backed up using System Protection, File Protection or File Archiving. A full Exchange Server or individual storage groups can be restored using this process.

To restore an Exchange Server or database, follow the steps below:

1. Start **BackupAssist**

2. Select the **Restore** tab

    The *Restore* tab has a *Home* page and a *Tools* menu. The *Home* page is the default screen and the recommended starting point for performing a restore. The *Tools* menu should only be used by experienced administrators or users being assisted by technical support.

3. From the **Home** page, select the type of restore you want to perform. When you select one of the restore categories provided, BackupAssist will locate the corresponding backups for you.

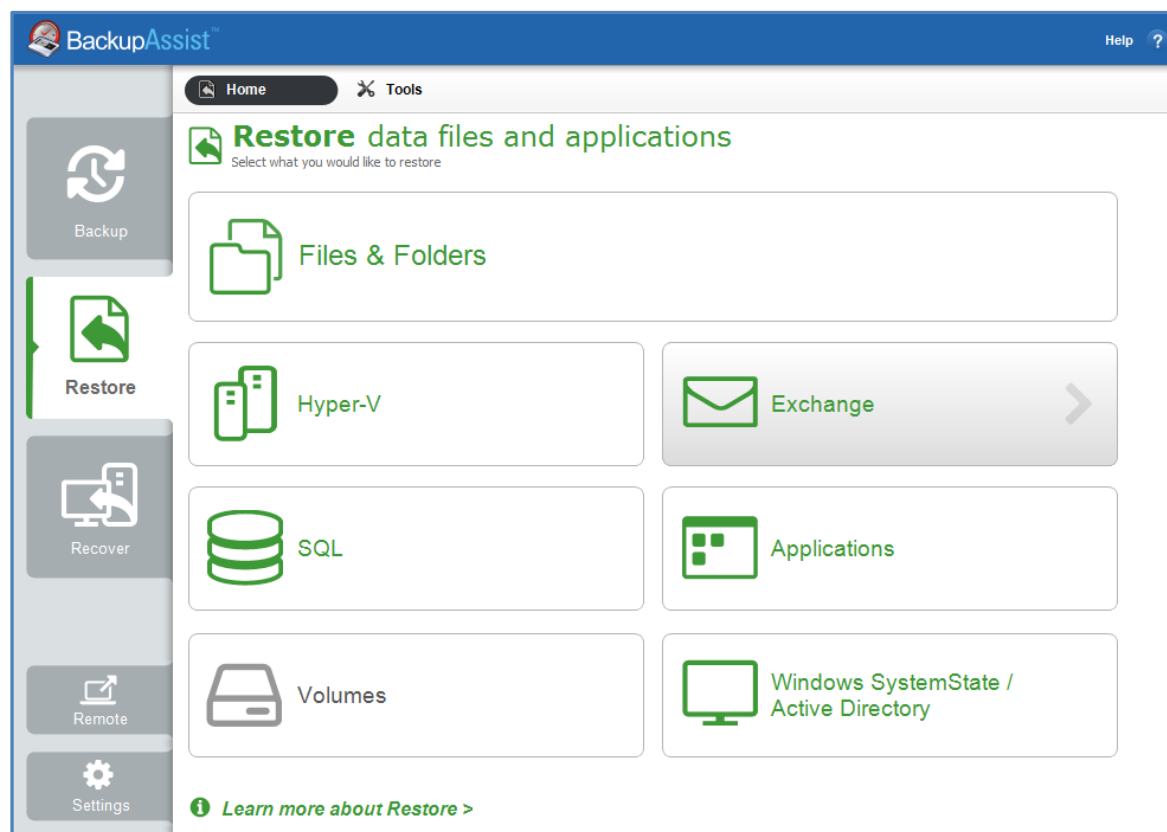   For an Exchange Server restore, you should select **Exchange.**

Figure 5: Restore tab - Home page

This will open the *Restore > Exchange* screen and display the restore options available.

4. From the **Restore > Exchange screen,** select **Exchange Server Restore**

    The next screen, will display a list of all Exchange VSS backups.

5. **Select** the **Backup** to restore from

The backups can be filtered using the following time period tabs:

- *Last 7 days* tab, displays backups created in the last 7 days.
- *Last 30 days* tab, displays backups created in the last 30 days.
- *All* tab, displays all Exchange Server backups catalogued by BackupAssist.
- *Custom* tab, displays backups made between the dates specified in *show backups between*.

Click on the backup you want to restore from. The *Restore Console* will open and load that backup.
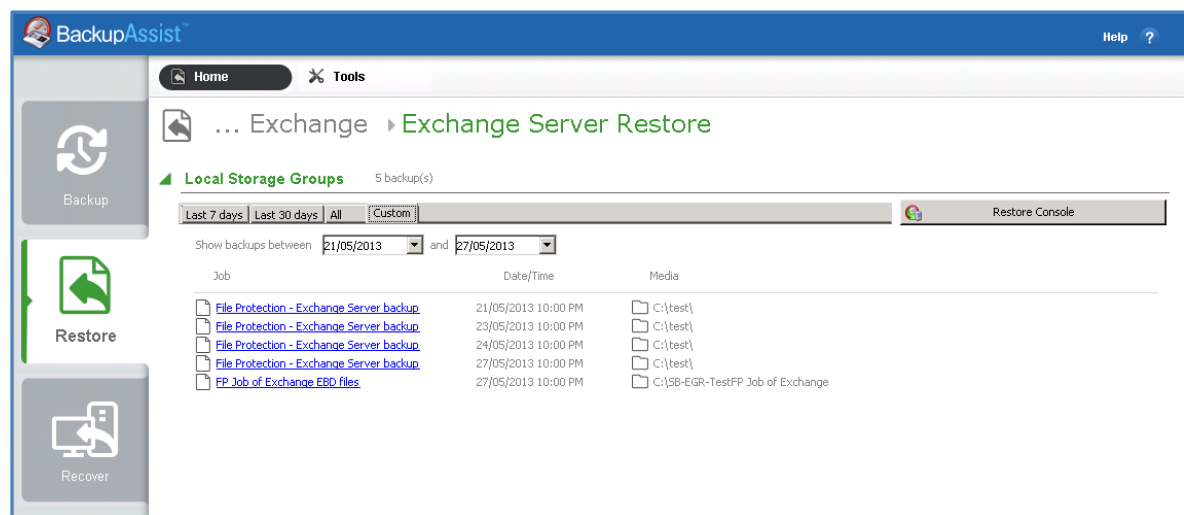

Figure 6: Restore Home page – Exchange Server Restore screen

6. **Restore Console – backup selection**

The *Restore Console* provides two tools to help you locate the data that you want to restore:

- The **Browse** tab. This tab is used to browse the contents of the backup. You can also select a different backup using the *Select a backup to browse* drop down box. The backups available will be the ones displayed on the *Exchange Server Restore* screen.

   The *Browse* tab is ideal if you know the backup and date that you want to restore from, or if you want to restore an entire backup set.

   a. Use the drop-down menu to choose the backup that you want to restore from.
   b. Use the calendar to select the date you want to restore from.
   c. Use the middle panes to expand the backup set.
   d. Select the data to restore.
   e. Click **Restore to** at the bottom right of the window.

- The **Search** tab. Select this tab to search all of the loaded backups for the data you want to restore. You can display data filtered by name, date, size and type, for all backups. The results can be compared (e.g. the dates of two files) to identify the correct data selection.

   a. Enter your search term (The search accepts wild card searches, such as **.log* or **.doc*).
   b. Select a filter/s if required.
   c. Click the *Search* button.
   d. Select the data to restore.
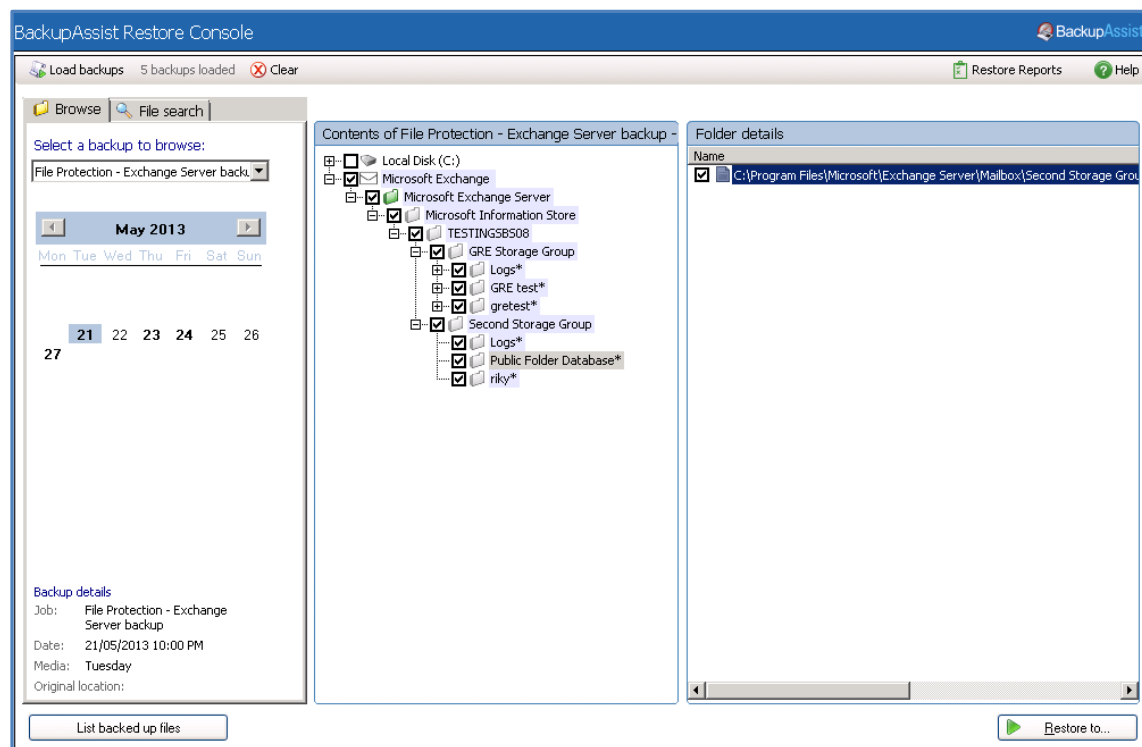   e. Click **Restore to** at the bottom right of the window.

Figure 7: BackupAssist Restore Console – backup selection

If the backup is not present, or if you wish to load additional backups, select the **Load backups** option. Click **Load all known backups** to load all backup catalogues.

For more information about data selection, refer to the Restore tab whitepaper.

7. **Restore Console – restore destination selection**

When you select *Restore to,* a window will open showing the *Backup location,* the *Restore to* destination and the *Restore options*.

a. Review **Backup location:** Change the selection if the backup was moved after it was created.

b. Review **Restore to:** Leave the *Original location* selected.

c. **Restore options:** *Select Overwrite existing files.*

d. Select, *Create a log file listing all processed files*, if you want to create a file that lists the success or failure of every file. The log can be opened by selecting the file's link in the backup report.

e. *Queue all backup jobs when a restore is running*, is selected by default.

f. Click the **Restore** button to restore your data.

- If BackupAssist cannot access the backup location you will be prompted to either connect the appropriate media or specify an alternate location where the backup can be found.

- The restore will run from the destination window and a **Report** link will appear once the restore has finished.

g. Select **Done**.

▶ **Your Exchange Server restore has now been completed.**

🛈 Refer to the Exchange Protection Whitepaper, for instructions on how to restore Exchange Server backups on a Microsoft Windows 2003 Server (NTBackup).

5. Exchange Server backup management

Once you have created a backup job, you can modify the settings and access advanced configuration options using the *Manage* menu.

To access the backup management screen:

1. Select the BackupAssist, **Backup tab.**

2. Select **Manage** from the top menu. A list of all backup jobs will be displayed.

3. Select the backup job you want to modify, and select **Edit.**

4. Select the required configuration item on the left. Key configurations are described below.

To learn more about the backup management options, see the Backup tab whitepaper.

Manually running a backup job

All new and modified backup jobs should be manually run to ensure they work as intended.

1. Select the backup job, and select *Run*.

2. You will be prompted to *Rerun a past backup* or to *Run a future backup now*.

3. When the backup job starts, the screen will change to the *Monitor* view.

4. Once the backup has been completed, select the *Report* button and review the results.

When a System Protection, File Protection or File Archiving job runs, BackupAssist will automatically perform a consistency check on your Exchange Server and truncate log files to correctly back up the Exchange Information Store. If, however, the VSS backup mode is set to 'Copy' in the open files tab, the Exchange logs will not be truncated.

Scheduling

Selecting *Scheduling* will display the **Scheduling options.** You can use this screen to change the default time and days of your scheme's daily backups. If you selected a scheme with archive backups (e.g. weekly, monthly), you can specify when each archive backup will run. Some backup types will have additional configuration options. The current scheme is shown, along with two pop-up menus: *Select a new schedule* and *Customize schedule*.

Select a new Schedule: This will display the pre-configured backup schemes that you chose from during the creation of your backup job. You can select a different scheme using this option.

Customize schedule: This selection can be used to modify each backup within your current schedule. The customizations available will depend on the type of backup and the type of backup media used.

For additional information on *Scheduling*, please refer to the whitepaper for the type of backup you are using (e.g. System Protection), and the Backup tab whitepaper.

Files and applications

If your backup job contains a Hyper-V guest with an Exchange Server, the authentication information for the guest should be entered into the **Exchange VM Detection** tab.

Select the **File and applications** > **Exchange VM Detection** tab.

With these credentials, BackupAssist can detect what guests have an Exchange Server, and list the EDB file available for each guest when you perform a restore using the Exchange Granular Restore console.

The Hyper-V process is automated but the restore requires both the *Exchange Granular Restore Add-on and the Hyper-V Granular Restore Add-on* licenses.
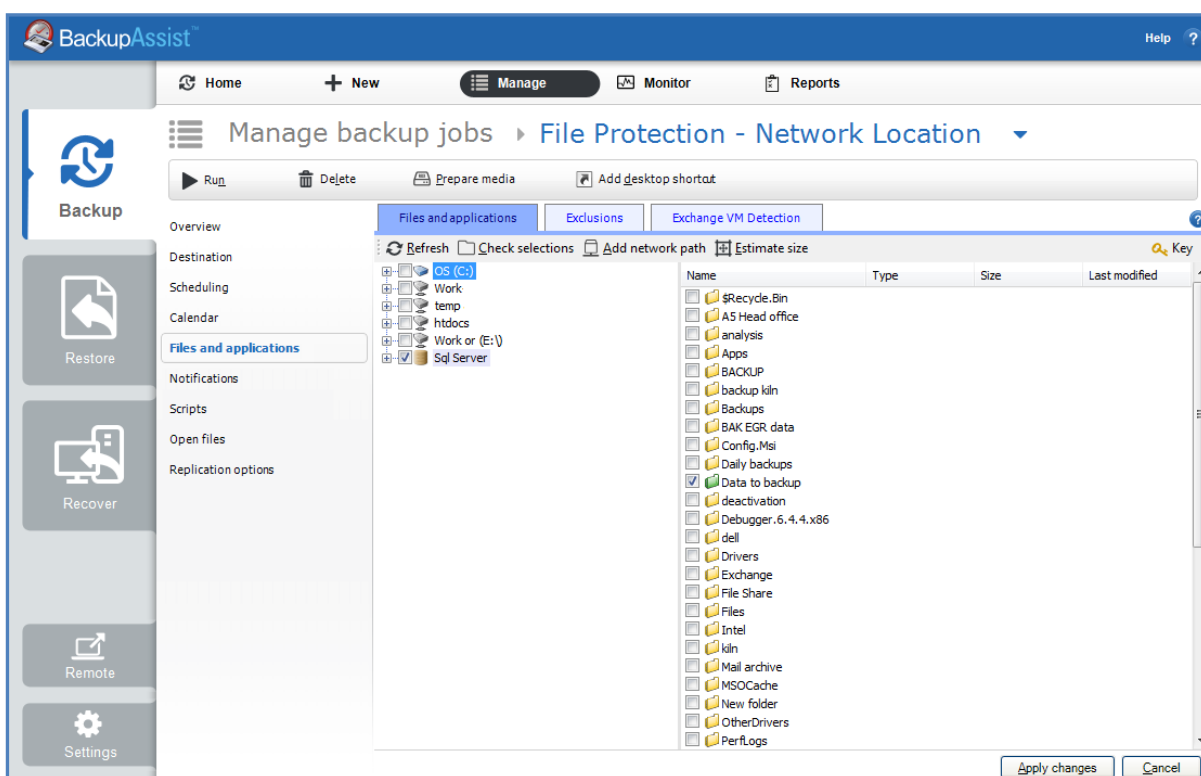

Figure 8: Manage backup jobs screen – File and applications option

Examining backup logs

Once the backup completes, you should examine the backup report to make sure your Exchange Server was backed up successfully.

1. Select *Reports* from the Backup tab menu and double-click the applicable report in the list.

    OR Select the *Report* button displayed on the *Monitor* screen once the backup has completed.

2. Once the report has been opened, scroll down to the Exchange Server backup report section.

    For VSS application backup jobs, the report will include a VSS application backup report. When backing up Exchange databases using the VSS writers option, a section within the backup report will outline whether BackupAssist was able to backup the databases consistently. Any errors that relate to the Exchange database integrity check will be listed in this section of the report.

The Exchange System Manager will also indicate when the last full backup occurred on Exchange. This can be viewed in the general tab of the mailbox data properties.