

BackupAssist™ v9

Exchange Protection

User guide

Contents

1. Introduction	2
Using this document.....	2
Documentation	2
Licensing	2
2. Exchange Server Protection overview	3
Supported platforms.....	3
Requirements by platform.....	3
Exchange VM support.....	3
3. Exchange Granular Restore Add-on overview.....	4
Supported platforms.....	4
Requirements.....	4
Backup type support.....	4
Restore options.....	4
Performance.....	4
4. Creating an Exchange backup	5
5. Exchange Server restore	10
6. Exchange Granular Restore.....	13
Step 1 - Locate the Exchange backup.....	13
Step 2 - Locate the mail items	15
Step 3 - Perform the restore.....	17
Option 1: Restore to original location	17
Option 2: Restore to alternate location.....	18
Option 3: Export to PST	20

1. Introduction



BackupAssist provides comprehensive Exchange Protection by creating backups that can be used to restore an Exchange Server, an Exchange information store database, Exchange storage groups, mailboxes and individual mail items like emails, contacts and appointments.

BackupAssist *Exchange Protection* uses the three standard backup types: File Protection, File Archiving and System Protection.

These backups can be used to:

- Restore your Exchange Server and databases using the *Integrated Restore Console*.
- Restore individual mail items using the *Exchange Granular Restore console*.

Using this document

This Exchange Protection user guides explain how to back up your Exchange Server, and how to restore an Exchange Server or individual mail items.

- If you want to perform an Exchange Server restore, see the [Exchange Server restore](#) section
This restore uses the Integrated Restore Console, which is a standard BackupAssist feature.
- If you want to restore mail items, see the [Exchange Granular restore](#) section.
This restore uses Exchange Granular Restore, and requires an Exchange Granular Add-on license.

Documentation

This guide provides a comprehensive guide to Exchange Protection and can be used in conjunction with other BackupAssist guides.

- To protect individual Exchange mailboxes, see the [Exchange Granular Restore Quick Start guide](#).
- For information on the BackupAssist Backup tab, see the [Backup Tab user guide](#).

Licensing

Exchange Servers can be backed up using System Protection, File Protection and Files Archiving backups. Exchange Servers can be restored using the Integrated Restore Console. These features require a BackupAssist license, once the initial trial period has expired.

Exchange Granular Restore Console requires the *Exchange Granular Restore Add-on* license. Please 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](#).

2. Exchange Server Protection overview

BackupAssist *File Protection*, *File Archiving* and *System Protection* backups use the Microsoft Volume Shadow Copy service (VSS) to back up your Exchange Server while it is running. BackupAssist can use these backups to perform a complete restore of your Microsoft Exchange Server or storage groups.

Supported platforms

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

- Windows Server 2008 / 2008R2 or 2012 / 2012R2 / 2016 (from v9.5, does not include CSV support)
- Windows Small Business Server (SBS) 2008 or 2011
- Microsoft Exchange Server 2007, 2010, 2013 and 2016 (from v9.2)

Requirements by platform

The tables below are a reference for the combinations of Windows operating systems and Exchange Servers that can be used to provide Exchange Server Protection using BackupAssist. Windows Server VSS support for BackupAssist backup types: required for Exchange database backups.

	Windows 7, 8.1 & 10	Windows 2008/R2	Windows 2012/R2	Windows 2016 (from v9.5)
File Protection	✘	✔	✔	✔
File Archiving	✘	✔	✔	✔
System	✘	✔	✔	✔

Exchange VM support

When backing up a Hyper-V guest with an Exchange Server, enter the authentication information for that guest into the **Exchange VM Detection** tab on the **Selection** screen when you create the job. With these credentials, BackupAssist can detect what guests have an Exchange Server, and list the EDB files available for each guest when you perform a restore using the Exchange Granular Restore console.

The screenshot shows the 'What do you want to back up?' dialog box. The 'Exchange VM Detection' tab is selected. The 'Authentication account for Hyper-V guests running Exchange' section contains the following text: 'If your backup job contains a Hyper-V guest with an Exchange Server, the authentication information for the guest should be entered below. With these credentials, BackupAssist can detect what guests have an Exchange Server, and list the EDB files available for each guest when you perform a restore using the Exchange Granular Restore console.' Below this text are three input fields: 'Username:', 'Password:', and 'Domain:'. The 'Password:' field has a note: 'This password should never expire.' There is also a 'Test' button at the bottom.

Figure 1: Selection screen - for an Exchange Server on a Hyper-V guest

! The Exchange VM Detection tab appears when the Hyper-V role is installed and running on the server. If you back up multiple 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.

3. Exchange Granular Restore Add-on overview

The Exchange Granular Restore (EGR) console allows you to restore mail items using *Direct Exchange Injection*. The backups used can be created by *System Protection*, *File Protection* or *File Archiving*. This means the backup you use to protect your Exchange Server can also be used to restore mail items.

Supported platforms

Exchange Granular Restore supports the following versions of Microsoft Exchange:

- Exchange Server 2016 (from v9.2)
- Exchange Server 2013
- Exchange Server 2010
- Exchange Server 2007

Requirements

- BackupAssist 7.2 or later must be installed on the Exchange Server.
- RAM: 256-1024 MB, depends on mail store size and OS version
- May require free space on disk 1.5x the size of mail data being processed.

Backup type support

Exchange Granular Restore supports the following backup types:

- System Protection
- File Protection
- File Archiving

Restore options

The Exchange Granular Restore Add-on can restore the following items:

- Mailboxes, mail folders and emails (cannot be encrypted)
- Folders
- File attachments
- Contacts, Notes, Tasks and appointments

Journals, emails attached in other emails and embedded email objects are currently not supported.

Performance

Exchange Granular Restore is tested for optimal performance up to the following dataset sizes.

- Database size: 500 Gb / Mailbox size: 100 Gb
- Number of messages in one mailbox - 100,000, in the database - 2,000,000.
- Number of mailboxes in the database: 2,000

4. Creating an Exchange backup



The following instructions describe how to create an Exchange Server backup job, using BackupAssist. These backups can be used to restore your Exchange Server as explained in [section 5](#), and to restore individual mail items as explained in [section 6](#).

To **enable the Exchange 2007 VSS writer**, please refer to this [blog article](#).

To **back up Exchange on a Hyper-V guest for EGR**, review the [Exchange VM Detection section](#)

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**.

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

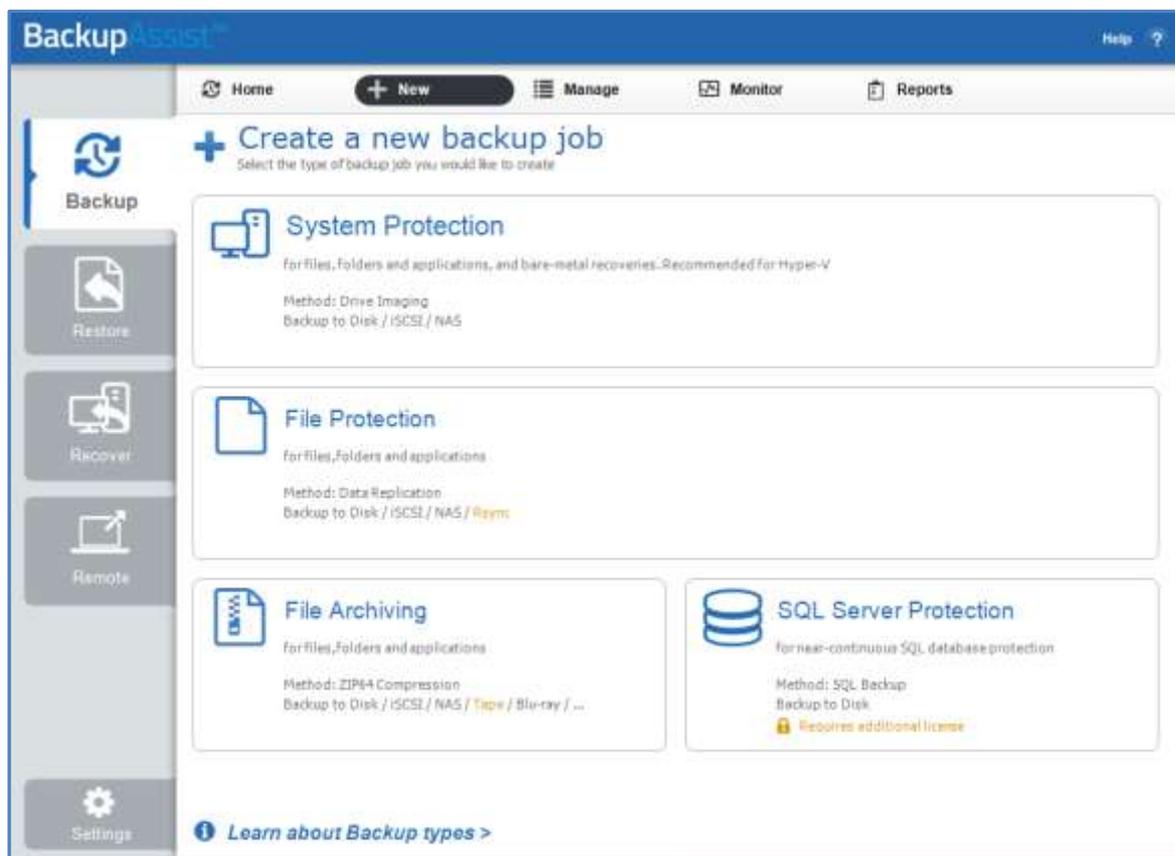


Figure 2: New backup job – backup type selection screen

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

- BackupAssist System Protection [System Protection user guide](#)
- BackupAssist File Protection [File Protection user guide](#)
- BackupAssist File Archiving [File Archiving user guide](#)

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.

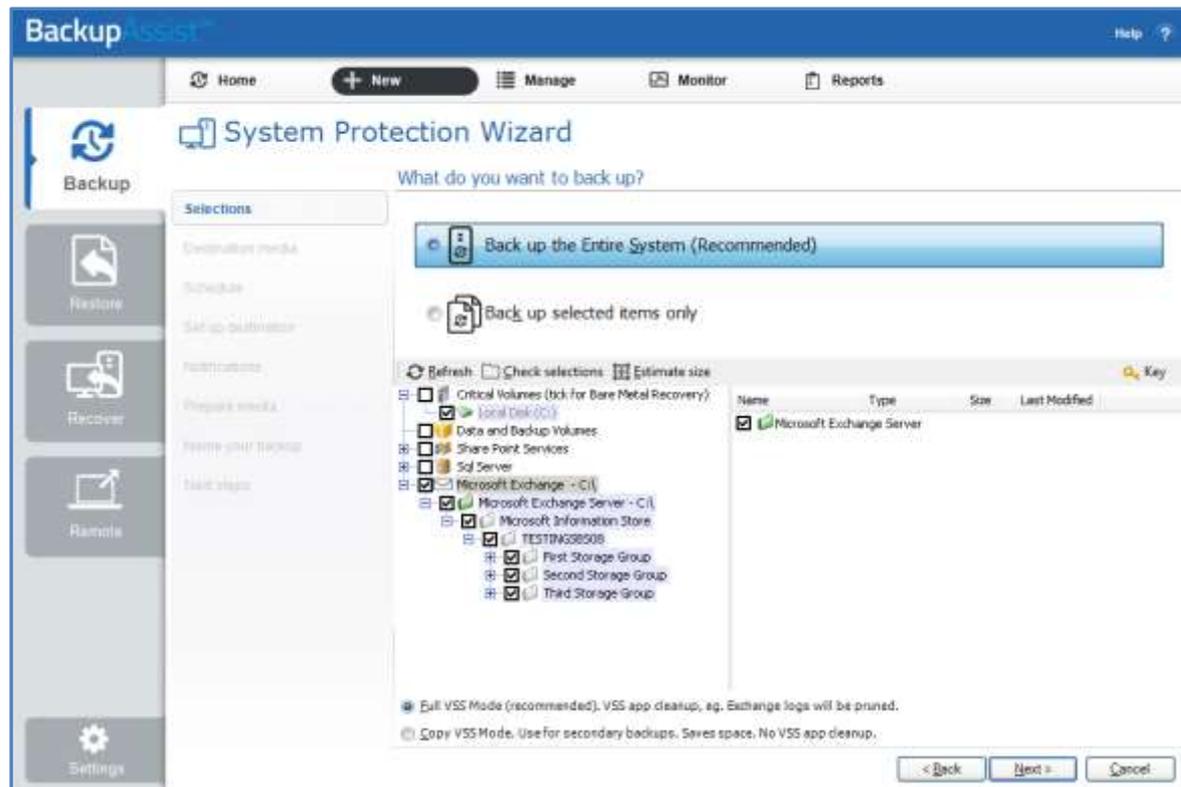


Figure 3: New backup job – Exchange Server VSS selection

- 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 [System Protection user guide](#).
- 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.

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

For detailed information on scheduling options and customizations, see the [Backup tab user guide](#).

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.

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. If you are using *Removable media* destinations, these checks are performed when you select *Prepare* on the *Prepare Media* step.

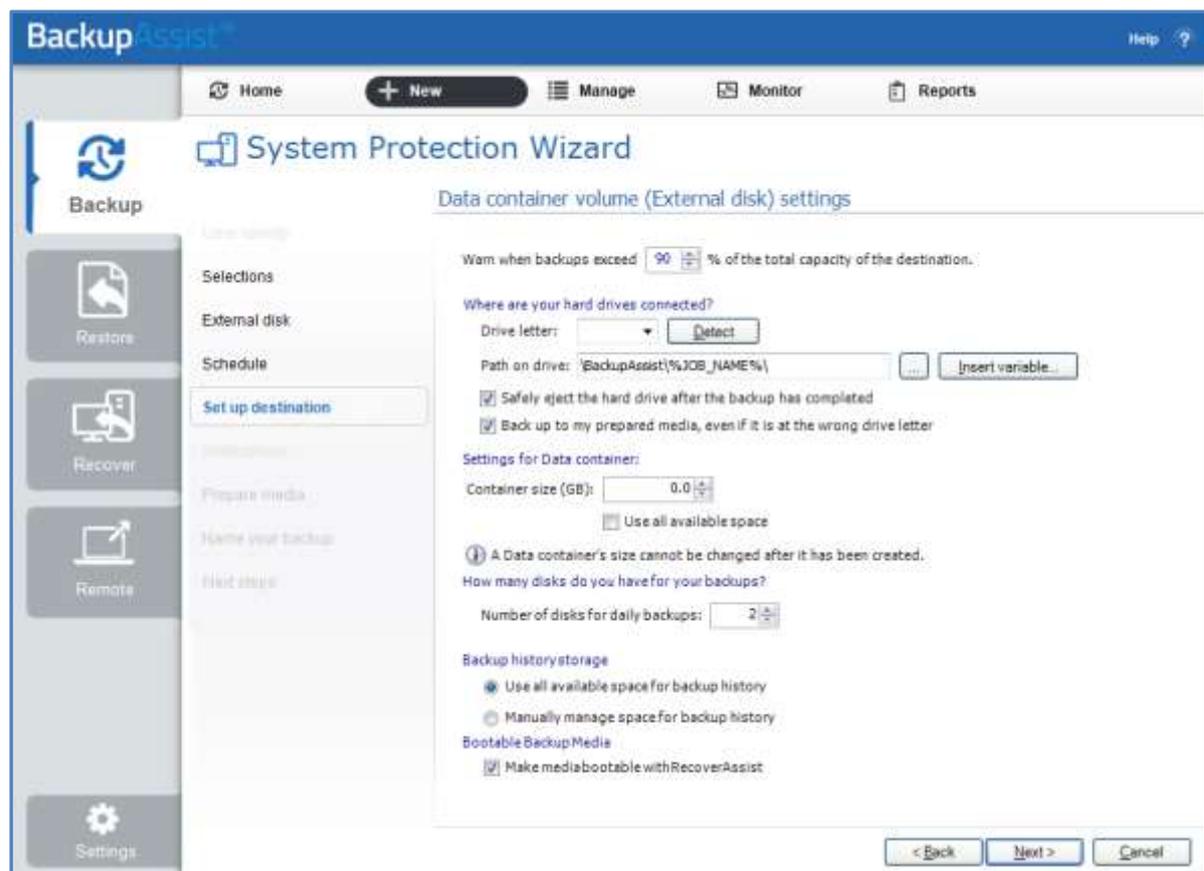


Figure 4: New backup job - Set up destination

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 send email notifications, you will need to configure an SMTP mail server for BackupAssist. See the [BackupAssist settings section](#) to learn more or the [Backup tab user guide](#) for instructions.

To enable email notifications:

- Select, **Add an email report notification**.
- Enter recipients into the **Send reports to this email address** field.
- 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 [Backup tab user guide](#).

8. 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. The label allows BackupAssist 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 labelled Wednesday, BackupAssist will warn you that the incorrect media has been detected.

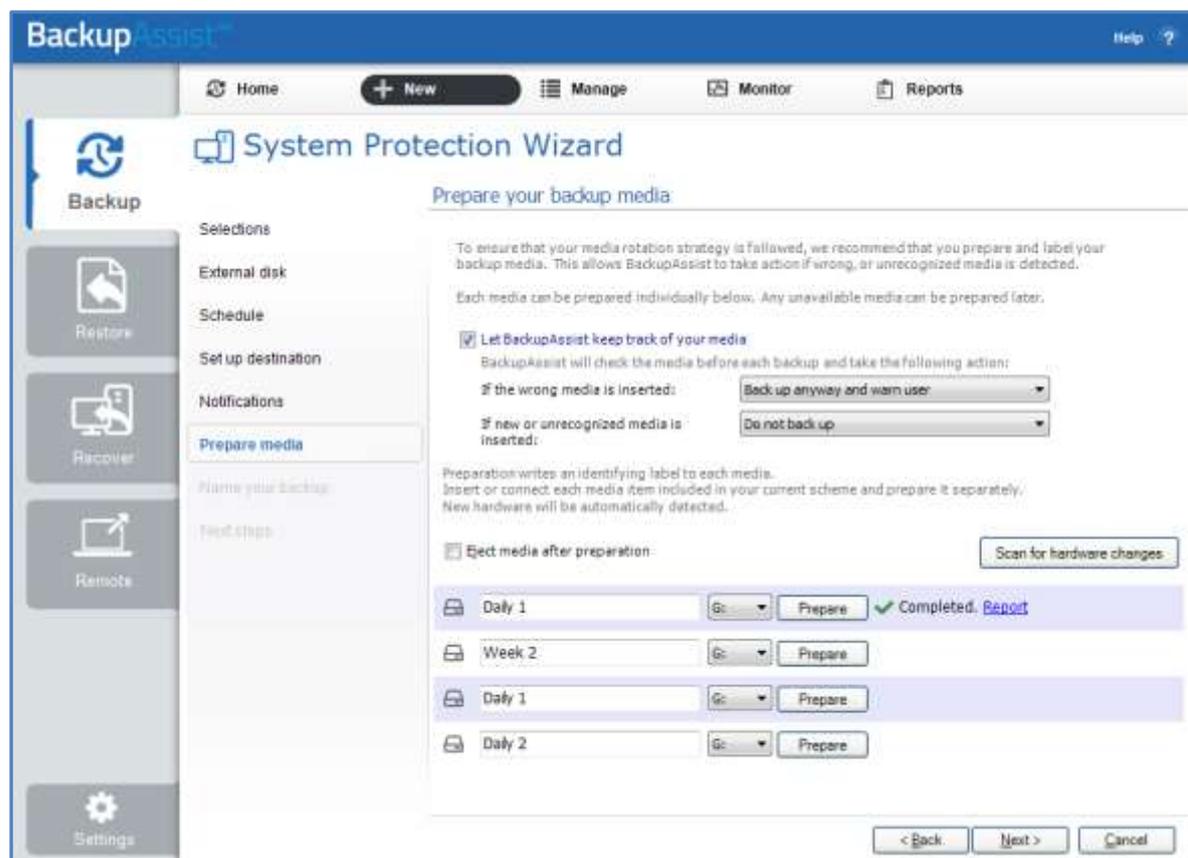


Figure 5: New backup job – Prepare media

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.

Selecting *Prepare* will generate a *Destination Check Report*. The report will advise if any problems were detected with the 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 the *backup* has been created, it should be checked. You can check the backup by performing a manual test restore, or using the [Backup Verification feature](#).

Please note that a manual restore is the only way to fully test a backup, and regular manual restores should be part of your backup solution.

5. Exchange Server restore



BackupAssist's Restore tab displays two options for Exchange: **Exchange Server** restore and **Exchange Granular restore**. This section explains how to perform an *Exchange Server* restore using a *System Protection*, *File Protection* or *File Archiving* backup.

Exchange Server restore is used to restore a full Exchange Server or individual EDB storage groups. Performing these restores may require preparations and considerations that go behind the scope of the restoration of the data. The Microsoft's Exchange Server restore resources should be consulted before planning and performing an Exchange Server restore.

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

1. Select the Restore tab

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

2. Select Exchange Server

This will display the Exchange Server backups created by this installation of BackupAssist. It can also show backups from other machines added using the *Discover Backups* button.

Expand a volume to display all of the backups available for that volume. The tabs above each volume's list of backups can be used to help locate the required backup.

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

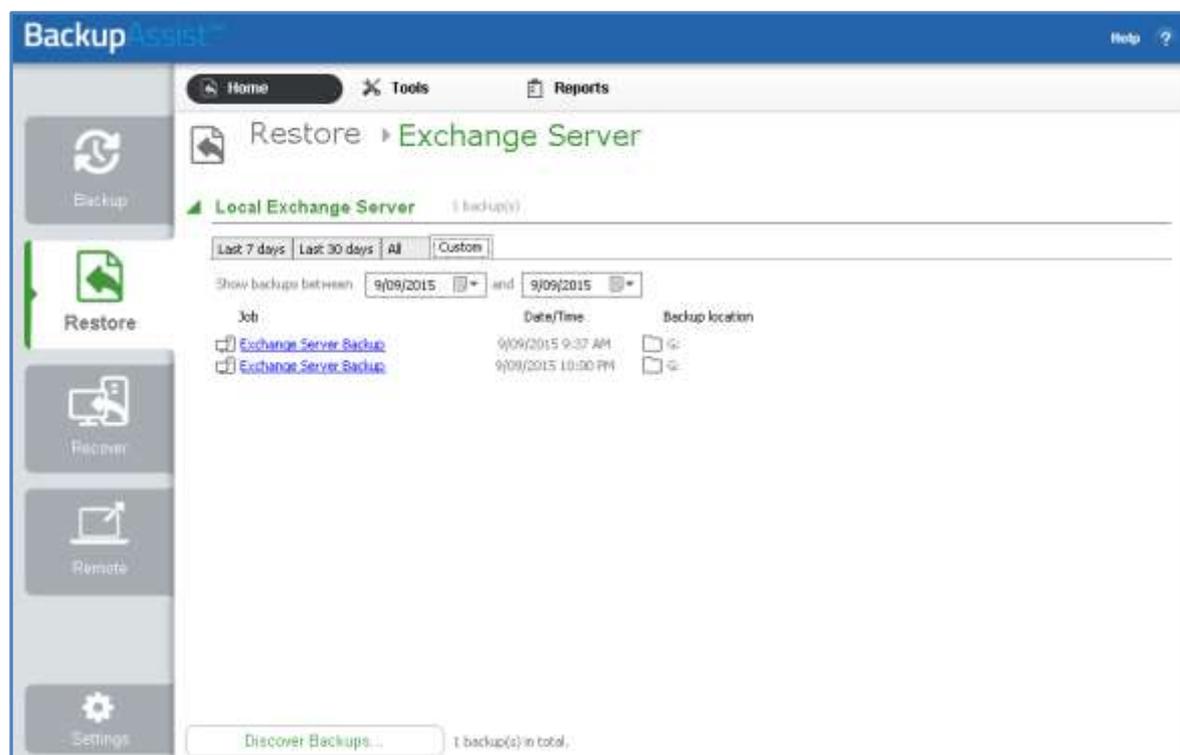


Figure 6: Restore tab – backup selection

Discover Backups allows you to browse for backup catalogs created by deleted jobs and other servers. Selecting those backups will add them to the list of available backups.

3. Select the backup that you want to restore from

Clicking on a backup's name will open the *Integrated Restore Console (IRC)*. The *Integrated Restore Console* is used to select the data to be restored, where to restore it to and the restore conditions.

4. Select the Exchange Server or database that you want to restore

Use the left pane to select the Exchange Server or the databases that you want to restore. The right pane will display the contents of the folder selected in the left pane.

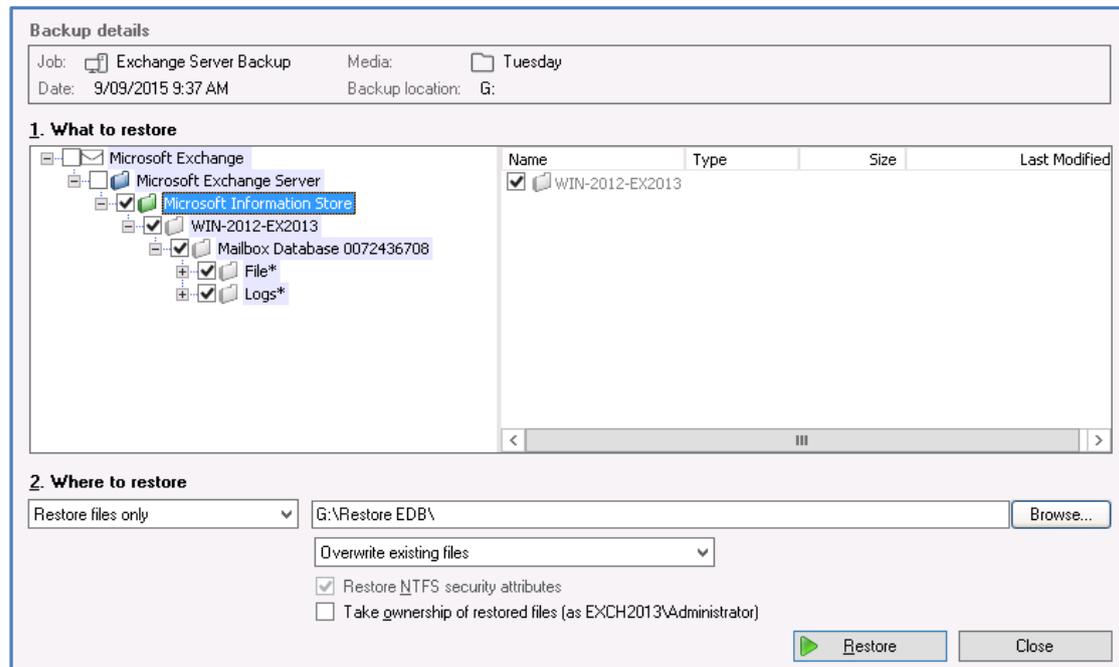


Figure 7: Integrated Restore Console

5. Select Where to restore the data to

Follow these steps to select the restore destination and the restore options:

- Under *Where to restore* select *To original location* or *To Specific location*.
- Use the *Browse* button to locate and select the restore destination.
- Use the drop down box to set the overwrite rules. The overwrite rules will apply if the files being restored encounter files with the same name in the restore destination.

You can select:

Overwrite existing files - The restored files will overwrite files in the restore destination.

Do not overwrite existing files – The restored files will not overwrite files in the restore destination. This means the files will not be restored.

Only overwrite older files - If a source file has changed since the backup was made it will not be overwritten.

d) Review the **Restore NTFS security attributes** option

If you select this option, the NTFS security attributes the file had when it was backed up will be retained when the file is restored. The NTFS security attributes can be viewed in the *Security* tab on the file's *Properties*.

e) Review the **Take ownership of restored files** option

Selecting the *Take ownership of restored files* tick box will give the current user ownership of the restored files. The user is shown to the right of the text box description.

6. Select Restore

When you select the *Restore* button, the restore process will begin. The *Integrated Restore Console* will display information about the restore job and provide status updates as the job runs.

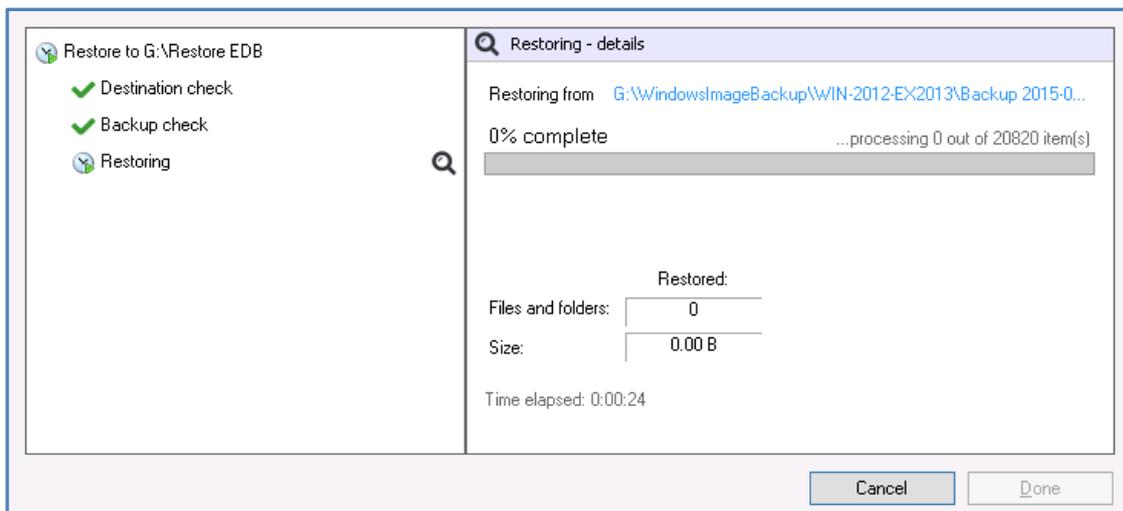


Figure 8: Integrated Restore console – restore monitor

Selecting *List all processed files and folders ...* will open notepad and display a list of the files restored, including their full path.

Encrypted backups

If your backup is encrypted, you'll be prompted for the encryption password when the restore job tries to access the backup. It is important that you keep a copy of your password in a safe place, as we cannot assist you with opening password encrypted files if your password is lost or forgotten.

If you encrypted the backup using BitLocker, you can use the password or encryption key to unlock the drive by connecting the flash drive. BackupAssist will use the key to unlock the drive that you are restoring from. You will not be prompted to do anything other than the normal restore steps.

7. Select Done

Once the restore has finished, selecting *Done* will return you to the main UI.

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

6. Exchange Granular Restore



BackupAssist's Restore tab displays two options for Exchange: **Exchange Server** restore and **Exchange Granular Restore**. This section explains how to perform an *Exchange Granular Restore* using a *System Protection*, *File Protection* or *File Archiving* backup.

Exchange Granular Restore will restore individual mail items from an Exchange Server database or PST file. This feature requires an *Exchange Granular* add-on license.

When you restore individual emails or a mailbox, the word RESTORED will appear in the Subject line of every email. This is enabled by default and can be turned off using the EGR Options menu, by selecting Options > Add RESTORED to exported item > No.

The restore Home page can display backups of Exchange databases inside Hyper-V guests. Mail items inside the guests can be restored using Exchange Granular Restore. The Hyper-V restore process is automated but the restore requires both an *Exchange Granular Add-on* and a *Hyper-V Advanced* add-on licenses. Refer to the [Exchange VM Detection](#) section to learn more.

To perform an Exchange Granular Restore, follow the steps below:

Step 1 - Locate the Exchange backup

1. Select the Restore tab

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

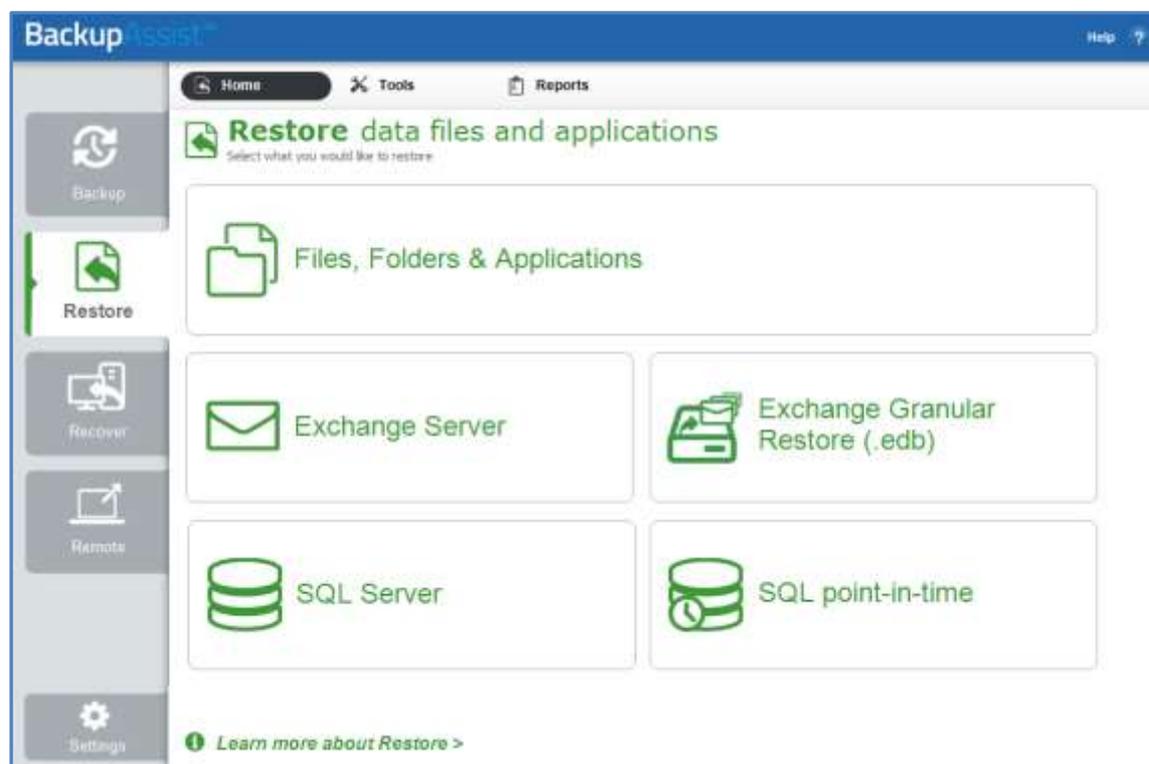


Figure 9: Restore tab

2. Select Exchange Granular Restore

This will display the Exchange Server backups created by this installation of BackupAssist. It can also show backups from other machines added using the *Discover Backups* button.

Clicking the Exchange Server heading will display all backups available for that Exchange Server. The tabs can be used to help locate the required backup.

- 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 period.

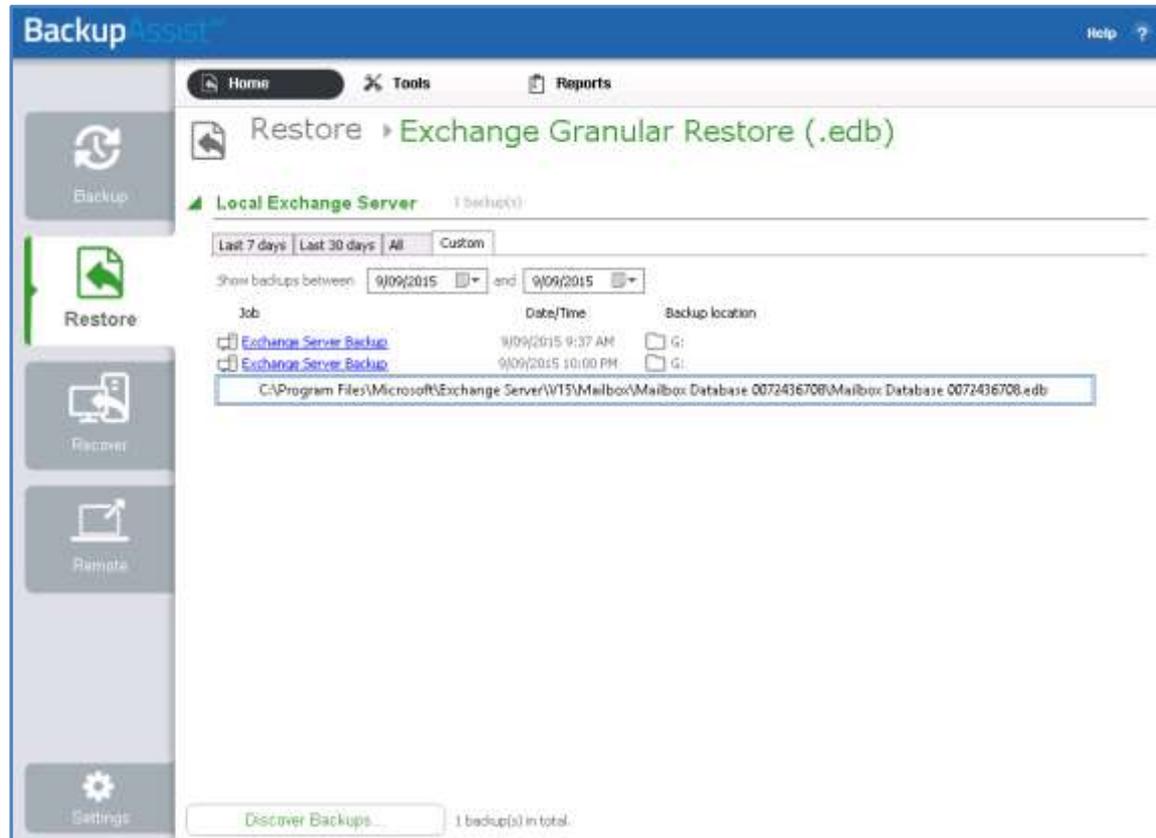


Figure 10: Restore tab – backup selection

Discover Backups allows you to browse for backup catalogs created by deleted jobs and other servers. Selecting those backups will add them to the list of available backups.

3. Select the backup that you want to restore from

Clicking on a backup's name will display a drop down list of Exchange databases (EDB files) that you can restore from.

4. Select the Exchange EDB database that you want to restore

The will open the Exchange Granular Restore console, which will open the Exchange database and allow you to view the mail items inside it.

If you opened Exchange Granular Restore from the Tools menu, you can browse to, and open, an EDB, PST or OST file. You can then search the PST or OST file, and restore the selected mail items.

Step 2 - Locate the mail items

The *Exchange Granular Restore (EGR)* console has a *Browse mail tree* and a *Search field* to help locate, preview and select the mail items that you want to restore.

If you open EGR from the Restore > Tools menu, you can open a database using the *Open Exchange DB* button.

Console options

Both the *Browse* and *Search* functions can use the following options.

- **Display filter:** Press CTL+F and a Filter field will appear under the list of currently displayed mail items. Select the *Subject, From, To, Attachments, Created* or *All* filter, and enter the text to filter by.
- **Restore Deleted items:** *Display hidden deleted items*, is available in the *Options* menu, and selecting it will give access to previously deleted mail items. This is not mail from the delete items folder but mail items that are no longer present. The database will reload when a selection is made and the deleted items will have a flag to indicate that they are a deleted item.
 - Deleted items from Exchange Server 2007 are stored in their original folders.
 - Deleted items from Exchange 2010 and later are stored in the folder *Deletions*. These items cannot be restored to live Exchange Server database. It is recommended that these items are exported to a PST file and then imported into the live Exchange Server.
- **Display time:** Select *Display time*, from the *Options* menu and select Local or GMT. This applies to the date in the properties tab of a mail item. The database will reload when the format is changed.

Using Browse

The Browse mail tree is displayed in the console's left pane. Browsing for the items you want to restore is ideal when you know their location.

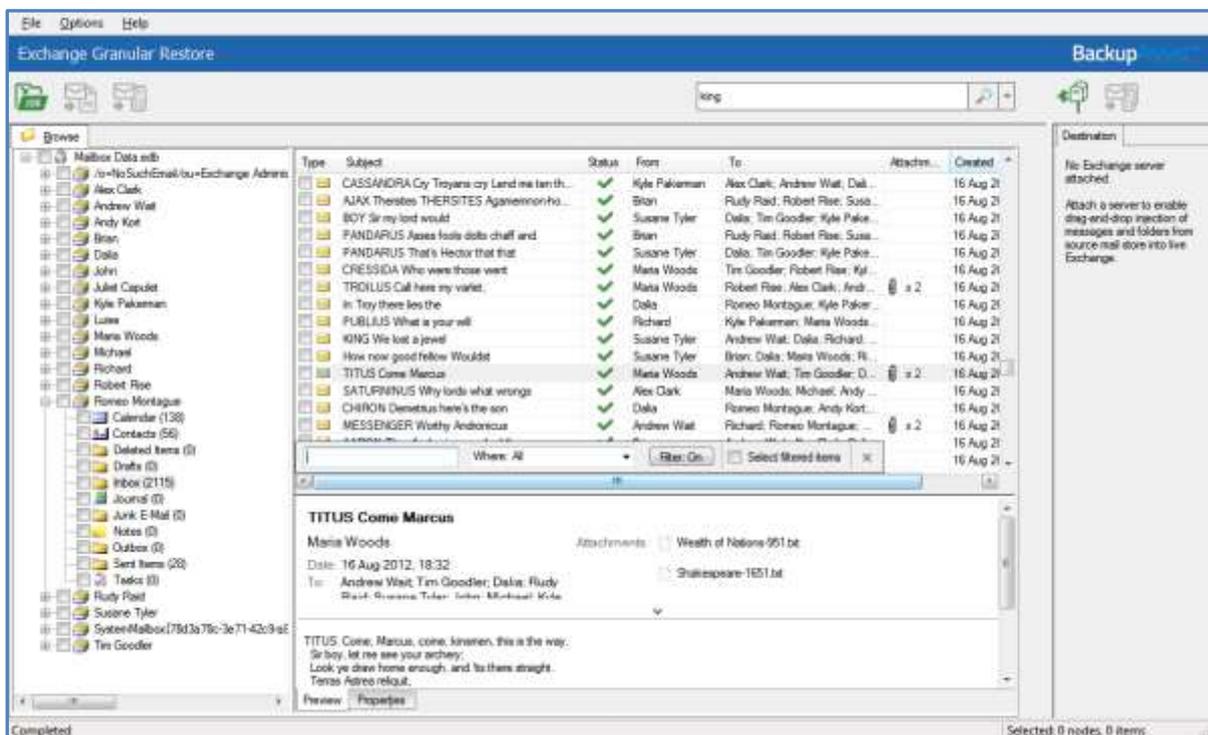


Figure 11: The Exchange Granular Restore console

- Selecting a folder will display the individual mail items inside it, on the pane to the right.
- Selecting a mail item will preview its contents in the pane below it.

Using Search

The Search field is ideal when the location of a mail item or the number of items to restore is unknown. When a keyword search is performed, a new tab with a browse tree will open containing only the mailboxes, folders and mail items that match your search criteria.



The search word must be a whole word.

To perform a simple Search, enter the search word into the field, click the search icon and the Search tab will open in the console. This *Search tab* will contain all items in the database that contains the word you entered.

To perform an advanced Search, select the arrow by the Search field to display the advanced search options. The *Search in* field will default to the entire database. To search inside specific mailboxes or folders, select the *Search in* field and use the dialogue window to select the required containers.

The following search options are available:

- *Has words*, searches for mail items that have words or phrases entered into the field.
- *Doesn't have*, searches for items that do not have words or phrases entered into the field.
- *Has attachments*, will search for items with attachments.
- *From*, will search for keywords in the *From*: field.
- *To*, will search for keywords in the *To*: field.
- *Subject*, will search for keywords in the *Subject*: field.
- *Date range*, can be used to set a specific date range. A beginning and end dates must be set.

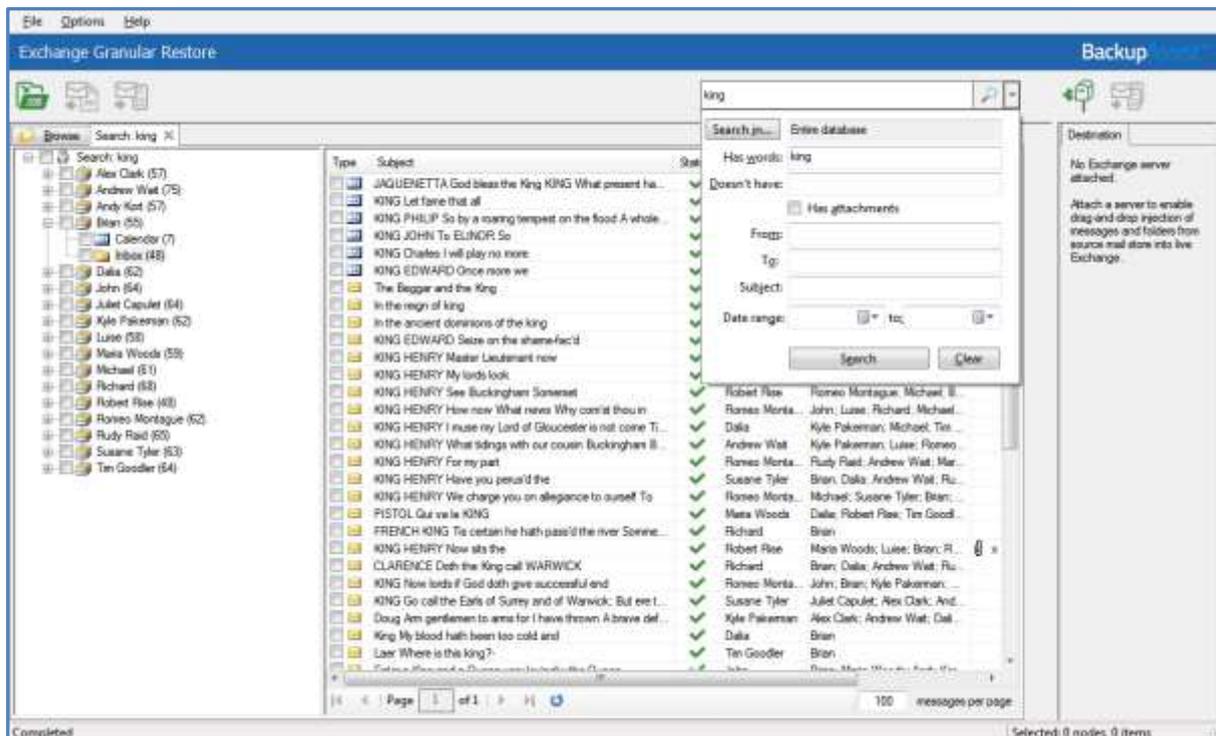


Figure 12: Exchange Granular Restore console - Search tab

If a search does not match any items, review your search parameters and run another search.

Once you have located the mail items that you want to restore, select them using the tick box. Once you have selected an item to restore, the restore type icons in the menu will become active.

Indexing Modes

Database indexing can be disabled or cancelled via the *Options* menu. If indexing is disabled, a database search will not be possible. Two indexing modes are supported: Light and Full.

- Light indexing (default): Limits the searchable information to the following fields: *From, To, Subject, Date range*. A *To* field with a long recipients list and message bodies will not be indexed.
- Full indexing: This mode will take longer to index as it allows a search across the entire database.

Step 3 - Perform the restore

Once you have located the required mail items, there are three ways they can be restored using Exchange Granular Restore: *Restore to original location*, *Restore to alternate location* and *Export to PST*.

Option 1: Restore to original location



This option will restore the selected mail items back into their respective mailboxes on the original Exchange Server.

To perform the restore, follow the steps below:

- Select the **Restore to original location** button.

A *Restore to original location* window will open. The domain name of the server running Exchange will be automatically detected if you are on the same domain.

- If no Exchange Server was detected, manually fill in the *Server name* field and click *Reconnect*.

It is possible to restore data to someone else's mailbox using [Exchange Impersonation](#). To do this, the current user credentials must have Exchange Impersonation access to the destination mailbox.

- Select *Restore*, to begin the restore process.

A progress window will be displayed during the restore. The window shows the number of folders, messages and errors. You can enable and disable the progress window in the *Options* menu.

- The restore can be cancelled by clicking the *Cancel restore* button.
- The progress window can be reopened by clicking *Progress bar* on the status panel.
- Selected items will be copied into their original locations on the live Exchange Server. If selected items cannot be matched to a destination mailbox, they will not be restored.
- The destination Exchange Server is detected automatically using the current Active Directory domain. If necessary, you can change the server name and attempt a reconnect.

Option 2: Restore to alternate location



This option will restore the emails and mail items from the offline backup to a live Exchange database that is different to the one they were backed up from.

To perform the restore, follow the steps below:

- a) Select the **Connect to Exchange Mailbox** button.

The *Connect to Exchange Mailbox* button will open the connection dialog box, which is used to provide the Exchange Server name and the authentication details (User logon) for a specific mailbox on that server. This authentication process can be repeated for additional mailboxes.

The *Restore to alternate location* button will become active when a connection has been made.

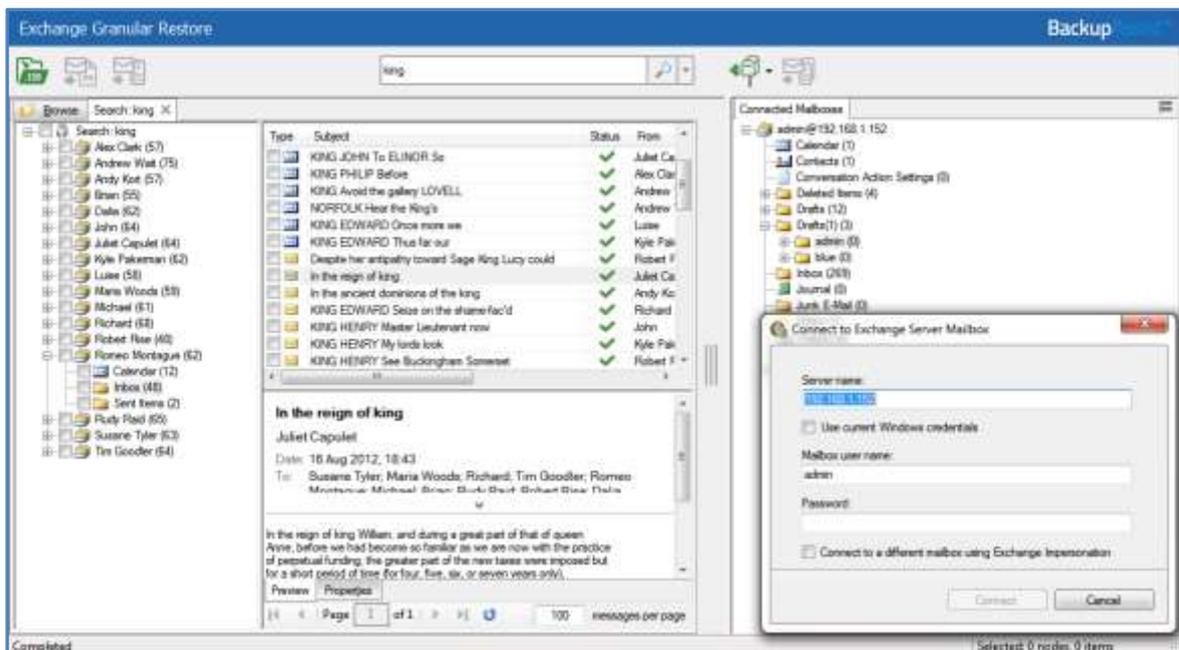


Figure 13: Restore to alternate location – connection authentication

Enter the following details into the connection dialog box:

- Server name - Domain name Exchange Server or IP address
- Mailbox user name - This will identify, authenticate and open the applicable mailbox.
- Password- The password for the applicable mailbox.

If *Use current Windows credentials* is selected, the existing user's Windows password will be used.

If *Exchange Impersonation* is selected, enter the SMTP address of the mailbox that you want to connect to. Exchange impersonation must also be configured on the Exchange Server.

Once the connection has been made, the mailbox you have authenticated to will appear as a mailbox tree in a new pane called *Connected Mailboxes*. You can open a preview pane for the destination mailbox tree by selecting the *Show item list and preview* icon (CTL+R), to the right of the *Connected Mailboxes* pane.

- b) **Restore mail items to an alternate location**

There are two ways to restore mail items to the alternate location: drag and drop and the *Restore to alternate location* button.

Drag and drop

Drag and drop mail items from the backup, into the live Exchange mailbox that you connected to.

- The hierarchy of the data being dragged will be recreated inside the destination folder.
- You can create a new folder in the live mailbox by right clicking the mailbox or a folder. Note, you cannot delete or rename a folder once it has been created.

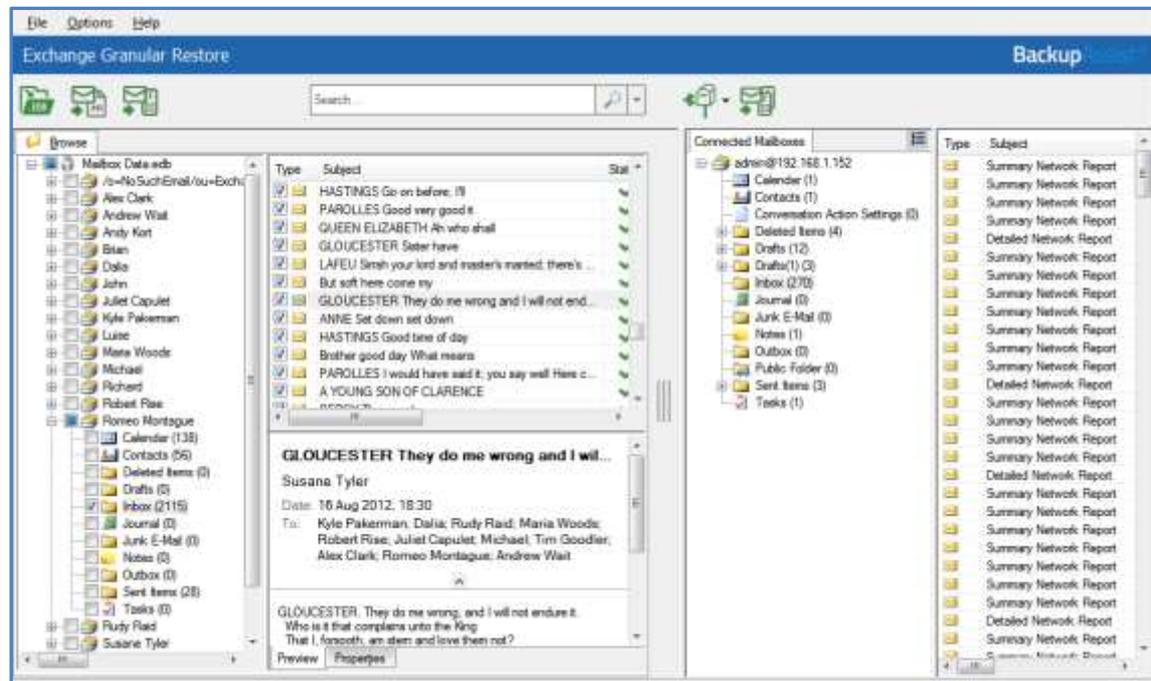


Figure 14: Mail item selection

Restore to alternate location button

Click the check-box next to items that you want to restore and select the *Restore to alternate location* button. A dialog box will open and allow you to select a destination folder on one of the connected mailboxes. Make your destination selection and select OK to begin the restore

- The data hierarchy will be restored automatically.
- The root of hierarchy is the closest common parent item.

Source mail items and destination folder compatibility

Not all types of mail items can be restore to all types of destinations folders. The following table shows the compatibility matrix of source mail item types and destination directories.

Item type	*Mail folder	Journals	Notes	Contacts	Calendar	Tasks
Message	Y	Y	Y	Y	Y	Y
Journal	Y	Y	Y	Y	Y	Y
Sticky Note	Y	Y	Y	Y	Y	Y
Contact	N	N	N	Y	N	N
Calendar	N	N	N	N	Y	N
Task	N	N	N	N	N	Y

* The *Mail folder* includes Deleted Items, Drafts, Inbox, Junk, Outbox and Sent.

If some or all of the selected items cannot be restored (using drag and drop or clicking the *Restore to alternate location* button) to the destination folder, then an error message will be displayed.

Option 3: Export to PST



Export to PST will save your selected data in a PST file, which can be opened by outlook to access the mail items.

To perform the export, follow the steps below:

a) Confirm the Personal Storage Table (PST) format

You can choose *Unicode* or *ANSI* encoding for the PST output file using the *Options* menu.

The *Exchange Granular Restore* console exports each mailbox into a separate .pst file named: "Restore NNN <Mailbox Name>[VVV]. pst", where NNN is the current recovery session identifier and VVV is the volume number, in case the PST file has to be written in more than one volume.

With large exports, there can be more than one PST file. Additional files are created automatically when the file size limit is reached. The size limit depends on the output file encoding.

- For ANSI PST files, the size limit is 1 GB.
- For Unicode PST files, the size limit is 10 GB.
- A maximum of 15,000 messages can be restored into the PST file.
- When this limit is reached, an additional PST file is created.

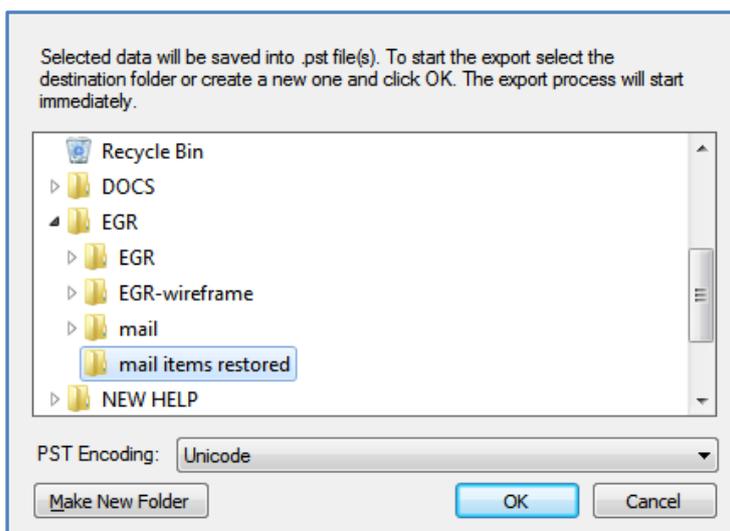
b) Select the , *Export to PST* button

This button will become active once the mail items have been selected.

c) Select the destination.

You will be asked to select a folder or create a new folder. After selecting the new or existing folder, the export will begin.

You will be shown a progress window during the export. The window shows the number of saved mailboxes, folders and messages. The export can be cancelled by clicking the *Stop Export* button. If you close the progress window, it can be opened again by clicking the status panel's progress bar.



The items selected (even if you only selected one item) will be exported as a PST file.

d) **Open the exported mail items in Outlook.**

1. Click *File > Open* and choose *Open Outlook Data File*.
2. Browse to the PST file that was exported, then select it and click *OK*.
3. The PST file will appear in Outlook as a container.

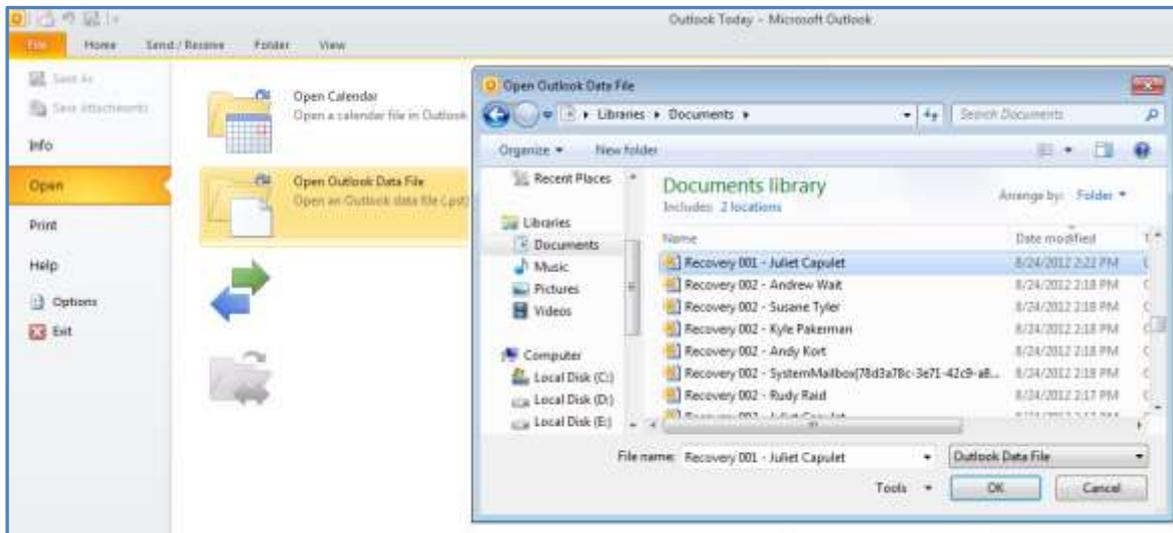


Figure 15: Opening an exported PST file in outlook

e) **Restore the exported items to the Exchange Server.**

Items extracted from an offline Exchange mail store can be restored to a live server. Make sure you have Microsoft Outlook and access to the mailbox that you want to restore the mail items into.

1. Open the PST file that contains the exported mail items.
2. Open the mailbox that you need to import the data into.
3. Drag-and-drop the item them back into their original folders. They will be automatically synchronized with the live Exchange Server database.

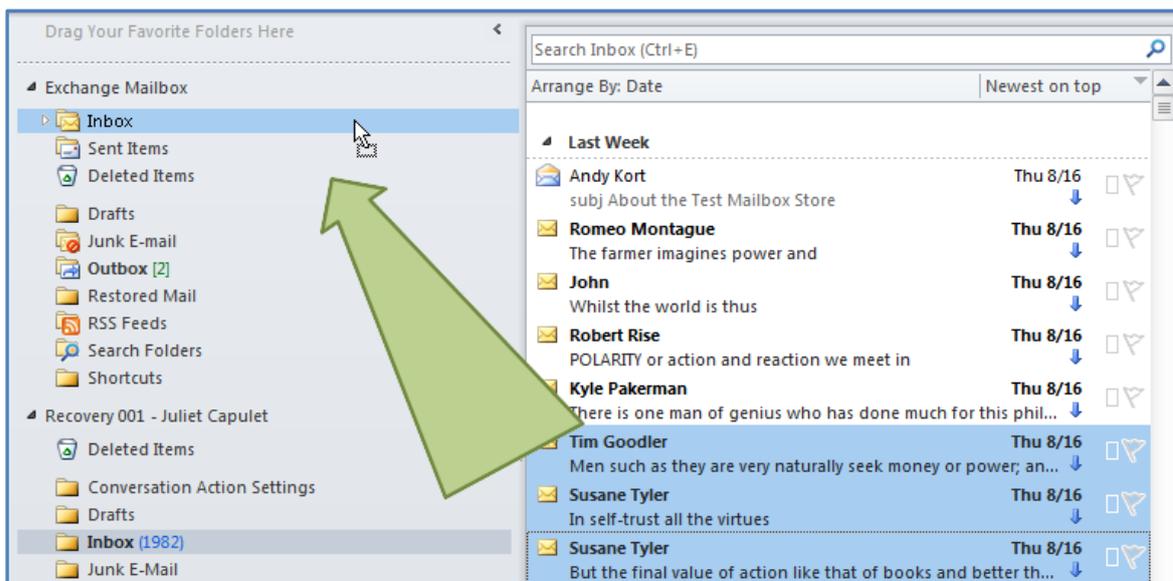


Figure 16: Restoring a PST file to an Exchange Server.