

BackupAssist™


BackupAssist v7

Exchange Mailbox Protection Whitepaper

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1. Introduction



Exchange Mailbox Protection
For genuine restore of email and public folders

Method: Export to PST
Backup to Disk

 Requires add on license

The BackupAssist **Exchange Mailbox Add-on** is used to achieve brick-level backups of your Exchange Server. The add-on extracts Exchange mail data to separate PST files. These backups can then be used to restore group emails, calendars, tasks, notes, contacts and entire mailboxes.

Documentation

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

- Recommended reading: Exchange Mailbox permissions [Exchange Mailbox Backup User Identity](#).
- To protect individual Exchange mailboxes, see the: [Exchange Granular Restore QuickStart guide](#).
- To learn more about Exchange Server Protection, see the [Exchange Server Protection Whitepaper](#).

Licensing

Exchange Mailbox Protection (licensed as the Exchange Mailbox Add-on) is fully supported, but has been superseded by Exchange Granular Restore (licensed as the Exchange Granular Restore Add-on). This new solution uses System Protection, File Protection and File Archiving backups to restore mail items.

The Exchange Granular Restore Add-on automatically includes the Exchange Mailbox Add-on:

- Existing customers with an Exchange Mailbox Add-on licence – automatically receive the Exchange Granular Restore Add-on licence.
- New customers – can purchase the Exchange Granular Restore Add-on license.

The Exchange Granular Restore Add-on is the recommended tool for protecting mail items in Exchange 2013, 2010 and 2007. It uses standard backups and cannot be used with backups created by Exchange Mailbox Protection (Exchange Mail Add-on).

For instructions on how to activate / deactivate license keys, visit our [Licensing BackupAssist page](#).

Exchange add-on comparison

Feature	Exchange Mailbox Add-on	Exchange Granular Restore Add-on
Exchange version support	2003, 2007, 2010	2007, 2010, <u>2013</u>
Exchange Server authentication	Required	Not required
Special backup type	Required	Not required
Mail Preview (before restore)	No	Yes
Backup size	Requires additional PST file backup	Part of Exchange Server
Backup destination	Local disks only	As supported by backup

Advantages and disadvantages of the different PST formats

This table shows what features are supported by the different mail file formats

Format features	Unicode PST with Outlook	ANSI PST with Exchange MAPI	ANSI PST with Exmerge
Public folder backup (1)	✓	✓	✗
PST file size limit (2)	50GB	2GB*	2GB
International character support	✓	✗	✗
Legacy support (3)	✗	✗	✓
Microsoft Outlook required	✓	✗	✗
Mailbox rights set on Exchange 2003	✓	✓	✓
Mailbox rights set on Exchange	✓	✗	✗
Support for 64-bit	✓	✓	✓

* If a PST file reaches 2GB, BackupAssist will automatically create a second PST file for the overflow.

- 1) **Public folder backup:** Exchange public folders are publicly accessible repositories that store email messages, calendars, contact and that everyone on the network can access through Outlook. If public folder backups are supported they will be stored in your mailbox backup directory as a PST file named `_PublicFolders_.pst`
- 2) **PST file size limit:** PST files in ANSI format have a file size limit of 2 gigabytes. Once a PST file reaches to 2GB in size, BackupAssist will automatically rename it with a numbered suffix and create a new PST file to store new mailbox data. This process is repeated each time a PST file reaches 2GB in size. Another way to overcome this limitation is to select a grouping method to store your mailbox backups within separate folders for each month, quarter or year. Each PST file will be smaller in size, as it contains only mail data from the grouping period selected. PST files in Unicode format have a 50GB size limit for Exchange 2010 and 20GB for Exchange 2003 and 2007.
- 3) **Legacy support:** Support for the Microsoft Mailbox Merge Wizard (Exmerge) is included for backwards compatibility with previous versions of BackupAssist. Users familiar with Exmerge can use this setting to maintain compatibility with their current environment(s).

Comparison Matrix

Product	Restore options	Information Store backups	Public folders and private user mailboxes
BackupAssist	Fully restore your Exchange Server	✓	✗
BackupAssist & Exchange Mailbox add-on	Individual item restore and basic archiving	✓	✓

Key Features and Benefits

The following table highlights the key features and benefits of the Exchange Mailbox add-on:

Feature	Benefits
Brick-level backup of Exchange data	Achieve automated brick-level backups of Exchange data to back up user's individual mailboxes.
Simple and rapid restoration of Exchange data	After an initial export of existing mail data to separate PST files (one per mailbox), BackupAssist will automatically schedule daily exports that merge or append new mail data into these files. This is similar to a daily incremental and is much faster than traditional backup methods.
Simple and rapid restoration of Exchange data	A separate PST file is created for each Exchange user's mailbox, making for a simple and rapid restoration of user's individual or group emails, calendars, tasks, notes, contacts or entire mailboxes.
No proprietary formats	PST is a standard file format, and users can open the files easily in Outlook. Email data is not locked within a proprietary format.
Easy grouping and storage of emails	PST files of mail data can be easily stored within separate folders and sorted by year, quarter or month. This is useful for compliance and in legal scenarios where forensic archiving is required.
Extra protection for deleted items	Mailbox backups go beyond the standard 'snapshot' backup. Each separate PST file is the cumulative total of all emails sent and received over a given time period. Nothing is ever 'deleted' from the PST file automatically. This prevents problems arising when a user discovers they deleted an email weeks or even months later.
A range of recovery options	Automated recovery: use the BackupAssist Restore Console to restore mailboxes and public folders or, if the mailboxes were backed up using Exmerge (Exchange 2003), to restore directly from your Exchange mailbox backups with filters (by date, attachment, subject, and so on). Manual recovery: individual users can open PST files in Outlook and drag-and-drop items back into the relevant folders.
Works on 32 bit & 64 bit machines	BackupAssist can be installed on 64 or 32 bit machines. The same setup process is followed for all versions of Exchange and Windows.
Public Folder backup	BackupAssist can backup Public Folders to their own PST file. (ANSI for Exchange and Unicode options only)

2. How Exchange Mailbox Protection works

Grouping mailbox data

A **grouping method** can be selected to determine how your mail data is stored on disk, with options to store mail data within separate folders according to different time periods. PST files can be grouped by month, quarter, year or simply stored as a single set. The grouping method option makes it easier to locate mail data from specific dates. The following diagram illustrates how mail data is stored:

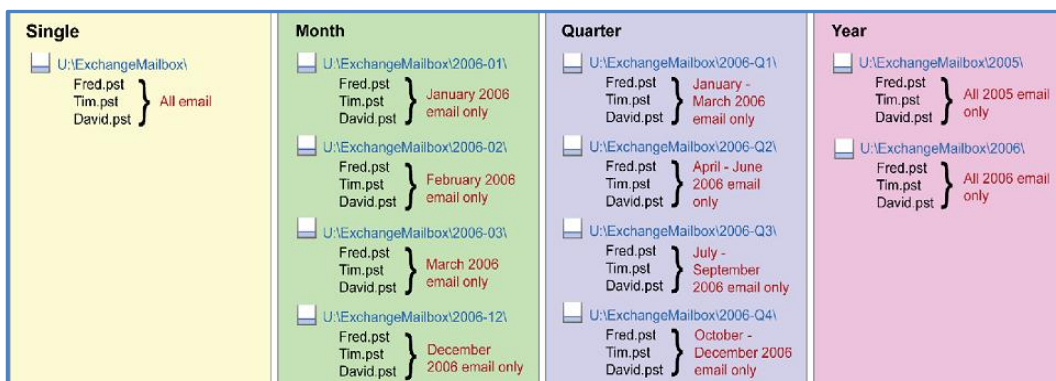


Figure 1: Groupings of mail data based on time periods

Mail data export

The Exchange Mailbox add-on performs **brick-level** backups of users' mailboxes to separate PST files. We recommended that you perform an initial manual export of your selected mailboxes. After this export, BackupAssist will merge new mail data to existing PST files according to your backup schedule. The below diagram provides an overview of how the add-on works:

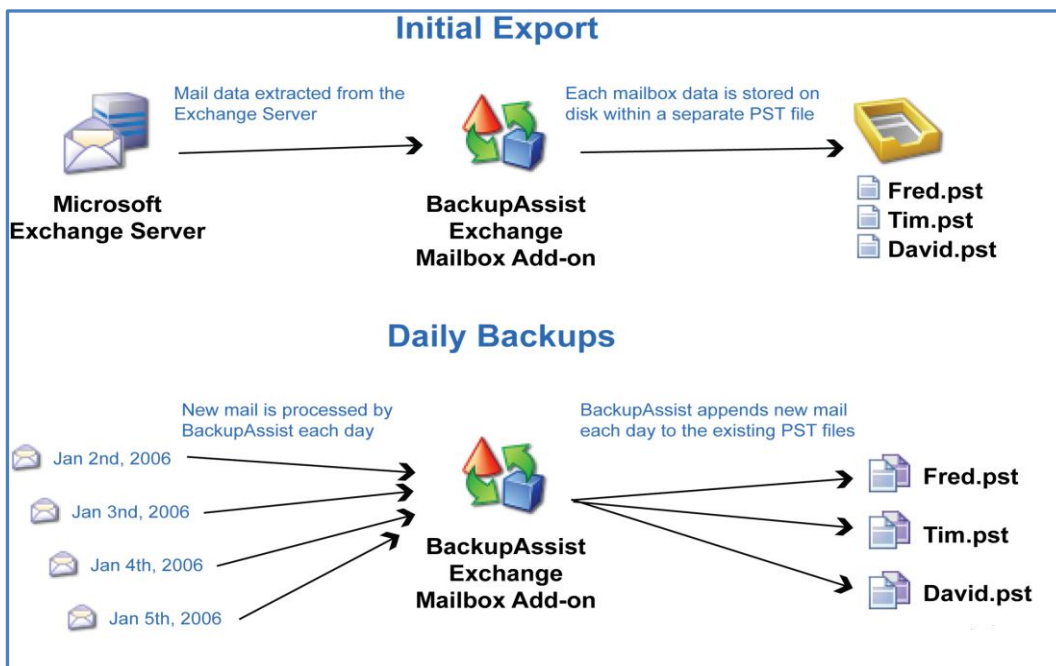


Figure 2: Changes to a user's mail being backed up to exported mail files.

Backup time periods

Each user's PST file is the cumulative total of all emails sent or received over a given time period, and **not** just a 'snapshot' of each individual user's mailbox at a particular point in time. Doing this prevents problems when a user requires an email that they deleted weeks or months ago, but only has a recent backup of their mailbox.

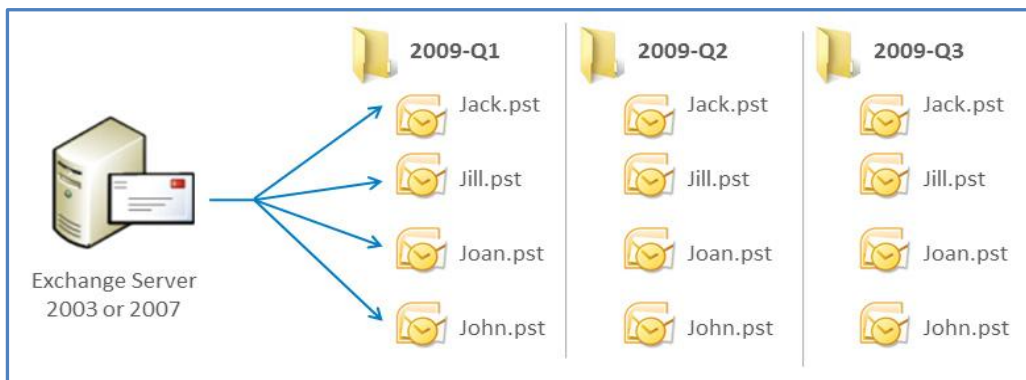


Figure 3: PST file backups by time period

For example:

1. An email is received on the 1st of May 2012.
2. The user deletes this email on the 3rd of May 2012.
3. On the 5th of June 2012, the user needs to retrieve this previously deleted email.

With BackupAssist's Exchange Mailbox add-on, the original email would be backed up in the relevant year, quarter, month, or single folder, depending on your group settings, as a separate PST file on the night of the 1st of May. Even though the user deleted the email on the 3rd of May, the PST file would still contain the original message.

When you need to recover the email, you can open the relevant user's PST file and the original email will be available. The following diagram demonstrates how the sorting process works, assuming that the mail data is being sorted by month:

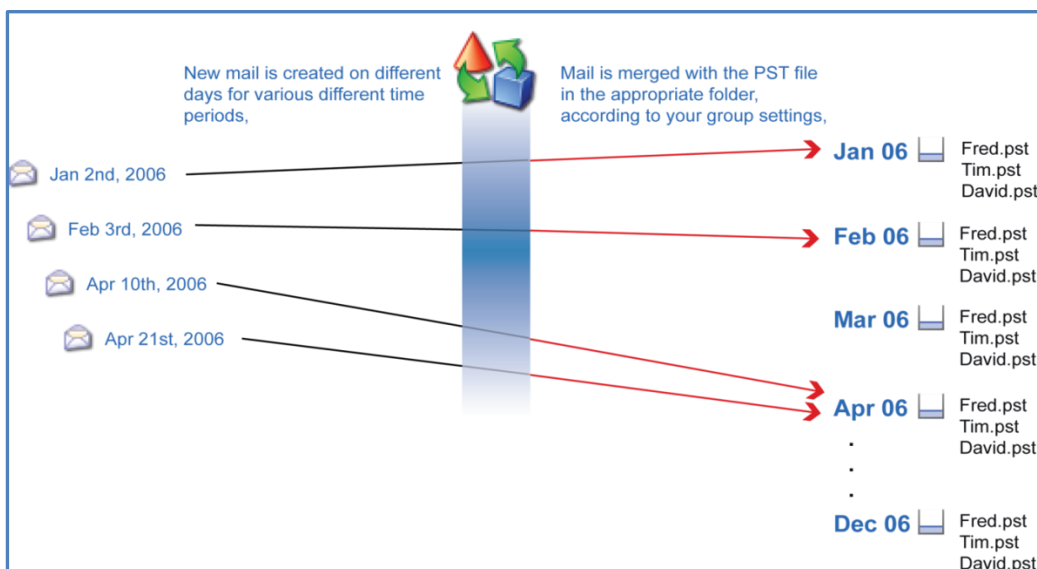


Figure 4: New mail items being merged into PST files and backed up.

Mailbox backup automation

Many backup solutions require the use of scripts to create and configure custom backups. BackupAssist automates the creation of customized backups by using a backup creation wizard.

Benefits over PowerShell scripts (Exchange 2007)

PowerShell limitation / requirement	How BackupAssist overcomes this
Needs to be run on a separate 32-bit machine; cannot be run on the Exchange Server	Can be run on a 64-bit or 32-bit machine, and can be run on the Exchange Server
Requires the Exchange Server 2007 Management Tools (32-bit)	No management tools required
Requires Outlook 2003 SP2 or Outlook 2007	BackupAssist does not require Outlook however, if Outlook is installed, Unicode PST features are available
Requires PowerShell scripting	Fully automatic assignment of permissions and exporting of mailboxes, all in a simple UI
Requires manual scheduling	Automatic scheduling thanks to BackupAssist scheduler
No automatic reporting	Automatic reporting keeps admin informed of results
Does not support public folders	BackupAssist supports public folder exporting to PST!

Benefits over standard Exmerge scripts (Exchange 2003)

The Exchange Mailbox Add-on offers a number of benefits over standard Microsoft Exmerge scripts:

- BackupAssist will manage the mailbox security rights, so no further administrative work is required.
- BackupAssist will automate the export process in accordance to your grouping settings, automatically merging new emails into the appropriate PST Files.
- When you choose to back up all mailboxes, any new users' mailboxes will be backed up without you needing to update your settings or scripts manually.
- Disabled or hidden Exchange users can be deselected so that they are never backed up.

3. Exchange Mailbox Protection configurations

Requirements explained

Exchange Server MAPI client

The Exchange Messaging API (MAPI) client provides a COM-like API that BackupAssist uses to access the contents of messaging stores on an Exchange Server. BackupAssist provides a built-in facility to automatically install the MAPI client, but this can also be downloaded and installed manually from [Microsoft](#). The Exchange MAPI client can be installed on nearly all Windows operating systems, but cannot be installed if Microsoft Outlook is already present on your server.

If you are running a Windows Vista (32-bit & 64-bit) or (64-bit) Windows Server 2008 / SBS 2008 or later operating system, you must either install the Exchange MAPI to backup to PST in ANSI format, or install Microsoft Outlook to backup to PST in Unicode format. The latest version of Exchange 2007 MAPI can be obtained using the "Upgrade" feature in the BackupAssist Console. (Note that the version of MAPI that comes with the 2003 Management Tools cannot be upgraded and does not support backup of Exchange 2010.)

Exchange 2003 Management Tools

The Exchange Server 2003 Management Tools may be installed on the machine running BackupAssist if you want BackupAssist to create mailbox backups in ANSI PST format using either Exchange or Exmerge. The Exchange Server 2003 Management Tools can be installed using the Exchange Server 2003 installation disk.

The Exchange 2003 Management Tools cannot be installed on a Windows Vista (32-bit & 64-bit) or (64-bit) Windows Server 2008 / SBS 2008 or later operating system.

Microsoft Exmerge

The Microsoft Mailbox Merge Wizard (Exmerge) must be installed on the machine running BackupAssist if you want BackupAssist to create PST mailbox backups in ANSI format using Exmerge. BackupAssist provides a facility for automatically downloading and installing Exmerge on your server.

The Exchange Server 2003 Management Tools must be installed before Exmerge can be installed.

This is only available for use in Microsoft Exchange 2003 environments.

Microsoft Outlook

Microsoft Outlook (any modern 32bit version of Outlook – 2003, 2007 or 2010 [64bit versions not supported]), must be installed on the machine running BackupAssist if you want to create PST mailbox backups in Unicode format.

DO NOT INSTALL OUTLOOK ON THE SAME MACHINE AS EXCHANGE 2003. This is a recommendation by Microsoft because Outlook can cause issues with the Exchange Server.

PST file formats

BackupAssist supports different methods for the creation of PST file backups for Exchange mailboxes. Each type of file has its own advantages and disadvantages, and applications that must be installed so mailbox backups can be performed.

PST format advantages, disadvantages and requirements.

PST format	Advantages & Disadvantages (numbers are explained below)	Requirements
ANSI PST using Exchange	Advantages: <ul style="list-style-type: none"> ▪ Recommended format for Exchange 2003 Servers (1) ▪ Public folder backup support (2) Disadvantages: <ul style="list-style-type: none"> ▪ 2GB file size limit on PST files * (3) 	Exchange Server MAPI Client (1) OR Exchange 2003 Management Tools (2)
ANSI PST using Exmerge	Advantages: <ul style="list-style-type: none"> ▪ Recommended format for Exchange 2003 Servers (1) ▪ Legacy support (4) Disadvantages: <ul style="list-style-type: none"> ▪ No Public folder backup support (2) ▪ 2GB file size limit on PST files (3) 	Exchange 2003 Management Tools (2) AND Microsoft Exmerge (3)
Unicode PST using Outlook	Advantages: <ul style="list-style-type: none"> ▪ Microsoft recommended format, Exchange 2007 /10 (1) ▪ Public folder backup support (2) ▪ No 2GB file size limit on PST files (3) ▪ International character support (5) Disadvantages: <ul style="list-style-type: none"> ▪ Requires Microsoft Outlook (6) 	Microsoft Outlook (4) Review this Microsoft article before using the Unicode functionality

* If a PST file reaches 2GB, BackupAssist will automatically create a second PST file for the overflow.

- 1) **Recommended format:** ANSI PST is the recommended format when backing up Exchange 2003. Unicode PST is the recommended format when backing up Exchange 2007/2010 mailboxes.
- 2) **Public folder backup support:** Exchange Server Public Folders are publicly accessible repositories that store emails, calendars and contacts that all users can access with Outlook. If your mailbox backup configuration supports public folder backups, you can configure BackupAssist to backup public folders with each user's private mailbox. The Public Folder backup will be stored in your Exchange mailbox backup directory as a file named `_PublicFolders.pst`. If you select ANSI PST using Exmerge, you will not be able to backup public folders. Exmerge will only extract mail data from private mailboxes.
- 3) **PST file size limit:** PST files in the ANSI format have a size limit of 2 gigabytes (GB). Once a PST file grows beyond 2GB, it becomes corrupt and unreadable. See Microsoft article Q288283 and Q830336. You can overcome this limitation by selecting a grouping method in *Set up Destination* step, when creating a backup job. This option stores mail data in separate folders for each month, meaning each PST file will be smaller. You can also store your PST mailbox backups in the Unicode format, which has no file size limit.
- 4) **Legacy support:** Support for the Microsoft Mailbox Merge Wizard (Exmerge) is included for backwards compatibility with previous versions of BackupAssist, but new features such as Public Folder backup support are not available with this setting. Users familiar with Exmerge can continue using this setting to maintain compatibility with their current environment.
- 5) **International character support:** PST files in Unicode format provide support for international characters, including non-Latin alphabets.
- 6) **Requires Microsoft Outlook:** The machine running BackupAssist must have Microsoft Outlook installed to create PST files in Unicode format.

Available PST file configurations

The following table outlines the Exchange mailbox backup configurations possible with BackupAssist, including the options that each configuration supports:

Configuration	Options supported
ANSI PST using Exchange	With Exchange MAPI client installed
	<p>Operating systems supported: 32-bit and 64-bit versions of Windows XP, Vista, 7, 8 & Server 2003, 2008/R2, 2012/R2 & Small Business Server 2003, 2008 and 2011.</p> <ul style="list-style-type: none"> Public folder backup ✓ Setting mailbox rights on Exchange 2003 ✗ Setting mailbox rights on Exchange 2007/2010 ✓*
	With Exchange 2003 Management Tools installed
	<p>Operating systems supported: 32-bit Windows 2000, XP, Server / SBS 2003</p> <ul style="list-style-type: none"> Public Folder backup support ✓ Automatically setting mailbox rights on Exchange 2003 ✓ Automatically setting mailbox rights on Exchange 2007/2010 ✓*
ANSI PST using Exmerge	With Exchange 2003 Management Tools and Exmerge installed
	<p>Operating systems supported: 32-bit Windows 2000, XP, Server / SBS 2003</p> <ul style="list-style-type: none"> Public Folder backup support ✗ Automatically setting mailbox rights on Exchange 2003 ✓ Automatically setting mailbox rights on Exchange 2007/2010 ✓*
Unicode PST using Outlook	With Microsoft Outlook 2003 / 2007 / 2010 installed
	<p>Operating systems supported: 32-bit and 64-bit versions of Windows XP, Vista, 7, 8 & Server 2003, 2008/R2, 2012/R2 & Small Business Server 2003, 2008 and 2011.</p> <ul style="list-style-type: none"> Public folder backup support ✓ Automatically setting mailbox rights on Exchange 2003 ✓ with Exchange 2003 Management Tools installed * Automatically setting mailbox rights on Exchange 2007/2010 ✓*

* Most Exchange 2007 and Exchange 2010 setups do not require you to enable the option to set mailbox rights automatically for mailbox backups to run correctly. This option should only be enabled when advised by the BackupAssist Technical Support team.

Note: You cannot install both Exchange 2003 Management Tools and Exchange 2007/2010 Management Tools on the same machine; for Unicode PST the "setting mailbox rights" option that is available depends on the

version of Exchange Management Tools that is installed (we suggest installing the 2003 Management Tools if backing up Exchange 2003 servers).

4. BackupAssist settings



When creating a backup job, there are some global settings that should be configured in BackupAssist. If they are not configured, you will be prompted to complete them during the creation of your first backup. It is recommended that this is done in advance.

BackupAssist's settings can be entered and modified using the selections available in the **Settings tab**. Clicking on the *Settings tab* will display the selections as icons. Four of these are used when creating new a backup job and each one is described below:

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 here and your backup jobs will be launched using these credentials. The account's permissions will be validated both when the backup user identity is entered and when the job is executed. If no account is specified or the account has insufficient permissions, the backup job will fail and note the error in the backup report.

Before setting up mailbox backups in BackupAssist, we recommend that you make sure that you are using a *dedicated* backup user identity that has permission to access your Exchange Server. Refer to our [Exchange user identity article](#)

Email server settings

This menu item is used to enter the details of the SMTP server used by BackupAssist to send email notifications. The SMTP server must be configured if you want to have an email *Notifications* step enabled when you create a backup job.

Email address list

This menu item is used to define and store the email addresses of potential notification recipients. The list will be used to populate the recipient selection screen when configuring an email notification for a backup job. Any email addresses entered during the creation of a new notification are automatically added to the *Email address list*.

Network paths

This option allows you to enter access credentials for networks, domains and drives that the default account (specified in the *Backup user identity*) does not have access to. Enter or browse to the location and add it to the *Path list*. The *Edit* option will allow you to enter an authentication account, specifically for that path. When you create a backup job to a remote location, that location will be automatically added here. Having multiple connections to a resource using the same logon credentials can generate a Windows error, such as the [BA260 NAS error](#). It is therefore recommended that you avoid having mapped shares on the computer running BackupAssist that are the same as the paths configured in BackupAssist.

5. Client Access Server backups

With Microsoft Exchange Server 2010, Microsoft has allowed administrators to separate Exchange Server roles onto individual servers to achieve better load balancing and resiliency.

A key role relevant to backup software is the introduction of the Client Access Server (CAS) role, which changes the way client software communicates with mailboxes on a Microsoft Exchange Server 2010 installation. Whilst roles were introduced in Exchange Server 2007, they did not affect the way BackupAssist operated.

The Client Access Server handles the first point of contact between client software and the Exchange Server. If the CAS role is moved to a separate server from that which houses the mailboxes, then the BackupAssist job must be configured appropriately.

A backup job configuration is shown in the example below. Two Exchange Servers, EXCH01 and EXCH02, plus a Workgroup PC. EXCH01 has the CAS role and host the public folders, whereas EXCH02 will host the mailboxes only. BackupAssist will be installed on the Workgroup PC.

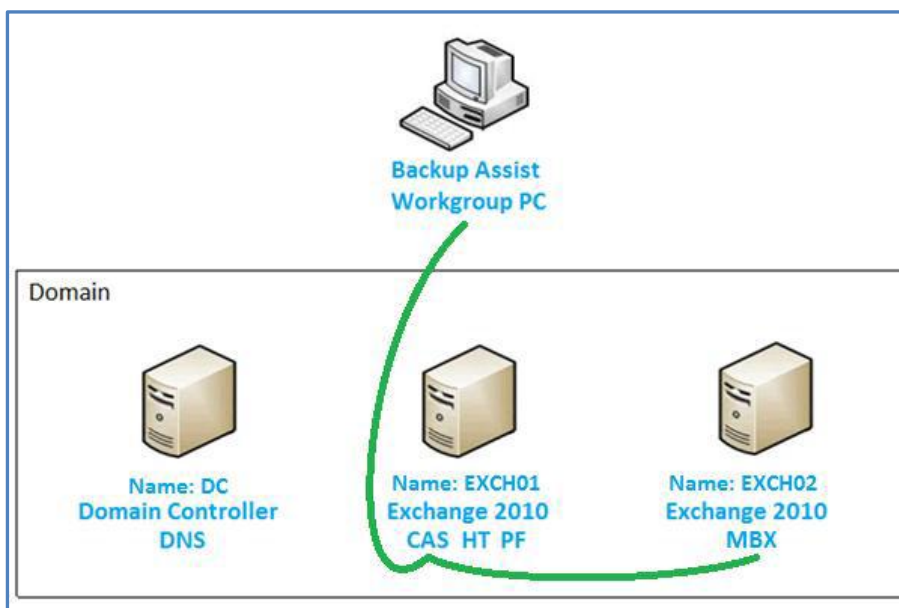


Figure 5: BackupAssist configured to use a Client Access Server (CAS)

Roles

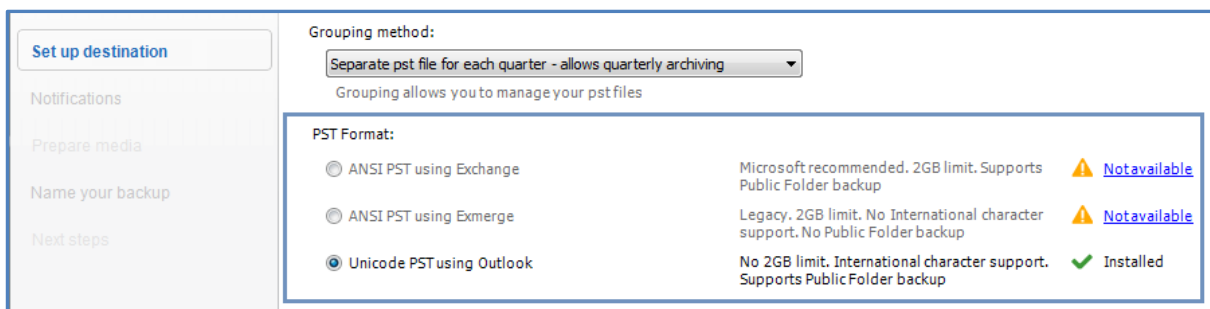
- CAS Client Access Server DNS Domain Name System
- HT Hub Transport MBX Mailbox
- PF Public Folders

If all roles are installed on a single Microsoft Windows Server, as is the case with a default Microsoft Windows Small Business Server (SBS) 2011 installation, then the Client Access Server does not need to be explicitly set in the BackupAssist job. In order to back up public folders they must be on the same server which has the CAS role installed. Either the CAS role may be installed on the server with the Public Folder database, or the Public Folder database may be moved to the server which has the CAS role installed.

6. PST format selection

During the creation of an Exchange mailbox backup, you will be asked to select a PST format. The selection depends on the type of machine Exchange is installed on. This section provides guidance on the PST selection based on the machine used, and should be referred to in the [Set up Destination](#) step of mailbox backup job creation.

Additional information on the different PST formats can be found in the [Exchange Mailbox Protection configurations](#) section of this document.



The screenshot shows the 'Set up destination' step in the BackupAssist wizard. On the left is a navigation pane with 'Set up destination' selected. The main area is titled 'Grouping method:' and has a dropdown menu set to 'Separate pst file for each quarter - allows quarterly archiving'. Below this is a 'PST Format:' section with three radio button options:

PST Format	Details	Status
<input type="radio"/> ANSI PST using Exchange	Microsoft recommended. 2GB limit. Supports Public Folder backup	⚠ Notavailable
<input type="radio"/> ANSI PST using Exmerge	Legacy. 2GB limit. No International character support. No Public Folder backup	⚠ Notavailable
<input checked="" type="radio"/> Unicode PST using Outlook	No 2GB limit. International character support. Supports Public Folder backup	✅ Installed

Figure 6: Exchange mail backup - PST type selection

For Windows Vista, 7, 8 & Server 2008/12 & SBS 2008/11

Selecting an appropriate PST format is important, as a PST file in one format cannot be converted to the other.

- **Unicode PST using Outlook (recommended)**

You should not install Microsoft Outlook if the Exchange MAPI client is already present on the machine; first remove the Exchange MAPI client and then install Outlook.

- **ANSI PST using Exchange**

To use this option you must have the Exchange MAPI client installed on your machine. The MAPI client cannot be installed if Microsoft Outlook is already present on the machine.

BackupAssist provides a facility to automatically install the Exchange MAPI client:

- Select ANSI PST using Exchange
- Click the blue Install help link.
- A new window will appear. Click the Install button to install the Exchange MAPI client.
- BackupAssist will download the Exchange MAPI client and install it on your machine.

- **ANSI PST using Exmerge**

This option is not available on Windows Vista, Server 2008/R2 or SBS 2008 or later operating systems, as Exmerge requires the Exchange Server 2003 Management tools, which cannot be installed on these environments.

For Windows XP, Windows Server 2003 and SBS 2003

Selecting an appropriate PST format is important, as a PST file in one format cannot be converted to the other.

- **ANSI PST using Exchange**

To use this option you must have either the Exchange MAPI client OR the Exchange 2003 Management Tools installed on your machine.

- The Exchange MAPI client cannot be installed if Microsoft Outlook is already present on the machine. The Exchange 2003 Management Tools, however, can be installed on a machine where Outlook is installed.
- You cannot install both the Exchange MAPI client AND the Exchange 2003 Management Tools – you must install one or the other.
- While BackupAssist provides a facility for automatically installing the Exchange MAPI client, we recommend that you install the Exchange 2003 Management Tools, particularly if you are backing up mailboxes from an Exchange 2003 server. See the Microsoft TechNet article '[How to Install the Exchange System Management Tools](#)' for instructions on how to install the Management Tools.

If installing the Exchange 2003 Management Tools is not possible, BackupAssist can automatically install the Exchange MAPI client for you as follows:

- a. Select ANSI PST using Exchange.
- b. Click the blue Install help link.
- c. A new window should appear. Click the Install button to install the MAPI client.
- d. BackupAssist will download the Exchange MAPI client and install it on your machine.

- **ANSI PST using Exmerge**

To use this option you must have both the Exchange 2003 Management Tools and Exmerge installed on your machine.

Note: if the Exchange MAPI client is already present on your machine you will need to first uninstall it before being able to install the Exchange 2003 Management Tools.

See the Microsoft TechNet article '[How to Install the Exchange System Management Tools](#)' for instructions on how to install the Exchange 2003 Management Tools. Once the Management Tools are installed, BackupAssist can automatically install Exmerge for you as follows:

- a. Select the ANSI PST using the Exmerge radio button, then click the Install button below.
- b. BackupAssist will download and install Exmerge on your machine.

- **Unicode PST using Outlook**

To use this option you must have Microsoft Outlook 2003 or later installed on your machine. You cannot install Microsoft Outlook if the Exchange MAPI client is already present on the machine; first remove the Exchange MAPI client and then install Outlook.

Do NOT install Outlook onto the same machine that you are running Exchange 2003 on.

7. Creating an Exchange Mailbox backup



The following instructions describe how to create an Exchange mailbox backup job using Exchange Mailbox Protection.

Exchange Granular Restore is the recommended tool for protecting mailboxes and mail items in Exchange 2013, 2010 and 2007. This *restore-based* solution supersedes the *backup-based* **Exchange Mailbox Protection** solution - but both are supported.

Launch BackupAssist and follow the steps outlined below:

1. Select the **Backup** tab, and click **Create a new backup Job**
2. Select **Exchange Mailbox Protection**

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 section above, [BackupAssist settings](#), for guidance.

3. **Selections:** Add the Exchange Server to BackupAssist and select the mailboxes as explained below.
 - a. **Specify the backup user identity:** The *link above* - *Add Exchange Server*, will display the user identity that will authenticate with the Exchange Server. We recommend that you make sure that you are using a *dedicated* identity that has permission to access your Exchange Server.
 - b. **Add Exchange Server:** If you are on a server running Exchange, the local Exchange Server will appear for selection. To add an Exchange Server that is not on your local machine, use the search field to type in the name of the Exchange Server you want to connect to. Any servers that your Backup user identity has access to administer, and are on your domain, will appear in a popup window. Put a tick on the Exchange Server/s required and select **Add**

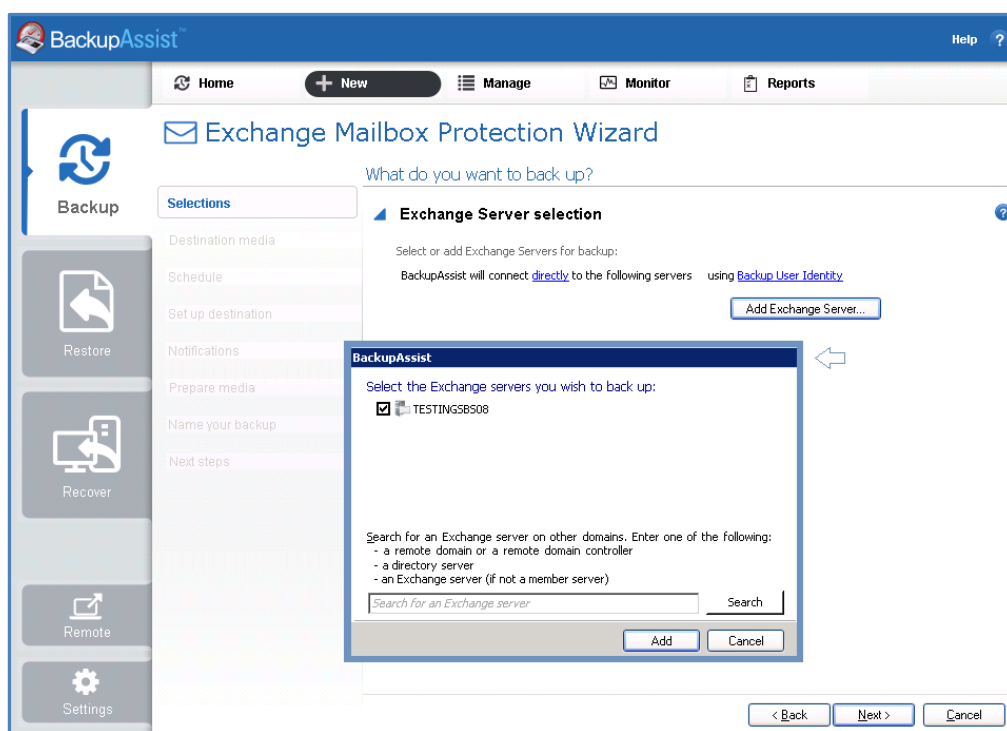


Figure 7: Exchange Mailbox Protection – server selections screen.

c. **Add Client Access (CAS) Server**

The Client Access Server must be added separately when the CAS role is on a separate machine to the mailboxes. To learn more, refer to the section, [Client Access Server backups](#).

- If you want to add a CAS Server, select the link - connect [directly](#)
- Change the method of connection from *Connect directly* to *Use Client Access Server*
- Enter the name or IP address of the server running the CAS role, and click **OK**.
- Click *Add Exchange Server* and select the Exchange Servers to back up.

Once you have added the Exchange Server/s they will appear on the selections screen.

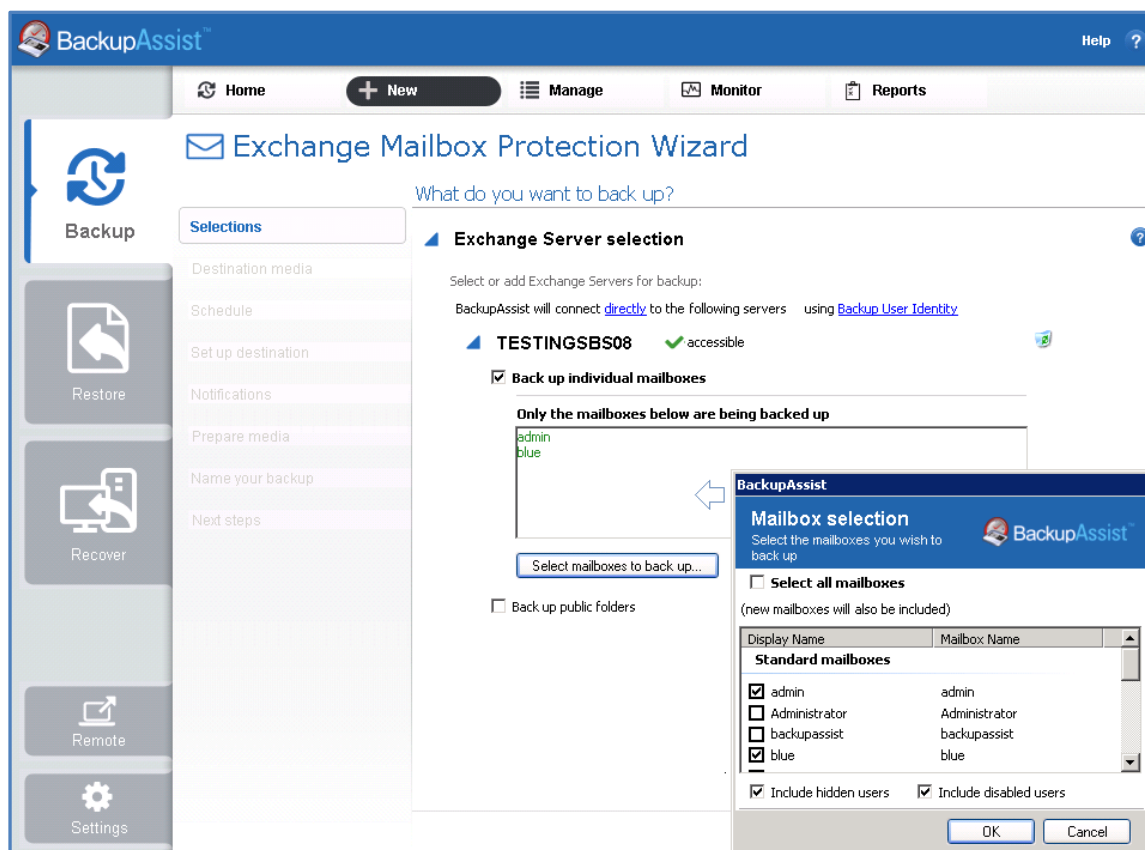


Figure 8: Exchange Mailbox Protection – Server and mailbox selections screen.

- Check the **Backup individual mailboxes** checkbox for each server that you want to backup. A field will appear under each server, which you can add selected mailboxes to.
- Click **Select mailboxes to back up**, and a mailbox selection pop-up window will appear, containing all the mailboxes on that server.
- Tick the mailboxes you want to back up, and click **Ok**.
 - The mailboxes will appear in the selection field under the server.
 - BackupAssist will back up all PST files associated with that mailbox.
- Check the **Backup public folders** checkbox to back up your Exchange Servers Public Folders.
- Review your selection and click **Next**.

4. **Destination media:** This step is skipped because Exchange only supports local directories.

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.

The schedule *Daily* is the only scheme available and is selected by default. Exchange Mailbox Protection schedule is modified by the *Grouping* method selected in the destination screen.

Click **Next**.

6. **Setup destination:** This screen is used to configure the location of the local or network share to be used as the backup destination. It is also used to configure how the mailboxes will be backed up to that location.

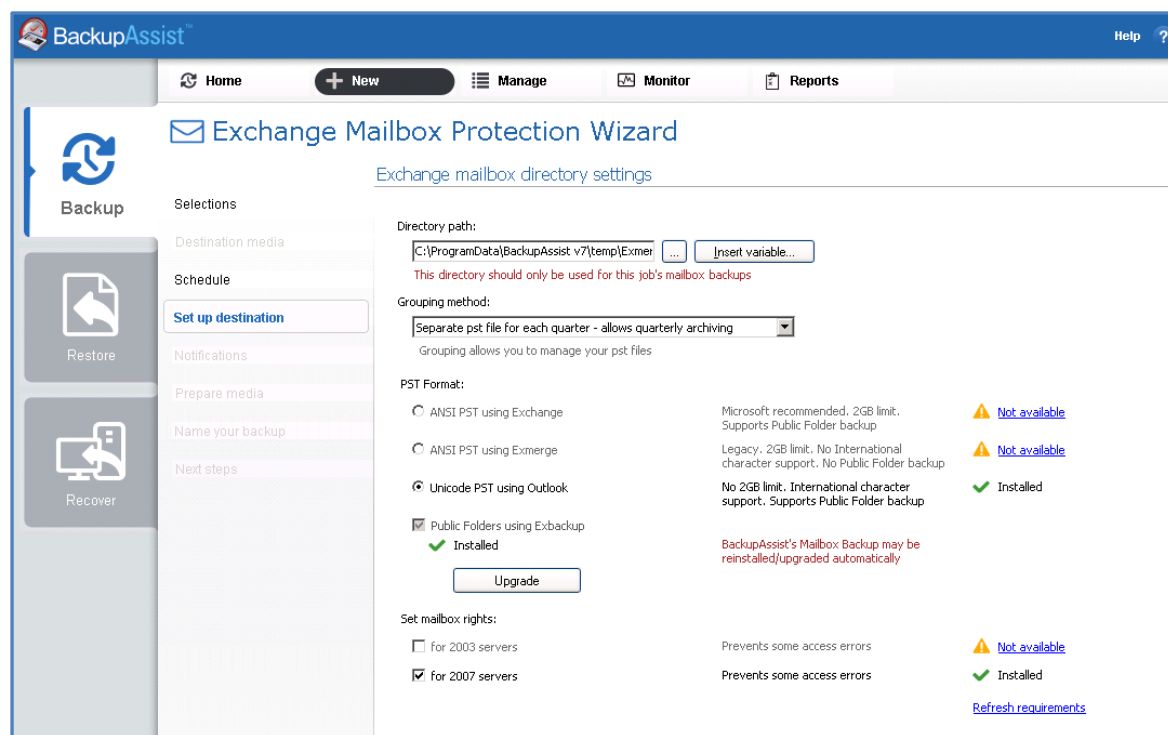


Figure 9: Exchange Mailbox Protection – Setup destination screen.

- a. **Directory path:** Enter the backup’s directory path.
- b. **Grouping method:** Choose a grouping method from the drop-down menu. Grouping methods determine how mailbox backups are stored and provide options to back up mailboxes in groups according to different time periods. A monthly grouping method is ideal for organizations with a high volume of mail as it is easier to locate email for specific dates.

To learn more about grouping methods, refer to the section, [Grouping mailbox data](#).

- c. **PST Format:** Selecting an appropriate PST format is important, as a PST file in one format cannot be converted to the other.

Refer to the preceding sections to determine the best option:

- PST format selection for [Windows Vista, 7, 8, Server 2008/12 & SBS 2008/11](#)
- PST format selection for [Windows XP, Server 2003 and SBS 2003](#)

- d. **Set mailbox rights.** Choose whether BackupAssist should attempt to automatically set mailbox rights on your Exchange Server using the available checkboxes.

- **For Exchange 2003 servers:** Select this option if you want BackupAssist to grant the backup user identity (Settings tab > Backup user identity) access to the Exchange mailboxes that have been selected for backup. This option is recommended if you are experiencing access errors with mailbox backups on Exchange 2003.

This option is not available on later versions of Windows, as it requires the Exchange Server 2003 Management Tools, which cannot be installed on these environments. To enable this option you must have the Exchange 2003 Management Tools installed on the machine running BackupAssist.

See the Microsoft article '[Install Exchange System Management Tools](#)' for instructions.

- **For Exchange 2007/2010 Servers:** Exchange 2007 and 2010 setups do not require this option for mailbox backups to run successfully. This option should only be enabled when advised by the BackupAssist Technical Support team.

You cannot install the Exchange 2007 and Exchange 2003 Management Tools on the same machine. If you are backing up mailboxes from both types of Exchange Server (2003 and 2007) we recommend that you install just the Exchange 2003 Management Tools.

e. Once the set destination configurations are finished, 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. See the [BackupAssist settings](#) section for guidance.

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.

8. **Prepare media:** This step will be skipped because removable media cannot be used.

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

▶ **Your Exchange Mailbox Protection backup job has now been created.**

Important: The first mailbox backup will be of the full contents of all selected mailboxes. For that reason, after creating your backup job, we recommend that you perform a manual export of the selected mailboxes. See the section, [Exchange Mailbox backup management](#) for more information.

Important: Once a backup job has been created, it should be reviewed and run using the *Manage* menu. See the section, [Exchange Mailbox 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 mailbox data](#).

8. Restoring Exchange Mailbox data



This section provides instructions on how to restore Microsoft Exchange mailboxes using backups created with the Exchange Mailbox Add-on.

If you want to restore mail items using a System Protection, File Protection or File Archiving backup of an Exchange Server, please refer to the [Exchange Granular Restore](#) quickstart guide.

To restore Exchange mailboxes and public folders using the BackupAssist Restore Console:

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 **Exchange**.

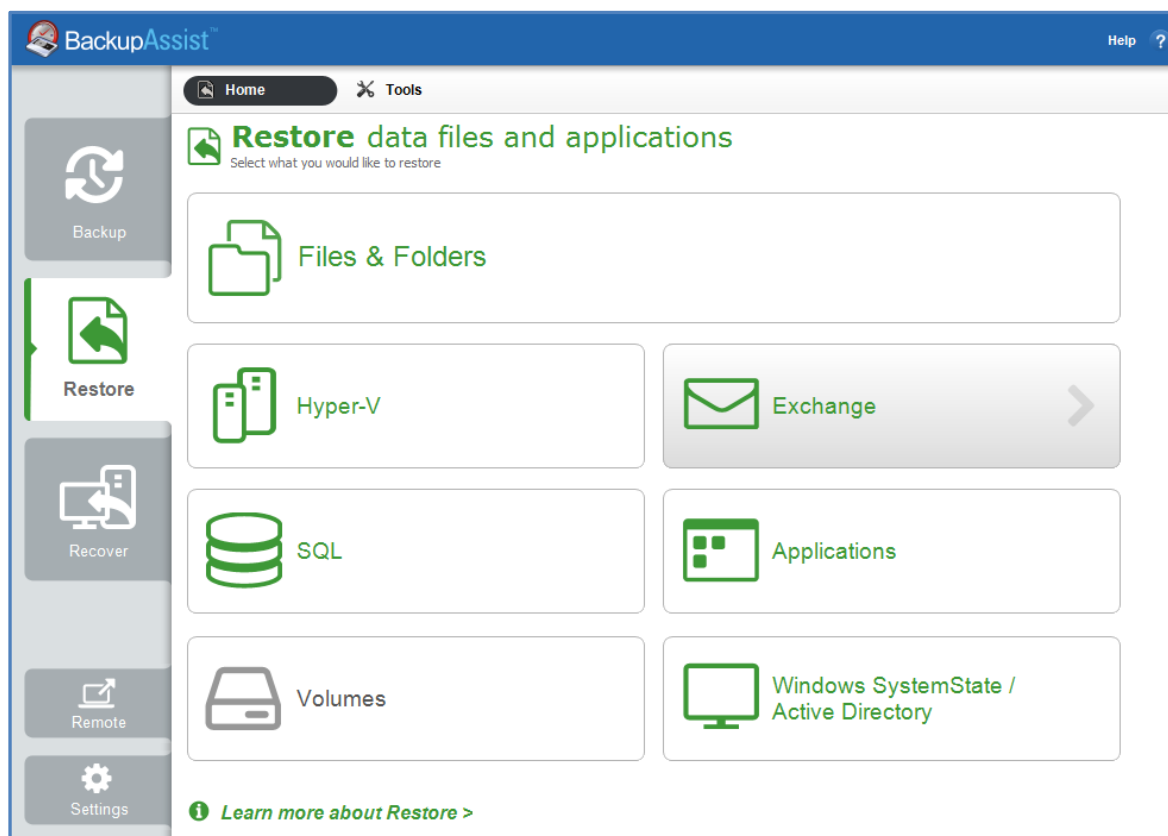


Figure 10: Restore tab - Home page

This will open the *Restore > Exchange* screen and display the restore types to choose from.

- From the **Restore > Exchange** screen, select **Mailbox Protection Restore (.pst)**

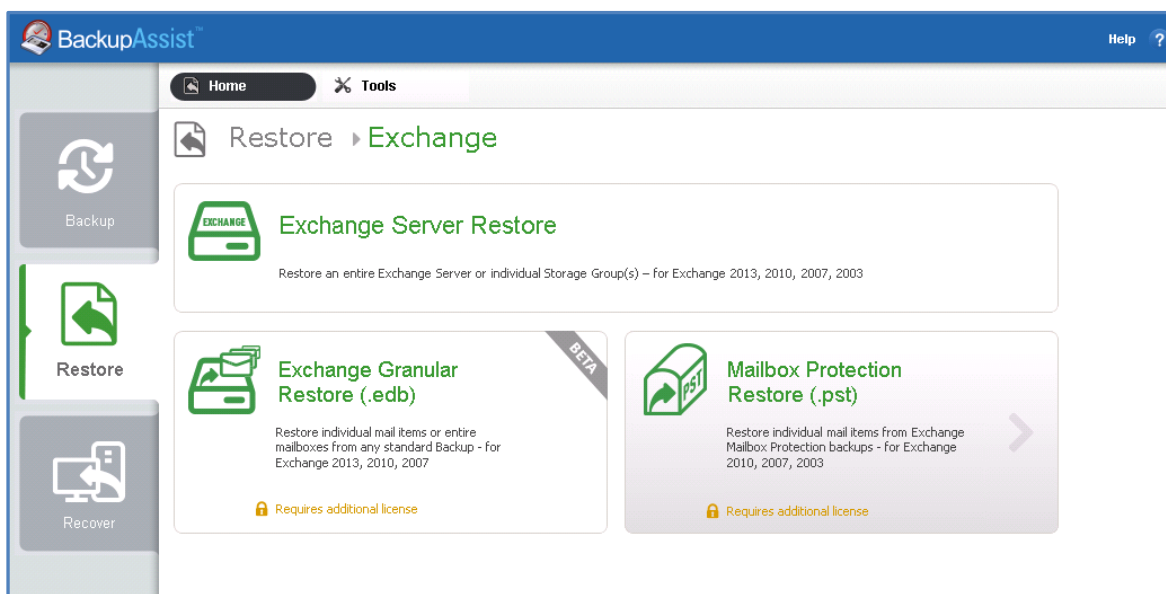


Figure 11: Exchange restore selection screen

The next screen will display all mailbox backups, created using the Exchange mailbox Add-on.

- 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.

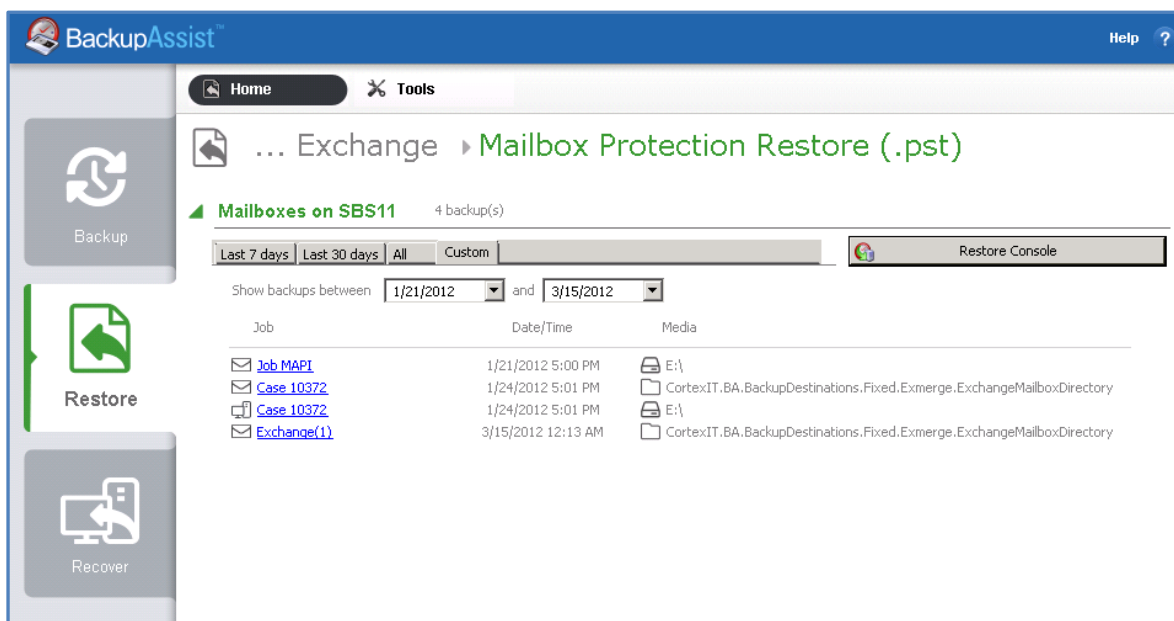


Figure 12: Restore Home page – Exchange Server Restore screen

6. Restore Console – backup and mailbox selection

The *Restore Console* provides two tools to help you locate the mail items 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 that were 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.

- Use the **Select a backup to browse**, box to choose the backup to restore from.
 - Use the calendar to select the date you want to restore from.
 - Using the middle pane, to select the server/s tick box and click on the server name.
 - The mailboxes will appear in the right pane. Select the mail items to restore
 - Use the **Restore mail dated** fields to select the date range to restore from. BackupAssist will restore all backed up mail in that range, from all PST files associated to that mailbox.
 - 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 mail items) to identify the correct data selection.
 - Enter your search term (The search accepts wild card searches, such as **.log* or **.doc*).
 - Select a filter/s if required.
 - Click the *Search* button.
 - Select the data to restore.
 - Click **Restore to** at the bottom right of the window.

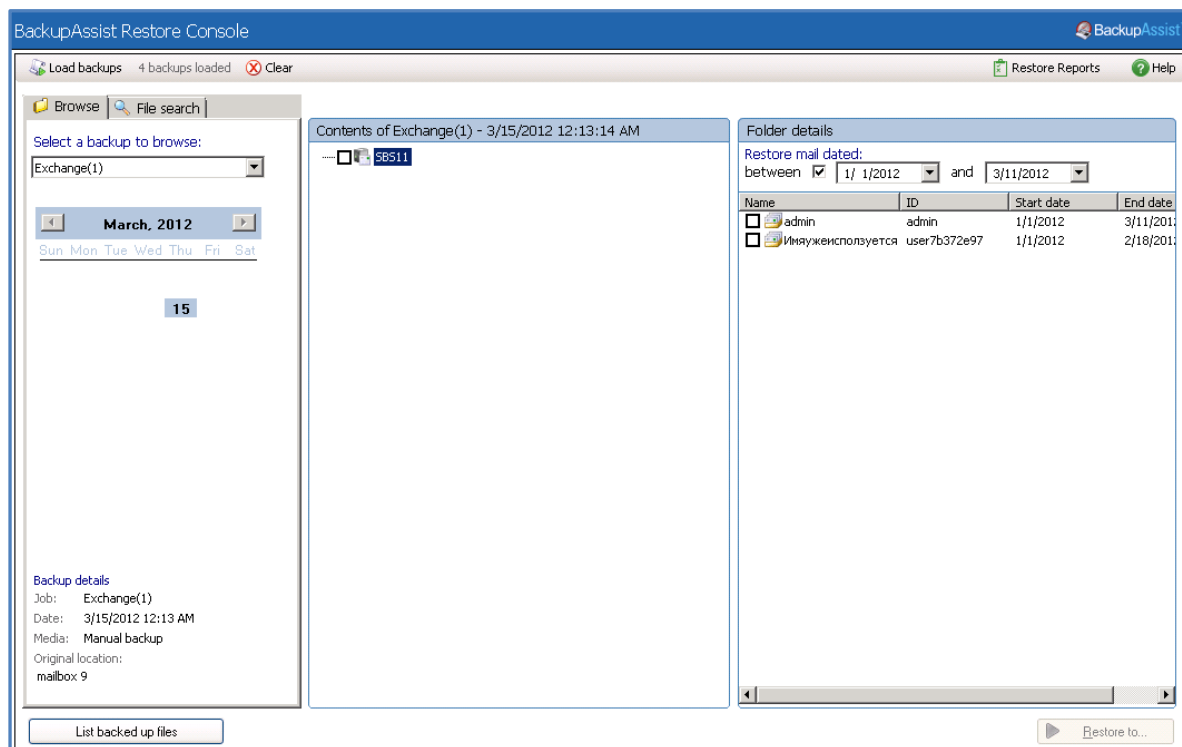


Figure 13: Restore console – server and mailbox selection

7. Restore Console – restore destination selection

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

- a. Review **Restore to** and make your selection.

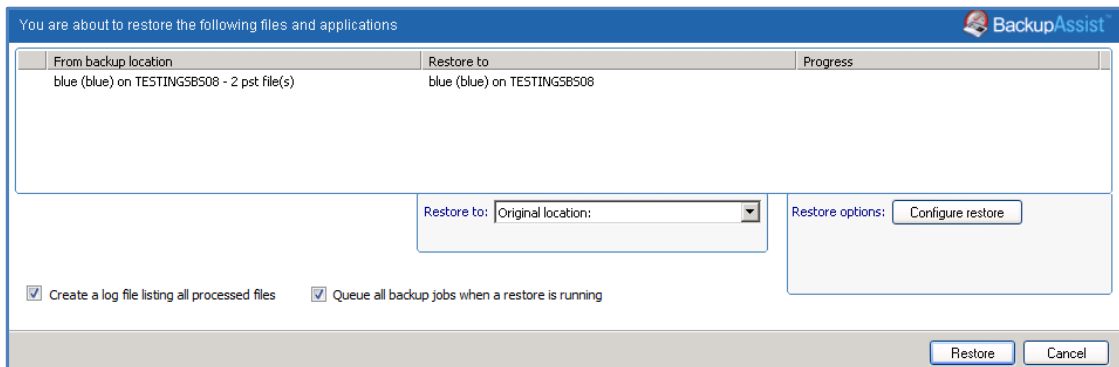


Figure 14: Restore console

- **Original location:** The mailboxes selected for restore will be copied directly back into the Exchange Server that they were originally exported from.
 - **Alternate server:** The mailboxes selected for restore will be copied to an alternate Exchange Server of your choosing. Click the Select button to choose an alternate server to restore to. If no Exchange Servers are detected, click the Select button to search for one.
 - **Alternate path:** All mailboxes will be restored as separate PST files to a single folder of your choosing. You can have all your mailbox PST backups. You can then open up any of the PST files extracted with Outlook and drag-and-drop the required mail items back to the user's live mailbox. This option is useful if your PST backups are distributed across multiple folders (e.g. you used a grouping period or modified your mailbox backup directory between backup runs).
- b. Review **Restore options** and make your selection.

If you choose to restore your mailboxes to either their original location or an alternate server, you can click the **Configure restore** button to change how mailboxes are restored. Here you can individually specify which mailbox each PST mailbox backup should overwrite in your Exchange Server. This is useful if an Exchange Server mailbox has been renamed since being backed up, or if you want to overwrite one mailbox with another.
 - c. Selecting *Create a log file listing all processed files*, will create a file that lists the success or failure of each file. The log is opened by selecting the log file's link in the backup report.
 - d. *Queue all backup jobs when a restore is running*, is selected by default.
 - e. Click the **Restore** button to restore your data. The restore will run from the destination window and a **Report** link will appear once the restore has finished.
 - f. Select **Done**.

► Your Exchange mailbox restore has now been completed.

You can also manually restore PST files and Public Folders using Outlook. For more information, refer to the *Restoring Exchange Mailbox Data*, section of the [Exchange Mailbox Protection webpage](#).

9. Exchange Mailbox 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

After a new Exchange mail backup job has been created, you should perform a manual mailbox data export, and then manually run the job ensure it works as intended. The instructions for how to perform a manual Exchange mailbox data export are provided below.

After this has been completed:

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.

Exchange Servers

The Exchange Servers screen can be used to:

- Add additional exchange servers to your backup job.
- Select additional mailboxes.
- Enable the backup of public folders if this was not selected when the backup job was created.

Performing a manual Exchange mailbox data export

The first mailbox backup will be of the full contents of all selected mailboxes. For that reason, after creating your Exchange mailbox backup job, we recommend that you perform a manual export of the selected mailboxes. Depending on the size of your Exchange Server and the mailboxes selected, the initial export may take some time to complete. It is best to run this export manually at a time when the server is not being heavily utilized.

1. Select **Exchange Servers** from the left menu.
2. Scroll to the **Mailbox export status** and click **Perform manual export**.

A new window will appear where you can select what periods of mail data you want to export. The periods available for selection are sorted according to the grouping method defined.

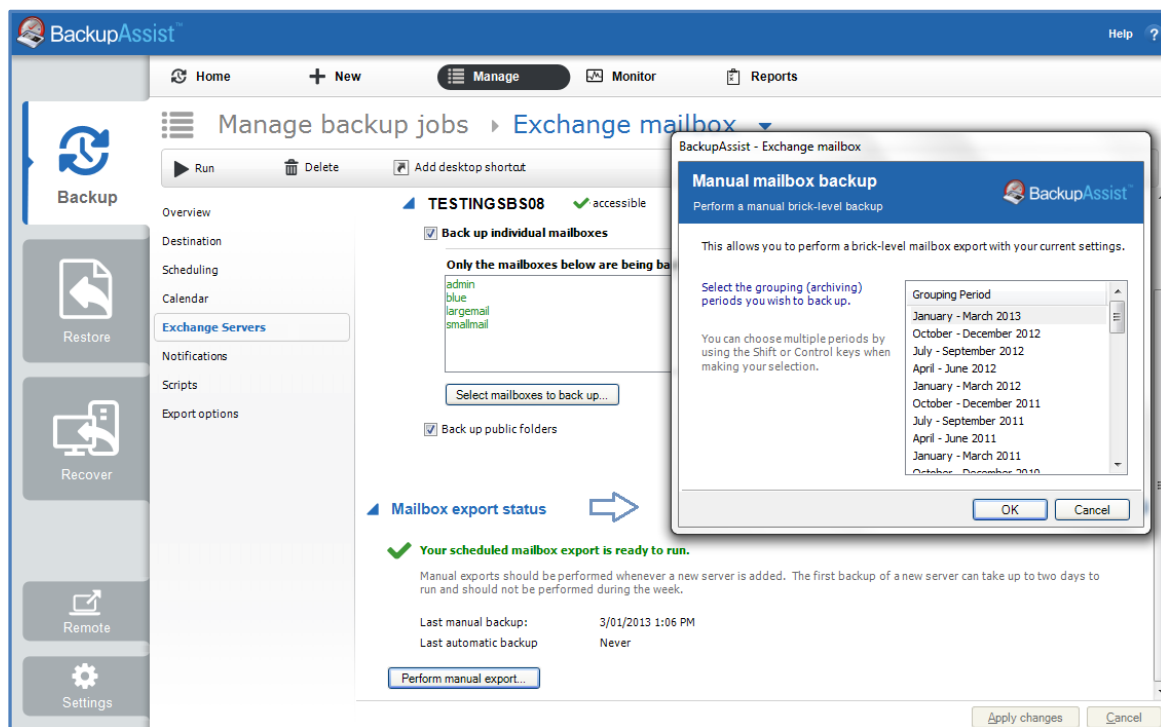


Figure 15: Manage backup – Exchanger Servers mailbox export

If a grouping period is not selected, emails within that date range will not be backed up during the manual export. By default, the latest grouping period is the only period selected.

3. Select the data to export.

If you want to export multiple grouping periods, hold down the SHIFT key and select each individual grouping period. To backup all mailbox data on your Exchange Server you will need to select all of the available grouping periods.

4. After you have selected the appropriate periods, click **OK** to begin exporting mailbox data to PST files in the Exchange mailbox directory.
5. If the mailbox export fails, click **Report** to determine what errors occurred.

Once you have completed a successful export of all mailbox data, BackupAssist will keep PST files up to date by automatically scheduling exports each time your backup job is scheduled to run. These automatic exports merge new mail data into the existing PST files.

Export options

The Export options screen can be used to configure advanced options such as:

- Select folders to be excluded during the backup.
- Have folders backed up without date restrictions.
- Delete original messages after they have been exported.
- Specify the Domain Controller if Exmerge is used.

Concurrent backup

This feature allows two backup jobs to run at the same time.

Concurrent backup combinations:

- Two File Archiving backup jobs can run at the same time if both have 'Enable concurrent backup' selected.
- An SQL Protection or Mailbox Protection backup job, with 'Enable concurrent backup' selected, can run concurrently with a System Protection, File Protection or File Archiving backup job. The File Archiving backup job does not need to have 'Enable concurrent backup' selected. (System Protection and File Protection do not have an 'Enable concurrent backup' option).
- An SQL Protection and a Mailbox Protection backup job can run at the same time, in any combination, if both have 'Enable concurrent backup' selected.
- In all cases, only two backup jobs can run concurrently.

Concurrent backup considerations:

- If two concurrent backups are scheduled to start at the same time, one backup will start first and begin preparing the job. Once the preparation phase has completed, the second backup will start.
- If a third scheduled backup job has 'Enable concurrent backup' selected, it will be queued and run once one of the two existing concurrent backup jobs has finished.

Concurrent backup limitations:

- Only two backup jobs can run concurrently.
- Concurrent backups cannot write to the same destination device (e.g. local drive, NAS, RDX etc.).
- If another backup job is already running when the concurrent backups are scheduled to start, then one of the concurrent backups will start if it meets the criteria defined in the concurrent combinations section.
- A backup job cannot run concurrently if it is backing up a Hyper-V environment or an Exchange server using VSS (VSS enabled).

10. Support and Resources

Contacting Technical Support

Should you have any questions regarding either BackupAssist or Exchange Mailbox Protection, please email support@backupassist.com and we will respond to you as soon as possible.

Similarly, if you have any suggestions for additional functionality in BackupAssist, or new products or add-ons, please also forward your feedback to support@backupassist.com

Useful resources

You may find the following resources useful.

1. Microsoft Exchange Server information: <http://www.microsoft.com/exchange/default.mspx>
2. Microsoft Exchange Mailbox Merge (Exmerge.exe): <http://support.microsoft.com/kb/174197>
3. BackupAssist Education Center: <http://backupassist.com/education>