Quest

Quest® Recovery Manager for Exchange 5.8.1

User Guide

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Legend

CAUTION: A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

IMPORTANT, **NOTE**, **TIP**, **MOBILE**, or **VIDEO**: An information icon indicates supporting information.

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Updated - 2017
Version - 5.8.1

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Getting started

Quest® Recovery Manager for Exchange rapidly and efficiently finds and recovers business-critical Exchange and Lotus Domino data. Organizations can reduce the cost of e-Discovery in addition to providing granular, messagelevel data recovery services.

By using Recovery Manager for Exchange, you can selectively retrieve items from online Exchange Servers, Exchange Online (Office 365), offline Exchange Server and Lotus Domino databases, and Personal Folders (.pst) files. The retrieved items can then be directly restored to a production Exchange Server or to .pst, .eml, .msg, or .txt files.

Recovery Manager for Exchange provides a search system to perform context-based searches in live Exchange Server mailboxes and public folders, mailboxes and public folders hosted in Exchange Online (Office 365), offline Exchange Server and Lotus Domino databases, and Personal Folders (.pst) files using keywords and other search criteria. Rather than retrieving all data from a server, database, or file, you can retrieve only what is needed.

Recovery Manager for Exchange entirely eliminates the need for a recovery Exchange Server, making it easier for you to gain access to an offline Exchange Server database. You can restore an Exchange Server database from backup to any folder, and then access the database to search and selectively restore the data you need.

Recovery Manager for Exchange integrates with Quest® Archive Manager®, thereby allowing you to quickly and easily restore messages from Exchange Server databases, Lotus Domino databases, and Personal Folders (.pst) files into Archive Manager.

- Required permissions
- Installing Recovery Manager for Exchange
- Uninstalling Recovery Manager for Exchange
- Starting Recovery Manager for Exchange
- Licensing
- Configuring Recovery Manager for Exchange
- Configuring Microsoft Outlook
- Configuring IBM Lotus Notes

Required permissions

This section lists the minimum user account permissions required to perform specific Recovery Manager for Exchange tasks.

In this section:

- Permissions required to install and use the product
- Permissions required to restore data

Permissions required to install and use the product

Table 1: Permissions required to install and use the product

Task	Minimum permissions
Install core components (including the Recovery Manager Console)	The account must be a member of the local Administrators group on the target computer. If during setup you specify an existing SQL Server instance for storing Recovery Manager for Exchange databases, the user account with which Recovery Manager for Exchange connects to the SQL Server instance must have the following permissions for that instance: • Read • Write • Create Table
Install the Web Interface	• The account must be a member of the local Administrators group on the computer where you plan to install this feature. • If the target computer has Internet Information Services (IIS) 6.0 installed, the account you specify as application pool identity must be a member of the IIS_WPG group on that computer.
Connect to the Web Interface	The account you use to connect must have: • Access to the Recovery Manager for Exchange computer via an intranet. • Read permission for the virtual directory where the Web Interface is installed.
Use the Management Shell	In Windows 8.1, Windows 8, Windows Vista, Windows Server 2012 R2, Windows Server 2012, Windows Server 2008 R2, or Windows Server 2008, you must run the Recovery Manager for Exchange Management Shell as administrator. No special permissions are required to use the Recovery Manager for Exchange Management Shell on other supported operating systems.

Permissions required to restore data

Table 2: Permissions required to restore data

Task	Minimum permissions
Register an online Exchange Server mailbox as a storage; Restore data to/from an	The account you use to access the mailbox must have the following permissions for the mailbox: • Send As

Task	Minimum permissions
online Exchange Server mailbox	• Receive As **NOTE:** Even though the account you use is the Administrator account or is a member of the Domain Admins or Enterprise Admins groups, this account may be explicitly denied Send As and Receive As permissions for all mailboxes except its own.
Create a mailbox on an online Exchange Server and restore data there	The account you use to access Exchange Server must have the following permissions for the target mailbox database: • Full Access • Send As • Receive As
Register an online public folder hierarchy as a storage; Restore data to/from an online public folder hierarchy	The account you use to access the public folder hierarchy must have the following permissions: • Send As and Receive As permissions for the target public folder store database. • Read and Write permissions for the public folder.
Register an Exchange Online (Office 365) mailbox as a storage; Restore data to/from an Exchange Online (Office 365) mailbox	The account you use to access Office 365 must have: • The Global Administrator role • An Exchange Online license assigned • Full access to the Exchange Online mailbox **NOTE:** By default, Exchange Online administrators cannot open user mailboxes and view their contents.
Register an Exchange Online (Office 365) public folder hierarchy as a storage; Restore data to/from an Exchange Online (Office 365) public folder hierarchy	The account you use to access Office 365 public folder hierarchy must have: · • The Global Administrator role • An Exchange Online license assigned • Full access to the public folder mailbox **NOTE:** By default, Exchange Online administrators cannot open user or public folder mailboxes and view their contents.
Register an online Exchange Server mailbox as a storage; Restore data to/from an online Exchange Server mailbox	The account you use to access the mailbox must have the following permissions for the mailbox: • Send As • Receive As **NOTE:** Even though the account you use is the Administrator account or is a member of the Domain Admins or Enterprise Admins groups, this account may be explicitly denied Send As and Receive As permissions for all mailboxes except its own.

Task	Minimum permissions
Create a mailbox on an online Exchange Server and restore data there	The account you use to access Exchange Server must have the following permissions for the target mailbox database: • Full Access • Send As • Receive As
Register an online public folder hierarchy as a storage; Restore data to/from an online public folder hierarchy	The account you use to access the public folder hierarchy must have the following permissions: • Send As and Receive As permissions for the target public folder store database. • Read and Write permissions for the public folder.

Installing Recovery Manager for Exchange

Before installing Recovery Manager for Exchange, make sure the computer meets the minimum hardware and software requirements provided in the Release Notes supplied with your version of Recovery Manager for Exchange.

To work with Exchange Server databases, Recovery Manager for Exchange requires several Exchange Server files that can be found on the Exchange Server distribution CD or in the Exchange Server installation folder. For more information on the required Exchange Server files and their locations, see Required Exchange Server DLLs.

To install Recovery Manager for Exchange

1. Run the Autorun.exe file located in the root of the Recovery Manager for Exchange installation CD.
2. In the Autorun window, open the **Setup** tab, and then click **Install** next to **Recovery Manager for Exchange**.

   You might be prompted to install applications required by Recovery Manager for Exchange if they are not already installed on your computer. For example, if you do not have Microsoft .NET Framework, you will be prompted to install it. When the installation of these applications finishes, you might be prompted to restart the computer.
3. Step through the Setup Wizard.
4. On the User Information page, specify a valid Recovery Manager for Exchange license, and then click **Next**:
   a. Click **Browse**.
   b. In the dialog box that opens, locate the Quest license file (*.dlv) and click **Open**.

   For information about the licensing model and managing licenses, see Licensing.
5. On the Choose Setup Type page, select a Setup option, and click **Next**:

Table 3: Setup options

Option	Description
Express	Installs Recovery Manager for Exchange with default parameters and Microsoft SQL Server 2008 SP1 Express Edition.
Custom	Allows you to select the Recovery Manager for Exchange features to install and specify other installation parameters. If you want to install the Web Interface feature, use the **Custom** option.

6. Follow the instructions in the Setup Wizard.
7. If you selected to install the Management Shell feature, use the Allow Management Shell Scripts page to change the PowerShell execution policy to RemoteSigned.

   If you select to keep the current PowerShell execution policy, you may need to manually set the RemoteSigned policy in order for the Management Shell to work.
8. On the completion page, leave the **Configure Recovery Manager for working with Exchange Server databases** check box selected if you want to configure Recovery Manager for Exchange for working with specific versions of Exchange Server now, then click **Finish**. Otherwise, clear the check box, and click **Finish**.

   For more information on how to configure the Recovery Manager for Exchange, see Configuring Recovery Manager for Exchange.

   Recovery Manager for Exchange is installed for all user accounts on the computer.

Uninstalling Recovery Manager for Exchange

To uninstall Recovery Manager for Exchange

- Complete the steps related to your version of Windows:

Table 4: Uninstallation steps

Windows XP **Windows Server 2003**	**A later version of Windows**
1. In Control Panel, click **Add or Remove Programs**. 2. In the list, select **Quest Recovery Manager for Exchange**, and then click **Change**. 3. Follow the steps in the wizard that starts to remove the program from your computer.	1. In Control Panel, click **Uninstall a program**. 2. In the list, select **Quest Recovery Manager for Exchange**, and then click **Change**. 3. Follow the steps in the wizard that starts to remove the program from your computer

Starting Recovery Manager for Exchange

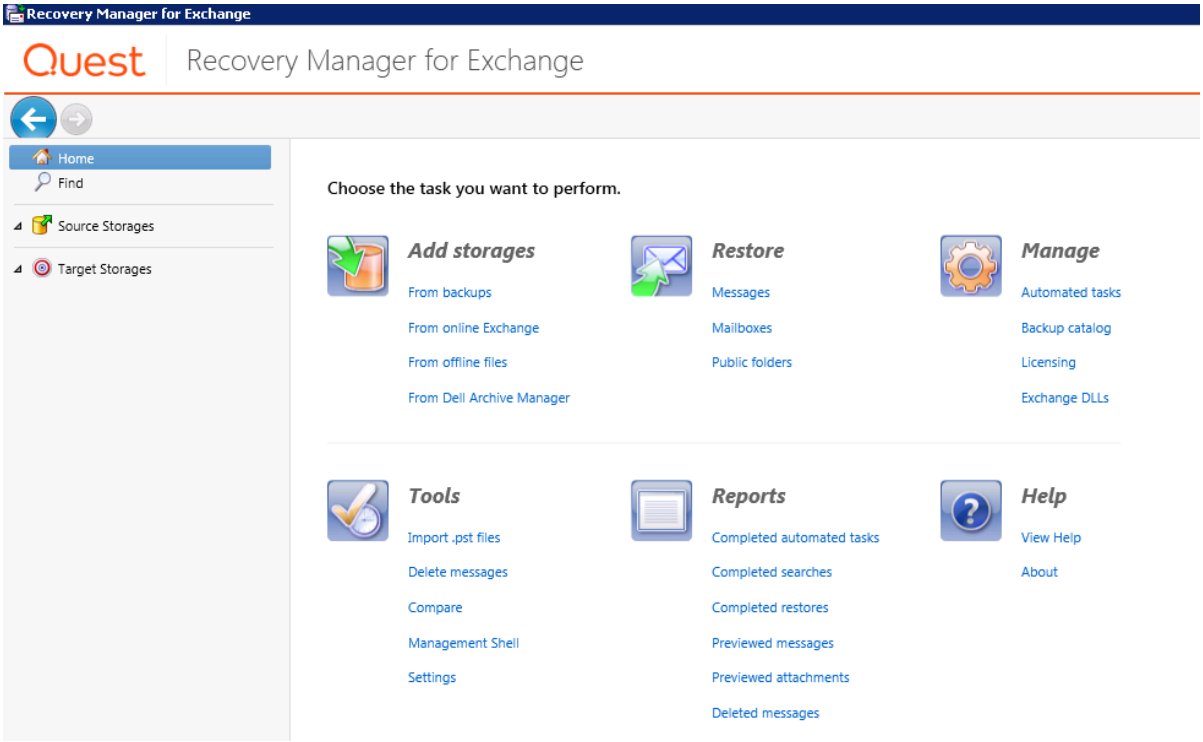
To start Recovery Manager for Exchange

- Complete the steps related to your version of Windows:

Table 5: Steps to start Recovery Manager for Exchange

Windows XP Windows Server 2003 Windows Vista Windows 7 Windows Server 2008	A later version of Windows
1. Click **Start**. 2. Point to **All Programs | Quest | Recovery Manager for Exchange**. 3. Click **Recovery Manager for Exchange**	• On the **Apps** screen (Windows logo key + Q), click the **Recovery Manager for Exchange** tile.

When started, Recovery Manager for Exchange displays the following window, also known as the Recovery Manager Console:



The left pane of the window contains a console tree, showing items that are available for management. The left pane includes the following nodes:

- **Home**. Select this node to display a Task Pad View in the details pane. You can use the Task Pad View to launch wizards that guide you through the registration of storages, restore operations, data import operations, or creating automated tasks.
- **Find**. Select this node to display a Find View in the right pane. You can use the Find View to run one or multiple simultaneous searches using different search criteria to find the items you want to preview and/or restore. While your searches are running in the Find View, you can continue working with Recovery Manager for Exchange. For more information, see Searching for messages, attachments, or folders in source storages.
- **Source Storages**. Expand this node to browse existing source storages, view their contents, or select particular items (such as mailboxes, folders, or messages) for restore operations. You can also rename or delete existing source storages. For detailed instructions on how to manage storages, see Working with storages.
- **Target Storages**. Expand this node to browse existing target storages and view their contents. Optionally, you can create new folders or delete unnecessary data from existing target storages (this functionality is not supported for target storages based on Archive Manager instances). You can also rename or delete registered target storages. For detailed instructions on how to manage storages, see Working with storages.

The right pane, also known as the details pane, displays the contents of the nodes you select in the left pane. You can perform a restore by clicking a source folder node in the left pane, and then dragging items from the details pane to a target folder node in the left pane. For detailed instructions on how to perform a restore operation, see Restoring data.

The Task Pad View has the following areas:

Table 6: Task Pad View areas

Area	Description

Add storages	Provides links that allow you to register storages from the specified types of items. When you click a link in this area, a wizard starts. For more information about this wizard and the options it provides, see Add Storage Wizard.
	In this area you can use the following links:
	• **From backups**. Allows you to use third-party backup software to extract Exchange Server databases from backups and register these databases as source storages. For more information on supported third-party backup software, see the "Supported Backup Software" section in the Release Notes supplied with this version of Recovery Manager for Exchange.
	• **From online Exchange**. Allows you to register the following items:
	  ◦ Online Exchange Server mailboxes
	  ◦ Public folder hierarchies
	  ◦ Online mailboxes and public folder hierarchies hosted in Exchange Online that is part of Microsoft's Office 365 cloud-based service.
	  ◦ Exchange Server recovery databases or databases from a recovery storage group.
	• **From offline files**. Allows you to register an offline Exchange Server database from a specified folder or multiple offline Lotus Domino databases or Personal Folders (.pst) files located in different folders.

Area	Description
	• **From Archive Manager**. Allows you to register an Archive Manager instance.
Restore	Provides the following links: • **Messages**. Starts a wizard that helps you find and selectively restore messages and other message-level items. For more information, see Message Restore Wizard. • **Mailboxes**. Starts a wizard that helps you selectively restore mailboxes. For more information, see Mailbox Restore Wizard. • **Public folders**. Starts a wizard that helps you selectively restore public folders or restore the entire public folder hierarchy of an Exchange organization or Exchange Online (Office 365). For more information, see Public Folder Restore Wizard.
Manage	Provides the following links: • **Automated tasks**. Click this link to display the Task Manager View in the right pane. You can use the Task Manager View to display a list of existing automated tasks and create, modify, schedule, run, stop, and monitor your tasks. For more information, see Task Manager View and Automated tasks. • **Backup catalog**. Click this link to display the Backup Catalog Manager View in the right pane. You can use this view to add new backups to the Recovery Manager for Exchange backup catalog and remove previously cataloged backups. You can also register source storages from cataloged backups. For more information, see Backup Catalog Manager View. • **Licensing**. Click this link to display the Licensing View in the right pane. You can use the Licensing View to view details of the installed license file and to manage allocated licenses. For more information, see Licensing. • **Exchange DLLs**. Click this link to specify locations of Exchange dynamic link libraries (DLLs). Recovery Manager for Exchange requires these DLLs to work with Microsoft Exchange Server databases. For more information, see Required Exchange Server DLLs.
Tools	Provides the following links: • **Import** .pst files. Click this link to start a wizard that helps you import all data from one or more Personal Folders (.pst) files into online mailboxes in an on-premises or cloud-based Exchange organization. For more information, see Import .Pst Files Wizard. • **Delete message**s. Click this link to start a wizard that helps you find and selectively delete messages from writable source storages registered with Recovery Manager for Exchange. For more information, see Message Delete Wizard. • **Compare**. Click this link to compare storages registered with Recovery Manager for Exchange. You can also compare specific mailboxes or folders in the storages. For more information, see Comparing and restoring storages, mailboxes, or folders. • **Management Shell**. Click this link to open the Recovery Manager for Exchange Management Shell. For more information, see the Management Shell section in the User Guide.

Area	Description
	• **Settings**. Click this link to open a dialog box that allows you to configure various parameters of Recovery Manager for Exchange. For more information, see Configuring Recovery Manager for Exchange
Reports	Provides links that allow you to view reports about activities performed in Recovery Manager for Exchange.

The bottom of the Recovery Manager Console has a status bar. When you click a node in the left pane, the status bar displays the number of mailbox or public folder items the node contains.

The red cross (⊗) icon displayed next to an item in the Recovery Manager Console indicates that the item is "soft-deleted." An item that is marked as deleted but remains on the Exchange Server or Lotus Domino computer for a defined period of time. The item can be recovered before that period expires.

Backup Catalog Manager View

To register Exchange stores databases from a backup, you must first catalog that backup. When cataloging an Exchange Server backup, Recovery Manager for Exchange analyses the backup and writes information about the backup to a Microsoft SQL Server database that is called the backup catalog.

Recovery Manager for Exchange uses information stored in the backup catalog to extract Exchange Server stores from the cataloged backups and register these stores as storages.

The Backup Catalog Manager View enables you to manage the Recovery Manager for Exchange backup catalog. You can add backups to the backup catalog, remove previously cataloged backups from the catalog, and register Exchange Server stores from the cataloged backups.

To display the Backup Catalog Manager View

- From the main menu, select **Manage | Backup Catalog**.

The Backup Catalog Manager View includes the following tabs:

- Backups Tab
- Stores Tab

Backups Tab

You can use this tab to add Exchange Server backups to the backup catalog, remove previously cataloged backups from the backup catalog, and view information about the backups that are in the catalog.

This tab includes the following elements:

- **Cataloged backups**. Displays information about the backups that are in the Recovery Manager for Exchange backup catalog and allows you to selectively remove backups from the backup catalog.

  The following table provides descriptions of the list columns:

Table 7: List columns

Column	Description
Computer	Displays the name of the Exchange Server computer whose databases are in the cataloged

Column	Description
	backup. You can use the following elements next to each entry in this column: • **Plus sign (+)**. Shows information about the contents of the cataloged backup. • **Minus sign (-)**. Hides information about the contents of the cataloged backup.
Backup Date	Displays date and time of backup creation.
Backup Contents	Displays information about the contents of the cataloged backup.
Backup Type	Displays type of the cataloged backup.

- **Add**. Starts the Catalog Wizard that helps you catalog new Exchange Server backups and add them to the **Cataloged backups** list.
- **Remove**. Removes selected backups from the **Cataloged backups** list and from the backup catalog.
- **Select All**. Selects all backups in the **Cataloged backups** list.
- **Filter by computer**. Filters backups in the **Cataloged backups** list by the computer name letters you type in the text box.

To add backups to the backup catalog

1. On the **Backups** tab, click **Add**.
2. Follow the instructions in the Catalog Wizard. For more information about the Catalog Wizard, see Catalog Wizard. Note that backup cataloging can be a lengthy process.

To remove backups from the backup catalog

1. In the **Computer** column, select the check boxes next to the entries that represent the backups you want to remove from the backup catalog.
2. Click **Remove**.

   The selected backups are removed from both the Cataloged backups list and the Recovery Manager for Exchange backup catalog.

Stores Tab

You can use this tab to select the Exchange Server stores that you want to register as storages. You can also view which of the registered storages are associated with a particular Exchange Server store.

This tab includes the following elements:

- **Stores in cataloged backups**. Displays information about the Exchange Server stores that are in the cataloged backups and enables you to select the stores to register.

  The following table provides descriptions of the list columns:

Table 8: List columns

Column	Description
Store	Displays the names of the Exchange Server stores held in at least one of the cataloged backups. You can use the following elements next to each entry in this column: • **Plus sign (+)**. Shows dates and times of creation of the cataloged backups that hold a particular Exchange store. • **Minus sign (-)**. Hides dates and times of creation of the cataloged backups that hold a particular Exchange store.
Backup Dates	Displays dates and times when a particular Exchange Server store was backed up. You can use this column to select the cataloged backups from which you want to register a particular Exchange Server store.
Associated Storages	Displays the names of the Recovery Manager for Exchange storages that are based on a particular Exchange Server store.

- **Show storage group names**. Displays storage group names in the **Store** column.
- Filter by store. Filters stores in the S**tores in cataloged backups** list by the store name letters you type in the text box.
- **Register New Storages**. Starts the Add Storage Wizard that helps you register new storages from cataloged Exchange Server backups. This button is only available when you select at least one backup in the **Backup Dates** column.

To register storages

1. In the **Store** column, click the plus sign (+) next to the list entries you want to register as storages.
2. In the **Backup Dates** column, select the check boxes next to the dates representing the backups from which you want to register storages.
3. Click **Register New Storages**.

   Follow the instructions in the Add Storage Wizard. For more information, see Add Storage Wizard.

Licensing

This section provides information about the Recovery Manager for Exchange licensing: when license allocation occurs, how to manage allocated licenses, view the installed license file details, and install a new license file.

When installing Recovery Manager for Exchange, you must supply a valid license file provided by Quest. The file regulates the following:

- The number of mailboxes you can have in registered source storages.

  This number includes all mailboxes in offline Exchange stores, Domino databases, and live on-premises or cloud-based Exchange organizations associated with source storages.
- The number of Personal Folders (.pst) files you can register as source storages.
- Whether or not you can register public folders as source storages.

This section covers:

- License allocation
- Licensing View
- Installing a new license file

License allocation

The Recovery Manager for Exchange license file contains a certain number of licenses for Exchange and Domino mailboxes and Personal Folders (.pst) files. Recovery Manager for Exchange allocates licenses from the installed license file to mailboxes or .pst files when you perform any of these actions:

- Register an offline Exchange Server store or Lotus Domino database as a source storage, and then open that source storage in the Recovery Manager for Exchange user interface.

  Recovery Manager for Exchange allocates licenses to all mailboxes the store or database includes. When you register the same store or database again (from another backup, for example), the mailboxes are recounted and their total number is updated with the new number of mailboxes held in the store or database being registered.

  A primary mailbox and its associated archive mailbox are regarded as one mailbox.

- Register an online Exchange mailbox as a source storage, and then open that source storage in the Recovery Manager for Exchange user interface.

  Recovery Manager for Exchange allocates licenses to all online mailboxes in the on-premises or cloudbased Exchange organization to which the registered mailbox belongs.

  A primary Exchange mailbox and its associated archive mailbox are regarded as one mailbox.

- Register a Personal Folders (.pst) file as a source storage, and then open that source storage in the Recovery Manager for Exchange user interface.

When you have expended all licenses in the installed license file (that is, all licenses have been allocated to mailboxes or .pst files), to register new source storages you need to obtain and install a new license file holding a greater number of licenses. Note that you cannot revoke licenses allocated to mailboxes or .pst files.

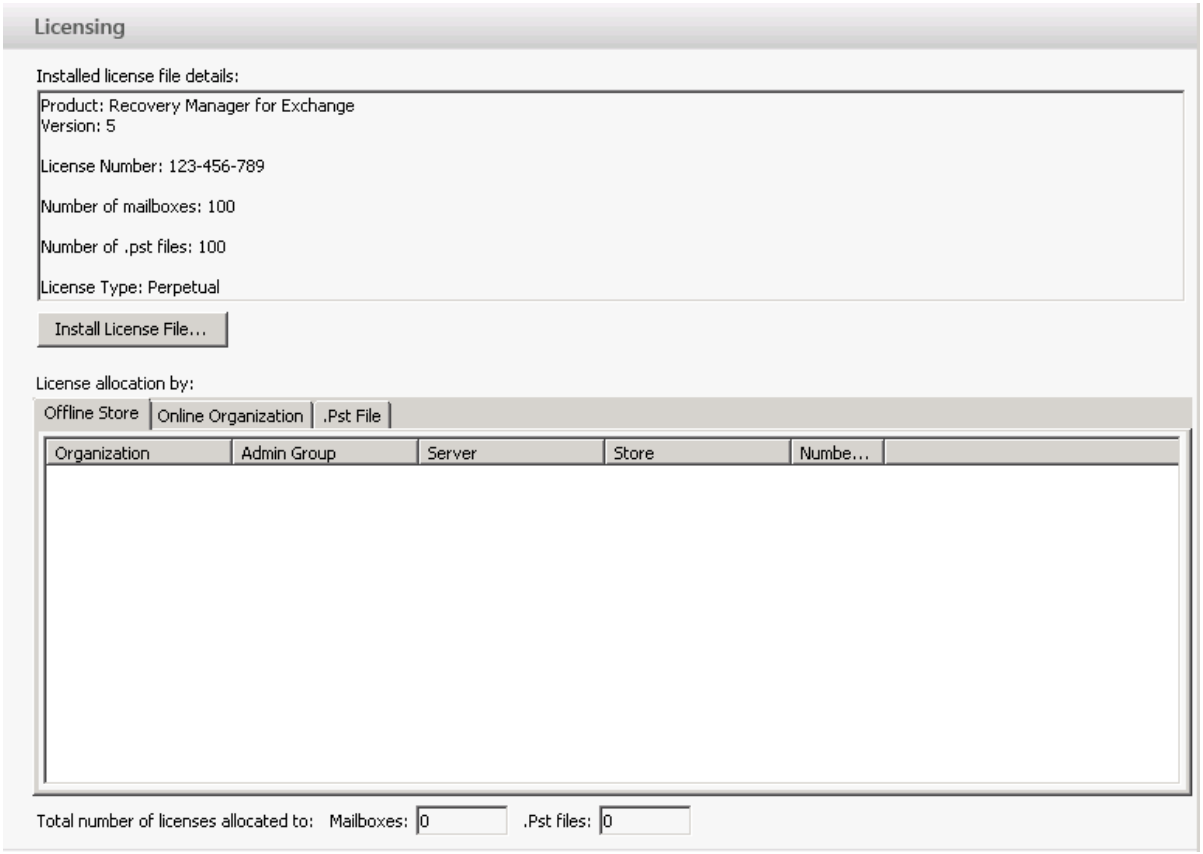
Licensing View

The Licensing View in the Recovery Manager Console is a place where you can view license allocation information and manage the license file and allocated licenses.

To display the Licensing View

- From the main menu, select **Manage | Licensing.**

  The Licensing View looks similar to the following:



The Licensing View includes the following elements:

- **Installed license file details**. This area provides information about the installed license file, such as the license type and the licensed number of mailboxes and .pst files.
- **Install License File**. This button allows you to install a new license file.
- **Offline Store**. This tab provides license allocation information for each registered offline Exchange store and Domino database
- **Online Organization**. This tab provides license allocation information for each on-premises or cloudbased Exchange organization that includes online mailboxes registered as source storages.
- **.Pst File**. This tab provides license allocation information for each Personal Folders (.pst) file registered as a source storage.

Installing a new license file

In order to register more source storages without revoking any allocated licenses, you need to obtain and install a new license file holding a greater number of licenses for the items you want to register.

To install a new license file

1. From the main menu, select **Manage** | **Licensing**.
2. In the right pane (the Licensing View), click **Install License File**.

3. In the Select License File dialog, locate the Quest license file (*.dlv) and click **Open**.

Configuring Recovery Manager for Exchange

To configure the various parameters of Recovery Manager for Exchange, open the **Settings** dialog box: From the main menu, select **Tools | Settings**.

The **Settings** dialog box has the following tabs:

- **Preferences**. On this tab, you can select what you want to show, search, and restore with Recovery Manager for Exchange. You can also use this dialog to display or hide some additional information in the Recovery Manager Console.

  If not stated otherwise, the options on this tab apply to items originating from any version of Lotus Domino or Exchange Server.

  This tab provides the following elements:

  - **User items**. When this check box is selected, you can view, search for, and restore user items located in Recovery Manager for Exchange storages, including messages, posts, calendar items, notes, journal items, meetings, and tasks. By default, this check box is selected.
  - **Soft-deleted (recoverable) items**. When this check box is selected, you can view, search for, and restore the contents of the **Recoverable Items** folder in Exchange Server 2010, Exchange Server 2013 and Exchange 2016 databases and soft-deleted items in Lotus Domino and earlier versions of Exchange Server databases registered with Recovery Manager for Exchange as storages.
  - **Hidden items**. When this check box is selected, you can view, search for, and restore hidden items located in Recovery Manager for Exchange storages. Hidden items include, for example, associated folder messages.
  - **System mailboxes**. When this check box is selected, you can view, search for, and restore system mailboxes located in Recovery Manager for Exchange storages.
  - **System folders**. When this check box is selected, you can view, search for, and restore system folders located in Recovery Manager for Exchange storages.
  - **Restore folder permissions**. With this check box selected, Recovery Manager for Exchange restores mailbox and public folders along with their permissions stored in the source storage.

    Note that Recovery Manager for Exchange cannot restore folder permissions that are exclusively stored in Active Directory.
  - **Show total number of items (without subfolders)**. When this check box is selected, you can view the total number of items in folders next to folder names in the left pane. The provided number only includes the items selected in the **Show, search, and restore** area on this tab. This option does not support and thus excludes items in public folders.
  - **Show warning when opening an attachment**. When this check box is selected, a warning message appears every time you open an attachment located in a registered storage.
  - **Skip errors in searches, restores, and deletes**. With this check box selected, messages for which errors are encountered during search, restore, or delete operations are automatically skipped.

    That is, such messages are not restored, deleted, or displayed in the search results.

- **More Options**. This tab includes the following elements:
  - **Naming**. Set naming preferences for the new folders or .pst files being created during mailbox restore operations.
  - **Security**. Click the Edit Security button to view or change the access permissions that will be applied to the new target files being created during restore or export operations.
  - **Store access credentials for online Exchange**. Causes Recovery Manager for Exchange to store access credentials (user name and password) with which you access online mailboxes or public folder hierarchies from within the Recovery Manager Console or Management Shell. With this check box selected, Recovery Manager for Exchange securely stores the access credentials you enter, so you do not have to enter them again next time you access the same online mailbox or public folder hierarchy.

    To store access credentials, Recovery Manager for Exchange relies on the functionality provided by Windows. If this check box is unavailable, it indicates that this functionality is not enabled or unavailable in your version of Windows.
- **Duplicates**. You can use this tab to select how you want to handle message duplicates during search and restore operations.

  Under **Messages**, you can select one the following options:
  - **Allow duplicate items to be created**. The messages you are restoring do not overwrite any of their duplicates located in target storages or files. The restored messages and their duplicates will coexist in target storages or files.
  - **Replace all duplicates with restored items (restore takes longer)**. The messages you are restoring overwrite all their duplicates in target storages or files without any warning.
  - **Replace duplicates only if restored items are newer (restore takes longer)**. The messages you are restoring overwrite their duplicates in target storages or files only if these duplicates are older than the messages being restored.
  - **Do not restore duplicates (restore takes longer)**. The messages whose duplicates are found in target storages or files are not restored.

  Under **Mailboxes and folders**, you can select the following options:
  - **Create new folder if target folder already exists**. Allows you to avoid creating a new folder if the target restore location already includes a folder whose name matches the name of the mailbox or folder being restored.
  - **Create new .pst file if target .pst file already exists**. Allows you to avoid creating a new Personal Folders (.pst) file if the target restore location already includes a .pst file whose name matches the name of the mailbox or folder being restored.

  Under **Search**, you can select the following check box:
  - **Do not include message duplicates in search results (search takes longer)**. Returned search results will not include message duplicates. Selecting this check box may significantly increase the time of search operations.
- **Web Interface**. This tab is only available when the Web Interface is installed. On this tab, you can view and change the Web Interface output folder specified during Recovery Manager for Exchange installation. Web Interface output folder is a local folder that stores files generated during the restore and export operations performed in the Web Interface.

  Use the Web Interface output folder text box to type a new folder path.

- **Logging**. You can use this tab to specify the Recovery Manager for Exchange logging options.
  - **Log files location**. Shows the path to the location where Recovery Manager for Exchange currently saves its log files. You can change the location: type the path to a new location in the text box or click **Browse**, then browse and select a new location.
  - **Enable extended logging**. Enables extended logging of the Recovery Manager for Exchange events. When this check box is cleared, only error messages are written to the Recovery Manager for Exchange log files.
- **Reports**. You can use this tab to select whether you want Recovery Manager for Exchange to collect the latest data on search, restore, and preview operations and automated tasks and include this data into the reports.
  - **Collect data for reports**. Specifies to collect the latest data for reports. Selecting this option can slow down the Recovery Manager for Exchange performance.
  - **Do not collect the data**. Specifies not to collect the latest data for reports. With this option selected, Recovery Manager for Exchange generates outdated reports.
- **Indexing**. You can use this tab to enable the storage indexing feature to accelerate RMEX search capabilities.
  - **Index source storage (slows performance, consumes disk space)**. Enables the indexing feature.
  - **Indexing Url**. Specifies the location of the Indexing service. The default port that is used by the service is 9200.
  - **Exclude attachment content** or **Include attachment content**. Using these options you can include or exclude the attachment content from indexing.
  - **Start indexing immediately after the source is registered**. Use this option to start indexing immediately after you add a storage.
  - **Start indexing between**. Specifies schedule for indexing.

Required Exchange Server DLLs

To work with Exchange Server databases, Recovery Manager for Exchange requires several dynamic link libraries supplied with Microsoft Exchange Server. You need to link Recovery Manager for Exchange to the .dll files supplied with the Exchange Server version that was used to create the Exchange databases you want to work with.

To configure Recovery Manager for working with Exchange Server databases

1. Open the Recovery Manager Console.
2. From the main menu, select **Manage | Exchange DLLs**.
3. Under **Exchange Server versions**, select the list entry representing the Exchange Server version that was used to create the databases you want to work with.
4. Click **Link**, and browse to select the distribution package or installation folder of the Exchange Server version you selected in step 4. When finished, click **OK**.

   If you want to link Recovery Manager for Exchange to other Exchange Server versions, repeat steps 4 and 5.

5. When finished, click **OK**.

The required Exchange Server files are copied to the Recovery Manager for Exchange computer.

In this section:

- Exchange Server 2016 DLLs
- Exchange Server 2013 DLLs
- Exchange Server 2010 DLLs
- Exchange Server 2007 DLLs
- Exchange Server 2003 DLLs
- Exchange Server 2000 DLLs
- Exchange Server 5.5 DLLs

Exchange Server 2016 DLLs

To work with Exchange Server 2016 databases, Recovery Manager for Exchange requires the following files supplied with Exchange Server 2016:

- Ese.dll
- Microsoft.Exchange.Data.Common.dll **(required only for the Indexing feature)**

On a computer with Exchange Server 2016 installed, this file is located in <Exchange Server 2016 installation folder>\Bin. By default, the Exchange Server 2016 installation folder is %ProgramFiles%\Microsoft\Exchange Server.

In the Exchange Server 2016 distribution package, this file is located in Setup\Serverroles\Common.

IMPORTANT: To link Recovery Manager for Exchange to the Ese.dll file originating from Exchange Server 2016, you must install Recovery Manager for Exchange on a computer that is running a 64-bit edition of Windows.

Exchange Server 2013 DLLs

To work with Exchange Server 2013 databases, Recovery Manager for Exchange requires the following files supplied with Exchange Server 2013:

- Ese.dll
- Microsoft.Exchange.Data.Common.dll **(required only for the Indexing feature)**

On a computer with Exchange Server 2013 installed, this file is located in <Exchange Server 2013 installation folder>\Bin. By default, the Exchange Server 2013 installation folder is %ProgramFiles%\Microsoft\Exchange Server.

In the Exchange Server 2013 distribution package, this file is located in Setup\Serverroles\Common.

IMPORTANT: To link Recovery Manager for Exchange to the Ese.dll file originating from Exchange Server 2013, you must install Recovery Manager for Exchange on a computer that is running a 64-bit edition of Windows.

Exchange Server 2010 DLLs

To work with Exchange Server 2010 databases, Recovery Manager for Exchange requires the following files supplied with Exchange Server 2010:

- Ese.dll
- Microsoft.Exchange.Data.Common.dll **(required only for the Indexing feature)**

On a computer with Exchange Server 2010 installed, this file is located in <Exchange Server 2010 installation folder>\Bin. By default, the Exchange Server 2010 installation folder is %ProgramFiles%\Microsoft\Exchange Server.

In the Exchange Server 2010 distribution package, this file is located in Setup\Serverroles\Common.

IMPORTANT: To link Recovery Manager for Exchange to the Ese.dll file originating from Exchange Server 2010, you must install Recovery Manager for Exchange on a computer that is running a 64-bit edition of Windows.

Exchange Server 2007 DLLs

To work with Exchange Server 2007 databases, Recovery Manager for Exchange requires the following .dll files supplied with Exchange Server 2007:

- Ese.dll
- Exchmem.dll
- Jcb.dll
- Microsoft.Exchange.Data.Common.dll **(required only for the Indexing feature)**

On a computer with Exchange Server 2007 installed, these files are located in <Exchange Server 2007 installation folder>\Bin. By default, the Exchange Server 2007 installation folder is %ProgramFiles%\Microsoft\Exchange Server.

In the Exchange Server 2007 distribution package, these files are located in Setup\Serverroles\Common.

NOTE: Recovery Manager for Exchange only supports .dll files originating from the 64-bit version of Exchange Server 2007. To link Recovery Manager for Exchange to these .dll files, you must install Recovery Manager for Exchange on a computer that is running a 64-bit edition of Windows.

Exchange Server 2003 DLLs

To work with Exchange Server 2003 databases, Recovery Manager for Exchange requires the following .dll files supplied with Exchange Server 2003:

- Ese.dll
- Exchmem.dll
- Exosal.dll
- Jcb.dll

On a computer with Exchange Server 2003 installed, these files are located in <Exchange Server 2003 installation folder>\Bin. By default, the name of the Exchange Server 2003 installation folder is Exchsrvr.

In the Exchange Server 2003 distribution package, these files are located in Setup\I386\Exchange\Bin.

Exchange Server 2000 DLLs

To work with Exchange Server 2000 databases, RRecovery Manager for Exchange requires the following .dll files supplied with Exchange Server 2000:

- Ese.dll
- Exchmem.dll
- Exosal.dll
- Jcb.dll

On a computer with Exchange Server 2000 installed, these files are located in <Exchange Server 2000 installation folder>\Bin. By default, the name of the Exchange Server 2000 installation folder is Exchsrvr.

In the Exchange Server 2000 distribution package, these files are located in Setup\I386\Exchange\Bin.

Exchange Server 5.5 DLLs

To work with Exchange Server 5.5 databases, Recovery Manager for Exchange requires the following .dll files supplied with Exchange Server 5.5:

- Ese.dll
- Exchmem.dll

On a computer with Exchange Server 5.5 installed, these files are located in %SystemRoot%\System32.

In the Exchange Server 5.5 distribution package, these files are located in Server\Setup\I386.

Configuring Microsoft Outlook

Recovery Manager for Exchange requires Microsoft Outlook. For supported versions of Outlook, see the "System Requirements" section in the Release Notes supplied with this release.

NOTE: Recovery Manager for Exchange supports only standalone installation of Outlook 2016. If you use Click-to-Run technology or Microsoft App-V deployment to run Microsoft Outlook, some RMEX features may not work correctly or may be unavailable.

Also, we recommend that you choose standard or full installation for other Outlook versions.

Configuring Outlook includes the following steps:

- Step 1: Start Outlook
- Step 2: Set Outlook as the default client
- Step 3: Ensure that Cached Exchange Mode is disabled

Step 1: Start Outlook

Start Outlook. Depending on the Outlook behavior and the Outlook version you use, perform the corresponding action as listed in the below table.

Table 9: Outlook behavior and your actions

Outlook behavior	Your action
Outlook main window opens.	Proceed to Step 2: Set Outlook as the default client.
One of the following wizards opens: • Startup Wizard • Welcome to Microsoft Outlook 2013 Wizard • Welcome to Microsoft Outlook 2016 Wizard	***If you are using Outlook 2003*** 1. Step through the wizard. 2. On the E-mail Accounts page, select **No**. 3. Click **Finish**. ***If you are using Outlook 2007 or Outlook 2010*** 1. Step through the wizard. 2. On the E-mail Accounts page, select **No**. 3. Click Next. 4. On the Create Data File page, select the **Continue with no e-mail support** check box. 5. Click **Finish**. ***If you are using Outlook 2013 or Outlook 2016*** 1. Step through the wizard 2. On the Add an Email Account page, select **No**. 3. Click **Next**. 4. Select the **Use Outlook without an email account** check box, and click **Finish**.
Internet Connection Wizard opens.	Click **Cancel** to close the wizard.
Office Activation Wizard opens.	Follow the instructions in the wizard to activate your software.
Choose Profile dialog box opens.	Select the profile you want to use and click **OK**.
New Profile dialog box opens.	***If you are using Outlook 2003*** 1. In the **Profile Name** box, type a profile name. 2. Click **OK**. 3. On the E-mail Accounts page, select **View or change existing e-mail accounts**. 4. Click **Next**, then click **Finish**. 5. If a confirmation message appears, click **OK**. ***If you are using Outlook 2007, Outlook 2010, Outlook 2013 or Outlook 2016*** 1. In the **Profile Name** box, type a profile name. 2. Click **OK**.

Outlook behavior	Your action
	3. On the Auto Account Setup page, click **Cancel**. 4. If a confirmation message appears, click **OK**.

Step 2: Set Outlook as the default client

To set Outlook as the default client in Windows XP, Windows Server 2003, or Windows Server 2003 R2

1. In Control Panel, double-click **Internet Options**.
2. On the **Programs** tab, ensure that Microsoft Outlook is selected in each of these boxes:
   - **E-mail**
   - **Calendar**
   - **Contact list**
3. Click **OK**.

To set Outlook as the default client in a later version of Windows

1. At a command prompt, run the following command:

```
%systemroot%\system32\control.exe /name Microsoft.DefaultPrograms
```

2. In the window that opens, click the Set your default programs command link.
3. Under Programs, select the entry representing Microsoft Outlook, and then click Set this program as default.

Step 3: Ensure that Cached Exchange Mode is disabled

Recovery Manager for Exchange does not support Cached Exchange Mode, therefore if you are using Outlook 2003 or later, make sure that Cached Exchange Mode is neither enabled in Outlook nor enforced by Group Policy. For more information on how to disable Cached Exchange Mode in Outlook, see the documentation for your version of Outlook.

Configuring IBM Lotus Notes

To view, search, and restore Lotus Domino data, you must install IBM Lotus Notes on the Recovery Manager for Exchange computer. For supported versions of IBM Lotus Notes, see the "System Requirements" section in the Release Notes supplied with this release.

To configure Lotus Notes for use with Recovery Manager

- Start Lotus Notes.

  If the Lotus Notes main window opens, Lotus Notes is ready for use with Recovery Manager for Exchange. Otherwise, complete the Client Configuration Wizard that starts.

NOTE: When installing or configuring Lotus Notes, do not set it as the default e-mail client. You can specify any other installation and configuration parameters at your discretion.

Working with storages

- About storages
- Extracting an Exchange Server database from backup
- Accessing backups directly
- Extracting incremental or differential backups
- Registering a storage
- Opening a storage
- Closing a storage
- Renaming a storage
- Deleting a storage
- Deleting items from a target storage
- Deleting items from a source storage
- Setting access permissions for target files

About storages

A source storage is a storage that Recovery Manager for Exchange can search and restore data from. Registering a source storage with Recovery Manager for Exchange allows you to search that storage and restore messagelevel items, mailboxes, or public folders the storage contains. All source storages registered with Recovery Manager for Exchange are located in the Source Storages node in the left pane.

A target storage is a storage to which Recovery Manager for Exchange can restore data. All target storages registered with Recovery Manager for Exchange are located in the Target Storages node in the left pane.

Items that are supported as source or target storages depend on the Recovery Manager for Exchange edition you are using. For more information, see Comparison of Recovery Manager for Exchange editions.

Extracting an Exchange Server database from backup

Recovery Manager for Exchange helps you extract Exchange Server databases from regular Exchange backups. When extracted, the database files are placed in the folder you specify and can be accessed with Recovery Manager for Exchange in order to find, preview, and selectively restore items. With Recovery

Manager for Exchange, you can extract Exchange Server databases from backups that span one or several media, such as files or tapes.

Recovery Manager for Exchange offers following methods for accessing backed up Exchange Server databases:

- **Integration with the third-party backup software that created the backup**. Recovery Manager for Exchange integrates with the backup software to retrieve the Exchange Server backup from its location, extract its contents, and access the backed up Exchange Server databases. For a list of the third-party backup software with which Recovery Manager for Exchange can integrate, see the "Supported Backup Software" section in the Release Notes supplied with this version of Recovery Manager for Exchange.
- **Direct access to backup**. Recovery Manager for Exchange can directly (without the use of third-party backup software) access certain types of backups to extract and access the Exchange Server databases the backups contain. For more information, see Accessing backups directly.

IMPORTANT:

- When using Exchange Emulation to register storages from a backup, you must specify the same storage group names that are in the backup.
- To extract Exchange Server databases from backups by using Exchange Server emulation, Recovery Manager for Exchange requires Exchange Management Tools to be installed. On the Recovery Manager for Exchange computer, you can install Exchange 2007 and 2010 Management Tools side-by-side. By doing so, you can save your time and effort in situations where you want to work with databases originating from Exchange Server 2007 and Exchange Server 2010.
- To extract Exchange Server databases from backups by using Exchange Server emulation, Recovery Manager for Exchange computer should run the same version of Windows as the backed up Exchange Server.

Before running the Exchange Server Emulation please:

1. Check if the 8.3 file system is enabled on the Recovery Manager for Exchange machine by opening a command prompt and running the command: **fsutil 8dot3name**. If the 8.3 file system is enabled, the value for the **NtfsDisable8dot3NameCreation** should be **0** or **2**.
2. If 8.3 is disabled, copy the **C:\Program Files (x86)\Quest\Recovery Manager for Exchange\Apiemulation64.dll** file to a folder with a shortname like **C:\RME**.
3. Launch **regedit**, open the **HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Windows** registry key, and check whether the values are correct: **AppInit_DLLs** (**REG_SZ**) must contain the correct path to **apiemulation64.dll**. If the dll was copied on the step 2, the path is **C:\RME\ApiEmulation64.dll**.
   Otherwise, it should look like **C:\PROGRA~2\Quest\RECOVE~1\ApiEmulation64.dll**:
   - **LoadAppInit_DLLs (REG_DWORD) = 1**
   - **RequireSignedAppInit_DLLs (REG_DWORD) = 0** (the value might be required if the machine does not have Internet access).

This section covers:

- Working with Quest® Rapid Recovery® (AppAssure®)
- Working with Quest® NetVault Backup®
- Working with Quest® vRanger®

- Working with CA ARCserve Backup
- Working with EMC NetWorker
- Working with HP Data Protector
- Working with IBM Tivoli Storage Manager
- Working with Microsoft Data Protection Manager
- Working with Microsoft Windows Backup
- Working with Microsoft Windows Server Backup
- Working with Symantec Backup Exec
- Working with Symantec NetBackup
- Working with unlisted backup software

Working with Quest® Rapid Recovery® (AppAssure®)

To extract and register Exchange Server databases from backups created with Quest® Rapid Recovery®, Recovery Manager for Exchange connects to the Rapid Recovery backup server and uses the Rapid Recovery open application programming interface (API).

You can install Recovery Manager for Exchange on the Rapid Recovery computer or on any other computer joined to the domain where the Rapid Recovery computer resides.

To extract a database by using Rapid Recovery

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.
3. On the Select Backup Software page, do the following:
    a. From the **Use this software** list, select Rapid Recovery.
    b. From the **Software version** list, select the Rapid Recovery version installed on the computer from which you want to retrieve and restore backups.
    c. Click **Next**.
4. Follow the wizard to complete the storage registration.

Working with Quest® NetVault Backup®

You can use Recovery Manager for Exchange to extract Exchange Server databases from streaming and VSS (Volume Shadow Copy Snapshot) backups created with Quest® NetVault Backup®. The guidelines and procedures described in the next sections apply to both these types of backups.

For more information on scenarios where Recovery Manager for Exchange can extract data from VSS backups created with NetVault Backup, see the “Supported Backup Software” section in the Release Notes supplied with this version of Recovery Manager for Exchange.

This section covers:

- Guidelines for working with NetVault Backup
- Extracting a database from a Volume Shadow Copy snapshot backup created with NetVault Backup

Guidelines for working with NetVault Backup

- Ensure that the computer where you want to use Recovery Manager for Exchange does not have Microsoft Exchange Server installed: the Exchange Server Emulation feature of Recovery Manager for Exchange is not supported on computers running Microsoft Exchange Server.
- You can install Recovery Manager for Exchange on the NetVault Backup Server computer or on a different computer available on the network. If Recovery Manager for Exchange and NetVault Backup Server are installed on different computers, make sure these computers can access each other by NetBIOS names.

  In any case, the computer where you wish to use Recovery Manager for Exchange must have the following software installed:

  - Microsoft Exchange System Management Tools supplied with the Exchange Server version you want to emulate.
  - NetVault Backup Client
  - Exchange Server Application Plugin Module (APM)
- If you wish to extract data from VSS (Volume Shadow Copy Snapshot) backups created with NetVault Backup, make sure that the Volume Shadow Copy Service is running on the Recovery Manager for Exchange computer.

  For more information on scenarios where Recovery Manager for Exchange can extract data from VSS backups created with NetVault Backup, see the “Supported Backup Software” section in the Release Notes supplied with this version of Recovery Manager for Exchange.

Extracting a database from a Volume Shadow Copy snapshot backup created with NetVault Backup

NOTE:

- For detailed information about the conditions where Recovery Manager for Exchange supports Volume Shadow Copy (VSS) backups created with NetVault Backup, see the “Supported Backup Software” section in the Recovery Manager for Exchange Release Notes.
- For detailed information about the conditions where Recovery Manager for Exchange supports Volume Shadow Copy (VSS) backups created with NetVault Backup, see the “Supported Backup Software” section in the Recovery Manager for Exchange Release Notes.

To extract a database from a VSS backup

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.

3. On the Select Backup Software page, do the following:
    a. From the **Use this software** list, select NetVault Backup.
    b. From the **Software version** list, select your version of NetVault Backup.
    c. Click **Next**.
4. Step through the wizard to specify parameters for emulating restore interface of Exchange Server.

    If the Exchange Server whose database you want to register belongs to a database availability group (DAG), do the following:

    a. On the Select How to Provide Information page, select **Retrieve information from Exchange Server**.
    b. Step through the wizard.
    c. On the Specify Backed Up Exchange Server page, in the **Exchange Server** text box, type the name of the DAG node that holds the active copy of the database you want to register.
    d. Step through the wizard.
5. On the Emulating Exchange Server page, wait until the Status box displays "Emulation started. Waiting for connection from backup application."
6. Start NetVault WebUI.
7. In the NetVault Backup main window, click the **Create Restore Job** on the left pane, and then do the following in the window that opens:
    a. On the **Create Restore Job - Choose Saveset** page, select a backup from the list of savesets and click **Next**.
    b. On the **Create Selection Set** page, expand the appropriate nodes to select databases you want to restore.
    c. Click **Edit Plugin Options** and go to the **Restore and Recovery Options** tab, under **Restore Method**, select **Volume Shadow Copy Service (VSS)** to perform the restore of selected data using the VSS method, which allows for the recovery of Full, Differential, and Incremental Backup types. In some versions of NetVault, the **Restore Method** area is located on the **Restore and Recovery Method** subtab.
    d. Select the **Perform Recovery (Enable only on Last Step in Restore Sequence)** option when performing the last job of a restore sequence. If the restore sequence only includes a Full Backup, select this option for the Full Backup. If the restore sequence includes Incremental or Differential Restores, select this option when restoring the last backup in the restore sequence. This option finalizes the restore process after completion of the restore job for which it was selected, that is, the Exchange Server is then alerted to perform any necessary recovery tasks. All other options in the **Recovery Options** section are dimmed unless this option is selected. For more details about other NetVault Backup options, please see this section.
    e. Then go to the **Security** tab and specify Exchange admin credentials.
    f. On the **Create Restore Job** page, specify the job name and select the Recovery Manager for Exchange computer as a target for the restore operation. Click **Save & Submit**.
    g. Click the **Monitor** link in the pop-up window. The **Monitor job** page opens - here you can view the progress of the restore job.
8. After restoring the last backup set, return to Recovery Manager for Exchange.
9. Follow the steps in the Add Storage Wizard to complete the storage registration.

Working with Quest® vRanger®

Recovery Manager for Exchange can integrate with Quest® vRanger® to extract and register Exchange Server databases from backups of virtual machines created with vRanger. After their registration with Recovery Manager for Exchange, the extracted Exchange Server databases become available for search and data restore operations.

Recovery Manager for Exchange integrates with vRanger by using the file-level recovery capability provided by vRanger through an open application programming interface (API).

For more information about vRanger, see the vRanger documentation available for download at http://quest.com/products/vranger.

This section covers:

- Guidelines for working with vRanger
- Backing up a virtual machine running Exchange Server
- Extracting an Exchange Server database from a backup Created with vRanger

Guidelines for working with vRanger

In order Recovery Manager for Exchange could extract and register Exchange Server databases from backups created with vRanger, ensure that:

- Recovery Manager for Exchange and vRanger are installed on the same computer.

  Ensure that PowerShell execution policy on that computer allows the execution of remote-signed scripts.

  This is required because Recovery Manager for Exchange integrates with vRanger by using PowerShell cmdlets supplied with vRanger.

- You installed the vRanger Console and started it at least once on the computer where Recovery Manager for Exchange and vRanger are installed.
- You backed up Exchange Server installed on the virtual machine by completing the steps described in the next section.

Backing up a virtual machine running Exchange Server

In order Recovery Manager for Exchange could extract and register Exchange Server databases from backups created with vRanger, you need to back up the virtual machine running Exchange Server by using the below steps.

To back up the virtual machine

1. On the virtual machine hosting the Exchange Server you want to back up, install Microsoft Visual C++ 2008 Redistributable Package.
   - Install the 32-bit edition of the package if the virtual machine is running a 32-bit version of Windows.
   - Install the 64-bit edition of the package if the virtual machine is running a 64-bit version of Windows.

2. Copy one of the following files from the vRanger installation directory to any local directory on the virtual machine running Exchange Server:
    - Copy **Vzshadow_x86.exe** if the virtual machine is running a 32-bit version of Windows.
    - Copy **Vzshadow_x64.exe** if the virtual machine is running a 64-bit version of Windows.
3. Check to make sure that the virtual machine and the VMware host have the same version of VMware Tools installed.
4. On the virtual machine running Exchange Server, locate the VMware Tools installation folder (by default, this is **%ProgramFiles%\VMware\VMware Tools**).
5. In the VMware Tools installation folder, create a new directory named backupscripts.d. In that directory, create a file named **freeze.bat**.
6. Open the **freeze.bat** file in a text editor and type the following syntax:

    <Full path to the **Vzshadow_x86.exe or Vzshadow_x64.exe** file you copied in step 2 of this procedure> -bc=<Local drive on which Exchange databases reside>**\backup.xml** <A list of all local drives on the virtual machine>

    Example:

```
C:\Vzshadow_x86.exe -bc=C:\backup.xml C: D:
```

Where the -bc parameter specifies the local drive (C:) that stores the Exchange Server databases you want to back up with vRanger, followed by a list of all local drives on the virtual machine (C: D:). When specifying multiple local drives, use a colon followed by a space (:) as a separator.

7. Save and close the **freeze.bat** file.
8. Back up the virtual machine by using the **Enable guest quiescing** option provided in vRanger.

Extracting an Exchange Server database from a backup Created with vRanger

The backup from which you extract an Exchange Server database must be created by using the steps described in Backing up a virtual machine running Exchange Server.

To extract an Exchange Server database from a backup

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select Access Exchange backups with thirdparty software. Click **Next**.
3. On the Select Backup Software page, from the Use this software list, select the entry representing your version of vRanger. Click **Next**.
4. On the Select a Savepoint page, from the **Savepoints** list, select the entry representing the backup that holds the Exchange Server databases you wish to extract from backup and register with Recovery Manager for Exchange.

    If the savepoint represents a differential backup, vRanger will extract the corresponding full backup along with the differential backup of the Exchange Server database.

    If the savepoint represents an incremental backup, vRanger will extract all the previous incremental backups and the initial full backup of the Exchange Server database.
5. Step through the wizard to complete the storage registration operation.

When you are finished, the Exchange Server database becomes available in the Source Storages node located in the left pane of the Recovery Manager Console.

Working with CA ARCserve Backup

To extract Exchange Server databases from backups created with ARCserve Backup, you can use the Exchange Server Emulation feature of Recovery Manager for Exchange. When Exchange Server emulation is started on the Recovery Manager for Exchange computer, it appears as an Exchange Server to the backup software. Then, you can extract Exchange Server databases from backup to the Recovery Manager for Exchange computer and access them with Recovery Manager for Exchange to view, search, and restore data.

NOTE: Whenever mentioned in this section, ARCserve Backup refers to any or all of the following products: ARCserve Backup, Enterprise Backup, ARCserve, and/or ARCserveIT for Windows NT.

You can use Recovery Manager for Exchange to extract Exchange Server databases from streaming and VSS (Volume Shadow Copy Snapshot) backups created with ARCserve Backup. The next sections describe how to work with these types of backups.

For more information on scenarios where Recovery Manager for Exchange can extract data from VSS backups created with ARCserve Backup, see the “Supported Backup Software” section in the Release Notes supplied with this version of Recovery Manager for Exchange.

This section covers:

- Guidelines for working with ARCserve Backup
- Extracting a database from a streaming backup
- Extracting a database from a snapshot backup

Guidelines for working with ARCserve Backup

You can install and use Recovery Manager for Exchange and ARCserve Backup on the same computer or on different computers that can access each other by NetBIOS names.

Regardless of your deployment scenario, ensure that:

- The Recovery Manager for Exchange computer has the following software installed:
  - Microsoft Exchange System Management Tools (only if you wish to extract data from backups of Exchange Server 2000 or later). Make sure you install Exchange System Management Tools that come with the Exchange Server version whose backups you want to extract.
  - ARCserve Backup Manager (only if you wish to extract Exchange Server backups by integrating Recovery Manager for Exchange with ARCserve Backup 15.0, 16.0, or 16.5.)
  - ARCserve Backup Agent for Microsoft Exchange. Install the agent only after emulation of Exchange Server restore interface has started on the Recovery Manager for Exchange computer. If you need to change the version of Exchange Server to emulate, you must reinstall the Backup Agent for Microsoft Exchange after starting Exchange Server emulation with new parameters.
- Administrative file shares are enabled on the Recovery Manager for Exchange computer.
- If you wish to extract data from VSS (Volume Shadow Copy Snapshot) backups created with ARCserve Backup, make sure that the Volume Shadow Copy Service is running on the Recovery Manager for Exchange computer.

For more information on scenarios where Recovery Manager for Exchange can extract data from VSS backups created with ARCserve Backup, see the “Supported Backup Software” section in the Release Notes supplied with this version of Recovery Manager for Exchange.

Extracting a database from a streaming backup

NOTE: The procedures described in this topic may vary depending on the version of ARCserve Backup that you use. For more information, see the ARCserve Backup documentation.

To extract a database by using ARCserve Backup

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.

   The wizard may prompt you to specify the Exchange Server whose backups you want to access.
2. On the Select a Backup Access Method page of the wizard, select Access Exchange backups with thirdparty software. Click **Next**.
3. On the Select Backup Software page, do the following:
   a. From the **Use this software** list, select **CA ARCserve Backup**.
   b. From the **Software version** list, select your version of ARCserve Backup.
   c. Click **Next**.
4. Step through the wizard to specify parameters for emulating restore interface of Exchange Server.
5. On the Specify Database Location page, specify the path to store extracted databases. Click **Next**.
6. If you did not install the Backup Agent for Microsoft Exchange, do the following:
   a. In the warning box, click **OK**.
   b. Wait until the **Status** box on the Emulating Exchange Server page displays “Emulation started. Waiting for connection from backup application.”
   c. On the computer running Recovery Manager for Exchange, install the Backup Agent for Microsoft Exchange.
7. Start ARCserve Backup Manager. For more information, see the documentation for your version of ARCserve Backup.

   If you are working with ARCserve Backup 15.0, 16.0, or 16.5, start ARCserve Backup Manager on the Recovery Manager for Exchange computer.
8. On the **Quick Start** menu, click **Restore**.
9. In the Restore window, click the **Source** tab and choose the view you want to use. Specify the Exchange backup and select the backup components to restore.
10. Right-click a storage group (Exchange Server 2000 and later), and then click **Backup Agent Option**.

11. In the Backup Agent Restore Options window, do the following:
    a. In the **Temporary location for log and patch files** box (Exchange Server 2000 and later), type the local path to a folder. This must be a local path on the computer running Recovery Manager for Exchange. This computer must have enough disk space to accommodate the log and patch files.
    b. If you are restoring a full backup without any incremental or differential backups, select **Commit after restore**. If you are restoring incremental or differential backups, do not select this check box until you restore the last backup set.
    c. Make sure you clear the **Mount database after restore** check box.
    d. Make sure you clear the **Restore to Recovery Storage Group** check box.
    e. Click **OK**.
12. Click the **Destination** tab.
13. Clear the **Restore files to their original location(s)** check box.
14. Browse the directory tree in the right pane, expand the computer running Recovery Manager for Exchangee, and then select **Microsoft Exchange Server – Database Level (IS)**.

NOTE: If you are using BrightStor ArcServe 2000, you will see that the computer running Recovery Manager for Exchange is listed both in the **Windows NT/2000/XP Systems** node and in the **Network** node. Do not expand the computer in the **Windows NT/2000/XP Systems** node; rather, expand the computer in the **Network** node.

15. On the toolbar, click **Start**.
16. In the **Security** dialog box, specify an account that has local administrator rights on the computer running Recovery Manager for Exchange, and then click **OK**.
17. In the **Session User Name and Password** dialog box, specify the credentials to access the computer running Recovery Manager for Exchange. The account you specify must have local administrator rights on the computer running Recovery Manager for Exchange.
18. After restoring all backup sets, return to Recovery Manager for Exchange. If you did not specify the last backup set in ARCserve Backup, on the Emulating Exchange Server page of the Add Storage Wizard, select the **Last backup set restored** check box.
19. Follow the Add Storage Wizard to complete the storage registration.

Extracting a database from a snapshot backup

NOTE: The procedures described in this topic may vary depending on the version of ARCserve Backup that you use. For more information, see the ARCserve Backup documentation.

To extract and register Exchange Server databases from snapshot backups created with ARCserve Backup, you need to use the Exchange Emulation feature provided in Recovery Manager for Exchange. Recovery Manager for Exchange can emulate Exchange Server restore interface, so that the computer running Recovery Manager for Exchange appears as an Exchange server to the backup software. As a result, Exchange database is extracted from the snapshot backup to the Recovery Manager for Exchange computer and then registered as a storage.

To extract data from a snapshot backup, complete the following steps:

- Step 1: Start Exchange Server emulation on the Recovery Manager for Exchange computer.
- Step 2: Extract and register Exchange Server database

Each of these steps is described in the next subsections.

Step 1: Start Exchange Server emulation on the Recovery Manager for Exchange computer.

1. Make sure that the Volume Shadow Copy Service is running on the Recovery Manager for Exchange computer.
2. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
3. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.
4. On the Select Backup Software page, do the following:
    a. From the **Use this software** list, select **CA ARCserve Backup**.
    b. From the **Software version list**, select the version of ARCserve Backup installed on the computer from which you want to retrieve and restore backups.
    c. Click **Next**.
5. Step through the wizard to specify parameters for emulating restore interface of Exchange Server.
6. On the Emulating Exchange Server page, wait until the **Status** box displays “Emulation started. Waiting for connection from backup application.”
7. Install the Backup Agent for Microsoft Exchange supplied with your version of ARCserve Backup.

Step 2: Extract and register Exchange Server database

1. Start ARCserve Backup Manager. For more information, see the documentation for your version of ARCserve Backup.

    If you are working with ARCserve Backup 15.0, 16.0, or 16.5, start ARCserve Backup Manager on the Recovery Manager for Exchange computer.
2. From the main menu, select **Quick Start | Restore**.
3. On the **Source** tab, specify the snapshot backup you want to use, and select the backup components to restore. For more information, see the documentation for your version of ARCserve Backup.
4. On the **Source** tab, perform the steps related to your version of Exchange Server:

Table 10: Steps to complete on the Source tab

A pre-2010 Exchange Server version	Exchange Server 2010 or later
1. Right-click a storage group, and then click **Agent Option**. 2. Make sure you clear the following check boxes: **Restore to Recovery Storage Group Run recovery after restore Mount database after restore** 3. Click **OK**.	1. Right-click a database, and then click **Agent Option**. 2. Make sure you clear the following check boxes: **Restore to Recovery Databases Run recovery after restore Mount database after restore** 3. Click **OK**.

5. On the **Destination** tab, make sure the **Restore files to their original location(s)** check box is cleared, and then ensure that the Recovery Manager for Exchange computer is available on that tab as a restore

destination.

NOTE: In some versions of ARCserve Backup, you may need to refresh the **Exchange Organization** node on the **Destination** tab so that the Recovery Manager for Exchange computer becomes available in that node. If refresh does not help, right-click the **Exchange Organization** node, click **Active Directory Servers**, and then use the dialog box that opens to add any domain controller from the forest in which the Recovery Manager for Exchange computer resides.

6. Select the Recovery Manager for Exchange computer as the restore destination:
    a. Expand the node that represents the Recovery Manager for Exchange computer, and then select the **Microsoft Exchange Server - Database Level** node. In some versions of ARCserve Backup, the node representing the Recovery Manager for Exchange computer is located in the **Exchange Organization** node.
    b. From the main menu, select **Restore | Destination Context Menu**, click **Security**, and specify credentials to access the destination computer. The account you specify must have local administrator rights on that computer.
    c. Expand the **Microsoft Exchange Server - Database Level** node, and select the subnode that represents the storage group you are emulating on the Recovery Manager for Exchange computer.
7. From the main menu, select **Restore | Run/Schedule**, and specify the required parameters to submit and run the restore job.

    If you receive a message reading that the mailbox database is not restored to the recovery database, ignore that message.
8. After restoring all backup sets, return to Recovery Manager for Exchange. If you did not specify the last backup set in ARCserve Backup, on the Emulating Exchange Server page of the Add Storage Wizard, select the **Last backup set restored** check box, and step through the wizard to complete the storage registration operation.

Working with EMC NetWorker

You can use Recovery Manager for Exchange to register Exchange Server databases from the following types of backups created with NetWorker:

- Streaming backups
- Volume Shadow Copy Service (VSS) snapshot backups

In the next sections:

- Registering storages from streaming backups created with NetWorker
- Registering storages from snapshot backups created with NetWorker

Registering storages from streaming backups created with NetWorker

Recovery Manager for Exchange provides the following methods for extracting and registering Exchange Server databases from streaming backups created with EMC NetWorker:

- Method 1: Use direct access to NetWorker Server. Allows you to connect to an EMC NetWorker Server and extract and register Exchange Server databases from backups held on the server.

  This method does not have as many prerequisites as Method 2, yet the storage registration operation performed using Method 1 might take longer.

- Method 2: Use Exchange Server emulation. Allows you to run Exchange Server emulation on the Recovery Manager for Exchange computer so that it appears as an Exchange Server to NetWorker. After that, you can perform directed recovery: redirect the restore operation to the Recovery Manager for Exchange computer, extract Exchange Server databases, and then register them with Recovery Manager for Exchange.

  In most cases, Method 2 allows you to complete the storage registration operation faster than Method 1.

  However, Method 2 has more prerequisites and therefore requires more effort than Method 1.

Both these methods let you register storages only from streaming backups created with NetWorker. The next subsections provide instructions on how to use each of these methods.

Method 1: Use direct access to NetWorker Server

Before using this method, ensure the following prerequisites are met:

- Recovery Manager for Exchange and NetWorker Server are installed on the same computer or on different computers that can access each other over the network by NetBIOS and DNS names.
- NetWorker Client is installed and properly configured on the Recovery Manager for Exchange computer. Make sure the Client can connect to and interact with NetWorker Server and has access to the backups holding the Exchange Server databases you want to register with Recovery Manager for Exchange.

  For more information on how to install and configure NetWorker Client, see the documentation supplied with your version of NetWorker.

To register storages using direct access to NetWorker Server

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.
3. On the Select Backup Software page, do the following:
   a. From the **Use this software** list, select **EMC NetWorker**.
   b. From the **Software version** list, select the NetWorker version installed on the computer from which you want to retrieve and restore backups.
   c. Click **Next**.
4. On the Select a Backup Access Method page, select **Connect to backup server**. Click **Next**.
5. Follow the steps in the wizard to complete the storage registration operation.

Method 2: Use Exchange Server emulation

Before using this method, ensure the following prerequisites are met:

- Recovery Manager for Exchange and NetWorker Server are installed on the same computer or on different computers that can access each other over the network by NetBIOS and DNS names.
- NetWorker Client is installed and properly configured on the Recovery Manager for Exchange computer. Make sure the Client can connect to and interact with NetWorker Server and has access to the backups that include the Exchange Server databases you want to register with Recovery Manager for Exchange.

For more information on how to install and configure NetWorker Client, see the documentation supplied with your version of NetWorker.

- NetWorker Module for Microsoft Exchange Server is installed on the Recovery Manager for Exchange computer. Make sure the Module can connect to and interact with NetWorker Server.

  For more information on how to install and configure NetWorker Module for Microsoft Exchange Server, see the documentation supplied with your version of NetWorker.

- The user account under which you will be running NetWorker Module for Exchange Server has sufficient privileges to perform directed recovery.

  For more information on directed recovery, see the documentation supplied with your version of NetWorker Module for Microsoft Exchange Server.

- Microsoft Exchange Management Tools supplied with the Exchange Server version you want to emulate are installed on the Recovery Manager for Exchange computer. Check to make sure that no other components of Exchange Server are installed on the Recovery Manager for Exchange computer.

To register storages using Method 2, complete the next steps.

Step 1: Start Exchange emulation

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.
3. On the Select Backup Software page, do the following:
   a. From the **Use this softwar**e list, select **EMC NetWorker**.
   b. From the **Software version** list, select the NetWorker version installed on the computer from which you want to retrieve and restore backups.
   c. Click **Next**.
4. On the Select a Backup Access Method page, select **Use Exchange Server emulation**. Click **Next**.
5. Step through the wizard to specify parameters for emulating restore interface of Exchange Server.
6. On the Emulating Exchange Server page, wait until the **Status** box displays “Emulation started. Waiting for connection from backup application.”, and then follow the instructions in Step 2: Extract and register Exchange databases below.

Step 2: Extract and register Exchange databases

1. On the Recovery Manager for Exchange computer, start the NetWorker User for Exchange Server program.
2. From the **Operations** menu, select **Directed Recover**, and then select the type of backup from which you want to extract and register Exchange Server databases.
3. Select the NetWorker Client that created the Exchange Server backups you want to access.
4. Select the objects you want to recover and specify other recovery options as necessary.

   For more information, see how to perform directed recovery in the documentation supplied with your version of NetWorker Module for Exchange Server.

5. When you are finished, click Start to start the restore operation. Wait for the restore operation to complete.

6. Return to Recovery Manager for Exchange and follow the steps in the Add Storage Wizard to complete the storage registration operation.

Registering storages from snapshot backups created with NetWorker

You can use Recovery Manager for Exchange to register storages from snapshot (VSS) backups created with EMC NetWorker.

For more information on the conditions where Recovery Manager for Exchange supports snapshot backups created with NetWorker, see the “Supported Backup Software” section in the Release Notes supplied with this version of Recovery Manager for Exchange.

Before registering storages from snapshot backups, ensure that:

- Recovery Manager for Exchange and NetWorker Server are installed on the same computer or on different computers that can access each other over the network by NetBIOS and DNS names.
- Microsoft Exchange Management Tools supplied with the Exchange Server version you want to emulate are installed on the Recovery Manager for Exchange computer.
- Check to make sure that no other components of Exchange Server are installed on the Recovery Manager for Exchange: the Exchange Server Emulation feature of Recovery Manager for Exchange is not supported on computers running Microsoft Exchange Server.
- NetWorker Module for Microsoft Applications version 2.3, 2.4, or 3.0 is installed on the Recovery Manager for Exchange computer. Make sure the Module can connect to and interact with NetWorker Server.
- The user account under which you plan to run NetWorker Module for Microsoft Applications has sufficient privileges to access the snapshot backups from which you wish to register Exchange Server databases.

Registering storages from snapshot backups includes these steps:

- Step 1: Start Exchange Server emulation
- Step 2: Use NetWorker to extract Exchange Server databases

Step 1: Start Exchange Server emulation

1. Make sure that the Volume Shadow Copy Service is running on the Recovery Manager for Exchange computer.
2. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
3. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.
4. On the Select Backup Software page, do the following:
    a. From the **Use this software** list, select **EMC NetWorker**.
    b. From the **Software version** list, select the version of NetWorker installed on the computer from which you want to retrieve and restore backups.
    c. Click **Next**.
5. On the Select a Backup Access Method, click **Use Exchange Server emulation**.
6. Step through the wizard to specify parameters for emulating restore interface of Exchange Server.

7. On the Emulating Exchange Server page, wait until the Status box displays “Emulation started. Waiting for connection from backup application.”

Step 2: Use NetWorker to extract Exchange Server databases

1. On the Recovery Manager for Exchange computer, start NetWorker Module for Microsoft Applications (it is also called NetWorker User for Microsoft Applications).
2. In the NetWorker Module for Microsoft Applications window, perform the steps related to your version of Exchange Server.

Table 11: Steps to extract Exchange Server databases

Exchange Server 2007	Exchange Server 2010 or 2013
1. In the left pane, click Recover, point to **Exchange Recover Session**, and then click **Database Recover**. 2. From the **Client** list, select the entry representing the backed up Exchange Server whose databases you want to register with Recovery Manager for Exchange. The account under which NetWorker Module for Microsoft Applications is running must have sufficient privileges to access the backups of the Exchange Server computer you select. 3. On the **Browse** tab, expand the appropriate nodes to select the check box next to the database you want to register. 4. Click **Advanced Recover**. 5. In the dialog box that opens, click the **Alternate Storage Group** option, and then click **OK**. 6. Click **Start Recover**.	1. In the left pane, click **Recover**, point to the appropriate recover session node, and then click **Database Recover**. 2. From the **Client** list, select the entry representing the backed up Exchange Server whose databases you want to register with Recovery Manager for Exchange. The account under which NetWorker Module for Microsoft Applications is running must have sufficient privileges to access the backups of the Exchange Server computer you select. 3. On the **Browse** tab, expand the appropriate nodes to select the check box next to the database you want to register. 4. Click **Advance Recover**. 5. In the dialog box that opens, click the **Alternate Database Recovery** option, and then click **Next**. 6. In the **Select Database** list, click the database you want to extract and register. Click **Next**. 7. Click **Start** Recover.

Return to the Add Storage Wizard and wait until the storage registration operation completes.

Working with HP Data Protector

This section provides information about how to extract and register Exchange Server databases from backups created with Data Protector.

To extract Exchange Server databases from backups created with Data Protector, you can use the Exchange Server Emulation feature of Recovery Manager for Exchange. When Exchange Server emulation is started on the Recovery Manager for Exchange computer, it appears as an Exchange Server to the backup software. Then, you can extract Exchange Server databases from backup to the Recovery Manager for Exchangee computer and access them with Recovery Manager for Exchange to find, preview, and selectively restore items.

This section covers:

- Guidelines for working with HP Data Protector
- Extracting a database by using HP Data Protector

Guidelines for working with HP Data Protector

NOTE: The procedure of installing Data Protector may vary depending on the version of Data Protector that you use. For more information, see the HP Data Protector documentation.

- Ensure that the computer where you want to use Recovery Manager for Exchange does not have Microsoft Exchange Server installed: the Exchange Server Emulation feature of Recovery Manager for Exchange is not supported on computers running Microsoft Exchange Server.
- You can install Recovery Manager for Exchangee on the Data Protector computer or on a different computer available on the network.

If Recovery Manager for Exchange and Data Protector are installed on the same computer, make sure that the computer has following software installed:

- Microsoft Exchange System Management Tools supplied with the Exchange Server version you want to emulate.
- MS Exchange Integration component supplied with HP Data Protector.

  This component must be compatible with the Exchange Server version whose backups you want to extract with Recovery Manager for Exchange. For example, this component can be named MS Exchange Integration, MS Exchange 2010+ Integration, or MS Exchange 2000/2003 Integration.
- MS Volume Shadow Copy Integration component if you want to extract data from VSS backups created HP Data Protector.
- The Esebcli2.dll file installed with Exchange System Management Tools must be added to the PATH system environment variable. For a step-by-step procedure, see Adding esebcli2.dll file to the PATH system variable.

If Recovery Manager for Exchange and Data Protector are installed on different computers, make sure that these computers can access each other by NetBIOS names. In this scenario, the following software must be installed on the Recovery Manager for Exchange computer:

- Microsoft Exchange System Management Tools supplied with the Exchange Server version you want to emulate.
- Data Protector Client for Windows. For a step-by-step procedure, see Installing Data Protector Client.
- MS Exchange Integration component supplied with HP Data Protector.

This component must be compatible with the Exchange Server version whose backups you want to extract with Recovery Manager for Exchange. For example, this component can be named MS Exchange Integration, MS Exchange 2010+ Integration, or MS Exchange 2000/2003 Integration.

- MS Volume Shadow Copy Integration component if you want to extract data from VSS backups created HP Data Protector.
- The Esebcli2.dll file installed with Exchange System Management Tools must be added to the PATH system environment variable on the Recovery Manager for Exchangecomputer. For a step-by-step procedure, see Adding esebcli2.dll file to the PATH system variable.

Installing Data Protector Client

To install Data Protector Client

1. On the computer where Data Protector Server is installed, start Data Protector Manager. For details, see the documentation for your version of HP Data Protector.
2. In the Context List, click **Clients**.
3. In the Scoping Pane, right-click Clients, and then click **Add Clients**.
4. In the **Name** box, type NetBIOS or DNS name of the computer running Recovery Manager for Exchange. Click **Add**, and then click **Next**.
5. On the **Components** tab, select the following check boxes:
   - **MS Exchange Integration**
   - **MS Volume Shadow Copy Integration**
   - **MS Exchange Server 2010+ Integration** (if you want to register storages from Exchange Server 2010 or 2013 backups).
6. Open the **Options** tab.
7. Clear the Use default system account check box and specify credentials of an account having local administrator rights on the computer running Recovery Manager for Exchange.
8. Click **Finish**.
9. If you are using a pre-6.2 version of Data Protector and want to work with databases of Exchange Server 2010 or 2013, rename or move the file **Omni_MicrosoftExchangeWriter.dll** that is located in <Data Protector installation folder>**/Bin**.

Adding esebcli2.dll file to the PATH system variable

In order Data Protector could extract Exchange Server databases from backups, you must add the Esebcli2.dll file that is installed with the Exchange System Management Tools to the PATH system environment variable on the computer where Recovery Manager for Exchangee is installed.

By adding the Esebcli2.dll file to the PATH system variable, you make the file accessible to Data Protector. Without access to that file, Data Protector cannot extract Exchange databases from backups.

To add the Esebcli2.dll file to the PATH system variable

1. On the computer where Recovery Manager for Exchange is installed, open the **System Properties** window (sysdm.cpl).
2. In the **System Properties** window, go to the Advanced tab, and then click **Environment Variables**.

3. Under **System Variables**, select the entry that includes the PATH variable. Click **Edit**.
4. After the last character in the Variable value text box, type the following, and then click **OK**: ;<full path to the Exchange System Management Tools installation folder>**\Bin**.
5. In the **Environment Variables** dialog box, click **OK**.
6. Open the Services tool, and restart the Data Protector Inet service.

Extracting a database by using HP Data Protector

NOTE: The procedures described in this topic may vary depending on the version of Data Protector that you use. For more information, see the Data Protector documentation.

To extract a database by using Data Protector

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.
3. On the Select Backup Software page, do the following:
    a. From the **Use this software** list, select **HP Data Protector**.
    b. From the **Software version** list, select your version of Data Protector.
    c. Click **Next**.
4. Step through the wizard to specify parameters for emulating restore interface of Exchange Server.
5. On the Emulating Exchange Server page, wait until the **Status** box displays “Emulation started. Waiting for connection from backup application.”
6. Start Data Protector Manager.

IMPORTANT: If Recovery Manager for Exchange and Data Protector are running on different computers, you must start Data Protector under an account that has local administrator rights on the computer running Recovery Manager for Exchange.

7. In the **Context** List, click **Restore**.
8. In the left pane (also known as Scoping Pane), under **Restore Objects**, specify the Exchange Server backup you want to use.
9. Specify the backup components you want to restore.

    To specify the components, in some HP Data Protector versions you need to use the Source tab in the right pane.
10. Perform the steps related to your Exchange Server version:

Table 12: Steps to perform in Data Protector Manager

Exchange Server 2000 Exchange Server 2003 Exchange Server 2007	Exchange Server 2010 Exchange Server 2013
1. In the right pane, open the **Options** tab. 2. Select the **Restore to another client** check box, and specify the computer running Recovery Manager for Exchange as a restore target. 3. In the **Directory for temporary log files** box (Exchange Server 2000 or later), type the local path to an empty folder. Note that it is a local path on the computer running Recovery Manager for Exchange. This computer must have enough disk space to accommodate the log and patch files. 4. If you are restoring a full backup without any incremental or differential backups, select **Last restore set (start recovery)** to start the log file replay operation after restoring the database. If you are restoring incremental or differential backups, do not select this check box until you restore the last backup set.	1. In the right pane, open the **Source** tab. 2. Select the check box next to the database you want to register with Recovery Manager for Exchange. 3. Right-click the database, and then click **Properties**. 4. Select the **Select for restore** check box. 5. From the **Restore method** list, select **Restore files to a temporary location**. 6. From the **Target client** list, select the computer where Recovery Manager for Exchange is installed. 7. In the **Restore into location** text box, type the path to the folder on the Recovery Manager for Exchange computer to which you want to extract the database from backup. The folder you specify must be empty. 8. If you want to replay the database log files, select the **Perform database recovery** check box. 9. Click **OK**. 10. Open the **Options** tab, and then use the **Startup client** list to select the computer where Recovery Manager for Exchange is installed. 11. On the Recovery Manager for Exchange computer, in the folder %ProgramData%\OmniBack\, create a new file named **Omnirc**. 12. In the **Omnirc** file, add the following line: OB2BARHOSTNAME=<Value> Where <Value> is the name of backed up Exchange Server or database availability group (DAG).

11. Click **Restore**. Wait for the restore operation to complete, and then click **Finish**.
12. After restoring all backup sets, return to Recovery Manager for Exchange. If you did not specify the last backup set in Data Protector, on the Emulating Exchange Server page in the Add Storage Wizard, select the **Last backup set restored** check box.
13. Follow the Add Storage Wizard to complete the storage registration.

Working with IBM Tivoli Storage Manager

You can use Recovery Manager for Exchange to register Exchange Server databases from the following types of backups created with Tivoli Storage Manager:

- Streaming backups
- Volume Shadow Copy Service (VSS) snapshot backups

NOTE: The account under which the Tivoli Storage Manager (TSM) client runs must have the Exchange Organization Management permissions.

In the next sections:

- Registering storages from streaming backups created with Tivoli Storage Manager
- Registering storages from snapshot backups created with Tivoli Storage Manager
- Registering a public folder database using Exchange emulation

Registering storages from streaming backups created with Tivoli Storage Manager

To extract Exchange Server databases from streaming backups created with Tivoli Storage Manager, you can use one of the following methods:

- Method 1: Register storages using direct access to Tivoli Storage Manager Server. Allows you to connect to a Tivoli Storage Manager Server and register storages from specific backups held on the server. This method supports streaming backups only.
- Method 2: Register storages using Exchange Server emulation. Allows you to run Exchange Server emulation on the Recovery Manager for Exchange computer so that it appears as an Exchange Server to Tivoli Storage Manager. After that, you can redirect the restore operation to the Recovery Manager for Exchange computer, extract Exchange Server databases, and then register them with Recovery Manager for Exchange. This method supports streaming and VSS snapshot backups.

See the next subsections for instructions on how to use each of these methods.

Method 1: Register storages using direct access to Tivoli Storage Manager Server

Before using this method, ensure the following prerequisites are met:

- Recovery Manager for Exchange and Tivoli Storage Manager are installed either on the same computer or on different computers that can access each other over the network.
- Tivoli Storage Manager Backup-Archive Client or Tivoli Data Protection (TDP) for Microsoft Exchange is installed and properly configured on the computer running Recovery Manager for Exchange.

  For more information on how to install and configure Tivoli Storage Manager Backup-Archive Client or Tivoli Data Protection (TDP) for Microsoft Exchange, see the documentation supplied with your version of Tivoli Storage Manager.

To register storages using direct access to Tivoli Storage Manager Server

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.

3. On the Select Backup Software page, do the following:
    a. From the **Use this software** list, select **IBM Tivoli Storage Manager**.
    b. From the **Software version** list, select the Tivoli Storage Manager version installed on the computer from which you want to retrieve and restore backups.
    c. Click **Next**.
4. If the Select a Backup Access Method page opens, select **Connect to backup server**, and click **Next**.
5. Follow the steps in the wizard to complete the storage registration operation.

Method 2: Register storages using Exchange Server emulation

Before using this method, ensure the following prerequisites are met:

- Recovery Manager for Exchange and Tivoli Storage Manager Server are installed either on the same computer or on different computers that can access each other over the network.
- The Recovery Manager for Exchange computer has the following software installed:
    - Tivoli Data Protection (TDP) for Microsoft Exchange. For more information on how to install and configure Tivoli Data Protection (TDP) for Microsoft Exchange, see the documentation supplied with your version of Tivoli Storage Manager.
    - Microsoft Exchange System Management Tools supplied with the Exchange Server version you want to emulate. Check to make sure that no other components of Exchange Server are installed on the Recovery Manager for Exchange computer.

To register storages using Method 2, complete the next steps.

Step 1: Start Exchange Emulation

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backup**s.
2. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.
3. On the Select Backup Software page, do the following:
    a. From the **Use this software** list, select **IBM Tivoli Storage Manager**.
    b. From the **Software version** list, select the Tivoli Storage Manager version installed on the computer from which you want to retrieve and restore backups. This must be the Tivoli Storage Manager version for which Recovery Manager for Exchange supports the Exchange Server Emulation method. For a list of such IBM Tivoli Storage Manager versions, see the Supported Backup Software section in the Release Notes supplied with this release of Recovery Manager for Exchange.
    c. Click **Next**.
4. On the Select a Backup Access Method page, select **Use Exchange Server emulation**. Click **Next**.
5. Step through the wizard to specify parameters for emulating restore interface of Exchange Server.
6. On the Emulating Exchange Server page, wait until the Status box displays “Emulation started. Waiting for connection from backup application...”, and then follow the instructions in Step 2 below.

Step 2: Extract and Register Exchange Databases

1. On the Recovery Manager for Exchange computer, start Tivoli Data Protection for Microsoft Exchange.
2. From the main menu, select **View | Show all backups**.

3. In the left pane, expand the appropriate nodes to select the storage group that includes the databases you want to extract and register.
4. On the **Restore** tab, make sure the **Run recovery** check box is selected. Leave default values for other options on this tab.
5. Click the **Restore** button and wait for the restore operation to complete.
6. Return to Recovery Manager for Exchange and follow the steps in the Add Storage Wizard to complete the storage registration operation.

Registering storages from snapshot backups created with Tivoli Storage Manager

Before registering backups from VSS snapshot backups created with Tivoli Storage Manager, ensure the following prerequisites are met:

- Recovery Manager for Exchange and Tivoli Storage Manager Server are installed either on the same computer or on different computers that can access each other over the network.
- The Volume Shadow Copy Service is running on the computer where Recovery Manager for Exchange is installed.
- The Recovery Manager for Exchange computer has the following software installed:

Table 13: Required software

Software	Commentary
Tivoli Storage FlashCopy Manager version 4.1, 3.2, 3.1, 2.2, or 2.1	Make sure that Tivoli FlashCopy Manager is properly configured: • It must be able to connect to the Tivoli Storage Manager server that holds the Exchange Server backups you want to work with. • The Data Protection for Exchange node name specified in Tivoli FlashCopy Manager is identical to the one that was specified for the backed up Exchange Server.
Microsoft .NET Framework 4.0 Extended (only if Tivoli Storage FlashCopy Manager version 4.1, 3.2, or 3.1 is installed on the Recovery Manager for Exchange computer)	Restart the Recovery Manager for Exchange computer after installing Microsoft .NET Framework 4.0 Extended.
Microsoft Exchange System Management Tools	Install the version supplied with the Exchange Server version you want to emulate. Check to make sure that no other components of Exchange Server are installed on the Recovery Manager for Exchange computer.

For more information on scenarios where Recovery Manager for Exchange can extract data from VSS backups created with Tivoli Storage Manager, see the “Supported Backup Software” section in the Release Notes supplied with this version of Recovery Manager for Exchange.

To register storages from VSS snapshot backups, complete the next steps.

Step 1: Start Exchange Emulation

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select Access Exchange backups with thirdparty software. Click **Next**.
3. On the Select Backup Software page, do the following:
    a. From the Use this software list, select **IBM Tivoli Storage Manager**.
    b. From the **Software version** list, select the Tivoli Storage Manager version installed on the computer from which you want to retrieve and restore backups. This must be the Tivoli Storage Manager version for which Recovery Manager for Exchange supports the Exchange Server Emulation method. For a list of such IBM Tivoli Storage Manager versions, see the Supported Backup Software section in the Release Notes supplied with this release of Recovery Manager for Exchange
    c. Click **Next**.
4. On the Select a Backup Access Method page, select **Use Exchange Server emulation**. Click **Next**.
5. Step through the wizard to specify parameters for emulating restore interface of Exchange Server.
6. On the Emulating Exchange Server page, wait until the **Status** box displays “Emulation started. Waiting for connection from backup application...”, and then follow the instructions in Step 2 below.

Step 2: Extract and register Exchange databases

In the table below, follow the steps related to your version of Tivoli Storage FlashCopy Manager:

Table 14: Steps to extract and register Exchange databases

FlashCopy Manager 2.1 or 2.2	FlashCopy Manager 3.1, 3.2, or 4.1
1. On the Recovery Manager for Exchange computer, start Tivoli Storage FlashCopy Manager. 2. In the console tree, expand the node representing the Exchange Server whose database you want to register. 3. Expand the **Protect and Recover Data** node, and then select the node representing the Exchange Server whose database you want to register. 4. From the main menu, select **Action	Launch Backup/Restore GUI**. 5. Use the **Restore** tab in the right pane to select the check box next to the storage group that includes the database you want to register.	1. On the Recovery Manager for Exchange computer, start FlashCopy Manager Management Console. 2. In the console tree, expand **IBM Tivoli Storage Manager	Dashboard** - <ComputerName> **| Protect and Recover Data** to select the node representing the Recovery Manager for Exchange computer. 3. In the middle pane, click **Restore**. 4. From the list in the middle pane, select the database you want to register. When registering a pre-Exchange Server 2010 database, you first need to select the storage group that holds the database. 5. Right-click the database, and then click **Restore Into**. 6. From the drop-down list, select the storage group or database you are emulating on the Recovery Manager for Exchange computer, and then click **OK**. 7. Return to Recovery Manager for Exchange and follow the steps in the Add Storage Wizard to complete the storage registration.

FlashCopy Manager 2.1 or 2.2	FlashCopy Manager 3.1, 3.2, or 4.1
6. Right-click the storage group, and then click **Restore Into**. 7. From the list, select the storage group that includes the database you want to register, and then click **OK**. 8. Return to Recovery Manager for Exchange and follow the steps in the Add Storage Wizard to complete the storage registration operation.	

Registering a public folder database using Exchange emulation

Although Tivoli Storage Manager cannot restore backed up public folder databases to alternate location, you can still use Exchange emulation to register a public folder database from a backup created with Tivoli Storage Manager.

To register a public folder database, use the Add Storage Wizard to start Exchange emulation the way you normally do when registering mailbox databases. On the wizard pages listed in the table below, do the corresponding action.

Table 15: Actions required to register a public folder database

Add Storage Wizard page	Your action
Select How to Provide Information	Select the **Manually enter information about Exchange Server** option. In the next steps of the wizard, enter information about the server you want to use.
Specify Databases	In the **Databases** list, do the following: • **Name** column. Type the name of the public folder database you want to register. • **Type** column. Select Mailbox database.

Working with Microsoft Data Protection Manager

To extract and register Exchange Server databases from backups created with Microsoft Data Protection Manager, Recovery Manager for Exchange connects to the Data Protection Manager backup server and uses an open application programming interface (API) provided by Data Protection Manager.

This section covers:

- Guidelines for working with Data Protection Manager
- Extracting a database by using Data Protection Manager

Guidelines for working with Data Protection Manager

- You can install Recovery Manager for Exchange on the Data Protection Manager computer or on any other computer available on the network.
- Recovery Manager for Exchange must be joined either to the Active Directory domain where the Data Protection Manager server resides or to a domain that has two-way trust relationship with the Data Protection Manager server domain.
- Ensure that Data Protection Manager Management Shell and Data Protection Manager protection agent are installed on the Recovery Manager for Exchange computer.

Extracting a database by using Data Protection Manager

To extract a database by using Microsoft Data Protection Manager

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.
3. On the Select Backup Software page, do the following:
    a. From the **Use this software** list, select **Microsoft Data Protection Manager**.
    b. From the **Software version** list, select the Data Protection Manager version installed on the computer from which you want to retrieve and restore backups.
    c. Click **Next**.
4. Follow the wizard to complete the storage registration.

Working with Microsoft Windows Backup

To extract the contents of an Exchange Server backup created with Microsoft Windows Backup, you can use the Exchange Server Emulation feature of Recovery Manager for Exchange. When Exchange Server emulation is started on the Recovery Manager for Exchange computer, it appears as an Exchange Server to the backup software. Then, you can extract Exchange Server databases from backup to the Recovery Manager for Exchange computer and access them with Recovery Manager for Exchange to view, search, and restore data.

This section covers:

- Guidelines for Working with Windows Backup
- Extracting a database by using Windows Backup

Guidelines for Working with Windows Backup

Ensure that the computer where you wish to use Recovery Manager for Exchange does not have Microsoft Exchange Server installed: the Exchange Server Emulation feature of Recovery Manager for Exchange is not supported on computers running Microsoft Exchange Server.

You can install Recovery Manager for Exchange on the Windows Backup computer or on a different computer available on the network. If Recovery Manager for Exchange and Windows Backup are installed on different computers, make sure that these computers can access each other by NetBIOS names In any case, the computer where you plan to use Recovery Manager for Exchange must have Microsoft Exchange System

Management Tools installed. Install Microsoft Exchange System Management Tools supplied with the Exchange Server version you want to emulate.

Extracting a database by using Windows Backup

NOTE: The procedures described in this topic may vary depending on the version of Windows Backup that you use. For more information, see the Windows Backup documentation.

To extract a database by using Windows Backup

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.
3. On the Select Backup Software page, do the following:
    a. From the **Use this software** list, select **Microsoft Windows Backup**.
    b. Click **Next**.
4. Step through the wizard to specify parameters for emulating restore interface of Exchange Server.
5. On the Emulating Exchange Server page, wait until the Status box displays “Emulation started. Waiting for connection from backup application.”
6. On the computer where you want to run Windows Backup, select **Start | Programs | Accessories | System Tools | Backup**.

NOTE:

- If Recovery Manager for Exchange and Windows Backup are running on different computers, you must start Windows Backup under an account having local administrator rights on the computer running Recovery Manager for Exchange.
- If Recovery Manager for Exchange and Windows Backup are running on different computers, you must start Windows Backup under an account having local administrator rights on the computer running Recovery Manager for Exchange.

7. If Recovery Manager for Exchange and Windows Backup are running on the same computer, click the Restore and Manage Media tab.
8. If Recovery Manager for Exchange and Windows Backup are running on different computers:
    a. Click the **Backup** tab.
    b. Select **Tools | Remote Store**.
    c. In the **Remote Store** box, type the NetBIOS name of the computer running Recovery Manager for Exchange.
    d. Click the **Restore and Manage Media** tab.

9. Do the following:
    a. Specify the Exchange backup you want to use, and select the backup components to restore by selecting the check boxes next to the components.
    b. Click **Start Restore**.
    c. In the **Restore To** box, type the NetBIOS name of the computer running Recovery Manager for Exchange.
    d. In the **Temporary location for log and patch files** box, type the local path to a folder. Note that it is a local path on the computer running Recovery Manager for Exchange. This computer must have enough disk space to accommodate the log and patch files.
    e. If you are restoring a full backup without any incremental or differential backups, select **Last restore set**. If you are restoring incremental or differential backups, do not select this check box until you restore the last backup set.
10. Repeat steps 8-9 if necessary.
11. After restoring all backup sets, return to Recovery Manager for Exchange. If you did not specify the last backup set in Windows Backup, on the Emulating Exchange Server page of the Add Storage Wizard, select the **Last backup set restored** check box.
12. Follow the Add Storage Wizard to complete the storage registration.

Working with Microsoft Windows Server Backup

To extract and register Exchange Server databases from backups created with Microsoft Windows Server Backup, Recovery Manager for Exchange uses an open application programming interface (API) provided by Windows Server Backup. For this reason, Recovery Manager for Exchange must be installed on the computer hosting the Windows Server Backup instance that was used to create the backups you want to extract.

To extract a database by using Windows Server Backup

1. Make sure Recovery Manager for Exchange is installed on the computer hosting the Windows Server Backup instance that was used to create the Exchange Server backups you want to extract.
2. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
3. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.
4. On the Select Backup Software page, do the following:
    a. From the **Use this software** list, select **Microsoft Windows Server Backup**.
    b. Click **Next**.
5. On the Specify Backup Location page, select an appropriate option. When you are finished, click **Next**.

    For more information about the options you can select, see Specify Backup Location.
6. On the Add Exchange Stores page, click **Add** to select the backups that hold the Exchange Server stores you wish to register as storages.
7. Follow the steps in the wizard to complete the storage registration operation.

Working with Symantec Backup Exec

This section provides information about how to extract and register Exchange Server databases from backups created with Backup Exec.

To extract Exchange Server databases from backups created with Backup Exec, you can use the Exchange Server Emulation feature of Recovery Manager for Exchange. When Exchange Server emulation is started on the Recovery Manager for Exchange computer, it appears as Exchange Server to the backup software. Then, you can extract Exchange Server databases from backup to the Recovery Manager for Exchange computer and access them with Recovery Manager for Exchange to find, preview, and selectively restore items.

You can use Recovery Manager for Exchange to extract and register Exchange Server databases from streaming and VSS (Volume Shadow Copy Snapshot) backups created with Backup Exec. For more information on scenarios where Recovery Manager for Exchange can extract data from VSS backups created with Backup Exec, see the “Supported Backup Software” section in the Release Notes supplied with this version of Recovery Manager for Exchange.

With Recovery Manager for Exchange you can extract data from compressed backups created with Backup Exec by directly accessing such backups.

- If the compressed backup you want to access directly was created with Backup Exec version 11 or later, ensure that 32-bit versions of the files Beclass.dll, Beclass_mini.dll, Becluster.dll, Becrypto.dll, Besocket.dll, Bestdutl.dll, and Vxcrypto.dll are available in a folder specified in the PATH environment variable on the Recovery Manager for Exchange computer.
- If the compressed backup was created with a pre-11 version of Backup Exec, ensure that 32-bit versions of the files Bestdutl.dll and Beclass.dll are available in a folder specified in the PATH environment variable.

These files can be found on the computer that has the appropriate version of Backup Exec installed. For instructions on how to access backups directly, see Accessing backups directly on page 65.

This section covers:

- Guidelines for working with Backup Exec
- Extracting a Database from a Backup Created with Backup Exec 2012
- Extracting a database from a streaming backup created with a pre-2012 version of Backup Exec
- Extracting a database from a snapshot backup created with a pre-2012 version of Backup Exec

Guidelines for working with Backup Exec

- Ensure that the computer where you want to use Recovery Manager for Exchange does not have Microsoft Exchange Server installed: the Exchange Emulation feature of Recovery Manager for Exchange is not supported on computers running Microsoft Exchange Server.
- You can install and use Recovery Manager for Exchange on the Backup Exec computer or on a different computer available on the network.

If Recovery Manager for Exchange and Backup Exec are installed on the same computer, ensure that computer has the following software installed:

- Microsoft Exchange System Management Tools supplied with the Exchange Server version you want to emulate.
- Backup Exec Agent for Microsoft Exchange Server.

If Recovery Manager for Exchange and Backup Exec are installed on different computers, make sure these computers have the following software installed:

Table 16: Required software

On the Recovery Manager for Exchange computer	On the Backup Exec computer
• Microsoft Exchange System Management Tools supplied with the Exchange Server version you want to emulate. • If you are using a pre-2012 version of Backup Exec: Backup Exec Remote Agent for Windows Servers • If you are using Backup Exec 2012: Backup Exec Agent for Windows **NOTE:** The Exchange Emulation feature of Recovery Manager for Exchange is incompatible with Backup Exec Remote Agent for Windows Servers 10.0. If you want to use Exchange Emulation to extract data from backups created with Backup Exec 10.0, install Backup Exec Remote Agent for Windows Servers supplied with Backup Exec 9.0 or 9.1.	• If you are using a pre-2012 version of Backup Exec: Backup Exec Remote Agent for Windows Servers • If you are using Backup Exec 2012: Backup Exec Agent for Windows

If you wish to use the Exchange Emulation feature of Recovery Manager for Exchange to extract data from VSS (Volume Shadow Copy Snapshot) backups created with Backup Exec, make sure that the Volume Shadow Copy Service is running on the Recovery Manager for Exchange computer.

For more information on scenarios where Recovery Manager for Exchange can extract data from VSS backups created with Backup Exec, see the “Supported Backup Software” section in the Recovery Manager for Exchange Release Notes.

Extracting a Database from a Backup Created with Backup Exec 2012

1. Start Exchange emulation on the Recovery Manager for Exchange computer:
    a. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
    b. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with third-party software**. Click **Next**.
    c. On the Select Backup Software page, from the **Use this software** list, select **Symantec Backup Exec**.
    d. From the **Software version** list, select the Backup Exec version installed on the computer from which you want to retrieve and restore backups.
    e. Step through the wizard to specify parameters for emulating restore interface of Exchange Server.
    f. On the Emulating Exchange Server page, wait until the **Status** box displays “Emulation started. Waiting for connection from backup application.”
2. Start Backup Exec.

3. In the Backup Exec window, click the **Backup and Restore** tab.
4. From the list of servers on the **Backup and Restore** tab, select the Exchange Server whose backup you want to extract, and then click the **Restore** button on the ribbon menu.

   Follow the steps in the Restore Wizard.
5. On the **Which type of data from server** <ServerName> **do you want to restore?** page, click **Microsoft Exchange**, and then click **Next**.
6. On the **What do you want to restore?** page, click **Microsoft Exchange Server databases or storage groups**, and then click **Next**.
7. On the **Which databases or storage groups do you want to restore?** page, use the **Resource View** tab to select the check box next to the backup you want to extract. Then, click **Next**.
8. On the **Where do you want to restore the databases or storage groups?** page, do the following:
   a. Click **To a different location**.
   b. In the text box, type the name of the Recovery Manager for Exchange computer on which you started Exchange emulation earlier in this procedure.
   c. In the **Server login account** option, specify an account that has administrative privileges on the Recovery Manager for Exchange computer.
   d. Click **Next**.
9. On the **Where do you want to redirect the databases or storage groups?** page, click **Redirect to a database and/or storage group**.

   If you want to register databases originating from Exchange Server 2010 or later, use the **Database or recovery database** text box to type the name of the database being emulated on the Recovery Manager for Exchange computer.

   When registering databases originating from a pre-2010 version of Exchange Server, leave the text boxes on this page blank.
10. Click **Next**.
11. On the **How do you want to restore the databases or storage groups?** page, click the **Purge the existing data and restore only the databases and transaction logs** option. Then, click **Next**.
12. On the Where do you want to temporarily store log and patch files? page, specify a location for the log and patch files to be extracted from the backup. Then, click **Next**.
13. On the **Do you want to bring the store online after this restore completes?** page, click an appropriate option. Then, click **Next**.

    If you restore a full backup without any incremental or differential backups, select the **Commit after restore completes** check box (Exchange Server 2000 or later). If you restore incremental or differential backups, do not select this check box until you restore the last backup set.
14. On the **What additional tasks do you want to perform before and/or after a restore?** page, keep the default settings, and then click **Next**.
15. On the What job name and schedule do you want to use? page, type a name for the job, click **Run now**, and then click **Next**.
16. On the **Restore Summary** page, review the restore settings you have specified, and then click **Finish**.
17. Return to Recovery Manager for Exchange and follow the steps in the wizard to complete the storage registration operation.

Extracting a database from a streaming backup created with a pre-2012 version of Backup Exec

IMPORTANT: The procedures described in this topic may vary depending on the version of Backup Exec that you use. For more information, see the documentation for your version of Backup Exec.

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.
3. On the Select Backup Software page, do the following:
    a. From the **Use this software** list, select **Symantec Backup Exec**.
    b. From the **Software version** list, select the Backup Exec version installed on the computer from which you want to retrieve and restore backups.

IMPORTANT: The Exchange Emulation feature of Recovery Manager for Exchange is incompatible with Backup Exec Remote Agent for Windows Servers 10.0. If you want to use Exchange Emulation to extract data from backups created with Backup Exec 10.0, install Backup Exec Remote Agent for Windows Servers supplied with Backup Exec 9.0 or 9.1.

4. Step through the wizard to specify parameters for emulating restore interface of Exchange Server.
5. On the Emulating Exchange Server page, wait until the **Status** box displays “Emulation started. Waiting for connection from backup application.”
6. Start Backup Exec. For more information, see the documentation for your version of Backup Exec.

IMPORTANT: If Recovery Manager for Exchange and Backup Exec are installed on different computers, you must start Backup Exec under an account having local administrator rights on the Recovery Manager for Exchange computer.

7. Open a new restore job. This can be done by clicking **Restore** on the toolbar or selecting **File | New | Restore Job** from the main menu.
8. Specify the Exchange backup you want to use, and select the backup components to restore. For more information, see the documentation for your version of Backup Exec.
9. Select the Redirect Exchange sets check box by doing one of the following:
    - In Backup Exec 8.6, click the **Redirections** tab, and then select the **Redirect Exchange sets** check box.
    - In Backup Exec 9.x, under **Destination**, click **Exchange Redirection**, and then select the **Redirect Exchange sets** check box.
    - In Backup Exec 10 or later, under **Destination**, click **Microsoft Exchange Redirection**, and then select the **Redirect Exchange sets** check box.
10. In the **Restore to server** box (in some versions of Backup Exec, this box is named **Restore to server or Database Availability Group**), specify the Recovery Manager for Exchange computer.
11. If you use Backup Exec 8.6, click the **Exchange** Tab in Exchange 2000 group, and then complete the next steps.

    If you use Backup Exec 9.x, under **Settings**, click **Exchange**, and then complete the next steps.

    If you use Backup Exec 10 or later, under **Settings**, click **Microsoft Exchange**, and then complete the next steps.

a. Verify the **No loss restore** check box is cleared (not applicable to Backup Exec 2010).

b. If you use Backup Exec 11d or later to restore databases originating from Exchange Server 2000 or later, select the **Purge existing data and restore only the databases and transaction logs from the backup sets** option.

c. Specify the path to a temporary location where to store log and patch files (Exchange Server 2000 or later). Note that it is a local path on the computer running Recovery Manager for Exchange. This computer must have enough disk space to accommodate the log and patch files. For more information, see the documentation for your version of Backup Exec.

d. If you restore a full backup without any incremental or differential backups, select the **Commit after restore completes** check box (Exchange Server 2000 or later). If you restore incremental or differential backups, do not select this check box until you restore the last backup set.

12. Click **Run Now**.
13. After restoring all backup sets, return to Recovery Manager for Exchange. If you did not specify the last backup set in Backup Exec, on the Emulating Exchange Server page in the Add Storage Wizard, select the **Last backup set restored** check box.
14. Follow the Add Storage Wizard to complete the operation. As a result, the wizard registers extracted databases as storages.

Extracting a database from a snapshot backup created with a pre-2012 version of Backup Exec

NOTE: The procedures described in this topic may vary depending on the version of Backup Exec that you use. For more information, see the documentation for your version of Backup Exec.

You can use one of the following methods to extract and register Exchange Server databases from snapshot backups created with Backup Exec:

- Method 1: Extract Exchange Database to a specified folder, register .ddb file. You can extract an Exchange database from a snapshot backup to a specified folder with the backup software you used to create the snapshot backup. You can then use the Add Storage Wizard to register the offline database (.edb file) from that location.
- Method 2: Extract and register Exchange Database by using Exchange emulation. You can use Recovery Manager for Exchange to emulate Exchange Server restore interface, so that the computer running Recovery Manager for Exchange appears as an Exchange server to the backup software. As a result, Exchange database is extracted from the snapshot backup to the Recovery Manager for Exchange computer and then registered as a storage.

The instructions on how to use each of these methods are provided later in this section.

Method 1: Extract Exchange Database to a specified folder, register .ddb file

1. Start Backup Exec. For more information, see the documentation for your version of Backup Exec.
2. From the main menu, select **File | New | Restore Job**.
3. Specify the snapshot backup you want to use, and select the backup components to restore. For more information, see the documentation for your version of Backup Exec.
4. In the Properties pane, under Destination, click **File Redirection**.
5. Select the **Redirect file sets** check box.

6. In the **Restore to drive** box, specify destination for the restored data. Click the ellipsis button (...) to view local and network drives.
7. In the **Restore to path** box, enter the target path on the device listed in the **Restore to driv**e box, or click the ellipsis button (...) to locate and select the folder.
8. Click **Run Now** and wait until the extract operation completes.
9. Start the Recovery Manager Console.
10. In the Recovery Manager Console, from the main menu, select **Add Storages | From Offline Files**.
11. On the Select What to Register page of the wizard, select **Exchange Server database**.
12. Follow the instructions in the Add Storage Wizard to register the .edb file that belongs to the Exchange database you extracted using this procedure.

Method 2: Extract and register Exchange Database by using Exchange emulation

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.
3. On the Select Backup Software page, do the following:
    a. From the **Use this software** list, select **Symantec Backup Exec**.
    b. From the **Software version** list, select the Backup Exec version installed on the computer from which you want to retrieve and restore backups.
4. Step through the wizard to specify parameters for emulating restore interface of Exchange Server.
5. On the Emulating Exchange Server page, wait until the **Status** box displays “Emulation started. Waiting for connection from backup application.”
6. Start Backup Exec. For more information, see the documentation for your version of Backup Exec.
7. From the main menu, select **File | New | Restore Job**.
8. Under **Source**, click **Selections**, specify the snapshot backup you want to use, and select the backup components to restore. For more information, see the documentation for your version of Backup Exec.
9. Under **Destination**, click **Microsoft Exchange Redirection**, and then select the Redirect Exchange sets check box.
10. In the **Restore to server** box (in some versions of Backup Exec, this box is named **Restore to server or Database Availability Group**), specify the Recovery Manager for Exchange computer.
11. Select the **Redirect using Volume Shadow Copy Service (VSS) snapshot provider** check box, and then do one of the following:
    - If the database you are registering originates from Exchange Server 2010 or later, enter the name of the database in the **Restore to Database or Recovery Database** box.
    - If the database you are registering originates from Exchange Server 2007, use the **Restore to Storage Group** (Exchange 2007) box to enter the name of the storage group that holds the database.
    - If the database you are registering originates from Exchange Server 2003, select the **Redirect to drive and path** (Exchange 2003 and 2007) option, and then specify the drive and path to where you want to extract the Exchange database from the backup.

Note that these are drive and path on the computer running Recovery Manager for Exchangee. This computer must have enough disk space to accommodate the log and patch files.

12. Under **Settings**, click Microsoft Exchange, and specify the path to the temporary location where you want to store the log and patch files. Note that it is a local path on the computer running Recovery Manager for Exchange. This computer must have enough disk space to accommodate the log and patch files.
13. Click **Run Now** and wait until the restore operation is completed.
14. Return to Recovery Manager for Exchange and select the Last backup set restored check box on the Emulating Exchange Server page in the Add Storage Wizard.
15. Follow the instructions in the Add Storage Wizard to complete the registration of the Exchange database.

Working with Symantec NetBackup

This section provides information about how to extract and register Exchange Server databases from backups created with NetBackup.

To extract Exchange Server databases from backups created with NetBackup, you can use the Exchange Server Emulation feature of Recovery Manager for Exchange. When Exchange Server emulation is started on the Recovery Manager for Exchange computer, it appears as an Exchange Server to the backup software. Then, you can extract Exchange Server databases from backup to the Recovery Manager for Exchange computer and access them with Recovery Manager for Exchange to find, preview, and selectively restore items.

You can use Recovery Manager for Exchange to extract Exchange Server databases from streaming and VSS (Volume Shadow Copy Snapshot) backups created with NetBackup. The guidelines and procedures described in the next sections apply to both these backup types.

For more information on conditions where Recovery Manager for Exchange can extract data from VSS backups created with NetBackup, see the “Supported Backup Software” section in the Release Notes supplied with this version of Recovery Manager for Exchange.

This section covers the following:

- Guidelines for working with NetBackup
- Extracting a database by Using NetBackup

Guidelines for working with NetBackup

- Ensure that the computer where you want to use Recovery Manager for Exchange does not have Microsoft Exchange Server installed: the Exchange Server Emulation feature of Recovery Manager for Exchange is not supported on computers running Microsoft Exchange Server.
- You can install Recovery Manager for Exchange on the NetBackup computer or on a different computer available on the network.

  If Recovery Manager for Exchange and NetBackup are installed on the same computer, ensure that the computer has the following software installed:

  - Microsoft Exchange System Management Tools supplied with the Exchange Server version you want to emulate.
  - NetBackup Database Agent for Microsoft Exchange.

  If Recovery Manager for Exchange and NetBackup are installed on different computers, ensure that these computers can access each other by NetBIOS names. In this scenario, the Recovery Manager for Exchange computer must have the following software installed:

- Microsoft Exchange System Management Tools supplied with the Exchange Server version you want to emulate.
- NetBackup Client.
- NetBackup Database Agent for Microsoft Exchange. This requirement does not apply if you are using
  - NetBackup DataCenter 4.5 (with or without any Feature Pack or Maintenance Pack)
  - NetBackup BusinesServer 4.5 (with or without any Feature Pack or Maintenance Pack)
  - Any supported version of NetBackup Enterprise Server
  - Any supported version of NetBackup Server

- If you are using NetBackup 6.0 MP2 or later, ensure that
  - Recovery Manager for Exchange is installed in the Active Directory forest that includes the original Exchange Server whose backups you want to extract.
  - NetBackup Client Service on the Recovery Manager for Exchange computer is running under an account that has Exchange View-Only Administrator permissions.
- If you are using NetBackup 7.0.1 or later, ensure that the NetBackup Legacy Network Service is running on the Recovery Manager for Exchange computer under an account that has Exchange Administrator permissions.
- If you wish to use the Exchange Emulation feature of Recovery Manager for Exchange to extract data from VSS (Volume Shadow Copy Snapshot) backups created with NetBackup, make sure that the Volume Shadow Copy Service is running on the Recovery Manager for Exchange computer.

  For more information on scenarios where RRecovery Manager for Exchange can extract data from VSS backups created with NetBackup, see the “Supported Backup Software” section in Release Notes supplied with this version of Recovery Manager for Exchange.

Extracting a database by Using NetBackup

NOTE: The procedures described in this topic may vary depending on the version of NetBackup that you use. For more information, see the NetBackup documentation.

This section provides instructions for extracting and registering Exchange Server databases from backups created with NetBackup. After you start Exchange Server emulation, use the instructions that apply to your version of NetBackup.

Step 1: Start Exchange Server emulation

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.
3. On the Select Backup Software page, do the following:
   a. From the **Use this software** list, select **Symantec NetBackup**.
   b. From the **Software version** list, select the NetBackup version installed on the computer from which you want to retrieve and restore backups.
4. Step through the wizard to specify parameters for emulating restore interface of Exchange Server.

5. On the Emulating Exchange Server page, wait until the **Status** box displays “Emulation started. Waiting for connection from backup application.”

Step 2 (applies to pre-6.5 NetBackup versions): Extract and register Exchange Server database

> **NOTE:** If you are using NetBackup 6.5 or later, see Step 2 (applies to NetBackup 6.5 or later): Extract and register Exchange Server database

1. Start NetBackup. For more information, see the documentation for your version of NetBackup.

   If Recovery Manager for Exchange and NetBackup are running on different computers, you must start NetBackup under an account that has administrator rights on the computer running Recovery Manager for Exchange.

2. On the toolbar, click **Select for Restore**.
3. On the **File** menu, click **Specify NetBackup Machines**.
4. In the Specify NetBackup Machines window, do the following:
   a. Click the **Source Clients/Policy Type** tab. Specify the client whose backups you want to restore. Click **Make Current**. In the **Policy Type** list, select **MS-Exchange-Server**.
   b. Click the **Destination Clients** tab. Specify the computer running Recovery Manager for Exchange as a destination client. Click **Make Current**.
   c. Click **OK**.
5. In the Restore window, specify the Exchange backup you want to use and select the backup components to restore. On the **Actions** menu, click **Start Restore of Marked Files**.
6. In the Restore Marked Files window, do the following:
   a. Click the **Microsoft Exchange** tab.
   b. Clear the **Delete existing transaction logs prior to restore** check box.
   c. In the Temporary location for log and patch files box (Exchange Server 2000, Exchange Server 2003, or Exchange Server 2007), type the local path to a folder. Note that it is a local path on the computer running Recovery Manager for Exchange. This computer must have enough disk space to accommodate the log and patch files.
   d. If you are restoring a full backup without any incremental or differential backups, select the **Commit after restore completes** check box (Exchange Server 2000, Exchange Server 2003, or Exchange Server 2007). If you are restoring incremental or differential backups, do not select this check box until you restore the last backup set.
   e. Click the **Restore Marked Files** tab.
   f. Click **Restore everything to a different location**. In the **Destination** box, enter the storage group name you have specified on the Specify Exchange Server Emulation Options page in the Add Storage Wizard.
   g. Click **Start Restore**.
7. After restoring all backup sets, return to Recovery Manager for Exchange. If you did not specify the last backup set in NetBackup, on the Emulating Exchange Server page of the Add Storage Wizard, select the **Last backup set restored** check box.
8. Follow the Add Storage Wizard to complete the operation. As a result, the wizard registers extracted databases as storages.

Step 2 (applies to NetBackup 6.5 or later): Extract and register Exchange Server database

1. On the NetBackup computer, start the Backup, Archive, and Restore tool. For more information, see the documentation for your version of NetBackup.

   If Recovery Manager for Exchange and NetBackup are running on different computers, you must start the Backup, Archive, and Restore tool under an account having administrator rights on the computer running Recovery Manager for Exchange.

2. On the toolbar, click the down arrow on the **Select for Restore** button to select **Restore from Normal Backup**.
3. From the main menu, select **File | Specify NetBackup Machines and Policy Type**.
4. In the dialog box that opens, do the following, and then click **OK**:
   a. From the **Server to use for backups and restores** list, select the NetBackup computer (the one where you are using the Backup, Archive, and Restore tool).
   b. From the **Source client for restores** (or virtual client for backups) list, select the Exchange Server whose databases you want to extract and register.
   c. From the **Destination client for restores** list, select the Recovery Manager for Exchange computer.
   d. From the **Policy type for restores** list, select **MS-Exchange-Server**.
5. In the Backup, Archive, and Restore tool window, under **All Folders**, select the check boxes next to the Exchange Server databases you want to restore.
6. From the main menu, select **Actions | Restore**.
   - If you are registering storages from a non-snapshot (non-VSS) backup, on the Microsoft Exchange tab make sure you specify a temporary location for log and patch files.
   - If you are restoring a full backup without any incremental or differential backups, select the **Commit after last backup set is restored** check box.
   - If you are restoring incremental or differential backups, do not select the **Commit after last backup set is restored** check box until you restore the last backup set.
7. Click **Start Restore**.
8. After restoring all backup sets, return to Recovery Manager for Exchange. If you did not specify the last backup set in NetBackup, on the Emulating Exchange Server page of the Add Storage Wizard, select the **Last backup set restored** check box.
9. Follow the Add Storage Wizard to complete the operation. As a result, the wizard registers extracted databases as storages.

Working with unlisted backup software

Although Recovery Manager for Exchange has not been tested with all backup software products, it is possible that your particular backup software product may work with Recovery Manager for Exchange.

In general case, Recovery Manager for Exchange uses the emulation of Exchange Server restore interface to provide interoperability with backup software. When Exchange Server emulation is started on the Recovery Manager for Exchange computer, it appears as an Exchange Server to the backup software. Then, you can extract Exchange Server databases from backup to the Recovery Manager for Exchange computer and access

them with Recovery Manager for Exchange to find, preview, and selectively restore items. You may also extract Exchange Server database to an alternate location in case your backup software supports such a method.

> **IMPORTANT:** When you select **Backup software not listed here in the Add Storage Wizard**, Quest makes no guarantees that this restore will work. This option is not supported by Quest. With this option, you are using Recovery Manager for Exchange at your own risk.

This section covers:

- Generic guidelines for working with third-party backup software
- Extracting a database by using unlisted backup software

Generic guidelines for working with third-party backup software

- Ensure that the computer on which you want to use Recovery Manager for Exchange does not have Microsoft Exchange Server installed: the Exchange Server Emulation feature of Recovery Manager for Exchange is not supported on computers running Microsoft Exchange Server.
- You can install Recovery Manager for Exchange on the computer where the backup software is installed or on a different computer available on the network. If Recovery Manager for Exchange and your backup software are installed on different computers, make sure that these computers can access each other by NetBIOS names.

  In any case, the computer where you want to use Recovery Manager for Exchange must have the following software installed:

  - Microsoft Exchange System Management Tools supplied with the Exchange Server version you want to emulate.
  - Third-party backup software agent for Windows Servers
  - If Recovery Manager for Exchange and third-party backup software are running on different computers, you may also need to install third-party backup software agent for Microsoft Exchange Server on the Recovery Manager for Exchange computer.

Extracting a database by using unlisted backup software

To extract a database by using unlisted backup software

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click *Next*.
3. On the Select Backup Software page, do the following:
   a. From the **Use this softwar**e list, select **Backup software not listed here**.
   b. From the **Software version** list, select the software version you use.
   c. Click **Next**.
4. Step through the wizard to specify parameters for emulating restore interface of Exchange Server.
5. On the Emulating Exchange Server page, wait until the **Status** box displays “Emulation started. Waiting

for connection from backup application."

6. Start the third-party backup software.

NOTE: If Recovery Manager for Exchange and the third-party backup software are running on different computers, you must start the backup software under the account having local administrator rights on the computer running Recovery Manager for Exchange.

7. Specify the Exchange backup you want to use and select the backup components to restore.
8. Select where to restore your backup files. Specify the computer running Recovery Manager for Exchange as a restore destination.
9. Set the restore options. When specifying restore options:
    a. Specify the path to a folder to temporarily store log and patch files. It is a local path on the computer running Recovery Manager for Exchange. This computer must have enough disk space to accommodate the log and patch files.
    b. If you are restoring a full backup without any incremental or differential backups, specify the last backup set to start the log file replaying after restoring the database. If you are restoring a backup with incremental or differential backups, do not select that option until you restore the last backup set.
10. Start the restore operation.
11. After restoring all backup sets, return to Recovery Manager for Exchange. If you did not specify the last backup set in your backup software, on the Emulating Exchange Server page of the Add Storage Wizard, select the **Last backup set restored** check box.
12. Follow the Add Storage Wizard to complete the operation. As a result, the wizard registers extracted databases as storages.

Accessing backups directly

Recovery Manager for Exchange can directly (without the use of third-party backup software) access certain types of backups to extract their contents to the folder you specify. Then, you can use Recovery Manager for Exchange to access the extracted Exchange Server databases to find, preview, and selectively restore items.

With Recovery Manager for Exchange, you can directly access the following types of backups:

- OpenTape Format (OTF) backups created with EMC NetWorker versions, except for the backups created by using an Advanced File Type Device (AFTD).
- Tape Archive (TAR) format backups created with NetBackup.
- Microsoft Tape Format (MTF)-compliant backups, such as backups created with Windows Backup or Backup Exec.
- Compressed backups created with Backup Exec. Other compressed backups are not supported at this time.
- To directly access compressed backups created with Backup Exec, you need to make several Backup Exec .dll files available to Part Number. For more information, see Working with Symantec Backup Exec.

NOTE: Recovery Manager for Exchange does not support multiplexed backups via direct access.

To access and extract backups directly

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page, click **Access Exchange backups directly**.
3. Follow the wizard to complete the operation. As a result, the wizard registers extracted databases as storages.

Extracting incremental or differential backups

Recovery Manager for Exchange allows you to extract an Exchange Server database from incremental or differential backups of Exchange Server.

To restore data from a differential backup, you need to have the last normal (full) backup as well as the last differential backup. To restore data from an incremental backup, you need to have the last normal (full) backup and all subsequent incremental backups.

Recovery Manager for Exchange integrates with third-party backup software, allowing you to access Exchange Server backups through the same software you use to create and manage backups. You also have the option to extract a database by directly accessing certain types of backups. For more information, see Accessing backups directly.

This section covers:

- Using third-party software to access backups
- Working without third-party software

Using third-party software to access backups

To provide interoperability with backup software, Recovery Manager for Exchange uses the following methods:

- **Exchange Server emulation**. The computer running Recovery Manager for Exchange appears as an Exchange Server to the backup software. Exchange backups can be restored to Recovery Manager for Exchange by redirecting the restore to the Recovery Manager for Exchange computer.
- **Access to backup server**. Recovery Manager for Exchange connects to a backup server that is part of the backup infrastructure, issues requests for backups managed by the software on that server, and uses standard protocols to retrieve and restore data from the backup server.

Exchange Server emulation

When Recovery Manager for Exchange interacts with a third-party product via Exchange Server emulation, you perform a restore from an incremental or differential backup by using that software. You need to restore data in the same order as backups were made because the transaction logs are applied in sequential order to the Exchange database that was restored from the full backup.

For information on how to restore data from an incremental or differential backup using your particular backup software product, refer to the product's documentation. For more information, see Extracting an Exchange Server database from backup.

Access to backup server

Recovery Manager for Exchange directly accesses backup servers when working with such products as IBM Tivoli Storage Manager, EMC NetWorker, or Microsoft Data Protection Manager. With these products, use the following steps to extract a database from an incremental or differential backup:

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page of the wizard, select **Access Exchange backups with thirdparty software**. Click **Next**.
3. On the Select Backup Software page, do the following:
    a. From the **Use this software** list, select **Backup software not listed here**.
    b. From the **Software version** list, select the backup software version you use.
4. Follow the instructions in the wizard to complete the storage registration.

Working without third-party software

NOTE: The next steps are only applicable to the types of backups that Recovery Manager for Exchange can access directly. For a list of these types of backups, see Accessing backups directly

To register storages from incremental or differential backups

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Backups**.
2. On the Select a Backup Access Method page, click **Access Exchange backups directly**.
3. Click **Next**.
4. On the Add Exchange Stores page, click **Add**.
5. In the dialog box that opens, click **Catalog Backups**.

   The Catalog Wizard starts.
6. Select the type of backup media from which you want to register storages, then click **Next**.
7. Depending on the option you selected in step 5, do one of the following:
    - If you selected **Backup file**s, click **Add** to select the backup files from which you want to register storages and add them to the **Added backup files** list. When finished, click **Next**.
    - If you selected **Tape drives**, select the check boxes next to the names of the tape drives from which you want to register storages. When finished, click **Next**.
    - If you selected **Microsoft Removable Storage Manager library**, click **Add** to select the Removable Storage Manager library media from which you want to register storages and add them to the **Added media** list. When finished, click **Next**.

   If you register storages from an incremental backup, make sure you catalog the full backup and all subsequent incremental backups of this Exchange Server database.

   If you register storages from a differential backup, make sure you catalog the full backup and the last differential backup of this Exchange Server database.

8. Wait while the Catalog Wizard performs the cataloging operation. When the operation is complete, click **Finish** on the **Cataloging Media** page.
9. In the **Store** column, click the plus sign (+) next to the list entries you want to register as storages.
10. In the **Backup Dates** column, select the check boxes next to the dates representing the backups from which you want to register storages.
11. Click **OK**.
12. Follow the wizard to complete the storage registration.

Registering a storage

To register a storage

1. In the Recovery Manager Console, on the main menu, click **Add Storages**.
2. On the menu, click an appropriate option.
3. Follow the instructions in the wizard to complete the storage registration.

   For more information on what items Recovery Manager for Exchange supports as storages, see Comparison of Recovery Manager for Exchange editions.

   For more information about the Add Storage Wizard, see Add Storage Wizard.

You can also register source and target storages for restore operations when using the restore wizards provided by Recovery Manager for Exchange.

Registering an offline Exchange Server database

If you want to register an offline Exchange Server database (.edb file), we recommend that you copy the database locally to the Recovery Manager for Exchange computer. This speeds up working with the database and helps you avoid possible network-related issues you may experience when registering the database from a network share.

Registering recovery databases or databases from a recovery storage group

With Recovery Manager for Exchange you can register Exchange Server recovery databases (RDB) residing on Exchange Server 2010 or later and databases held in a recovery storage group (RSG) on Exchange Server 2007 or Exchange Server 2003. You can then use the registered databases as source storages to preview the message-level items they contain and search and restore data as needed.

The Recovery Storage Group (RGS) feature first appeared in Exchange Server 2003 and is included in Exchange Server 2007. This feature is designed to retrieve mailbox data without installing and configuring a separate Exchange recovery server. After creating a recovery storage group, you can restore online backup sets or copy offline database files to the recovery storage group. You can use Recovery Manager for Exchange to

find and select mailbox items from mailbox stores in the recovery storage group, and restore the selected items directly to a mailbox or folder on a live Exchange Server.

NOTE:

- For more information about creating and using a recovery storage group in Exchange Server 2003, see the Exchange Server 2003 Help and the Microsoft KB article "How to Use Recovery Storage Groups in Exchange Server 2003."
- For more information about creating and using a recovery storage group in Exchange Server 2003, see the Exchange Server 2003 Help and the Microsoft KB article "How to Use Recovery Storage Groups in Exchange Server 2003."

The Recovery Database (RDB) feature was first introduced in Exchange Server 2010 and serves basically the same purpose as the databases held in a recovery storage group do: facilitate data extraction from a recovered mailbox database and restore the recovered data without having to deploy an Exchange recovery server. For more information on how to create and use a recovery database in Exchange Server, see the Help for your version of Exchange Server in the technical library at http://technet.microsoft.com.

Before registering a recovery database or database from a recovery storage group, make sure that:

- The database is consistent and can be mounted.
- The database is currently dismounted.

While a recovery database or database from a recovery storage group is open in the Recovery Manager for Exchange user interface, it may be unavailable to other applications. To ensure the database is available to other applications, close the storage based on that database in the Recovery Manager for Exchange user interface.

To register a recovery database or database in a recovery storage group

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Online Exchange**.
2. On the Select an Exchange Type page, click **Exchange Server**, and click **Next**.
3. On the Specify Domain page, specify parameters to access the Active Directory domain that includes the Exchange Server computer you want to access. Click **Next**.
4. On the **Select What to Register** page, select the **Recovery databases or databases from a recovery storage group** option.
5. Follow the steps in the wizard to complete the storage registration.

Registering a damaged Exchange Server database

You can register a damaged Exchange Server database as a storage. If the database's log files and .stm file are inaccessible, missing or corrupted, Recovery Manager for Exchange repairs the damaged database and brings it to a consistent state.

To register a damaged database as a storage

1. In the Recovery Manager Console, from the main menu, select **Add Storages | From Offline Files**.
2. On the Select What to Register page, click Exchange Server database.
3. Follow the instructions in the wizard to complete the operation.

Database repair performed by Recovery Manager for Exchange is the same operation as a hard repair performed by running the **eseutil /p** command. For additional information about performing a hard repair on an Exchange database, see the Microsoft KB Article "XADM: Ramifications of running the eseutil /p or edbutil /d /r command in Exchange."

Opening a storage

You can browse a storage in the left pane only after you open that storage.

Opening a storage mounts the Exchange Server database or establishes a connection to the Lotus Domino database, Exchange Server or Exchange Online mailbox or public folder hierarchy, or Personal Folders (**.pst**) file associated with that storage.

After you open a storage, you can view, browse, and restore its contents.

To open an Exchange Server or Exchange Online mailbox registered as a storage, you must have sufficient permissions to access that mailbox.

To open a public folder hierarchy registered as a storage, you must have Read permission for that public folder hierarchy.

When you close Recovery Manager for Exchange, all registered storages are closed: Exchange Server databases are dismounted and Lotus Domino databases, Exchange Server and Exchange Online mailboxes **and** public folder hierarchies, and **.pst** files are disconnected.

To open a storage

1. To open a source storage, expand the **Source Storages** node in the left pane.

   To open a target storage, expand the **Target Storages** node in the left pane.

2. Do one of the following:
   - Double-click the storage you want to open.
   - Right-click the storage you want to open, and click **Open** on the shortcut menu.

   If the **Open** command is unavailable, the storage is already open.

Closing a storage

You can close a storage by using the Close command.

To close a storage

1. To close a source storage, expand the **Source Storages** node in the left pane.

   To close a target storage, expand the Target Storages node in the left pane.

2. Right-click the storage you want to close, and then click **Close** on the shortcut menu.

   If the **Close** command is unavailable, the storage you have selected is already closed.

Renaming a storage

In the Recovery Manager Console, storages are identified by their display names. When registering a storage, Recovery Manager for Exchange assigns a default name to that storage. Once a storage is registered, you can give it a more descriptive name if necessary.

To rename a storage

1. To rename a source storage, expand the **Source Storages** node in the left pane.

   To rename a target storage, expand the **Target Storages** node in the left pane.
2. Right-click the storage you want to rename, and then click **Rename** on the shortcut menu.
3. Type a new name and press ENTER.

   Renaming a storage only changes the display name of the storage, leaving the other properties intact.

Deleting a storage

If you no longer need a particular storage, you can delete it. If the storage you delete is an Exchange Server database, the deletion of the storage may affect the database files associated with that storage. Please consider information in this section before deleting a storage.

To delete a storage

1. To delete a source storage, expand the **Source Storages** node in the left pane.

   To delete a target storage, expand the **Target Storages** node in the left pane.
2. Right-click the storage you want to delete, and then click **Delete** on the shortcut menu.

If the storage being deleted is an Exchange Server database you extracted from backup by using Recovery Manager for Exchange, the database files are deleted from the location to which they were extracted. To register that storage again, you will have to extract the database from backup again which may be a lengthy operation.

If the storage you delete is an offline Exchange store database or Lotus Domino database extracted without using Recovery Manager for Exchange, the deletion of that storage does not result in the deletion of the database files. For example, you may dismount an Exchange store, and register that store as a source storage with Recovery Manager for Exchange. The deletion of such a storage does not affect the database files.

If the storage you delete is an Exchange Server or Exchange Online mailbox or public folder hierarchy, or **.pst** file, the deletion of that storage only closes the connection to that mailbox, public folder hierarchy, or pst file, and removes the corresponding item from the Recovery Manager Console. The mailbox, public folder hierarchy, or .pst file remains intact. The data is retained in the mailbox, public folder hierarchy, or **.pst** file associated with the storage you remove. You can register that mailbox, public folder hierarchy, or **.pst** file as a storage again, when needed.

Deleting items from a target storage

You can permanently delete a mailbox, a folder, or a message-level item from a target storage.

To delete a folder or mailbox

1. In the left pane, expand the **Target Storages** node.
2. Expand the target storage that contains the folder or the mailbox you want to delete.
3. Browse to select the item to delete, and then do one of the following:
    - Press DELETE.
    - Right-click the item and select **Delete** from the shortcut menu.

To delete a message-level item

1. In the left pane, expand the **Target Storages** node.
2. Expand the target storage that contains the message-level item you want to delete.
3. Browse for and select the folder that contains the message-level item.
4. In the details pane, select the item to delete, and then do one of the following:
    - Press DELETE.
    - Right-click the item and select **Delete** from the shortcut menu.

Deleting items from a source storage

You can permanently delete a folder or a message-level item from a writable source storage, such as online mailbox or Personal Folders (.pst) file.

To delete an item from a writable source storage

1. In the left pane, expand the **Source Storages** node.
2. Expand the source storage that contains the folders or message-level items you want to delete.
3. Browse to select the item to delete, and then do one of the following:
    - Press DELETE.
    - Right-click the item and select **Delete** from the shortcut menu.

Items you delete from source storages cannot be recovered.

Setting access permissions for target files

Recovery Manager for Exchange allows you to restore or export data to new .eml, .msg, .txt, or .pst files. Before you do so, you may want to view or change access permissions to be applied to the target files created in the result of the restore or export operation.

You can view or change the access permissions by using the following methods:

- Method 1: Use the Settings dialog box
- Method 2: Use the restore wizards

Method 1: Use the Settings dialog box

To view or change access permissions from the Settings dialog box

1. Open the **Settings** dialog box (in the Recovery Manager Console, from the main menu, select **Tools | Settings**.
2. Click the **More Options** tab, then click the **Edit Security** button.
3. Set access permissions. When finished, click **OK**.

Method 2: Use the restore wizards

To view or change access permissions from the restore wizards

1. When using one of the Recovery Manager for Exchange restore wizards (such as the Mailbox Restore Wizard, Public Folder Restore Wizard, or Message Restore Wizard), on the Specify Options for Target <FileExtension> Files page, select the **Apply security to target files** check box.
2. Click the **Edit Security** button.
3. Set access permissions. When finished, click **OK**.

Restoring data

- Optimizing Recovery Manager for Exchange performance
- Storage indexing
- Restoring messages
- Restoring attachments
- Restoring folders
- Restoring mailboxes
- Importing Data from .Pst Files to Online Exchange Mailboxes
- Selecting a target folder
- Comparing and restoring storages, mailboxes, or folders
- Searching for messages, attachments, or folders in source storages

Optimizing Recovery Manager for Exchange performance

To increase the speed of operations you perform in Recovery Manager for Exchange, we recommend that you stop and disable the Windows Search service on the Recovery Manager for Exchange computer. The Windows Search service indexes files on your hard disk, which may impair the Recovery Manager for Exchange performance.

To stop and disable the Windows Search service

1. Open the Services tool (services.msc).
2. In the list, right-click **Windows Service**, and then click **Stop**.
3. Right-click **Windows Service**, click **Properties**, and then disable the service: On the **General** tab, from the Startup type list, select **Disabled**, and then click **OK**.

You can also improve the Recovery Manager for Exchange performance by configuring a number of options in the **Settings** dialog box.

To improve the Recovery Manager for Exchange performance

1. In the Recovery Manager Console, from the main menu, select **Tools | Settings**.
2. In the dialog box that opens, do the following:
   - On the **Duplicates** tab, under **Messages**, select **Allow duplicate items to be created**.
   - On the **Logging** tab, clear the **Enable extended logging** check box.
   - On the **Reports** tab, select **Do not collect data**.
3. When you are finished, click **OK**.

Storage indexing

Recovery Manager for Exchange uses indexing on offline Exchange database storages (***.edb**) to accelerate searching and data retrieval. This feature is supported only for Exchange Server 2007, Exchange Server 2010, Exchange Server 2013 and Exchange Server 2016.

System requirements

The Indexing service requires the certain amount of memory to run the indexing process and perform the search queries effectively. By default, the Indexing service (**elasticsearch_rmex2**) uses 2 GB of RAM. This value can be changed in order to run search queries on large databases.

To change the Indexing service memory allocation

1. Navigate to the **<RMEX installation folder>\elasticsearch\bin** folder.
2. Open the **esi_config.bat** file.
3. Change the **ES_HEAP_SIZE=2g** parameter to set the new required memory usage (e.g. **ES_HEAP_SIZE=4g**).
4. Run **esi_service2_uninstall.bat**.
5. Run **esi_service2.bat**.

The desired heap size can be calculated using the following formula:

HEAP = EDB/150

Where *EDB* is the maximum size for the offline Exchange database on the machine (in gigabytes).

For example, the required heap size for the 600 GB database will be:

HEAP = 600/150 = 4 GB

The heap size should not be larger than 1/2 of the total available memory on the machine and should not exceed 32 GB.

Permissions required for indexing

Quest Recovery Manager Task Scheduler service account (typically is Local System) should have **Read** and **Write** access permissions to the **RME-Storages** database on the SQL server.

- If SQL server is installed on a local machine (**.\QUESTRME instance**), the 'NT AUTHORITY\SYSTEM' account must have the **db_owner** role on the **RME-Storages** database.
- If you use the remote SQL server, the Quest Recovery Manager Task Scheduler service account should have the **Read** and **Write** access to the **RME-Storages** database.

Enable indexing

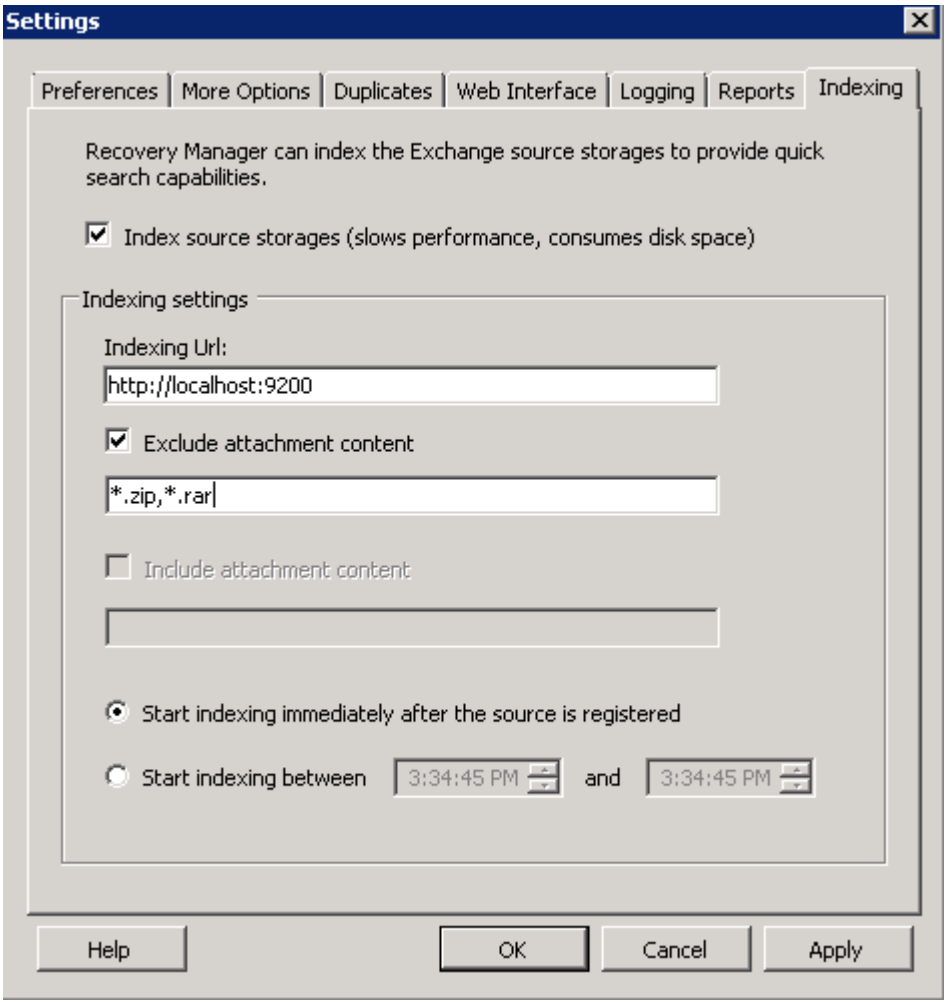
The data source indexing is a resource-intensive activity, and so it is recommended to set up a dedicated computer for the Index database. In this case, you need to have two Recovery Manager for Exchange installations on different workstations and specify the path to the Indexing service on the host that is intended for the Index database (**Indexing Url** on the **Indexing** tab). If the Indexing service and the Index database are located on the same workstation, you do not need to change this setting.

To enable indexing

NOTE: You should add a storage only after the indexing feature is enabled. Otherwise, the indexing will not be activated for the storage.

The  icon indicates that the storage is indexed.

1. In the Recovery Manager for Exchange Console, select **Tool | Settings** from the main menu and go to the **Indexing** tab.
2. Select the **Index source storage (slows performance, consumes disk space)** check box.
3. On the **Indexing** tab, you can specify the location of the Indexing service in the **Indexing Url** text box. The default port that is used by the service is 9200.
4. Include or exclude the attachment content from indexing by selecting the **Exclude attachment content** or **Include attachment content** option. Here you can specify file types as shown on the screenshot below.
5. The indexing will be started immediately after you add a storage if you select the **Start indexing immediately after the source is registered** option or on schedule if you use the **Start indexing between** option.
6. Add a storage that you want to use. For more information on how to add a storage, see Add Storage Wizard.
7. To view the progress of the indexing task, go to the **Home** page and click the **Automated tasks** link.



Configuration parameters

The Indexing configuration parameters can be modified in the Indexing service configuration file:

%Program Files%\Quest\Recovery Manager for Exchange\elasticsearch\config\elasticsearch.xml

- **http.port: 9200** – port that is used by the Indexing service.
- **path.data: <path to the Index data>** – path to the Index data.

NOTE: Restart the Indexing service (**elasticsearch-service-x64.exe** on 64-bit machines or **elasticsearch-service-x32.exe** on 32-bit machines) to apply a new configuration.

By default, the index data is stored in the following location: **%Program Files%\Quest\Recovery Manager for Exchange\elasticsearch\data\RMEX**.

Estimating the indexing performance

Performance tests with typical heterogeneous data show the following results.

Machine configuration: AWS m3.xlarge, 4 vCPU (Intel Xeon E5-2670 v2, 2,5 GHz), 15 GB of RAM.

Results:

Database Size	Mailboxes	Messages	Attachments	Indexing time	Index size
2,6 GB	3	50000	20000	1 machine - 10 min	0,6 GB (23%)
116 GB	1000	9300000	0	1 machine – 2 h 2 machines - 1 h 20 min	5,3 GB (4,5%)
360 GB	100	24845810	551932	1 machine - 4 h 23 min	72 GB (20%)

Troubleshooting

If you have any problems with indexing, please call Quest Support, describe the issue in detail, and send the resulting log files from the following location: **%Program Files%\Quest\Recovery Manager for Exchange\elasticsearch\logs.**

Restoring messages

In this section, all messages and message-level items, such as items in public folders and calendar items, are called messages.

Recovery Manager for Exchange provides the following methods for restoring messages:

- Method 1: Finding and restoring messages. Allows you to search multiple source storages for messages by a multitude of search criteria. You can then select and restore messages from a list of search results.
- Method 2: Restoring messages while browsing a source storage. Offers a quick way to restore messages while browsing a source storage in the Recovery Manager Console.
- Method 3: Restoring messages using an automated task. Allows you to restore messages by creating and running or scheduling an automated task. For more information about automated tasks, see Automated tasks.
- Method 4: Exporting messages. Allows you to export messages to individual new .eml, msg, or .txt files. When exporting messages to individual files, you can re-create the source storage folder structure in the target restore location: the messages being exported will be placed in the appropriately named target subfolders to reflect the location of the exported messages in the source storage.
- Method 5: Restoring messages to their home Exchange Server mailboxes. Allows you to restore selected messages to their original live Exchange Server mailboxes residing in the domain you specify. If target mailboxes are not found in the specified domain, you can either skip these mailboxes or create them on a live Exchange Server in the domain. You can choose whether to create new mailbox-enabled accounts for the missing mailboxes or restore accounts for these mailboxes from an Active Directory backup by using Recovery Manager for Active Directory.

NOTE:

- To restore accounts for the missing mailboxes, you can only use Active Directory backups registered and unpacked with Recovery Manager for Active Directory. The backups must be unpacked using either the Online Restore Wizard or the Group Policy Restore Wizard. For more information on how to unpack an Active Directory backup, see the Recovery Manager for Active Directory User Guide.
- To restore accounts for the missing mailboxes, you can only use Active Directory backups registered and unpacked with Recovery Manager for Active Directory. The backups must be unpacked using either the Online Restore Wizard or the Group Policy Restore Wizard. For more information on how to unpack an Active Directory backup, see the Recovery Manager for Active Directory User Guide.

Method 1: Finding and restoring messages

To find and restore messages

1. Search source storages for the messages you want to restore. For more information about how to search for messages, see Searching for messages, attachments, or folders in source storages.
2. When your search is complete, in the Search results list, select the check boxes next to the messages you want to restore.
3. Click **Restore**.
4. Follow the instructions in the wizard to complete the restore operation.

Method 2: Restoring messages while browsing a source storage

To restore messages while browsing a source storage

1. Register the source storage from which you want to restore messages. For more information about how to register storages, see Registering a storage.
2. Browse the source storage in the left pane to select the folder that contains the messages you want to restore.
3. Select the messages you want to restore in the right pane.

   To select multiple messages, hold down CTRL and click the messages you want to restore.
4. Right-click any of the selected messages, and select **Restore** from the shortcut menu.
5. Follow the instructions in the wizard to complete the restore operation.

NOTE:
To reduce the number of steps you have to go through in the restore wizard, use the copy-and-paste or drag-and-drop operation.

To restore messages using copy-and-paste

1. Browse the console tree to select the folder that contains the messages you want to restore.
2. Select the messages you want to restore in the right pane.
3. Right-click any of the selected messages, and select **Copy** from the shortcut menu.
4. Right-click the target storage folder in the left pane, and select **Paste** from the shortcut menu.
5. Follow the instructions in the wizard to complete the restore operation.

To restore messages using drag-and-drop

1. Browse the console tree to select the folder that contains the messages you want to restore.
2. Select the messages you want to restore in the right pane, and drag them to the target storage in the left pane.
3. Follow the instructions in the wizard to complete the restore operation.

Method 3: Restoring messages using an automated task

To restore messages using an automated task

1. In the Recovery Manager Console, from the main menu, select **Manage | Automated Tasks**.
2. In the view that opens, click the **Create** button.
3. On the Select Template page of the wizard that opens, in the **Groups of templates** list, expand the appropriate nodes to select the template that best suits your needs.Step through the wizard to complete the creation of your task and run or schedule the task as needed.

   For more information about automated tasks, see Automated tasks.

Method 4: Exporting messages

To export messages

1. Search source storages for the messages you want to export. For more information about how to search for messages, see Searching for messages, attachments, or folders in source storages.
2. When your search is complete, in the **Search results** list, select the check boxes next to the messages you want to export, and click **Restore**.
3. Select the **Do not group messages** option in the wizard that starts, and click **Next**.
4. Select the target file format, and follow the instructions in the wizard to complete the export operation.

Method 5: Restoring messages to their home Exchange Server mailboxes

This method includes the following steps:

- Step 1: Find and select the messages to restore
- Step 2: Restore the messages

Step 1: Find and select the messages to restore

To find and select the messages

Search source storages for the messages you want to restore. For more information about how to search for messages, see Searching for messages, attachments, or folders in source storages.

When your search is complete, in the **Search results** list, select the check boxes next to the messages you want to restore, and click **Restore**.

Step 2: Restore the messages

To restore the messages

1. In the wizard that starts, on the Select Grouping Option page, select **Group Messages by Mailboxes**, and click **Next**.
2. On the Select Type of Target Storage page, select **Home Exchange Server**, and click **Next**.
3. On the Specify Target Domain page, enter the name of the domain that hosts the Exchange Server mailboxes where you want to restore messages.
4. On the How to Handle Missing Target Mailboxes? page, select what you want to do in case target mailboxes are not found in the specified domain.
5. Follow the steps in the wizard to complete the message restore operation.

Previewing a message in a source storage

When searching for messages in a source storage, you can preview a message by double-clicking the message entry in the **Search results** list.

When browsing a source storage in the main window, you can preview a message by right-clicking that message and clicking **Open**.

To preview messages, Recovery Manager for Exchange integrates with Microsoft Outlook to display the message content in a standard Outlook window. In order to preview messages with Recovery Manager for Exchange, Microsoft Outlook must be installed on the Recovery Manager for Exchange computer and set as the default email client. For a list of Microsoft Outlook versions supported by Recovery Manager for Exchange, see the “System Requirements” section in the Release Notes supplied with this version of Recovery Manager for Exchange.

For more information about configuring Microsoft Outlook for use with Recovery Manager for Exchange, see Configuring Microsoft Outlook.

Restoring attachments

Recovery Manager for Exchange provides the following methods for restoring message attachments:

- Method 1: Finding and restoring attachments. Allows you to search multiple source storages for attachments by a variety of search criteria. You can then select and restore attachments from a list of search results.
- Method 2: Restoring attachments while browsing a source storage. Offers a quick way to restore attachments while browsing a source storage in the Recovery Manager Console.

Method 1: Finding and restoring attachments

To find and restore attachments

1. Search source storages for the attachments you want to restore. For more information about how to search for attachments, see Searching for messages, attachments, or folders in source storages.
2. When your search is complete, in the **Search results** list, select the check boxes next to the attachments you want to restore.
3. To preview an attachment, double-click the attachment entry in the **Search results** list.
4. Click **Restore**.

Method 2: Restoring attachments while browsing a source storage

To restore attachments while browsing a source storage

1. Register the source storage from which you want to restore attachments. For more information about how to register storages, see Registering a storage.
2. Browse the source storage in the left pane to select the folder that contains the message whose attachments you want to restore.
3. In the right pane, right-click the message whose attachments you want to restore.
4. In the shortcut menu, point to **Save Attachments**, and click the name of the attachment you want to restore.

   To restore all attachments of a message, click **All Attachments**.

   To preview an attachment, point to **View Attachments**, and click the name of the attachment you want to preview.

Restoring folders

Recovery Manager for Exchange provides the following methods for restoring mailbox folders and public folders:

- Method 1: Finding and restoring folders. Allows you to search multiple source storages for specific mailbox and public folders by a multitude of search criteria. You can then select and restore folders from a list of search results.
- Method 2: Restoring a folder while browsing a source storage. Offers a quick way to restore a folder while browsing a source storage in the Recovery Manager Console.
- Method 3: Exporting all messages from particular folders. Exports all messages from the mailbox or public folders you select to individual new .eml, msg, or .txt files. When exporting messages to individual files, you can re-create the source storage folder structure in the target restore location: the messages being exported will be placed in the appropriately named target subfolders to reflect the location of the exported messages in the source storage.
- Method 4: Restoring public folders using the Task Pad View. Allows you to restore selected public folders or the entire public folder hierarchy of an Exchange organization or Exchange Online (Office 365).

You can restore mailbox and public folders with or without their permissions. For more information, see the description for the **Preferences** tab in Configuring Recovery Manager for Exchange.

The following subsections provide instructions on how to use each of these methods.

Method 1: Finding and restoring folders

To find and restore folders

1. Search source storages for the folders you want to restore. For more information about how to search for folders, see Searching for messages, attachments, or folders in source storages.
2. When your search is complete, in the **Search results** list, select the check boxes next to the folders you want to restore.
3. Click **Restore**.
4. Follow the instructions in the wizard to complete the restore operation.

Method 2: Restoring a folder while browsing a source storage

To restore a folder while browsing a source storage

1. Register the source storage from which you want to restore a folder. For more information about how to register storages, see Registering a storage.
2. Browse the source storage in the left pane to select the folder you want to restore.
3. Right-click the selected folder, and select **Restore** from the shortcut menu.
4. Follow the instructions in the wizard to complete the restore operation.

NOTE:
To reduce the number of steps you have to go through in the restore wizard, use the copy-and-paste or drag-and-drop operation.

To restore a folder using copy-and-paste

1. Right-click the folder you want to restore in the left pane.
2. Select **Copy** from the shortcut menu.
3. Right-click the target storage folder in the left pane.
4. Select **Paste** from the shortcut menu.
5. Follow the instructions in the wizard to complete the restore operation.

To restore a folder using drag-and-drop

1. Drag the folder you want to restore from the source storage to the target storage in the left pane.
2. Follow the instructions in the wizard to complete the restore operation.

Method 3: Exporting all messages from particular folders

To export all messages from particular folders

1. Search source storages for the folders you want to export messages from. For more information about how to search for folders, see Searching for messages, attachments, or folders in source storages.
2. When your search is complete, in the **Search results** list, select the check boxes next to the folders you want to export messages from.
3. Click **Restore**.
4. Select the **Export all messages to .eml, .msg, or txt files** option in the wizard that starts, and click **Next**.
5. Select the format to which you want to export messages from the selected folders, and click **Next**.
6. Follow the instructions in the wizard to complete the export operation.

Method 4: Restoring public folders using the Task Pad View

To restore public folders

1. Select the **Home** node in the left pane to display the Task Pad View in the right pane.
2. Under **Restore**, click **Public Folders**, and follow the instructions in the wizard that starts to complete the restore operation.

Restoring mailboxes

Recovery Manager for Exchange provides the following methods for restoring mailboxes:

- Method 1: Restoring a mailbox while browsing a source storage. Offers a quick way to restore a mailbox while browsing a source storage in the Recovery Manager Console.
- Method 2: Exporting all messages from a mailbox. Exports all messages from the mailbox you select to individual new .eml, msg, or .txt files. When exporting messages to individual files, you can re-create the source storage folder structure in the target restore location: the messages being exported will be placed in the appropriately named target subfolders to reflect the location of the exported messages in the source storage.
- Method 3: Restoring mailboxes using an automated task. Allows you to restore selected mailboxes or entire mailbox stores by creating and running or scheduling an automated task. For more information about automated tasks, see Automated tasks.
- Method 4: Restoring mailboxes using the Task Pad View. Allows you to restore selected mailboxes or entire mailbox stores.
- Method 5: Restoring mailboxes to their online home Exchange Servers. Restores the mailboxes you select to their original live Exchange Server computers residing in the domain you specify. If target mailboxes are not found in the specified domain, you can either skip these mailboxes or create them on a live Exchange Server in the domain. You can choose whether to create new mailbox-enabled accounts for the missing mailboxes or restore accounts for these mailboxes from an Active Directory backup by using Recovery Manager for Active Directory.

NOTE:

- o restore accounts for the missing mailboxes, you can only use Active Directory backups registered and unpacked with Recovery Manager for Active Directory. The backups must be unpacked using either the Online Restore Wizard or the Group Policy Restore Wizard. For more information on how to unpack an Active Directory backup, see the Recovery Manager for Active Directory User Guide.
- o restore accounts for the missing mailboxes, you can only use Active Directory backups registered and unpacked with Recovery Manager for Active Directory. The backups must be unpacked using either the Online Restore Wizard or the Group Policy Restore Wizard. For more information on how to unpack an Active Directory backup, see the Recovery Manager for Active Directory User Guide.

The next subsections provide instructions on how to use each of these methods.

Method 1: Restoring a mailbox while browsing a source storage

To restore a mailbox while browsing a source storage

1. Register the source storage from which you want to restore a mailbox. For more information about how to register storages, see Registering a storage.
2. Browse the source storage in the left pane to select the mailbox you want to restore.

3. Right-click the selected mailbox, and select **Restore** from the shortcut menu.
4. Follow the instructions in the wizard to complete the restore operation.

NOTE:
To reduce the number of steps you have to go through in the restore wizard, use the copy-and-paste or drag-and-drop operation.

To restore a mailbox using copy-and-paste

1. Right-click the mailbox you want to restore in the left pane.
2. Select **Copy** from the shortcut menu.
3. Right-click the target storage folder in the left pane.
4. Select Paste from the shortcut menu.
5. Follow the instructions in the wizard to complete the restore operation.

To restore a mailbox using drag-and-drop

1. Drag the mailbox you want to restore from the source storage to the target storage in the left
2. pane.
3. Follow the instructions in the wizard to complete the restore operation.

Method 2: Exporting all messages from a mailbox

To export all messages from a mailbox

1. Register the source storage from which you want to restore a mailbox. For more information about how to register storages, see Registering a storage.
2. Browse the source storage in the left pane to select the mailbox you want to restore.
3. Right-click the selected mailbox, and select **Restore** from the shortcut menu.
4. In the wizard, select **Restore all messages**, and click **Next**.
5. Select **Export all messages to .eml, .msg, or txt files**, and click **Next**.
6. Select the format to which you want to export messages from the selected mailbox, and click **Next**.
7. Follow the instructions in the wizard to complete the export operation.

Method 3: Restoring mailboxes using an automated task

To restore mailboxes using an automated task

1. In the Recovery Manager Console, from the main menu, select **Manage | Automated Tasks**.
2. Click the **Create** button in the right pane. Step through the Task Wizard.

3. On the Select Template page, in the **Groups of templates** list, expand the appropriate nodes to select the template that best suits your needs.
4. Step through the wizard to complete the creation of your task and run or schedule the task as needed.

For more information about automated tasks, see Automated tasks.

Method 4: Restoring mailboxes using the Task Pad View

To restore mailboxes using the Task Pad View

1. Select the **Home** node in the left pane to display the Task Pad View in the right pane.
2. Under **Restore**, click **Mailboxes**, and step through the wizard that starts to complete the restore operation.

Method 5: Restoring mailboxes to their online home

While using this method, you can specify the account with which you want to access the domain that includes home Exchange Servers of the mailboxes being restored.

To restore mailboxes to their home Exchange Servers

1. In the Recovery Manager Console, from the main menu, select **Restore | Mailboxes**.
2. On the Add Mailboxes to Restore page, click **Add** to select the mailboxes you want to restore. When finished, click **OK**, and click **Next**.
3. On the Define Restore Scope page, select **Restore all messages**, and click **Next**.
4. On the Select Type of Target Storage page, select **Restore each mailbox to its home Exchange Server**, and step through the wizard to complete the mailbox restore operation.

Importing Data from .Pst Files to Online Exchange Mailboxes

You can use this wizard-driven method to import all data from one or more Personal Folders (.pst) files into online mailboxes hosted in your on-premises Exchange organization or in the cloud (Office 365). With this method you can select source Personal Folders (.pst) files and then match them to specific target online mailboxes. Then, you import messages from each Personal Folders (.pst) file into the target mailbox matched to that file. As a result, the entire folder structure of the source Personal Folders (.pst) file is created in the target mailbox.

If you want to import data to mailboxes hosted on Exchange Servers in your on-premises Exchange organization, make sure you install and use Recovery Manager for Exchange in the Active Directory forest that includes that Exchange organization.

To import data from .pst files to online Exchange Server mailboxes

1. In the Recovery Manager Console, from the main menu, select **Tools | Import .Pst Files**.
2. On the Add Files to Import page, set up a list of the source Personal Folders (.pst) files from which you want to import data.

   Click the down arrow on the Add button, and then click one of these options:

   - **Selected Files**. Use this option to locate and select the source Personal Folders (.pst) files. To select multiple files, hold down CTRL, and then click the files you want to select.
   - **All Files from a Folder**. Use this option to locate and select the folder that includes the source Personal Folders (.pst) files. This option ignores .pst files located in the subfolders of the folder you specify.
   - **All Files from a Folder and Its Subfolders**. Use this option to locate and select the folder that includes the source Personal Folders (.pst) files. Data will be imported from the .pst files found in the folder's root and all its subfolders.
3. Click **Next**.
4. On the Select an Exchange Type page, click one of the following options, and then click **Next**:
   - **Exchange Server**. Select this option if you want to import data to on-premises Exchange Server mailboxes.
   - **Exchange Online (Office 365)**. Select this option if you want to import data to mailboxes hosted in Exchange Online (Office 365).
5. Do one of the following:

Table 17: Importing data to Exchange

If you import data to an on-premises Exchange Server	If you import data to Exchange Online (Office 365)
On the Specify Target Domain page, enter parameters to connect to the Active Directory domain that includes the Exchange Server computers into which you want to import data: 1. In the **Domain** text box, type the fully qualified domain name (FQDN) or NetBIOS name of the domain. 2. Specify the user account with which you want to connect to the domain. 3. Click **Next**.	Specify credentials with which you want to access Exchange Online: 1. Specify the Microsoft Online Services ID and password with which you want to connect to Office 365. The account whose ID you specify must have permissions described in Permissions required to restore data. 2. Click **Next**.

6. Use the Specify Matching Options page to select options for matching source Personal Folders (.pst) files to target online mailboxes.
7. When you are finished, click Next and wait for the match operation to complete.

   At this stage, no data is imported into the target mailboxes.

8. When the match operation completes, you can resolve encountered errors (if any) and/or manually match a .pst file to a different mailbox. To do so, right-click a Personal Folders (.pst) file in the list, and then select one of these options:
    - **Resolve Error**. Allows you to resolve the error encountered for the corresponding Personal Folders (.pst) file during the match operation. If you want to resolve all encountered errors one by one, click the **Resolve All Errors** button below the list of Personal Folders (.pst) files.
    - **Find and Select Mailbox**. Allows you to manually match the Personal Folders (.pst) file to an online mailbox. You can use this option on the files for which the match operation has failed or for which you want to manually select a mailbox.
    - **Remove**. Removes the Personal Folders (.pst) file from the list. Use this option on the files you want to exclude from the data import operation.
9. When you are finished, click **Next**.
10. On the Specify Import Criteria page, select one of these options:
    - **Import data into mailbox roo**t. Imports all data from the source Personal Folders (.pst) file into the target mailbox root folder. The folder structure of the source Personal Folders (.pst) file will be re-created in the mailbox root.
    - **Import data into subfolder named after source file**. Imports all data from the source Personal Folders (.pst) file into the subfolder named after the source file. If such subfolder does not exist in the target mailbox, it will be created. The folder structure of the source Personal Folders (.pst) file will be re-created in the target subfolder. When you select this option, you can also select the **Append current timestamp to subfolder name** check box to add the date and time of the data import operation to the subfolder name.
    - **Import data into this folder**. Allows you to type the path to the target mailbox folder into which you want to import data from the source Personal Folders (.pst) file. If such folder does not exist in the target mailbox, it will be created. The folder structure of the source Personal Folders (.pst) file will be re-created in the target folder.
    - **Delete source file after successful import**. Permanently deletes the source Personal Folders (.pst) file if the data has been successfully imported into the target mailbox.
11. Click **Next** and wait for the data import to complete.
12. Click **Finish** to close the wizard.

Selecting a target folder

When performing a restore, you must select the target folder in which you want to place the restored items.

You can select a target folder in any target storage registered with Recovery Manager for Exchange (see Registering a storage). There are several ways to select a target folder. It is also possible to create new folders in target storages.

This section covers:

- Selecting a target folder in the restore wizards
- Selecting a target folder in the left pane

Selecting a target folder in the restore wizards

The Message Restore Wizard, the Mailbox Restore Wizard, and the Public Folder Restore Wizard include the Select Target Storage page you can use to select, rename, or create a target folder.

To select a target folder in the restore wizards

1. On the Select Target Storage page, expand a target storage node in the **Registered writable storages** list.
2. Browse the target storage to locate and select a target folder.

To rename a target folder

1. On the Select Target Storage page, expand a target storage node in the **Registered writable storages** list.
2. Browse the target storage to locate a target folder to rename.
3. Right-click that target folder, and click **Rename**.
4. Type a new target folder name, and press ENTER.

To create a new target folder

1. On the Select Target Storage page, expand a target storage node in **the Registered writable storages** list.
2. Browse the target storage to locate the folder in which you want to create a new target folder.
3. Right-click inside the folder, and click **Create New Folder**.

Selecting a target folder in the left pane

You can perform a restore by browsing a source storage in the left pane, and dragging messages and folders from that source storage to a target storage folder in the left pane.

If there is no suitable folder in a target storage, you can create a new folder while browsing the target storage in the left pane.

To create a new folder

1. In the left pane, browse a target storage to locate the node in which you want to create a new folder.

   To create a new folder in the root of a target storage, select the target storage node in the left pane.
2. Right-click the node, and then on the shortcut menu select **Create New Folder**.
3. In the **Name** box, type a name for the new folder.
4. Use the **Folder contains** box to select the new folder's type.
5. Click **OK**.

Comparing and restoring storages, mailboxes, or folders

You can compare source and target storages, mailboxes, and folders for differences, and then restore data from the source to the target as necessary.

This feature allows you to see the changes that occurred to a mailbox or a public folder over a period of time by comparing the mailbox or public folder instances in a backed-up Exchange Server database and on a live Exchange Server.

This section provides information about the following steps:

- Step 1: Compare storages, mailboxes, or folders
- Step 2 (optional): Restore items from the list of comparison results

Step 1: Compare storages, mailboxes, or folders

To compare storages, mailboxes, or folders

1. In the left pane, expand the **Source Storages** node to select the source storage, mailbox, or folder you want to compare.
2. Select **Compare** on the shortcut menu.
3. In the dialog box that opens, specify the target storage, mailbox, or folder to which you want to compare the selected source.
4. Click **OK**.

   You can use the provided list of comparison results to selectively restore items from the source to the target.

Step 2 (optional): Restore items from the list of comparison results

To selectively restore items

1. Select the list items you want to restore.
2. Right-click any selected item, then select the appropriate command from the shortcut menu.

Searching for messages, attachments, or folders in source storages

Recovery Manager for Exchange provides an easy-to-use interface to help you search for messages, attachments, or folders in registered source storages. You can select multiple source storages and multiple

mailboxes and public folders from different source storages to search at once and run multiple searches with different search criteria.

To search for messages, attachments, or folders in source storages

1. In the left pane, select the **Find** node.

   The right pane displays the Find View.

2. In the Find View, use the **Look for** box to select what you want to search for—messages, attachments, or folders.

3. Click **Browse**, and select the check boxes next to the registered source storages you want to search.

   To search particular mailboxes and folders, expand the source storage nodes and select the check boxes next to the mailboxes and folders you want to search.

   If you do not want to search subfolders within mailboxes and folders, clear the **Search subfolders** check box.

   To register a new storage, click **Add New Storage**. For more information, see Add Storage Wizard.

4. When finished, click **OK**.

5. Use the **Folders** tab, **Messages** tab, More Choices tab, Attachments tab, and Mailboxes tab to specify criteria for your search. For more information about these tabs, see Using the Find View.

   To create a flexible search query, click the **Advanced Mode** hyperlink, and compose your search query.

NOTE: The **Advanced Mode** option is not available if you use the Indexing feature.

   For more information, see Advanced mode.

6. When finished, click **Find Now**.

   A status bar at the bottom of the Find View displays the number of items found so far, and the path to the storage folder currently being searched.

   You can click **Stop** to stop the search. To restart the search, click **Find Now**.

NOTE: To search in a source storage, select that storage in the details pane, and then click  in the toolbar.

In the next sections:

- Using the Find View
- Search results
- Saving and loading search parameters
- Searching for related messages

Using the Find View

The tabbed Find View allows you to search for messages, attachments, or folders in registered source storages.

This section describes the Find View elements and the search syntax and search operators you can use on the Find View tabs.

- **New Search**. Creates a new search tab next to the current tab. Use the new search tab to specify your search criteria and run the search. You can create and use multiple search tabs to run simultaneous searches with different criteria.
- **Open Search**. Loads previously saved search parameters from a file. You can load previously saved search parameters along with returned search results. For more information, see Saving and loading search parameters and Search results.
- **Save Search**. Saves current search parameters to a file. You can save search parameters along with returned search results by selecting an appropriate target file format. For more information, see see Saving and loading search parameters and Search results.
- **Look for**. Allows you to select what you want to search for—messages, attachments, or folders. Depending on your choice, the returned search results will include messages, attachments, or folders.
- **Search in**. Displays the registered source storages, mailboxes, and/or folders you have selected to search in.
- **Browse**. Opens a dialog box you can use to select the registered source storages, mailboxes, and/or folders to search in. You can also register and select new source storages.
- **Find Now**. After specifying your search parameters, click **Find Now** to run your search on the current tab.
- **Stop**. Stops the search that is running on the current tab.

By default, the Find View opens in the standard mode. You can click the **Advanced Mode** hyperlink to switch to the advanced mode to create more flexible and sophisticated search queries.

NOTE: The **Advanced Mode** option is not available if you use the Indexing feature.

For more information about the standard and advanced modes, see Standard mode and Advanced mode respectively.

Standard mode

When the Find View is in the standard mode, each search tab has the following tabs:

- Folders tab
- Messages tab
- More Choices tab
- Attachments tab
- Mailboxes tab

The next sections provide descriptions of this tab.

Folders tab

On the **Folders** tab, you can specify parameters to search selected source storages for matching keywords in folders. You can also use other search criteria, such as folder size and folder creation dates.

Table 18: Elements on the Folders tab

Element	When looking for messages	When looking for attachments	When looking for folders
Folder names	Allows you to search in folders whose names include and/or exclude specific keywords.		Unavailable

Element	When looking for messages	When looking for attachments	When looking for folders
Find words	Provides a space for you to type keywords. Allows you to look for messages in the folders whose elements contain the specified keywords.	Provides a space for you to type keywords. Allows you to look for message attachments in the folders whose elements contain the specified keywords.	Provides a space for you to type keywords. Allows you to look for the folders whose elements contain the specified keywords.
Match case	Allows you to use a case-sensitive search of keywords.		
Find whole words only	Allows you to search for the whole matching keywords.		
In	Allows you to select the folder elements you want to search for the matching keywords.		
Number of messages	Allows you to search in the folders that hold a specific number of messages. Select one of the options from the list and type the number of messages in the box.		Allows you to search for the folders that hold a specific number of messages.
Folder creation date	Allows you to specify a time period when the folders you want to search were created.		Allows you to specify a time period when the folders you want to search for were created.
Ellipsis button (...)	Allows you to import keywords from a file into the box where you click this button.		

Messages tab

NOTE: o search for keywords in files attached to mailbox or public folder items, Recovery Manager for Exchange requires IFilters. An IFilter is a component of the indexing service included with Microsoft Windows 2000 and subsequent versions of Windows. Recovery Manager for Exchange uses IFilters to access textual content of files. To see the list of searchable file types and to download IFilters, go to http://www.microsoft.com/windows/desktopsearch/technical/searchtype.mspx.

For more information about a specific IFilter or for installation instructions, contact the software vendor for that IFilter.

On the **Messages** tab, you can specify parameters to search selected source storages for matching keywords in messages. You can also use other criteria such as recipients, senders, and dates. You can use any combination of these search criteria.

Table 19: Elements on the Messages tab

Element	When looking for messages	When looking for attachments	When looking for folders
Find words	Provides a space for you to type keywords that are in the messages you want to find.	Provides a space for you to type keywords that are in the messages containing the attachments you want to find.	Provides a space for you to type keywords that are in the messages residing in the folders you want to find.
Match case	Allows you to use a case-sensitive search of keywords. **NOTE:** The **Match case** option on the **Messages** tab is not available if you use the Indexing		

Element	When looking for messages	When looking for attachments	When looking for folders
	feature.		
Find whole words only	Allows you to search for the whole matching keywords.		
Use regular expressions	Allows you to search by using .NET Framework regular expressions.		
In	Allows you to select the folder elements you want to search for the matching keywords.		
Sent from	Provides a space for you to type the names of the senders whose messages you want to find.	Provides a space for you to type the names of the senders whose messages you want to search for attachments.	Provides a space for you to type the names of the senders whose messages reside in the folders you want to find.
Sent to	Provides a space for you to type the names of the recipients whose messages you want to find.	Provides a space for you to type the names of the recipients whose messages you want to search for attachments.	Provides a space for you to type the names of the recipients whose messages reside in the folders you want to find.
Date	Allows you to specify a time period when the messages you want to search for were sent, received, created, modified, or deleted.	Allows you to specify a time period when the messages you want to search for attachments were sent, received, created, modified, or deleted.	Allows you to specify a time period when the messages residing in the folders you want to find were sent, received, created, modified, or deleted.
Ellipsis button (...)	Allows you to import keywords from a file into the box where you click this button.		

You can use a special search syntax on the **Messages** tab. For information about the search syntax and applicable search operators, see Search syntax. To learn more about searching a source storage, see Searching for related messages.

More Choices tab

On the More Choices tab, you can specify more detailed criteria for your search. You can search by message class, importance, categories, conversation thread, or message size.

Elements on the More Choices tab

Element	When looking for messages	When looking for attachments	When looking for folders
Message class	Allows you to search for messages of specific type, purpose, or with specific content. You can use this box to select the class of the messages you want to find. o specify unlisted message classes, select **Custom** and type the appropriate message class names in the box.	Allows you to search for attachments in messages of specific type, purpose, or with specific content. You can use this box to select the class of the messages you want to search. To specify unlisted message classes, select **Custom** and	Allows you to search for folders that contain messages of specific type, purpose, or with specific content. You can use this box to select the class of the

Element	When looking for messages	When looking for attachments	When looking for folders
		type the appropriate message class names in the box.	messages residing in the folders you want to find. To specify unlisted message classes, select **Custom** and type the appropriate message class names in the box.
Categories	Allows you to search for messages that belong to one or multiple Microsoft Outlook categories.	Allows you to search for attachments in messages that belong to one or multiple Microsoft Outlook categories.	Allows you to search for folders that contain messages belonging to one or multiple Microsoft Outlook categories.
Importance	Allows you to search for messages of specific importance.	Allows you to search for attachments in messages of specific importance.	Allows you to search for folders that contain messages of specific importance.
Conversation	Provides a space for you to type the names of the conversation threads in which you want to search for messages.	Provides a space for you to type the names of the conversation threads in which you want to search for attachments.	Provides a space for you to type the names of the conversation threads whose messages reside in the folders you want to find.
Message size (kilobytes)	Allows you to search for messages of specific size. Select one of the options from the list and type the message size in kilobytes in the box. If you select is **between** from the list, use both boxes to specify the minimum and the maximum message size.	Allows you to search for attachments in messages of specific size. Select one of the options from the list and type the message size in kilobytes in the box. If you select is **between** from the list, use both boxes to specify the minimum and the maximum message size.	Allows you to search for folders that contain messages of specific size. Select one of the options from the list and type the message size in kilobytes in the box. If you select is **between** from the list, use both boxes to specify the minimum and the maximum message size.
Ellipsis button (...)	Allows you to import keywords from a file into the box where you click this button.		

You can use a special search syntax on the **More Choices** tab. For information about the search syntax and applicable search operators, see Search syntax.

To learn more about searching a source storage, see Searching for related messages.

Attachments tab

When looking for messages, you can use the **Attachments** tab to search for messages by attachments. When looking for attachments, you can use this tab to specify search criteria for the attachments you want to find. When looking for folders, you can use this tab to search for folders by message attachments.

Table 20: Elements on the Attachments tab

Element	When looking for messages	When looking for attachments	When looking for folders
Find words	Unavailable	Provides a space for you to type keywords that are in the attachments you want to find.	Unavailable
Match case	Unavailable	Enables you to use a casesensitive search for keywords.	Unavailable
Find whole words only	Unavailable	Enables you to search for the whole matching keywords.	Unavailable
Use regular expressions	Unavailable	Allows you to search by using .NET Framework regular expressions.	Unavailable
Search for messages	Allows you to search for messages that have one or more attachments or have no attachments. You also have the option to disregard attachments in your search.	Unavailable	Allows you to search for folders that contain messages with one or more attachments, or without any attachments. You also have the option to disregard attachments in your search.
Attachment names	Allows you to search for messages with attachments whose names include and/or exclude specific keywords.	Allows you to search for attachments whose names include and/or exclude specific keywords.	Allows you to search for folders that contain message attachments whose names include and/or exclude specific keywords.
Attachment size (kilobytes)	Allows you to search for messages with attachments of specific size. Select one of the options from the list and type the attachment size in kilobytes in the box. If you select is **between** from the list, use both boxes to	Allows you to search for attachments of specific size. Select one of the options from the list and type the attachment size in kilobytes in the box. If you select is **between** from the list, use both boxes to specify the minimum and the maximum attachment size.	Allows you to search for folders that contain message attachments of specific size. Select one of the options from the list and type the attachment size in kilobytes in the box. If you select is **between**

Element	When looking for messages	When looking for attachments	When looking for folders
	specify the minimum and the maximum attachment size.		from the list, use both boxes to specify the minimum and the maximum attachment size.
Ellipsis button (...)	Allows you to import keywords from a file into the box where you click this button.		

You can use a special search syntax on the **Attachments** tab. For information about the search syntax and applicable search operators, see Search syntax.

To learn more about searching a source storage, see Searching for related messages.

Mailboxes tab

You can use this tab to specify criteria for searching in particular mailboxes.

Table 21: Elements on the Mailboxes tab

Element	Description
Home server names	Allows you to search in mailboxes that reside on certain servers. You can use the text box to type names of the servers that home the mailboxes you want to search.
Mailbox names	Allows you to search in mailboxes whose names include and/or exclude certain keywords.
Mailbox size	Allows you to search in mailboxes of specific size. Select one of the options from the list and type the mailbox size in kilobytes in the box. If you select is **between** from the list, use both boxes to specify the minimum and the maximum mailbox size.
Number of messages	Allows you to search in mailboxes that hold a specific number of messages. Select one of the options from the list and type the number of messages in the box. If you select is **between** from the list, use both boxes to specify the minimum and the maximum number of messages.
Ellipsis button (...)	Allows you to import keywords from a file into the box where you click this button.

You can use a special search syntax on the **Mailboxes** tab. For information about the search syntax and applicable search operators, see Search syntax.

To learn more about searching a source storage, see Searching for related messages.

Advanced mode

NOTE: The **Advanced Mode** option is not available if you use the Indexing feature.

When the Find View is in the advanced mode, it provides a greater search flexibility as compared to the standard mode. The advanced mode allows you to compose sophisticated search queries using more search

conditions and their combinations and look for specific values in a multitude of message, attachment, and folder fields.

To create and run a search query in the advanced mode

1. In the left pane, select the **Find** node.
2. In the right pane (the Find View), use the **Look for** box to select what you want to search for—messages, attachments, or folders.
3. Click **Browse**, and select the check boxes next to the registered source storages you want to search. When finished, click **OK**.

   To search particular mailboxes and folders, expand the source storage nodes and select the check boxes next to the mailboxes and folders you want to search.

   To exclude subfolders from your search, clear the **Search subfolders** check box.

   To register a new storage, click **Add New Storage**. For more information, see Add Storage Wizard.
4. Click the **Advanced Mode** hyperlink. In the advanced mode, you can use the following buttons:

Table 22: Advanced mode buttons

Element	Description
Add Criterion	Adds a new criterion for mailboxes, attachments, folders, or messages to your search query. Each criterion can include multiple criterion rows.
Remove	Deletes the current criterion or criterion row from your search query.
Up Arrow	Moves the current criterion or criterion row up.
Down Arrow	Moves the current criterion or criterion row down.
()	Adds or removes parentheses. You can use parentheses to group different criteria. See the example that follows this procedure.

5. Click the **Add Criterion** button, and select the type of item you want to search.
6. Click columns in the criterion row to specify what you want to search and the search condition to use. You can use the following columns:

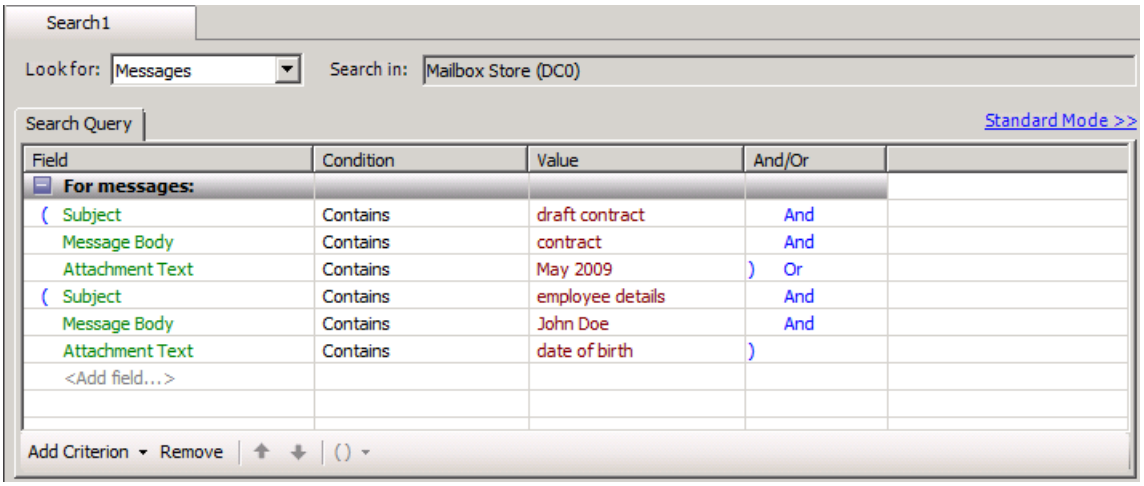
Table 23: Criterion row buttons

Element	Description
Field	Click to select the field you want to search for a specific value.
Condition	Click to select the search condition you want to use
Value	If appropriate, specify the value you want to include in or exclude from your search.
And/Or	Click to select **And** if the returned result must meet the current and the next criterion. Click to select **Or** if the returned result must either meet the current or the next criterion.

7. If necessary, add another criterion or fill in another criterion row.
8. Click **Find Now** to run your search query.

Using parentheses to group criteria

In the advanced mode, you can use parentheses to group criterion rows and insert specific search operators between these groups, as shown in the following example:



In this example, the **Or** operator in the **And/Or** column divides two groups of criteria. As a result, the search query looks for messages whose

- Subject contains the words **draft contract**, body contains the word **contract**, and attachments contain the words **May 2009**.
- Subject contains the words **employee details**, body contains the words **John Doe**, and attachments contain the words **date of birth**.

Search syntax

The following table describes available search operators and the Find View elements where you can use these operators. This search syntax is only applicable when the Find View is not configured to use regular expressions.

Table 24: Search operators

Operator	Description	Example	Supported in boxes (standard mode)
space character	Finds items containing all keywords that are separated by a space in your query.	**good bad ugly** Finds items containing all these keywords: **good bad ugly**	**Find words** **Sent from** **Sent to** **Folder names**
, (comma)	Finds items containing any or all keywords that are separated by a comma or a semicolon in your query.	**light , darkness** Finds items containing at least one of these keywords: **light darkness**	**Message class** (only when **Custom** is selected from the list) **Categories** **Conversation** **Attachment names** **Mailbox names** **Home server names**
; (semicolon)		**light ; darkness ; dusk**	

Operator	Description	Example	Supported in boxes (standard mode)
		Finds items containing at least one of these keywords: **light darkness dusk**	
" " (straight quotation marks)	Finds items containing the exact text you entered between straight quotation marks. **NOTE:** Space character, comma, semicolon, and angle brackets do not act as search operators if surrounded by straight quotation marks.	**"blue, yellow; gray"** Finds items containing this exact text: **blue, yellow; gray** **"<a note from reviewer>"** Finds items containing this exact text: **<a note from reviewer>**	
\ (backslash)	Acts as an escape character for these search operators: \ (backslash) " (double quotation mark)	\\ Finds items containing a backslash. \" Finds items containing a double quotation mark.	**Find words** **Sent from** **Sent to** **Folder names** **Message class** (only when **Custom** is selected from the list) **Categories** **Conversation**
() (parentheses)	Groups your keywords, so you can find items that include one or more keywords from each group.	**(truth , luck , wealth) (lie , misfortune , poverty)** Finds items containing at least one keyword from each of these groups: • Group 1: truth, luck, and wealth • Group 2: lie, misfortune, and poverty	**Attachment names** **Mailbox names** **Home server names**
* (asterisk)	Acts as a wildcard symbol for any number of any characters.	***ear** Finds items containing words that finish with ear, such as **appear**, **disappear**, or **ear**.	

Operator	Description	Example	Supported in boxes (standard mode)
		co* Finds items containing words that start with co, such as **co**, **company**, **cod**, or **code**.	
? (question mark)	Acts as a wildcard symbol for any one character.	**?oat** Finds items containing words that start with any one character and finish with **oat**, such as **goat** or **boat**.	
~ (tilde)		**start ~ finish** Finds items containing the words start and finish separated by less than 5 (0 to 4) other words in any direction. **start ~2 finish** Finds items containing the words start and finish separated by less than 2 (0 to 1) other words in any direction. **start ~+10 finish** Finds items containing the words start and finish, where finish is ahead of start by less than 10 (0 to 9) other words. **start ~-7 finish** Finds items containing the words start and finish, where finish is	**Find words** **Sent from** **Sent to** **Folder names** **Message class** (only when **Custom** is selected from the list) **Categories** **Conversation** **Attachment names** **Mailbox names** **Home server names**

Operator	Description	Example	Supported in boxes (standard mode)
		behind start by less than 7 (0 to 6) other words.	
^ (caret)	Finds items where a field value starts with the keyword you entered after the caret.	**^first** Finds items where a field value starts with the word **first**. **^123** Finds items where a field value starts with the number **123**.	**Folder names** **Message class** **Attachment names** **Mailbox names** **Home server names**
< > (angle brackets)	Finds items where a field value contains no other text except the one you entered between angle brackets. This operator is not supported in the **Find words** text box when you search for attachments.	**<this is spam>** Finds items where a field value contains no other text except **this is spam**.	**Find words** (except when searching for attachments) **Message class** (only when Custom is selected from the list) **Conversation** **Home server names**

Examples of complex search queries

This section provides some examples of complex search queries you may want to use as patterns to compose your own queries.

Table 25: Examples of complex search queries

Example (text in the find words box)	Description
"Go to \\\\Server\\Folder\\"	Finds items containing this exact text: **Go to \\Server\Folder**
"Open file \"C:\\Folder\\File.txt\""	Finds items containing this exact text: **Open file "C:\Folder\File.txt"**

Search results

When your search completes, the **Search results** list displays messages, attachments, or folders that match your search criteria. If you do not specify any search parameters, the **Search results** list includes all messages, attachments, or folders found in the selected source storages, mailboxes, or folders.

To view a message or attachment from the list, double-click that message (you must have Microsoft Outlook installed and configured as your default email client) or attachment.

You can click **Select All** and **Restore** to restore all messages, attachments, or folders from the **Search results** list.

To perform a selective restore, you can select the check boxes next to the messages, attachments, or folders you want to restore, and then click **Restore**. Follow the instructions in the wizard that starts to complete the restore operation.

You can also save and load search results along with search parameters. For more information, see **Saving and loading search results** below.

Saving and loading search results

You can save your current search results in a file and load search results from the file where they were saved. Recovery Manager for Exchange can store search results in the following formats:

- **Search and Results (.rmxs)**. Saves all parameters and results of current search. You can load search parameters and results saved in a Search and Results (.rmxs) file into the Find View.
- **Text Only - Search and Results (.txt)**. Saves a human-readable description of current search parameters and returned results.

To save your current search results

1. In the Find View, click the **Save Search** button.
2. In the dialog box that opens, browse for the folder where you want to save the current search results.
3. In the **File name** box, type the name of the file in which you want to save the search results.
4. In the **Save as type** box, select an appropriate file type, and click **Save**.

To load search results

1. In the Find View, click the **Open Search** button.
2. In the dialog box that opens, browse for the folder that holds the .rmxs file with the search results you want to load.
3. Select the file, and click **Open**.

Saving and loading search parameters

You can save your current search parameters in a file and load search parameters from the file where they were saved.Recovery Manager for Exchange can store search parameters in the following formats:

- **Search (.rmxs)**. Saves all parameters of the current search. You can load search parameters saved in a Search (.rmxs) file into the Find View.
- **Text Only - Search (.txt)**. Saves a human-readable description of current search parameters.

To save your current search parameters

1. In the Find View, click the **Save Search** button.
2. In the dialog box that opens, browse for the folder where you want to save current search parameters.
3. In the **File name** box, type the name of the file where you want to save the search parameters.
4. In the **Save as type** box, select an appropriate file type, and click **Save**.

You can also save current search parameters along with returned search results. For more information, see *Saving and loading search results* subsection in Search results.

To load search parameters

1. In the Find View, click the **Open Search** button.
2. In the dialog box that opens, browse for the folder that holds the .rmxs file with the search parameters you want to load.
3. Select the file, and click **Open**.

   You can also load previously saved search parameters along with returned search results. For more information, see *Saving and loading search results* subsection in Search results.

Importing keywords from a file

To import keywords into the Find View, you can create a custom file that includes the keywords to be imported.

For this purpose, you can use these items:

- XML Document (.xml) file
- Plain Text (.txt) file
- Comma-separated Values (.csv) file

You can find examples of files containing keywords for import in the next subsections. Based on these examples, you can create your own files tailored to your needs.

To import keywords into the Find View

1. Make sure the Find View is in the standard mode.

   When it is in the advanced mode, the Find View does not support keywords import.
2. In the Find View, locate the text box to which you want to import keywords, and click the ellipsis button (…).
3. Specify the file to import keywords from.

XML Document (.xml) file

Here is an example of an .xml file you can import keywords from:

```
<?xml version="1.0" encoding="utf-8" ?>

<KeywordList>

<Keyword text="John Doe"/>

<Keyword text="Mary Smith"/>

<Keyword text="Administrator, Paul Webster"/>

</KeywordList>
```

After you import keywords from the above example file, the target text box will contain the following text: **"John Doe"**, **"Mary Smith"**, **"Administrator, Paul Webster"**

Place the keywords you want to import into the Keyword text attribute. Keywords from the same instance of the Keyword text attribute will be surrounded by straight quotation marks: **"Administrator, Paul Webster"**.

Keywords from different instances of the Keyword text attribute will be separated by comma: **"John Doe"**, **"Mary Smith"**.

Plain Text (.txt) file

Here is an example of a .txt file you can import keywords from:

```
John Doe

Mary Smith

Administrator, Paul Webster
```

After you import keywords from the above example file, the target text box will contain the following text:

"John Doe", **"Mary Smith"**, **"Administrator, Paul Webster"**

Keywords from the same line in the source file will be surrounded by straight quotation marks: **"John Doe"**. Keywords from different lines will be separated by comma: **"John Doe"**, **"Mary Smith"**.

Comma-separated Values (.csv) file

Here is an example of a .csv file you can import keywords from, it uses comma as list separator:

```
John Doe

Mary Smith

Administrator, Paul Webster
```

After you import keywords from the above example file, the target text box will contain the following text:

"John Doe", **"Mary Smith"**, **"Administrator"**, **"Paul Webster"**

Keywords divided by list separator will be surrounded by straight quotation marks: **"Administrator"**, **"Paul Webster"**. Keywords from different lines in the source file will be surrounded by straight quotation marks and separated by comma: **"John Doe", "Mary smith"**.

Before running the import operation, make sure the list separator used in your .csv file and the one set on the Recovery Manager for Exchange computer are the same.

To view and change list separator

1. On the Recovery Manager for Exchange computer, in the **Run** box or at a command prompt, type intl.cpl, and click **OK**.
2. Do one of the following:
   - In Windows XP or Windows Server 2003, in the Regional and Language Options dialog box, click **Customize**, and see the **List separator** box.
   - In Windows Vista, Windows 7, or Windows Server 2008, in the **Region and Language** dialog box, click **Additional settings**, and see the **List separator** box.
   - In Windows 8.1, Windows 8, Windows Server 2012 or Windows Server 2016, in the **Region** dialog box, click **Additional settings**, and see the **List separator** box.
3. Change the list separator if necessary, and click **OK**.

Searching for related messages

While browsing a source storage in the Recovery Manager Console, you can select a message and then search for messages that have the same sender, are sent to the sender of this message, or have the same or similar subject. You can also search for all messages related to the selected message.

To search for related messages

1. In the left pane, browse a source storage to select the folder that contains the message whose related messages you want to find.
2. In the details pane, right-click the message whose related messages you want to find.
3. Point to **Find All**, and click one of the following:

- **Messages from the same sender**. You can search the current source storage for messages from the sender of the selected message.
- **Messages sent to the sender of this message**. You can search the current source storage for messages sent to the sender of the selected message.
- **Messages with the same subject**. You can search the current source storage for messages whose subject exactly matches the subject of the selected message.
- **Messages with a similar subject**. You can search the current source storage for messages whose subject contains the same words in the same or different order.
- **Related messages**. You can search the current source storage for messages belonging to the same conversation thread.

Using regular expressions in the Find View

When using the Find View, you can use the regular expression language in the text fields to search for items. For more information about the regular expression language, see the MSDN topic titled “Regular Expression Language - Quick Reference” at msdn.microsoft.com. At the time of writing, this topic was located at the following link: msdn.microsoft.com/en-us/library/az24scfc.aspx.

Table 26: Examples of using regular expressions

To search for	Use this syntax	Description
Any credit card numbers	\b\d {16}\b	Searches for 16-digit credit card numbers without regard to the payment processing system to which the card belongs (such as MasterCard or Visa).
MasterCard credit card numbers	\b5[1-5]\d {14}\b	Searches for 16-digit credit card numbers that start with the numbers 51 to 55.
Visa credit card numbers	\b4\d {15}\b	Searches for 16-digit credit card numbers that start with a 4.
American Express credit card numbers	\b3[47]\d {13}\b	Searches for 15-digit credit card numbers that start with the numbers 34 or 37.
US social security numbers	\b\d{3}-\d {2}-\d {4}\b	Searches for 9-digit numbers in the format XXX-XX-XXXX.

Automated Tasks

- About automated tasks
- Managing automated tasks

About automated tasks

Automated Tasks is a feature that enables the automation of restore and cataloging operations in Recovery Manager for Exchange. This chapter lists key benefits of using automated tasks, describes how to manage automated tasks, and provides basic usage scenarios for the Automated Tasks feature.

Key benefits

Automated tasks allow you to

- **Reduce workload and improve performance**. Using automated tasks improves the Recovery Manager for Exchange productivity and saves system resources in situations when you need to catalog extremely large backups or restore significant amounts of data.
- **Automate recurring operations**. Once you create an automated task, you do not have to step through the Recovery Manager for Exchange wizards to perform a recurring restore or cataloging operation. You simply run the task.
- **Perform several restore and/or cataloging operations simultaneously**. You can run several automated tasks in parallel.
- **Schedule operations**. You can schedule restore and/or cataloging operations. For more information, see Creating a new scheduled task and Scheduling an existing task.

Managing automated tasks

This section provides basic instructions on how to create, modify, schedule, import, run, stop, and monitor automated tasks.

In this section:

- Task Manager View
- Creating a task
- Creating a new scheduled task

- Scheduling an existing task
- Modifying an existing task
- Creating a copy of an existing task
- Importing tasks created with previous versions of Recovery Manager for Exchange
- Running a task
- Stopping a task
- Monitoring a task
- Basic usage scenarios for automated tasks

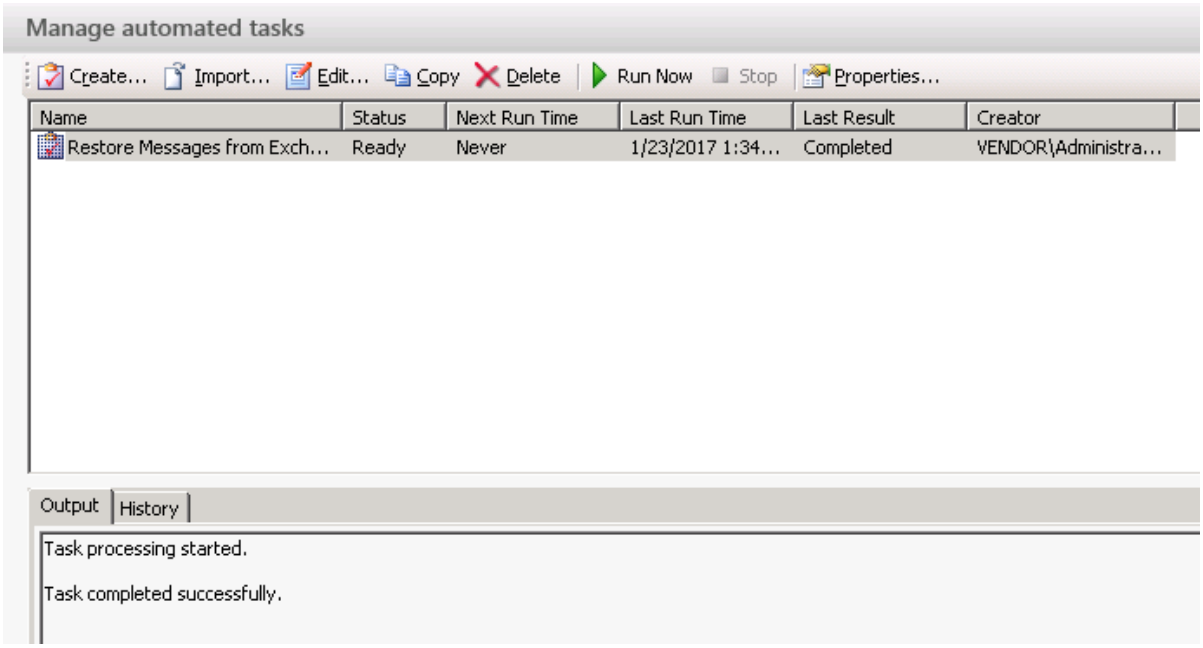
Task Manager View

The Task Manager View displays a list of existing automated tasks and allows you to create, modify, schedule, run, stop, and monitor tasks.

To display the Task Manager View

- In the Recovery Manager Console, from the main menu, select **Manage | Automated Tasks**.

  The Task Manager View that appears in the right pane is similar to the following:



In the Task Manager View, you can use the following elements:

- **Task List**. Displays a list of existing tasks.
- **Create**. Starts the Task Wizard that helps you create and then optionally run or schedule a new automated task.
- **Import**. Imports automated tasks from the Recovery Manager Task (.rmxt) files created with 4.x versions
- of Recovery Manager for Exchange.

- **Edit**. Starts the Task Wizard that helps you modify the existing task selected in the task list.
- **Copy**. Creates a copy of the task selected in the task list.
- Delete. Deletes the task selected in the task list.
- **Run Now**. Starts the task selected in the task list.
- **Stop**. Stops the running task selected in the task list.
- **Properties**. Allows you to view and modify properties of the task selected in the task list.
- **Output**. Displays operations performed by the currently running task selected in the task list.
- **History**. Displays history for the task selected in the task list.

Creating a task

To create a task

1. In the Task Manager View, click the **Create** button.
2. Step through the wizard to complete the creation of your task and run or schedule the task as needed.

   After you complete the Task Wizard, the task you created appears in the task list. If you do not schedule the task, it will run under the account you used to create the task.

Creating a new scheduled task

You can create a new scheduled recurring or non-recurring automated task. While creating such a task, you can specify an account under which the task will run.

To create a new scheduled task

1. In the Task Manager View, click the **Create** button.
2. Follow the instructions in the Task Wizard until you reach the Name and Describe Task page.
3. After you provide a name and description for the task, select **the Schedule and save this task** option, and follow the provided instructions to complete the wizard.

Scheduling an existing task

You can schedule an existing task to run at specific times or modify an existing schedule for a task. While scheduling a task, you can specify an account under which the task will run.

IMPORTANT: You cannot schedule an automated task that restores data from online Exchange Server if Recovery Manager for Exchange is installed on a standalone computer that is not on a network.

To schedule an existing task

1. From the task list in the Task Manager View, select the task you want to schedule.
2. Click the **Properties** button.

3. In the dialog box that opens, on the **Schedule** tab, specify parameters for scheduling the task, and click **OK**.

Modifying an existing task

To modify any parameter of an existing task, follow these steps:

To modify an existing task

1. From the task list in the Task Manager View, select the task you want to edit.
2. Click the **Edit** button.
3. Follow the steps in the Task Wizard to modify, save, and, if necessary, run the task.

You can modify the task name, description, schedule, or the account under which the task runs without stepping through the entire Task Wizard.

To modify the task name, description, schedule, or the account under which the task runs

1. From the task list in the Task Manager View, select the task you want to modify.
2. Click the **Properties** button.
3. Use the dialog box that opens to modify the task parameters as needed.

Creating a copy of an existing task

To create a copy of an existing task

1. From the task list in the Task Manager View, select the task whose copy you want to create.
2. Click the **Copy** button.

A copy of the task appears in the task list. You can change any parameters of the task copy by following the steps provided in Modifying an existing task.

Importing tasks created with previous versions of Recovery Manager for Exchange

Use this procedure to import tasks from Recovery Manager Task (.rmxt) files created with 4.x versions of RRecovery Manager for Exchange:

To import tasks

1. In the Task Manager View, click the **Import** button.
2. Use the dialog box that opens to browse for and select the Recovery Manager Task (.rmxt) files from which you want to import automated tasks.

   You can select multiple files located in the same folder by holding down CTRL and clicking the files.
3. Click **Open** to import tasks from the files you selected.

Running a task

To run a task

1. From the task list in the Task Manager View, select the task you want to run.
2. Click the **Run Now** button.

   Running a task can take a long time. This depends on the number of objects to be processed.

Stopping a task

To stop a task

1. From the task list in the Task Manager View, select the running task you want to stop.
2. Click the Stop button.

   When you stop a task, Recovery Manager for Exchange finishes the current task operations and then stops the task. A rollback to the initial state does not occur

Monitoring a task

To monitor an automated task, you can use these methods:

- Method 1: View information in the Task Manager View
- Method 2: View a report on completed tasks

Method 1: View information in the Task Manager View

Use the Task Manager View to select the task you want to monitor, and then use the **Status** column in the task list, the **Output** tab, and the **History** tab to view information about the task.

Method 2: View a report on completed tasks

In the Recovery Manager Console, form the main menu, select **Reports | Completed Automated Tasks**.

Basic usage scenarios for automated tasks

This section covers the following usage scenarios for the Automated Tasks feature:

- Scenario 1: Restoring mailboxes from offline Exchange Server databases to individual .pst files
- Scenario 2: Restoring mailboxes from Exchange Server Backups without cataloging them
- Scenario 3: Exporting messages from offline Exchange Server databases to a preferred format
- Scenario 4: Restoring messages from multiple .pst files to a single .pst file
- Scenario 5: Cataloging Exchange Server backups

Scenario 1: Restoring mailboxes from offline Exchange Server databases to individual .pst files

Before following the steps below, ensure that Recovery Manager for Exchange is configured to work with appropriate Exchange Server database versions. For more information, see Required Exchange Server DLLs.

1. Open the Task Manager View (in the Recovery Manager Console, from the main menu, select **Manage | Automated Tasks**).
2. Click the **Create** button in the right pane.

   The Task Wizard starts.
3. In the **Groups of templates** list, expand **Restore Mailboxes**, then expand from **Offline Exchange Databases**, and select to **Separate .Pst Files**. Click **Next**.
4. On the Select Type of Backup Media page, select **Folders that contain offline Exchange databases (.edb files)**, then click **Next**.
5. On the Add Folders page, click **Add** to browse for and select the folder that contains the offline Exchange Server databases from which you want to restore data. When finished, click **OK**.
6. Click **Next**.
7. On the Specify Search Criteria page, specify criteria for searching for the mailboxes you want to restore. When finished, click **Next**.

   For more information about search syntax and applicable search operators, see *Search syntax* subsection in Using the Find View.
8. Step through the wizard to complete the creation of your task and run or schedule it as needed.

Scenario 2: Restoring mailboxes from Exchange Server Backups without cataloging them

In this scenario, mailboxes are restored to individual Personal Folders (.pst) files.

Before following the steps below, ensure that Recovery Manager for Exchange is configured to work with appropriate Exchange Server database versions. For more information, see Required Exchange Server DLLs.

1. Open the Task Manager View (in the Recovery Manager Console, from the main menu, select **Manage | Automated Tasks**).
2. Click the **Create** button in the right pane.

   The Task Wizard starts.
3. In the **Groups of templates** list, expand **Restore Mailboxes**, then expand from **Exchange Backups**, and select to **Separate .Pst Files**. Click **Next**.
4. On the Select Type of Backup Media page, select the type of backup media from which you want to restore mailboxes, then click **Next**.

5. Depending on the type of backup media you selected, do one of the following:
    - If you selected **Specific backup files**, click **Add** to select and add backup files to the **Added backup files** list. When finished, click **Next**.
    - If you selected **Folders that contain backup files**, click **Add** to select and add folders to the **Added folders** list. When finished, click **Next**.
    - If you selected **Tape drives**, select the check boxes next to the names of the tape drives from which you want to restore data. When finished, click **Next**.
    - If you selected **Microsoft Removable Storage Manager library**, click **Add** to select and add Removable Storage Manager library media to the **Added media** list. When finished, click **Next**.
    - If you selected one of the backup server options, specify parameters for connecting to the backup server. When finished, click **Next**.
6. On the Specify Parameters for Backups page, specify creation dates for the backups from which you want to restore data, then type the names of servers whose mailboxes you want to restore. When finished, click **Next**.
7. On the Specify Storage Groups and Stores page, type the names of the storage groups and stores from which you want to restore mailboxes. When finished, click **Next**.
8. On the Specify Database Location page, enter the path to the folder where you want to place the extracted databases, and click **Next**.
9. On the Specify Search Criteria page, specify criteria for searching for the mailboxes you want to restore. When finished, click Next.

    For more information about search syntax and applicable search operators, see *Search syntax* subsection in Using the Find View.
10. Step through the wizard to complete the creation of your task and run or schedule it as needed.

Scenario 3: Exporting messages from offline Exchange Server databases to a preferred format

You can use this scenario to export messages to .eml, .msg, or .txt files.

Before following the steps below, ensure that Recovery Manager for Exchange is configured to work with appropriate Exchange Server database versions. For more information, see Required Exchange Server DLLs.

1. Open the Task Manager View (in the Recovery Manager Console, from the main menu, select **Manage | Automated Tasks**).
2. Click the **Create** button in the right pane.

    The Task Wizard starts.
3. **In the Groups of templates list, expand Restore Messages, then expand from Offline Exchange Databases, and select the preferred format for export (.eml, .msg, or txt files or Archive Manager). When finished, click Next.**
4. On the Select Type of Offline Exchange Databases Location, select **Folders that contain offline Exchange databases (.edb files)**, then click **Next**.
5. On the Add Folders page, click **Add** to browse for and select a folder that contains the offline Exchange Server databases from which you want to restore data. When finished, click **OK**.
6. Click **Next**.

7. On the Specify Search Criteria page, specify criteria for searching for the messages you want to export. When finished, click **Next**.

   For more information about search syntax and applicable search operators, see *Search syntax* subsection in Using the Find View.

8. Step through the wizard to complete the creation of your task and run or schedule the task as needed.

Scenario 4: Restoring messages from multiple .pst files to a single .pst file

1. Open the Task Manager View (in the Recovery Manager Console, from the main menu, select **Manage | Automated Tasks**).
2. Click the **Create** button in the right pane.

   The Task Wizard starts.

3. In the Groups of templates list, expand **Restore Messages**, expand from **.Pst Files**, then select **to Single .Pst File**. When finished, click **Next**.
4. On the Select Type of .Pst Files Location page, select **Folders that contain .pst files**, then click **Next**.
5. On the Add folders page, click **Add** to browse for and select the folder that contains the .pst files from which you want to restore data. When finished, click **OK**.
6. Click **Next**.
7. On the Specify Search Criteria page, specify criteria for searching for the messages you want to restore. When finished, click **Next**.

   For more information about search syntax and applicable search operators, see see *Search syntax* subsection in Using the Find View.

8. Step through the wizard to complete the creation of your task and run or schedule the task as needed.

Scenario 5: Cataloging Exchange Server backups

1. Open the Task Manager View (in the Recovery Manager Console, from the main menu, select **Manage | Automated Tasks**).
2. Click the **Create** button in the right pane.

   The Task Wizard starts.

3. In the **Groups of templates** list, expand **Catalog**, then select **Backups**.
4. Click **Next**.
5. Select the type of backup media you want to catalog backups from, then click **Next**.

6. Depending on the type of backup media you selected, do one of the following:
    - If you selected **Backup files**, click **Add** to select and add the backup files you want to catalog to the **Added backup files** list. When finished, click **Next**.
    - If you selected **Tape drives**, select the check boxes next to the names of the tape drives from which you want to catalog backups. When finished, click **Next**.
    - If you selected **Microsoft Removable Storage Manager library**, click **Add** to select and add the Removable Storage Manager library media you want to catalog to the **Added media** list. When finished, click **Next**.
7. Step through the wizard to complete the creation of your task and run or schedule the task as needed.

Management Shell

- About Management Shell
- Installing or uninstalling Management Shell
- Opening Management Shell
- Getting help
- Cmdlets provided by Management Shell
- Usage scenarios

About Management Shell

Recovery Manager for Exchange Management Shell, built on Microsoft Windows PowerShell technology, provides a command-line interface that enables automation of Recovery Manager for Exchange administrative tasks.

The Management Shell command-line tools (cmdlets), like Windows PowerShell cmdlets, are designed to deal with objects—structured information that is more than just a string of characters appearing on the screen. The cmdlets do not use text as the basis for interaction with the system, but use an object model that is based on the Microsoft .NET platform. In contrast to traditional, text-based commands, the cmdlets do not require the use of text-processing tools to extract specific information. Rather, you can access required data directly by using standard Windows PowerShell object manipulation commands.

For the permissions required to use the Management Shell, see Required permissions. Before installing the Management Shell feature, make sure your computer meets the system requirements described in the Recovery Manager for Exchange Release Notes.

Installing or uninstalling Management Shell

The Management Shell is installed by default when you install Recovery Manager for Exchange using the Setup program. You can uninstall the Management Shell by using the Custom option in the Setup Wizard.

To uninstall the Management Shell

1. Start the Setup Wizard:

Table 27: Steps to start the Setup Wizard

Windows XP Windows Server 2003	A later version of Windows
1. In Control Panel, click **Add or Remove Programs**. 2. In the list, select **Quest Recovery Manager for Exchange**, and then click **Change**. 3. Click **Next**.	1. In Control Panel, click **Uninstall a program**. 2. In the list, select **Quest Recovery Manager for Exchange**, and then click **Change**. 3. Click **Next**.

2. On the Custom Setup page, click the **Management Shell** option in the list, and then click **Entire feature will be unavailable**.
3. Complete the wizard.

Opening Management Shell

You can open the Management Shell by using either of the following procedures. Each procedure loads the Management Shell snap-in into Windows PowerShell. If you do not load the Management Shell snap-in before you run a command (cmdlet) provided by that snap-in, you will receive an error.

To open the Management Shell

1. Start a 32-bit version of Windows PowerShell.
2. At the Windows PowerShell prompt, enter the following command:

```
Add-PSSnapin QuestSoftware.RecoveryManager.Exchange.PowerShell.SnapIn
```

Alternatively, you can complete the following steps related to your version of Windows:

Table 28: Alternative steps to open the Management Shell

Windows XP Windows Server 2003 Windows Vista Windows 7 Windows Server 2008	A later version of Windows
1. Click **Start**. 2. Point to **All Programs | Quest | Recovery Manager for Exchange**. 3. Click **Management Shell**.	• On the **Apps** screen (Windows logo key + Q), click the **Management Shell** tile.

Upon the shell start, the console may display a message stating that a certain file published by Quest is not trusted on your system. This security message indicates that the certificate the file is digitally signed with is not trusted on your computer, so the console requires you to enable trust for the certificate issuer before the file can be run. Either press R (Run once) or A (Always run). To prevent this message from appearing in the future, it is advisable to choose the second option (A).

Getting help

This section provides instructions on how to get help information for the cmdlets added by the Management Shell to the Windows PowerShell environment.

For detailed information about the Management Shell cmdlets, you can also view the RMEManagementShell.chm file located in the Recovery Manager for Exchange installation folder (by default, this is **%ProgramFiles%\Quest\Recovery Manager for Exchange**).

Table 29: Common help commands

To view this	Run this command
A list of all the Recovery Manager for Exchange cmdlets available to the shell.	**Get-RMECommand**
Information about the parameters and other components of a Recovery Manager for Exchange cmdlet.	Run one of the following: • **Get-RMECommand** <CmdletName> • **Get-Command** <CmdletName> **NOTE:** You can use wildcard character expansion. For example, to view information about the cmdlets with the names ending in Mailbox, you can run this command: **Get-Command *Mailbox**
Basic help information for a Recovery Manager for Exchange cmdlet.	**Get-Help** <CmdletName>
Detailed help information for a Recovery Manager for Exchange cmdlet, including descriptions of available parameters and usage examples.	**Get-Help** <CmdletName> -**full**
Basic information about how to use the help system in Windows PowerShell, including Help for the Management Shell.	**Get-Help**

Cmdlets provided by Management Shell

This section provides an overview of all cmdlets provided by the Management Shell. To view detailed information about a particular cmdlet, see the Management Shell Help (for more information, refer to Getting help).

The Management Shell cmdlets fall into the following categories:

- Cmdlets for connecting to storages
- Cmdlets for retrieving (searching for) objects
- Cmdlets for restoring data
- Cmdlets for exporting data

- Cmdlets for managing automated tasks
- Other cmdlets

Cmdlets for connecting to storages

The Management Shell provides cmdlets that allow you to connect to the items you wish to use as sources or targets for data restore operations. The names of such cmdlets have the format **Attach-**<Noun>.

Cmdlets for connecting to storages

Cmdlet	Description
Attach-RMEArchiveManager	Establishes a connection to the specified Archive Manager instance.
Attach-RMEExchangeDB	Establishes a connection to the specified Exchange Server database.
Attach-RMEExchangeMailbox	Establishes a connection to the live Exchange Server mailbox you specify.
Attach-RMEExchangeOnline	Establishes a connection to mailboxes and public folders in Exchange Online (Office 365).
Attach-RMEExchangePublicFolders	Establishes a connection to the public folder hierarchy whose Exchange Server you specify.
Attach-RMELotusDB	Establishes a connection to the specified Lotus Domino database.
Attach-RMEPersonalFolders	Establishes a connection to the Personal Folders (.pst) file you specify.

When connecting to an item which can act as a source or target for data restore operations (for example, a Personal Folders (.pst) file), you need to specify how you want to use that item. To indicate that the item will act as a source, use the **-IsSource** parameter. In this case, licenses may be allocated to the item as described in License allocation. If the **-IsSource** parameter is omitted, the item will only act as a target for the data restore operation and no licenses will be allocated to it.

When attaching the Exchange offline database using the **Attach-RMEExchangeDB** cmdlet, you can add the source or target storage to the list of storages that are registered in Recovery Manager for Exchange console. Provide the **-RegisterStorage** parameter to register the storage. If the parameter is omitted, the storage will be available only during the PowerShell session and will be disposed after the session is closed.

For more information on what items are supported as source and target storages by your edition of Recovery Manager for Exchange, see Comparison of Recovery Manager for Exchange editions.

Here is an example of how to connect to a Personal Folders (.pst) file:

Table 30: Example: Connecting to a .pst file

Command	Description
`Attach-RMEPersonalFolders "C:\PST\MyData.pst" -IsSource`	This command establishes a connection to the file MyData.pst located in C:\PST. The file will be used as a source storage.

Cmdlets for retrieving (searching for) objects

The Management Shell provides cmdlets that allow you to retrieve objects representing such items as Exchange Servers, message attachments, folders, mailboxes, or messages. The names of these cmdlets have the format **Get-**<Noun>.

Table 31: Cmdlets for retrieving objects

Cmdlet	Description
Get-RMEAttachment	Retrieves attachments from the messages that match the criteria you specify.
Get-RMEExchangeServer	Retrieves all Exchange Servers along with the mailboxes they host from a particular Exchange organization.
Get-RMEFolder	Retrieves the folders that match the criteria you specify.
Get-RMEMailbox	Retrieves the mailboxes that match the criteria you specify.
Get-RMEMessage	Retrieves the messages that match the criteria you specify.

To retrieve an object

1. Connect to the item you wish to use as a storage by using one of the cmdlets described in Cmdlets for connecting to storages.
2. Pass the output of the cmdlet you used in step 1 to one of the cmdlets that retrieve objects, as shown in the next examples. To pass the output, you can use pipelining or a variable.

Table 32: Examples: Retrieving objects

Command	Description
`Attach-RMEExchangeDB C:\Demo\priv1.edb | Get-RMEMailbox "Administrator" | Get-RMEFolder "Inbox" | Get-RMEMessage -Text "confidential" -SearchIn Subject`	The Attach-RMEExchangeDB cmdlet connects to the offline Exchange Server database priv1.edb, and then pipes the database object to the Get-RMEMailbox cmdlet. The Get-RMEMailbox cmdlet gets the Administrator mailbox object, and pipes it to the Get-RMEFolder cmdlet. The Get-RMEFolder cmdlet gets the Inbox folder object, and pipes it to the Get-RMEMessage cmdlet. The Get-RMEMessage cmdlet gets all messages whose **Subject** field contains the word confidential.
`PS C:\> $source = Attach-RMEPersonalFolders "C:\psts\MyData.pst" -IsSource` `PS C:\> Get-RMEMessage $source - TimeBefore "01.01.2000"`	In the first line of this example, the Attach-RMEPersonalFolders cmdlet connects to the MyData.pst file as a source storage, and then saves the file object in the $source variable. In the second line of this example, the Get-RMEMessage cmdlet retrieves messages that were received before 01.01.2000 from the .pst file object saved in the $source variable.
`PS C:\> $source = Attach-RMEPersonalFolders "C:\psts\MyData.pst" -IsSource` `PS C:\> Get-RMEMessage $source -TimeMatch sent -TimeAfter "01.01.2000"`	In the first line of this example, the Attach-RMEPersonalFolders cmdlet connects to the MyData.pst file as a source storage, and then saves the file object in the $source variable. In the second line of this example, the Get-

Command	Description
	RMEMessage cmdlet retrieves messages that were sent after 01.01.2000 from the .pst file object saved in the $source variable. **NOTE:** When retrieving messages by date, the Get-RMEMessage cmdlet searches in the Received field by default. To search in other message fields, use the TimeMatch parameter.

Cmdlets for restoring data

The Management Shell provides cmdlets that allow you to restore folders, mailboxes, or messages. The names of such cmdlets have the format **Restore-**<Noun>.

Table 33: Cmdlets for restoring data

Cmdlet	Description
Restore-RMEFolder	Restores folders.
Restore-RMEMailbox	Restores mailboxes.
Restore-RMEMessage	Restores messages.

To restore data

1. Connect to the item you wish to use as a storage by using one of the cmdlets described in Cmdlets for connecting to storages.
2. Pass the output of the cmdlet you used in step 1 to one of the cmdlets that retrieve objects, as shown in the examples later in this procedure. For more information, see Cmdlets for retrieving (searching for) objects.
3. Pass the output of the cmdlet you used in step 2 to one of the cmdlets that restore data, as shown in the next examples. To pass the output, you can use pipelining or a variable.

Table 34: Examples: Restoring data

Command	Description
`Attach-RMEExchangeDB C:\Demo\priv1.edb | Get-RMEMailbox "Administrator" | Restore-RMEMailbox -TargetPath "C:\Exported\PST"`	The Attach-RMEExchangeDB cmdlet connects to the offline Exchange Server database priv1.edb, and then pipes the database object to the Get-RMEMailbox cmdlet. The Get-RMEMailbox cmdlet gets the Administrator mailbox object, and pipes it to the Restore-RMEMailbox cmdlet. The Restore-RMEMailbox cmdlet restores the entire Administrator mailbox to a .pst file in the folder C:\Exported\PST.
`PS C:\> $target = Attach-`	In the first line of this example, the Attach-

Command	Description

`RMEExchangeMailbox "Administrator" | Get-RMEFolder "Restored"`
 	
`PS C:\> Attach-RMEExchangeDB "C:\Data\Edb\EdbSearchTest\EdbSearchTest .edb" | Get-RMEFolder "John Doe\Inbox" | Get-RMEMessage | Restore-RMEMessage -TargetFolder $target`
	RMEExchangeMailbox cmdlet connects to the Administrator mailbox.
	
	The mailbox object is then piped to the Get- RMEFolder cmdlet that retrieves the Restored folder from the mailbox. The Restored folder object is then saved in the $target variable.
	
	In the second line of this example, a connection is established to the EdbSearchTest.edb mailbox store database, and all messages are retrieved from the Inbox folder in the John Doe mailbox. The retrieved messages are then restored to the folder saved in the $target variable.

`PS C:\> $target = Attach-RMEExchangeMailbox "John Doe" | Get-RMEFolder "Restored"`
 	
`PS C:\> Attach-RMEPersonalFolders "C:\PST\Data.pst" -IsSource | Get-RMEMessage -Text "data" -SearchIn Body,Subject,Attach | Restore-RMEMessage -TargetFolder $target`
	In the first line of this example, the Attach-RMEExchangeMailbox cmdlet connects to the John Doe mailbox.
	
	The mailbox object is then piped to the Get- RMEFolder cmdlet that retrieves the Restored folder from the mailbox. The Restored folder object is then saved in the $target variable.
	
	In the second line of this example, the Attach-RMEPersonalFolders cmdlet connects to the Data.pst file. Then, the Get-RMEMessage cmdlet retrieves all messages whose body, subject, or attachments include the word data. Then, the Restore-RMEMessage cmdlet restores these messages to the target folder saved in the $target variable.

Cmdlets for exporting data

The Management Shell provides cmdlets that allow you to export messages or attachments. The names of such cmdlets have the format **Export-**<Noun>.

Table 35: Cmdlets for exporting data

Cmdlet	Description
Export-RMEAttachment	Exports attachments to the location you specify.
Export-RMEMessage	Exports messages to the format you specify or to Archive Manager.

Here is an example of how to export messages:

Table 36: Example: Exporting messages

Command	Description
`PS C:\> $messages = Attach-RMEExchangeDB`	In the first line of this example, the Attach- RMEExchangeDB establishes a connection to the priv1.edb offline Exchange Server database file.

Command	Description

`"C:\Demo\priv1.edb" | Get-RMEMessage -Importance High`
 	
`PS C:\> Export-RMEMessage -Messages $messages -Type MSG -ExportPath "C:\Exported\MSG"`
	The database will be used as a source storage. The database object is then piped to the Get- RMEMessage cmdlet that retrieves all the messages that have high importance and saves them to the $messages variable.
	In the second line of this example, the Export- RMEMessage cmdlet exports each message saved in the $messages variable to an individual .msg file in the folder C:\Exported\MSG.

Cmdlets for managing automated tasks

The Management Shell provides cmdlets that allow you to retrieve automated task objects and start and stop automated tasks. The names of such cmdlets have the format <Verb>-**RMETask**.

Table 37: Cmdlets for managing automated tasks

Cmdlet	Description
Get-RMETask	Retrieves automated tasks.
Run-RMETask	Runs automated tasks.
Stop-RMETask	Stops running automated tasks.

Here are some examples of how to use these cmlets:

Table 38: Examples: Running, stopping, or getting automated tasks

Command	Description
`Get-RMETask | Where { $_.name -match ".pst" } | Run-RMETask`	The Get-RMETask cmdlet gets all existing automated tasks whose name includes the string ".pst", and then pipes them to the Run-RMETask cmdlet which runs these tasks.
`Stop-RMETask -ID 2c040513-803d-4098- 9930-9467373ee499`	Stops the running automated task with the specified ID.
`Get-RMETask | Where { $_.name -match ".pst" } | Stop-RMETask`	The Get-RMETask cmdlet gets all existing automated tasks whose name includes the string ".pst", and then pipes them to the Run-RMETask cmdlet which stops the running tasks.

Other cmdlets

The table below provides descriptions of all other cmdlets supplied with the Management Shell.

Table 39: Other cmdlets

Cmdlet	Description
Catalog-RMEBackup	Catalogs backups and writes information about cataloged backups to the Recovery Manager for Exchange backup catalog.
Delete-RMEMessage	Deletes the messages you specify.
Extract-RMEExchangeDB	Extracts Exchange Server database files from the backups you specify.
Import-RMEPersonalFolders	Imports messages from the Personal Folders (.pst) files you specify to online mailboxes on Exchange Servers.

Here are some examples of how to use these cmdlets:

Table 40: Examples of using other cmdlets

Command	Description
`Catalog-RMEBackup -MediaType Files -MediaNames \\intranet.corp\Backups\ExchangeBackup_02072013.bkf`	This command catalogs the backup file named ExchangeBackup-02072013.bkf and located on the network share \\intranet.corp\Backup.
Get-RMEExchangeServer -TargetDomain "dom.europe.corp" | Get-RMEMailbox -MailboxNameInclude "Doe" | Get-RMEMessage -SearchIn Subject -Text "Contract" | Delete-RMEMessage	The Get-RMEExchangeServer cmdlet gets all Exchange Server objects located in the dom.europe.corp domain. These objects are then piped to the Get-RMEMailbox cmdlet that retrieves the mailbox whose name includes the word Doe. The mailbox object is then passed to the Get-RMEMessage cmdlet that retrieves the message whose subject includes the word Contract. Finally, the Delete-RMEMessage cmdlet deletes the retrieved message.
`Extract-RMEExchangeDB -MediaType Files -MediaNames "C:\Exchange\BKF\FullExchangeBackup.bkf" -ExtractPath "C:\Exchange\Extracted Databases" | Attach-RMEExchangeDB | Get- RMEMailbox | Restore-RMEMailbox - TargetPath "C:\Data\Exported\Pst"`	The Extract-RMEExchangeDB cmdlet extracts the Exchange Server database from the FullExchangeBackup.bkf file to the Extracted Databases folder. The Attach-RMEExchangeDB cmdlet then connects to the extracted database and pipes it to the Get- RMEMailbox cmdlet, which gets all mailboxes from the database. The mailbox objects are then piped to the Restore- RMEMailbox cmdlet, which restores each mailbox to an individual Personal Folders (.pst) file in the C:\Data\Exported\Pst folder.
`Import-RMEPersonalFolders -Items C:\PSTFiles`	This command imports messages from all

Command	Description
`-TargetDomain mydomain.com - NameMatchType Equals -TargetType OnPremise -ImportLocation Root`	Personal Folders (.pst) files found in the root of the C:\PSTFiles folder. The messages are imported to the on-premises Exchange Server mailboxes hosted in the Active Directory domain named mydomain.com. The domain is accessed in the security context of the user account under which the Management Shell is running. The messages are imported from each source .pst file into the root of the target online mailbox whose alias, display name, or sAMAccountName value is identical to the .pst file name or file owner's name.

Usage scenarios

This section covers the following scenarios:

- Restoring online mailboxes to individual .pst files
- Migrating data from Archive Manager or to the Archive Manager instance

Restoring online mailboxes to individual .pst files

The following example demonstrates how to restore online Exchange Server mailboxes to individual .pst files:

Table 41: Scenario: Restoring online mailboxes to individual .pst files

Command	Description
`Get-RMEExchangeServer | Get-RMEMailbox | Restore-RMEMailbox -TargetPath "C:\Exported\PST"`	The Get-RMEExchangeServer cmdlet enumerates all Exchange Servers in the current Active Directory domain, and then pipes the server objects to the Get- RMEMailbox cmdlet, which retrieves all all the mailboxes from those servers. The Restore-RMEMailbox cmdlet then restores each of the mailboxes to an individual .pst file in the C:\Exported\PST folder.

Migrating data from Archive Manager or to the Archive Manager instance

The following examples demonstrate how to migrate mailboxes from/to Archive Manager instance:

Table 42: Scenario: Migrating data

Operation	Command	Description

Migrating data from one Archive Manager instance to another	`$target = Attach-RMEArchiveManager -ServerName AMserver1.mycompany.corp -Port 5555 -Authentication Forms -UserName AM1admin -Password P@ssw0rd1 -ExportDirectory "C:\AMLoadDir"`
	
	`Attach-RMEArchiveManager -ServerName AMserver2.mycompany.corp -Port 5555 -Authentication Forms -UserName AM2admin -Password P@ssw0rd2 | Get-RMEMailbox "Administrator" | Restore-RMEMailbox -TargetFolder $target`
		In the first line of this example, the Attach-RMEArchiveManager cmdlet connects to the target Archive Manager server. The -ExportDirectory parameter specifies the folder from which Archive Manager can load data (C:\AMLoadDir).
		
		In the second line of this example, the Attach-RMEArchiveManager cmdlet connects to the source Archive Manager server, and then pipes the server object to the Get-RMEMailbox cmdlet.
		
		The Get-RMEMailbox retrieves the Administrator mailbox from AMserver2, and then pipes the mailbox to the Restore-RMEMailbox cmdlet, which restores the mailbox to the Archive Manager server saved in the $target variable.

Migrating data from the source Archive Manager server to .pst on the target Archive Manager server	`$AMSourceStorage = Attach-RMEArchiveManager -ServerName <ArchiveManagerServer name> -Port 80 -TargetDomain $AMdomain -UserName $AMUser -Password $AMPassword -Authentication Windows -LoadAllMailboxes`
	
	`$AMSourceStorage | Get-RMEMailbox | Restore-RMEMailbox -TargetPath "C:\Exported\PST"`
		The Attach-RMEArchiveManager cmdlet connects to the source Archive Manager server.
		
		In the second line of this example, Get-RMEMailbox cmdlet retrieves all the mailboxes from the source server. Then, the Restore-RMEMailbox cmdlet restores each of the mailboxes to an individual .pst file in the specified folder on the target Archive Manager server.

Migrating data from Archive Manager to on-premises Exchange	`$AMSourceStorage = Attach-RMEArchiveManager -ServerName <ArchiveManagerServer> -Port 80 -TargetDomain $AMdomain -UserName AMUser -Password $AMPassword -Authentication Windows -LoadAllMailboxes`
	
	`$AMSourceStorage | Get-RMEMailbox | % { Restore-`
		The Attach-RMEArchiveManager cmdlet connects to the source Archive Manager server.
		
		In the second line, Get-RMEMailbox cmdlet retrieves

Operation	Command	Description
	RMEMailbox $_ -TargetFolder (Attach-RMEExchangeMailbox -ConnectionMethod Auto -MailboxName $_.DisplayName) }	all the mailboxes from the source. Then, the Restore-RMEMailbox cmdlet restores each of the mailboxes to corresponding live Exchange Server mailbox. Attach-RMEExchangeMailbox establishes a connection to the live Exchange Server mailbox you specify. In this example, mailboxes are matched by DispalyName.
Migrating data from Archive Manager to Office 365	$AMSourceStorage = Attach-RMEArchiveManager -ServerName <ArchiveManagerServer> -Port 80 -TargetDomain $AMdomain -UserName $AMUser -Password $AMPassword -Authentication Windows -LoadAllMailboxes $O365Storage = Attach-RMEExchangeOnline -MicrosoftOnlineServicesID $O365UserName -Password $O365Password -ConnectionMethod Auto $AMSourceStorage \| Get-RMEMailbox \| % {$O365Mailbox = $O365Storage | Get-RMEMailbox $_.DisplayName Restore-RMEMailbox $_ -TargetFolder $O365Mailbox}	The Attach-RMEArchiveManager cmdlet connects to the source Archive Manager server. In the second line, Attach-RMEExchangeOnline connects to the target Office 365. The Get-RMEMailbox cmdlet retrieves all the mailboxes from the source. Then, the Restore-RMEMailbox cmdlet restores each of the mailboxes to corresponding Office 365 mailbox. In this example, mailboxes are matched by DispalyName.
Migrating data from Archive Manager to Office 365 with the CSV mapping file	$Source_To_Target_Map = Import-Csv $sourceCsvFile \| ? {$_.SrcMailbox} $AMSourceStorage = Attach-RMEArchiveManager -ServerName $AMServer -Port 80 -Authentication Windows $O365Storage = Attach-RMEExchangeOnline -MicrosoftOnlineServicesID $O365UserName -Password $O365Password -ConnectionMethod Auto foreach($obj in $Source_To_Target_Map) { $AMailbox = $AMSourceStorage | Get-RMEMailbox $obj.SrcMailbox $O365Mailbox = $O365Storage | Get-RMEMailbox $obj.TrgMailbox $AMailbox | Restore-RMEMailbox -TargetFolder $O365Mailbox } **Example of CSV file:**	In the first line of this example, you import the specified CSV file. In the second line of this example, the Attach-RMEArchiveManager cmdlet connects to the source Archive Manager server. The Attach-RMEExchangeOnline connects to the target Office 365. Then, Get-RMEMailbox cmdlet retrieves all the mailboxes from the source and from the target. In this

Operation	Command	Description
	SrcMailbox,TrgMailbox "Erika.Robinson", "E_Robinson" "Gregory.Anderson" , "G_Anderson"	example, mailboxes are matched according to the specified the specified CSV file. Then, the Restore-RMEMailbox cmdlet restores each of the mailboxes to corresponding Office 365 mailbox.
Migrating PST contents to the target Archive Manager server	(Attach-RMEPersonalFolders 'c:\ExportArchive\PST\AmeliaSpringdee.pst' -IsSource).Root | Restore-RMEFolder -TargetFolder ((Attach-RMEArchiveManager -ServerName 'ArchiveManager' -Authentication Windows -ExportDirectory "\\ArchiveManager\c$\Quest\ArchiveManager\Export" | Get-RMEMailbox 'AmeliaSpring').Root	The Attach-RMEPersonalFolders establishes a connection to the specified .pst on the source. The Attach-RMEArchiveManager cmdlet connects to the target Archive Manager server. Then, Restore-RMEFolder restores the .pst contents to the specified target folder.

Web Interface

- About Web Interface
- Deploying Web Interface
- Configuring access to Web Interface
- Configuring the Web browser
- Connecting to Web Interface
- Using Web Interface

About Web Interface

Web Interface is a Recovery Manager for Exchange feature that makes a single instance of Recovery Manager for Exchange remotely accessible to users across an intranet. When it is installed, the Web Interface enables an intranet user to remotely access Recovery Manager for Exchange via a Web browser to preview messages in registered storages and search, restore, and export data.

The key features and benefits of the Web Interface include:

- **Remote access to the Recovery Manager for Exchange functionality**. Allows users to connect to Recovery Manager for Exchange via a Web browser and remotely preview messages in registered storages and perform data search, restore, and export operations.
- **Intranet-wide availability**. Makes a single instance of Recovery Manager for Exchange available across an intranet, eliminating the need to install and administer Recovery Manager for Exchange on multiple computers.
- **Configurable access**. Allows the Recovery Manager for Exchange administrator to restrict access to the Web Interface so that only specific intranet users can access and use it.

This chapter provides an overview of the Web Interface elements and describes how to connect to and use the Web Interface.

Deploying Web Interface

Before you proceed with the Web Interface installation, make sure the user account you want to use has sufficient permissions to perform that operation.

To install the Web Interface

1. Run the **Autorun.exe** file located in the root of the Recovery Manager for Exchange CD.
2. In the Recovery Manager for Exchange CD Autorun window, go to the **Setup** tab, click **Install** next to Quest Recovery Manager for Exchange, and step through the Setup Wizard.
3. On the **Choose Setup Type** page, select **Custom**, then click **Next**.
4. On the **Custom Setup** page, make sure the Web Interface component is selected for installation.
5. On the **Specify Web Site Settings** page, specify the Application Poll account credentials under the **Application pool identity**. This account must be a member of the local **Administrators** group.
6. Step through the wizard to complete the installation.

Make sure you take note of the Web site and virtual directory you specify in the wizard, because they will make up the URL at which remote users can access the Web Interface, as follows:

http://<WebSite>/<VirtualDirectory>

The Web Interface output folder you specify in the wizard is a location on the Recovery Manager for Exchange computer that stores files generated during the restore and export operations performed in the Web Interface.

Configuring access to Web Interface

The Web Interface is only accessible to the intranet users who have Read permission on the virtual directory where the Web Interface is installed. By default, such a permission is granted to the members of the local Administrators group and/or the Users group on the Recovery Manager for Exchange computer. You can restrict access to the Web Interface by ensuring that only specific user accounts have Read permission granted for the virtual directory where the Web Interface is installed.

To configure access to the Web Interface

1. On the computer where the Web Interface is installed, start Internet Information Services (IIS) Manager.
2. In the IIS Manager console tree, expand the appropriate nodes to select the virtual directory where the Web Interface is installed.

   In IIS 7.0 or later, the default Web Interface virtual directory is <RecoveryManagerComputer>/**Sites/Default Web Site/RME**

   In IIS 6.0, the default Web Interface virtual directory is <RecoveryManagerComputer>/**Web Sites/Default Web Site/RME**
3. Right-click the Web Interface virtual directory, then do one of the following:
   - In IIS 7.0 or later, click **Edit Permission**s.
   - In IIS 6.0, click **Permissions**.
4. On the **Security** tab, make sure the users or groups you want to provide with access to the Web Interface are listed under *Group or user names* and have Read permission granted.

Configuring the Web browser

Before connecting to the Web Interface, check to make sure the Web browser you will be using to connect is configured properly.

To configure Internet Explorer

1. In Control Panel, open Internet Options
2. On the **Security** tab, click **Local intranet**, and then click the **Custom level** button.
3. Under **Settings**, make sure that the **Enable** option is selected for the following:
    - **Downloads | File download**
    - **Scripting | Active scripting**
4. Click **OK** to close the **Security Settings** dialog box.

Connecting to Web Interface

To start using the Web Interface, connect to it with your Web browser.

To connect to the Web Interface

- Start your Web browser, and then go to the following URL:

  http://<WebSite>/<VirtualDirectory>/

  Substitute the Web site and virtual directory names specified during the Web Interface installation for the <WebSite> and <VirtualDirectory> placeholders.

  For example, you might go to **http://Comp/RME** if the Web Interface site is installed to the default Web site on the computer named **Comp** in the virtual directory **RME**.

  You may be prompted to download and install Microsoft Silverlight, as it is required to access the Web Interface.

Using Web Interface

The Web Interface look resembles the Recovery Manager Console and has the following elements:



Note that in the Web Interface you can only use storages previously registered with the Recovery Manager Console.

Menu Bar

- **Find**. Allows you to search registered source storages for specific messages.
- **Restore Mailboxes**. Allows you to start a wizard that helps you selectively restore mailboxes from registered source storages.
- **Restore Public Folders**. Allows you to start a wizard that helps you selectively restore public folders from registered source storages.
- **Restore Messages**. Allows you start a wizard that helps you selectively restore messages from registered source storages.
- **Help**. Displays Help for the Web Interface.

Tree View

- **Quest Recovery Manager for Exchange**. When you select this node, the Details View displays the Task Pad View you can use to perform a data restore task. When this node is expanded, you can use the **Find**, **Source Storages**, and **Target Storages** nodes described below.
- **Find**. When you select this node, the right pane displays the Find View you can use to search source storages registered with Recovery Manager for Exchange.
- **Source Storages**. When you expand this node, you can browse source storages registered with Recovery Manager for Exchange to view their contents and select items to restore.
- **Target Storages**. When you expand this node, you can browse target storages registered with Recovery Manager for Exchange to view their contents.

Details View

Displays the contents of an item (such as storage, folder, or mailbox) currently selected in the Tree View.

In this section:

- Searching for messages
- Restoring mailboxes
- Restoring public folders
- Restoring messages
- Previewing messages

Searching for messages

You can use the Web Interface to search for specific messages in registered source storages. The Web Interface allows you to select multiple registered source storages and multiple mailboxes and public folders from different source storages to search at once.

To search for items

1. Do one of the following:
    - In the Tree View, select the **Find** node.
    - On the Menu Bar, click **Find**.
2. Specify criteria for the messages you want to find, and then click the **Find Now** button.

After your search completes, you can select specific messages in the **Search results** list, and click the **Restore** button to restore them.

To search for messages while browsing a source storage

1. In the Tree View, expand the **Source Storages** node to locate the source storage you want to search.
2. Right-click the storage, and then click **Find**.

   To search in a specific folder, perform the Find command on that folder.

Restoring mailboxes

The Web Interface allows you to restore mailboxes from registered source storages to the following targets:

- A registered target storage
- New .pst files
- New .msg files
- New .eml files
- New .txt files

To restore mailboxes

- On the Menu Bar, click Restore Mailboxes, and follow the steps in the wizard to complete the restore operation.

  If you restore data to new .pst, .msg, .eml, or .txt files, these files are first created on the Recovery Manager for Exchange computer, and then downloaded to the computer from which you are accessing the Web Interface at that moment.

To restore a mailbox while browsing a source storage

1. In the Tree View, expand the **Source Storages** node, then expand the storage nodes to locate the mailbox you want to restore.
2. Right-click the mailbox, and then click **Restore**.
3. Follow the steps in the wizard to complete the restore operation.

Restoring public folders

The Web Interface allows you to restore public folders from registered source storages to the following targets:

- A registered target storage
- New .pst files
- New .msg files
- New .eml files
- New .txt files

To restore public folders

- On the Menu Bar, click **Restore Public Folders**, and follow the steps in the wizard to complete the restore operation.

  If you restore data to new .pst, .msg, .eml, or .txt files, these files are first created on the Recovery Manager for Exchange computer, and then downloaded to the computer from which you are accessing the Web Interface at that moment.

To restore a public folder while browsing a source storage

1. In the Tree View, expand the **Source Storages** node, then expand the appropriate source storage nodes to locate the public folder you want to restore.
2. Right-click the public folder, and then click **Restore**.
3. Follow the steps in the wizard to complete the restore operation.

Restoring messages

The Web Interface allows you to restore messages from registered source storages to the following targets:

- A registered target storage
- New .pst files
- New .msg files
- New .eml files
- New .txt files

To restore messages

- On the Menu Bar, click **Restore Messages**, and follow the steps in the wizard to complete the restore operation.

  If you restore data to new .pst, .msg, .eml, or .txt files, these files are first created on the Recovery Manager for Exchange computer, and then downloaded to the computer from which you are accessing the Web Interface at that moment.

To restore messages while browsing a source storage

1. In the Tree View, expand the **Source Storages** node, then expand the appropriate nodes to select the container that includes the messages you want to restore.
2. In the Details View, select the messages you want to restore.

   To select multiple messages, hold down CTRL and click the messages you want to restore.
3. Right-click any of the selected messages, and then click **Restore**.
4. Follow the steps in the wizard to complete the restore operation.

Previewing messages

While browsing a registered storage or viewing a list of search results in the Web Interface, you can preview the messages in that storage or list. When previewing a message, you are provided with a list of files attached to that message.

To preview a message while browsing a storage

1. If you want to preview a message in a source storage, in the Tree View, expand the **Source Storages** node.

   If you want to preview a message in a target storage, in the Tree View, expand the **Target Storages** node.
2. Expand the appropriate nodes to select the container that includes the message you want to preview.
3. In the Details View, double-click the message or right-click the message, and then click **Open** on the shortcut menu.

To find and preview messages

1. Use the Web Interface to run a search for the messages you want to preview. For instructions on how to search, see Searching for messages.
2. After your search completes, in the **Search results** list, double-click the message you want to preview or right-click the message, and then click **Open** on the shortcut menu.

Appendices

- Mailbox Restore Wizard
- Public Folder Restore Wizard
- Message Restore Wizard
- Message Delete Wizard
- Import .Pst Files Wizard
- Add Storage Wizard
- Catalog Wizard
- Task Wizard
- Comparison of Recovery Manager for Exchange editions

Mailbox Restore Wizard

The Mailbox Restore Wizard helps you selectively restore mailboxes from registered source storages to a registered target storage. You can also restore selected mailboxes to a live Exchange Server, or restore each selected mailbox to an individual Personal Folders (.pst) file.

Source and target storages for a restore operation can be selected from those registered with Recovery Manager for Exchange. You can also register new source and target storages while using this wizard.

To start the Mailbox Restore Wizard

- From the main menu, select **Restore | Mailboxes.**

The wizard includes the following pages:

- Add Mailboxes to Restore
- Select a Restore Scope Option
- Configure Restore Criteria
- Select Type of Target Storage
- Specify Target Domain
- How to Handle Missing Target Mailboxes?
- Select AD Backup
- Select AD Container
- Select Exchange Server Database

- Select Target Storage
- Select Where to Place Mailboxes
- Specify Target .Pst Files Options
- Select a Restore Method
- Select Time Stamp to Apply
- Select Types of Items to Restore
- Performing Restore
- Mailbox Restore Wizard Completed

Add Mailboxes to Restore

On the Add Mailboxes to Restore page, the wizard prompts you to set up a list of the mailboxes that you want to restore from registered source storages.

Table 43: User interface elements

Element	Description
Added mailboxes	Displays a list of the mailboxes that you have selected to restore.
Add	Opens a dialog box you can use to select the mailboxes you want to restore and add them to the **Added mailboxes** list. You can also register new source storages to select and restore mailboxes from.
Remove	Removes selected mailboxes from the **Added mailboxes** list.

To add mailboxes to the list

1. Click **Add**.
2. In the **Select Mailboxes** dialog box, expand the registered source storage nodes, and select the check boxes next to the mailboxes you want to restore.

   You can click the **Add New Storage** button to register a new source storage. You can select mailboxes from multiple source storages.
3. Click **OK**.

To remove mailboxes from the list

- In the **Added mailboxes** list, select the mailboxes you want to remove, and click **Remove**.

Select a Restore Scope Option

On this page, you can choose to restore the selected mailboxes with all the messages they contain or configure criteria to restore only specific messages in the mailboxes.

Table 44: User interface elements

Element	Description
Restore entire mailboxes	Restores the selected mailboxes with all the messages they contain.
Configure what messages to restore in mailboxes	Allows you to restore specific messages in the selected mailboxes. In the next step of the wizard, you can configure criteria for the messages you want restored. Messages not meeting your criteria are not included in the restored mailboxes. If no messages in a selected mailbox meet your criteria, the restored mailbox will be empty.

Configure Restore Criteria

Use this page to specify criteria for the messages you want to restore. This page has the same elements and accepts the same search syntax as the Find View.

By default, the page opens in the standard mode. For more information about the elements you can use this mode, see *Standard mode* subsection in Using the Find View (the applicable descriptions are in the When looking for messages

column of the tables.)

To switch to the advanced mode, click the **Advanced Mode** hyperlink. For more information about the elements you can use in this mode, see *Advanced mode* subsection in Using the Find View.

For more information about the search syntax you can use, see *Search syntax* subsection in Using the Find View.

Select Type of Target Storage

On the Select Type of Target Storage page, the wizard prompts you to select the type of target storage. You can restore mailboxes to a single folder in a registered target storage (this includes target storages that you may register in the next steps of the wizard), restore each mailbox to an individual new .pst file, restore each mailbox to its online home Exchange Server in the domain you specify, or export all messages from the mailboxes to a specific file format.

Specify Target Domain

On this page you can specify the domain that hosts the target live Exchange Servers to which you want to restore the mailboxes you have selected.

Table 45: User interface elements

Element	Description
Domain	Provides a space for you to enter the name of the domain where the target live Exchange Servers you want to access reside. Type the domain name in the **Domain** box or click **Browse** to browse for and select the domain.
Current account	Allows you to access the domain and target Exchange Servers using the credentials

Element	Description
This account	Allows you to access the domain and target Exchange Servers using the credentials of the account you specify in this option.

How to Handle Missing Target Mailboxes?

You can use this page to choose what to do in case target mailboxes where you want to restore data are not found in the specified domain.

Table 46: User interface elements

Element	Description
Do not create missing mailboxes	Restores data in the mailboxes that already exist in the domain you have specified. If a target mailbox is missing, its data is not restored.
Create missing mailboxes	Restores all items you have selected. If a target mailbox is missing from the domain, it will be created on the live Exchange Server you specify.
Create missing mailboxes and restore their user accounts	Restores all items you have selected. If a target mailbox is missing from the domain, it will be created on the live Exchange Server you specify, and its account restored from an AD backup. This option requires Recovery Manager for Active Directory.

Select AD Backup

On this page, you can use the **AD backups** list to select the Active Directory backup from which you want to recover user accounts for the missing mailboxes that will be created.

The **AD backups** list only includes the Active Directory backups that are registered and unpacked with Recovery Manager for Active Directory installed on the Recovery Manager for Exchange computer. The backups must be unpacked using either the Online Restore Wizard or the Group Policy Restore Wizard.

For more information on how to register and unpack Active Directory backups, see the *Recovery Manager for Active Directory User Guide*.

Select AD Container

You can use this page to select the Active Directory container where you want to create user accounts. The creation of these accounts is required to create the mailboxes that are missing from the domain you have specified. Use the **AD containers** list to browse for and select the Active Directory container where you want to create mailbox-enabled user accounts.

Select Exchange Server Database

On this page, you can select the target live Exchange Server database where you want to create and restore the mailboxes that are missing from the domain. Expand the appropriate nodes in the **Exchange organization** list to select the target Exchange Server and database.

Select Target Storage

On the Select Target Storage page, the wizard lists all target storages registered with Recovery Manager for Exchange. In the **Registered writable storages** list, you can select the registered target storage to which you want to restore the selected mailboxes.

You can click **Add** to register a new target storage. The user interface that appears is similar to that of the Add Storage Wizard. For more information, see Add Storage Wizard.

To select a target folder

1. In the **Registered writable storages** list, expand the node representing the target storage to which you want to restore data.
2. Click the target storage folder to which you want to restore data.

In registered target storages, you can create new folders and rename or delete existing folders.

To rename, delete, or create a folder in a target storage

1. In the **Registered writable storages** list, expand the node representing the target storage in which you want to rename, delete, or create a folder.
2. To rename or delete a folder, right-click the folder you want to rename or delete, then select the appropriate action from the shortcut menu.

   To create a new folder, right-click the folder in which you want to create a new folder, then select the appropriate action from the shortcut menu.

Select Where to Place Mailboxes

Use this page to choose where in the target storage you want to place data from the mailboxes being restored.

Table 47: User interface elements

Element	Description
Restore each mailbox to an individual root folder	Restores each selected mailbox to a separate folder located in the root of the target storage.
Merge mailboxes into target storage	Merges data from one or more source mailboxes to the target storage you specify. That is, messages from the folders in the source mailboxes are restored to the corresponding folders in the target storage.

Specify Target .Pst Files Options

On the Specify Target .Pst Files Options page, you can specify the location where you want to generate target .pst files and set additional options for the files.

Table 48: User interface elements

Element	Description
Folder where target .pst files will be created	Provides a space for you to enter the path to the folder where you want to create target .pst files.
Browse	Opens a dialog box you can use to select an existing folder or create and select a new folder where you want to place target .pst files.
Target root folder in .pst files	Provides a space for you to type the name of a target root folder in target .pst files. The restored items will be placed in that folder. If the root folder whose name you typed does not exist, it will be created.
ANSI (Outlook 97-2016)	Creates .pst files with 2 GB storage capacity limit per file. These files do not support multilingual Unicode data. Generated .pst files are compatible with Outlook 97, 98, 2000, 2002, 2003, 2007, 2010, 2013 and 2016
Unicode (Outlook 2003-2016)	Creates .pst files with more storage capacity. These files support multilingual Unicode data. Generated .pst files are not compatible with Outlook 97, 98, 2000, and 2002.
Custom prefix to the names of .pst files	Provides a space for you to type a custom prefix to be added to the names of target .pst files.
Add the source storage name as a prefix to the names of target files	Adds the source storage name as a prefix to the names of target .pst files.
Add the time of creation as a suffix to the names of target files	Appends the date and time of creation of target .pst files to their names.
Apply security to target files	Applies access permissions to target .pst files.
Edit Security	Displays the dialog box you can use to view or change access permissions that will be applied to the new target files created by Recovery Manager for Exchange in the result of a restore or export operation.

Select a Restore Method

On this page, you can select a method to restore data to a single Personal Folders (.pst) files or a series of .pst files.

Table 49: User interface elements

Element	Description
Quick restore	Restores data to a single .pst file whose maximum size 51200 MB. The restore stops upon reaching the file size limit.
Advanced restore	Allows you to restore data to a series of .pst files. You can use the provided option to set the maximum size for each file in the series. When the current .pst file becomes full, the wizard creates a new .pst file and restores the remaining data there. This restore method takes longer as compared to the quick restore method.

Select Time Stamp to Apply

On the Select Time Stamp to Apply page, the wizard prompts you to select a preferred time stamp option to apply to the restored items.

Table 50: User interface elements

Element	Description
Date and time stored in the source storage	After the restoration, the restored items keep their original time stamp as stored in the source storage.
Date and time of restoration	After the restoration, the restored items are marked with the actual date and time of their restoration.

Select Types of Items to Restore

On this page, you can select the types of message-level items you want to restore from the selected mailboxes. If not stated otherwise, the options on this page apply to items originating from any version of Lotus Domino or Exchange Server.

Table 51: User interface elements

Element	Description
User items	Restores such items as messages, posts, calendar items, notes, journal items, and tasks.
Soft-deleted (recoverable) items	Restores deleted message-level items preserved for a specified retention period on Exchange Server or Lotus Domino server.
Hidden items	Restores message-level items that are not visible in an email client, such as associated folder messages.

Performing Restore

This page displays the progress of the restore operation.

Mailbox Restore Wizard Completed

You can use this page to view the restore operation results and close the wizard.

To close the wizard

- Click **Finish** on the Message Restore Wizard Completed page.

Public Folder Restore Wizard

The Public Folder Restore Wizard helps you restore selected public folders or restore the entire public folder hierarchy of an Exchange organization from registered source storages to a registered target storage. You also

have the option to restore each selected public folder to an individual Personal Folders (.pst) file.

Source and target storages for a restore operation can be selected from those registered with Recovery Manager for Exchange. You can also register new source and target storages while using this wizard.

To start the Public Folder Restore Wizard

- From the main menu, select **Restore | Public Folders**.

The wizard includes the following pages:

- Add Public Folders to Restore
- Select Type of Target Storage
- Select Target Storage
- Specify Target .Pst Files Options
- Select a Restore Method
- Select Time Stamp to Apply
- Select Types of Items to Restore
- Performing Restore
- Public Folder Restore Wizard Completed

Add Public Folders to Restore

On the Add Public Folders to Restore page, the wizard prompts you to set up a list of the public folders you want to restore from registered source storages.

Table 52: User interface elements

Element	Description
Added public folders	Displays a list of the public folders that you have selected to restore.
Add	Opens a dialog box you can use to select the public folders you want to restore and add them to the **Added public folders** list. You can also register new source storages to select and restore public folders from.
Find	Opens the **Find** dialog box. You can use the **Find** dialog box to select source storages and search them for public folders. In the search results, you can then select the public folders you want to restore and add them to **Added public folders** list. You can also register new source storages to search for the public folders you want to restore.
Remove	Removes selected public folders from the **Added public folders** list.

To find, select, and add public folders to the list

1. Click **Find**.
2. Click Browse in the **Find** dialog box.

   If the source storages that you want to search are listed in the **Select Storages** dialog box, proceed to step 4.

3. In the **Select Storages** dialog box, click **Add New Storage**.

   Follow the instructions in the Add Storage Wizard to register the source storages you want to search for messages. For more information about the Add Storage Wizard, see Add Storage Wizard.

4. In the **Select Storages** dialog box, select the check boxes next to the source storages you want to search for messages.

   You can expand source storage nodes and select specific items to search in.

5. Click **OK**.
6. In the **Find** dialog box, specify detailed criteria of your search.

   The interface elements you can use in the **Find** dialog box are similar to those in the Find View. For more information about these elements, see Using the Find View.

7. Click **Find Now**.
8. When your search is complete, in the Search results list, select the check boxes next to the public folders you want to restore.

   To select all folders at once, click **Select All**.

9. Click **Restore**.

To remove public folders from the list

- In the **Added public folders** list, select the public folders you want to remove, and click **Remove**.

Select Type of Target Storage

On the Select Type of Target Storage page, the wizard prompts you to select the type of target storage. You can restore public folders to a registered target storage (this includes target storages that you may register in the next steps of the wizard), restore each public folder to an individual new .pst file, or export all messages from the public folders to a specific file format.

Select Target Storage

On the Select Target Storage page, the wizard lists all target storages registered with Recovery Manager for Exchange. In the Registered writable storages list, you can select the registered target storage to which you want to restore the selected public folders.

You can click **Add** to register a new target storage. The user interface that appears is similar to that of the Add Storage Wizard. For more information, see Add Storage Wizard.

To select a target folder

1. In the **Registered writable storages** list, expand the node representing the target storage to which you want to restore data.
2. Click the target storage folder to which you want to restore data.

In registered target storages, you can create new folders and rename or delete existing folders.

To rename, delete, or create a folder in a target storage

1. In the **Registered writable storages** list, expand the node representing the target storage in which you want to rename, delete, or create a folder.
2. Do one of the following:
   - To rename or delete a folder, right-click the folder you want to rename or delete, then select the appropriate action from the shortcut menu.
   - To create a new folder, right-click the folder in which you want to create a new folder, then select the appropriate action from the shortcut menu.

Specify Target .Pst Files Options

On the Specify Target .Pst Files Options page, you can specify the location where you want to generate target .pst files and set additional options for the files.

Table 53: User interface elements

Element	Description
Folder where target .pst files will be created	Provides a space for you to enter the path to the folder where you want to create target .pst files.
Browse	Opens a dialog box you can use to select an existing folder or create and select a new folder where you want to place target .pst files.
Target root folder in .pst files	Provides a space for you to type the name of a target root folder in target .pst files. The restored items will be placed in that folder. If the root folder whose name you typed does not exist, it will be created.
ANSI (Outlook 97-2016)	Creates .pst files with 2 GB storage capacity limit per file. These files do not support multilingual Unicode data. Generated .pst files are compatible with Outlook 97, 98, 2000, 2002, 2003, 2007, 2010, 2013 and 2016.
Unicode (Outlook 2003-2016)	Creates .pst files with more storage capacity. These files support multilingual Unicode data. Generated .pst files are not compatible with Outlook 97, 98, 2000, and 2002.
Custom prefix to the names of target files	Provides a space for you to type a custom prefix to be added to the names of target .pst files.
Add the source storage name as a prefix to the names of target files	Adds the source storage name as a prefix to the names of target .pst files.
Add the time of creation as a suffix to the names of target files	Appends the date and time of creation of target .pst files to their names.
Apply security to target files	Applies access permissions to target .pst files.
Edit Security	Displays the dialog box you can use to view or change access permissions that will be applied to the new target files created by Recovery Manager for Exchange in the result of a restore or export operation.

Select a Restore Method

On this page, you can select a method to restore data to a single Personal Folders (.pst) files or a series of .pst files.

Table 54: User interface elements

Element	Description
Quick restore	Restores data to a single .pst file whose maximum size 51200 MB. The restore stops upon reaching the file size limit.
Advanced restore	Allows you to restore data to a series of .pst files. You can use the provided option to set the maximum size for each file in the series. When the current .pst file becomes full, the wizard creates a new .pst file and restores the remaining data there. This restore method takes longer as compared to the quick restore method.

Select Time Stamp to Apply

On the Select Time Stamp to Apply page, the wizard prompts you to select a preferred time stamp option to apply to the restored items. You can click one of the following two options:

Table 55: User interface elements

Element	Description
Date and time stored in the source storage	After the restoration, the restored items keep their original time stamp as stored in the source storage.
Date and time of restoration	After the restoration, the restored items are marked with the actual date and time of their restoration.

Select Types of Items to Restore

On this page, you can select the types of items you want to restore. If not stated otherwise, the options on this page apply to items originating from any version of Lotus Domino or Exchange Server.

Table 56: User interface elements

Element	Description
User items	Restores such items as messages, posts, calendar items, notes, journal items, and tasks.
Soft-deleted (recoverable) items	Restores deleted message-level items preserved for a specified retention period on Exchange Server or Lotus Domino server.
Hidden items	Restores message-level items that are not visible through an email client, such as associated folder messages.
Restore subfolders	Restores folders with their subfolder hierarchy.

Performing Restore

This page displays progress of the restore operation.

Public Folder Restore Wizard Completed

You can use this page to view the restore operation results and close the wizard.

To close the wizard

- Click **Finish** on the Public Folder Restore Wizard Completed page.

Message Restore Wizard

The Message Restore Wizard helps you find and selectively restore messages and other message-level items from registered source storages to a registered target storage or new .pst, .eml, .msg, or .txt files.

> **NOTE:** In this section, all messages and message-level items, such as items in public folders and calendar items, are referred to as messages..

Source and target storages for a restore operation can be selected from those registered with Recovery Manager for Exchange. You can register new source and target storages while using this wizard.

When restoring messages to registered target storage or new .pst files, you can group the messages being restored by their originating mailboxes or folders.

To start the Message Restore Wizard

- From the main menu, select **Restore | Messages**.

The wizard includes the following pages:

- Add Messages to Restore
- Select Grouping Option
- Select Action for Messages
- Select Target Storage
- Specify Options for Target .Eml Files
- Specify Options for Target .Msg Files
- Specify Options for Target .Txt Files
- Specify Export Parameters
- Select Type of Target Storage
- Specify Target Domain
- How to Handle Missing Target Mailboxes?
- Select AD Backup
- Select AD Container
- Select Exchange Server Database

- Specify Home Exchange Server
- Specify Target .Pst Files Options
- Select a Restore Method
- Select Time Stamp to Apply
- Performing Restore
- Message Restore Wizard Completed

Add Messages to Restore

On the Add Messages to Restore page, you can set up a list of the messages you want to restore.

Table 57: User interface elements

Element	Description
Your selection	Displays details of the searches you have run and the number of messages you have selected from the search results.
Add	Opens the **Find** dialog box. You can use the **Find** dialog box to select source storages and search them for messages. In the search results, you can then select the messages you want to restore and add them to **Your selection** list. You can also register new source storages to search for the messages you want to restore.
Remove	Removes the selected entry from **Your selection**.
Change	Allows you to edit the entry selected in **Your selection** list: you can change search criteria, rerun the search, and then select the messages to restore.

To find, select, and add messages to Your selection list

1. Click **Add**.
2. Click **Browse** in the **Find** dialog box.

   If the source storages that you want to search are listed in the **Select Storages** dialog box, proceed to step 4.
3. In the **Select Storages** dialog box, click **Add New Storage**.

   Follow the instructions in the Add Storage Wizard to register the source storages you want to search for messages. For more information about the Add Storage Wizard, see Add Storage Wizard.
4. In the **Select Storages** dialog box, select the check boxes next to the source storages you want to search for messages.

   You can expand source storage nodes and select specific mailboxes or folders to search in.
5. Click **OK**.
6. In the **Find** dialog box, specify detailed criteria of your search.

   The interface elements you can use in the Find dialog box are similar to those in the Find View. For more information about these elements, see Using the Find View.

7. Click **Find Now**.
8. When your search is complete, in the **Search results** list, select the check boxes next to the messages you want to restore.

   To select all messages at once, click **Select All**.
9. Click **Restore**.

To remove an entry from Your selection list

1. Select the entry you want to remove from **Your selection**.

   To select multiple entries, hold down CTRL and click the entries you want to remove.
2. Click **Remove**.

Select Grouping Option

You can use the Select Grouping Option page to select how you want to group the messages being restored.

Table 58: User interface elements

Element	Description
Do not group messages	Restores all messages to a registered target storage or exports each message to an individual .eml, .msg, or .txt file.
Group messages by mailboxes	Restores messages from the same mailbox to an individual .pst file or a single folder in a registered target storage.
Group messages by folders	Restores messages from the same folder to an individual .pst file or a single folder in a registered target storage.

Select Action for Messages

On the Select Action for Messages page, you can select to restore messages to a target storage or export messages to a preferred file format.

Table 59: User interface elements

Element	Description
Restore messages to a registered storage	Restores all messages to a registered target storage. If you click this option, on the next page of the wizard you can select a registered target storage to restore to or register a new target storage.
Export each message to a separate .eml file	Saves each message to an individual .eml file.
Export each message to a separate .msg file	Saves each message to an individual .msg file.
Export each message to a separate .txt file	Saves each message to an individual .txt file.

Select Target Storage

On the Select Target Storage page, the wizard lists all target storages registered with Recovery Manager for Exchange.

In the **Registered writable storages** list, you can expand a target storage node and select the folder to which you want to restore messages.

You can click **Add** to register a new target storage. The user interface that appears is similar to that of the Add Storage Wizard. For more information, see Add Storage Wizard.

To select a target folder

1. In the **Registered writable storages** list, expand the node representing the target storage to which you want to restore data.
2. Click the target storage folder to which you want to restore data.

In registered target storages, you can create new folders and rename or delete existing folders.

To rename, delete, or create a folder in a target storage

1. In the **Registered writable storages** list, expand the node representing the target storage in which you want to rename, delete, or create a folder.
2. Do one of the following:
   - To rename or delete a folder, right-click the folder you want to rename or delete, then select the appropriate action from the shortcut menu.
   - To create a new folder, right-click the folder in which you want to create a new folder, then select the appropriate action from the shortcut menu.

Specify Options for Target .Eml Files

On the Specify Options for Target .Eml Files page, you can specify the location where you want to generate target .eml files. You can use the text box to type a path to that location, or click **Browse** to browse for that location and select it. Each message is exported to an individual .eml file.

Table 60: User interface elements

Element	Description
Retain original folder structure	Creates the original source storage folder hierarchy in the specified target location. Target files are generated in the appropriate level of the hierarchy to reflect the location of the exported messages in the source storage.
Add the source storage name as a prefix to the names of target files	Precedes the names of all target .eml files with the source storage name.
Add the time of creation as a suffix to the names of target files	Appends the date and time of creation to the names of all target .eml files.
Apply security to target files	Applies access permissions to target .eml files.

Element	Description
Edit Security	Displays the dialog box you can use to view or change access permissions that will be applied to the new target files created by Recovery Manager for Exchange in the result of a restore or export operation.
Generate hash for target files	Creates an .md5 hash file for each generated .eml file. The .md5 hash files are created in the same folder as the target .eml files.

Specify Options for Target .Msg Files

On the Specify Options for Target .Msg Files page, you can specify the location where you want to generate target .msg files. You can use the text box to type a path to that location, or click **Browse** to browse for that location and select it. Each message is exported to an individual .msg file.

Table 61: User interface elements

Element	Description
Retain original folder structure	Creates the original source storage folder hierarchy in the specified target location. Target files are generated in the appropriate level of the hierarchy to reflect the location of the exported messages in the source storage.
ANSI (Outlook 97-2016)	Saves each selected message to an individual Outlook Message Format (.msg) file in the ANSI format. This type of .msg files does not support multilingual Unicode data. Some texts in messages saved in this format may become unreadable. Generated .msg files are compatible with all versions of Outlook.
Unicode (Outlook 2003-2016)	Saves each selected message to an individual Outlook Message Format (.msg) file in the Unicode format. This format enables you to retain readability of texts written in most languages. Generated .msg files are not compatible with Outlook 97, 98, 2000, and 2002.
Add the source storage name as a prefix to the names of target files	Precedes the names of all target .msg files with the source storage name.
Add the time of creation as a suffix to the names of target files	Appends the date and time of creation to the names of all target .msg files.
Apply security to target files	Applies access permissions to target .msg files.
Edit Security	Displays the dialog box you can use to view or change access permissions that will be applied to the new target files created by Recovery Manager for Exchange in the result of a restore or export operation.
Generate hash for target files	Creates an .md5 hash file for each generated .msg file. The .md5 hash files are created in the same folder as the target .msg files.

Specify Options for Target .Txt Files

On the Specify Options for Target .Txt Files page, you can specify the location where you want to generate target .txt files. You can use the text box to type a path to that location, or click **Browse** to browse for that location and select it. Each message is exported to an individual .txt file.

Table 62: User interface elements

Element	Description
Retain original folder structure	Creates the original source storage folder hierarchy in the specified target location. Target files are generated in the appropriate level of the hierarchy to reflect the location of the exported messages in the source storage.
Add the source storage name as a prefix to the names of target files	Precedes the names of all target .txt files with the source storage name.
Add the time of creation as a suffix to the names of target files	Appends the date and time of creation to the names of all target .txt files.
Apply security to target files	Applies access permissions to target .txt files.
Edit Security	Displays the dialog box you can use to view or change access permissions that will be applied to the new target files created by Recovery Manager for Exchange in the result of a restore or export operation.
Generate hash for target files	Creates an .md5 hash file for each generated .txt file. The .md5 hash files are created in the same folder as the target .txt files.

Specify Export Parameters

On this page, you can specify the Archive Manager version you will use to load the exported messages and the drop directory from where Archive Manager can load the exported messages. You can use the text box to type a path to the drop directory, or click **Browse** to browse for the drop directory and select it.

For instructions about loading messages into Archive Manager, see the Archive Manager documentation that is available at http://quest.com/products/archive-manager.

Select Type of Target Storage

On the Select Type of Target Storage page, you can select the type of target storage to which you want to restore the messages.

If you have selected to group messages by mailboxes, you can use one of the following options:

Table 63: User interface elements

Element	Description
Registered storage	Restores messages from the same mailbox to a single folder in a registered target storage. If you select this option, on the next page of the wizard you can select a registered target storage folder to restore to. In the selected target folder, the wizard creates subfolders named after the source mailboxes you are restoring from. The wizard restores messages from each source

Element	Description
	mailbox to the target subfolder named after the source mailbox.
Separate .pst file	Restores messages from the same mailbox to an individual .pst file.
Live Exchange Server	Restores messages to the live Exchange Server you specify.

If you have selected to group messages by folders, you can use one of the following options:

Table 64: User interface elements

Element	Description
Registered storage	Restores messages from the same folder to a single folder in a registered target storage. If you select this option, on the next page of the wizard you can select a registered target storage folder to restore to. In the selected target folder, the wizard creates subfolders named after the source folders you are restoring from. The wizard restores messages from each source folder to the target subfolder named after the source folder.
Separate .pst file	Restores messages from the same folder to an individual .pst file.

Specify Target Domain

On this page you can specify the domain that includes the target live Exchange Servers hosting the mailboxes where you want to restore the messages you have selected.

Table 65: User interface elements

Element	Description
Domain	Provides a space for you to enter the name of the domain where the target live Exchange Servers you want to access reside. Type the domain name in the **Domain** box or click Browse to browse for and select the domain**.**
Current account	Allows you to access the domain and target Exchange Servers using the credentials of the account under which Recovery Manager for Exchange is running.
This account	Allows you to access the domain and target Exchange Servers using the credentials of the account you specify in this option.

How to Handle Missing Target Mailboxes?

On this page, you can select an action to be taken in case target mailboxes where you want to restore data are not found in the specified domain.

Table 66: User interface elements

Element	Description
Do not create	Only restores data in mailboxes that already exist in the domain you have specified. If a

Element	Description
missing mailboxes	target mailbox is missing, its data is not restored.
Create missing mailboxes	Restores all items you have selected. If a target mailbox is missing from the domain, it will be created on the live Exchange Server you specify.
Create missing mailboxes and restore their user accounts	Restores all items you have selected. If a target mailbox is missing from the domain, it will be created on the live Exchange Server you specify, and its account restored from an AD backup. This option requires Recovery Manager for Active Directory.

Select AD Backup

On this page, you can use the **AD backups** list to select the Active Directory backup from which you want to recover user accounts for the missing mailboxes that will be created.

The **AD backups** list only includes the Active Directory backups that are registered and unpacked with Recovery Manager for Active Directory installed on the Recovery Manager for Exchange computer. The backups must be unpacked using either the Online Restore Wizard or the Group Policy Restore Wizard.

For more information on how to register and unpack Active Directory backups, see the *Recovery Manager for Active Directory User Guide*.

Select AD Container

You can use this page to select the Active Directory container where you want to create user accounts. The creation of these accounts is required to create the mailboxes that are missing from the domain you have specified. Use the **AD containers** list to browse for and select the Active Directory container where you want to create mailbox-enabled user accounts.

Select Exchange Server Database

On this page, you can select the target live Exchange Server database in which you want to create and restore the mailboxes that are missing from the domain. Expand the appropriate nodes in the **Exchange organization** list to select the target Exchange Server and database.

Specify Home Exchange Server

On this page, you can specify the home Exchange Server for the messages you want to restore.

Table 67: User interface elements

Element	Description
Exchange Server name	You can enter the name of the home Exchange Server to which you want to restore messages.
Check Name	You can click this button to resolve the Exchange Server whose name you have entered. This button is only available when the Exchange Server is not resolved.

Specify Target .Pst Files Options

On the Specify Target .Pst Files Options page, you can specify the location where you want to generate target .pst files and set additional options for the files.

Table 68: User interface elements

Element	Description
Folder where target .pst files will be created	Provides a space for you to enter the path to the folder where you want to create target .pst files.
Browse	Opens a dialog box you can use to select an existing folder or create and select a new folder where you want to place target .pst files.
Target root folder in .pst files	Provides a space for you to type the name of a target root folder in target .pst files. The restored items will be placed in that folder. If the root folder whose name you typed does not exist, it will be created.
ANSI (Outlook 97-2016)	Creates .pst files with 2 GB storage capacity limit per file. These files do not support multilingual Unicode data. Generated .pst files are compatible with Outlook 97, 98, 2000, 2002, 2003, 2007, 2010, 2013 and 2016.
Unicode (Outlook 2003-2016)	Creates .pst files with more storage capacity. These files support multilingual Unicode data. Generated .pst files are not compatible with Outlook 97, 98, 2000, and 2002.
Custom prefix to the names of target files	Provides a space for you to type the custom prefix that you want to add to the names of target .pst files.
Add the source storage name as a prefix to the names of target files	Adds the source storage name as a prefix to the names of target .pst files.
Add the time of creation as a suffix to the names of target files	Appends the date and time of creation of target .pst files to their names.
Apply security to target files	Applies access permissions to target .pst files.
Edit Security	Displays the dialog box you can use to view or change access permissions that will be applied to the new target files created by Recovery Manager for Exchange in the result of a restore or export operation.

Select a Restore Method

On this page, you can select a method to restore data to a single Personal Folders (.pst) files or a series of .pst files.

Table 69: User interface elements

Element	Description
Quick restore	Restores data to a single .pst file whose maximum size 51200 MB. The restore stops upon reaching the file size limit.
Advanced restore	Allows you to restore data to a series of .pst files. You can use the provided option to set the

Element	Description
	maximum size for each file in the series. When the current .pst file becomes full, the wizard creates a new .pst file and restores the remaining data there. This restore method takes longer as compared to the quick restore method.

Select Time Stamp to Apply

On the Select Time Stamp to Apply page, the wizard prompts you to select a preferred time stamp option to apply to the restored items.

Table 70: User interface elements

Element	Description
Date and time stored in the source storage	After the restoration, the restored items keep their original time stamp as stored in the source storage.
Date and time of restoration	After the restoration, the restored items are marked with the actual date and time of their restoration.

Performing Restore

This page displays the progress of the restore or export operation.

Message Restore Wizard Completed

You can use this page to view the restore operation results and close the wizard.

To close the wizard

- Click **Finish** on the Message Restore Wizard Completed page.

Message Delete Wizard

You can use this wizard to find and selectively delete messages from writable source storages registered with Recovery Manager for Exchange. By using this wizard, you permanently delete the selected messages.

To start the Message Delete Wizard

- From the main menu, select **Tools | Delete Messages**.

The wizard includes the following pages:

- Add Messages to Delete
- Delete Selected Messages?

- Message Delete Wizard Completed

Add Messages to Delete

On this page, you can set up a list of the messages you want to delete.

Table 71: User interface elements

Element	Description
Your selection	Displays details of the searches you have run and the number of messages you have selected from the search results.
Add	Opens the **Find** dialog box. You can use the **Find** dialog box to select source storages and search them for messages. In the search results, you can then select the messages you want to delete and add them to **Your selection** list. You can also register new source storages to search for the messages you want to delete.
Remove	Removes the selected entry from Your selection.
Change	Allows you to edit the entry selected in Your selection list: you can change search criteria, rerun the search, and then select the messages to delete.

To find, select, and add messages to Your selection list

1. Click **Add**.
2. Click **Browse** in the Find dialog box.

   If the source storages that you want to search are listed in the **Select Storages** dialog box, proceed to step 4.
3. In the **Select Storages** dialog box, click **Add New Storage**.

   Follow the instructions in the Add Storage Wizard to register the source storages you want to search for messages. For more information about the Add Storage Wizard, see Add Storage Wizard.
4. In the **Select Storages** dialog box, select the check boxes next to the source storages you want to search for messages.

   You can expand source storage nodes and select specific mailboxes or folders to search in.
5. Click **OK**.
6. In the **Find** dialog box, specify detailed criteria of your search.

   The interface elements you can use in the **Find** dialog box are similar to those in the Find View. For more information about these elements, see Using the Find View.
7. Click **Find Now**.
8. When your search is complete, in the **Search results** list, select the check boxes next to the messages you want to delete.

   To select all messages at once, click **Select All**.
9. Click **OK**.

To remove an entry from Your selection list

1. Select the entry you want to remove from **Your selection**.

   To select multiple entries, hold down CTRL and click the entries you want to remove.

2. Click **Remove**.

Delete Selected Messages?

Use this page to confirm that you want to permanently delete the messages you have selected. To permanently delete the selected messages, click **Next**.

Message Delete Wizard Completed

You can use this page to view the delete operation results and close the wizard.

To close the wizard

- Click **Finish** on the Message Delete Wizard Completed page.

Import .Pst Files Wizard

You can use the Import .Pst Files Wizard to import all data from one or more Personal Folders (.pst) files into online mailboxes in an on-premises or cloud-based Exchange organization. The wizard helps you select source Personal Folders (.pst) files and match them to specific online mailboxes. Then, you import messages from each source Personal Folders (.pst) file into the target mailbox to which you have matched the file.

As a result, the entire folder structure of the source Personal Folders (.pst) file is recreated in the target mailbox.

To start the Import .Pst Files Wizard

- From the main menu, select **Tools | Import .Pst Files**.

The wizard includes the following pages:

- Add Files to Import
- Select an Exchange Type
- Specify Target Domain
- Specify Office 365 Credentials
- Specify Matching Options
- Match Progress
- Specify Import Criteria
- Import Progress

Add Files to Import

Use this page to set up a list of the source Personal Folders (.pst) files from which you want to import data to target online Exchange mailboxes.

Table 72: User interface elements

Element	Description
Files to import	Lists the source Personal Folders (.pst) files you have selected for the import operation.
Add	Allows you to add Personal Folders (.pst) files to the Files to import list. You can click the down arrow on this button to select one of these additional options for adding Personal Folders (.pst) files: • **Selected Files**. Allows you to locate specific Personal Folders (.pst) files and add them to the list. • **All Files from a Folder**. Allows you to locate and select a folder that includes the Personal Folders (.pst) files you want to add to the list. Personal Folders (.pst) files will be added from the folder's root only. Files located in the folder's subfolders are ignored. • **All Files from a Folder and Its Subfolders**. Allows you to locate and select a folder that includes the Personal Folders (.pst) files you want to add to the list. All Personal Folders (.pst) files located in the folder and its subfolders will be added to the list.
Remove	Removes the Personal Folders (.pst) files you selected in the list.

Select an Exchange Type

Use this page to select the type of Exchange into which you want to import data from the Personal Folders (.pst) files you have specified.

Table 73: User interface elements

Element	Description
Exchange Server	Select this option if you want to import data into on-premises Exchange Server that is currently online.
Exchange Online (Office 365)	Select this option if you want to import data to Exchange Online in Microsoft's Office 365 cloud-based service.

Specify Target Domain

Use this page to specify the Active Directory domain that includes the Exchange Servers into which you want to import data and the account with which you want to access that domain.

Table 74: User interface elements

Element	Description
Domain	Use this text box to specify the fully qualified domain name (FQDN) or NetBIOS name of the Active Directory domain that includes the Exchange Servers into which you want to import data. Alternatively, you can click **Browse** to select the Active Directory domain.
Current account	Allows you to connect to the specified domain in the security context of the account under which the Recovery Manager for Exchange is running.
This account	Allows you to type the user name and password of the account with which you want to connect to the specified domain. If you wish to connect to a Microsoft Online Services Domain, specify the Microsoft Online Services ID with which you want to connect to that domain.

Specify Office 365 Credentials

Use this page to specify the Microsoft Online Services ID and password with which you want to connect to Exchange Online in Office 365.

Table 75: User interface elements

Element	Description
Microsoft Online Services ID	Type the Microsoft Online Services ID with which you want to access Office 365. The account whose ID you specify must have permissions described in Permissions required to restore data.
Password	Type the password that matches the specified Microsoft Online Services ID.

Specify Matching Options

Use this page to specify options for matching source Personal Folders (.pst) files to target online Exchange mailboxes. In the subsequent steps of the wizard, data will be imported from each .pst file to the mailbox matched to the file.

Table 76: User interface elements

Element	Description
Matching method	Use this area to select a method for matching source .pst files to target online Exchange mailboxes. You can match .pst files to mailboxes either by file name or file owner.
Match items if target name	Use this area to select a condition for matching source .pst files to target online Exchange mailboxes: • **Starts with source name**. Matches a .pst file to a mailbox if the mailbox name starts with the file name or file owner's name (depending on the option you selected in the **Matching method** area). • **Equals source name exactly**. Matches a .pst file to a mailbox if the mailbox name equals the file name or file owner's name.

Element	Description
	• **Contains source name**. Matches a .pst file to a mailbox if the mailbox name contains the entire file name or file owner's name.
Only include archive mailboxes	Causes the wizard to ignore primary mailboxes and match source Personal Folders (.pst) files to online archive mailboxes. If an archive mailbox is missing, you will be prompted to match the Personal Folders (.pst) file to the corresponding primary mailbox. This option applies only to the Exchange versions that support archive mailboxes (for example, Exchange Server 2010).

Match Progress

Use this page to view the match operation progress. When the match operation completes, you can use this page to resolve errors encountered during the match operation, manually match a Personal Folder (.pst) file to a mailbox, or exclude specific Personal Folders (.pst) files from the data import operation.

Right-click a Personal Folders (.pst) file in the list, and then select an appropriate option:

Table 77: Available options

Option	Description
Resolve Error	Allows you to resolve the error encountered for the Personal Folders (.pst) file during the match operation. If you want to resolve all encountered errors one by one, click the **Resolve All Errors** button below the list of Personal Folders (.pst) files.
Find and Select Mailbox	Allows you to manually match the Personal Folders (.pst) file to an online mailbox. You can use this option on the files for which the match operation has failed or for which you want to find and select a different mailbox.
Remove	Removes the Personal Folders (.pst) file from the list. Use this option on the files you want to exclude from the data import operation.

Specify Import Criteria

Use this page to specify additional options for importing data from the source Personal Folders (.pst) files into the mailboxes to which the files were matched.

Table 78: User interface elements

Element	Description
Import data into mailbox root Imports all data from the source	Personal Folders (.pst) file into the target mailbox root folder. The folder structure of the source Personal Folders (.pst) file will be re-created in the mailbox root.
Import data into subfolder named after source file	Imports all data from the source Personal Folders (.pst) file into the subfolder named after the source file. If such subfolder does not exist in the target mailbox, it will be created. The folder structure of the source Personal Folders (.pst) file will be re-created in the target subfolder. If you select this option, you can also select the **Append current timestamp to subfolder**

Element	Description
	name check box to add the date and time of the data import operation to the subfolder name.
Import data into this folder	Allows you to type the path to the target mailbox folder into which you want to import data from the source Personal Folders (.pst) file. If such folder does not exist in the target mailbox, it will be created. The folder structure of the source Personal Folders (.pst) file will be re-created in the target folder.
Delete source file after successful import	Permanently deletes the source Personal Folders (.pst) file from which data has been successfully imported into the target mailbox.

Import Progress

Use this page to view the data import progress. When the data import completes, click **Finish** to close the wizard.

Add Storage Wizard

The Add Storage Wizard helps you register new source and target storages to work with.

A source storage is a storage that Recovery Manager for Exchange can search and restore data from. All registered source storages are located in the **Source Storages** node in the left pane. After you register a source storage, you can browse and search that storage to restore message-level items, attachments, mailboxes, or public folders.

A target storage is a storage to which Recovery Manager for Exchange can restore data. All registered target storages are located in the **Target Storages** node in the left pane.

Items that are supported as source and/or target storages depend on the Recovery Manager for Exchange edition you are using. For more information, see Comparison of Recovery Manager for Exchange editions.

To start the Add Storage Wizard

- From the main menu, select **Add storages**, and then click an appropriate menu item.

The wizard includes the following pages:

- Select a Backup Access Method
- Select an Exchange Type
- Select Backup Software
- Emulate Exchange or Access Backup Server
- Specify Exchange Server Version
- Select How to Provide Information
- Set Up a List of Databases
- Select Storage Groups
- Enter Storage Group Names

- Specify Databases
- Specify Administrative Group and Organization
- Specify Exchange Server Emulation Options
- Specify Database Location
- Emulating Exchange Server
- Specify NetWorker Server and Backed Up Exchange
- Specify IBM Tivoli Storage Manager Server Options
- Specify Backup Location
- Specify Microsoft Data Protection Manager Options
- Specify Backed Up Exchange Server
- Select a Savepoint
- Add Exchange Stores
- Select What to Register (when accessing online Exchange Servers)
- Select What to Register (when accessing Exchange Online in Office365)
- Specify Domain
- Specify Office 365 Credentials
- Add Mailboxes
- Select a Connection Method
- Connect As
- Specify Exchange Server
- Select Exchange Stores
- Select What to Register (when accessing Exchange database, Domino databases, or .pst files)
- Select How to Add Storages (when adding targets in the left pane)
- Specify Exchange Database Files
- Specify Defragmentation Parameters
- Defragment Databases
- Database Defragmentation Progress
- Select a Restore Point
- Specify Domino Database Path and Files
- Add .Pst Files to Register as Storages
- Specify Archive Manager Access Options
- Select Mailboxes to Show
- Register Items As

Select a Backup Access Method

On this page, the wizard prompts you to select a method for registering new storages.

Recovery Manager for Exchange can integrate with existing backup software, allowing you to access Exchange Server backups through the same software you use to create and manage backups. To provide interoperability with backup software, Recovery Manager for Exchange offers the following methods for registering storages from backups:

Exchange Server emulation. The computer running Recovery Manager for Exchange appears as an Exchange Server to the backup software. You can restore Exchange Server backups by redirecting the restore to the Recovery Manager for Exchange computer.

Access to backup server. Recovery Manager for Exchange connects to a backup server that is part of the backup infrastructure, issues requests for backups stored on that server, and uses standard protocols to retrieve the backups and restore data from them. Access to backup server is only used to integrate with such backup software products as EMC NetWorker, IBM Tivoli Storage Manager, and Microsoft Data Protection Manager. To integrate with other products, Recovery Manager for Exchange uses the Exchange Server Emulation method.

Table 79: User interface elements

Element	Description
Access Exchange backups with thirdparty software	Allows you to use third-party backup software to extract Exchange Server databases from backups and register these databases as source storages. For more information on supported third-party backup software, see the "Supported Backup Software" section in the Release Notes supplied with this version of Recovery Manager for Exchange.
Access Exchange backups directly	Allows you to directly access backups, extract Exchange Server databases from them, and then register these databases as source storages. With this option you can only use the following types of backups: • OpenTape Format (OTF) backups created with EMC NetWorker. • Tape Archive (TAR) format backups created with NetBackup. • Microsoft Tape Format (MTF)-compliant backups, such as backups created with Windows Backup or Backup Exec. • Compressed backups created with Backup Exec. Other compressed backups are not supported at this time. **NOTE:** To directly access compressed backups created with Backup Exec, you need to make several Backup Exec .dll files available to Recovery Manager for Exchange. For more information, see Working with Symantec Backup Exec.

Select an Exchange Type

On this page, you can select the type of Exchange that hosts the items you wish to register as storages.

Table 80: User interface elements

Element	Description
Exchange Server	Select this option if you want to access an on-premises Exchange Server that is currently online.
Exchange Online (Office 365)	Select this option if you want to access Exchange Online that is part of Microsoft's Office 365 cloud-based service.

Select Backup Software

On this page, you can select the name and version of the third-party backup software with which you want to access and extract the backups that hold the databases you wish to register with Recovery Manager for Exchange.

Table 81: User interface elements

Element	Description
Use this software	Provides a list of third-party software products supported by Recovery Manager for Exchange. Use this list to select your software.
Software version	Provides a list of software versions supported by Recovery Manager for Exchange. Use this list to select the installed version of the software product you selected from the **Use this software** list.

Emulate Exchange or Access Backup Server

On this page, you can select a method for registering storages from backups created with third-party software.

Table 82: User interface elements

Element	Description
Use Exchange Server emulation	Lets you start Exchange Server emulation on the Recovery Manager for Exchange computer. As a result, the computer running Recovery Manager for Exchange appears as an Exchange Server to the backup software. You can then redirect the restore to the Recovery Manager for Exchange computer and register the restored databases as storages.
Connect to backup server	Lets you use Recovery Manager for Exchange to connect to a backup server that is part of your backup infrastructure. Recovery Manager for Exchange then issues requests for backups stored on that server and uses standard protocols to retrieve the backups and register storages from them.

Specify Exchange Server Version

Use this page to specify the Exchange Server version the restore interface of which you want to emulate with Recovery Manager for Exchange. Select the Exchange Server version that was used to create the databases you are going to register from backup as storages.

Select How to Provide Information

Use this page to select a method for providing information about the backed up Exchange Server to Recovery Manager for Exchange.

Table 83: User interface elements

Element	Description
Manually enter	Allows you to manually enter information about the source Exchange Server whose restore interface you want to emulate. This recommended option involves more steps as compared to **Retrieve information from Exchange Server**, but it allows you to emulate the restore interface

Element	Description
information about Exchange Server	of an Exchange Server that is offline, no longer exists, or cannot be accessed from the Recovery Manager for Exchange computer.
Retrieve information from Exchange Server	Allows you to connect Recovery Manager for Exchange to the source Exchange Server and automatically retrieve the information required to emulate the restore interface of the Exchange Server. If you want to use this option, make sure the source Exchange Server is online and can be accessed from the Recovery Manager for Exchange computer. The source Exchange Server and the Recovery Manager for Exchange computer must be in the same Active Directory forest. This option involves fewer steps as compared to **Manually enter information about Exchange Server**.

Set Up a List of Databases

Use this page to set up a list of the Exchange Server databases you want to register with Recovery Manager for Exchange.

Table 84: User interface elements

Element	Description
Add	Click this button to specify the name of the storage group that holds the databases you want to register, and then specify the names of the databases.
Edit	Use this button to edit the names of storage groups and/or databases added to the list: select an appropriate list entry, and then click **Edit**.
Remove	Use this button to remove an entry from the list: select the entry you wish to remove, and then click **Remove**.

Select Storage Groups

Use the **Storage groups** list on this page to select the available storage groups that hold the Exchange Server databases you wish to register with Recovery Manager for Exchange.

Enter Storage Group Names

Use the **Storage group names** list on this page to type the names of the storage groups that hold the Exchange Server databases you want to register with Recovery Manager for Exchange.

Specify Databases

Use this page to set up a list of the Exchange Server databases you want to register with Recovery Manager for Exchange. In the **Databases** list, use the Name column to type the name of the database you want to register, and then select an appropriate database type in the **Type** column.

Specify Administrative Group and Organization

Use this page to type the names of the Exchange administrative group and organization that hold the databases you wish to register with Recovery Manager for Exchange.

Specify Exchange Server Emulation Options

Use this page to specify the Exchange Server restore interface parameters you want to emulate with Recovery Manager for Exchange.

If you are registering Exchange Server 2007, 2003, or 2000 databases, use the **Storage groups in backup** list to type the names of the storage groups to which belong the databases you want to register from backup.

NOTE: When registering storages from a backup, you must specify the same storage group names that are in the backup.

Specify Database Location

On the Specify Database Location page, the wizard prompts you to specify a path to a folder—the wizard will extract the database files to that folder, and register the database from that location.

Table 85: User interface elements

Element	Description
Path to store extracted databases	Displays the default path to the folder where the wizard places extracted databases. You can type a new path in this box.
Browse	Opens a dialog box you can use to select an existing folder or create and select a new folder where you want to place the extracted database files.

Emulating Exchange Server

On the Emulating Exchange Server page, you can view the status of the database restoration to the emulated Exchange Server.

When the **Status** box displays “Emulation started. Waiting for connection from backup application,” start the restore with your backup software. While restoring data using your backup software, you must specify the computer running Recovery Manager for Exchange as a restore target.

The **Last backup set restored** check box appears on this page when Recovery Manager for Exchange has received full backups of each storage group you specified for Exchange Server 2000, Exchange Server 2003, or Exchange Server 2007 on the Specify Exchange Server Emulation Options page.

You may select the **Last backup set restored** check box to stop the Exchange Server emulation after current data set is received.

If you erroneously select the **Last backup set restored** check box, you may clear the check box to continue the Exchange Server emulation. In this case, the emulation continues only if you do not specify the last data set to restore in your backup software.

When the **Status** box reads “Restore is completed,” the Exchange Server emulation stops.

When you click Next, the wizard displays a series of pages in which you can view the progress of the storage registration operation, and cancel the operation if necessary. For more information, see Extracting an Exchange Server database from backup.

Specify NetWorker Server and Backed Up Exchange

On this page, specify the NetWorker Server that holds the backups you want to retrieve and the backed up Exchange Server computer whose backups you want to retrieve. When you click **Next**, the wizard connects to the NetWorker Server and retrieves backups created for the Exchange Server you have specified.

Specify IBM Tivoli Storage Manager Server Options

On the Specify IBM Tivoli Storage Manager Server Options page, the wizard prompts you to specify parameters for connection to a Tivoli Storage Manager server.

Enter the Tivoli Storage Manager server name, protocol, node name, and node password. You can click the **Change** button to change the default connection protocol settings.

To change the default connection protocol

1. Click **Change**.
2. Specify connection parameters in the **Protocol Settings** dialog box.
3. Click **OK**.

When you click **Next**, the wizard connects to the Tivoli Storage Manager server and retrieves a list of available backups from that server.

Specify Backup Location

Specify the location that holds the backups created with Windows Server Backup from which you want to extract and register Exchange Server databases.

Table 86: User interface elements

Element	Description
This server	Select this option if the backups from which you want to extract Exchange Server databases are located on the Recovery Manager for Exchange computer.
Specified location (local or UNC path)	Select this option to specify a local or Universal Naming Convention (UNC) path to the folder or network share that holds the backups from which you want to extract and register Exchange Server databases.

Specify Microsoft Data Protection Manager Options

On the Specify Microsoft Data Protection Manager Options page, the wizard prompts you to specify Data Protection Manager server and Exchange Server whose backups you want to retrieve.

Table 87: User interface elements

Element	Description
DPM server	Provides a space for you to type the name of the Microsoft Data Protection Manager server from which you want to retrieve backups.
Backed up Exchange Server	Provides a space for you to type an Exchange Server name. This is the name of the Exchange Server whose backups you want to retrieve from the specified Data Protection Manager server.
Backups created after	Allows you to select the date after which the backups you want to retrieve were created.
Backups created before	Allows you to select the date before which the backups you want to retrieve were created.

Specify Backed Up Exchange Server

On this page, you can use the **Exchange Server** box to specify the name of the Exchange Server whose backups you want to access.

Select a Savepoint

On this page, you can use a list of savepoints provided by vRanger to select the savepoint that holds the Exchange Server database you want to extract and register with Recovery Manager for Exchange.

Add Exchange Stores

On the Add Exchange Stores page, you can set up a list of the Exchange Server stores you want to register as storages.

On this page, you can use the following elements:

- **Added stores**. Lists the Exchange Server stores that you have selected to register as storages from backups available on the specified backup server.
- **Add**. Opens a dialog box you can use to select the Exchange Server stores that you want to register as storages from backups available on the specified backup server.
- **Remove**. Removes selected Exchange Server stores from the Added stores list.

Select Stores Dialog Box

When you click **Add** on the Add Exchange Stores page, the **Select Stores** dialog box opens. You can use this dialog box to select the Exchange Server stores that you want to register as storages. In this dialog box, you can use the following elements:

- **Available stores**. Displays information about the Exchange Server stores that are in the backups available on the specified backup server. You can use this list to select the stores you want to register.

Table 88: List columns

Column	Description
Store	Displays names of the Exchange Server stores that are in at least one of the available backups. You can use the following elements next to each entry in this column: • **Plus sign (+)**. Shows dates and times of creation of the backups that hold a particular Exchange Server store. • **Minus sign (-)**. Hides dates and times of creation of the backups that hold a particular Exchange Server store.
Backup Dates	Displays dates and times when a particular Exchange store was backed up. You can use this column to select the backups from which you want to register a particular Exchange Server store.
Associated Storages	Displays names of the Recovery Manager for Exchange storages that are based on a particular Exchange Server store.

- **Show storage group names**. Displays storage group names in the Store column.
- **Filter by store**. Filters stores in the Available stores list by the store name letters you type in the text box.

To select stores to register as storages

1. In the **Store** column, click the plus sign (+) next to the list entries you want to register as storages.
2. In the **Backup Dates** column, select the check boxes next to the dates representing the backups from which you want to register storages.
3. Click **OK**.

You can restore data from incremental or differential backups. To restore from a differential backup, you need to have the last normal (full) backup as well as the last differential backup. To restore from an incremental backup, you need to have the last normal (full) backup and all subsequent incremental backups.

Add Exchange Stores

On this page, you can set up a list of the Exchange Server stores you want to register as storages.

Table 89: User interface elements

Element	Description
Added stores	Lists the Exchange Server stores that you have selected to register as storages from cataloged backups.

Element	Description
Add	Opens a dialog box you can use to select the Exchange Server stores that you want to register as storages from cataloged backups. You can also catalog backups from which you want to register Exchange Server stores.
Remove	Removes selected Exchange Server stores from the **Added stores and databases** list.

Select Stores Dialog Box

When you click **Add** on the **Add Exchange Stores** page, the **Select Stores** dialog box opens. You can use this dialog box to select the Exchange Server stores that you want to register as storages.

In this dialog box, you can use the following elements:

- **Stores in cataloged backups**. Displays information about the Exchange Server stores that are in the cataloged backups and enables you to select the stores and databases to register.

Table 90: List columns

Column	Description
Store	Displays names of the Exchange Server stores that are in at least one of the available backups. You can use the following elements next to each entry in this column: • **Plus sign (+)**. Shows dates and times of creation of the backups that hold a particular Exchange Server store. • **Minus sign (-)**. Hides dates and times of creation of the backups that hold a particular Exchange Server store.
Backup Dates	Displays dates and times when a particular Exchange store was backed up. You can use this column to select the backups from which you want to register a particular Exchange Server store.
Associated Storages	Displays names of the Recovery Manager for Exchange storages that are based on a particular Exchange Server store.

- **Show storage group names**. Displays storage group names in the Store column.
- **Filter by store**. Filters stores in the Stores in cataloged backups list by the store name letters you type in the text box.
- **Catalog Backups**. Starts the Catalog Wizard that helps you catalog Exchange Server backups. After you compete the Catalog Wizard, the Exchange stores found in the cataloged backups appear in the **Stores in cataloged backups** list. For more information about the Catalog Wizard, see Catalog Wizard.

You can restore data from incremental or differential backups. To restore from a differential backup, you need to have the last normal (full) backup as well as the last differential backup. To restore from an incremental backup, you need to have the last normal (full) backup and all subsequent incremental backups.

To add Exchange stores to the Stores in cataloged backups list

- Click **Catalog Backups**.

Follow the instructions in the Catalog Wizard. For more information, see Catalog Wizard.

To select stores and databases to register as storages

1. In the **Store** column, click the plus sign (+) next to the list entries you want to register as storages.
2. In the **Backup Dates** column, select the check boxes next to the dates representing the backups from which you want to register storages.
3. Click **OK**.

Select What to Register (when accessing online Exchange Servers)

On the Select What to Register page, you can select what to add as storages from one or more online Exchange Servers.

Table 91: User interface elements

Element	Description
Mailboxes	Allows you to register online Exchange Server mailboxes. You can then select how to register the mailboxes: as source storages, target storages, or both.
Public folder hierarchy	Allows you to register the entire public folder hierarchy of an organization as a source or target storage.
Recovery databases or databases from a recovery storage group	Allows you to register source storages based on recovery databases held on Exchange Server 2010 or later or mailbox databases from a recovery storage group hosted on an Exchange Server 2003 or Exchange Server 2007. This option is only available when you register source storages.

Select What to Register (when accessing Exchange Online in Office 365)

On the **Select What to Register** page, you can select what to add as storages from Exchange Online in Office 365.

Table 92: User interface elements

Element	Description
Mailboxes	Allows you to register Exchange Online mailboxes. You can then select how to register the mailboxes: as source storages, target storages, or both.
Public folder hierarchy	Allows you to register the entire public folder hierarchy as a source or target storage.

Specify Domain

You can use this page to specify the domain that includes the target live Exchange Servers you want to access.

Table 93: User interface elements

Element	Description
Domain	Provides a space for you to enter the name of the domain that includes the target live Exchange Servers you want to access. Type the domain name in the **Domain** box or click **Browse** to browse for and select the domain.
Current account	Allows you to access the domain and target Exchange Servers using the credentials of the account under which Recovery Manager for Exchange is running.
This account	Allows you to access the domain and target Exchange Servers using the credentials of the account you specify in this option.

Specify Office 365 Credentials

Use this page to specify the Microsoft Online Services ID and password with which you want to connect to Exchange Online in Office 365.

Table 94: User interface elements

Element	Description
Microsoft Online Services ID	Type the Microsoft Online Services ID with which you want to access Office 365. The account whose ID you specify must have permissions described in Permissions required to restore data.
Password	Type the password that matches the specified Microsoft Online Services ID.

Add Mailboxes

You can use this page to specify the mailboxes you want to access and register.

Table 95: User interface elements

Element	Description
Added mailboxes	Lists the mailboxes you have selected to access.
Add	Opens a dialog box that allows you to find and add mailboxes to the **Added mailboxes** list. ***To add mailboxes to the list*** 1. Use the tabs in the **Find Mailboxes** dialog box to specify your criteria for searching for the mailboxes you want to register as storages. 2. When you are finished, click **Find Now** and wait for the search to complete. The mailboxes that meet your search criteria are in the **Mailboxes** list. 3. Use the **Mailboxes** list to select the check boxes next to the mailboxes you want to register. 4. When you are finished, click **OK**.
Remove	Removes the selected mailboxes from the list.

After you click **Next**, the wizard displays a series of pages in which you can view the progress of the storage registration operation, and cancel the operation if necessary.

Select a Connection Method

Use this page to select a method to connect to the mailboxes you want to register as storages.

Table 96: User interface elements

Element	Description
Connect using MAPI	Connects to mailboxes via the Messaging Application Programming Interface (MAPI) over RPC. You cannot use this method to access mailboxes hosted in Exchange Online (Office 365) and on post-2010 versions of Exchange Server, because they do not support direct MAPI connections. Before using this method, ensure all the mailboxes you have selected support this method, especially if the mailboxes are hosted on different Exchange Servers.
Connect using HTTP	Connects to mailboxes by using RPC over HTTP/HTTPS. With this option, Recovery Manager for Exchange uses Basic Authentication and Client Access server (CAS) as a proxy for Exchange. This option supports the most recent versions of Exchange, including Exchange Server 2013, Exchange Server 2016 and Exchange Online in Office 365. However, if you experience connection issues with this method, we recommend that you use the **Automatically detect connection settings** method. Before using this method, ensure all the mailboxes you have selected support this method, especially if the mailboxes are hosted on different Exchange Servers.
Automatically detect connection settings	Automatically retrieves connection settings from Exchange Server or Exchange Online and uses them to select a connection method. This option requires the Autodiscover service to be running on the target Exchange Server or in Exchange Online. Use this option to connect to Exchange Server 2013, Exchange Server 2016 or Exchange Online in Office 365 if you experience issues with the **Connect using HTTP** option. **NOTE:** This is the only available option if you work with Microsoft Outlook 2016. We recommend that you use this method if you want to register multiple mailboxes hosted on different Exchange Servers. This method automatically detects and uses the most appropriate connection settings for each mailbox.

Connect As

On this page, specify parameters for connecting to the public folder hierarchy you want. Recovery Manager for Exchange uses the specified parameters to access the public folder hierarchy upon registering it as a storage.

Table 97: User interface elements

Element	Description
Connect as mailbox user	Allows you to connect to the public folder hierarchy by using the credentials of the specified mailbox user. Type the mailbox user name in the text box or click **Find** to search for the mailbox user.
Connect as System Attendant on Exchange Server	Allows you to connect to the public folder hierarchy by using the Exchange System Attendant account on the specified Exchange Server. The Exchange Server you specify must belong to the organization whose public folder hierarchy you want to access. You can only specify Exchange Server 2007 or earlier, because Exchange System Attendant is not supported in Exchange Server 2010 or later.

When you click **Next**, the wizard displays a series of pages in which you can view the progress of the storage registration operation, and cancel the operation if necessary.

Specify Exchange Server

You can use this page to specify the name of the Exchange Server that hosts the recovery databases you want to register or the recovery storage group from which you want to register mailbox databases.

In the **Exchange Server** text box, you can enter the name of the Exchange Server computer that hosts the recovery databases to be registered or the recovery storage group from which you want to register Exchange store databases.

Select Exchange Stores

On this page, the wizard lists the recovery databases or databases in the recovery storage group on the Exchange Server computer you have specified earlier in the wizard.

In the **Available Exchange stores** list, you can select the check boxes next to the Exchange stores that you want to register as storages.

When you click **Next**, the wizard displays a series of pages in which you can view the progress of the storage registration operation, and cancel the operation if necessary.

Select What to Register (when accessing Exchange database, Domino databases, or .pst files)

On this page, the wizard prompts you to select what you want to add as storages.

Table 98: User interface elements

Element	Description
Exchange Server database	Allows you to register an offline Exchange Server database from a specified folder.

Element	Description
Lotus Domino databases	Allows you to register multiple Lotus Domino database (.nsf) files from a specified folder.
Personal Folders (.pst) files	Allows you to register multiple Personal Folders (.pst) files from specified folders.

Select How to Add Storages (when adding targets in the left pane)

On this page, the wizard prompts you to select a method for registering new storages.

Table 99: User interface elements

Element	Description
Access online Exchange	Allows you to register source and/or target storages based on specific online Exchange Server mailboxes or public folder hierarchy.
Access Personal Folders (.pst) files	Allows you to register Personal Folders (.pst) files from multiple folders.
Access Archive Manager instance	Allows you to specify and register an Archive Manager instance.

Specify Exchange Database Files

Use this page to enter the full path to the properties database (.edb) file that belongs to the offline Exchange Server database you want to register as a storage.

On this page, you can also specify the following:

- **Streaming database** (.stm) file that belongs to the specified Exchange Server database. You can only specify an .stm file for pre-Exchange Server 2007 databases, as databases originating from Exchange Server 2007 and later do not have .stm file.

  Properties database (.edb) and streaming database (.stm) files are final repositories for all Exchange Server database information. An .stm file is an Internet content store that contains transmitted messages with their native Internet content.

  By default, the .edb and .stm files of an Exchange Server database are located in the same folder. If the Exchange Server database you register is configured so that its .stm file is located in a different folder, you can specify that folder.

- **Transaction log files that belong to the specified Exchange Server database**. Transaction log files are used to store changes that are made to the database in memory, thus providing a way to restore transactions that were committed but not written to the database files.

  By default, log files are located in the same folder as the .edb file. If the Exchange Server database you register is configured so that its log files are located in a different folder, you can specify that folder.

Table 100: User interface elements

Element	Description
Path to .edb file	Enter the full path to the .edb file that belongs to the offline Exchange Server database you want to register as a storage.
Path to .stm file	Enter the full path to the .edb file that corresponds to the specified .edb file. You can only specify an .stm file for pre-Exchange Server 2007 databases, as databases originating from Exchange Server 2007 and later do not have an .stm file.
Path to log files	Enter the transaction log files that correspond to the specified .edb file. The wizard looks for the log files in the folder you specify and its subfolders.
Perform a hard repair on the database	Performs a hard repair operation on the database. You can select this check box if the .stm file and/or transaction log files are inaccessible, missing, or corrupted.
Defragment the database to reduce its size on disk	Allows you to reduce the size of the specified offline Exchange Server database by defragmenting it.

Specify Defragmentation Parameters

Use this page to enter parameters to defragment the offline Exchange Server database being registered and save it to the files you want. Defragmenting an Exchange Server database allows you to reduce the database size on disk.

Table 101: User interface elements

Element	Description
Path to defragmented .edb file	Enter the full path at which you want to save the defragmented .edb file of the Exchange Server database.
Path to **defragmented .stm file**	Enter the full path at which you want to save the defragmented .stm file of the Exchange Server database.
Delete the source fragmented database	When this check box is selected, the wizard deletes the source fragmented Exchange Server database after the defragmentation operation completes and the defragmented database is saved to the specified target files. When this check box is cleared, the wizard leaves the source fragmented Exchange Server database intact.

Defragment Databases

Use this page to defragment Exchange Server databases extracted from backup by using integration with thirdparty backup software. The wizard creates a defragmented copy for each fragmented source Exchange Server database extracted from backup. Optionally, you can delete the source fragmented databases to save disk space.

Database defragmentation is required because the computer from which the Exchange Server databases originate and the Recovery Manager for Exchange computer have different language and locale settings. Defragmentation makes the Exchange Server databases compatible with the language and locale settings on the Recovery Manager for Exchange computer.

Table 102: User interface elements

Element	Description
Databases to defragment	Lists the Exchange Server databases that require defragmentation.
Delete source databases after successful defragmentation	Delete the source fragmented Exchange Server database extracted from backup for which a defragmented copy was successfully created.

Database Defragmentation Progress

This page displays the progress of the defragmentation operation.

Select a Restore Point

On the Select a Restore Point page, you can select the point in time to which you want to restore the Exchange Server database.

In the **Available restore points** list, you can click the point in time to which you want to restore data in the Exchange database. When you click **Next**, the wizard replays the appropriate log files, restores the Exchange Server database to the selected point in time, and registers the database as a storage.

The more recent point in time you select, the more log files the wizard may need to replay. Restoration of an Exchange database to the most recent restore point may be a lengthy operation.

Specify Domino Database Path and Files

You can use the Specify Domino Database Path and Files page to specify a location of Lotus Domino database (.nfs) files and select the .nsf files you want to register from that location.

Table 103: User interface elements

Element	Description
Path to Domino database (.nsf) files	Provides a space for you to enter the path to the folder that holds the .nsf files you want to register as storages.
Browse	Opens a dialog box you can use to locate the folder that holds the .nsf files and select it.
Domino database (.nsf) files	Lists the .nsf files that are located in the folder you have specified. You can select the check boxes next to the names of the files you want to register as storages.
Select All	Selects all check boxes in the **Domino database (.nsf) files** list.
Clear All	Clears all check boxes in the **Domino database (.nsf) files** list.

When you click **Next**, the wizard displays a series of pages in which you can view the progress of the storage registration operation, and cancel the operation if necessary.

Add .Pst Files to Register as Storages

You can use the Add .Pst Files to Register as Storages page to set up a list of the Personal Folders (.pst) files you want to register as storages.

Table 104: User interface elements

Element	Description
Added .pst files	Lists the .pst files you selected to register as storages.
Add	Opens a dialog box you can use to browse for, select, and add .pst files to the **Added .pst files** list.
Remove	Removes selected .pst files from the **Added .pst files** list.

Specify Archive Manager Access Options

You can use this page to specify options to access the Archive Manager instance you wish to register as a storage. Make sure you use the authentication method set on the target Archive Manager instance.

Table 105: User interface elements

Element	Description
Archive Manager server	Allows you to specify the Archive Manager instance you want to register as a storage. From the list in this option, select **http://** or **https://**, and then use the text box to type the Archive Manager access URL.
Port	Allows you to specify the port on which you want to connect to the Archive Manager instance.
Use Windows Authentication	Allows you to authenticate with the user name and password of a Windows account. Use this option only if the target Archive Manager instance is configured to use this type of authentication. The Windows account whose user name and password you specify must have access to the target Archive Manager instance.
Use Forms Authentication	Allows you to use Forms Authentication to access the target Archive Manager instance. Use this option only if the target Archive Manager instance is configured to use this type of authentication.

Select Mailboxes to Show

You can use this page to specify which mailboxes you want displayed when you view the contents of the storage based on the Archive Manager instance.

Table 106: User interface elements

Element	Description
Show all mailboxes	Shows all mailboxes that are available in the Archive Manager instance.
Show only mailboxes of the access account	Shows only the mailboxes that belong to the access account with which you connect to the Archive Manager instance.

Register Items As

You can use this page to select how you want to register the items you have specified in the previous steps of the wizard: as source storages, target storages, or both. To register the items both as source and target storages, select the **Source Storages** and the **Target Storages** check boxes.

Table 107: User interface elements

Element	Description
Source Storages	You can select this check box to register the items as source storages.
Target Storages	You can select this check box to register the items as target storages.

When you click **Next**, the wizard displays a series of pages in which you can view the progress of the storage registration operation, and cancel the operation if necessary.

Catalog Wizard

The Catalog Wizard helps you catalog Exchange Server backups that hold the databases with which you want to work. With this wizard, you can catalog backups that span one or several media, such as files or tapes.

To start the Catalog Wizard

1. From the main menu, select **Manage | Backup Catalog**.
2. In the view that opens, on the **Backups** tab, click the **Add** button.

The wizard includes the following pages:

- Select Type of Backup Media
- Add Backup Files
- Select Tape Drives
- Add Removable Storage Media
- Cataloging Media

Select Type of Backup Media

The Catalog Wizard starts with the Select Type of Backup Media page. You can use this page to select the type of the backup media that holds the backup you want to catalog.

Table 108: User interface elements

Element	Description
Backup files	Catalogs OpenTape Format (OTF) backup files created with EMC NetWorker, Tape Archive (TAR) backup files created with NetBackup, or Microsoft Tape Format (MTF)-compliant backup files created with Windows Backup or Backup Exec.
Tape drives	Catalogs backups from physical tape drives.
Microsoft Removable Storage Manager library	Catalogs backups from the backup media you select from a list provided by the Microsoft Removable Storage Manager (RSM) service.

Add Backup Files

On the Add Backup Files page, the wizard prompts you to set up a list of the backup files you want to catalog. To select multiple files in one step, hold down CTRL and click the files you want to select.

Table 109: User interface elements

Element	Description
Added backup files	Displays a list of the backup files that you have selected to catalog.
Add	Opens a dialog box you can use to select the backup files and add them to the list. You can add multiple files.
Remove	Removes selected backup files from the list. To remove files from the list, select the files you want to remove, and then click **Remove**

You can add incremental or differential backups to the list. To add a differential backup, you need to have the last normal (full) backup as well as the last differential backup cataloged with Recovery Manager for Exchange. To add an incremental backup, you need to have the last normal (full) backup and all subsequent incremental backups cataloged with Recovery Manager for Exchange.

Select Tape Drives

In the Available tape drives list on the Select Tape Drives page, the wizard displays physical tape drives found on the computer running Recovery Manager for Exchange. You can select the check boxes next to the names of the tape drives from which you want to catalog Exchange Server backups.

Add Removable Storage Media

You can use this page to set up a list of the Removable Storage Manager library media you want to catalog. To select multiple media in one step, hold down CTRL and click the media you want to select.

Table 110: User interface elements

Element	Description
Added media	Displays the Removable Storage Manager library media that you have selected for cataloging.
Add	Opens a dialog box you can use to select Removable Storage Manager library media and add them to the Added media list.
Remove	Removes selected media from the list. To remove media from the list, select the media you want to remove, and click **Remove**.

Cataloging Media

The **Cataloging Media** page displays the media cataloging progress. Backup cataloging can be a lengthy process.

When you double-click anywhere in the backup details box, the page may display additional information about the backup, including

- Name of the computer on which the backup was created.
- Description and type of the backup.

Backup details provided on this page may vary depending on the backup software used to create the backups.

To close the Catalog Wizard

- On the **Cataloging Media** page, click **Finish**.

Task Wizard

This wizard helps you create, edit, and run backup cataloging tasks and restore tasks. Backup cataloging tasks store lists of backups that need to be cataloged. Restore tasks store matches between one or more source and target storages. Tasks are based on prepackaged templates, each featuring a specific combination of types of source and target storages.

When using the Task Wizard, you can register new source storages and/or select from previously registered source storages.

To start the Task Wizard

1. From the main menu, select **Manage | Automated Tasks**.
2. In the view that opens, do one of the following:
    - If you want to create a new automated task, click the **Create** button.
    - If you want to edit an existing automated task, select the task from the list, and then click the **Edit** button.

The wizard includes the following pages:

- Select Action
- Select Template
- Specify Task File
- Option: Catalog Backups Template
    - Select Type of Backup Media (Backup Cataloging)
    - Add Backup Files (Backup Cataloging)
    - Select Tape Drives (Backup Cataloging)
    - Add Removable Storage Media (Backup Cataloging)

- Option: Restore Templates
    - Select Type of Backup Media
    - Add Backup Files
    - Select Tape Drives
    - Add Removable Storage Media
    - Specify EMC NetWorker Server and Client
    - Specify IBM Tivoli Storage Manager Server Options
    - Specify Microsoft Data Protection Manager Options
    - Specify Parameters for Backups
    - Specify Storage Groups and Stores
    - Add Exchange Stores
    - Specify Database Location
    - Select Source Storages
    - Specify Home Exchange Server
    - Select Type of Offline Exchange Databases Location
    - Select Type of Offline Domino Databases Location
    - Add Folders
    - Add Offline Exchange Databases
    - Add Offline Domino Databases
    - Select Type of .Pst Files Location
    - Add .Pst Files
    - Specify Mailbox
    - Select Target Mailbox Folder
    - Specify Source Exchange Server
    - Specify Target Exchange Server
    - Specify Source Domain
    - Specify Target Domain
    - Add Mailboxes
    - Select Where to Place Mailboxes
    - Select Target Public Folder
    - Specify .Pst File
    - Select Target .Pst File Folder
    - Specify Target .Pst Files Options
    - Select a Restore Method
    - Select Time Stamp to Apply
    - Specify Options for Target .Eml Files

- Specify Options for Target .Msg Files
- Specify Options for Target .Txt Files
- Specify Archive Manager Access Options
- Specify Restore Options
- Specify Export Parameters
- Specify Search Criteria
- Specify Account
- Specify Destination Task File

Select Action

On the Select Action page, you can select to create a new task or edit an existing one.

Select Template

On the Select Template page, you can expand the appropriate nodes in the Groups of templates list and select the task template from which you want to create a new task.

You can select from the following templates:

- **Catalog Backups**. Catalogs Exchange Server backups from a specific type of backup media. You can catalog backups from backup files, tape drives, or Microsoft Removable Storage Manager library. After you catalog a backup and register Exchange Server databases from that backup as storages, you can restore Exchange Server content from those databases.
- **All other templates**. Restore specific items from a specific source storage to a specific target storage.

Specify Task File

On the Specify Task File page, you can open an existing task file and edit the task name and description.

This page contains the following elements:

- **Task file**. Displays the opened task file path and name.
- **Browse**. Displays a dialog box you can use to locate, select, and open an existing task file for editing.

  Task files are .rmxt files created with the Task Wizard.
- **Task ID**. Displays the unique identification number of the task. Unique identification numbers are automatically assigned to all tasks at the time of their creation.
- **Task name**. Displays the name of the opened task. You can edit the task name.
- **Description**. Displays the description of the opened task. You can edit the task description.

Option: Catalog Backups Template

If you select the Catalog Backups template on the Select Template page, the wizard continues with the

following steps:

- Select Type of Backup Media (Backup Cataloging)
- Add Backup Files (Backup Cataloging)
- Select Tape Drives (Backup Cataloging)
- Add Removable Storage Media (Backup Cataloging)

Select Type of Backup Media (Backup Cataloging)

You can use this page to select the type of the backup media that holds the backup you want to catalog.

You can select one of the following options:

- **Backup files**. Catalogs the backup files you specify.
- **Tape drives**. Catalogs backups from physical tape drives.
- **Microsoft Removable Storage Manager library**. Catalogs backups from the backup media you select from a list provided by the Microsoft Removable Storage Manager (RSM) service.

NOTE: With these options you can only use the following types of backups:

- OpenTape Format (OTF) backup files created with EMC NetWorker
- Tape Archive (TAR) backup files created with NetBackup
- Microsoft Tape Format (MTF)-compliant backup files created with Windows Backup or Backup Exec

Add Backup Files (Backup Cataloging)

On the Add Backup Files page, the wizard prompts you to set up a list of the backup files you want to catalog.

You can use the following elements:

- **Added backup files**. Displays a list of the backup files that you have selected to catalog.
- **Add**. Opens a dialog box you can use to select the backup files and add them to the list. You can add multiple files.
- **Remove**. Removes selected backup files from the list. To remove files from the list, select the files you want to remove, and then click Remove.

To select multiple files in one step, hold down CTRL and click the files you want to select.

You can add incremental or differential backups. To add a differential backup, you need to have the last normal (full) backup as well as the last differential backup cataloged with Recovery Manager for Exchange. To add an incremental backup, you need to have the last normal (full) backup and all subsequent incremental backups cataloged with Recovery Manager for Exchange.

Select Tape Drives (Backup Cataloging)

In the **Available tape drives** list on the Select Tape Drives page, the wizard displays physical tape drives found on the computer running Recovery Manager for Exchange. You can select the check boxes next to the names of the tape drives from which you want to catalog Exchange Server backups.

Add Removable Storage Media (Backup Cataloging)

You can use this page to set up a list of the Removable Storage Manager library media you want to catalog.

On this page, you can use the following elements:

- **Added media**. Displays the Removable Storage Manager library media that you have selected for cataloging.
- **Add**. Opens a dialog box you can use to select Removable Storage Manager library media and add them to the **Added media** list.
- **Remove**. Removes selected media from the list. To remove media from the list, select the media you want to remove, and click **Remove**.

To select multiple media in one step, hold down CTRL and click the media you want to select.

Option: Restore Templates

If you select any template except the Catalog Backups template on the Select Action page, the next steps of the wizard depend on the source storage that the selected template features.

- Select Type of Backup Media
- Add Backup Files
- Select Tape Drives
- Add Removable Storage Media
- Specify EMC NetWorker Server and Client
- Specify IBM Tivoli Storage Manager Server Options
- Specify Microsoft Data Protection Manager Options
- Specify Parameters for Backups
- Specify Storage Groups and Stores
- Add Exchange Stores
- Specify Database Location
- Select Source Storages
- Specify Home Exchange Server
- Select Type of Offline Exchange Databases Location
- Select Type of Offline Domino Databases Location
- Add Folders
- Add Offline Exchange Databases
- Add Offline Domino Databases
- Select Type of .Pst Files Location
- Add .Pst Files
- Specify Mailbox
- Select Target Mailbox Folder

- Specify Source Exchange Server
- Specify Target Exchange Server
- Specify Source Domain
- Specify Target Domain
- Add Mailboxes
- Select Where to Place Mailboxes
- Select Target Public Folder
- Specify .Pst File
- Select Target .Pst File Folder
- Specify Target .Pst Files Options
- Select a Restore Method
- Select Time Stamp to Apply
- Specify Options for Target .Eml Files
- Specify Options for Target .Msg Files
- Specify Options for Target .Txt Files
- Specify Archive Manager Access Options
- Specify Restore Options
- Specify Export Parameters
- Specify Search Criteria
- Specify Account
- Specify Destination Task File

Select Type of Backup Media

You can use this page to select the type of the backup media that holds the backup from which you want to restore data.

You can select one of the following options:

- **Specific backup files**. Restores data from the backup files you specify.
- **Folders that contain backup files**. Restores data from all backup files found in the folders you specify.
- **Tape drives**. Restores data from the backups found on the physical tape drives you specify.
- **Microsoft Removable Storage Manager library**. Restores data from the backups found on the backup media you select from a list provided by the Microsoft Removable Storage Manager (RSM) service.
- **Microsoft Data Protection Manager server**. Restores data from the backups held on the Microsoft Data Protection Manager server you specify.
- **EMC NetWorker server**. Restores data from the backups held on the EMC NetWorker server you specify.
- **IBM Tivoli Storage Manager server**. Restores data from the backups held on the IBM Tivoli Storage Manager server you specify.

NOTE: You can use the **Specific backup files, Folders that contain backup files, Tape drives, and Microsoft Removable Storage Manager library** options to restore data from the following types of backups only:

- OpenTape Format (OTF) backup files created with EMC NetWorker
- Tape Archive (TAR) backup files created with NetBackup
- Microsoft Tape Format (MTF)-compliant backup files created with Windows Backup or Backup Exec

Add Backup Files

On the Add Backup Files page, the wizard prompts you to set up a list of the backup files from which you want to restore data.

You can use the following elements:

- **Added backup files**. Displays a list of the backup files you have selected to restore data from.
- **Add**. Opens a dialog box you can use to select backup files and add them to the list. You can add multiple files.
- **Remove**. Removes selected backup files from the list. To remove files from the list, select the files you want to remove, and then click **Remove**.

Select Tape Drives

In the **Available tape drives** list on the Select Tape Drives page, the wizard displays physical tape drives found on the computer running Recovery Manager for Exchange. You can select the check boxes next to the names of the tape drives that hold the backups from which you want to restore data.

Add Removable Storage Media

You can use this page to set up a list of the Removable Storage Manager library media that hold the backups from which you want to restore data.

On this page, you can use the following elements:

- **Added media**. Displays the Removable Storage Manager library media that you have selected.
- **Add**. Opens a dialog box you can use to select Removable Storage Manager library media and add them to the **Added media** list.
- **Remove**. Removes selected media from the list. To remove media from the list, select the media you want to remove, and click **Remove**.

Specify EMC NetWorker Server and Client

On the Specify EMC NetWorker Server and Client page, the wizard prompts you to specify parameters for connection to an EMC NetWorker server. Type the NetWorker server and client names.

Specify IBM Tivoli Storage Manager Server Options

On the Specify IBM Tivoli Storage Manager Server Options page, the wizard prompts you to specify parameters for connection to a Tivoli Storage Manager server.

Enter the Tivoli Storage Manager server name, protocol, node name, and node password. You can click the **Change** button to change the default connection protocol settings.

To change the default connection protocol

1. Click **Change**.
2. Specify connection parameters in the **Protocol Settings** dialog box.
3. Click **OK**.

Specify Microsoft Data Protection Manager Options

On the Specify Microsoft Data Protection Manager Options page, the wizard prompts you to specify a Data Protection Manager server and the Exchange Server from whose backups you want to restore data.

You can use the following elements:

- **DPM server**. Provides a space for you to type the name of the Microsoft Data Protection Manager server that holds the backups from which you want to restore data.
- **Backed up Exchange Server**. Provides a space for you to type the name of the Exchange Server from whose backups you want to restore data.
- **Backups created after**. Allows you to select a date after which the backups you want to restore data from were created.
- **Backups created before**. Allows you to select a date before which the backups you want to restore data from were created.

Specify Parameters for Backups

On this page, you can specify parameters the backups from which you want to restore data without cataloging these backups.

- **Backup creation date**. Specify time period when the backups from which you want to restore data were created.
- **Servers whose databases you want to restore**. Type the names of the servers whose databases you want to restore from backups.

Specify Storage Groups and Stores

Use this page to type the names of the storage groups and stores you want to restore from backups.

Add Exchange Stores

On the Add Exchange Stores page, you can set up a list of the Exchange Server stores from which you want to restore data.

On this page, you can use the following elements:

- **Added stores**. Lists the Exchange Server stores you have selected to restore data from.
- **Add**. Opens a dialog box you can use to select the Exchange Server stores from which you want to restore data. You can also catalog backups from which you want to restore data.
- **Remove**. Removes selected Exchange Server stores from the **Added stores and databases** list.

Select Stores Dialog Box

When you click **Add** on the Add Exchange Stores page, the **Select Stores** dialog box opens. You can use this dialog box to select the Exchange Server stores from which you want to restore data.

In this dialog box, you can use the following elements:

- **Stores in cataloged backups**. Displays information about the Exchange Server stores that are in the cataloged backups. You can select the stores and databases from which you want to restore data.

Table 111: List columns

Column	Description
Store	Displays names of the Exchange Server stores that are in at least one of the cataloged backups. You can use the following elements next to each entry in this column: • **Plus sign (+)**. Shows dates and times of creation of the cataloged backups that hold a particular Exchange Server store. • **Minus sign (-)**. Hides dates and times of creation of the cataloged backups that hold a particular Exchange Server store.
Backup Dates	Displays dates and times when a particular Exchange store was backed up. You can use this column to select the cataloged backups from which you want to restore data.
Associated Storages	Displays names of the Recovery Manager for Exchange storages that are based on a particular Exchange Server store.

- **Show storage group names**. Displays storage group names in the **Store** column.
- **Filter by store**. Filters stores in the Stores in cataloged backups list by the store name letters you type in the text box.
- **Catalog Backups**. Starts the Catalog Wizard that helps you catalog Exchange Server backups. After you compete the Catalog Wizard, the Exchange Server stores found in the cataloged backups appear in the S**tores in cataloged backups** list. For more information about the Catalog Wizard, see Catalog Wizard.

You can restore from incremental or differential backups. To restore from a differential backup, you need to have the last normal (full) backup as well as the last differential backup cataloged with Recovery Manager for Exchange. To restore from an incremental backup, you need to have the last normal (full) backup and all subsequent incremental backups cataloged with Recovery Manager for Exchange.

Specify Database Location

On the Specify Database Location page, the wizard prompts you to specify a path to a folder—the task will extract the database files to that folder.

- **Path to store extracted databases**. Displays the default path to the folder where the task will place the extracted databases. You can use this box to type a new path.

- **Browse**. Opens a dialog box you can use to select an existing folder or create and select a new folder where you want to place the extracted database files.

Select Source Storages

The wizard displays the Select Source Storages page if you select a template that features restoring from storages registered with Recovery Manager for Exchange. This page only lists source storages that are registered with Recovery Manager for Exchange.

On the Select Source Storages page, you can use the following elements:

- **Registered source storages**. Displays a list of the source storages registered with Recovery Manager for Exchange. You can select the check boxes next to the storages from which you want to restore data.
- **Add**. Starts the Add Storage Wizard. This wizard helps you register new source storages and add them to the Registered source storages list. For more information, see Catalog Wizard.

Specify Home Exchange Server

On this page, you can specify the home Exchange Server for the mailboxes you want to restore.

This page includes the following elements:

- **Exchange Server name**. You can enter the name of the home Exchange Server to restore the mailboxes to.
- **Check Name**. You can click this button to resolve the Exchange Server whose name you have entered.

  This button is only available when the Exchange Server is not resolved.

Select Type of Offline Exchange Databases Location

You can use this page to select whether you want to restore data from particular Exchange Server databases or from all Exchange Server databases located in the folders you specify.

On this page, you can select one of the following options:

- **Folders that contain offline Exchange databases (.edb files)**. You can select this option to specify folders that contain offline Exchange databases (.edb files). The task restores data from all offline Exchange databases found in the folders you specify.
- **Specific offline Exchange databases (.edb files)**. You can select this option to specify individual offline .edb files from which you want to restore data.

Select Type of Offline Domino Databases Location

You can use this page to select whether you want to restore data from particular Lotus Domino databases or from all Lotus Domino databases located in the folders you specify.

On this page, you can select one of the following options:

- **Folders that contain offline Domino databases (.nsf files)**. You can select this option to specify folders that contain offline Domino databases (.nsf files). The task restores data from all offline Domino databases found in the folders you specify.

- **Specific offline Domino databases (.nsf files)**. You can select this option to specify individual offline .nsf files from which you want to restore data.

Add Folders

Depending on the restoration template you selected, you can use the Add Folders page to set up a list of folders that contain backup files, offline Exchange databases (.edb files), offline Domino databases (.nsf files), or Personal Folders (.pst) files. The task restores data from all backup files, Exchange databases, Domino databases, or .pst files found in the folders you specify.

On this page, you can use the following elements:

- **Added folders**. Displays a list of the folders that you have added.
- **Add**. Displays a dialog box you can use to select a folder and add it to the list. You can select and add one folder at a time.
- **Remove**. Removes selected folders from the list. To remove folders, select the folders you want to remove, and then click **Remove**.

To select multiple folders in one step, hold down CTRL and click the folders you want to select.

Add Offline Exchange Databases

You can use the Add Offline Exchange Databases page to set up a list of the offline Exchange databases (.edb files) from which you want to restore data.

On this page, you can use the following elements:

- **Added .edb files**. Displays a list of the .edb files you have selected to restore data from.
- **Add**. Displays a dialog box you can use to select .edb files and add them to the list. You can select and add multiple .edb files.
- **Remove**. Removes selected .edb files from the list. To remove .edb files, select the files you want to remove, and then click **Remove**.

To select multiple files in one step, hold down CTRL and click the files you want to select.

Add Offline Domino Databases

You can use the Add Offline Domino Databases page to set up a list of the offline Domino databases (.nsf files) from which you want to restore data.

On this page, you can use the following elements:

- **Added .nsf files**. Displays a list of the .nsf files you have selected to restore data from.
- **Add**. Displays a dialog box you can use to select .nsf files and add them to the list. You can select and add multiple .nsf files.
- **Remove**. Removes selected .nsf files from the list. To remove .nsf files, select the files you want to remove, and then click Remove.

To select multiple files in one step, hold down CTRL and click the files you want to select.

Select Type of .Pst Files Location

You can use this page to select whether you want to restore data from particular Personal Folders (.pst) files or from all .pst files located in the folders you specify.

On this page, you can select one of the following options:

- **Folders that contain .pst files**. You can select this option to specify folders that contain Personal Folders (.pst) files. The task restores data from all .pst files found in the folders you specify.
- **Specific .pst files**. You can select this option to specify individual Personal Folders (.pst) files from which you want to restore data.

Add .Pst Files

You can use the Add .Pst Files page to set up a list of the Personal Folders (.pst) files from which you want to restore data.

On this page, you can use the following elements:

- **Added .pst files**. Displays a list of the .pst files you have selected to restore data from.
- **Add**. Displays a dialog box you can use to select .pst files and add them to the list. You can select and add multiple .pst files.
- **Remove**. Removes selected .pst files from the list. To remove .pst files, select the files you want to remove, and then click **Remove**.

To select multiple files in one step, hold down CTRL and click the files you want to select.

Specify Mailbox

You can use this page to specify the Exchange Server that hosts the mailbox to which you want to restore data, and then specify the target mailbox.

On the Specify Mailbox page, you can use the following elements:

- **Exchange Server name**. You can enter the name of the Exchange Server that hosts the mailbox to which you want to restore data.
- **Mailbox name**. You can enter the name of the target mailbox to which you want to restore data.
- **Check Name**. You can click this button to check if the mailbox name you have entered matches a name in the global address list (GAL.) If the mailbox name matches multiple names in GAL, you will be prompted to select one.

Select Target Mailbox Folder

On this page, you can expand the mailbox node in the **Specified mailbox** list and select a target folder. The task will restore data to that folder.

Specify Source Exchange Server

On this page, you can specify any Exchange Server that hosts the public folder hierarchy from which you want to export data.

You can use the following elements:

Connect as mailbox user. Allows you to connect to the public folder hierarchy by using the credentials of the specified mailbox user. Type the mailbox user name in the text box or click **Find** to search for the mailbox user.

- **Connect as System Attendant on Exchange Server**. Allows you to connect to the public folder hierarchy by using the Exchange System Attendant account on the specified Exchange Server. The Exchange Server you specify must belong to the organization whose public folder hierarchy you want to access. You can only specify Exchange Server 2007 or earlier, because Exchange System Attendant is not supported in Exchange Server 2010 or later.

Specify Target Exchange Server

On this page, you can specify any Exchange Server that hosts the public folder hierarchy to which you want to restore or export data.

You can use the following elements:

- **Connect as mailbox user**. Allows you to connect to the public folder hierarchy by using the credentials of the specified mailbox user. Type the mailbox user name in the text box or click **Find** to search for the mailbox user.
- **Connect as System Attendant on Exchange Server**. Allows you to connect to the public folder hierarchy by using the Exchange System Attendant account on the specified Exchange Server. The Exchange Server you specify must belong to the organization whose public folder hierarchy you want to access. You can only specify Exchange Server 2007 or earlier, because Exchange System Attendant is not supported in Exchange Server 2010 or later.

Specify Source Domain

You can use this page to specify the domain that includes the online Exchange Servers from which you want to export data.

You can use the following elements:

- **Domain**. Provides a space for you to enter the name of the domain that includes the live Exchange Servers from which you want to export data. Type the domain name in the **Domain** box or click **Browse** to browse for and select the domain.
- **Current account**. Allows you to access the domain and Exchange Servers using the credentials of the account under which Recovery Manager for Exchange is running.
- **This account**. Allows you to access the domain and Exchange Servers using the credentials of the account you specify in this option.

Specify Target Domain

You can use this page to specify the domain that includes the online target Exchange Server you want to access.

You can use the following elements:

- **Domain**. Provides a space for you to enter the name of the domain that includes the live target Exchange Server to which you want to restore or export data. Type the domain name in the **Domain** box or click **Browse** to browse for and select the domain.

- **Current account**. Allows you to access the target domain and Exchange Server using the credentials of the account under which Recovery Manager for Exchange is running.
- **This account**. Allows you to access the target domain and Exchange Server using the credentials of the account you specify in this option.

Add Mailboxes

You can use this page to specify the online mailboxes you want to access and export data from.

You can use the following elements:

- **Added mailboxes**. Lists the mailboxes you have selected to access.
- **Add**. Opens a dialog box that allows you to add mailboxes to the **Added mailboxes** list. In the dialog box, you can use the following elements:
  - **Exchange Servers**. Allows you to select the Exchange Servers that host the mailboxes you want to access and export data from. To select Exchange Servers, click in this box, and then select the check boxes next to the Exchange Servers that host the mailboxes you want to access.
  - **Mailboxes**. Lists all mailboxes hosted on the Exchange Servers you have selected in the **Exchange Servers** box. Select the check boxes next to the mailboxes you want to access.
  - **Filter by name**. Allows you to filter the items in the Mailboxes list by specific combination of characters contained in the mailbox names. Select the check box, and then type the combination of characters contained in the names of the mailboxes you want displayed in the list.
  - **Select All**. Selects the check boxes next to all items in the **Mailboxes** list.
  - **Clear All**. Clears the check boxes next to all items in the **Mailboxes** list.
- **Remove**. Removes the mailboxes you have selected from the list.

Select Where to Place Mailboxes

Use this page to choose where in the target storage you want to place data from the mailboxes being restored.

You can select one of the following options:

- **Restore each mailbox to an individual root folder**. Restores each selected mailbox to a separate folder located in the root of the target storage.
- **Merge mailboxes into target storage**. Merges data from one or more source mailboxes to the target storage you specify. That is, messages from the folders in the source mailboxes are restored to the corresponding folders in the target storage.

Select Target Public Folder

On this page, you can expand the public folder hierarchy nodes in the Available public folders list and select a target public folder. The task will restore data to that folder.

Specify .Pst File

On this page, you can specify the path and name of a new or an existing target Personal Folders (.pst) file.

You can use the following elements:

- **Path and name of .pst file**. You can enter the path and name of a target Personal Folders (.pst) file.
- **Browse**. You can click this button to locate and select an existing Personal Folders (.pst) file, or create and select a new one.

Select Target .Pst File Folder

On this page, you can expand the Personal Folders (.pst) file node in the **Specified .pst file** list, and select a target folder. The task will restore data to that folder.

Specify Target .Pst Files Options

On the Specify Target .Pst Files Options page, you can specify the location where you want to generate target .pst files and set additional options for the files.

You can use the following elements:

- **Folder where target .pst files will be created**. Provides a space for you to enter the path to the folder where you want to create target .pst files.
- **Browse**. Opens a dialog box you can use to select an existing folder or create and select a new folder where you want to place target .pst files.
- **Target root folder in .pst files**. Provides a space for you to type the name of a target root folder in target .pst files. The restored items will be placed in that folder. If the root folder whose name you typed does not exist, it will be created.
- **ANSI (Outlook 97-2016)**. Creates .pst files with 2 GB storage capacity limit per file. These files do not support multilingual Unicode data. Generated .pst files are compatible with Outlook 97, 98, 2000, 2002, 2003, 2007, 2010, 2013 and 2016.
- **Unicode (Outlook 2003-2016)**. Creates .pst files with more storage capacity. These files support multilingual Unicode data. Generated .pst files are not compatible with Outlook 97, 98, 2000, and 2002.
- **Custom prefix to the names of target files**. Provides a space for you to type the custom prefix that you want to add to the names of target .pst files.
- **Add the source storage name as a prefix to the names of target files**. Adds the source storage name as a prefix to the names of target .pst files.
- **Add the time of creation as a suffix to the names of target files**. Appends the date and time of creation of target .pst files to their names.
- **Apply security to target files**. Applies the earlier-specified security settings to target .pst files. For more information about specifying these security settings, see Setting access permissions for target files.

Select a Restore Method

On this page, you can select a method to restore data to a single Personal Folders (.pst) files or a series of .pst files.

- **Quick restore**. Restores data to a single .pst file whose maximum size 51200 MB. The restore stops upon reaching the file size limit.

- **Advanced restore**. Allows you to restore data to a series of .pst files. You can use the provided option to set the maximum size for each file in the series. When the current .pst file becomes full, Recovery Manager for Exchange creates a new .pst file and restores the remaining data there. This restore method takes longer as compared to the quick restore method.

Select Time Stamp to Apply

On the Select Time Stamp to Apply page, the wizard prompts you to select a preferred time stamp option to apply to the restored items. You can click one of the following two options:

- **Date and time stored in the source storage**. After the restoration, the restored items keep their original time stamp as stored in the source storage.
- **Date and time of restoration**. After the restoration, the restored items are marked with the actual date and time of their restoration.

Specify Options for Target .Eml Files

On the Specify Options for Target .Eml Files page, you can specify the location where you want to generate target .eml files. You can use the text box to type a path to that location, or click **Browse** to browse for that location and select it. Each message is exported to an individual .eml file.

You can select the following additional options:

- **Add the source storage name as a prefix to the names of target files**. Precedes the names of all target .eml files with the source storage name.
- **Add the time of creation as a suffix to the names of target files**. Appends the date and time of creation to the names of all target .eml files.
- **Apply security to target files.** Applies access permissions to target .eml files**.**
- **Edit Security**. Displays the dialog box you can use to view or change access permissions that will be applied to the new target files created by Recovery Manager for Exchange in the result of a restore or export operation.
- **Generate hash for target files**. Creates an .md5 hash file for each generated .eml file. The .md5 hash files are created in the same folder as the target .eml files.

Specify Options for Target .Msg Files

On the Specify Options for Target .Msg Files page, you can specify the location where you want to generate target .msg files. You can use the text box to type a path to that location, or click **Browse** to browse for that location and select it. Each message is exported to an individual .msg file.

You can use the following additional options:

- **ANSI (Outlook 97-2016)**. Saves each selected message to an individual Outlook Message Format (.msg) file in the ANSI format. This type of .msg files does not support multilingual Unicode data. Some texts in messages saved in this format may become unreadable. Generated .msg files are compatible with all versions of Outlook.
- **Unicode (Outlook 2003-2016)**. Saves each selected message to an individual Outlook Message Format (.msg) file in the Unicode format. This format enables you to retain readability of texts written in most languages. Generated .msg files are not compatible with Outlook 97, 98, 2000, and 2002.

- **Add the source storage name as a prefix to the names of target files**. Precedes the names of all target .msg files with the source storage name.
- **Add the time of creation as a suffix to the names of target files**. Appends the date and time of creation to the names of all target .msg files.
- **Apply security to target files**. Applies access permissions to target .msg files.
- **Edit Security**. Displays the dialog box you can use to view or change access permissions that will be applied to the new target files created by Recovery Manager for Exchange in the result of a restore or export operation.
- **Generate hash for target files**. Creates an .md5 hash file for each generated .msg file. The .md5 hash files are created in the same folder as the target .msg files.

Specify Options for Target .Txt Files

On the Specify Options for Target .Txt Files page, you can specify the location where you want to generate target .txt files. You can use the text box to type a path to that location, or click **Browse** to browse for that location and select it. Each message is exported to an individual .txt file.

You can select the following additional options:

- **Add the source storage name as a prefix to the names of target files**. Precedes the names of all target .txt files with the source storage name.
- **Add the time of creation as a suffix to the names of target files**. Appends the date and time of creation to the names of all target .txt files.
- **Generate hash for target files**. Creates an .md5 hash file for each generated .txt file. The .md5 hash files are created in the same folder as the target .txt files.

Specify Archive Manager Access Options

Use this page to specify options to access the Archive Manager instance to which you want to restore data or which you want to register as a storage with Recovery Manager for Exchange. Make sure you select the authentication method set on the Archive Manager instance you wish to access.

Table 112: User interface elements

Element	Description
Archive Manager server	Provides a space for you to enter the Fully Qualified Domain Name (FQDN) of the computer that hosts the Archive Manager instance you wish to register.
Port	Allows you to specify the port on which you want to connect to the Archive Manager instance.
Use Windows Authentication	Allows you to authenticate with the user name and password of a Windows account. Use this option only if the target Archive Manager instance is configured to use this type of authentication. The Windows account whose user name and password you specify must have access to the target Archive Manager instance.
Use Forms Authentication	Allows you to use Forms Authentication to access the target Archive Manager instance. Use this option only if the target Archive Manager instance is configured to use this type of authentication.

Specify Restore Options

On this page page, you can specify the location where you want to restore attachments. You can use the text box to type a path to that location, or click **Browse** to browse for that location and select it.

You can select the following additional options:

- **Add the source storage name as a prefix to the names of target files**. Precedes the names of all restored attachment files with the source storage name.
- **Add the time of creation as a suffix to the names of target files**. Appends the date and time of creation to the names of all restored attachment files.
- **Generate hash for target files**. Creates an .md5 hash file for each restored attachment file. The .md5 hash files are created in the same folder where the attachment files are restored.

Specify Export Parameters

On this page, you can specify the Archive Manager version you will use to load the exported messages and the drop directory from where Archive Manager can load the exported messages. You can use the text box to type a path to the drop directory, or click **Browse** to browse for the drop directory and select it.

For instructions about loading messages into Archive Manager, see the Archive Manager documentation that is available at http://quest.com/products/archive-manager.

Specify Search Criteria

Depending on the selected task template, you can use the Specify Search Criteria page to enter search criteria for the mailboxes, messages, or attachments you want to restore. When you run the created task, it only restores those mailboxes, messages, or attachments that meet the criteria you enter on this page.

The elements on the Specify Search Criteria page tabs are identical to the elements on the Find View tabs. For detailed descriptions of these elements, see Using the Find View.

You can use a special search syntax on the Specify Search Criteria page tabs. For information about the search syntax and applicable search operators, see Search syntax subsection in Using the Find View.

Specify Account

On this page, you can specify the account under which you want to run the task being created.

Specify Destination Task File

On this page, you can specify the file to which you want to save your task. You can also edit the task name and type the task description.

The Specify Destination Task File page includes the following elements:

- **Task file**. Provides a space for you to enter the path and name of the destination file to which you want to save the task. You can specify a new or an existing file.
- **Browse**. Displays a dialog box you can use to specify the task file to which you want to save the task. You can specify a new or an existing task file. Task files are the .rmxt files created by the Task Wizard.

- **Task ID**. Displays the unique identification number assigned to the task. The unique identification numbers are automatically assigned to all tasks at the time of their creation.
- **Task name**. Displays the default name of the task. You can edit the default task name.
- **Description**. Provides a space for you to type the task description.

When you save a task to an existing task file, all data in that file is overwritten.

Comparison of Recovery Manager for Exchange editions

Currently the following Recovery Manager for Exchange editions are available:

- Recovery Manager for Exchange distributed as a separate product
- Recovery Manager for Exchange shipped with Archive Manager
- Recovery Manager for Exchange shipped with Data Protection solutions: vRanger, Rapid Recovery (AppAssure) and NetVault Backup

These editions only differ by supported source and target storages, as described in the next table.

Table 113: Recovery Manager for Exchange editions comparison

Item	Recovery Manager for Exchange distributed separately	Recovery Manager for Exchange shipped with Archive Manager	Recovery Manager for Exchange shipped with vRanger, Rapid Recovery (AppAssure) and NetVault Backup
Online mailbox (hosted on Exchange Server or in Exchange Online in Office 365) **NOTE:** This includes primary and archive mailboxes if they are supported by Exchange Server.	Supported as source and target storage	Supported as target storage only	Supported as target storage only
Online public folder hierarchy (hosted on Exchange Server or in Exchange Online in Office 365)	Supported as source and target storage	Supported as target storage only	Supported as target storage only
Offline Exchange Server database	Supported as source storage only	Not supported	Supported as source storage only
Offline Lotus Domino database	Supported as source storage only	Not supported	Not supported

Item	Recovery Manager for Exchange distributed separately	Recovery Manager for Exchange shipped with Archive Manager	Recovery Manager for Exchange shipped with vRanger, Rapid Recovery (AppAssure) and NetVault Backup
Personal Folders (.pst) file	Supported as source and target storage	Supported as source and target storage	Supported as target storage only
Archive Manager	Supported as source and target storage	Supported as source and target storage	Supported as target storage only
Integration with third-party backup software to register storages from backups. **NOTE:** For a list of supported backup software, see the *Recovery Manager for Exchange Release Notes*.	Supported	Not supported	Supported only for vRanger, Rapid Recovery (AppAssure) and NetVault Backup

About us

We are more than just a name

We are on a quest to make your information technology work harder for you. That is why we build communitydriven software solutions that help you spend less time on IT administration and more time on business innovation. We help you modernize your data center, get you to the cloud quicker and provide the expertise, security and accessibility you need to grow your data-driven business. Combined with Quest's invitation to the global community to be a part of its innovation, and our firm commitment to ensuring customer satisfaction, we continue to deliver solutions that have a real impact on our customers today and leave a legacy we are proud of. We are challenging the status quo by transforming into a new software company. And as your partner, we work tirelessly to make sure your information technology is designed for you and by you. This is our mission, and we are in this together. Welcome to a new Quest. You are invited to Join the Innovation™.

Our brand, our vision. Together.

Our logo reflects our story: innovation, community and support. An important part of this story begins with the letter Q. It is a perfect circle, representing our commitment to technological precision and strength. The space in the Q itself symbolizes our need to add the missing piece — you — to the community, to the new Quest.

Contacting Quest

For sales or other inquiries, visit https://www.quest.com/company/contact-us.aspx or call +1-949-754-8000.

Technical support resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at https://support.quest.com.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request
- View Knowledge Base articles
- Sign up for product notifications
- Download software and technical documentation
- View how-to-videos
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product