Mailbox Restore for Exchange 6.2

User Guide

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Understanding Mailbox Restore for Exchange

This section introduces Mailbox Restore for Exchange and provides an overview of the product. It explains the relationship between Rapid Recovery and Mailbox Restore for Exchange, and describes the key features of Mailbox Restore.

About Mailbox Restore for Exchange

Mailbox Restore for Exchange is a comprehensive email recovery program that works with Rapid Recovery — and can work with the Rapid Recovery Local Mount Utility (LMU) — to recover any Exchange item, from a full data store to a single email message.

The recovered Exchange item comes from a Rapid Recovery recovery point. When you install Rapid Recovery Agent on an Exchange server and protect the server with Rapid Recovery Core, the Exchange items stored on that server can be recovered using Mailbox Restore.

Mailbox Restore accesses the Rapid Recovery recovery point that contains the data store in which you can search for and recover mail items. After you open the Exchange database (.edb file) with Mailbox Restore, you can search for any combination of criteria, such as names of mailboxes or folders, across one or multiple Exchange databases. The Outlook-like user interface provides a preview pane, where you can view the message or item in full before performing a recovery.

Mailbox Restore for Exchange key concepts

Mailbox Restore for Exchange features several key concepts that contribute to a successful Exchange-item recovery, such as e-discovery and differential restore. Because you use Rapid Recovery for backup and disaster recovery, every Microsoft Exchange data store benefits from mountability and integrity checks, ensuring that your recovered data can be mounted and recovered and is free of corruption.

Exchange data store search

Mailbox Restore lets you search through large amounts of data to find individual items for recovery. You can search any Exchange data store by field and keyword within mailboxes, messages, calendars, tasks, notes, and folders to quickly and easily find the item that you want to recover.

E-discovery and creating PST output

Mailbox Restore identifies email for e-discovery with the simple search of a keyword, phrase, or user name and then performs a complete scan of the Exchange data store for messages that meet your criteria. After you identify the file you want to recover, you can restore it to a folder or to a PST. You can also save items to the local machine in .eml, .txt, or .msg format.

> **i** **NOTE:** The .pst format satisfies the "native file format" requirement for legal and compliance e-discovery.

Elimination of brick-level mailbox backups

Although Rapid Recovery backs up all volumes in an Exchange server, Mailbox Restore performs item-level recovery without using Microsoft Exchange Server Mailbox Merge (ExMerge) to extract the data or Microsoft Recovery Storage Groups to mount the Exchange Database. After you mount a Rapid Recovery recovery point, Mailbox Restore can recover email items from any unmounted .edb file without performing expensive and time-consuming brick-level backups that only back up one mailbox at a time.

Reduced disk and server space

Because Mailbox Restore is bundled with the Rapid Recovery Core, Mailbox Restore requires little disk space for message-level recovery. Rather than copying the entire Exchange data store to perform a recovery, it accesses the .edb file from the Rapid Recovery recovery point, which eliminates the need for a dedicated Exchange server to restore messages.

Differential restores

Mailbox Restore lets you perform a restore of only the differences between a rolled back data store and the latest recovery point when restoring to the original location of the mail data. To restore differences, Mailbox Restore synchronizes the unmounted .edb file with the online server. With a differential restore, you can synchronize the data store after a rollback or recovery from a backup.

Outlook message and Exchange item previews

With Mailbox Restore, you can preview the contents and attributes, as well as attachments, of a message or Exchange item in their entirety before recovering, which lets you confirm that you have selected the correct item. Additionally, you have full access to calendar items, tasks, notes, and so on for viewing and recovery. The user interface leverages Outlook functionality to provide a preview pane and lets you browse mailboxes, messages, and other Exchange items.

Data store corruption checks

Mailbox Restore works with Rapid Recovery to perform a physical integrity check on your Exchange data store to identify issues before they become more serious. This integrity check scans the data store for corruption and ensures that the data you recover is in a healthy state.

The physical integrity check is a manual process that is available from the menu bar in the Mailbox Restore user interface. To conduct a physical integrity check, Mailbox Restore and Rapid Recovery scan and validate each individual page of the .edb file.

During the integrity check, if Mailbox Restore detects corruption in the .edb file, only the healthy portion of the file is available for recovering Exchange items.

Introduction to Rapid Recovery

Rapid Recovery is a backup, replication, and recovery solution that offers near-zero recovery time objectives and recovery point objectives. Rapid Recovery offers data protection, disaster recovery, data migration and data management. You have the flexibility of performing bare-metal restore (to similar or dissimilar hardware), and you can restore backups to physical or virtual machines, regardless of origin. Rapid Recovery can also archive to the cloud, to a DL series backup and recovery appliance, or to a supported system of your choice. With Rapid Recovery, you can replicate to one or more targets for added redundancy and security.

Rapid Recovery offers:

- **Flexibility**. You can perform universal recovery to multiple platforms, including restoring from physical to virtual, virtual to physical, virtual to virtual, and physical to physical.

- **Cloud integration**. You can export a VM, archive and replicate to the cloud, and perform bare metal restore from archives in the cloud. Compatible cloud services include Microsoft Azure, Amazon Web

Services (AWS), any OpenStack-based provider (including Rackspace), and Google Cloud. US government-specific platforms include AWS GovCloud (US) and Azure Government.

- **Intelligent deduplication**. You can reduce storage requirements by storing data once, and referencing it thereafter (once per repository or encryption domain).

- **Instant recovery**. Our Live Recovery feature allows you to access critical data first, while remaining restore operations complete in parallel.

- **File-level recovery**. You can recover data at the file level on-premises, from a remote location, or from the cloud.

- **File-level search**. Using criteria you specify, you can search a range of recovery points for one or more files. From the search results, you can then select and restore the files you want to the local Core machine directly from the Core Console.

- **Virtual support**. Rapid Recovery supports one-time virtual export, letting you generate a bootable VM from a recovery point; and virtual standby, in which the bootable VM you generate is continually updated after each backup. You can even perform virtual export to Microsoft Hyper-V cluster-shared volumes.

- **Rapid Snap for Virtual support**. Enhanced support for virtualization includes agentless protection for vCenter/ESXi VMs and for Hyper-V VMs. Rapid Snap for Virtual includes protection and autodiscovery for VMware ESXi 5.5 and higher with no agent software installed. Host-based protection supports installing Rapid Recovery Agent on a Microsoft Hyper-V host only, letting you agentlessly protect all its guest VMs.

- **Application support**. Rapid Recovery Agent is built with application support for Microsoft Exchange, SQL Server, and Oracle. When you protect these application servers in your Core, the backup snapshots are automatically application-aware; open transactions and rolling transaction logs are completed and caches are flushed to disk before creating snapshots. Specific application features are supported, including SQL attachability (for SQL Server) and database integrity DBVERIFY checks (for Oracle). Application awareness also extends to agentless protection for SQL Server and Exchange Server.

See the following resources for more information about Rapid Recovery.

- The Rapid Recovery product support website at https://support.quest.com/rapid-recovery/.

- The documentation website at https://support.quest.com/rapid-recovery/technical-documents/.

Preparing to use Mailbox Restore for Exchange

This chapter provides instructions on what you need to do to prepare your machine for using Mailbox Restore. It describes the system requirements and other prerequisites.

Mailbox Restore system requirements

Mailbox Restore for Exchange is included with the Rapid Recovery Core and works with the Rapid Recovery Agent, the Local Mount Utility (LMU), and Microsoft Outlook to complete an Exchange item recovery. To recover an Exchange email item, use the LMU to open an Rapid Recovery recovery point of the Exchange data store, which Mailbox Restore can then access. If you choose to restore the item to its original location, Mailbox Restore then exports it to the online Exchange server to complete the recovery. For a successful recovery, all of these products must be compatible with each other.

This user guide assumes that, as a Rapid Recovery customer, you already have the Rapid Recovery Core service installed and that the Rapid Recovery Agent service is installed on and protecting your Exchange server. The version of Microsoft Exchange installed on the server must be compatible with Mailbox Restore.

Mailbox Restore supports the following versions of Microsoft Exchange:

- Exchange 2016
- Exchange 2013
- Exchange 2010
- Exchange 2007 x64 beginning with SP1 Rollup 5

And it supports the following versions of Microsoft Outlook:

- Microsoft 2016
- Microsoft 2013
- Microsoft 2010

> **i** **NOTE:** According to the Microsoft support lifecycle policy, Microsoft ended support for Exchange 2007 on April 11, 2017. For this reason, support between Rapid Recovery and Exchange 2007 x64 is deprecated and will end in the Rapid Recovery release that follows release 6.2.

If you attempt to use Mailbox Restore to open an Exchange data store that was created in an unsupported version of Exchange, you receive a message that prompts you to copy the Exchange libraries. Clicking OK opens Mailbox Restore, but the data store is not available. Libraries not created in a supported version of Exchange are not compatible with Mailbox Restore.

> **i** **NOTE:** Mailbox Restore can be installed as part of a Rapid Recovery Core or LMU installation. Both the Rapid Recovery Core and LMU installers require .NET Framework 4.6.2 (x64). Rapid Recovery Core machines using 32-bit operating systems are not supported. The Rapid Recovery Core does not support Windows Server Core operating systems.

The following table shows the combinations of Microsoft operating systems and Exchange Servers currently supported by Mailbox Restore with the Rapid Recovery Core and Rapid Recovery Agent.

Table 1. Mailbox Restore **system requirements**

Product	Operating system
Rapid Recovery 6.2 Core	Mailbox Restore for Exchange supports the following 64-bit Microsoft Windows operating systems: • Windows Server 2016 • Windows Server 2012, 2012 R2 • Windows Server 2008 R2 SP1 • Windows 10 • Windows 8.1 **i** **NOTE:** Rapid Recovery and Mailbox Restore do not support Windows Server Core editions of the Windows operating systems.
Rapid Recovery 6.2 Agent with Exchange 2016	• Windows Server 2016 • Windows Server 2012 R2 Standard or Datacenter • Windows Server 2012 Standard or Datacenter • Windows Server 2008 R2 Standard SP1 • Windows Server 2008 R2 Enterprise SP1
Rapid Recovery 6.2 Agent with Exchange 2013	• Windows Server 2012 R2 Standard or Datacenter • Windows Server 2012 Standard or Datacenter • Windows Server 2008 R2 Standard SP1 • Windows Server 2008 R2 Enterprise SP1
Rapid Recovery 6.2 Agent with Exchange 2010	• Windows Server 2012 • Windows Server 2008 R2 SP1
Rapid Recovery 6.2 Agent with Exchange 2007 x64	• Windows Server 2008 R2 SP1

i **NOTE:** In addition to having the supported versions of Rapid Recovery, Windows Server, and Exchange Server installed on the appropriate machines, you must also have Microsoft Outlook installed on the machine that you intend to use to recover Exchange items. Optionally, you can install the LMU and use it to open databases from recovery points.

Related information

Microsoft Outlook criteria
Prerequisites for Mailbox Restore
The Local Mount Utility and Mailbox Restore

Microsoft Outlook criteria

To use Rapid Recovery to recover an Exchange item, you must have Microsoft Outlook installed and configured on the same machine on which Rapid Recovery is installed.

The machine on which Rapid Recovery is installed also must adhere to the following criteria:

- Microsoft Outlook 2007 or later is installed on the machine with Rapid Recovery (usually the Core).

  > **i** | **NOTE:** Microsoft Outlook 2013 is supported with Mailbox Restore version 5.3.7 and later.

- There is at least one profile configured in Microsoft Outlook.

- The Outlook profile associated with Rapid Recovery has full-control permissions, including Send As and Receive As permissions.

- The Outlook Cached Exchange Mode option under the Outlook profile associated with Rapid Recovery is disabled.

  > **i** | **NOTE:** If you open Rapid Recovery on a machine that does not include a compatible version of Outlook, you receive a message reminding you that a supported version of Outlook must be installed. Clicking OK on this message opens Rapid Recovery, but the data store is not available for item-level recovery.

Prerequisites for Mailbox Restore for Exchange

Before you begin using Mailbox Restore for Exchange, complete the following prerequisites:

- Set the proper permissions.

- Verify that Microsoft Outlook is installed.

- Optionally, download and installed the Local Mount Utility.

Without the proper permissions and an instance of Outlook installed on the Mailbox Restore machine, Mailbox Restore is unable to perform Exchange-item recovery, even if the Exchange server is protected by an Rapid Recovery Core.

The Local Mount Utility is the recommended means for opening an Exchange database in Mailbox Restore, but it is not required. You can also open Mailbox Restore directly from the folder in which the application is saved and then open the Exchange database from the File menu.

> **i** | **NOTE:** To open a database from Mailbox Restore, you must first mount a recovery point. For more information, see Opening an Exchange database in Mailbox Restore using the Local Mount Utility.

Related tasks
    See also: Opening a recovery source with Mailbox Restore
Related reference
    See also: Microsoft Outlook criteria
    See also: Downloading the Local Mount Utility
    See also: Opening Mailbox Restore for Exchange
Related information

Understanding the Mailbox Restore installation

This user guide assumes that you are an Rapid Recovery customer and that you have the Rapid Recovery Core and Rapid Recovery Agent services installed and operating on the proper machines. The option to install Mailbox Restore is included with the installation of Rapid Recovery. If you selected to install Mailbox Restore when you installed the Rapid Recovery Core, then there is no additional installation required.

If you intend to use Mailbox Restore on a machine that does not include Rapid Recovery Core, then you can opt to install Mailbox Restore with an installation of the Local Mount Utility (LMU).

For more information about installing the Rapid Recovery Core, see the Quest Data Protection | Rapid Recovery Installation and Upgrade Guide.

Related information
> Mailbox Restore system requirements
> The Local Mount Utility

Opening Mailbox Restore for Exchange

To open Mailbox Restore, you can simply open a database from a recovery point in the Local Mount Utility (LMU).

In the LMU, when you select to open a database from a recovery point, Mailbox Restore automatically starts. There is no need to separately or manually open Mailbox Restore to recover an Exchange item from a Rapid Recovery recovery point.

However, if you choose not to use the LMU to open a database, or if you need to access Mailbox Restore for reasons other than recovering an Exchange item, such as maintenance, the application can be found in the following default locations:

- When installed with the Rapid Recovery Core:

  ```
  C:\Program Files\AppRecovery\Core\CoreService\MR\MailboxRestore.exe
  ```

- When installed with the LMU:

  ```
  C:\Program Files\AppRecovery\LocalMountUtility\MR\MailboxRestore.exe
  ```

Related information
> Mailbox Restore system requirements
> Opening an Exchange database in Mailbox Restore using the Local Mount Utility
> Opening an Exchange database using Mailbox Restore

The Local Mount Utility and Mailbox Restore

Recovering an Exchange item from a Rapid Recovery recovery point can be accomplished directly from the Mailbox Restore user interface or by mounting the recovery point and opening the Exchange database file using the Local Mount Utility (LMU).

The LMU is a downloadable application that lets you mount a recovery point on a remote Rapid Recovery Core from any machine.

Because the utility was designed for remote access to Cores, Mailbox Restore is included as a component with every installation of the LMU; however, you also can install the LMU on a Rapid Recovery Core for quick access to Mailbox Restore. When the LMU runs on a core, the utility recognizes and displays all mounts from that core, including mounts performed through the Rapid Recovery Core Console. Likewise, mounts performed on the LMU also appear in the console.

This topics in this section describe how to use Mailbox Restore and the LMU to recover email items from an Exchange data store.

For more information about the LMU, see the *Quest Data Protection | Rapid Recovery User Guide.*

The Local Mount Utility

This section describes how to download, install, and use the Windows-based Rapid Recovery Local Mount Utility (LMU) to mount recovery points and explore the contents from a file level using a machine that does not host the Rapid Recovery Core.

Downloading the Local Mount Utility

There are two ways to download the Local Mount Utility. You can download the web installer version of the software directly from the Rapid Recovery Core Console, which is practical if you are installing the LMU on the Core. You can also download either 32-bit or 64-bit executable installer files for the LMU from the Quest Data Protection | Rapid Recovery License Portal.

This section includes the following topics:

- Downloading the LMU from the Rapid Recovery Core Console
- Downloading the LMU from the Quest Data Protection | Rapid Recovery License Portal

Downloading the LMU from the Rapid Recovery **Core Console**

Complete the following steps to download the Local Mount Utility from the Rapid Recovery Core Console.

1. From the machine on which you want to install the LMU, access the Rapid Recovery Core Console by entering the console URL into your browser and logging on with your user name and password.

2. From the Rapid Recovery Core Console, in the icon bar, click ▓ (More), and then select **Downloads**.

3. Under Local Mount Utility, click **Download web installer**.

4. From the **Opening LocalMountUtility-Web.exe** window, click **Save File**.

The file saves to the local Downloads folder. In some browsers, the folder automatically opens or a pop-up message gives you the option to run the installation.

Downloading the LMU from the Quest Data Protection | Rapid Recovery License Portal

If you have already registered your Rapid Recovery Core software in the Quest Data Protection | Rapid Recovery License Portal, do the following:

1. From the machine on which you want to install the LMU, open a web browser and log in to the license portal at https://licenseportal.com.
2. From the left navigation menu of the license portal, click **Downloads**.
3. From the **Downloads** page, scroll down to Windows-Based Applications. From the Local Mount Utility section, based on the architecture of the machine on which you are installing the utility (64-bit systems or 32-bit systems on the x86 architecture), click **Download**.

   The file saves to the local Downloads folder. In some browsers, the folder automatically opens or a pop-up message gives you the option to run the installation.

ℹ **NOTE:** For more information about managing the Quest Data Protection | Rapid Recovery License Portal from the Rapid Recovery Core Console, see the *Quest Data Protection | Rapid Recovery User Guide*. For complete documentation of the license portal, see the *Quest Data Protection | Rapid Recovery License Portal User Guide*. License Portal User Guide.

Adding a Core machine to the Local Mount Utility

To mount a recovery point, you must add a Core machine to the LMU. There is no limit as to how many Cores you can add.

Complete the following procedure to set up the LMU by adding a Core.

1. From the machine on which the LMU is installed, launch the LMU by double-clicking the desktop icon.
2. Do one of the following:

   • From the Local Mount Utility menu in the upper left-hand corner, click **Add Core**.

   • Right-click the blank space in the left panel, and then click **Add Core**.

   The **Add Core** dialog box appears.
3. In the **Add Core** dialog box, enter the requested credentials described in the following table.

Table 2. Rapid Recovery **Core credentials**

Option	Description
Host name	The name or IP address of the Core from which you want to mount recovery points. ℹ **NOTE:** If installing the LMU on a Rapid Recovery Core machine, the LMU automatically adds the localhost machine.
Port	The port number used to communicate with the Core. The default port number is 8006.
Use my Windows user credentials	Select this option if the credentials you use to access the Core are the same as your Windows credentials.
Use specific credentials	Select this option if the credentials you use to access the Core are different from your Windows credentials.

Option	Description
User name	The user name used to access the Core machine.
	i	**NOTE:** This option is only available if you chose to use specific credentials.
Password	The password used to access the Core machine.
	i	**NOTE:** This option is only available if you chose to use specific credentials.

4. Click **Connect**.
5. If adding multiple Cores, repeat all steps as necessary.

Using the Local Mount Utility for Mailbox Restore

The Local Mount Utility (LMU) can let you mount and open the recovery point of an Exchange data store from a machine that does not have a Core installed but meets all other Mailbox Restore prerequisites. Opening the database from the recovery point in the LMU automatically launches Mailbox Restore and lets you recover backed up Exchange items.

For more information about using the LMU, see the *Rapid Recovery User Guide*.

The following LMU procedures are associated with recovering Exchange data using Mailbox Restore.

Related tasks
See also: Opening an Exchange database in Mailbox Restore using the Local Mount Utility
See also: Copying Exchange DLLs
See also: Dismounting recovery points in the Local Mount Utility
Related reference
See also: Prerequisites for Mailbox Restore for Exchange

Opening an Exchange database in Mailbox Restore using the Local Mount Utility

To restore an Exchange item backed up in a Rapid Recovery recovery point, you can open Mailbox Restore using the Local Mount Utility (LMU).

Complete the steps in the following procedure to mount a Rapid Recovery recovery point of an Exchange data store using the LMU.

1. From the machine on which Mailbox Restore is installed, open the Local Mount Utility.

   If you are on a Core machine, the localhost recovery points automatically load into the main view. If you are on a different machine and have not yet added the Core to this installation of the LMU, see Adding a Core machine to the Local Mount Utility.

2. Expand the recovery point that contains the item that you want to recover until you see the database name.
3. Right-click the database, and then click **Open the database for recovery**.

   Mailbox Restore automatically launches and opens the Exchange data store.

Related tasks
See also: Copying Exchange DLLs
See also: Opening a recovery source with Mailbox Restore

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Related reference
    See also: Searching for an Exchange item
    See also: Performing data recovery using Mailbox Restore

Copying Exchange DLLs

If you want to restore an Exchange item using Mailbox Restore, then the correct Exchange libraries (DLLs) must be present on the same machine. When you mount and open an Exchange database on a Core machine, the Core automatically downloads the necessary Exchange libraries (DLLs). However, if you are restoring from a remote machine and the correct DLLs are not present, then you must find and retrieve them.

The DLLs on the machine using Mailbox Restore must match the version of Exchange in which the database was created. For example, if the database you want to open was created in Exchange 2007, the DLLs on the non-Core machine must contain DLLs that correspond to Exchange 2007.

If you attempt to open a database without the required DLLs, then the Open Recovery Source wizard prompts you to copy them.

1. In the Open Recovery Source wizard, on the **Copy Exchange DLLs** page, select one of the following options:

    • Host name or IP address of machine with Exchange [version] installed.

    • Local or network folder containing Exchange [version] [DLL name] DLLs.

      If necessary, enter the credentials for the location.

2. Click **Next**.

    Mailbox Restore searches the location for compatible DLLs and displays the results on the **Found Exchange DLLs** page of the wizard.

3. Click **Next**.

    Mailbox Restore copies the files to the local machine.

To continue opening an Exchange database, proceed with the steps in Opening a recovery source with Mailbox Restore.

Dismounting recovery points in the Local Mount Utility

Complete the following procedure to dismount recovery points that are mounted in the Local Mount Utility (LMU).

1. From the LMU user interface, click the Core or protected machine associated with the mount recovery point or points.

2. Complete one of the following actions:

    • To dismount all mounted recovery points from the selected Core or protected machine at one time, click **Dismount All**, and then click **Yes** in the dialog box.

    • To dismount a single recovery point, select the recovery point from the list, and then click **Dismount**.

    The recovery point or points dismount.

Using Mailbox Restore for Exchange

This section describes how to use Mailbox Restore for Exchange to manage the settings and Exchange data stores and how to navigate the user interface.

Navigating Mailbox Restore for Exchange

Mailbox Restore for Exchange opens with the default view of the open database.

The left side of the user interface includes the **Search history** pane and the **All Mail Folders** pane. The **Search history** pane retains a record of previous searches, with the last search criteria listed in descending order. The **All Mail Folders** pane displays all mailboxes available from the open data store in a hierarchical tree format. You can expand each mailbox to select folders to restore. The Show options let you display all areas of the database or only the selected items.

The right side of the user interface consists of two panes, which include the following information:

- The bar above the message list displays the name of the open database and the path of your current selection.

- Just below the path is a listing of the available items in the folder selected in the **All Mail Folders** pane.

- Below the items list is a preview pane that displays the selected item.

The following table describes the actions available on the toolbar.

Table 3. Toolbar options

Option	Description
Open	Opens an Exchange database file.
Close	Closes an Exchange database file.
Physical Integrity Check	Opens the Database Maintenance Wizard and lets you perform a physical check of the Exchange database. It also lets you repair and verify the database can be mounted.
Advanced Search	Lets you perform a complex search, or a search with multiple criteria.
Settings	Lets you show or hide system mailboxes and folders, and unknown message folders, as well as force a clean shutdown. You can also change the language in which the Mailbox Restore user interface appears.
Restore	Gives the different options available for restoring data.
	The About icon opens the About Quest Data Protection	Rapid Recovery information screen.

Customizing the reading pane view

Rapid Recovery lets you customize the organization of the reading pane through the View menu.

1. In Rapid Recovery, click the **View** menu.
2. Select **Reading Pane**, and then click one of options described in the following table.

Table 4. Reading pane view options

Option	Description
Right	Locates the preview pane to the right of the item list.
Bottom	Locates the preview pane below the item list.
Off	Removes the preview pane from view.

Changing Mailbox Restore for Exchange settings

You can configure Mailbox Restore for Exchange settings to show unknown message classes and configure the shutdown state of the database before you open it in Mailbox Restore.

The action that you can select for the shutdown setting occurs every time you open an Exchange database in Mailbox Restore.

1. On the Mailbox Restore home page, click **Settings**.

   The **Settings** dialog box displays.
2. Select the options as described in the following table.

Table 5. Mailbox Restore **settings options**

Option	Description
Language	Lets you change the language in which the Mailbox Restore user interface appears. Options include English, French, German, Brazilian Portuguese, Spanish, Simplified Chinese, Japanese, and Korean.
Show system mailboxes	Displays all system mailboxes, which contain system folders.
Show system folders	Displays all system folders, such as Common Views, Deferred Action, and Sharing.
Show unknown message classes	Displays all MAPI message classes, including messages from third parties that are not supported by Mailbox Restore.

Option	Description
Force clean shutdown	Opens the database in a clean shutdown state, even if the database experienced a dirty (improper) shutdown.

3. Click **Apply**.
4. Click **OK**.

Opening a recovery source with Mailbox Restore

A recovery source can be an Exchange database or an Exchange a Rapid Recovery recovery point that contains a backup of an Exchange database. In addition to opening a recovery point using the Local Mount Utility (LMU), you can also open a database directly from Mailbox Restore. You can use this method to open a new recovery source, or to open an additional source after you opened a source using LMU. However, the additional database must be located on the same Exchange server as the first database, and therefore included within the same mounted recovery point.

Complete the steps in the following procedure to open an additional database from the mounted recovery point.

> **i** **NOTE:** If the **Open Recovery Source** wizard prompts you to copy Exchange DLLs, see Copying Exchange DLLs.

1. If the wizard opens to the **Select Database Version** page, select the version of the Exchange database from the drop-down list and click **Next**.
2. In Mailbox Restore, below the menu bar, click **Open**.
3. On the **Type of Recovery Source** page, select one of the following options:

Option	Description
Exchange database on a local drive or on a network share	Enter the locations of the following files using the drop-down menus or browse buttons: • Exchange database file (.edb) path • Log files path • System files path When finished, go to Step 11.
Exchange database in recovery point on Rapid Recovery Core	Enter the following information: • Host name • Port • Credentials 　◦ Use my Windows user credentials 　◦ Use specific credentials Continue to the next step.

Option	Description
Recently opened recovery source	Select from the list of recovery source paths, and then skip to Step 11.

4. If you selected to open a database in a recovery point, on the **Machines** page, select the machine for the recovery point.

5. Click **Next**.

6. On the **Recovery Points** page, select the recovery point that you want to open.

    > **i** **NOTE:** If the Exchange database you want to open is a different version from the one currently working with Mailbox Restore, then you are prompted to launch another instance of Exchange. Because restoring with Mailbox Restore works best when the versions of Exchange you use are equal, the recommended response is **Yes**.

7. Click **Next**.

8. If the recovery point you selected is protected by an encryption key, on the Unlock Encryption Key page, enter the passphrase, and then select the duration of the unlock period.

9. Click **Next**.

10. On the **Databases** page, select the file path of the database that you want to open.

    Optionally, you can select **Copy database files to a local or network drive before opening, and then enter the path for the file copy**.

    > **i** **NOTE:** Selecting this option delays the opening of selected databases, but subsequent search and restore operations function more quickly.

11. Click **Next**.

    The recovery source opens and the wizard closes automatically.

    See also: Exporting Exchange data for recovery
    See also: Closing an Exchange data store in Mailbox Restore
    See also: Opening an Exchange database in Mailbox Restore using the Local Mount Utility

Viewing Exchange properties in Mailbox Restore for Exchange

Mailbox Restore lets you view the general properties and MAPI properties of each Exchange item that it can recover from an open Exchange database. There are two ways you can view properties, depending on the type of item.

You can view navigation tree item properties, which lets you see the properties of the mailboxes, folders, and other items listed in the navigation tree in the left pane of the home page.

You can also view individual item properties. This function lets you view the properties of messages, contacts, tasks, and other items that appear in the list in the Reading Pane.

Related tasks

See also: Viewing navigation tree item properties
See also: Viewing item properties

Viewing navigation tree item properties

The type of properties displayed varies dependent on the item selected.

For a mailbox, only the General properties are displayed. They include information such as display name, mailbox type, mapping signature, and message count, among other data.

For a folder, such as the Inbox or Calendar folder, the Properties window displays the following three tabs:

- **General properties.** Displays information such as display name, access rights, folder type, creation time, last modification time, and message count, among other data.

- **MAPI properties.** Displays information used for the Microsoft Application Programming Interface (MAPI).

- **Permissions.** Displays the users and their permissions types, along with the abilities each user has for the selected folder.

Complete the following procedure to view the properties of a mailbox or folder shown in the Mailbox Restore navigation tree. The properties are read-only and cannot be changed.

1. In the Mailbox Restore home page with an open database, click a mailbox or folder to highlight the item.
2. Right-click on the highlighted item, and then click **Properties**.

   The Properties window opens.

3. To save or send the properties information, click **Copy all properties to clipboard**, and then paste the information into another program such as Microsoft Word or Notepad.
4. When finished viewing, click **Close**.

Viewing item properties

Mailbox Restore lets you view the properties of an Exchange item.

For an item, such as an email message or calendar event, the Properties window displays the following tabs:

- **General properties.** Displays information such as item type, message class, creator name, and last modification time, among other data.

- **MAPI properties.** Displays information used for the Microsoft Application Programming Interface (MAPI).

- **Recipients.** Lets you select a recipient and view the MAPI properties for that recipient.

- **Attachments.** Lets you select an attachment from the item and view the MAPI properties for that attachment. You can also open the attachment and save it. In the case of embedded messages (a message attached to another message), you can view the properties for the attached message and save the message to .msg, .txt., or .eml format.

To view the properties of a granular Exchange item, such as a message or contact, in Mailbox Restore, complete the following procedure. The properties are read-only and cannot be changed.

1. In the Mailbox Restore home page with an open database, locate the folder that contains the item within the navigation tree.
2. To display the contents of the folder in the list pane, click the folder that contains the item.
3. In the list pane, right-click the item, and then click **Items Properties**.

   The Properties window opens.

4. To save or send the properties information, click **Copy all properties to clipboard**, and then paste the information into another program such as Microsoft Word or Notepad.
5. When finished viewing, click **Close**.

Using the Mailbox Restore Profile Wizard

The Profile Wizard lets you create, edit, and remove Outlook profiles directly from the Mailbox Restore user interface. This feature eliminates the need to open another program to manage profiles and lets you create new profiles for your restored data as needed.

i | **NOTE:** The Profile Wizard is only available if Microsoft Outlook is present on the machine on which Mailbox Restore is installed, for example, the Core. For more information about the Microsoft Outlook requirements, see Microsoft Outlook criteria.

The following procedures describe the steps necessary for managing Outlook Profiles using Mailbox Restore:

- Creating an Outlook profile using Mailbox Restore
- Editing an existing Outlook profile in Mailbox Restore
- Deleting an Outlook profile using Mailbox Restore

Creating an Outlook profile using Mailbox Restore

Mailbox Restore lets you create Outlook user profiles without using the Exchange user interface. The ability to create profiles is useful if you have multiple profiles for one user, if there is more than one employee working from a single computer, or if you want to create a new profile for your recovered email items.

1. In Mailbox Restore, click the **Tools** menu, and then click **Profile Wizard...**.

    The **Mail Profiles** window opens.
2. To create a new profile, click **Add**.

    The **Create mail profile** dialog box appears.
3. In the **Profile name** text box, enter a name for the new profile.
4. Complete one of the following options:

    - To create a profile that is not associated with an Exchange server, continue to Step 5.

    - To create a profile for an Exchange server, select **More settings (the information required to connect to Microsoft Exchange or a compatible service)**, and then enter the information described in the following table.

Table 6. Profile settings

Option	Description
Server Name	The name of the Exchange server for which you want to add the new profile.
Use Cached Exchange Mode	Optional. Stores a full copy of the mailbox on your machine. When this option is selected, a message can remain in the Outbox until the next synchronization with the Exchange server.

Option	Description
	i NOTE: Selecting this option is not recommended. If a connection between the copy of the mailbox and the Exchange server is not available, Outlook uses the copy, which can become out of date. To ensure that the mailbox remains current, keep this option cleared.
User name	The user name for the account to be used for the new profile; for example, administrator@example.com.
	i NOTE: The account associated with the new profile must have full administrator rights for Exchange, including Send As and Receive As, for the organization.

5. Click **Save and close**.
6. On the **Mail Profiles** dialog box, click **Close**.

Editing an existing Outlook profile in Mailbox Restore

The Profile Wizard lets you make changes to any existing Microsoft Outlook profile in the Exchange data store. You may need to edit a profile in Mailbox Restore if the name of the Exchange server changes or if the account name of an employee using the profile changes.

1. In Mailbox Restore, click the **Tools** menu, and then click **Profile Wizard...**.

    The **Mail Profiles** window opens.
2. Select the profile that you want to change, and then click **Edit**.

    The **Edit mail profile** window appears.
3. Under **Exchange accounts**, select the account that you want to change, and then click **Edit**.

    The **Microsoft Exchange** window opens.
4. You can edit any of the information described in the following table.

Table 7. Profile options

Tab	Microsoft Outlook 2007 and 2010 Options	Microsoft Outlook 2013 Options
General	Includes the following general settings options:	Includes the following general settings options:
	• **Microsoft Exchange server**. The name or IP address of the Exchange server.	• **Microsoft Exchange server**. The name or IP address of the Exchange server.
	• **Mailbox**. The address for the Exchange mailbox; for example, Administrator@solo.local.	• **Mailbox**. The address for the Exchange mailbox; for example, Administrator@solo.local.
	• **Automatically detect connection state**. Without prompting, connects to a network when it determines that a network connection is available.	
	• **Manually control connection state**. Lets you select one of two types of network connections listed under **Default connection state** that you want to use upon startup.	
	◦ **Choose the connection type when starting**. Prompts you	

Tab	Microsoft Outlook 2007 and 2010 Options	Microsoft Outlook 2013 Options
	to select one of the following connection types at the beginning of each session. ◦ **Connect with the network**. Under **Default connection state**, this option connects to a network when a network connection is available. ◦ **Work offline and use dial-up networking.** Under **Default connection state**, this option does not connect to the network, even when a network is available. ◦ **Seconds Until Server Connection Timeout**. The amount of time Mailbox Restore should spend trying to make a connection.	
Advanced	Includes the following settings options for managing mailboxes: • **Open these additional mailboxes**. Lists mailboxes that are present on the Exchange database in addition to the mailbox your are editing. You can use the buttons to add a new mailbox or remove an existing mailbox. • **Use Cached Exchange Mode**. Stores a full copy of the mailbox on your machine. When this option is selected, a message can remain in the Outbox until the next synchronization with the Exchange server. **i** NOTE: Selecting this option is not recommended. If a connection between the copy of the mailbox and the Exchange server is not available, Outlook uses the copy, which can become out of date. To ensure that the mailbox remains current, keep this option cleared. ◦ **Download shared folders**. Also stores copies of any folders that this profile shares with other profiles. • **Outlook Data File Settings...**. Opens the Outlook Data Files Settings dialog box and lets you reduce the size of the Outlook data file for this profile or disable offline use of the file.	Includes the following settings options for managing mailboxes: • **Open these additional mailboxes**. Lists mailboxes that are present on the Exchange database in addition to the mailbox your are editing. You can use the buttons to add a new mailbox or remove an existing mailbox. • **Use Cached Exchange Mode**. Stores a full copy of the mailbox on your machine. When this option is selected, a message can remain in the Outbox until the next synchronization with the Exchange server. **i** NOTE: Selecting this option is not recommended. If a connection between the copy of the mailbox and the Exchange server is not available, Outlook uses the copy, which can become out of date. To ensure that the mailbox remains current, keep this option cleared. ◦ **Download shared folders**. Also stores copies of any folders that this profile shares with other profiles. ◦ **Download Public Folder Favorites**. Also stores public folders that this profile has marked as favorites. • **Outlook Data File Settings...**. Opens the Outlook Data Files Settings dialog

Tab	Microsoft Outlook 2007 and 2010 Options	Microsoft Outlook 2013 Options
		box and lets you reduce the size of the Outlook data file for this profile.
Security	Includes the following security and encryption options: • **Encrypt data between Microsoft Outlook and Microsoft Exchange**. Adds a layer of security to data transfers between Outlook and Exchange. • **Always prompt for logon credentials**. Requires the user to enter credentials every time before accessing the Outlook profile, instead of remembering the credentials and logging in automatically. • **Logon network security**. Lets you select the type of authentication to use.	Includes the following security and encryption options: • **Encrypt data between Microsoft Outlook and Microsoft Exchange**. Adds a layer of security to data transfers between Outlook and Exchange. • **Always prompt for logon credentials**. Requires the user to enter credentials every time before accessing the Outlook profile, instead of remembering the credentials and logging in automatically. • **Logon network security**. Lets you select the type of authentication to use.
Connection	Includes the following settings options for connecting to Microsoft Exchange when working offline: i **NOTE:** For the Connection options, select the method you usually use to connect to the internet. • **Connect using my Local Area Network (LAN)**. Under **Connection**, when working offline, connects to Exchange using a LAN. • **Connect using my phone line**. Under **Connection**, when working offline, connects to Exchange using the phone number listed under **Modem**. • **Connect using Internet Explorer's or a 3rd party dialer**. Under **Connection**, when working offline, connects to Exchange using a web browser. • **Use the following Dial-Up Networking connection**. Under **Modem**, when you use a phone line for offline connection to Exchange, you can select from previously entered phone numbers from the drop-down list, add phone numbers, or change the properties of a phone number. • **Connect to Microsoft Exchange using HTTP**. Under **Outlook Anywhere**, lets you access Microsoft Exchange from an internet connection outside of the network and lets you modify the Exchange Proxy Settings.	Includes the option **Connect to Microsoft Exchange using HTTP**. It lets you access Microsoft Exchange from an internet connection outside of the network and modify the Exchange Proxy Settings.

5. When you are finished with your changes, click **Apply**, and then click **OK**.

The **Microsoft Exchange** window closes.

6. On the **Edit mail profile** window, click **Close**.

7. On the **Mail Profiles** window, click **Close**.

Deleting an Outlook profile using Mailbox Restore

You can delete a profile from an Exchange database by using the Profile Wizard option in Mailbox Restore .

1. In Mailbox Restore, click the **Tools** menu, and then click **Profile Wizard**.

    The **Mail Profiles** window opens.

2. Select the profile you want to delete, and click **Remove**.

3. In the dialog box, to confirm your selection, click **Yes**.

    The dialog box closes. The **Mail Profiles** window remains open.

4. On the **Mail Profiles** window, click **Close**.

Saving an item to the local machine

To save a file, you must have opened an Exchange database in Mailbox Restore using the Local Mount Utility.

In Mailbox Restore**, you can save an item in various formats to the local machine without performing a restore.**

1. On the Mailbox Restore home page, use the left navigation area to locate and select the mailbox that contains the item that you want to save.

    The contents of the selected mailbox appear in the preview pane.

2. In the preview pain, select that item that you want to save.

3. Right-click the item that you want to save, and then click one of the options described in the following table.

Option	Description
Save Item to .msg File	Saves the item in the standard format used by Microsoft Outlook. This format can be opened by any program that uses Microsoft's Messaging Applications Programming Interface (MAPI).
Save Item to .eml File	Saves the item in the email message format used by Outlook. It may also be opened by Microsoft Internet Explorer.
Save Item to .txt File	Saves the item as an unformatted text file. It can be opened by Notepad or a similar program.

4. In the Windows Explorer windows, enter a name for the file and a destination path on the local machine.

    i | **NOTE:** You cannot save an item to a machine other than the local machine. To save the item to a different location, you must perform a restore.

5. Click **Save**.

    The file saves to the destination folder in the format you selected.

Restoring Exchange data using Mailbox Restore

The topics in this section describe how to use Mailbox Restore to recover email items from an Exchange data store that was backed up in a Rapid Recovery recovery point.

Performing data recovery using Mailbox Restore

Recovering any Exchange data or data stores from a Rapid Recovery recovery point involves using the Local Mount Utility and Mailbox Restore. Using the LMU is the preferred and recommended way for opening the database from within the recovery point and opening the Mailbox Restore application. After you open the database, all restore procedures occur within the Mailbox Restore user interface. After you complete the restore, be sure to close the database and dismount the recovery point you used in LMU to prevent any future complications.

Use the following procedures to recover data from a backed up Exchange database:

1. Use Mailbox Restore or the Local Mount Utility to open the Exchange database.
2. Locate the Exchange data you want to recover.
3. Restore the data by exporting it to your preferred destination.
4. Close the database.
5. Dismount the recovery point.

Related tasks
    See also: Opening an Exchange database in Mailbox Restore using the Local Mount Utility
    See also: Exporting Exchange data for recovery
    See also: Closing an Exchange data store in Mailbox Restore
    See also: Dismounting recovery points in the Local Mount Utility
Related reference
    See also: Searching for an Exchange item
    See also: Prerequisites for Mailbox Restore for Exchange

Searching for an Exchange item

There may be instances when you want to search for an item by a keyword, such as a term related to a specific project, or a person's name, such as the name of a former employee. For each circumstance, you could have different search criteria. Mailbox Restore accommodates such events by offering two methods to search for items within the Exchange data store:

- **Basic search**. Lets you perform a Quick Search for keywords in one or more fields. This is typically used when searching for messages.

- **Advanced Search**. Lets you search for multiple keywords by using a tree query and can be used to search for any Exchange item.

Related tasks

See also: Conducting a basic search for an Exchange item
See also: Using the Advanced Search function
See also: Exporting Exchange data for recovery

Related reference

See also: Performing data recovery using Mailbox Restore

Conducting a basic search for an Exchange item

When recovering Exchange data using Mailbox Restore, there may be instances when you want to search for an item by a keyword, such as a term related to a specific project or the name of a former employee. A text box in the menu bar accommodates this need. Complete the following procedure to conduct a search of the open Exchange data store.

1. In the **All Mail Folders** pane navigation tree, select the folder or mailbox in which you want to search.

2. In the text box on the menu bar, enter a search term such as a subject or name.

   • If the term for which you are searching may appear in the body of a message, click in the text box to reveal the drop-down menu, and then select **Enable search in message bodies (slow)**.

   i | **NOTE:** Due to the amount of data through which the engine must search, the results may be slower than average.

3. To start the search, click the magnifying glass icon.

   Results appear in the **Search query** pane.

4. To sort the results, use the buttons the top row of the **Search query** pane. You can sort by such criteria as priority, attachments, subject, and size.

5. To clear the search term from the text box, click **X**.

6. To view a previously conducted search, select a term from the **Search history** pane.

Related tasks

See also: Exporting Exchange data for recovery
See also: Using the Advanced Search function

Using the Advanced Search function

When sifting through a large data store, you can use the Mailbox Restore Advanced Search feature to narrow your search for an Exchange item and make your results more accurate. Filters include item type, location (In), and other criteria such as From and Subject. The feature lets you use multiple criteria for your search and lists them using an AND or OR modifier.

Complete the steps in the following procedure to find an Exchange item using the Advanced Search function.

1. In the Mailbox Restore **All Mail Folders** pane, select the mailbox, folder, or subfolder in which you want to search (for example, Administrator).

2. In the menu bar, click **Advanced search**.

3. In the **Advanced Search** window, use the **Item Type** drop-down list to select one or more of the following options:

   - Any type

   - Appointments and meetings

   - Contacts

   - Documents

   - Journal entries

   - Messages and posts

   - Notes

   - RSS articles

   - Tasks

4. From the **In** drop-down list, select a location in which to search from the available options (for example, Current Mailbox, Current Database, or Folder/subfolder).

5. Under Define Search Criteria, complete the following steps:

   a. In the first text box, select one of the available search criteria options (for example, From or Subject).

   b. In the second text box, determine how to apply your key terms. You can select one of the following options:

   ▪ **Contains.** Searches for items that contain your key term in the criterion you selected in the first text box.

   ▪ **Equals.** Searches for items whose criterion you selected is the same as your key term.

   ▪ **Does not contain.** Searches for items that do not include your key term.

   ▪ **Does not equal.** Searches for items whose criterion is not the same as the key term you entered.

   c. In the third text box, enter your key term, such as a word or phrase, for which you want the function to search. The feature searches for this term in the area you chose for Step a.

   d. Click **Add to list**.

6. Complete one of the following options:

   - To search by only the criteria you entered, go to Step 8.

   - To search by multiple sets of criteria, continue to Step 7.

7. Complete the following steps:

   a. Optionally, repeat Step 5 until you have entered all of the criteria that you want to use.

   b. Select one of the following options:

   ▪ **Apply AND to criteria.** Searches for items that include all of the criteria you entered.

   ▪ **Apply OR to criteria.** Search for items that include one or more of the criteria you entered.

8. To make changes to a line of criteria, select the line, change your selections as necessary, and then click **Update**.

9. To clear all selections and criteria, click **New search**.

10. To conduct the search, click **Find now**.

See also: Search History options
See also: Conducting a basic search for an Exchange item

Search History options

To use the options available to items in the Search History pane, you must have previously conducted a search or have a search in progress.

After you conduct a search, the search is then saved in the Search History pane. From there, you can perform the following actions by right-clicking on a saved search:

Option	Description
Start Search	Begins the selected search.
Pause Search	Pauses the search when it is in progress.
Cancel Search	Cancels the search when it is in progress.
Edit Search Query	Opens the Advanced Search window and lets you make changes to the saved search and search within the previously found results.
Remove Search	Deletes the saved search from the Search History pane.
Clear All	Deletes all searches from the Search History pane.

See also: Conducting a basic search for an Exchange item
See also: Using the Advanced Search function

Exporting Exchange data for recovery

This task assumes that you have opened an Exchange database using Opening an Exchange database in Mailbox Restore using the Local Mount Utility or Opening a recovery source with Mailbox Restore.

Complete the steps in the following procedure to recover a database, mailbox, or item — such as a folder or message — from an Exchange database.

> **i** **NOTE:** The machine on which Mailbox Restore is installed must also have Microsoft Outlook installed. Before you can recover a mailbox item, you must first mount the Rapid Recovery recovery point.

1. From the Rapid Recovery home page, in the navigation tree, expand the mailbox that contains the item that you want to recover.

2. Click the folder that you want to open, for example the **Inbox** folder.

   The items in the folder appear in the list pane. A preview of the highlighted item appears in the preview pane.

3. Do one of the following:

   • To recover one or more items, select the item or items, and then click **Restore** in the menu bar.

   • To recover the entire folder, select the folder in the navigation tree, and then click **Restore** in the menu bar.

     If more than one profile exists for the mailbox, the **Choose profile** dialog box appears. Select a profile from the list, and then click **Select**.

The Restore Wizard opens.

4. On the **Restore Mode** page of the Restore Wizard, select the type of restore you want to perform from the following options:

Table 8. Restore Mode options

Option	Description	
Redirect restored items to recovery folder	Recovers the selected items (including the folder hierarchy) to a recovery folder in an online mailbox of your choice. **i** **NOTE:** The recovery folder name includes the date and time of the restore and is placed under the root of the chosen account mailbox.	Make the following selections: a. **Profile**. Select from the drop-down list. The default selection is Outlook. You can click the ellipses (...) to create, edit, or remove a profile. b. **Mailbox**. Click the ellipses (…) to locate and select the Outlook address book, and then click **OK**.
Redirect restored items to PST file	Saves the selected items (including the folder hierarchy) as a Personal Storage Table (PST) file and sends the file to the specified storage location.	Make the following selections: a. **Profile**. Select from the drop-down list. The default selection is Outlook. You can click the ellipses (...) to create, edit, or remove a profile. b. **Primary PST storage**. Select from the drop-down list or use the ellipses (…) to locate and select the initial destination folder for the PST file, and then click **Save**. c. **Overflow PST storage (optional)**. If the primary destination has insufficient space for the PST file, select a secondary destination for the PST file, and then click **Save**. **i** **NOTE:** Do not assign the overflow location to the same disk as the primary location.
Redirect restored items to PST file(s) (separate file for each mailbox	Saves each mailbox as a Personal Storage Table (PST) file and sends the files to the specified storage location.	Make the following selections: a. **Profile**. Select from the drop-down list. The default selection is Outlook. You can click the ellipses (...) to create, edit, or remove a profile. b. **Primary PST storage**. Use the ellipses (…) to locate and select the initial destination folder for the PST files. c. **Overflow PST storage (optional)**. If the primary destination has insufficient space for the PST file, select a secondary destination for the PST file, and then click **Save**. **i** **NOTE:** Do not assign the overflow location to the same disk as the primary location.
Restore to original location	Directs the selected item (including the folder hierarchy) to the email box in the online data store in which it originally resided.	Make the following selections: a. **Profile**. Select from the drop-down list. The default selection is Outlook. You can click the ellipses (...) to create, edit, or remove a profile.

Option	Description
	b. **Restore Type**. Choose one of the following options: ◦ **Restore only differences**. Identifies whether the item being restored is already present in the destination folder and completes the restore only if there is no duplicate item. Also known as a differential restore. ◦ **Create duplicate entries**. Restores every item selected without overwriting existing items, resulting in duplicates of the previously existing items. ◦ **Overwrite if more recent**. Restores newer items that are not present in the online data store. It also restores items that are present in the online data store but are older than the items in the copy of the Exchange database.

5. Click **Next**.
6. On the **Restore** page of the Restore Wizard, confirm that the items you do want to recover are selected, and then select from the following options.

Table 9. Restore options

Option	Description
Restore user permissions	Restores the custom permissions set for a public folder. **i** **NOTE:** This option is only available when you restore a public folder to its original location. If you do not select to restore permissions, then the default folder permissions are restored with the content.
Restore email rules	Restores any rules the user had in place at the time that the data was backed up.
Restore deleted objects	For an Exchange 2010, 2013, and 2016 database, restores items that were permanently deleted. For an Exchange 2007 database, restores strikethrough items from the current folder.
Error handling	Determines the way to address and manage any errors that may occur during the restore process. Select one of the following options: • **Log and continue**. Collects error messages in a log and continues with the restore process. • **Notify user**. Displays a pop-up message when it encounters an error and gives you the option to continue with or abort the restore. • **Abort restore**. Ends the restore process when an error occurs.

7. Click **Start** to recover the selected item or items.
8. On the **Restore Progress** page, when the restore is complete, click **Finish**.

In keeping with the process, after you restore the content, complete the following tasks:

• Closing an Exchange data store in Mailbox Restore

• Dismounting recovery points in the Local Mount Utility

Related reference

See also: Microsoft Outlook criteria

Closing an Exchange data store in Mailbox Restore

After you finish recovering the Exchange item, close the data store. Maintaining a clean environment by closing databases that you are no longer using for recovery could prevent future technical issues.

Complete the steps in the following procedure to close the Exchange data store using Mailbox Restore.

1. From the Mailbox Restore home page, click the **Close** drop-down list.
2. Select on of the following options:

    •   To close only one database, select the database that you want to close.

    •   To close all open databases, select **Close All**.

    The database or databases close and Mailbox Restore remains open.

Related tasks

Related reference

Exchange database maintenance in Mailbox Restore

This section describes how to use Mailbox Restore to check an Exchange database for corruption and repair any damaged data and repair the database when necessary.

There are many possible causes of database corruption; for example, when there is an unplanned power outage, a hard disk error or failure, or if a user restarts a machine without properly closing an open data store.

Mailbox Restore can perform integrity checks on a database to verify that the file is not corrupted. Integrity checks reduce the chances of recovering a corrupted Exchange item and infecting a healthy database.

Mailbox Restore log files

Logs are text-based records of the activities of an application. If you encounter an error or other issue that you cannot resolve yourself, Quest Support can use the Mailbox Restore logs to troubleshoot for a solution. If such a case occurs where you need to work with Quest Support to resolve an issue with Mailbox Restore, you may be advised to send the Support technician the log files.

The default location of these log files is:

`C:\ProgramData\AppRecovery\Logs`

The two log files created for Mailbox Restore are `MailboxRestore.log` and `MailboxRestore.Restore.Server.log`.

Performing a physical integrity check on a data store

With Mailbox Restore, you can perform a physical integrity check on the data store and then run procedures to repair any damage. A physical integrity check verifies whether a database can be mounted for recovery and whether it is valid. Performing a physical integrity check reduces the risk of accidentally recovering corrupted data. Mailbox Restore lets you select which aspects of the check to include so that you can target the check on key areas. You can also select all the options for a thorough scan of the database.

1. From the toolbar on the Mailbox Restore home page, click **Physical Integrity Check**.
2. On the **Physical Integrity Check** dialog box, click **Yes** to confirm.

    > **i** | **NOTE:** The database must close to perform the physical check.

    The Physical Integrity Check Wizard opens.
3. On the **Physical Integrity Check and Repair** page, use the drop-down list or the browse button to select the **Exchange Database File (.edb) Path** described in the following table.

Table 10. Exchange database paths

Path	Description
Exchange Database File (.edb) Path	The location of the Exchange database file with the extension.edb. By default, it is stored in the following location: `C:\Users\administrator\AppData\Local\Mounts.`
Log File Path	Automatically populated. It is the location of the log files associated with the database.
System Files Path	Automatically populated. It is the location of the system files associated with the database.

4. In the table, use the **Check** column to select the following options that you want the physical integrity check to include.

Table 11. Physical integrity check options

Option	Description
Database header checksum	Checks whether the database header pages are valid.
Database page checksums	Validates the entire database page by page. Calculates the checksum for each page and compares it with the checksum that is stored for the page. Reports any invalid pages.
Database page last modification time	Validates the database page by page since the last time it was modified. Calculates the checksum for each page and compares it with the checksum that is stored for the page. Reports any invalid pages.
Log file headers	Checks whether the log file header pages are valid.
Dirty shutdown state	Checks whether the database was shut down correctly and is in a clean state for recovery.
Database mountability	Checks whether the database can be mounted for recovery.

5. Click **Start**.

The **Physical Integrity Check and Repair** screen appears and displays the status of the database repair. A message notifies you when the check is complete.

6. Optionally, to reopen the database, select **Open database after closing the wizard**.

7. Click **Close**.

Methods for repairing an Exchange database

Mailbox Restore **offers two ways of repairing an Exchange database if a physical integrity check discovers corruption.**

The Mailbox Restore Physical Integrity Check Wizard includes a repair function that uses basic repair logic for minor repairs and an aggressive repair function that uses advanced logic for heavily corrupted databases.

Also available through Mailbox Restore is the ability to run the Microsoft Eseutil.exe command line utility. In addition to the `-/k` option for database verifications, Eseutil.exe offers a `-/p` option for .edb file repairs.

Both the Physical Integrity Check Wizard and the Eseutil.exe utility are effective at addressing database corruption. The option to run Eseutil.exe is available through the Database Maintenance menu for easy access and through the Physical Integrity Check Wizard as a way to confirm integrity check or repair results. You could also run the Eseutil.exe first and then confirm the results with the Physical Integrity Check Wizard.

Related tasks

> See also: Repairing a corrupted data store using the Physical Integrity Check Wizard
> See also: Running the Eseutil.exe command line utility

Repairing a corrupted data store using the Physical Integrity Check Wizard

If Mailbox Restore indicates during a physical check that corruption exists in the database, you can use the Database Maintenance Wizard to repair the database.

1.   From the toolbar on the Mailbox Restore home page, click **Physical Integrity Check**.

2.   On the **Physical Integrity Check** dialog box, click **Yes** to confirm.

> **i**   NOTE: The database must close to perform the physical check.

> The Physical Integrity Check Wizard opens.

3.   On the **Physical Integrity Check and Repair** page, use the drop-down list or the browse button to select the **Exchange Database File (.edb) Path** described in the following table.

Table 12. Exchange database file paths

Path	Description
Exchange Database File (.edb) Path	The location of the Exchange database file with the extension.edb. By default, it is stored in the following location: `C:\Users\administrator\AppData\Local\Mounts.`
Log File Path	Automatically populated. It is the location of the log files associated with the database.
System Files Path	Automatically populated. It is the location of the system files associated with the database.

4.   In the table, use the **Repair** column to select the following options that you want to repair.

Table 13. Database repair options

Option	Description
Database header checksum	Attempts to repair the database header pages by re-computing the checksum.
Database page checksums	Attempts to repair the database pages by re-computing their checksums.
Database page last modification time	Sets the last modified time of the database pages to the last modified time of the database header so that they are the same.
Log file headers	Attempts to repair invalid log file header pages.
Dirty shutdown state	Resets the dirty shutdown state in the database header. Dirty shutdowns occur when the database was not closed property.

5. Optionally, select **Perform aggressive repair**.

   This option uses a special algorithm to salvage as much data as possible from a corrupted database and does not change any corrupted data that it finds. When the repair is complete, all healthy and corrupted data is accessible.

   > ■ | **WARNING: An aggressive repair is intended for heavily corrupted databases only. This type of repair could result in data loss and should not be used for legal discovery. Be sure to have a reliable backup of the database before you select this option.**

   If you understand the risks associated with this type of repair, in the confirmation box, click **I understand, proceed**.

6. Click **Start**.

   The **Physical Integrity Check and Repair** screen appears and displays the status of the database repair. A message notifies you when the check is complete.

7. Optionally, to reopen the database, select **Open database after closing the wizard**.

8. Optionally, if the repair was unsuccessful, you can click **Run Eseutil.exe**.

9. Click **Close**.

Related tasks

See also: Performing a physical integrity check on a data store
See also: Running the Eseutil.exe command line utility

Running the Eseutil.exe command line utility

Eseutil.exe is a command line utility from Microsoft. It provides a second option for conducting integrity checks and repairs of Exchange .edb files, in addition to the Mailbox Restore **Physical Integrity Check Wizard.**

1. On the Mailbox Restore home page, click the **Database Maintenance** drop-down menu, and then click **Run Eseutil.exe**.

   A message appears informing you that the database must close to perform the check.

2. In the Run Eseutil.exe dialog box, click **Yes** to proceed.

The **Run Eseutil.exe** window opens.

3. In the **Run Eseutil.exe** window, use the drop-down list or the browse button to select the **Exchange Database File (.edb) Path** described in the following table.

Table 14. Exchange database file paths

Path	Description
Exchange Database File (.edb) Path	The location of the Exchange database file with the extension .edb. By default, it is stored in the following location: `C:\Users\administrator\AppData\Local\Mounts`.
Log File Path	Automatically populated. It is the location of the log files associated with the database.
System Files Path	Automatically populated. It is the location of the system files associated with the database.

4. Select one of the following options:

Option	Description
Repair a corrupted or damaged database	Repairs minor corruption found on an Exchange database.
Verify the checksum of a database	Calculates the checksum of a page and compares it with the checksum value stored in the header to ensure that there is no corruption.

5. Click **Start**.

    The command line opens to show the progress and results of running Eseutil.exe.

6. When finished, close the command line window.

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- View services to assist you with our product

Glossary

Agent

The Rapid Recovery Agent is software installed on a physical or virtual machine that lets it be added to protection in the Rapid Recovery Core.

checksum

A checksum is a function that creates blocks of data that are used for the purpose of detecting accidental errors that are created during transmission or storage.

Core

The Rapid Recovery Core is the central component of the Rapid Recovery architecture. The Core provides the essential services for backup, recovery, retention, replication, archiving, and management. In the context of replication, the Core is also called a source core. The source core is the originating core, while the target core is the destination (another Rapid Recovery Core on its own dedicated server, where protected machines or clusters are replicated).

Data store

Data store is the Microsoft term for an Exchange database. The data store is a storage file with the extension '.edb' on the Exchange server that comprises the Outlook data. It contains the Exchange items that can be recovered by Mailbox Restore.

Database

     See Data store.

Differential Restore

Differential Restore is a type of data recovery in Mailbox Restore that lets you recover only the differences between one or more offline and online Exchange databases.

Exchange

     See Microsoft Exchange.

global deduplication

The Storage Networking Industry Association (SNIA) defines data deduplication as the replacement of multiple copies of data—at variable levels of granularity—with references to a shared copy to save storage space or bandwidth. The Rapid Recovery Volume Manager performs global data deduplication within a logical volume. The granularity level of deduplication is 8 KB. The scope of deduplication in Rapid Recovery is limited to protected machines using the same repository and encryption key.

Live Recovery

Rapid Recovery Live Recovery is an instant recovery technology for VMs and servers. It provides near-continuous access to data volumes in a virtual or physical server, letting you recover an entire volume with near-zero RTO and a RPO of minutes.

Local Mount Utility

The Local Mount Utility (LMU) is a downloadable application that lets you mount a recovery point on a remote Rapid Recovery Core from any machine.

Log Truncation

Log truncation is a function that removes log records from the transaction log. For a SQL Server machine, when you force truncation of the SQL Server logs, this process identifies free space on the SQL server. For an Exchange Server machine, when you force truncation of the Exchange Server logs, this action frees up space on the Exchange server.

Mailbox Restore for Exchange

Mailbox Restore for Exchange (Mailbox Restore) is a program that works with Rapid Recovery and Microsoft Exchange to recover Microsoft Outlook mail items, such as email messages, Calendar appointments, and Address Book contacts.

Mailbox Restore Profile Wizard

> See Profile Wizard.

Microsoft Exchange

Microsoft Exchange (Exchange) is a server program that manages and stores Microsoft Outlook content, such as email messages, Calendar appointments, and Address Book contacts.

mountability

Exchange mountability is a corruption detection feature that alerts administrators of potential failures and ensures that all data on the Exchange servers is recovered successfully in the event of a failure.

PST file

An abbreviation for Personal Storage Table file, a PST file is an open-source format of storing email messages, Calendar appointments, and other Exchange items. The file uses the extension '.pst'.

Profile Wizard

The Profile Wizard in Mailbox Restore is a tool that lets you create, edit, and remove Outlook profiles directly from within Mailbox Restore. It is only available when the machine on which Mailbox Restore is installed also includes a compatible version of Microsoft Outlook.

protected machine

A protected machine—sometimes called an "agent"— is a physical computer or virtual machine that is protected in the Rapid Recovery Core. Backup data is transmitted from the protected machine to the repository specified in the Core using a predefined protection interval. The base image transmits all data to a recovery point (including the operating system, applications, and settings). Each subsequent incremental snapshot commits only the changed blocks on the specified disk volumes of the protected machine. Software-based protected machines have the Rapid Recovery Agent software installed. Some virtual machines can also be protected agentlessly, with some limitations.

Rapid Recovery

Rapid Recovery sets a new standard for unified data protection by combining backup, replication, and recovery in a single solution that is engineered to be the fastest and most reliable backup for protecting virtual machines (VM), as well as physical and cloud environments.

recovery points

Recovery points are a collection of snapshots of various disk volumes. For example, C:, D:, and E:.

remote Core

A remote Core represents an Rapid Recovery Core that is accessed by a non-Core machine using the Local Mount Utility or the Central Management Console.

restore

The process of restoring one or more storage volumes on a machine from recovery points saved on the Rapid Recovery Core is known as performing a restore. This was formerly known as rollback.

snapshot

A snapshot is a common industry term that defines the ability to capture and store the state of a disk volume at a given point, while applications are running. The snapshot is critical if system recovery is needed due to an outage or system failure. Rapid Recovery snapshots are application aware, which means that all open transactions and rolling transaction logs are completed and caches are flushed prior to creating the snapshot. Rapid Recovery uses Microsoft Volume Shadow Services (VSS) to facilitate application crash consistent snapshots.

True Scale

True Scale is the scalable architecture of Rapid Recovery.

Universal Recovery

Rapid Recovery Universal Recovery technology provides unlimited machine restoration flexibility. It enables you to perform monolithic recovery to- and from- any physical or virtual platform of your choice as well as incremental recovery updates to virtual machines from any physical or virtual source. It also lets you perform application-level, item-level, and object-level recovery of individual files, folders, email, calendar items, databases, and applications.

Verified Recovery

Verified Recovery technology is used to perform automated recovery testing and verification of backups. It supports various file systems and servers.