

Restoring a Microsoft 2007 Exchange Storage Group (Version Before 4.2.0)

This article describes how to restore a Microsoft Exchange storage group that was previously backed up by R1Soft CDP. Starting from Version 4.2.0, the CDP Server provides the special function of Exchange database replication. Read more in [Restoring a Microsoft Exchange 2007 Storage Group to an Alternate Location](#).

CDP provides the ability to take a snapshot of the Microsoft Exchange storage groups. Since CDP uses the VSS Exchange writer, data integrity and consistency during the backup operation are ensured.

1. Using CDP to restore database data and log files | 2. Using Eseutil to replay log files | 3. Creating an Exchange Recovery Group | 4. Copying files from the CDP restore directory to Exchange Recovery Storage Group directory | 5. Mounting Storage Group

1. Using CDP to restore database data and log files

In order to restore a database, follow the instructions below.

1. Click on "Recovery Points" in the Main Menu to open the "Recovery Points" window.



2. In the "Recovery Points" list, from the horizontal menu, select the Agent where MS Exchange is installed and the appropriate Disk Safe to restore from.



3. Then select a Recovery Point to restore from, and click on the "Browse" icon in the "Actions" column for this Recovery Point.



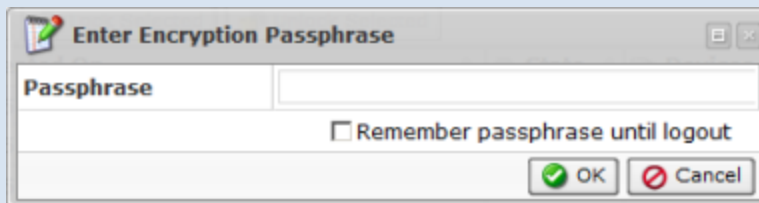
Tip

To find a Recovery Point, you can use the Basic and Advanced List Filters. See [Customizing the Recovery Points List](#).

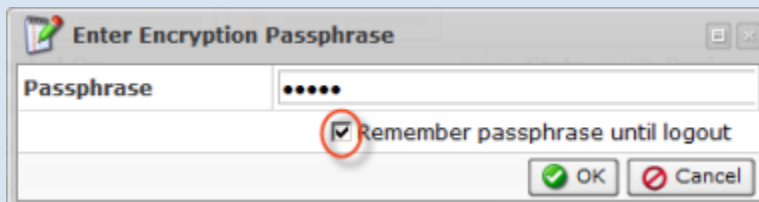


Note

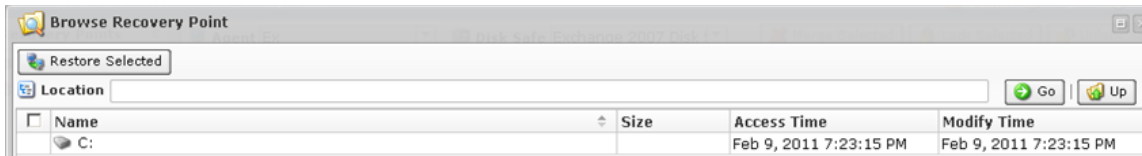
Note that if you configured the encryption during [Disk Safe creation](#), you will be asked to enter the encryption passphrase when you click on the "Browse," "Bare Metal Restore," "Browse Databases," or "Exchange" icon.



So that you don't have to enter the passphrase every time you click on one of the above-mentioned icons, check the "Remember passphrase until logout" check-box. Then click the "OK" button.

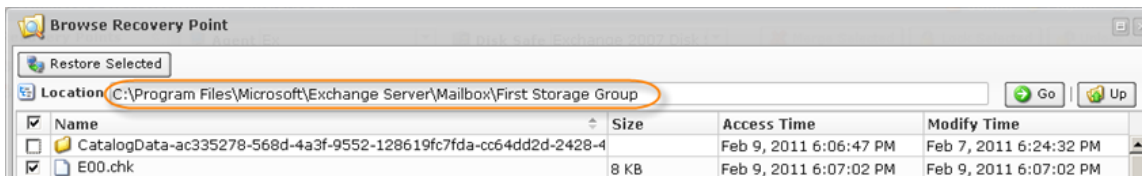


4. The "Browse Recovery Point" window opens.

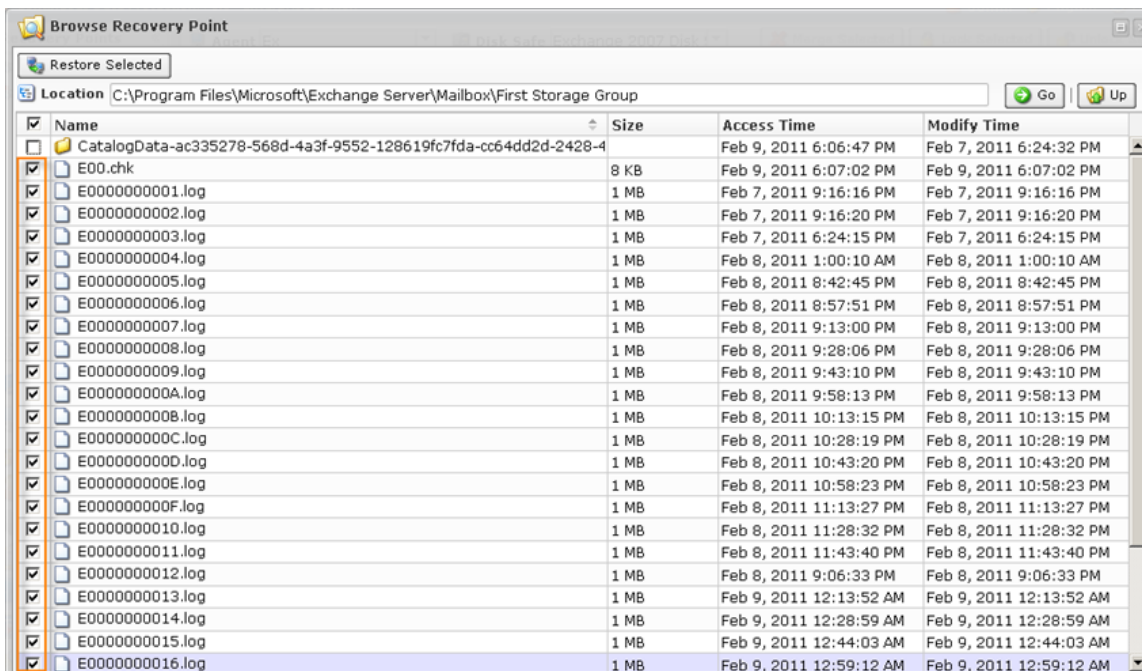


See also: [Browsing Recovery Points.](#)

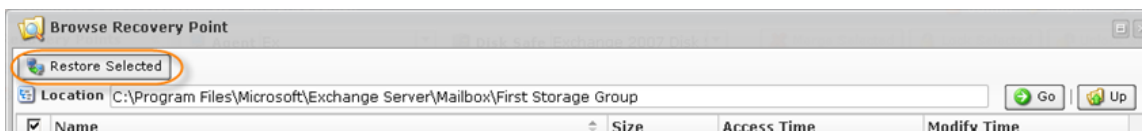
5. Browse to locate the Exchange check point file, and the data and log files (Enn.chk, .mdf, and .ldf).



Select the checkboxes next to the files and folders to restore.



6. Once the files and folders are selected, click on "Restore Selected."

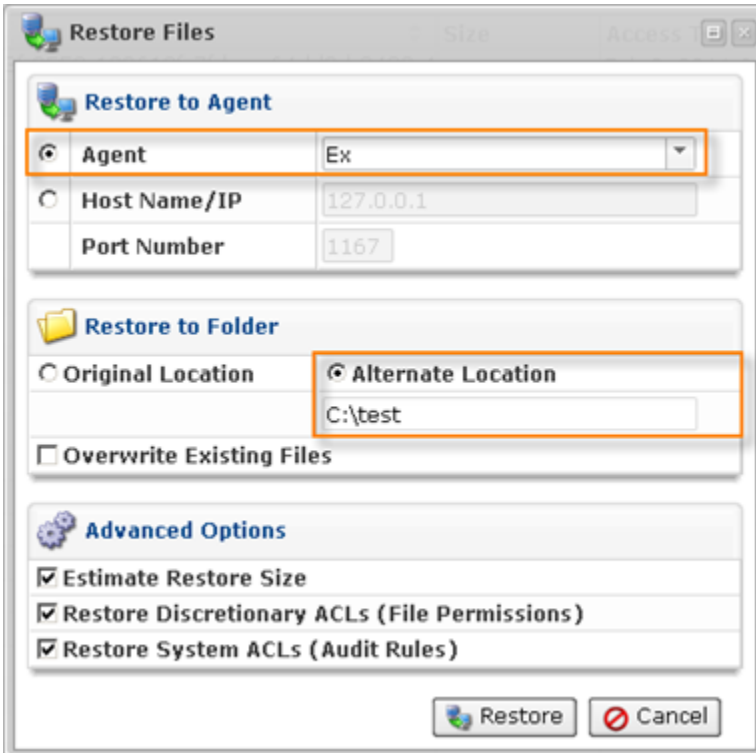


7. The "Restore Files" window will open.

8. Select the Agent where MS Exchange is installed.

Specify to restore the files to an alternate location, as we are later going to attach them to an

Exchange Recovery Group.



9. Click "Restore."



10. You can view the Restore Task results in the "Task History."




11. In the "Task History" list, find the Task you want to view the summary for and click it. The "Summary" tab located in the bottom area accumulates general information about the task.


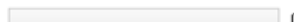
State	Alert	Type	Name	Agent Name	Scheduled	Run Time
✓				Ex	2/11/11 3:40 PM	1m 29s
✓			Backup Exchange 2	Ex	2/9/11 7:23 PM	13m 19s

1 / 1 10 Items Per Page

Summary Files Restored Alerts Logs Restore Settings Task

File Restore Summary


Success
 File restore completed successfully

Files Restored  111 / 111
 Files Failed  0

Progress

Average Speed 1.3 MB/s (peak 8 MB/s) Current Speed
 Time Remaining 0s Time Elapsed 1m 26s (size calculation 0s)

116 MB / 116 MB

Verbose Status:

2. Using Eseutil to replay log files

Once the files have been restored, it is time to run [Eseutil](#) to get the data files into a clean shutdown state so that they can be attached to a recovery storage group, and so that the log files are played into the backup.

On the Exchange server where the files were restored, open up the command prompt, and change the directory to the location where you restored the `.chk`, `.edb`, and `.ldf` files. Operating inside of the directory where the data and log files exist eliminates misspellings, incorrect paths, etc.

For example, if the files were restored to the `c:\test` directory, but the original files were located under this directory ...

`C:\Program Files\Microsoft\Exchange Server\Mailbox\First Storage Group`,

... then the restore directory path will be as follows:

`C:\test\Program Files\Microsoft\Exchange Server\Mailbox\First Storage Group`.

From this directory, run the following command:

```
Eseutil /R Enn /I /D
```

For example:

Eseutil /R E00 /I /D

```
C:\test>Eseutil /R E00 /I /D /8
Extensible Storage Engine Utilities for Microsoft(R) Exchange Server
Version 08.00
Copyright (C) Microsoft Corporation. All Rights Reserved.

Initiating RECOVERY mode...
  Logfile base name: E00
    Log files: <current directory>
    System files: <current directory>
    Database Directory: <current directory>

Performing soft recovery...
      Restore Status (% complete)

  0   10  20  30  40  50  60  70  80  90 100
  |---|---|---|---|---|---|---|---|---|---|
  .....

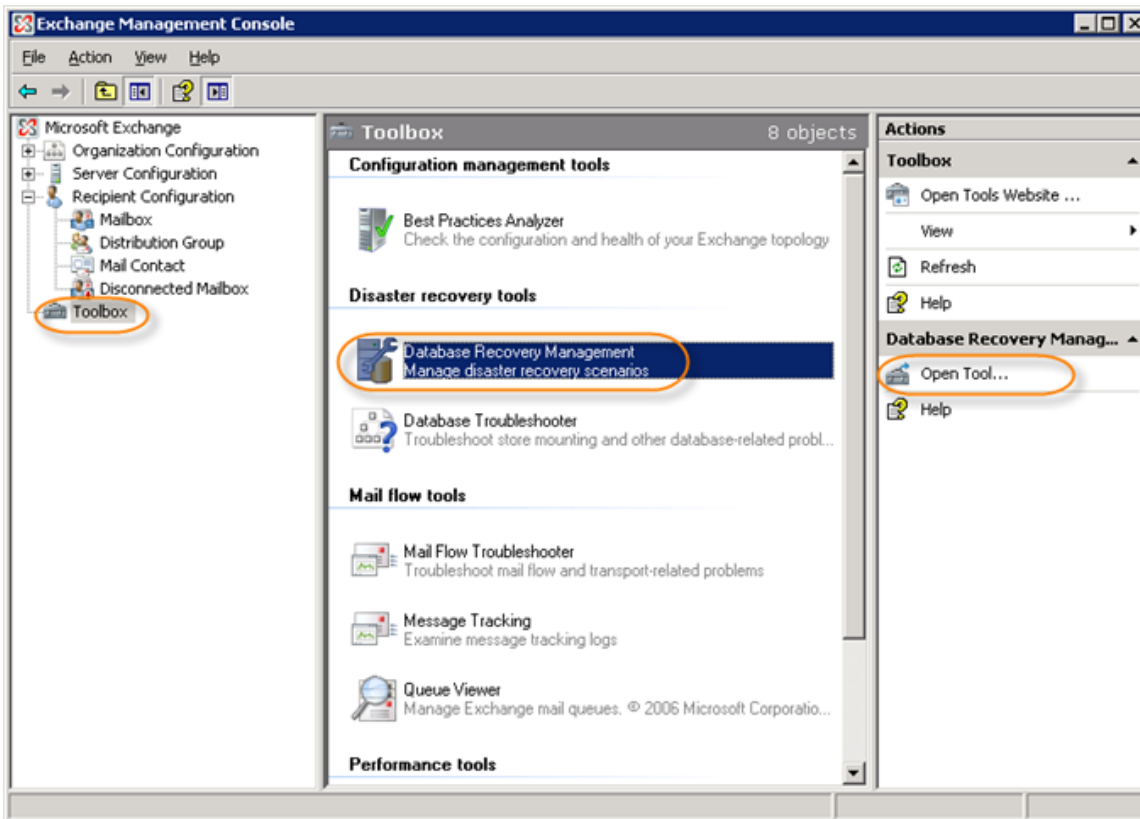
Operation completed successfully in 0.969 seconds.
```

For more information on using [Eseutil](#) and the different commands, see the following technet article:

<http://technet.microsoft.com/en-us/library/bb123479%28EXCHG.80%29.aspx>

3. Creating an Exchange Recovery Group

1. From the Exchange Management console, click on the Toolbox > Database Recovery Management > Open Tool.



2. It will now check for updates.

3. After any updates are performed, go to the Welcome screen. Type in an identifying label for your activity, and click "Next."

 The screenshot shows the 'Enter Server and User Information' screen. On the left, there is a sidebar with navigation options like 'Welcome', 'Select a task', and 'Restart current task'. The main area contains several input fields: 'Enter an identifying label for this activity:' with the value 'test', 'Server name (required):' with 'EX', and 'Domain controller name (required):' with 'ADC'. There are also checkboxes for 'Perform manual analysis of raw data files', 'Show advanced logon options', and 'Hide informational display'. At the bottom, a 'Next' button is highlighted with a red circle.

4. It will check the connections to the domain controller and the Exchange Server.

5. On the next screen, select "Create a Recovery Storage Group."

Welcome
 Select a task
 Restart current task
 Select a result file to view
 View a report

See also

- The Exchange Troubleshooting Assistant Help
- About the Exchange Troubleshooting Assistant
- Send feedback and suggestions about this tool to Microsoft
- Updates and Customer Feedback

Steps:

- Getting Run Information
- Select Task
- Checking if running on Edge Tra
- Read Registry Information

Select one of the following tasks

Server name: EX

Manage Databases

Select one of the tasks below to perform database management tasks.

- [Verify database and transaction log files](#)
- [Analyze log drive space](#)
- [Repair database](#)
- [Show database related event logs](#)

Manage Recovery Storage Group

Select one of the tasks below to manage the recovery storage group.

- [Create a recovery storage group](#)

View Results

View the final results for all the tasks you performed.

- [Go to Results Page](#)

6. Select the Storage Group (files previously restored) which will be linked to the Recovery Storage Group. Click "Next."

Welcome
 Select a task
 Restart current task
 Select a result file to view
 View a report

See also

- The Exchange Troubleshooting Assistant Help

Select the Storage Group to Link with the Recovery Storage Group

Server name: EX

[First Storage Group](#)

The recovery storage group is linked to an existing storage group. Only databases from the linked storage group can be mounted in the recovery storage group.

- [Previous](#)
- [Next](#)

7. The next screen can be left with the default settings. The Recovery Storage Group paths are the locations where the restored files will need to be copied later. Click "Create the Recovery Storage Group."

The screenshot shows the 'Create the Recovery Storage Group' wizard. The left sidebar contains a navigation menu with 'Welcome' selected, and a 'Steps' section showing 'Checking if running on Edge' and 'Read Registry Information'. The main content area has the title 'Create the Recovery Storage Group' and the following fields:

- Server name: EX
- Linked storage group: First Storage Group
- Recovery storage group name: Recovery Storage Group
- Transaction log file folder: Original storage group (Errn.log) log path: C:\Program Files\Microsoft\Exchange Server\Mailbox\First Storage Group
- System folder and checkpoint file folder: Original storage group (Errn.chk) path: C:\Program Files\Microsoft\Exchange Server\Mailbox\First Storage Group
- Database folders and file names: Database name: Mailbox Database

At the bottom, there are two buttons: 'Previous' and 'Create the recovery storage group', with the latter being highlighted by an orange oval.

8. Next, the result will be displayed. Click on "Go back to task center."

The screenshot shows the 'Create the Recovery Storage Group Result' page. The left sidebar is the same as in the previous screenshot, but the 'Steps' section now shows 'Enter Server and User Inform...' and 'Check Connectivity'. The main content area has the title 'Create the Recovery Storage Group Result' and the following information:

- Server name: EX
- Linked storage group name: First Storage Group
- Recovery storage group name: Recovery Storage Group

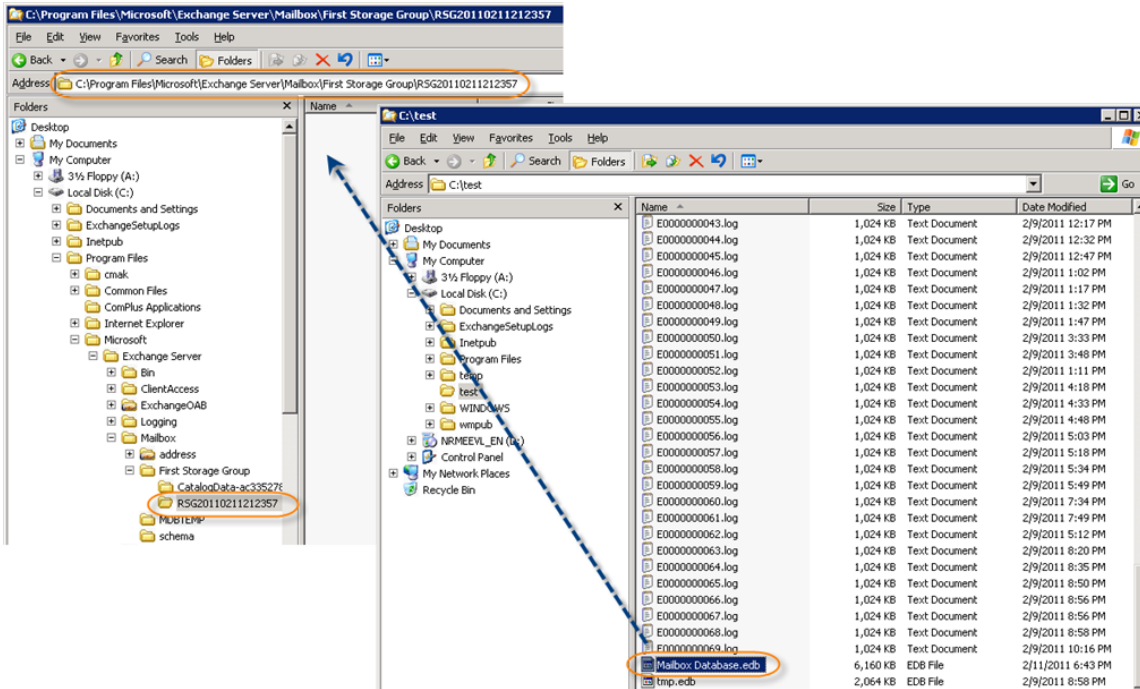
Below this is a 'Display Result' section with a 'Results' table containing two items:

Results
Database (Mailbox Database) has been added into the recovery storage group
Successfully created the recovery storage group

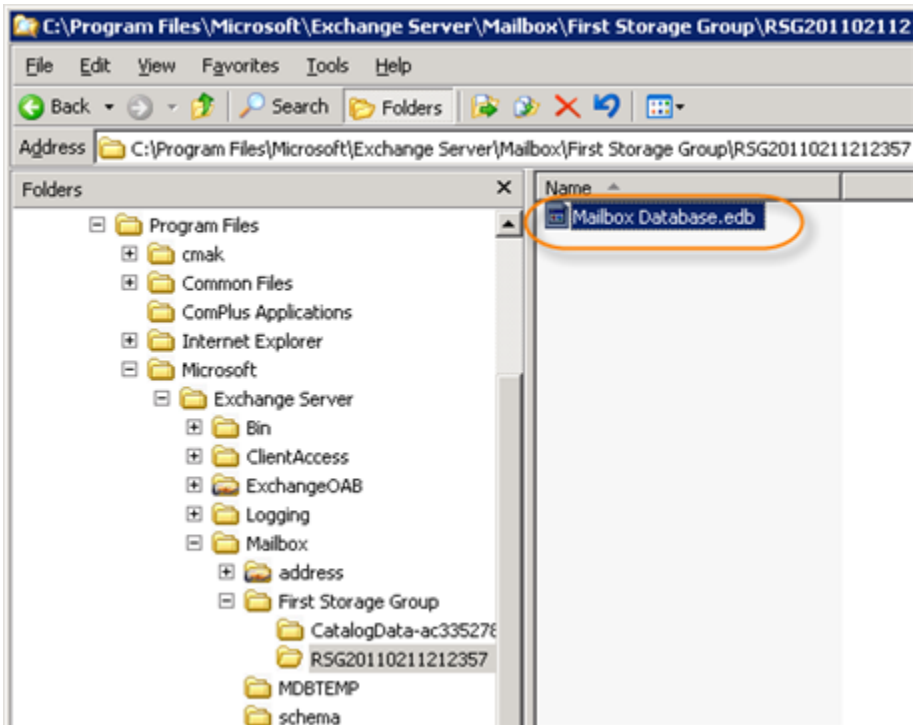
At the bottom, there is a 'Go back to task center' button, which is highlighted by an orange oval. A note at the bottom of the page reads: 'You can now move, copy or restore database and transaction log files to the recovery storage group paths. When you are ready to mount databases in the recovery storage group, go to the task center or start this analyzer again. If the domain controller you specified is different from the domain controller that the Exchange server is using, you may need to wait for the change to be replicated.'

4. Copying files from the CDP restore directory to Exchange Recovery Storage Group directory

Copy the files which you previously ran the Eseutil against to the recovery directory (normally located under a folder of the storage group).



The result looks like this:



5. Mounting Storage Group

Once the files have been copied to the Exchange Recovery Storage Group directory, they can be mounted.

1. From the Welcome screen under the "Microsoft Exchange Troubleshooting Assistant," click "Mount Databases in the Recovery Storage Group."

The screenshot shows the 'Select one of the following tasks' screen in the Microsoft Exchange Troubleshooting Assistant. The server name is 'EX'. Under the 'Manage Databases' section, there are five options: 'Verify database and transaction log files', 'Analyze log drive space', 'Repair database', 'Show database related event logs', and 'Mount or dismount databases in the recovery storage group'. The 'Mount or dismount databases in the recovery storage group' option is highlighted with an orange circle. Under the 'Manage Recovery Storage Group' section, there are four options: 'Remove the recovery storage group', 'Merge or copy mailbox contents', and 'Set up 'Database can be overwritten by restore' flag'. The left sidebar contains a navigation menu with options like 'Welcome', 'Select a task', 'Restart current task', 'Select a result file to view', 'View a report', 'See also', and 'Steps'.

2. Check which database to mount, and click "Mount selected database."

The screenshot shows the 'Mount or Dismount Database' screen in the Microsoft Exchange Troubleshooting Assistant. The server name is 'EX' and the selected storage group is 'Recovery Storage Group'. It lists 'Dismounted Database' with a table containing one entry: 'Mailbox Database', which is checked. Below the table, there are three buttons: 'Mount selected database', 'Previous', and 'Go back to task center'. The 'Mount selected database' button is highlighted with an orange circle. The left sidebar is identical to the previous screenshot.

3. Once the database has mounted successfully, click on "Go back to task center."

Mount or Dismount Databases Report

Server name: EX
Selected storage group: Recovery Storage Group

Information [1 items]

Print report Export report Find Arrange by: Severity

Database (Mailbox Database) successfully mounted.

[Go back to task center](#)

4. From the Task Center welcome screen, click "Merge or copy mailbox contents."

Select one of the following tasks

Server name: EX

Manage Databases
Select one of the tasks below to perform database management tasks.

- Verify database and transaction log files
- Analyze log drive space
- Repair database
- Show database related event logs

Manage Recovery Storage Group
Select one of the tasks below to manage the recovery storage group.

- Mount or dismount databases in the recovery storage group
- Remove the recovery storage group
- [Merge or copy mailbox contents](#)
- Set up 'Database can be overwritten by restore' flag

Steps:

- Getting Run Information
- Select Task
- Checking if running on Edge Tra
- Read Registry Information
- Enter Server and User Information

5. Specify which database to use for the merge. Click "Gather merge information."

- Welcome
- Select a task
- Restart current task
- Select a result file to view
- View a report
- See also**
- The Exchange Troubleshooting Assistant Help
- About the Exchange Troubleshooting Assistant
- Send feedback and suggestions about this tool to Microsoft

Select a Mounted Database in the Recovery Storage Group

Server name: EX
Recovery storage group name: Recovery Storage Group

IMPORTANT NOTE:
If you are merging mailbox data as part of a 'dial tone' recovery strategy, there are additional administrative tasks that you must perform after the data merge completes. Refer to Microsoft Knowledge Base article <http://go.microsoft.com/fwlink/?linkid=3052&kbid=282496>.

Mounted databases in the recovery storage group

Mailbox Database

Select a source database for merging or copying mailbox contents. You will select other options and the merge or copy destinations later.

[Previous](#) [Gather merge information](#)

Click "Perform pre-merge tasks."

- Welcome
- Select a task
- Restart current task
- Select a result file to view
- View a report
- See also**
- The Exchange Troubleshooting Assistant Help
- About the Exchange Troubleshooting Assistant
- Send feedback and suggestions about this tool to Microsoft

Select Merge Options

Server name: EX

Recovery storage group name: Recovery Storage Group
Selected database in recovery storage group: Mailbox Database
Recovery storage group database path: C:\Program Files\Microsoft\Exchange Server\Mailbox\First Storage Group\RS20110211212357\Mailbox Database.edb

Linked storage group name: First Storage Group
Linked original database name: Mailbox Database
Linked original database path: C:\Program Files\Microsoft\Exchange Server\Mailbox\First Storage Group\Mailbox Database.edb

[Show Advanced Options](#)

[Previous](#) [Perform pre-merge tasks](#)

6. Locate and check the mailbox needed to be recovered, and click "Perform merge actions."

- Welcome
- Select a task
- Restart current task
- Select a result file to view
- View a report
- See also**
- The Exchange Troubleshooting Assistant Help
- About the Exchange Troubleshooting Assistant
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- Updates and Customer Feedback

Steps:

Select Mailboxes to Copy or Merge

Server name: EX
Recovery storage group name: Recovery Storage Group
Linked storage group name: First Storage Group
Selected database name: Mailbox Database
Linked database name: Mailbox Database

Matched mailboxes

Display Name	Mailbox GUID	Exchange Legacy Distinguished Name
<input checked="" type="checkbox"/> Homer J. Simpson	4024537-b38d-4989-be67-6cfb4590705	/O=SPRINGFIELD/OU=EXCHANGE AD
<input checked="" type="checkbox"/> Marge Simpson	47379d26-7eda-4b19-a9bf-4567ec1b9ab0	/O=SPRINGFIELD/OU=EXCHANGE AD

[Save](#) [Select All](#) [Unselect All](#)

[Previous](#) [Perform merge actions](#)

7. The mailbox is now restored.

- Welcome
- Select a task
- Restart current task
- Select a result file to view
- View a report

See also

- The Exchange Troubleshooting Assistant Help
- About the Exchange Troubleshooting Assistant
- Send feedback and suggestions about this tool to Microsoft
- Updates and Customer Feedback

Display Mailbox Merge or Copy Result

Server name: EX
Recovery storage group name: Recovery Storage Group
Selected database name in the recovery storage group: Mailbox Database
Linked storage group name: First Storage Group
Target database name: Mailbox Database

Merge Results

Merge Results (2 items)

Print report Export report Find Arrange by: Severity

Mailbox [/O=SPRINGFIELD/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPD...
Mailbox [/O=SPRINGFIELD/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPD...