

# Restoring a MS 2007 Exchange Storage Group

This article describes how to restore a MS Exchange storage group previously backed up by R1Soft CDP.

CDP provides the ability to take a snapshot of the Microsoft Exchange Storage groups. Since CDP is using the VSS Exchange writer, it ensures data integrity and consistency during the backup operation.

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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

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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.



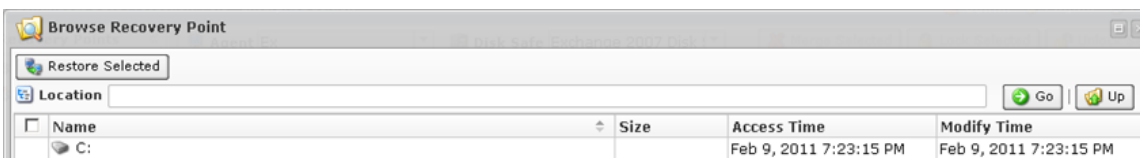
3. Then select a Recovery Point to restore from and click on the "Browse" icon in the "Actions" column for this Recovery Point.



### Tip

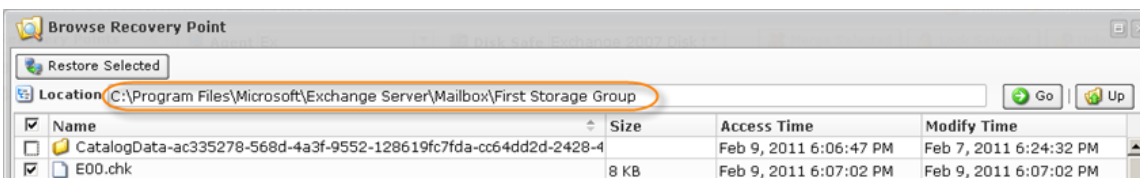
To find a Recovery Point, you can use the Basic and Advanced List Filters. See [Customizing the Recovery Points List](#).

4. The "Browse Recovery Point" window opens.

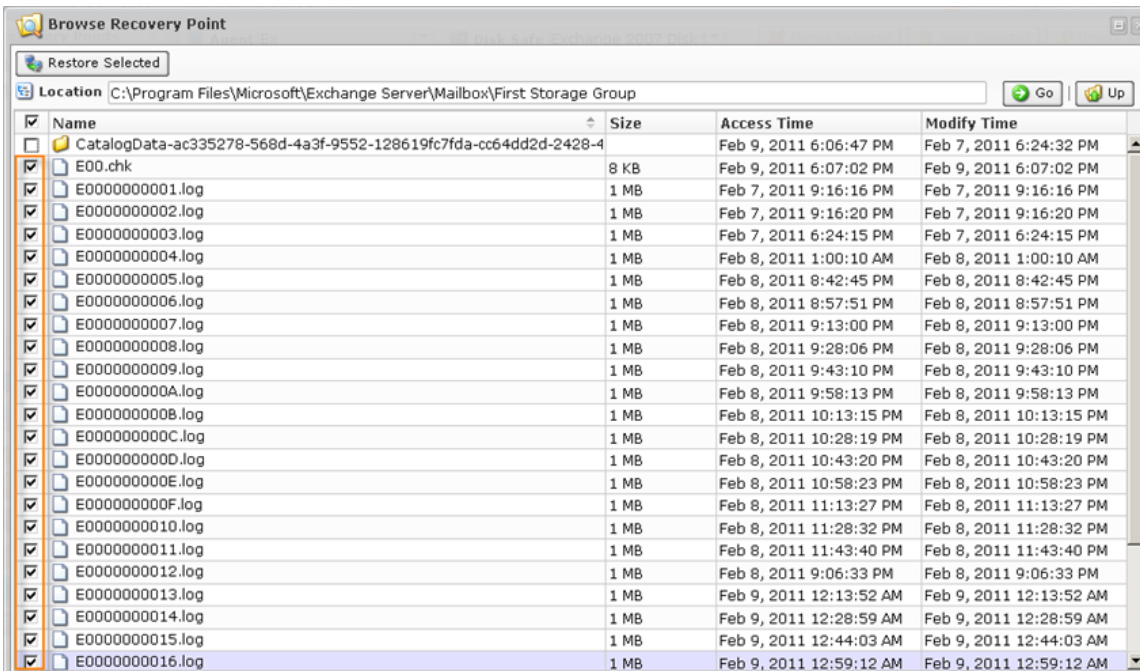


See also: [Browsing Recovery Points](#).

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



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



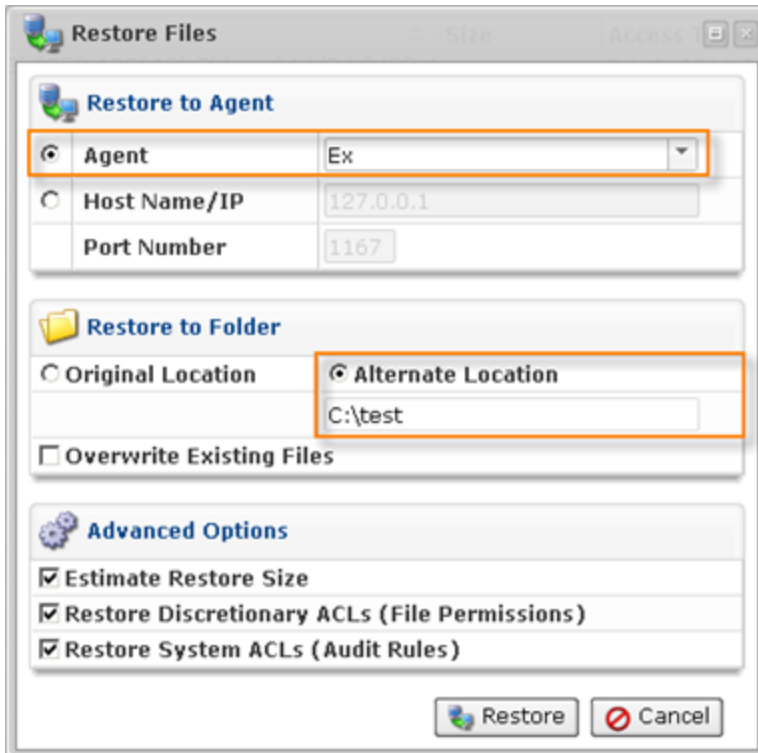
6. Once the files and folders are selected, click on "Restore Selected."



7. The "Restore Files" window will open.

8. Select the Agent where the 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 on 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 have the log files 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 misspelling and incorrect paths, etc.

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

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

The restore directory path will be:

`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 /S
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
|----|----|----|----|----|----|----|----|----|
.....

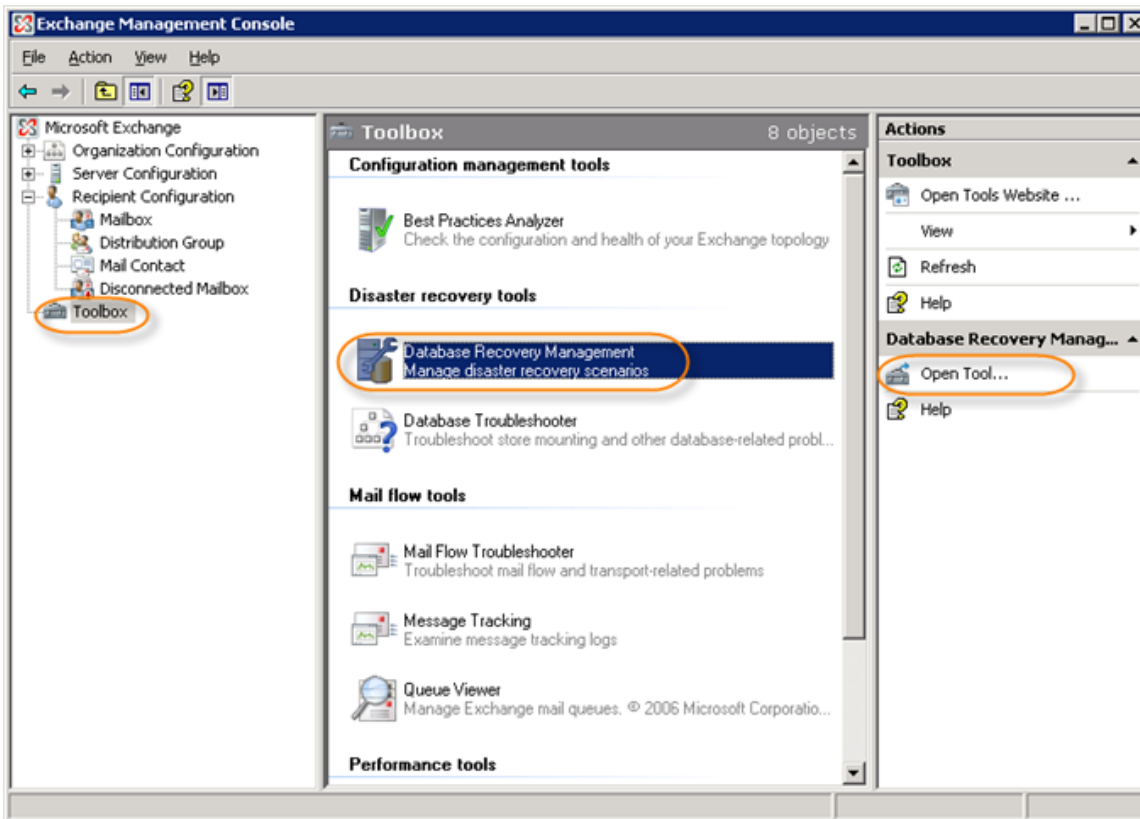
Operation completed successfully in 0.969 seconds.
```

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 is now going to check for some updates.

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

 The screenshot shows the 'Enter Server and User Information' screen. On the left is a navigation pane with options like 'Welcome', 'Select a task', and 'Restart current task'. The main area contains a form with the following elements:
 

- A text input field for 'Enter an identifying label for this activity:' containing the text 'test', circled in red.
- A checkbox for 'Perform manual analysis of raw data files (ignore server and credentials entries below)'.
- Input fields for 'Server name (required):' containing 'EX' and 'Domain controller name (required):' containing 'ADC'.
- A dropdown menu for 'Show advanced logon options'.
- A checkbox for 'Hide informational display' with a sub-note: 'Selecting this option will skip the individual database analysis results and recommendations and go to the File Header Summary page.'
- A 'Next' button at the bottom, circled in red.

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 location where the restored files will need to be copied later. Click "Create the Recovery Storage Group."

**Create the Recovery Storage Group**

Server name: EX  
Linked storage group: First Storage Group

**Recovery storage group name:**

**Transaction log file folder**  
Original storage group (Errn.log) log path:

**System folder and checkpoint file folder**  
Original storage group (Errn.chk) path:

**Database folders and file names**  
Database name:

Steps:  
Checking if running on Edge  
Read Registry Information

[Previous](#) [Create the recovery storage group](#)

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

**Create the Recovery Storage Group Result**

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

**Display Result**

**Results** (2 items)

Print report Export report Find Arrange by: Severity

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

Successfully created the recovery storage group

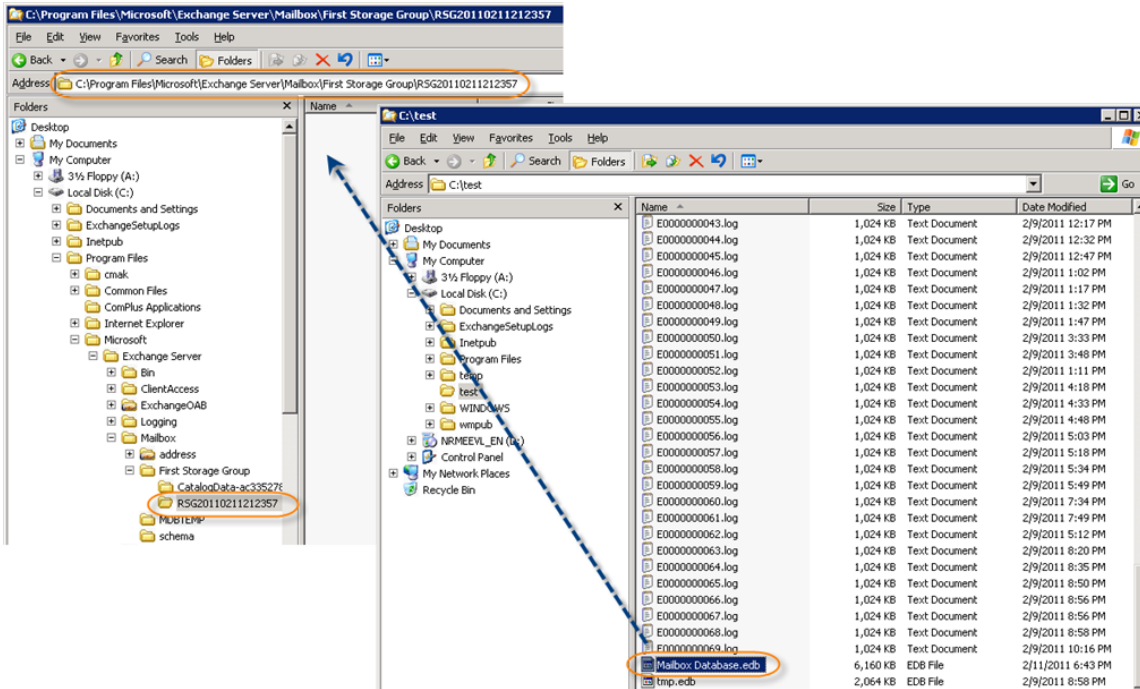
You can now move, copy or restore database and transaction log files to the recovery storage group paths. When you are ready to mount databases in the recovery storage group, go to the task center or start this analyzer again. If the domain controller you specified is different from the domain controller that the Exchange server is using, you may need to wait for the change to be replicated.

Steps:  
Enter Server and User Inform  
Check Connectivity

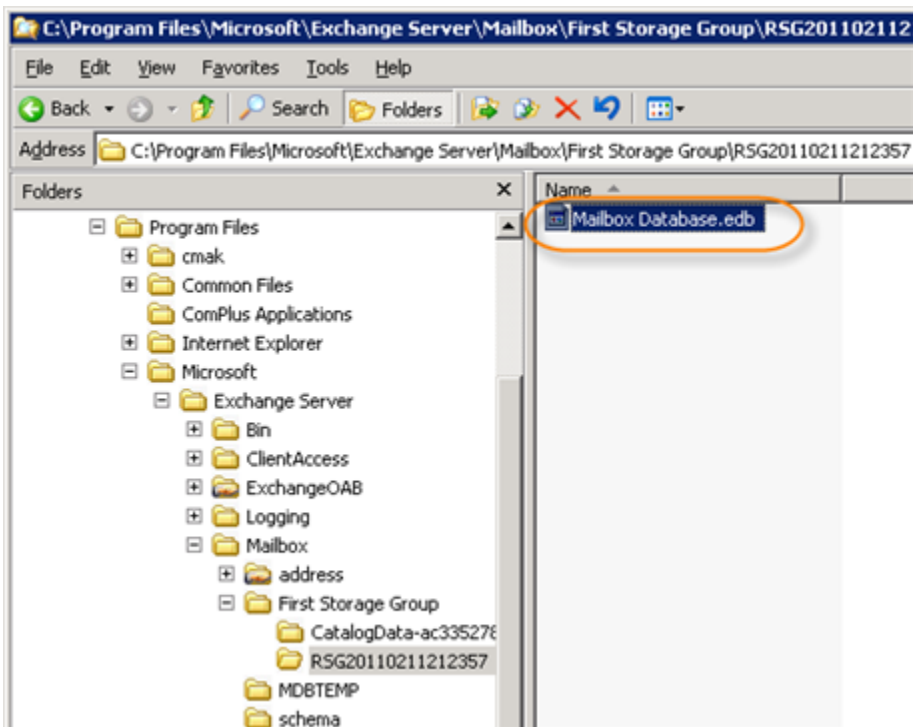
[Go back to task center](#)

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'.

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 'These databases are dismounted:' and shows a table with one entry: 'Mailbox Database'. The 'Mailbox Database' entry is selected with a checkmark and highlighted with an orange circle. 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.

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.

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
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## 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\RSRG20110211212357\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

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
- Send feedback and suggestions about this tool to Microsoft
- 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

7. 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
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## 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...