



Restoring Exchange

How to Restore Individual Exchange Mailboxes — Exchange Enterprise Edition Only

Preliminary notes:

These instructions were provided to us by one of our American partners and resellers. We have since received good feedback using this method of restoration.

In your documentation for restoring Exchange, I would recommend adding a section "To restore individual mailboxes" by using a "Recovery Storage Group" and "Exmerge". This feature overcomes the need to purchase Backup Exec. I got the following instructions from Microsoft somewhere:

Please follow these instructions verbatim.

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Additional Notes

Please be aware that the procedure outlined in this document will only work for the Enterprise Version of your Exchange Server. The standard version of Exchange Server only allows for the creation of one storage group, meaning that you cannot create additional recovery storage groups, as specified by Microsoft here: <http://www.microsoft.com/exchange/evaluation/editions.mspix>

Both the standard and enterprise editions of **Exchange 2003**, however, both come pre-built with a **Recovery Storage Group**, which allows you to recover entire storage groups, databases, or individual mailboxes while minimizing impact to your users. Read more about recovery storage groups here: <http://www.microsoft.com/technet/prodtechnol/exchange/2003/library/ue2k3rsg.mspix>

To Restore Exchange Mailboxes

Using a Recovery Storage Group

If you restore mailbox stores without creating a Recovery Storage Group, the data is restored directly to the original mailbox stores, as in previous versions of Exchange. The process of using a Recovery Storage Group to restore mailbox data consists of three main steps:

1. Set up the Recovery Storage Group—two versions of this step
2. Restore a mailbox store to the Recovery Storage Group.
3. Merge the recovered mailbox data with regular user mailboxes.

Each of these steps is detailed in the following procedures.

1. To set up the Recovery Storage Group

Two version of this step are outlined as the process/wording is different for Windows 2000 Server

Version 1—Windows 2000 Server

- Start Exchange System Manager: Click **Start**, point to **All Programs**, point to **Microsoft Exchange**, and then click **System Manager**.
- Expand **Administrative Groups** (to view these right click the organisation name - located at the top of the tree - and select properties), expand the appropriate administrative group, expand **Servers**, **right-click** the server on which you want to create the Storage Group, point to **New**, and then click '**Storage Group**'.
- In **Storage Group Properties**, ensure that the file locations specified in the Transaction log location box and the System path location box are appropriate, and then click **OK**. The new Storage Group will appear in the server's list of storage groups.
- **Right-click** your new **Storage Group**, and then click **New > Mailbox store**.
- In **Mailbox Store Properties**, review the mailbox store's properties, and then click **OK**. The default settings are suitable for most cases; however, you can assign the mailbox store a different name.
- To add more mailbox stores to the **Storage Group**, repeat the above two steps (remember, if you are restoring multiple databases simultaneously, they must all be from a single storage group).



To Restore Exchange Mailboxes (continued)

Version 2 — Other Windows Operating Systems

- Start Exchange System Manager: Click **Start**, point to **All Programs**, point to **Microsoft Exchange**, and then click **System Manager**.
- Expand **Administrative Groups**, expand the appropriate administrative group, expand **Servers**, right-click the server on which you want to create the Recovery Storage Group, point to **New**, and then click **Recovery Storage Group**.
- In **Recovery Storage Group Properties**, ensure that the file locations specified in the **Transaction log location** box and the **System path location** box are appropriate, and then click **OK**. The new Recovery Storage Group will appear in the server's list of storage groups.
- Right-click **Recovery Storage Group**, and then click **Add Database to Recover**.
- In **Select database to recover**, click a mailbox store, and then click **OK**. You can select only one mailbox store at a time.
- In **Mailbox Store Properties**, review the mailbox store's properties, and then click **OK**. The default settings are suitable for most cases; however, you can assign the mailbox store a different name.
- To add more mailbox stores to the Recovery Storage Group, repeat Steps 4-6 (remember, if you are restoring multiple databases simultaneously, they must all be from a single storage group).

Note: By default, the mailbox stores in the Recovery Storage Group (also called recovery databases) are not mounted when they are created. You should not mount them until after you have restored the data, as described in the next procedure.

2. To restore a mailbox store to the Recovery Storage Group

- After configuring the Recovery Storage Group, start your backup and restore application (for the purposes of this procedure, use Windows Backup: click **Start**, click **Run**, type **ntbackup**, and then click **OK**).
- If Windows Backup starts in Wizard mode, on the Welcome screen, click **Advanced Mode**.
- Click **Restore and Manage Media**, expand the **File** list, expand the backup file you want to use, click the appropriate storage group, and then click the database and log files that you want to restore.

Important: Make sure that you select only mailbox stores and/or log files. Do not select the entire storage group, especially if the storage group contains public folder stores. The restore operation will not succeed if public folder stores are selected.

- Click **Start Restore**.
- In **Restoring Database Store**, type the name of a temporary file directory in the **Temporary location** box and, if this is the last backup to be restored, select **Last Restore Set**.
- Click **OK**. When the restore process is complete, click **Close**.
- In Exchange System Manager, right-click the mailbox store in the Recovery Storage Group, and then click **Mount Store**. In the warning dialog box, click **Yes**.

3. To merge recovered mailbox data with regular user mailboxes

Note: To complete this procedure, you need the Microsoft Exchange Mailbox Merge Wizard (Exmerge). You can download Exmerge from the Exchange Downloads Web site (<http://www.microsoft.com/exchange/2003/updates>).

- After restoring the appropriate mailbox store to the Recovery Storage Group, start Exmerge. You can start Exmerge from a command prompt by typing **%path%\exmerge**.
- Follow the instructions in the wizard to specify the export method, the source server, and the destination server (when the Recovery Storage Group is on the same server as the original mailbox store with which you are working, the source server and destination server are the same).
- On the **Database Selection** page, select only the mailbox stores that are in the Recovery Storage Group, and then click **Next**.
- On the **Mailbox Selection** page, select the mailboxes to restore. You can select individual mailboxes or multiple mailboxes. When finished, click **Next**.
- Specify the appropriate locale (if necessary), and then click **Next**.
- On the **Target Directory** page, click **Change Folder**. Use the **Browse for Folder** dialog box to specify a temporary folder, and then click **OK**. Click **Next**.

Follow the remaining instructions to finish the wizard and move the mailbox data. The wizard will copy data from mailboxes in the restored mailbox store and merge it with data in the corresponding mailboxes in the original mailbox store.



3. To merge recovered mailbox data with regular user mailboxes (continued)

Overriding the Recovery Storage Group

- As mentioned in the previous section, if you restore mailbox stores without creating a Recovery Storage Group, the data will be restored directly to the original mailbox stores, as in previous versions of Exchange. If you already created a Recovery Storage Group, you can restore directly to the original mailbox stores if you set the override registry key.

Warning: *Incorrectly editing the registry can cause serious problems that may require you to reinstall your operating system. Problems resulting from editing the registry incorrectly may not be able to be resolved. Before editing the registry, back up any valuable data.*

To set the Recovery Storage Group Override registry key

- Start Registry editor (regedit).
- In **Registry Editor**, navigate to the following registry key:
HKLM\SYSTEM\CurrentControlSet\Services\MSExchangeIS\ParametersSystem
- Create a new DWORD value **Recovery SG Override = 1**. After this key has been set, you can restore mailbox stores to their original locations, even though the Recovery Storage Group exists.