

Re: Backend Exchange migrate to New Hardware (Server)

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Use Below Steps to restore the server
Restoring Exchange Mailbox or Public Folder Stores

Note

The term database is used in this guide to generically refer to Exchange mailbox stores and Exchange public folder stores.

When you use Backup to restore Exchange databases, application programming interface (API) calls are made to the Exchange Extensible Storage Engine (ESE) to restore Exchange database files and their associated log files. You can use Exchange database backups to restore one or more damaged mailbox or public folder stores. In a disaster recovery scenario that involves rebuilding a server, use Backup to restore your Exchange databases after you run Exchange Setup and any Exchange service packs in Disaster Recovery mode.

Note

Installing Exchange (and any service packs that were running on your server before the disaster) in Disaster Recovery mode prevents the Setup program from mounting the databases after the Setup program is completed. You can then correctly restore and mount your Exchange database backups at the end of the setup process. Before you restart your server, as prompted by Exchange Setup, make sure that the log files have completed replaying.

This section contains the following information about restoring Exchange databases:

- " Overview of the database restore process.
- " Recovering an Exchange database.
- " Resolving Exchange database restore problems.
- " Restoring Exchange databases to another server.

Overview of the Database Restore Process

When a restore operation begins, Backup informs the ESE that the process has begun, causing ESE to enter restore mode. The database (made up of a pair of files: an .edb file and an .stm file) is then copied from the backup media directly to the database target path. The associated log files are copied to a temporary folder, and a separate instance of ESE is started to replay the transaction logs from their temporary location into the restored database.

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The restore process creates the Restore.env file, which keeps track of the storage group that the database belongs to, the paths of the database files when they were backed up, the path to the database when they were restored, the range of log files that were restored, and other pertinent data.

You must restore a full backup set (either a normal or copy backup) before you can restore a differential or incremental backup set. This is because restoring a full backup set creates the Restore.env file.

Restoring a differential or incremental backup set only updates the Restore.env file; it does not create one. If the Restore.env file does not exist, the differential or incremental updates cannot restore.

Always use different temporary folders for each full backup set that you are restoring. For example, if you were to restore two normal backups to the same temporary folder the second Restore.env file that would be created would overwrite the first Restore.env file. Therefore, always specify a different temporary folder for each normal or copy backup set that you are restoring.

However, when you restore an incremental or differential backup, specify the same temporary folder you used for the full backup that the incremental or differential backup belongs with, so that they are paired with the correct Restore.env file.

After the database files are copied back to their original locations and the Restore.env and transaction log files have been copied to the temporary folder, ESE initiates a hard recovery to replay log files into the database. This brings the database up-to-date with the time that it was lost if all the log files since the backup was taken are available. First, Restore.env is used to determine which transaction logs will be played from the temporary folder. Then, if it is possible, additional transaction logs from the target storage group are also replayed.

Following hard recovery, the temporary instance of ESE is stopped. If you select the Mount Database After Restore check box in Backup, the newly restored database is automatically mounted in the target storage group.

Figure 3.16 illustrates the Exchange restore process.

Recovering an Exchange Database

Exchange Database Recovery Checklist

- c Dismount the databases for each mailbox or public folder store that you are restoring.
- c Configure the databases so that the restore can overwrite them (optional).
- c Determine the database and log file locations of the files that you are restoring (optional).
- c Copy the current database files to another location (optional).
- c Make sure that the mailbox and public folder store names in Exchange System Manager match your backup media.
- c Make sure that the Microsoft Exchange Information Store service (MSExchangeIS) is running.
- c Select the backup files that you want to restore from your backup

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media.

c Restore the selected files.

c Make sure that the restore process was successful.

c Replay the transaction log files (Eseutil /cc) (optional).

c Mount the databases (stores).

Dismounting the Exchange Databases That You Are Restoring

Before you perform the restore process, you must dismount the Exchange databases that you want to restore. If a database that you try to restore is still mounted, the restore process will fail.

Note

When mailboxes and public folders are dismounted, they are inaccessible to users. Because Exchange supports multiple storage groups and multiple mailbox and public folder stores, you must dismount only the databases that are being restored from your backup. To restore a database without affecting e-mail users who have mailboxes on that database, consider using a recovery storage group instead of its original storage group. Typically, recovery storage groups are used only when you want to extract or merge specific data from the backup database to the original still running database.

To dismount the mailbox and public folder stores that you are restoring

1. Open Exchange System Manager. Click Start, point to Programs, point to Microsoft Exchange, and then click System Manager.

2. In Exchange System Manager, navigate to the database that you want to restore, right-click the database, and then click Dismount Store .

Note

You must dismount every database that you want to restore.

Configuring the Exchange Databases so That the Restore Process Overwrites Them (Optional)

To ensure that the restore process overwrites Exchange databases, you must configure the databases that are being restored. However, you do not have to configure the databases if you restore them to their original locations, or if you use recovery storage groups. It is only required when the databases that you restore have different GUIDs in Active Directory. For example, a different GUID is required when you restore a database to another forest, such as a test forest. A different GUID is also required if the Active Directory object for the database has been deleted. When you re-create deleted objects in Active Directory, you give each object a new GUID.

Unless you know that you must overwrite the database, do not use this option.

To configure the Exchange databases so that the restore process overwrites them

1. Open Exchange System Manager. Click Start, point to Programs, point to Microsoft Exchange, and then click System Manager.

2. In Exchange System Manager, navigate to the database that you want to restore, right-click it, and then click Properties .

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3. On the Database tab, select the This database can be overwritten by a restore check box

Determining the Database and Log File Locations of the Files You Are Restoring (Optional)

If you plan to make copies of the damaged database so that you can try to repair it later if necessary, you determine the location of the database and log files so that you can move or copy them.

In the following procedure, you must record information from the properties dialog boxes from both the database and the storage group that contains the database. You must do this for each database you want to move or copy.

To determine the database and log file locations of the files you are restoring

1. Open Exchange System Manager. Click Start, point to Programs, point to Microsoft Exchange, and then click System Manager.
2. In Exchange System Manager, navigate to the storage group that contains the database that you want to move or copy, right-click the storage group, and then click Properties

3. On the General tab, note the paths in the Transaction log location and System path location boxes, and then click OK

Record these paths for each storage group that contains a database that you want to move or copy.

The Transaction log location is the path where log files are written for the whole storage group. These log files record every change made to a database in that storage group. The System path location is where other files critical to the storage group are kept, such as the storage group's checkpoint file.

4. In Exchange System Manager, right-click the database that you want to move or copy, and then click Properties.

5. On the Database tab, note the paths of both the Exchange database file and the Exchange streaming database file, and then close the dialog box

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