

Application Object Restore - Microsoft Exchange 2010

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Introduction

This paper outlines the steps required to perform item-level restorations with the PHD Virtual Backup software in Exchange 2010. It will take you through the process of restoring an entire mailbox and then recovering specific messages. Keep in mind that the syntax used here will vary depending on how the Exchange environment is configured.

Soft Recovery

1. Attach the backup disk(s) housing the Exchange database and log files to a running Exchange server. (See the PHD User Guide “Restoring Files”)
2. Open the **Exchange Management Shell**.
3. Change your working directory to the location of the transaction log files.
4. Run this command from the prompt: `eseutil /r e01`

Note: In this case the log prefix is “e01” but this can vary depending on which database you are attempting to restore from. To determine which prefix you need to identify you can just reference the filename of your transaction logs. The first three characters of the filename will indicate the correct prefix to use.

Once you execute this command it will replay all of the transaction logs and get your database back into a clean state so it can be mounted.

```
[PS] E:\Program Files\Microsoft\Exchange Server\U14\Mailbox\Exchange Demo>eseutil /r e01
Extensible Storage Engine Utilities for Microsoft(R) Exchange Server
Version 14.01
Copyright (C) Microsoft Corporation. All Rights Reserved.

Initiating RECOVERY mode...
  Logfile base name: e01
  Log files: <current directory>
  System files: <current directory>

Performing soft recovery...

Operation completed successfully in 0.157 seconds.
[PS] E:\Program Files\Microsoft\Exchange Server\U14\Mailbox\Exchange Demo>
```

Creating Recovery Database

1. Run this command from the prompt:

```
new-mailboxdatabase -recovery -name "Recovery DB" -server  
"server name" -edbfilerpath "path_to_database_location" -  
logfolderpath "Path_to_logfiles_location"
```

```
[PS] C:\Windows\system32>New-MailboxDatabase -recovery -name "Recovery DB" -server exchange-demo.phd.local -edbfilerpath  
"H:\Program Files\Microsoft\Exchange Server\U14\Mailbox\Exchange Demo\exchange demo.edb" -logfolderpath "H:\Program File  
s\Microsoft\Exchange Server\U14\Mailbox\Exchange Demo"  
WARNING: Recovery database 'Recovery DB' was created using existing file H:\Program Files\Microsoft\Exchange  
Server\U14\Mailbox\Exchange Demo\exchange demo.edb. The database must be brought into a clean shutdown state before it  
can be mounted.
```

Name	Server	Recovery	ReplicationType
Recovery DB	EXCHANGE-DEMO	True	None

Mount Recovery Database

1. Run this command from the prompt:

```
mount-database "Recovery DB"
```

Note: There will be no output from this command so as long as you don't receive any errors it will be mounted.

```
[PS] G:\Program Files\Microsoft\Exchange Server\U14\Mailbox\Exchange Demo>Mount-Database "recovery db"  
[PS] G:\Program Files\Microsoft\Exchange Server\U14\Mailbox\Exchange Demo>
```

Mailbox Restore

1. Identify which mailbox you want to restore and which mailbox you want to restore to.
2. Run this command from the prompt:

```
restore-mailbox -identity "target_mailbox" -  
recoverydatabase "recovery_database_name" -recoverymailbox  
"source_mailbox" -targetfolder "folder_name"
```

```
[PS] C:\>restore-mailbox -identity administrator -recoverydatabase "Recovery DB" -recoverymailbox phd-demo -t  
argetfolder Restore  
  
Confirm  
Are you sure you want to perform this action?  
Recovering mailbox content from mailbox 'PHD-Demo' in the recovery database 'Recovery DB' to the mailbox for  
'Administrator (Administrator@phd.local)'. This operation may take a long time to complete.  
[Y] Yes [A] Yes to All [N] No [L] No to All [?] Help (default is "Y"): a
```

Note: In this example we restored the mailbox “phd-demo” from the recovery database to the mailbox “administrator”. If you were to then connect to the “administrator” mailbox in Outlook you would see a new folder “Restore” with all of the restored data.

Message Restore

1. We will once again need to identify the mailbox we want to restore from and which mailbox to restore to for the target.
2. Run this command from the prompt:

```
restore-mailbox -identity "target_mailbox" -  
recoverydatabase "recovery_database_name" -recoverymailbox  
"source_mailbox" -targetfolder "folder_name" -  
contentkeywords "keywords_to_search_for"
```

```
[PS] C:\>restore-mailbox -identity administrator -recoverydatabase "Recovery DB" -recoverymailbox phd-demo -t  
argetfolder Restore -contentkeywords phd  
  
Confirm  
Are you sure you want to perform this action?  
Recovering mailbox content from mailbox 'PHD-Demo' in the recovery database 'Recovery DB' to the mailbox for  
'Administrator (Administrator@phd.local)'. This operation may take a long time to complete.  
[Y] Yes [A] Yes to All [N] No [L] No to All [?] Help (default is "Y"): a
```

Note: Here we restored all messages with the string “phd” in the message body and content of attachments to the “administrator” mailbox.

Additional Information

- Exchange Recovery Database: <http://technet.microsoft.com/en-us/library/dd876954.aspx>
- new-mailboxdatabase cmdlet syntax: <http://technet.microsoft.com/en-us/library/aa997976.aspx>
- restore-mailbox cmdlet syntax: <http://technet.microsoft.com/en-us/library/bb125218.aspx>

About PHD Virtual

As the pioneer of virtual backup appliances (VBAs), PHD Virtual Technologies has been transforming data protection in virtual IT environments since 2006. Its award-winning data protection solution for virtual infrastructures, PHD Virtual Backup (formerly, esXpress), is used today by more than 2000 enterprises worldwide to achieve unlimited dynamic growth, high availability, no single point of failure and scalable performance. PHD Virtual is committed to helping our customers and provides free, easy-to-use virtualization utilities to assist with the administration and management of virtualized environments.

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