Exchange Server Dial Tone Recovery

Author : Saikiran Reddy Sama.

Dial Tone recovery : Basic concept is that if the Mailbox database is down then we need to mount a blank database by removing the existing edb file and mounting a backup copy as a recovery database and then swap the data back to the original database, there are lot of ways to recover it, this is one of them in which we perform the following steps :

For the sake of understanding we will use the Default database name here as “**DB**”

**Mailbox Database – DB**

**EDB Location - C:\DB\DB.edb**

**Log Folder location – C:\DB**

**Backup Folder Name – Backup**

**Recovery Db name – RDB**

**Dial tone Database Name - DTB**

Scenario : So now we assume that our mailbox database **DB** has been dismounted due to corruption. So users are unable to login and continue their work. As an admin, we suggested as a best practice to mount a blank database and Bring the Mail Flow up and running for the affected users.

* By mounting a blank database and rehoming them to a new database, we can provide users a temporary access to the database and they can be able to send and receive emails. Meanwhile Exchange admin should perform the recovery of the Failed database in backend.

So Let’s proceed with the steps to perform the Dial Tone Recovery in a Lab Environment :

1. Create a Database **DB** and add some mailboxes to it.
2. Mount the database **DB** and login with the newly created mailboxes.
3. Send Some emails from those users and generate some Transaction Log files
4. Now that we have ample amount of Transaction log files, since we are in lab environment, we can go ahead to 5th Step.
5. Dismount the database – **DB** and cut/paste the EDB , Logfiles to a different safe location – lets name the folder as **Backup. (In production we use a backup application to backup database and log files)**
6. Now that we have a backup of the original DB files in the safe location – Backup, We will Create a new Mailbox Database – Which is a Dialtone Database.
7. Run the following command to create a database or create it from ECP

**New-MailboxDatabase -Name DTB -EdbFilePath “C:\DTB\DTB.edb” -LogFolderPath “C:\DTB”**

1. Now it will prompt you to restart information store service, but do not do that as other users in other Databases will be affected.
2. So now check the status of the databases by running the following command

**Get-MailboxDatabaseCopyStatus \***

1. Now we will find that our blank database – **DB** and dial tone database **DTB** are both in Dismount state.
2. Go ahead and mount both **DB** and **DTB** databases.
3. Recheck the status of the databases.

**Get-MailboxDatabaseCopyStatus \***

1. Here comes the tricky part, still users see error page in OWA, so we need to Rehome their mailboxes to the newly created dial tone database **DTB.** Run the following command to do so.

**Get-Mailbox -Database DB | Set-Mailbox -Database DTB**

1. Now we have successfully rehomed the mailboxes to Dial tone Database - **DTB**. You can cross check by running the command (**Get-MailboxStatistics -Database DTB**)
2. So Please login with any of the affected users, you can see that they can be able to access their mailboxes, but it will be empty. They can send and receive emails.
3. Now comes the actual part of retrieving the older emails.
4. Remember we have copied a backup to a folder – “**Backup**”, now we need to make use of the files from this folder.
5. Create a Recovery database by running the following command.

**New-MailboxDatabase -Name RDB -Recovery -Edbfilepath “C:\RDB\RDB.edb” -LogfolderPath “C:\RDB”**

1. Now the Recovery database has been created, Don’t MOUNT it yet. First we need to copy paste the backup files to this location – **C:\RDB.** This is done to restore the emails from backup.
2. Now that you have copy/pasted the edb and log files to the recovery database folder **C:\rdb,** weneed to run the following command to set the database to allow file restore capability**.**

**Set-MailboxDatabase -identity RDB -AllowFileRestore $True**

1. Now go ahead and Mount the database.

**Mount-Database -Identity RDB**

1. Now go ahead and Dismount the database

**Dismount-database -identity RDB**

1. Now that we have dismounted the recovery database **RDB,** we can see that there will be a fair share of log files in the **C:\RDB** location.
2. So Dismount the Dial tone Database **DTB** now. Note that there will be a little downtime for few minutes.
3. Now **Cut/Paste** all the log files and EDB file from the recovery database folder “**C:\RDB”** to a temporary location – lets name it **“TEMP”.** this step is down to swap the database files from RDB to DTB and vice-versa.
4. Now **Cut/Paste** all the log files and **EDB** filefrom the dial tone database folder **“C:\DTB” to the Recovery Database folder – C:\RDB.**
5. After **Cut/paste** of the files to Recovery database -**C:\RDB** location, rename the **EDB** file to “**RDB.edb**”.
6. Now **Cut/Paste** the files stored in “**Temp**” location to the Dial tone database folder – **C:\DTB**. Rename the **EDB** file to “**DTB.edb**”
7. Now we have simulated the files to be exact files of recovery, dialtone and now we need to allow file restore option for both the databases.
8. Run the following commands

**Set-MailboxDatabase -Identity RDB -AllowFileRestore $true**

**Set-MailboxDatabase -Identity DTB -AllowFileResore $true**

1. Now Mount both the databases **RDB and DTB.**
2. Upon mounting the databases, please check the OWA and outlook. You will find all the older emails. Here comes another part, you may not see the emails which are sent/received after mounting the blank database.
3. So to get back those emails which are sent/received after mounting blank database-during recovery process, we need to restore the data from the Recovery Database (**RDB**). This is why we swapped the locations earlier.
4. Run the following command to restore the data once and for all

**Get-Mailbox -Database DTB | % { New-MailboxRestoreRequest -SourceStoreMailbox $\_.ExchangeGUID -SourceDatabase RDB -TargetMailbox $\_.Alias }**

1. The above command will restore all the emails existing in the RDB database to the existing mailboxes in the Dial tone database **DTB.**
2. Now check the database status

**Get-MailboxDatabaseCopyStatus \***

1. Now the databases are in good condition, but what to do with the blank database ?
   1. So we need to dismount it and Remove it, as we have no use with it now.
2. Run the following commands to dismount and remove the Old corrupted – blank Database

**Dismount-Database DB**

**Remove-MailboxDatabase DB**

1. You might want to restart Information Store now, that’s up to you. Generally this is done in off hours.

FAQ:

**Q. So why we have swapped the RDB to Temp folder ?**

**A. We have moved the rdb files to Temp because we need to move the data from DTB folder to RDB folder and rename the edb file, so we just kept that in another folder to avoid confusion.**

**-- So we moved all logs, edb to Temp folder, and moved all the logs, edb from DTB folder to RDB folder and renamed DTB.edb to RDB.edb.**

**-- Once the above step is done, we will move the data from the Temp location to DTB folder, renamed the edb file from RDB.edb to DTB.edb.**

**-- After doing this we have the backedup data in Dialtone database and Data which is generated (mails sent and receiving during dialtone process by users) in the recovery database – RDB.**

**-- So Restoring the data which is generated during the dialtone process is fast and very easy than restoring all of the old data. Because old data might be in GB’s.**