

Binary Tree® Migrator for Notes 20.14.2

## **User Guide**



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## Legend

 **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

 **IMPORTANT, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

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# Section 1. Introduction

Binary Tree Migrator for Notes features a new name and logo but is the same trusted product previously known as CMT for Exchange (CMTe).

## 1.1 Document Conventions

Notes and Domino .nsf files were often referred to in the past as “databases.” Over time, the term changed to “applications.” In this document, Notes and Domino .nsf files are mostly referred to with the more familiar name “databases,” and at other times they are referred to as “applications.”

The Navigation Pane shows a list of “views”. Each view will automatically become populated with data as you progress through the migration steps outlined in this document. “Folders” are also shown through the Migrator for Notes application but are treated the same as views from a navigation perspective. While some folders use the same icon as a view (📁), they differ, in that, they contain information and documents that is manually placed there by you, the user.

*A pipe (|) denotes the succession of steps when navigating from one menu, icon or button to another; for example, “expand the **Preparation | Import Users** folder” means to expand the **Preparation** folder first and then expand the **Import Users** subfolder.*

## 1.2 Purpose & Audience

The purpose of this document is to provide information on how to use Migrator for Notes to perform a mail migration from HCL Domino and Notes to Microsoft Exchange and Outlook. It is assumed that the Migrator for Notes Release Notes, Requirements, and Installation and Configuration Guide documents have been read prior to using this user guide.

This document assumes the reader has a minimum of one-year experience using a Notes Client and some basic Domino Administration skills, as well as Exchange and PowerShell for mailbox provisioning. If Domino/Notes Administration topics mentioned in this document are not understood, please reference the HCL System Administration documentation that is included with the HCL Notes Administration tool or through HCL Domino/Notes online help. Similarly, details on Exchange or PowerShell topics are available in Microsoft Exchange’s documentation or on the Microsoft website.

## 1.3 About Binary Tree Migrator for Notes

Migrator for Notes is the most comprehensive software available for migrating from HCL Domino to Microsoft Exchange.

Migrator for Notes not only supports migrations to on-premises Microsoft Outlook and Exchange, but also to online versions of Microsoft Outlook and Hosted Exchange, including Office 365.

Migrator for Notes, part of Quest’s Binary Tree suite of migration solutions that includes Directory Sync Pro for Notes and Integration for Notes, offers unmatched data fidelity, migration management, and migration throughput.

### Data Fidelity

Migrator for Notes migrates HCL Notes email messages, calendar entries, contacts, to-do lists, personal journal entries (notebook entries) and more to Microsoft Outlook and Exchange while retaining the original text formatting, images, attachments, and links. Migrator for Notes also ensures that recurring meetings are properly migrated so that any subsequent changes, reschedules, or cancellations can be entered for all instances of the meeting where these are supported in Exchange. The data fidelity of Migrator for Notes significantly reduces the risk that your users will experience business process disruptions, data loss, or corruption.

**NOTE!**

Migrator for Notes will not migrate corrupt source data or data that cannot be processed by the HCL Notes Application Processing Interface (API). Source data must be in a healthy state for migration and any maintenance or remediation should be completed prior to migration using HCL Notes/Domino processes such as Fixup.

Also, fields in Notes, which do not have a corresponding field in Outlook, will not be migrated.

## Migration Management

Migrator for Notes allows you to manage the entire migration project. Migrator for Notes enables you to schedule users for migration, monitor the status of their migration, and to configure pre- and post-processing actions, such as decrypting encrypted email items, collecting rules and Access Control Lists. Migrator for Notes also enables you to control the data being migrated by enabling you to filter it by data type, date ranges and message size. Acting as a centralized migration management system, Migrator for Notes reduces the risk of forgotten tasks and provides an audit trail of tasks both completed as well as pending.

## Migration Throughput

Migrator for Notes can scale to meet the migration requirements of any organization. Under optimal conditions, a single Migrator for Notes migration workstation can migrate up to 8 GB of data per hour. For smaller organizations, one Migrator for Notes workstation may be appropriate. For larger migrations, multiple Migrator for Notes workstations, whether on virtual machines or individual workstations, will coordinate the work effortlessly. Adding additional workstations is a simple and painless process. These additional workstations use a technology called Automated Workload Distribution (AWD) to ensure that each workstation is kept busy continuously.

Multiple laboratory tests have been performed to evaluate Migrator for Notes migration throughput. We have observed migration speeds of up to 8 GB of data per hour. Migration throughput will vary widely depending upon the source system, migration environment and target system. Review the list of testing details below.

**NOTE!**

For testing the throughput of the migration system, we recommend that you migrate to .pst for a baseline of migration worker performance.

**NOTE!**

Review any data throughput or throttling restrictions on the target messaging system. These are typically applied through Exchange system throttling policies, restricting items such as burst allowances and maximum allowed usage and MAPI connections. Additional information on Exchange throttling can be requested from Microsoft support.

Migrator for Notes does allow for multiple Outlook migration accounts to be used and spread over multiple migration workers to prevent throttling on a single Outlook account from impacting all migrations. It is recommended to configure one Outlook migration account for every five migration workers if AWD is used.

## Lab Throughput Testing Details:

- Lab migrations are performed over a high-speed LAN (1000 mbps)
- Lab Domino and Exchange Servers support very few active users
- Lab Migration workstation(s) normally have 2 GB of RAM or higher (often 4 GB); although, a minimum acceptable amount of RAM as 4 GB is strongly recommended. Also, processor speeds and number of processors increase migration throughput.
- Higher migration speeds have been observed on physical workstations versus virtual ones
- Migration throughput is higher when migrating smaller number of messages with larger

attachments than larger number of messages with smaller attachments. Additionally, disk I/O speeds greatly impact the throughput when migrating messages with attachments.

- Migration throughput is lower when migrating calendar data, especially repeating calendar events. Large number of reschedules of repeating calendar events dramatically decreases migration throughput as all meeting updates must be processed prior to the data being migrated.
- Large number of entries in the name translation table used to resolve source recipient lists decreases migration throughput
- Large numbers of personal contact distribution lists, and especially distribution lists with many members, dramatically decreases migration throughput. Lab migration performance does not necessarily provide accurate estimates for production migration performance. The only way of determining the throughput you may achieve in your own environment is to set up and run a proof-of-concept project.



Lab testing of migrations to Exchange 2019 have shown lower throughput than Exchange 2013 and 2016. Throughput for 2019 has closer to Office 365 throughput processing and it is recommended to validate migrations to Exchange 2019 for planning purposes.

## Key Features and Functions

### Migrated Data

- Mail Messages
- Subject, Date, Body, Recipients
- Mail Archives (server & local)
- Mail-in Databases
- Follow-up Flags
- File Attachments
- Doc Links, View Links and Database Links
- Folders and Nested Folders
- Calendar Entries
- Personal Contacts
- Personal Distribution Lists
- Private Distribution Lists
- To-do Lists
- Personal Journal Data (also known as Notebooks)



Calendar notices (acceptances / declines / updates / cancellations) that do not have a main meeting to be applied to (orphaned calendar documents) will not be migrated.



End Users should be advised to process calendar items in Notes prior to migration. Unexpected results may occur in Outlook/OWA if an unprocessed meeting notice is migrated.



Domino Message Headers are not included in the data migration.

## Data Fidelity

- Names Resolution
- Name Translation
- All Messages Reply-able in Outlook
- Migrates Embedded Images
- Migrates Encrypted Emails (after decrypting them or migrating the encrypted content attached in an .nsf)
- Migrates Attachments
- Retains Formatting of Tables
- Retains Original HTML Formatting

## Calendar Fidelity

- Migrates Single and Recurring Meetings
- Migrates Custom and Complex Recurring Meetings
- Migrates all Past and Present Calendar Entries
- Migrates all Rescheduled Calendar Entries

## Data Filtering Options

- Filter by Document Type (Mail, Contact, Calendar, Task)
- Filter by Absolute/Relative Dates or Ranges
- Select to Skip a List of Folders (excluding system folders)
- Select to Skip Notes Links
- Filter by Data Quota Limits

## Migration Management

- Advanced User Management
- Selective User Migration
- Migration-related Communications
- Scheduled Migrations
- Email Archive Migration Options
- Migration Destination Options
- Room and Resource Migration Options
- Mail File Access and Size Verification
- Migration Pre-processing
- Migration Post-Processing
- Automated or Manual User Provisioning
- Detailed Activity Logging

## Migration Throughput

- Built-in Automated Workload Distribution (AWD) Functionality
- Up to 8 GB/hour Migration Throughput per Migration Workstation (actual throughput may vary depending on the environment).

**NOTE !**

Throughput speed may be reduced if your litigation hold and retention policies are enabled during mailbox migration. It is not recommended to enable litigation hold and retention policies until after a mailbox migration has completed.

## 1.4 Product Overview

Migrator for Notes is a Notes application that migrates HCL Domino/Notes items (e.g. emails and contacts) and other Notes applications (e.g. Rooms & Resources) to Microsoft Exchange. There are two major activities involved in a migration:

- Pre-migration activities
- Data conversion and transfer to Exchange or .pst

### NOTE!

The data migration does not remove Notes source data and this remains available for reference in Notes post migration.

The Migrator for Notes application contains all the required tools to give you complete control of these two activities.

**BINARY TREE MIGRATOR FOR NOTES**

Progress Summary

Sign This Database | View License Agreement | Enter License Key | View License History

**Progress Summary**

Migration Details	User Migration	Mail In Databases	Rooms & Resources	Discussion & Doc Databases
Status Not Set:	0	0	0	0
Ready for Migration:	0	0	0	0
Pending:	0	0	0	0
In Progress:	0	0	0	0
Migration Canceled:	0	0	0	0
Migrated Failed:	0	0	0	0
Migrated Successfully:	0	0	0	0
Other:	0	0	0	0

Last Updated: Tuesday, January 11, 2022 10:22 AM

Recalculate | Export to Excel

**Migrator for Notes: Getting Started**

Migrator for Notes was designed to assist you with user management and migration preprocessing when migrating from Lotus Notes to Microsoft Outlook & Exchange. We suggest that you run a test migration by migrating a small amount of Lotus Notes mail files to Microsoft Outlook .PST files.

After you have successfully completed your first test migration, please refer to the Help documentation to learn how to use additional features that Migrator for Notes offers.

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Migrator for Notes  
Licenses remaining: 999999

### Pre-Migration

The Migrator for Notes application provides centralized control and management of all pre-migration activities.

Pre-migration activities include:

- Auditing source data
- Sending notification emails
- Uploading local contacts
- Validating the accounts to be migrated in the Exchange system
- Provisioning mailboxes
- Switching email routing to Exchange
- Replicating data to staging servers (if that option is selected)
- Updating Unread marks in replicas (if that option is selected)
- Verifying Notes Folders

- Verifying Notes personal contacts
- Updating the Notes Integration calendar cache (if Integration is used)

## Migration

Once pre-migration activities are complete, migration can be queued for the selected Notes applications from Migrator for Notes. The migration destination can be either a Mailbox or Archive Mailbox on an Exchange Server or .pst files.

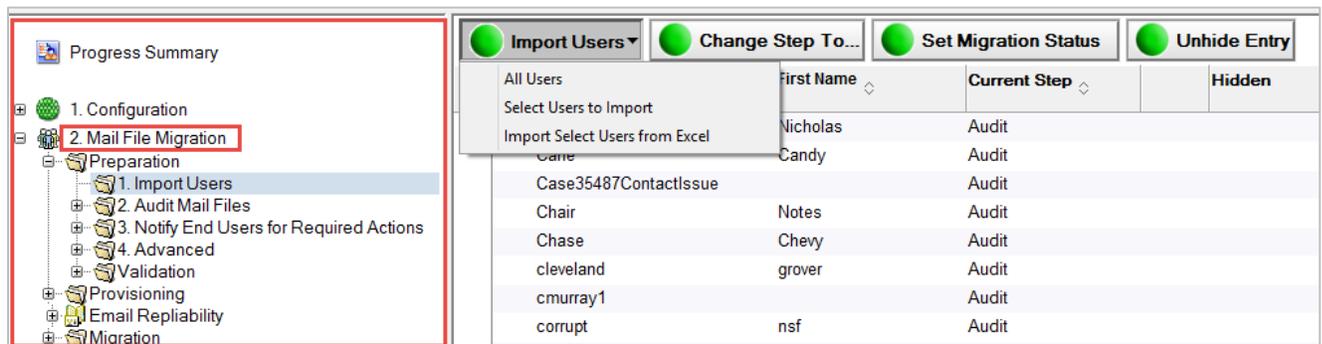
## Section 2. Pre-migration Activities

Migrator for Notes provides various tools to prepare and manage the following types of source applications before they are ready for migration:

- Mail Files
- Rooms and Resources
- Mail-in Databases

Control documents for selected databases must be imported into the Migrator for Notes Domino application before migrations can proceed. Depending upon the type of item, there may be several additional steps to perform and depending on the kind of actions to be performed, toolbars consisting of tools specific for each database type are provided.

All the tools required to prepare and manage Person (user) data are provided under the **Mail File Migration** view in the Navigation Pane:



	First Name	Current Step	Hidden
All Users			
Select Users to Import			
Import Select Users from Excel	Nicholas	Audit	
Case	Candy	Audit	
Case35487ContactIssue		Audit	
Chair	Notes	Audit	
Chase	Chevy	Audit	
cleveland	grover	Audit	
cmurray1		Audit	
corrupt	nsf	Audit	

*Navigation Pane View*

**NOTE!** The Import tool must be run in order to create a Person document for all items to be migrated. Depending upon the type of item, the Preparation process will provide additional tools. For example, Mail File Migration supports email communication with end users. Therefore, this Preparation process contains tools to manage all the associated email communication tasks.

Separate navigation menus in the Navigation Pane control migration for Mail-In Databases and Rooms & Resources.

### 2.1 Importing Users

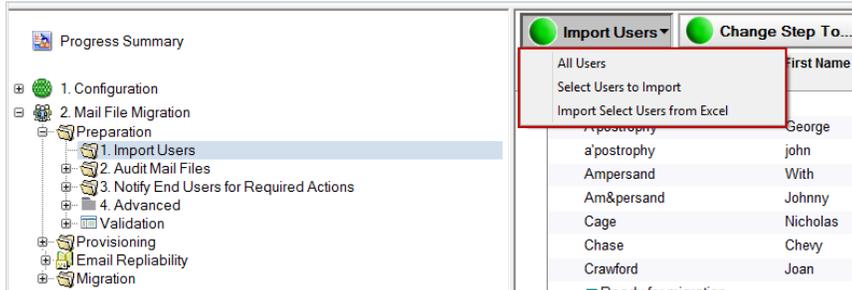
The first step to prepare for the migration of user mail files is to create a list of the users to be migrated.

**NOTE!** The tabs listed below provide information used by the tools in this procedure. Before proceeding, be sure that the values in the following fields are configured correctly in **Configuration | Settings**:

- **Domino** tab | **Mail Server and Domino Directory**
- **Required Settings** tab | **Additional** tab | **User Import View** and **Mail-In Database Import View**

To begin importing users:

1. In the **Import Users** view, click the **Import Users** button; the Import Users drop-down menu displays:



*Import Users View*

2. Select one of the following options from the drop-down menu.

Option	Description
All Users	Select all users from the Domino directory to import
Select Users to Import	Select specific users from the Domino directory to import
Import Select Users from Excel	Select an Excel file of users to import

### 2.1.1 All Users

1. Click **All Users** from the drop-down menu
2. A message box appears indicating the number of users selected from the Domino directory for import; click **Yes**.
3. Depending on the number of entries being processed, this could take from a few seconds to several minutes. When complete, a status message is displayed. The message confirms that all users have been imported and moved to the next step of migration (Audit Mail Files); click **OK**.

A Person document for each user has been created and saved in the Migrator for Notes database. The list of imported users displays in the Data Pane (see *Data Pane* screenshot below). A **Control document** for each user will be created in the SQL database once the Migrator for Notes migration engine queues up a user for migration:

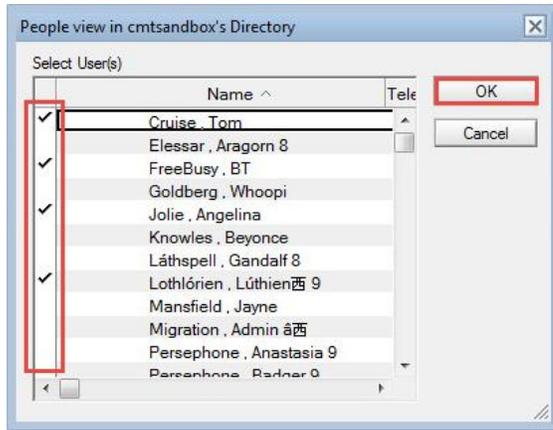
The screenshot displays a software interface with a left-hand navigation pane and a right-hand data pane. The navigation pane shows a tree structure under 'Progress Summary' with categories like '1. Configuration' and '2. Mail File Migration'. The '1. Import Users' sub-item is selected. The data pane features a table with the following columns: Last Name, First Name, Current Step, Hidden, and Internet Address. Above the table are four buttons: 'Import Users', 'Change Step To...', 'Set Migration Status', and 'Unhide Entry'. The table content is as follows:

Last Name	First Name	Current Step	Hidden	Internet Address
▼ No Migration Group Set			5	
	Nicholas	Match		Nicholas @
▼ Migrated Successfully			2	
▼ Ready for migration			1	
			5	

Data Pane

### 2.1.2 Select Users to Import

1. Click **Select Users to Import** from the drop-down menu; the dialog box displays the People view of the Domino Directory
2. Click in the white column next to each user that you'd like to select and then click **OK**:



*People View Dialog Box*

3. A message box appears indicating the number of users selected from the Domino Directory for import; click **OK**
4. Depending on the number of entries being processed, this could take from a few seconds to several minutes. When complete, a status message is displayed. The message confirms that selected users have been imported and moved to the next step of migration (Audit); click **OK**
5. The list of selected imported users displays in the Data Pane. A **Control document** for each user will be created in the SQL database when Migrator for Notes migration engine queues up the users for migration.

### 2.1.3 Import Select Users from Excel

Migrator for Notes offers two options for importing user information from Excel. The most commonly used method is **Import Select Users from Excel**, which will import new users and mail-in databases (users and MIDs that don't already exist in the application) into the application.



Mail-in databases in Domino do not have a ShortName value by default so a Column header should be added to the Excel spreadsheet to include ShortName with a unique value for each mail-in database entry.



Rooms and Resources require additional import processing and cannot be imported via Excel.

A second advanced option is available, import field values from Excel, that modifies field data for users already existing in the application. This method is detailed in [Appendix C: Work with Files \(Import/Export\)](#).

1. Click **Import Select Users from Excel** from the drop-down menu; the document selection dialog box appears
2. Select the Excel file (.xls or .xlsx) and then click **Open**; Note that Excel must be installed and properly registered with the operating system:
  - The first row of the Excel spreadsheet must include the field names used during the

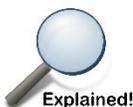
import. The key values 'ShortName' and 'InternetAddress' will automatically open the correct corresponding lookup views in Migrator for Notes.

- Field names should match Migrator for Notes field names to be visible in the Migrator for Notes interface. All fields will be imported from the Excel headers and the Domino Directory even if the field does not exist on the Migrator for Notes document.

An example Excel spreadsheet with 'InternetAddress' as the key column is below:

	A	B	C	D
1	InternetAddress	MigrationGroup	MigrationDate	VIP
2	john.smith@btexchange.com	Group1	1/12/15	No
3				
4				

3. If multiple Domino directories are configured in Migrator for Notes, you are prompted to select the Domino directory to use during the import
4. If multiple Excel sheets are present, you are prompted to select which sheet to use
5. You are prompted to choose a key column from the Excel file that will be used during the import process to locate the entries in the Domino Directory
  - If the selected key column is either 'ShortName' or 'InternetAddress', the import will use the appropriate view
  - If the key column is another value, you are prompted with the lookup view to be used in Migrator for Notes. The key value must match the header of the first sorted column in the view for the Migrator for Notes document to be found.
6. The Notes agent will search for a matching document in the Migrator for Notes lookup view. If a document cannot be located, the Domino directory will be searched, and the user record imported.



Notes uses both "scripts" and "agents" as does the Migrator for Notes application, but for ease reference we're using the term "*agent*". This refers to a macro or piece of code that runs in the background of HCL Notes to "help perform repetitive tasks, such as managing documents and sending memos."

Refer to [HCL Support](#) for more information.

- If a user document does not exist in the Migrator for Notes application and a match is found in the Domino directory, all fields on the user document will be imported, and the following fields will be set:
  - BTNextStep = "Stage" (e.g. Audit, Notify, Match, Migrate)
  - ADStatus = "Unmatched"
  - MailFileName = MailFile value from the directory document
  - PNAB\_NOTEID = noteID value from the directory document.

- If a user document exists in Migrator for Notes, the document will be updated under the following conditions:
  - If the Migrator for Notes document's migrationStatus is "Migration completed successfully", the document in Migrator for Notes will not be modified, and results will be reported to the file.
  - If the Migrator for Notes documents migrationStatus is "MIGRATION PENDING", "MIGRATED WITH ERRORS", "ROLLBACK REQUESTED", "ROLL FORWARD REQUESTED", "MIGRATION FAILED" the Migrator for Notes document will not be modified, and the current migration status will be reported to the output file.
  - If the Migrator for Notes documents migrationStatus is "Ready to migrate" or not set, the following fields will be set:
    - ImportFileName = file name of the Excel spreadsheet used during the import
    - LastImportRun = time the agent was run
    - Values for all fields in the excel file will be copied to the Migrator for Notes person document; if a field exists on the CMT document (copied from the domino directory document when created above) that corresponds to an existing field name, that field will be overwritten and the value from the excel spreadsheet will be set

#### 2.1.4 Person Document

Whenever a user is imported, a new Person document is created in the Migrator for Notes application. These documents are populated with a variety of information which is used during user mail migration. These documents are also updated with status information after each migration task is completed (including links to cumulative and individual migration logs); therefore, they are an important control point for user mail migration. Double-click a user in the Data Pane to open the user's Person document.

Exchange Mailbox Migration

**Kate**  
Kate

Migration Status: **Migrated Successfully**  
 Migration Group:  
 Migration Date:  
 VIP: **No**

General User Information | Delegation Information

General User Information

First Name:

Last Name:

Middle Initial:

Internet Address:  @  .com

Target Mailbox Address:

CMT Key:

Notes Information | Additional Databases | All NAB Fields | Exchange Information

Notes Information

Notes Full Name:   
Kate

Notes Short Name:

Notes Mail Server:

Notes Mail File Name:  .nsf [Open](#)

Notes Database Statistics

Mail File Size:  (k)

Notes Mail Template:

Number of Contacts:

Number of Journal Entries:

Number of Encrypted Items:

Number of Rules:

Calendar entries requiring remediation:

Calendar audit Log:

Calendar audit RTF report:

Calendar audit notification:

Calendar audit CC list:

Calendar Delegation Audit: Total Delegated:  Was delegated:  Delegator:  Deegatee:

Calendar Audit Unsupported:  (See below for details)

Workflow last processed on:

Workflow domain:

Workflow Errors:

Migration Log

Most recent migration: **Status:**  
4 warnings and 0 errors

Cumulative Log:

Date	Warnings	Errors	MB	Throughput	Workstation	Migration Status
10/08 10:36 AM	4	0	0	-		Migrated Successful

Individual logs:

Person Document Sample

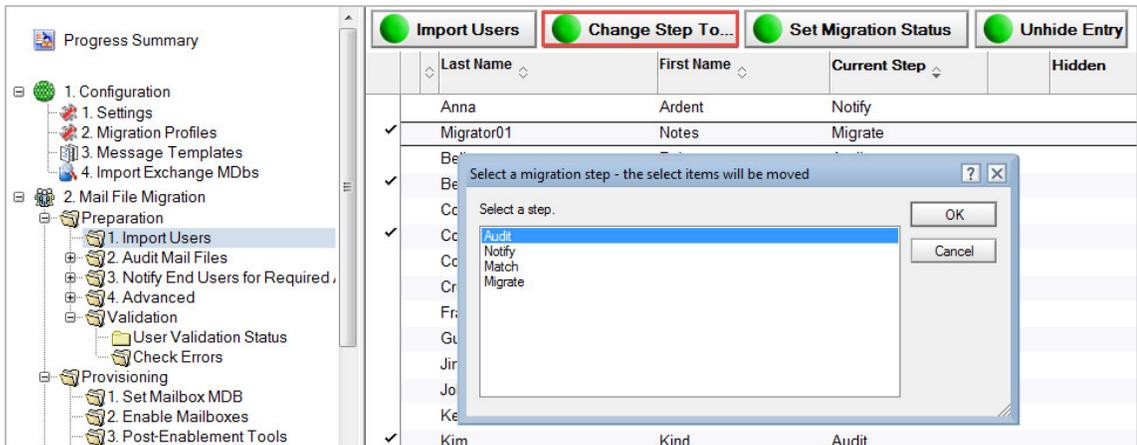
## 2.1.5 Change Step To

The **Change Step To** button allows you to move a user back or forward to a step where you can audit, notify, match, or migrate the user.

**NOTE !**

If the Change Step To button does not appear right away, you can always find it on the Import Users tab (see the Change Step To... Window screenshot below).

1. Select users (a checkmark appears next to selected users), and then click the **Change Step To** button; a dialog box appears:



*Change Step To... Window*

2. Click **Audit**, **Notify**, **Match** or **Migrate** and then click **OK**. The selected users are moved to the selected step; for example, if you select **Audit**, the selected users are moved to the **Audit Mail File Data** folder. Similarly, if you select **Notify** or **Match**, the selected users can be moved back and forth between steps to run the tools again.
3. You can select the **Migrate** option if you are ready to move those users to the final step of migration

The **Set Migration Status** button is explained in [Section 8: Setting Migration Status](#).



When the **Unhide Entry** button is clicked, users that are selected in the Import Users view will be revealed in the Migrate view. A user will be hidden in the Migrate view when the **Mark Complete** button is clicked. To reveal this user again in the Migrate view, navigate to the Import Users view, search in the Data Pane and select the user, then click **Unhide Entry**.



## 2.2 Auditing Mail Files

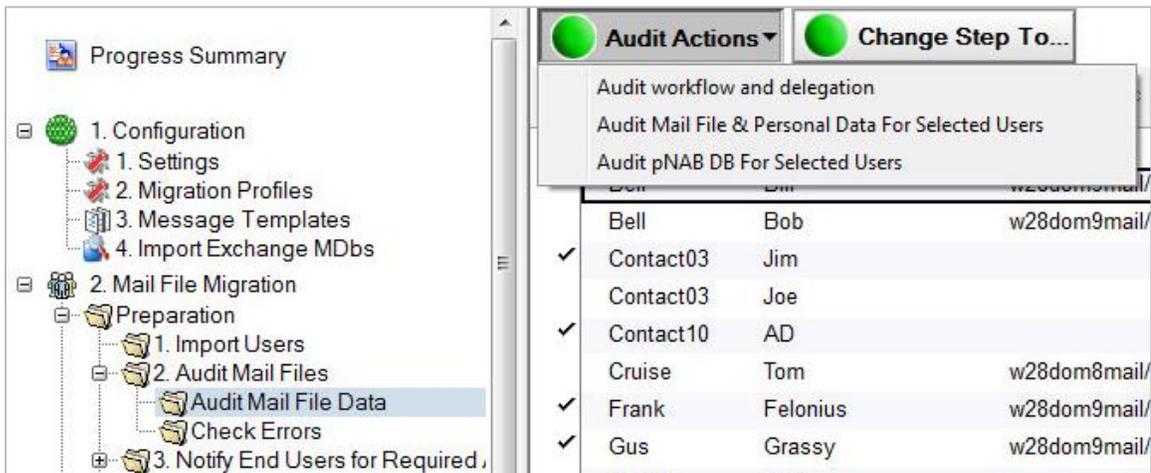
Next, you need to audit imported users' mail files using the **Audit Mail Files** agents. This tool will check the following (depending upon selections made in the Installation and Configuration for the Required Settings) against each mail file:

- Mail file exists
- Migration Notes ID has sufficient access (see the Migrator for Notes Requirements document for more information about required access).
- Mail file size

- Number of Contacts
- Number of Encrypted Items
- Number of Rules
- Number of Journal entries (Notebook Entries)

To audit mail files:

1. In the Navigation Pane, expand **2. Mail File Migration** and then expand the **Audit Mail Files | Audit Mail File Data** view
2. Select the user Person Documents in the Data Pane; you can either audit a select number of users or all the users at once
3. Click the **Audit Actions** button in the Data Pane; the Audit Actions drop-down menu displays:



*Audit Actions Drop-down Menu*

- Select one of the following options from the drop-down menu:

Option	Description
Audit workflow and delegation	<p>Determines the number of calendar entries affected by delegation for each user and will check for custom repeating meetings. This will provide a report for meetings with repeating patterns that are not supported by Notes Integration (MTCW).</p> <p>Delegation in Notes and Forwarding in Outlook are similar methods of enabling an invitee to share a meeting with someone else; however, these two processes are very different from a system perspective. Migrator for Notes makes every effort to fully support the calendar workflow (see the Known Limitations.pdf for details on unsupported patterns), but some customers may wish to identify users heavily affected by delegated meetings prior to migration.</p> <p>If the Settings option to Audit calendar unsupported patterns is enabled this will also collect a list of any current and future meetings that Outlook cannot fully support. Custom repeating meeting patterns in Notes are migrated to Outlook but are not fully supported for changes in Outlook.</p>
Audit Mail File & Personal Data For Selected Users	<p>Determines each user's mail file size (includes count of contacts and journal entries (notebook entries))</p> <p>This option will also query the options that you selected in the Required Settings &gt; Domino tab.</p>
Audit pNAB DB For Selected Users	<p>Determines if users' pNAB database is accessible and the number of contacts</p> <p>This agent audits the server-based pNAB for selected users if one is defined in their Person document. This menu option is not used for migration. Irrespective of whether the migration mail agent is used to prompt the user to synchronize their own contacts or the administrator syncs their contacts for them, it is imperative that contacts must be synced into the users' mail files to migrate contacts.</p> <p>The purpose of the server-based pNAB field is so that the migration coordinator can perform the synchronization on behalf of the user by clicking <b>Actions &gt; Other</b> to access the <b>Synchronize Address Book</b> agent.</p> <p><b>Note:</b> If pNAB database information is not populated in the users' Person documents in Migrator for Notes, then you need to either send users a message to sync the pNAB to the mail file or specify pNAB details to be sure that Migrator for Notes is pointing to the server where pNAB is stored.</p>

### 2.2.1 Audit workflow and delegation

- Click the **Audit workflow and delegation** menu option

2. Totals will appear in the following columns:

- Unsupported workflow - unsupported calendar recurrence patterns
- Was Delegated - another Domino user delegated attendance
- Delegator – the Chair delegated the meeting
- Delegatee – the user was delegated to attend the meeting on someone’s behalf



Totals will show in these columns only if data is populated in the corresponding fields of the Person Document.

3. The Calendar MTCW Audit Report will be populated with any meetings that the user is a Chair for, are in the Notes Integration cache range (typically 90 days from current date) and have a repeating meeting pattern that would not be supported for Outlook to Notes coexistence. This will include any meeting in the cache range including cancelled meetings.



This is an administrator-only audit for informational purposes to assist with Integration troubleshooting. This can be disregarded if Integration has not been deployed.

4. If the Settings to Audit calendar unsupported patterns is enabled then the Calendar audit RTF report will be populated with any meetings that have a Notes custom pattern. This will be for meetings where the user is the Chair but can also include meetings where the user an Invitee if that option is enabled. This will not include meetings that have been cancelled. The audit can be sent to the end user through the Remediation Summary message template.



The Remediation Summary message will not be sent if the audit does not locate any active meetings with Notes custom patterns.

### 2.2.2 Audit Mail File & Personal Data for Selected Users

1. Click the **Audit Mail File & Personal Data for Selected Users** menu option; a message box appears indicating the number of selected users to audit
2. Click **Yes**
3. Depending upon the number of selected users, this process could take from a few seconds to several minutes. Upon completion, a message box confirms that auditing of the mail database is complete, and all users have been promoted to the next step of migration; click **OK**. If no errors are found, skip to step 4.

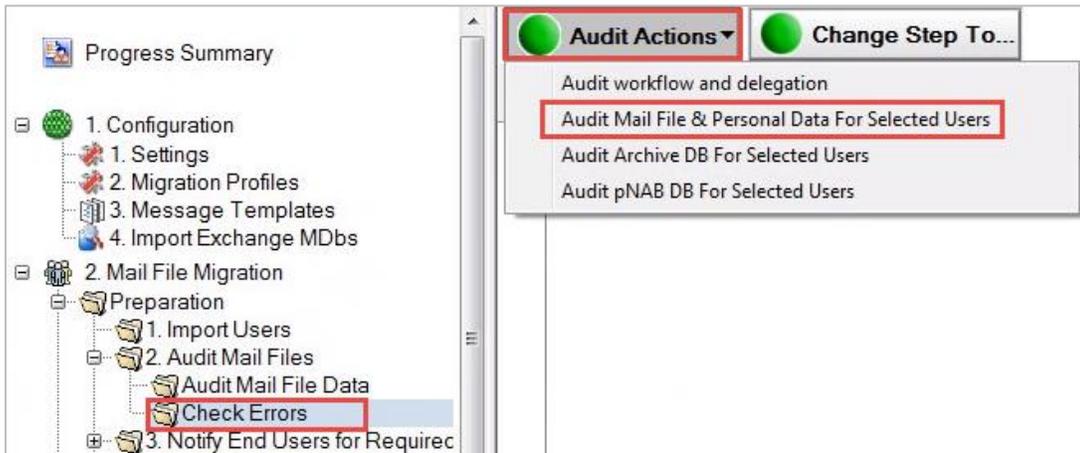
All errors must be fixed and then the **Audit Mail File & Personal Data for Selected Users** tool must be re-run without errors prior to the mail file migration. See [Appendix B: Pre-Migration Troubleshooting](#) for common audit errors and troubleshooting steps.



If problems occur during the audit process, the Person Document will be moved to the **Check Errors** folder in the Navigation Pane. The **Check Errors** folder will show any errors found during the audit process.

If you cannot resolve the errors or need assistance determining why an error occurred, check the Knowledge Base under Support on the product web site or contact Product Support.

- After the error is resolved, to re-audit the user, select the user in the **Check Errors** view and, from the Data Pane, click the **Audit Actions | Audit Mail File & Personal Data For Selected Users** button in the Data Pane:



*Check Errors View*

- Successfully audited users are promoted to the next step of migration (Notify)
- To view the result of the audit, you can go to the **Mail File Migration | Advanced** document view in the Navigation Pane

Notice that the tool has audited users' mail file size and listed the number of encrypted items, rules, contacts and journal entries (notebook entries) that each user's mail file contains. In addition, the Data Pane also lists the people, journal (notebook) and rule count in all of the user mail files.

### 2.2.3 Moving the Selected Users Back to Audit Mail File Data

As soon as an audit is run, the successfully audited users are moved to the Notify step; however, you may wish to run the remaining Audit options on the users. To perform more audits, move them back to the Audit step.

### 2.2.4 Audit pNAB DB for Selected Users

#### Local Contact Data

Users' contact data needs to be in the \$PeopleGroupsFlat view in their mail file to be migrated. The local contact data needs to be synchronized through Notes replication on the end users' workstation. This can be enabled through Domino/Notes policies, but if that has not been configured you will need to send each user an email message containing a special button. When clicked, the user's contact and personal distribution list data found in their local names.nsf will be synchronized with their mail file. This data is then stored in a hidden view called \$PeopleGroupsFlat in their mail files. If the view doesn't exist, it will be created when the user clicks the embedded button in the migration message.

#### Server-based Contact Data

If a user's contact data is stored on the Domino server, then you can edit the user's Person document to point to the location and the name of the Personal Name and Address Book (pNAB). For example, if user Susan Johnson has pNAB on the Acme\_mail Domino server in the Contacts folder, then his/her Person document must be edited and saved to update this information.

**NOTE!**

This action is only required if the end user contact data is not being synchronized by Notes directly into their email file using Notes Replication and Sync processing.

1. Open a user's Person document in the Data Pane
2. Open the **Additional Databases** tab and either click the **Edit Document** button or double-click inside the document
3. Edit the **PNAB Server** and **PNAB File Name** fields; specify the Domino server name and the full path to user's server-based personal name and address book (pNAB)
4. Click the **Open** link to verify whether the database can access the specified location and open the pNAB
5. Click **Save & Close**:

The screenshot shows a 'Person Document' form with the following fields and tabs:

- General User Information** (blue header):
  - First Name: ? Kate
  - Last Name: ? [Redacted]
  - Middle Initial: ?
  - Internet Address: ? K [Redacted]
  - Target Mailbox Address: ?
  - CMT Key: ? K [Redacted]
- Notes Information** | **Additional Databases** (highlighted) | All NAB Fields | Exchange Information
- Personal Address Book Location\*\*** (blue header):
  - PNAB Server: ?
  - PNAB File Name: ? [Open](#)

*Person Document*

6. With the user selected in the Data Pane, click the **Actions | Other** menu option
7. Select **Synchronize Address Book** from the list of agents in the **Run Agent** dialog box, and then click **OK**
8. Once the Person document is edited and saved, and the contact data synchronized, select the user (Susan Johnson using the example above), and then select **Audit Actions | Audit pNAB DB For Selected Users..** The server-based pNAB is validated and its size is audited and moved to the next step.



## 2.3 Sending End User Notifications

During the migration lifecycle, notices can be sent through the Migrator for Notes application to the end user community. These may be for relaying important information, delivering end user driven action buttons or both. See the Migrator for Notes Installation and Configuration Guide for information on how to configure and customize message templates.

**NOTE!** The message templates and any buttons must be signed (edited and saved) individually by a Domino Administration account to prevent end users from receiving a Notes ECL notification.

### Send End User Notifications

Once you have determined your communications strategy and updated/created the message templates, you are ready to send them according to your communications plan and any end user processing updates required. You can send pre-migration as well as post-migration messages to end users. Pre-migration messages typically prompt users to click the embedded action button in the message to perform an action, such as decrypt the encrypted messages in users' mail files or copy/replicate users' local archive database to the mail server. After the end user has performed the required action, a status message is returned to the Migrator for Notes application using standard Notes Mail.

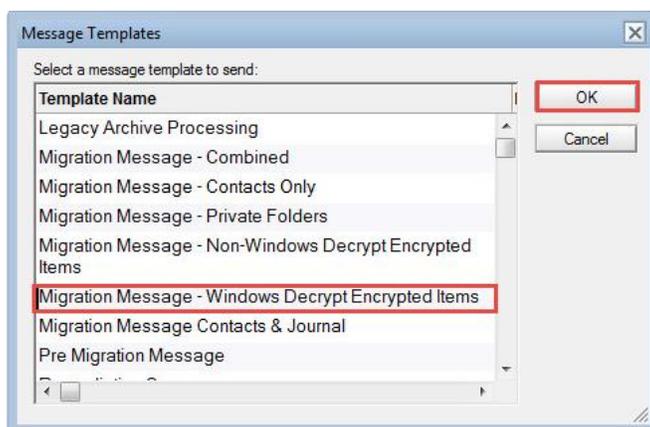
**NOTE!** The Migrator for Notes database must be configured as a Mail-In Database. Refer to the Installation and Configuration Guide for more information.

To send a notification:

1. Expand **Notify End Users for Required Actions** in the Navigation Pane
2. Click **Send End User Notifications**; depending on the setting configured in the Required Settings tab, you can either send one notification per user that will contain the selected actions/forms that you want to send to the user or send one notification per action/form per user

#### 2.3.1 Send Notifications

1. Select all the Person documents in the Data Pane to whom you want to send the notification
2. Click the **Send Users Notifications** button in the Data Pane
3. In the Message Templates dialog box, a list of available predefined templates is displayed; if you have created pre-migration custom templates, these will also be listed; select the template you wish to send and click **OK**; for example, select the **Migration Message – Windows Decrypt Encrypted Items** message template, and click **OK**:



### Message Templates Dialog Box

4. The progression message box displays; after a few seconds of processing, another message box displays confirming that notifications have been sent to selected users (see screenshot below); click **OK**
5. After you have sent the first notification to the users, the users remain in the Notify step (under the **Pending Responses** view). The users remain in this step so that you can continue sending the rest of the notifications

### 2.3.2 Pending Responses

Notifications where users are required to click an embedded button in the email are processed differently. The **Migration Message – Windows Decrypt Encrypted Items** email template, for example, contains buttons that can be clicked by the user to perform many functions. If users don't click the buttons, their response is considered pending and is listed in the **Pending Responses** view.



To demonstrate this, if user John Smith has not performed the required action, the Data Pane will show that two notifications have been sent, one requires user action, and no response has been received.

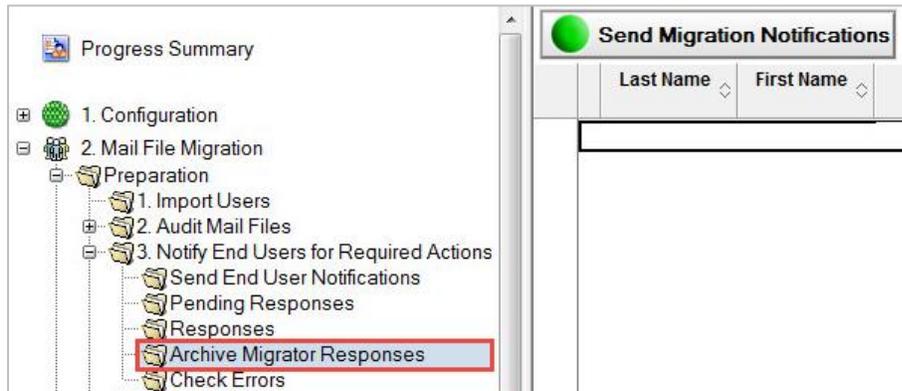
In a situation like this, you may want to send another notification prompting users to respond to migration notifications.

Responses can also be seen in the Responses view; click **Responses** in the Navigation Pane:

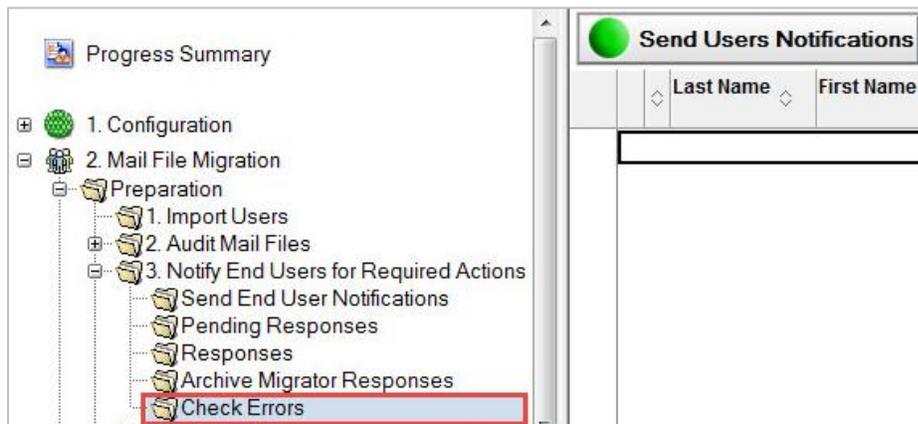
Last Name	First Name	Action Required Notices Sent	Responses Received	Informational Notices Sent
			0	

### Responses View

Responses to the Archive Migrator Opt Out option can be seen by clicking **Archive Migrator Responses** in the Navigation Pane:



Finally, you need to check for notification transmission errors; click **Check Errors**:



If the user's mail files do not move out of the Notify view, then you need to move them to the Match view using the **Change Step To** button. Do this when you have ensured that all the notifications have been sent, all the pending responses have been responded to, and there are no unresolved errors.

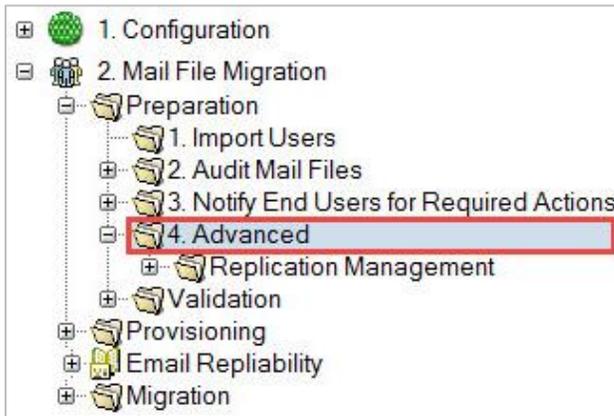


If you cannot resolve the errors or need assistance determining why an error occurred, check the Knowledge Base under Support on the product web site or contact Product Support.

## 2.4 Setting Advanced Options

The Advanced view provides some additional tools, such as setting migration status, sending, or inserting migration messages, which prepare and manage your data for migration.

1. Click **Advanced** in the Navigation Pane

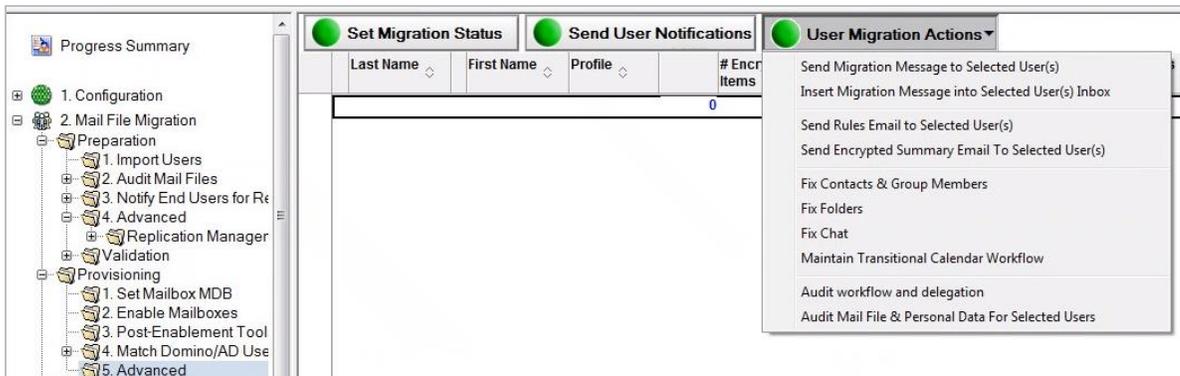


Advanced View

### 2.4.1 User Migration Actions

To select user migration actions:

1. Select users and click the **User Migration Actions** button
2. The User Migration Actions drop-down menu displays:



Advanced View

The following table describes the function of each menu option:

Option	Description
Send Migration Message to Selected User(s)	Allows you to send an email notification using predefined or customized message templates to selected users.
Insert Migration Message into Selected User(s) Inbox	Allows you to simply insert a migration message into a user's inbox. The Insert Migration Message option is used when mail cannot be delivered to the user's Notes inbox. This option is also used if the user has already been migrated and their mail is now being delivered to Outlook, but post-migration, they need to sync contacts or to copy archives that were missed before the migration. In these cases, messages are delivered to Outlook rather than Notes, but don't work. Running this agent drops the selected migration messages directly into the Notes inbox (or Notes archive inbox) for the mail file specified on the selected document, rather than mailing it.

Send Rules Email to Selected User(s)	Allows you to send Rules Email to Selected Users.
Send Encrypted Summary Email to Selected User(s)	Allows you to send a summary of all the encrypted items in an email to selected users.
Fix Contacts & Group Members	<p data-bbox="716 317 1442 562">Allows you to look for personal contacts whose mail address format is NOT SMTP (usually accounts imported from the Domino Directory). It will search the Migrator for Notes Email Repliability for a matching Person document, and if found, replace the mail address with the internet address from Domino. Likewise, it will convert personal group members from Notes Name format to SMTP for members that can be matched in the Email Repliability.</p> <p data-bbox="716 594 1425 653">The Migrator for Notes Email Repliability should be imported (and updated) prior to running the Fix Contacts processing.</p> <p data-bbox="716 684 1435 804">Double-byte characters of Display Names are not processed correctly when converting to the Notes Canonical Name if Fix Contacts &amp; Groups Members has not been run prior to migration.</p> <p data-bbox="716 835 1442 926">This action will modify the source mail file data so a backup of the users' email files should be verified prior to processing these updates.</p> <p data-bbox="716 957 1430 1108">Additionally, this action can be processed in advance of user accounts being set for migration under the Migration   1.Set Migration Profile step but end users are likely to make changes while still using Notes so these actions should be performed immediately prior to migration.</p> <p data-bbox="716 1140 1442 1230">Processing performed by the action will be logged in a text file on the Migration Controller Server in a sub folder of the Log Folder specified on the Settings   User Provisioning tab.</p>
Fix Folders	<p data-bbox="716 1247 1442 1367">Allows you to fix folders appending a "-Migrated" to the end of any non-system created folder that has a reserved system name (ex: Inbox, Drafts, etc). While HCL Lotus Notes will allow these folders to be created, Exchange will not.</p> <p data-bbox="716 1398 1442 1488">This action will modify the source mail file data so a backup of the users' email files should be verified prior to processing these updates.</p> <p data-bbox="716 1520 1430 1671">Additionally, this action can be processed in advance of user accounts being set for migration under the Migration   1.Set Migration Profile step but end users are likely to make changes while still using Notes so these actions should be performed immediately prior to migration.</p> <p data-bbox="716 1703 1442 1793">Processing performed by the action will be logged in a text file on the Migration Controller Server in a sub folder of the Log Folder specified on the Settings   User Provisioning tab.</p>
Fix Chat	Allows you to fix HTML formatting in Sametime Chat transcripts stored in the user's mail file. This will perform a

---

search of the mail file for Sametime Chat documents and will then edit and save the document in the Notes user interface.

Note: This does not need to be run if the user does not save Sametime Chat transcripts, the Settings are configured for Rich Text, or if the chat documents are migrating with correct HTML formatting.

---

Maintain Transitional Calendar Workflow	Allows you to populate BTCache.nsf recurrence pattern information for repeat meetings to ensure that calendar workflow functions as intended regardless of the migration status of the chairperson and invitees. This assumes that Notes Integration is fully configured. When this option is run, the number of errors, start and completion status, and messages that could not be found in the destination database are listed in the MTCW Error Report section of the person document.
---	--

---

Audit workflow and delegation	<i>Refer to Auditing Mail Files section</i>
-------------------------------	---

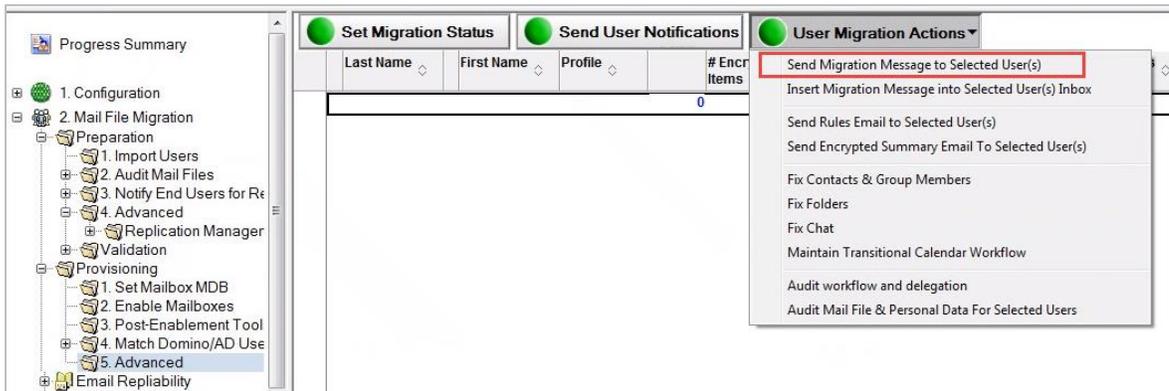
---

Audit Mail File & Personal Data for Selected Users	<i>Refer to Auditing Mail Files section</i>
--	---

---

To send a migration message to selected users:

1. Select users and then select **User Migration Actions | Send Migration Message to Selected User(s)**:

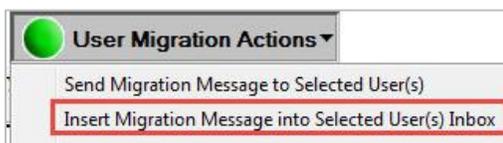


2. The **Message Templates** dialog box displays; select a message template and then click **OK**:



To insert a migration message into selected users' inbox:

1. Select users and then select **User Migration Actions | Insert Migration Message into Selected User(s) Inbox**:



2. The **Message Templates** dialog box displays; select a message template and then click **OK**

To send a rules email to the selected users:

1. Select user(s), and then select **User Migration Actions | Send Rules Email to Selected User(s)**:



For this option to work, you should enable the **Audit Domino Mail Rules** field in the **Domino Settings** document. Then, when you run the audit, the number of mail rules will be listed in each user's Person document. They can then be sent to the end users to recreate their mail rules using Outlook formats post migration.



*Settings | Required Settings tab | Domino tab*

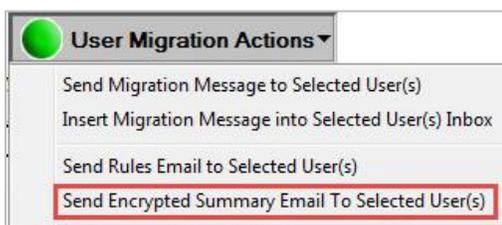
Notes Database Statistics	
Mail File Size:	18,612 (k)
Notes Mail Template:	dwa7
Number of Contacts:	0
Number of Journal Entries:	0
Number of Encrypted Items:	0
Number of Rules:	2

*Person Document*

2. A message box appears and confirms that mail rules have been sent to the selected number of users; click **OK** to continue

To send an encrypted email summary to the selected users:

1. Select user(s), and then select **User Migration Actions | Send Encrypted Email Summary to Selected User(s)**:



For this option to work, you should enable the **Audit Domino Encrypted Items** field in the **Domino Settings**; then, when you run the audit, the number of encrypted items will be listed in each user's Person document:



Settings | Required Settings tab | Domino tab

2. A message box appears and confirms that an encrypted item has been sent to the selected number of users; click **OK** to continue

## 2.4.2 Replication Management

Advanced also includes the ability to manage mail file replicas.

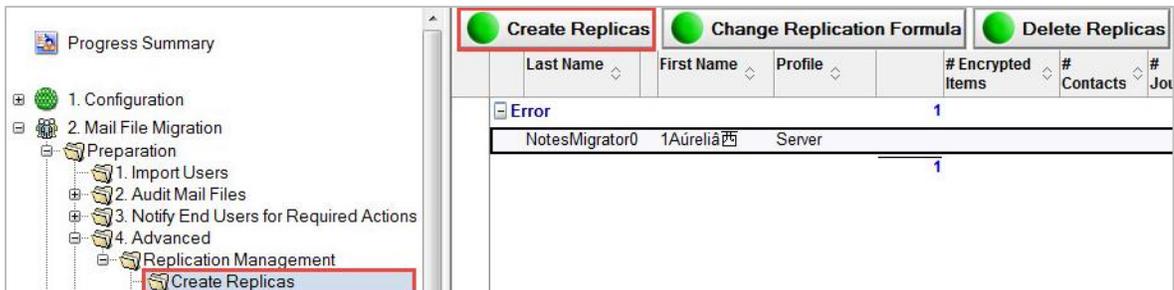


Replication must be enabled and configured in the Replica Settings tab of Settings. Replication Management views do not appear if Replication is disabled.

Replication is not required for migration and can be skipped if the centralization of source data onto Domino staging servers is not required.

To manage replication:

1. Expand the **Advanced** view and then click **Replication Management | Create Replicas**:

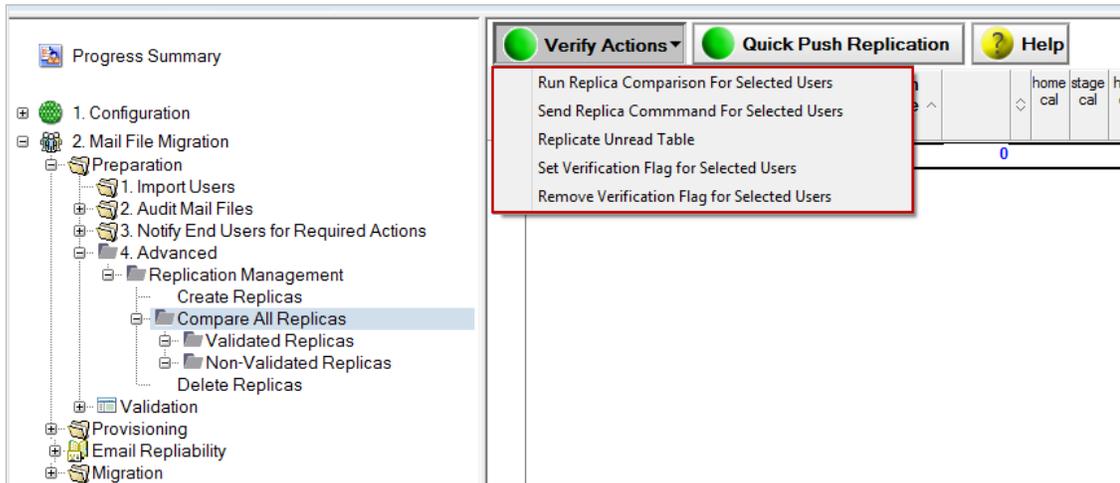


Create Replicas View

2. To create replicas, select one or more entries in the Data Pane and click the **Create Replicas** button. Options to change the replication formula and delete replicas are also available in this view; these replicas will be created on the server and folder specified in the Replica Settings
3. Click **Compare All Replicas** in the Navigation Pane; the replica comparison will allow you to compare the user's home mail database and the staging replica
4. Select an option from the Verify Actions drop-down menu; a Quick Push Replication option is also available; click the **Help** button for more information about the replica comparison view



Normally, replicas on the staging server are created by a scheduled connection between the staging server and the home server of the user mail file. The “quick push” button forces the servers to create/replicate the selected databases immediately with waiting for the schedule. Domino Connection documents are required between the home server and staging server for replication to function.

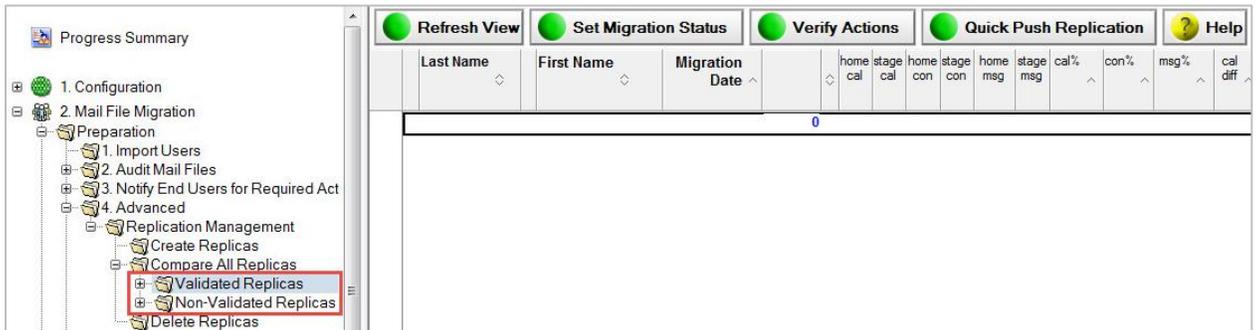


Compare All Replicas View

The table below described the function of each option in the Verify Actions dropdown menu:

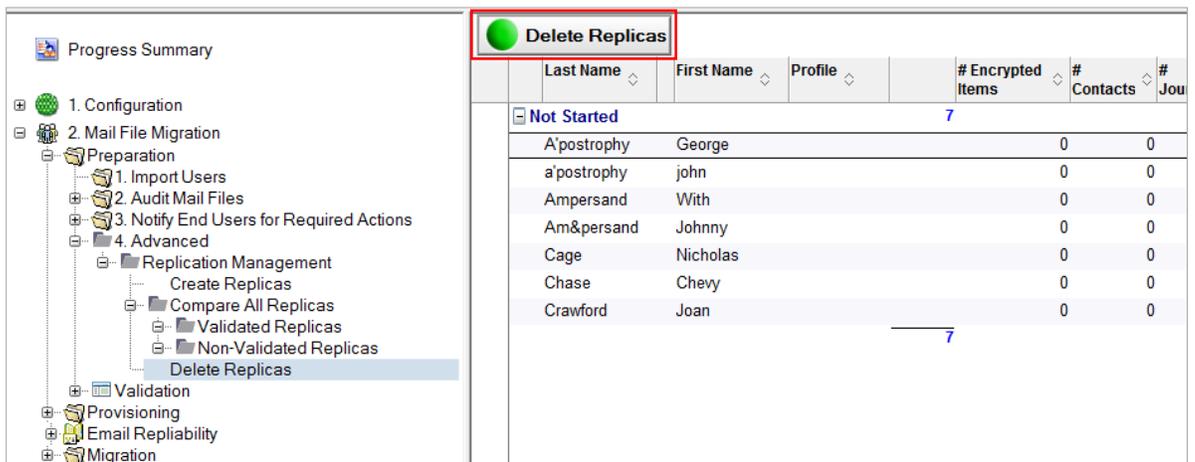
Option	Description
Run Replica Comparison For Selected Users	Allows you to select users and compare the mail files to the staging replicas.
Send Replica Command For Selected Users	Allows you to select users and send replica command for the users. You will be prompted for the type of replication and to select the Domino servers.  *This assumes that you are familiar with Domino replication.
Replicate Unread Table	This allows read and unread marks to be synchronized when your staging server is in a different Domino Domain to the home mail server(s). As this may take several hours to complete, it should be run 1-2 days prior to migration.
Set Verification Flag for Selected Users	Once you have validated that all the expected data has been replicated to the staging server, you can set the Verification flag. This will cause the document to appear in the Validated Replicas view, and not in the Non-Validated Replicas view, for easier administration
Remove Verification Flag for Selected Users	Allows you to select users and remove the verification flag for them.

5. Click **Validated Replicas** or **Non-Validated Replicas**; the Validated Replicas view displays users that have been marked as verified; the Non-Validated Replicas view displays users that have not been verified:



*Validated Replicas View*

6. This view gives you the ability to refresh the view, set migration status, verify actions, and quick push replication; click the **Help** button for more information about the replica comparison view; Quick Push Replication uses the information defined in the Replica Settings to initiate a push from the mail file to the staging replica
7. Click **Delete Replicas**:



*Delete Replicas View*

8. To delete replicas, select one or more entries and click the **Delete Replicas** button

## 2.5 Validation

Validation allows you to verify that a user mail-enabled object exists in Active Directory based on matching values specified in the **Settings | User Provisioning** options.

To validate:

1. Expand the **Validation | User Validation Status** view
2. Select one or more entries and click the **Run Validation Check** button:

Last Name	First Name	AD	Sync
▼ No Migration Group Set 3			
NotesMigrator03	Calliöpe	✗	✗
▼ Pending 2			
✓ Douglas	Mike	✗	✗
NotesMigrator02	Bërtram	✗	✗
3			

*User Validation Status View*

3. Click **OK** on the following dialog boxes indicating the selected documents have been processed
4. Click **Check Errors** in the Navigation pane to view errors; it is recommended to resolve any errors before moving to the next step:

Last Name	First Name	AD	Sync	Decrypt	Encrypted Items	Staging Doc Count	Error
▼ No Migration Group Set 4							
Cruise	Tom	✗	✗	✗	0		
FreeBusy	BT	✗	✗	✗	0		Insuffi
Jolie	Angelina	✗	✗	✗	0		
Mansfield	Jayne	✗	✗	✗	0		
4							

*Check Errors View*

**NOTE !**

If you cannot resolve the errors or need assistance determining why an error occurred, check the Knowledge Base under Support on the product web site or contact Product Support.

## Section 3. User Provisioning

This section is intended to provide the steps necessary to successfully provision a user in Exchange.

### User Provisioning

The Migrator for Notes application provides for the automatic creation of Exchange mail-enabled users from HCL Notes. The user provisioning process also migrates the user's LegacyExchangeDN value, as well as a user's alternate SMTP email addresses from the Domino Directory. Administrators can define on which Domain Controller the user is created and on which Exchange Mail Store to create the user's mailbox.

**NOTE !**

Binary Tree Directory Sync Pro for Notes can be used to synchronize email data fields from Domino to Active Directory to facilitate mail-enabling existing Active Directory accounts. This removes the need for migrating the legacyExchangeDN and setting alternate SMTP email addressing.

**NOTE !**

The Migrator for Notes application provides for the automatic updating of Exchange mailbox access permissions. Once these are provisioned, it will allow for the Outlook migration IDs to be able to write data during the migration.

### Post Migration Tools

After a user's Exchange account has been created, there are several steps necessary to ensure proper mail delivery between the two email systems. The Migrator for Notes database properly sets the user's HCL Notes person document to direct mail to the user's new Exchange mailbox as well as setting access control rights on the user's HCL Notes mail file, if required.

## 3.1 Provisioning

Expanding the **Provisioning** view displays the following subfolders:

- Set Mailbox MDB
- Enable Mailboxes
- Post-Enablement Tools
- Match Domino/AD Usernames
- Advanced

Last Name	First Name	Shortname	SAM Name
▼ No Migration Group Set 3			
NotesMigrator003	3Calliõpe西	3NotesMigrator0	
▼ Pending 2			
Douglas	Mike	MDouglas	MDou
NotesMigrator002	2Bërtram西	2NotesMigrator0	
3			

### Provisioning View

Perform the following steps to set up the Exchange mailbox databases:

1. Select the **Set Mailbox MDB** view and select the appropriate users

2. Click the **Set Exchange Mailbox DB** button to manually choose a database from a list
3. Select a database and then click **OK** to continue
4. If you do not wish to set specific mailbox MDBs, you can select **Set Exchange Mailbox DB (Round Robin)** to distribute the users across all available Exchange mailbox databases

Once complete, the Exchange mailbox database is visible in the Users view



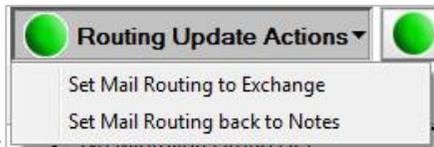
**Example of Round Robin:** If you have 10 Exchange mailbox databases and you are provisioning 20 users, *User1* is assigned to Exchange mailbox database 1, *User2* to database 2, and so on. When it reaches the last database, it assigns the next user to Exchange mailbox database 1.

5. Next, select the **Enable Mailboxes** view to begin enabling mailboxes, set X500 Addresses and set full access; the Set X500 Address button only displays if you selected “Yes to separate the set X500 action” on the User Provisioning Settings tab
6. Click the **Enable Exchange Mailbox** button to enable Exchange Mailbox for selected users



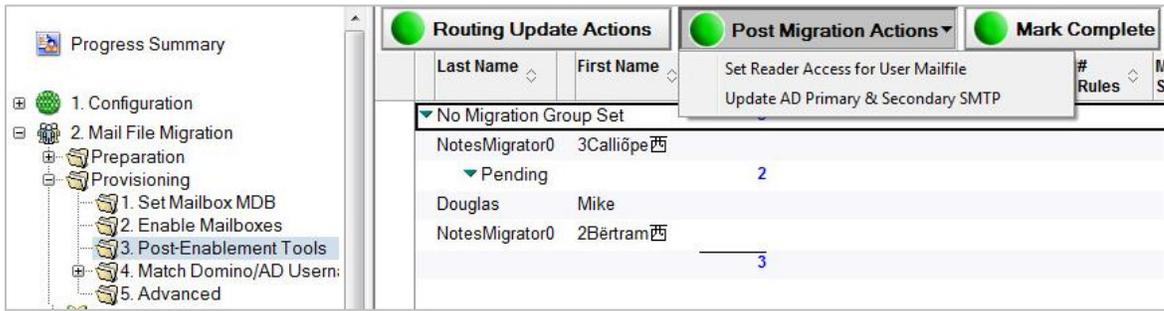
Before end user mail file migration takes place, you need to ensure that the Notes users have matching accounts on the Exchange server using the Settings configuration for User Provisioning. This process helps in checking if the username that is being migrated has an existing account in the new Exchange environment. However, matching usernames is not required if you are migrating to a .pst file.

7. Click the Set Full Access button to apply the Settings | User Provisioning | Account Performing Migrations to the Full Access Delegation on the users’ Exchange Mailboxes that the Notes data will be migrated to.
8. Expand **Post-Enablement Tools**
9. Click **Routing Update Actions | Set Mail Routing to Exchange**; this will update the Domino Directory for the selected accounts to change the email routing to forward new emails for the accounts to Exchange. For additional information on this see the Installation and Configuration



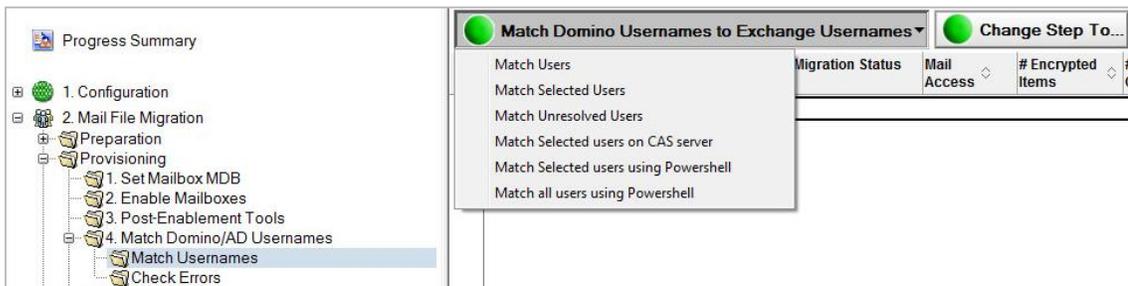
guide for Mail File Processing:

10. Click **Post Migration Actions | Set Reader Access for User Mailfile**; this will change the user Role from Manager to Reader in the ACL. This will prevent the user from sending new emails through their Notes mail file post migration.
11. Click **Update AD Primary & Secondary SMTP** to update the user active directory document with their x500 address:



12. Expand the **Match Domino/AD Usernames** folder in the Navigation Pane

13. Click on **Match Usernames**:



*Match Usernames View*

14. The Data Pane displays a list of users that are unresolved or unmatched with their AD accounts; click the **Match Domino Usernames to Exchange Usernames** button to:

- Match users
- Match selected users
- Match unresolved users
- Match selected users on CAS server
- Match Selected users using PowerShell
- Match all users using PowerShell

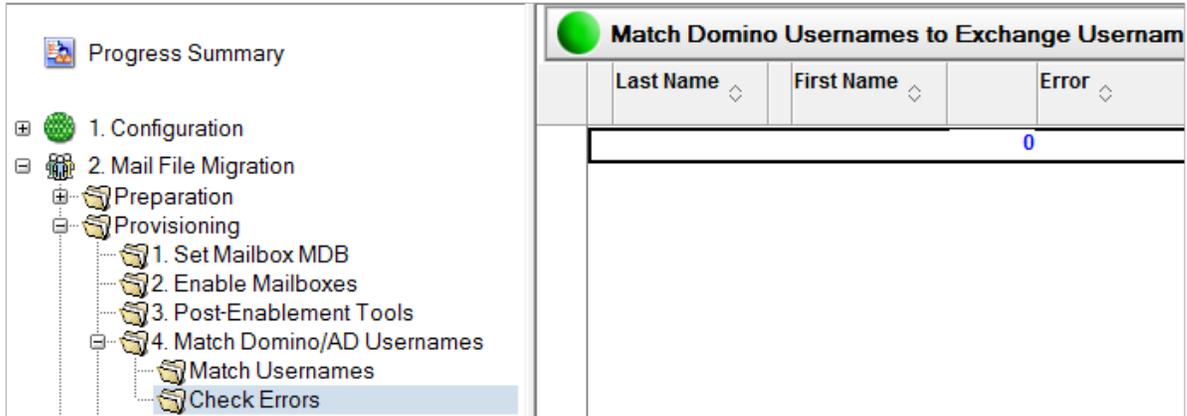
The following table describes the function of each menu option:

Option	Description
Match Users	Matches all the users using LDAP
Match Selected Users	Matches selected users using LDAP
Match Unresolved Users	Matches only the unresolved users in the view
Match Selected users on CAS server	Matches the selected users on the Exchange CAS server
Match Selected users using PowerShell	Matches the selected users using PowerShell

Match all users using PowerShell

Matches all users using PowerShell

15. Accounts that are successfully matched will be moved to the Migrate step
16. Click the **Change Step To...** button to select a migration step if matching is not completed and is not required, for example if an account is not found but the data migration is required and can be migrated to .pst.
17. Click on the **Check Errors** view in the Navigation Pane to check errors:



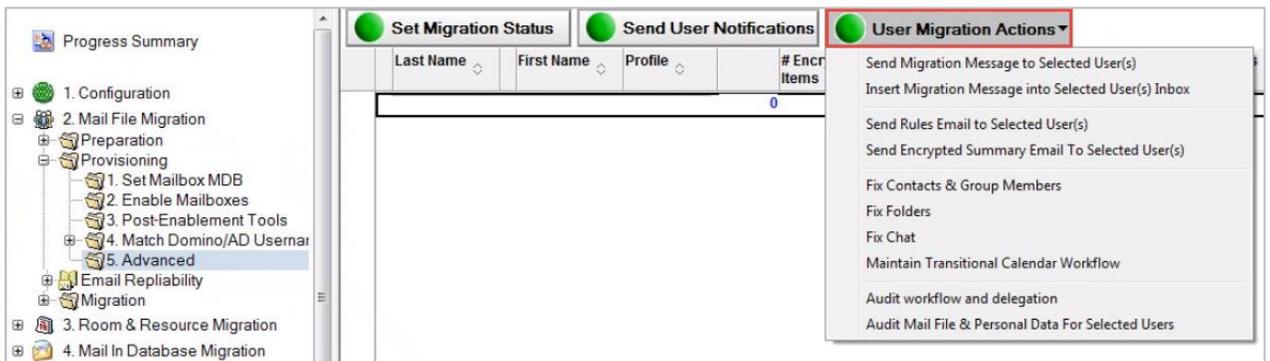
Check Errors View



For accounts that have an error status, the matching values should be checked in the Person Document and then verified in Active Directory.

If you cannot resolve the errors or need assistance determining why an error occurred, check the Knowledge Base under Support on the product web site or contact Product Support.

18. Click the **Advanced | User Migration Actions** button to access additional functions:



The following table describes the function of each menu option; these are the same options available in the User Migration Actions dropdown menu from the **Preparation | Advanced view**:

Option	Description
--------	-------------

Send Migration Message to Selected User(s)	Allows you to send an email notification using predefined or customized message templates to selected users.
Insert Migration Message into Selected User(s) Inbox	Allows you to simply insert a migration message into a user's inbox. The Insert Migration Message option is used when mail cannot be delivered to the user's Notes inbox. This option is also used if the user has already been migrated and their mail is now being delivered to Outlook, but post-migration, they need to sync contacts or to copy archives that were missed before the migration. In these cases, messages are delivered to Outlook rather than Notes but don't work. Running this agent drops the selected migration messages directly into the Notes inbox rather than mailing it.
Send Rules Email to Selected User(s)	Allows you to send Rules Email to Selected Users.
Send Encrypted Summary Email to Selected User(s)	Allows you to send a summary of all the encrypted items in an email to selected users.
Fix Contacts & Group Members	<p>Allows you to look for personal contacts whose mail address format is NOT SMTP (usually accounts imported from the Domino Directory). It will search the Domino Directory for a matching Person document, and if found, replace the mail address with the internet address from Domino. Likewise, it will convert personal group members from Notes Name format to SMTP for members that can be matched in the Domino Directory.</p> <p>Double-byte characters of Display Names are not processed correctly when converting to the Notes Canonical Name if Fix Contacts &amp; Groups Members has not been run prior to migration.</p> <p>This action will modify the source mail file data so a backup of the users' email files should be verified prior to processing these updates.</p> <p>Additionally, this action can be processed in advance of user accounts being set for migration under the Migration   1.Set Migration Profile step but end users are likely to make changes while still using Notes so these actions should be performed immediately prior to migration.</p> <p>Processing performed by the action will be logged in a text file on the Migration Controller Server in a sub folder of the Log Folder specified on the Settings   User Provisioning tab.</p>
Fix Folders	<p>Allows you to fix folders appending a "-Migrated" to the end of any non-system created folder that has a reserved system name (ex: Inbox, Drafts, etc). While HCL Lotus Notes will allow these folders to be created, Exchange will not.</p> <p>This action will modify the source mail file data so a backup of the users' email files should be verified prior to processing these updates.</p>

Additionally, this action can be processed in advance of user accounts being set for migration under the Migration | 1.Set Migration Profile step but end users are likely to make changes while still using Notes so these actions should be performed immediately prior to migration.

Processing performed by the action will be logged in a text file on the Migration Controller Server in a sub folder of the Log Folder specified on the Settings | User Provisioning tab.

**Fix Chat**

Allows you to fix HTML formatting in Sametime Chat transcripts stored in the user's mail file. This will perform a search of the mail file for Sametime Chat documents and will then edit and save the document in the Notes user interface.

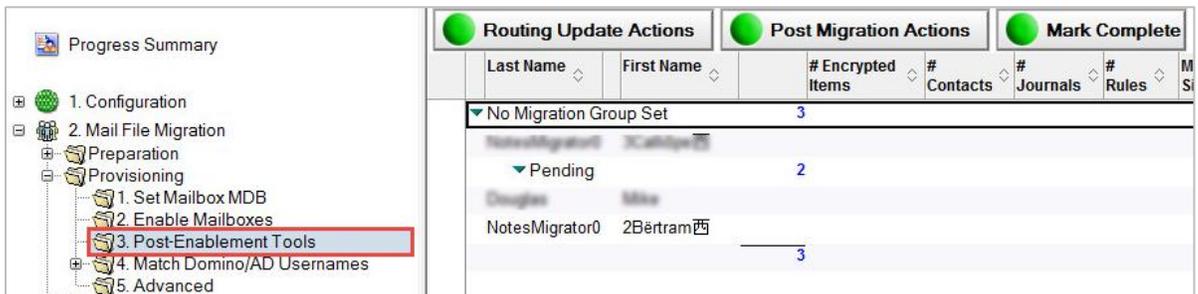
Note: This does not need to be run if the user does not save Sametime Chat transcripts, the Settings are configured for Rich Text, or if the chat documents are migrating with correct HTML formatting.

**Maintain Transitional Calendar Workflow**

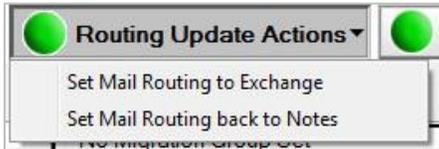
Allows you to populate BTCache.nsf recurrence pattern information for repeat meetings to ensure that calendar workflow functions as intended regardless of the migration status of the chairperson and invitees. This assumes that Notes Integration is fully configured. When this option is run, the number of errors, start and completion status, and messages that could not be found in the destination database are listed in the MTCW Error Report section of the person document.

The Post-Enablement Tools view under Provisioning will retain all accounts until these are Marked Complete after the migration is completed. This allows you to update mail routing in the event of a failure that cannot be recovered and to set the account back to Notes.

1. Expand the **Provisioning | Post-Enablement Tools** view to update routing to the Exchange account and other post migration actions:



2. Click the **Routing Update Actions | Set Mail Routing back to Notes** option to roll back to Notes if needed:



3. Select the Mark Complete button to mark actions as complete:



A user will be hidden in the Migrate view when the **Mark Complete** button is clicked. Mark Complete should only be used if an account was previously migrated. To reveal this user again in the Migrate view, navigate to the Import Users view, search in the Data Pane and select the user, then click **Unhide Entry**.



## Section 4. Email Repliability

A Name Translation Table contains email addresses of Notes users and their corresponding SMTP and/or Exchange legacy Distinguished Name (legacyExchangeDN). The translation information contained in the table is used by the Migrator for Notes migration engine to look up every entry in the Domino Directory and convert it to an SMTP style address or Exchange legacyDN. Every email address found in every mail message, calendar entry, contact, or task being migrated is translated to its corresponding SMTP address (Internet address) and/or Exchange legacyDN (if available).

This is required for migrated items in Exchange to have the correct email address format so that users can reply to the emails or calendar items in Outlook using the Exchange email address format.

For migrations to Exchange mailboxes, the legacyExchangeDN is recommended and does require matching of the entries in the Name Translation table to the mail-enabled user or mailbox-enabled user accounts. For PST only archive migrations where there will not be any data uploaded into Exchange mailboxes, the legacyExchangeDN is not required and the SMTP address can be used for the translation of Notes addresses.

**NOTE!** Be sure that all Domino Domains, including the Integration for Notes Domain if used, have been added in the Settings | Email Repliability tab | Past and Present Domino Domains field. This will ensure correct name translation look-ups during migration.

Migrator for Notes will use the Notes Common Name for the translated Display Name. This applies to recipients on migrated messages with the SMTP or legacyExchangeDN applied for the mail routing address in Exchange mailboxes.

Migrator for Notes allows you to enable free/busy information in Outlook after migration because the users in the Name Translation Table are resolved to the legacyExchangeDN instead of the SMTP address. This allows Outlook to utilize the native free/busy functionality on migrated documents.

The name resolution process is used to apply the Exchange legacyDN during the migration of messages to Notes formatted recipients. This results in migrated entries resolving to the user mailbox in Exchange, therefore making correctly-populated free/busy information available after migration.

A typical Exchange legacyDN follows the pattern displayed below:

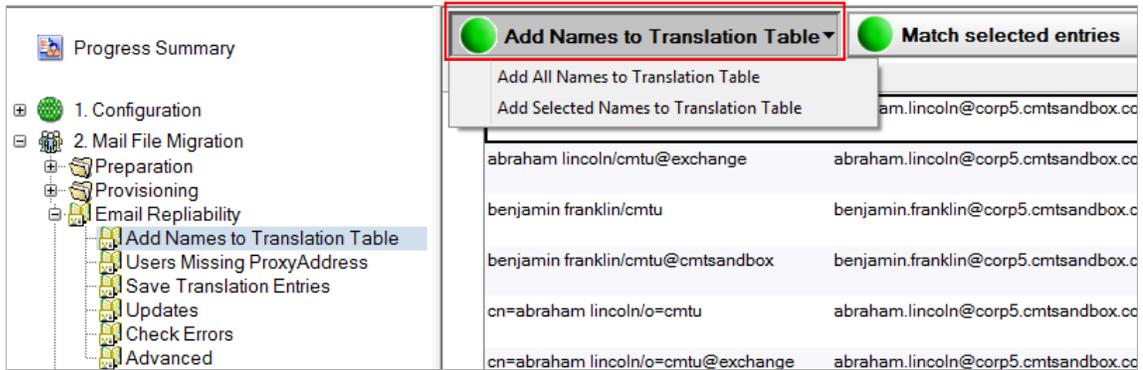
*/o=DomainName/ou=Exchange Administrative Group  
(FYDIBOHF23SPDLT)/cn=Recipients/cn=LegacyName*

Following is an example of a properly resolved Name Translation document:

Name Translation Record	
Full Name:	User1 Dom851/CMTU User1 Dom851
Shortname:	U1Dom851
Mail Domain:	cmtsandbox
Internet Address:	User1.Dom851@cmtsandbox.com
Proxy Address:	/o=First Organization/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fa09ca775f3d48b0b9e4451379e55 8ac-User1
Directory Server:	win23dmbx74/CMTU
Directory Filename:	names.nsf
	<input type="checkbox"/> Show in 'Updates' view
	<input type="checkbox"/> Show in 'Check Errors' view

*Name Translation Document*

1. To create the Name Translation Table from the Domino directory, expand **Email Repliability** in the Navigation Pane
2. Click the **Add Names to Translation Table | Add Names to the Translation Table** button:



*Add Names to Translation Table Button*

The following table describes each setting in the drop-down menu:

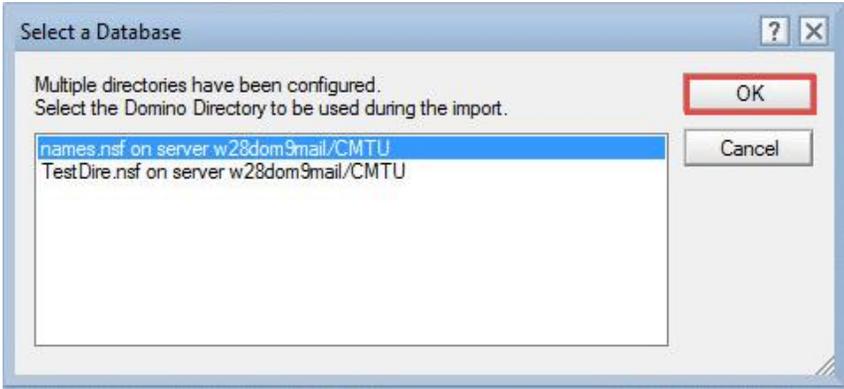
Settings	Description
Add All Names to Translation Table	Adds all the names in the Domino directory to the Translation Table
Add Selected Names to Translation Table	Adds only the selected names from the Domino directory to the Translation Table

**NOTE !** Adding all Domino users' names to the Translation Table is the recommended method of populating the Name Translation Table. The Translation Table should contain every email address for every user that may have sent an email to any other user. Please note, this is not a list of users to be migrated. It is a list used to translate addresses in migrated messages, calendars, and other migrated documents, so it needs to be as exhaustive as possible.

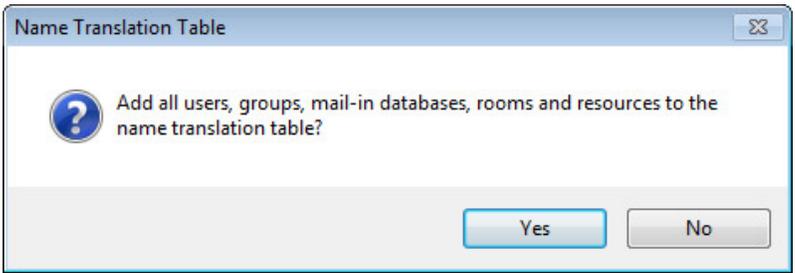
**NOTE !** It is recommended to perform regular updates to the Translation Table as new users may be added to the Domino Directory throughout the migration process.

### Add All Names to Translation Table

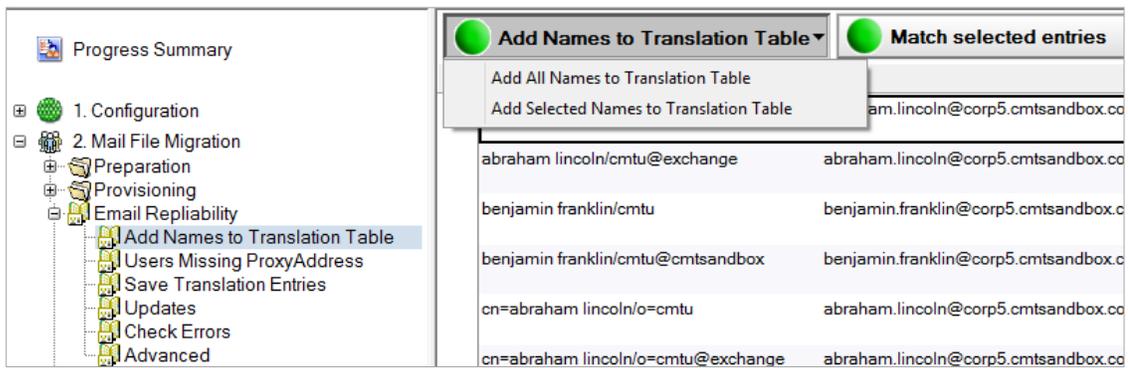
1. Click **Add All Names to Translation Table**
2. If more than one Domino directory has been defined, select a directory from the list and click **OK**:



3. A confirmation box appears; click **Yes** to confirm that all entries will be added to the Name Translation Table:



4. After you have selected the entries to add, depending on the number of name entries, this process could take from a few seconds to several minutes; after it's completed, a confirmation box appears stating that all users have been added to the Translation Table
5. Click **OK**
6. The Data Pane displays all the names with a Person document found in the Domino directory that have been added to the Name Translation Table
7. Notice that each user has multiple entries; these are all the possible addresses that the user is using and a corresponding SMTP address for each of these addresses is provided in the Name Translation Table:



*Add Names to Translation Table View*

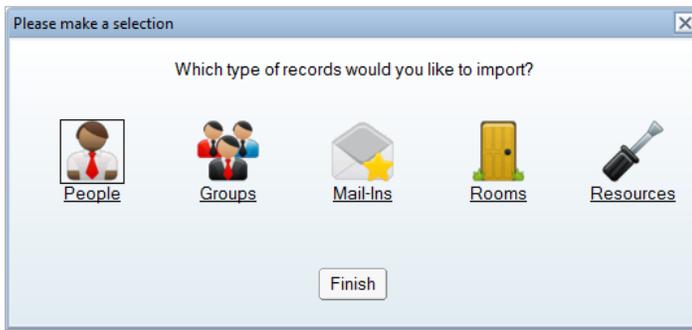
**Add Selected Names to Translation Table**

1. Click **Add Selected Names to Translation Table**.
2. If more than one Domino directory has been defined, the selection dialog box appears with a

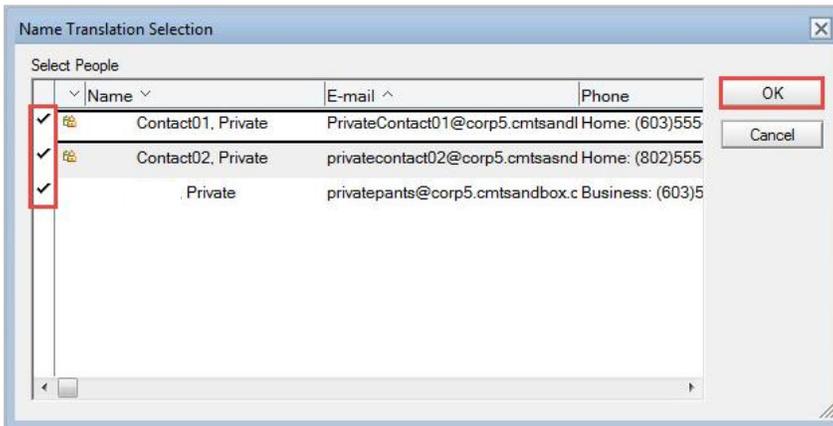
drop-down list of Domino directories. Select a Domino Directory from the drop-down list, click the type of records to add, and then click **Finish**:



If a single Domino directory has been defined, the selection dialog box without a drop-down list of Domino directories appears; click the type of records to add and click **Finish**



3. The correct view for the record type selected appears; select the intended records and click **OK**:



*Name Translation Selection Dialog Box*

4. A confirmation box appears stating that the selected records have been added to the Translation Table.; click **OK**

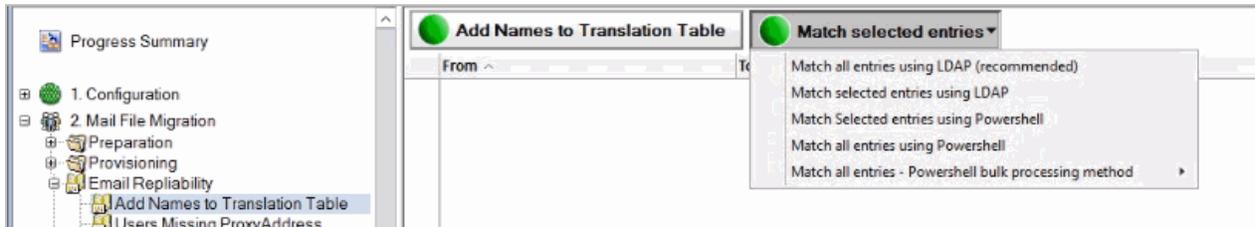


If you add a name that has already been added to the Translation Table, Migrator for Notes does not create duplicate entries.

## Matching Selected Entries

After the Domino objects are added to the translation table from the Domino directory, you need to resolve these Domino entries to their Exchange entries.

There are several methods for matching entries; click the **Match selected entries** button:



The following table describes each drop-down menu option:

Settings	Description
Match all entries using LDAP	Uses LDAP to resolve all Domino users listed in the view to Exchange
Match selected entries using LDAP	Uses LDAP to resolve selected Domino users listed in the view to Exchange
Match Selected entries using PowerShell	Uses PowerShell to resolve selected Domino users listed in the view to Exchange
Match all entries using PowerShell	Uses PowerShell to resolve all Domino users listed in the view to Exchange

### Matching Entries using LDAP

1. Click the **Match Selected Entries | Match all entries using LDAP (recommended)**
2. All the Domino objects in the view are matched to Exchange objects; click **OK**

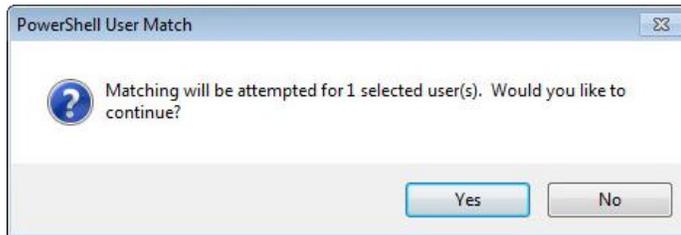
Notice that the **Proxy Address** column is populated with each user's corresponding Exchange legacyDN; an example of a resolved translation record is displayed below:

Name Translation Record	
Full Name:	User1 Dom851/CMTU User1 Dom851
Shortname:	U1Dom851
Mail Domain:	cmtsandbox
Internet Address:	User1.Dom851@cmtsandbox.com
Proxy Address:	/o=First Organization/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fa09ca775f3d48b0b9e4451379e558ac-User1
Directory Server:	win23dmbx74/CMTU
Directory Filename:	names.nsf
	<input type="checkbox"/> Show in 'Updates' view
	<input type="checkbox"/> Show in 'Check Errors' view

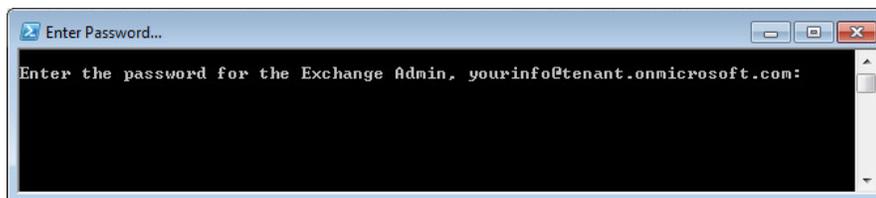
3. To resolve selected users, select the users in the view and then click **Match Selected Entries | Match all entries using LDAP (recommended)**

## Matching Entries using PowerShell

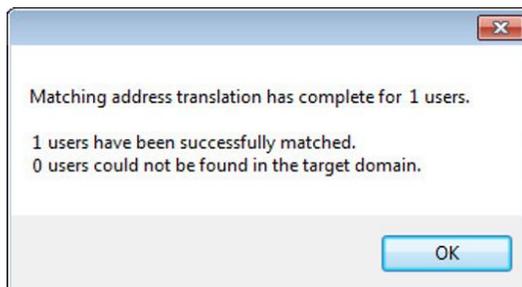
1. Select one or more entries in the Data Pane
2. Click **Match selected entries using PowerShell** or **Match all entries using PowerShell** drop-down menu open
3. The PowerShell User Match confirmation box appears; click **Yes**:



4. Enter the requested password in the dialog box:



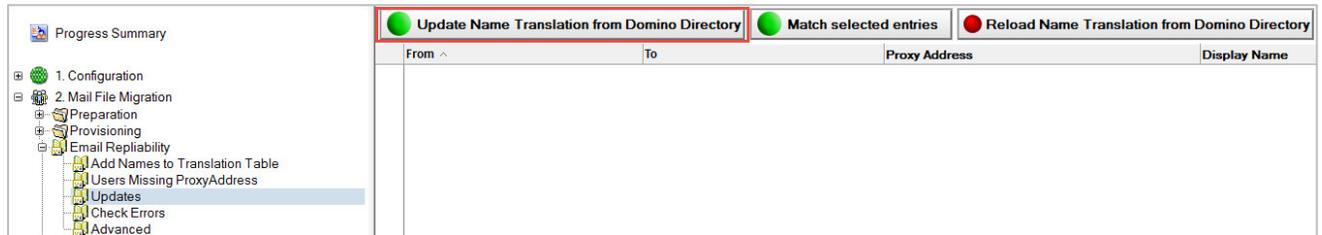
5. The matching completes; click **OK**:



## Updating a Translation Table

Once the Translation Table is created, you can update it whenever there are new entries added or removed from the Domino directory or user accounts are renamed in the Domino Directory.

To update the Translation table, click **Updates | Update Name Translation from Domino Directory**:



### Updates View

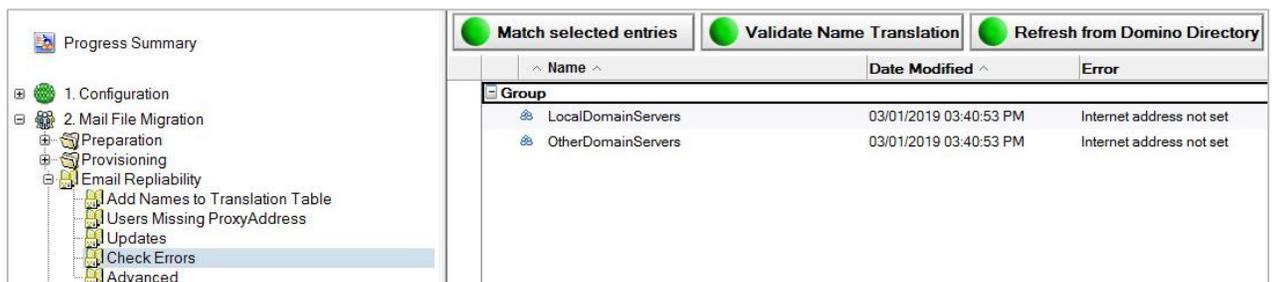


You can also match users in the Updates view using the Match selected entries button. You can reload the name translation table using the Reload Name Translation from Domino Directory button; however, this will take as long as the initial process to add all names to the translation table. This should be done only if necessary.

## Checking Errors of a Translation Table

Items that could not be imported will be displayed in the Check Errors view.

1. To view import errors, click **Check Errors** in the Navigation Pane:



### Check Errors View



It is recommended to check accounts in Domino and verify the corresponding entries in Active Directory. All items to be translated require an Internet Address (SMTP) in Domino, but some items, like Domino system groups, will not be expected to have these and can be safely ignored.

If you cannot resolve the error or need assistance determining why an error occurred, check the Knowledge Base under Support on the product web site or contact Product Support.

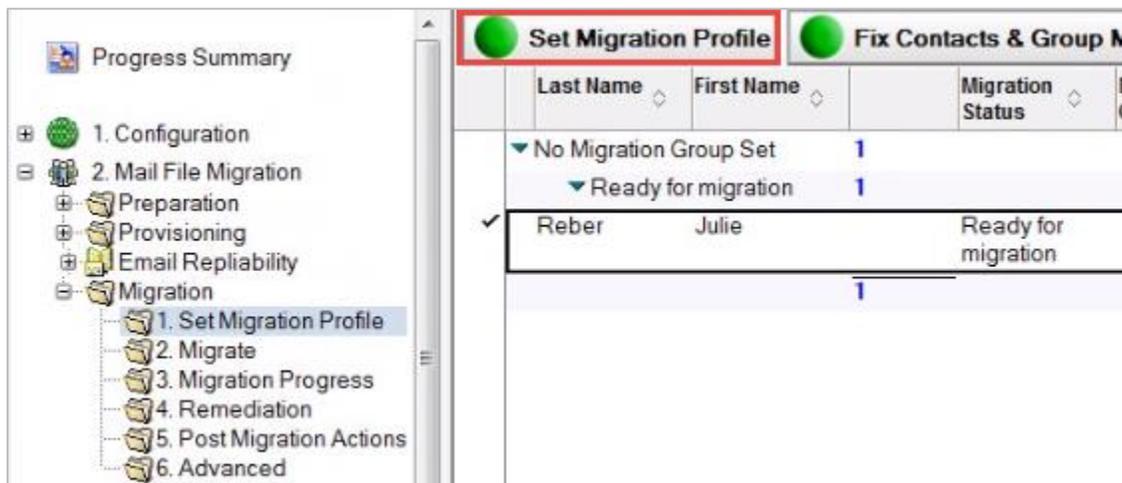
## Section 5. Migrating Mail Files

### 5.1 Setting a Migration Profile

Migration Profiles define settings for certain groups of users. For instance, you can use filters to migrate types of documents, enable size or date restrictions and set the logging level. Refer to the Migrator for Notes Installation and Configuration guide for details. Every user must have a Migration Profile set before a migration can proceed.

To set a migration status:

1. Expand the **Migration | 1. Set Migration Profile** views, select users and click the **Set Migration Profile** button:



Set Migration Profile View

2. Select users and click the **Set Migration Profile** button in the Data Pane
3. The **Select Migration Settings** dialog box appears; the list consists of the migration profile(s) you have created; select a profile from the list, and then click **OK**

Notice that the profile has been assigned to the users; the users in the Data Pane are ready to be migrated

The Set Migration Profile view also contains options to fix Contacts, Group members, Folders, Unread items and options to maintain the transitional calendar workflow (MTCW):



**NOTE!**

The MTCW is only required if Binary Tree Integration for Notes has been deployed. This will update the repeating meeting cache for Notes Integration which is used to support meeting changes made by users between Notes (prior to migration) and Outlook (post migration).

This processing does require access to all Notes mail files to collect repeating meeting information from the chair person for all relevant meetings.

If this action is not completed for any reason prior to migration it can be run post migration to update the repeating meeting cache. There may be some instances of repeating meeting updates between Notes and Outlook returning a NDR for the migrated users before the cache is updated.

This uses the ApptUNID unique identifier for meetings and will not create duplicates in the cache.



Fix Chat will only appear if the Settings | Other Settings | Process Sametime History is set to MIME and does not need to be run if the user does not save Sametime Chat transcripts or if the chat documents are migrating with correct HTML formatting.



Fix Unread will only appear if Staging Replicas are enabled.

## 5.2 Migrating a User

After you have resolved users and assigned a migration profile to them, they are ready to be migrated.

**NOTE !**

Make sure that user mailboxes have been created in Microsoft Exchange prior to migration and your Outlook Migration account or group has Full Access to the mailboxes.

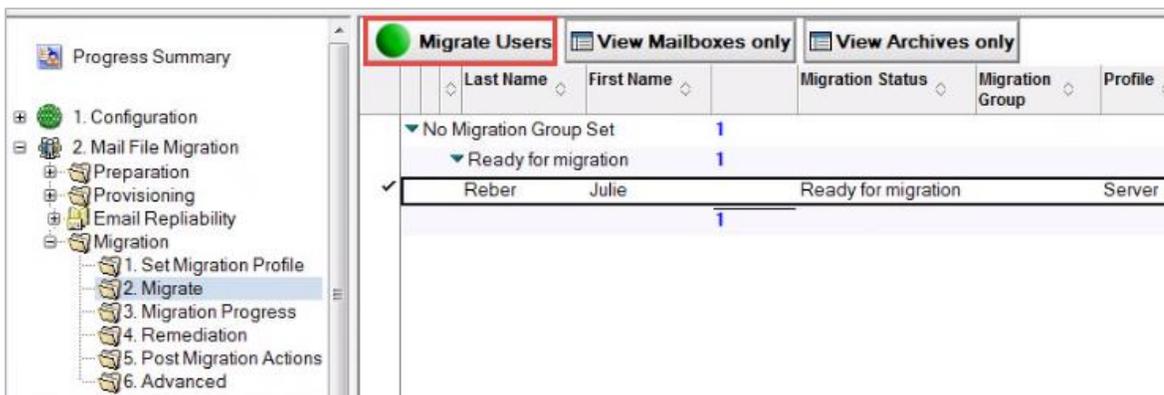
If you are using AWD, be sure to close your migration worker application on the migration control center by right-clicking the application in the system tray and selecting Exit. This will allow your migrations to submit to the migration workstation.

It is recommended to use AWD with at least one migration worker as migrating on the migration control center can interrupt the use of the Migrator for Notes application for migration management.

If you are migrating to a .pst file, users do not need to be matched and users' mailboxes do not have to exist in Microsoft Exchange but an Internet Address is required on the accounts.

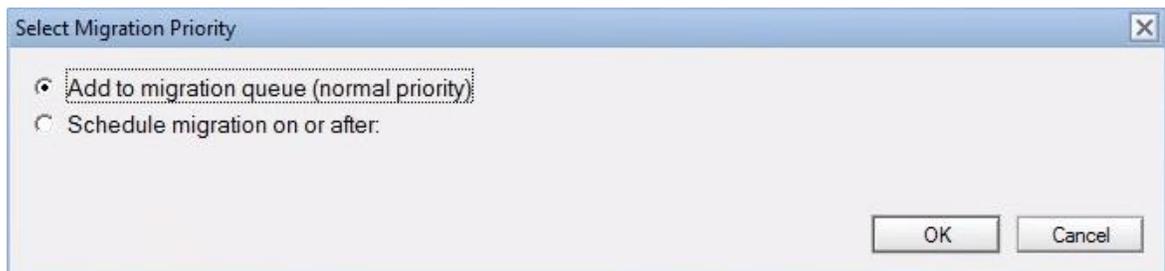
To migrate users:

1. Expand the **Migration | Migrate** view in the Navigation Pane
2. Click the **Refresh Migration Status** button to show the most current and accurate migration status
3. Select user(s) that are ready for migration, and then click **Migrate Users** in the Data Pane:



*Migrate View*

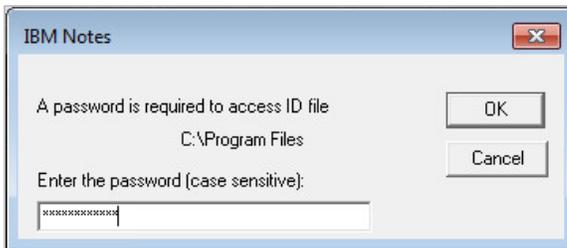
4. The **Select migration priority** dialog box appears:



The following table describes each option:

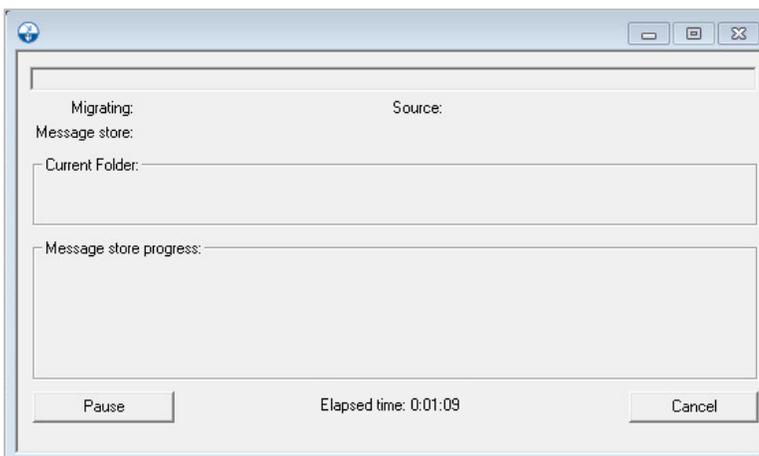
Option	Description
Add to migration queue (normal priority)	Selected users are added to the bottom of the migration queue and will be migrated as soon as a migration workstation becomes available.
Schedule migration on or after	Selected users will be migrated on the specified date or time or later if there is heavy traffic. You can specify the exact time when you want the user mail migration to start.

- If prompted for a Notes password, specify the password to the Notes login ID you are currently using. If you accidentally specify the wrong password, delete the password.txt file from **C:\Program Files\Binary tree\CMT Exchange** and then try again:



The Notes ID password may be required on the Migration Control Center and all workers if using AWD and would be required for the first migration processed.

- The CMT progress box displays the files being migrated on the workstation that the migration job was assigned to. This can be checked in the CMTMonitor web browser page on the migration control center. You can pause or cancel the migration by clicking the **Pause** and **Cancel** button, respectively. Depending on the amount of data for the user that is being migrated, the processing may take some time:

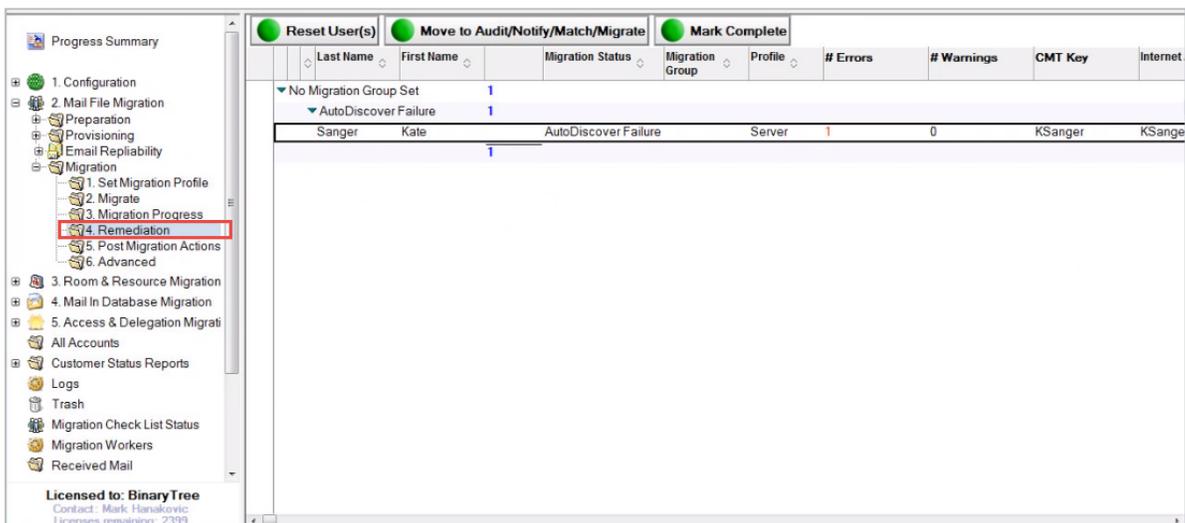




If an invalid password is entered in the Autodiscover Password setting, the Autodiscover process will prompt for a password when the migration begins. You must enter a valid password, check the box to remember these credentials and click OK for the migration to proceed. If you do not check the box to remember these credentials, the migration will end and not complete.

On migration workers the Connectivity Tester can be used to verify the Migration Outlook account and allows for changing the account and password that is stored on the worker.

7. As migrations are submitted from the **Migrate** view, they will then be moved to the **Migration Progress** view and show as Pending. You can check the status on the **Migration Progress** view. The status of the accounts in the view can be updated by clicking the **Refresh Migration Status** button. When a migration workstation selects a user from a queue, the migration status changes to **In Progress** in the Data Pane.
8. Once the migration process is complete, the migration status of all users will be updated. For users that are migrated successfully these will be displayed on the **Post Migrations Actions** view.
9. For users who have not completed successfully, these will be displayed on the **Remediation** view.



You can review the logs that are created during the migration process via links to the migration logs in the Person Document and also in the **C:\Program Files\Binary Tree\CMT for ExchangeLogs** directory on the Migration Control Center

### 5.3 Migrating Local User Archives to an Exchange Server

After you send the **Archive Processing** (Archive Migrator for Notes must be installed and configured for local archive replication and processing) message template to users, the end user clicks on the button to copy/replicate their local archives to the Domino server. Once completed, a new archive Person document will be created for each archive database copied to the server and located in the **Set Migration Profile** view.

1. To view which archive database will be migrated, double-click and open the username archive Person document
2. Assign a migration profile and the user will be promoted to the Migrate view to perform the migration

3. Once users' archive databases have been physically resolved and audited, they are migrated the same way as users' mail files; they can be migrated to the Exchange mailbox, the Exchange archive mailbox, or to a PST file



Review the Archive Migrator for Notes guide for more information.

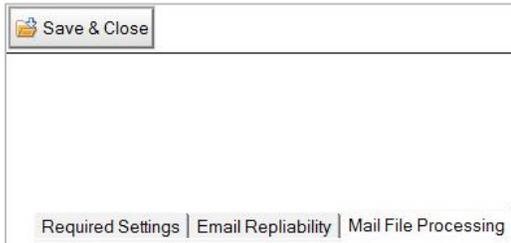


If the migration history is using the Discover History method then verify that Archives or PST files are configured as sources (Settings > Mail File Processing)

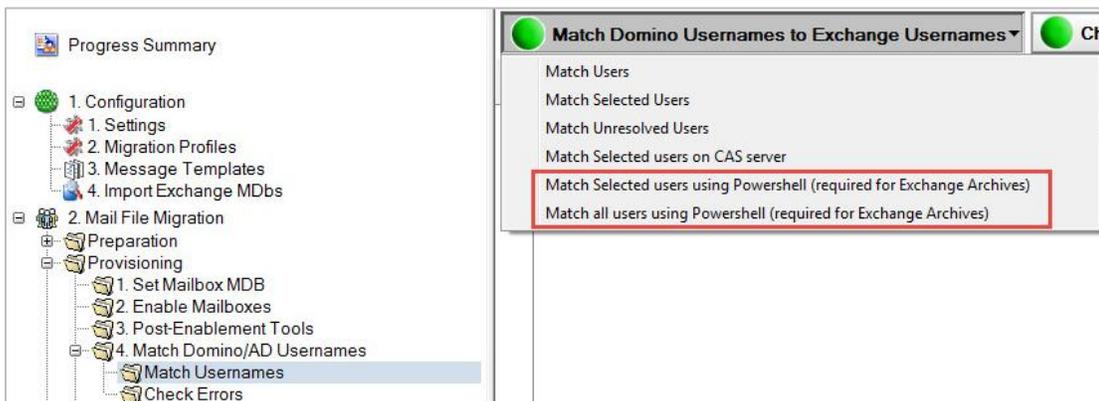
## 5.4 Migrating to an Exchange Archive

Direct migrations of data from Domino production mail files (not source archives) to the Exchange Archive Mailboxes are supported for both on-premise and Office 365 versions of Exchange. If enabled, Exchange archive documents are created during the matching phase if an archive exists for the user in Exchange. Like other migrations, Exchange Archive migrations are managed by Migration Profiles.

1. Expand the **Settings** view and then click the **Mail File Processing** tab; in the **Create Exchange Archive Documents** field, select **Yes**. Then click **Save & Close**:



2. During Match Usernames step, select users and select the **Match Selected users using PowerShell** or **Match all users using PowerShell** option; the PowerShell matching method is required to generate the Exchange Archive documents:

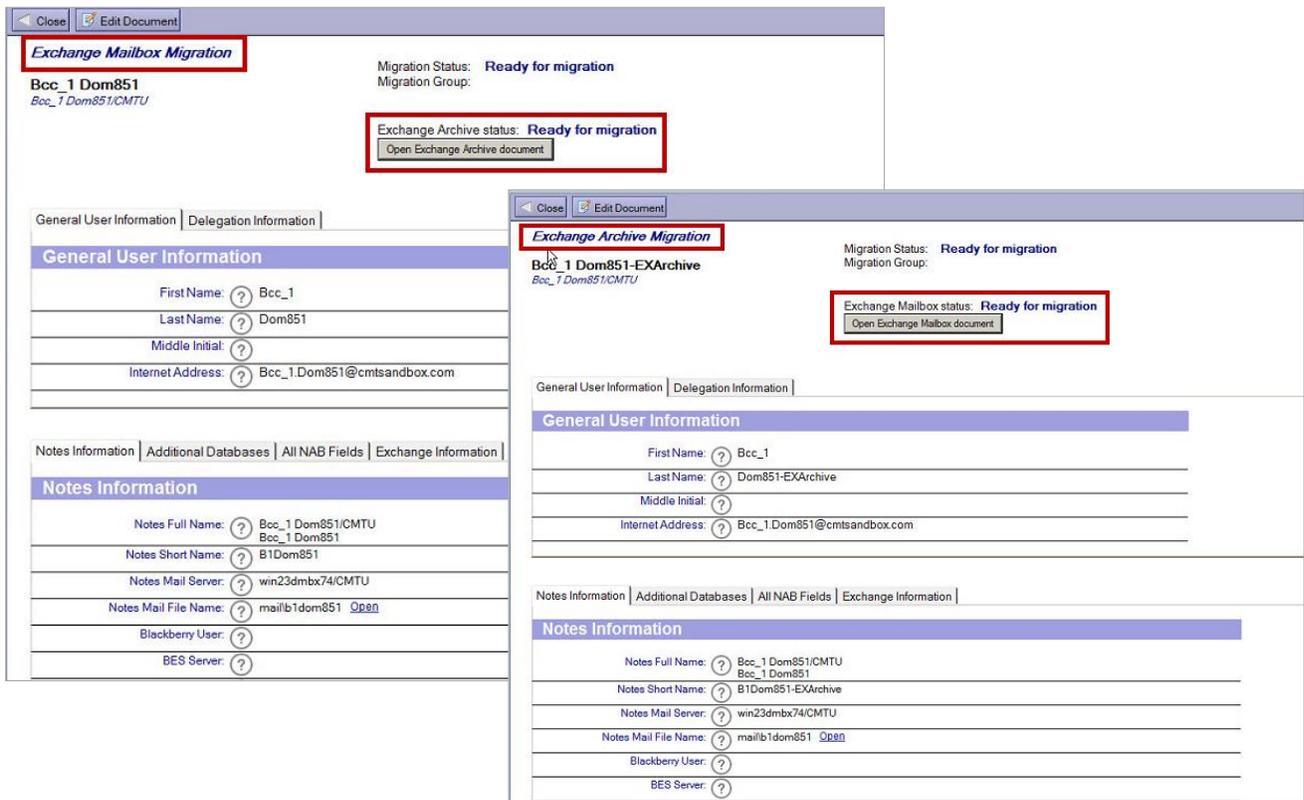


3. During the matching process, an Exchange Archive document for each user is created in addition to the Exchange Mailbox document if an Exchange archive exists for the user. The Exchange Archive document can be identified by the appended “-EXArchive”.



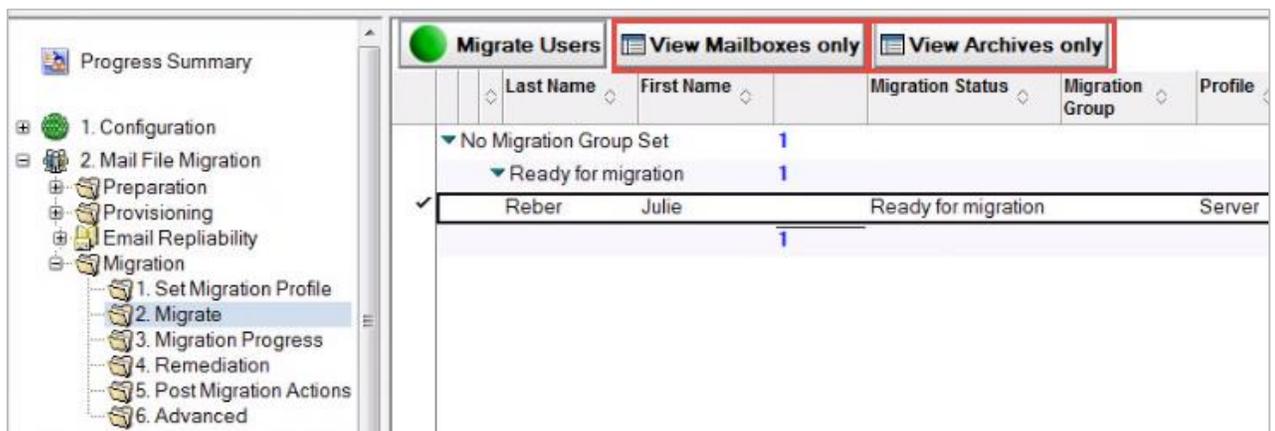
Migrator for Notes does not enable archive mailboxes in Exchange; this should be completed in the Exchange prior to matching accounts.

The Exchange Mailbox document and Exchange Archive document are linked in the Notes Migrator.nsf (EMM) database but are migrated as distinct documents as **they do not share migration histories**. The link between the two documents can be further seen when opened. The Exchange Mailbox document displays the status of Exchange Archive document and a button to open the Exchange Archive document. Likewise, the Exchange Archive document displays the status of the Exchange Mailbox document and a button to open it.



4. During the Set Migration Profile step, select one or more Exchange Archive document(s) and set a Migration Profile; Migration Profiles are created in the Configuration view
5. During the Migrate step, select one or more Exchange Archive document(s) and click **Migrate Users**; the Exchange Archive documents are migrated to the Exchange archive; the **View Mailboxes only** and **View Archives only** buttons allow you to filter the displayed list

The option to create Exchange archive documents is necessary for the local archives (above) to be migrated to online Exchange archives; this requires PowerShell matching:

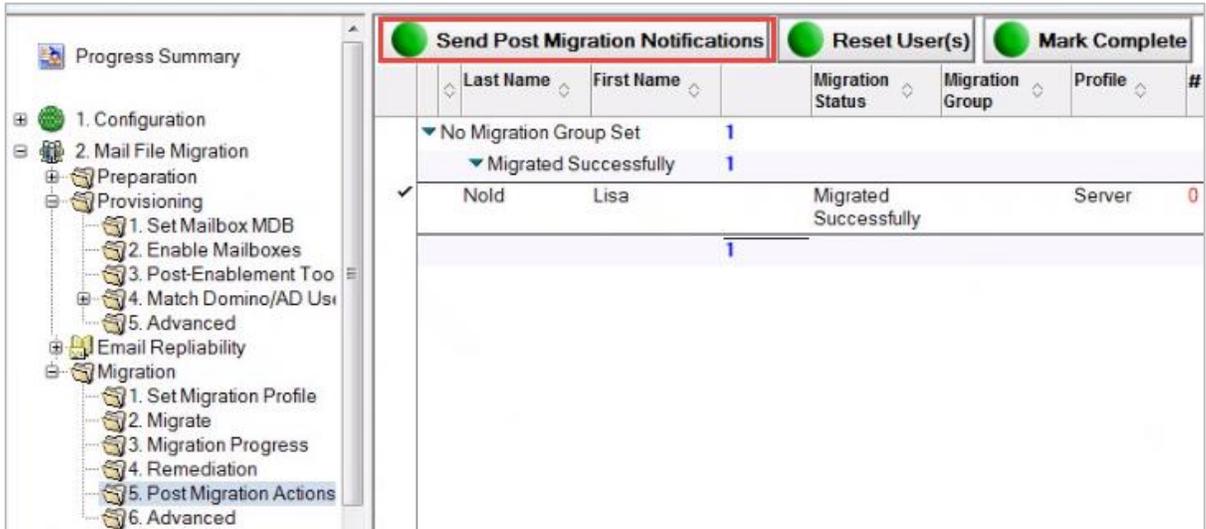


View Mailboxes only and View Archives only buttons

## 5.5 Performing Post Migration Actions

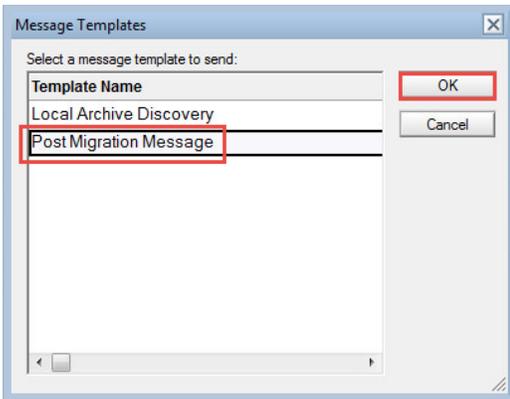
Once the migration is complete, you may want to send a notification to users informing them of the latest status. The **Post Migration Actions** document contains some tools that allow you to do that.

1. Click **Post Migration Actions** in the Navigation Pane
2. Select users and then click **Send Post Migration Notifications** in the Data Pane



*Post Migration Actions View*

3. The Message Templates dialog box appears; the **Post Migration Message** option is selected by default; click **OK**:



4. A message box appears to confirm that the post migration message has been sent to the selected number of users; click **OK** to continue

If the **Audit Exchange Migrated Data** option is enabled in the Settings, an Audit Migrated Data button will appear:



This is a post-migration validation process that indicates the state of documents which have been migrated by Migrator for Notes. This feature can be useful in environments as a validation check for data integrity.

In addition, this can be used to audit results to reduce the size of user Domino mail files or archive databases after the migration phase on the Domino servers and user's workstation replicas. For example, removing documents with a Migration Status of 1 would leave only non-migrated data or documents that could not be migrated completely due to malformation or size restrictions in Exchange from a source database.

***Important: Consult your organization's data retention policies and regulatory compliance requirements before performing migrations. Full backups of the original source data, to be retained post migration, may be required to ensure regulatory compliance. This particularly for cases where source data would be modified prior to migration (e.g. personal contacts or folders) or where data is modified during migration (e.g. To email address for repliability).***

This agent audits the Exchange mailbox post-migration and creates two CSV files in the C:\Program Files\Binary Tree\CMT for Exchange\Logs directory of the workstation used to initiate the audit.

#### **CMT Audit Date Time UserSMTPAddress.csv**

The "CMT Audit Date Time UserSMTPAddress.csv" CSV file contains the following columns:

- Source UNID
- Source NoteID
- Migration Status (0=Unknown Result Status, 1=Successful, 2= Partially Migrated - Encrypted Body, unable to migrate attachment, but part of the message was converted and is available in Outlook)
- Message Subject
- Source Server
- Source Store
- Message Class
- Creation Date Time
- (Destination) Folder

Sample:

```
2B18FF6499CECFA285257D7B005D0D60,6198,0,"Delegation 4l- Delegate a monthly meeting",w28dom8mail,CN=w28dom8mail/O=CMTU!mail\n8b2013,IPM.Appointment,9/29/2017 11:01:44 AM,Calendar
```

The CSV contains a header row to identify each column of data. The last line of the CSV file states "Audit Completed" when the agent completes. Contact and Group migrations are not included in the audit. Child documents that are integrated with the parent documents are not be listed in the CSV file.

#### **SourceStoreAudit.csv**

The "SourceStoreAudit.csv" CSV file is also created (if not present) and is appended to for each subsequent audit run. This file has no header row.

The "SourceStoreAudit.csv" CSV file contains the following columns:

- User SMTP Address
- User Distinguished Name
- Number of Data Sources in the mailbox
- A column for each of the unique sources founds. Each source column contains the Source Server, Source Store, Total Message Count from this source (all three items are in one column). The message count is enclosed in ( ).

Sample:

```
NotesUser8b2013@corp20.cmtsandbox.com,/o=First Organization/ou=Exchange Administrative
Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ea0d95426dce42979e7c2b4746ed7ad2-
Notes,1,W28DOM8MAIL!!CN=W28DOM8MAIL/O=CMTU!!MAIL\N8B2013 (186)
```

```
NotesUser8c2013@corp20.cmtsandbox.com,/o=First Organization/ou=Exchange Administrative
Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2a83ac4e22ab4e4d961176b38362b245-
Notes,3,W28DOM8MAIL!!CN=W28DOM8MAIL/O=CMTU!!MAIL\N8C2013
(198),W28DOM9MAIL!!CN=W28DOM9MAIL/O=CMTU!!AUDITTEST1
(5),W28DOM9MAIL!!CN=W28DOM9MAIL/O=CMTU!!AUDITTEST2 (10)
```

```
NotesUser8a2013@corp20.cmtsandbox.com,/o=First Organization/ou=Exchange Administrative
Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33eca14b0ee644b5af8d8e2b0decbea3-Notes,0
```

This sample shows the results of three audit runs on the same workstation, reporting on three mailboxes NotesUser8b, NotesUser8c, NotesUser8a.

User 8b has 1 data source that resulted in 186 messages migrated.

User 8c has 3 data sources of 198, 5, 10 messages each.

User 8a has 0 data sources (indicating no data has been migrated to this mailbox)

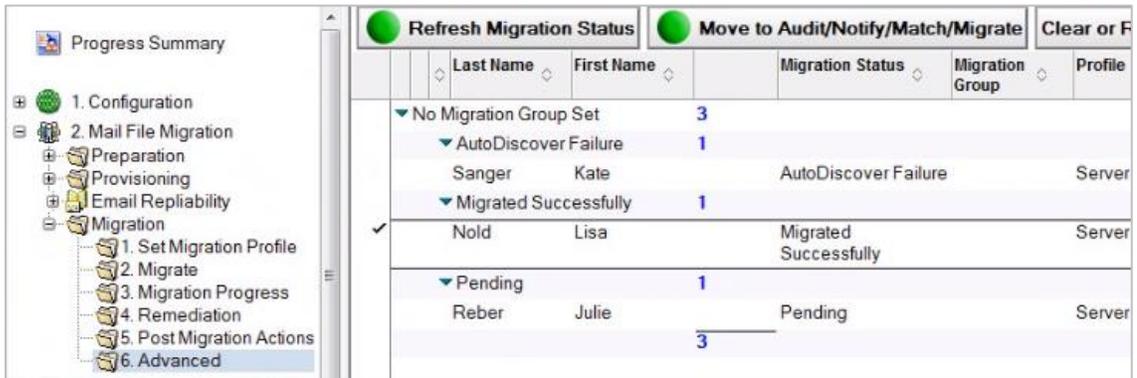
## 5.6 Setting Advanced Migration Options

The Advanced document provides tools that allow you to remove migrated data from the destination server, reset a user's status, clear a user's history, remove a backend user record, and move the user back to the Audit/Notify/Match stage or forward to the Migrate stage.



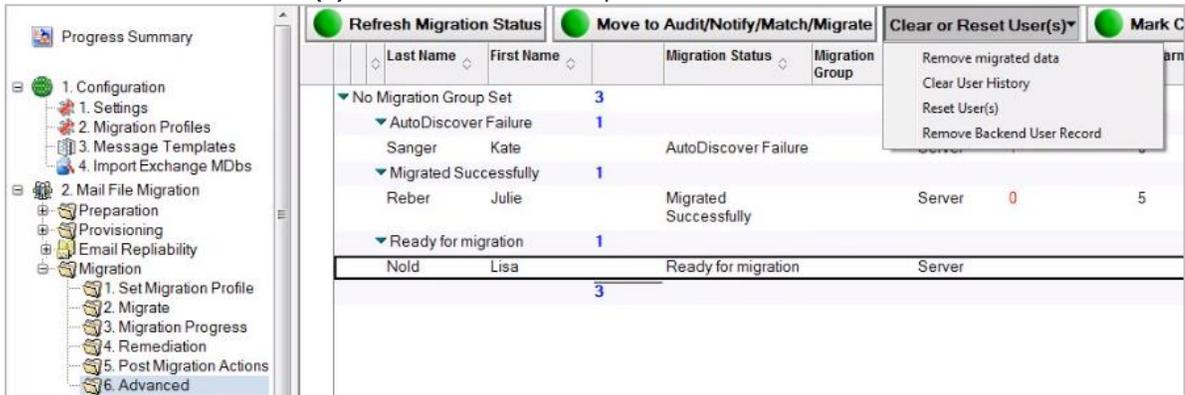
Used the Advanced settings with caution and consideration for the impact on end user data in Exchange.

1. Select **Advanced** in the Navigation Pane
2. Click **Move to Audit/Notify/Match/Migrate** to move selected users to previous or later stages of migration preparation:



Advanced View

3. Click **Clear or Reset User(s)** to reveal four menu options:



Clear or Reset User(s)

The following table describes each menu option.

## Remove migrated data Description

### Remove migrated data

- Allows you to remove migrated data from the destination platform; This process only removes migrated items (only messages, calendar items and local contacts and not folders) and only the items that were migrated using Migrator for Notes; New items sent or received in Outlook would not be modified  
 Note: Data removal is designed to work on an Exchange server migration. If you remove items migrated to a .pst file, a 256k .pst file is generated. Simply deleting the .pst file is the preferred method for removing a .pst file.
- Destination mailbox cleanup is invoked in the same way as a regular mailbox migration; This process uses a migration profile to identify the Message Class and Start/End Date filters to determine the items to remove; Even though specifying a profile is not a requisite for the migration removal process, if the profile is specified, the items to be removed must pass the filtering criteria of the selected profile
- The migration profile's Date field application for removing data is different from what is applied during a migration; for example, when a profile is used for a migration, the Start and End dates specify items that were received/occurred within the dates and

## Remove migrated data Description

migrates them; When removing data, the Start and End dates are compared to the date the item was migrated; Items migrated after/before/between the dates are then removed

- Valid Date filter entries are:
  - Start Only: Items migrated on or after this date will be removed (assuming other filter conditions are passed)
  - End Only: Items migrated on or before the end date will be considered for removal
  - Start and End Dates: Items migrated on or after Start and on or Before End will be considered for removal
- The log file records all the removed items
- The migration history is updated; All items removed from Exchange are removed from the migration history as well; This allows for re-migration of the same data without manually clearing the history and without migrating duplicate items
- Previous Migration Record (Kilroy) documents and Skipped/Problem Document records are also removed

---

### Clear User History

**Note that this option is not available if using the Discovered History option**

You may come across a situation where you need to migrate a user again; If you move the user back to the Preparation stage, and then migrate the user, the application will ensure that no duplicates are migrated; The application achieves this by maintaining a user log containing a list of the user's messages that have been migrated; however, if you wish to start the migration process for a user afresh, you need to clear the user log;

The **Clear User History** button allows you to clear the migration history of a user; Before clearing the history and migrating the user again, be sure that the user's messages on the Exchange server have been removed using the Remove migrated data option; otherwise, the process will copy all the user's mail messages to the Exchange server resulting in duplicates

You can also right-click a user, select the **Clear or Reset User(s)** menu option, and then select the **Clear User History** submenu option to clear the cache of what has previously been migrated for the selected user(s)

Use this action to force a full migration on the user mail messages that have already been migrated

---

### Reset User(s)

If a user has already been migrated, or partially migrated, or queued for migration, you can clear the Migrator for Notes memory of this event by using the **Reset User(s)** option; This action can be executed for a selected user

Right-click and select the **Clear or Reset User(s)** menu option, then select the **Reset User(s)** submenu option to clear all statuses from the selected users; Use this action to retry a user migration after resolving a problem

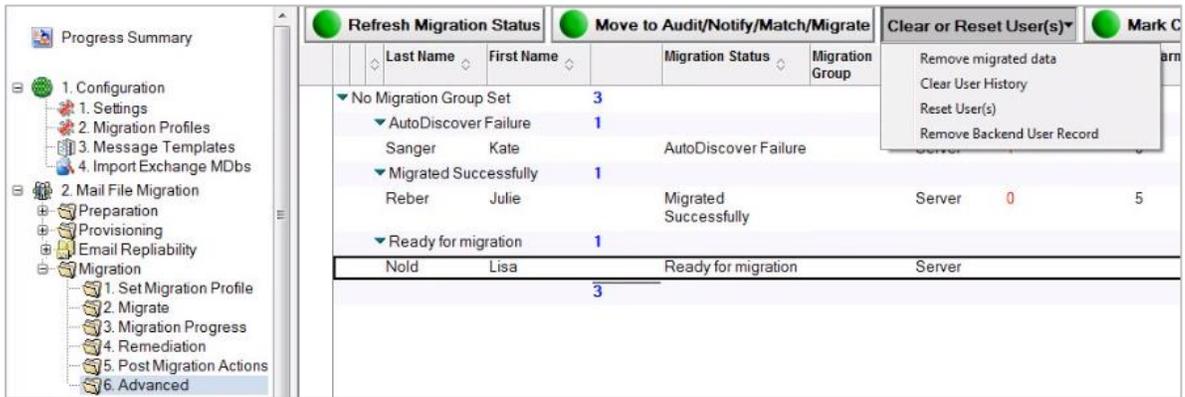
---

## Remove migrated data Description

Remove Backend User Record	Deletes the user from the CMT_User SQL table; Note that when users are re-migrated after deletion, the previous migration history and assigned license is not retained
----------------------------	--

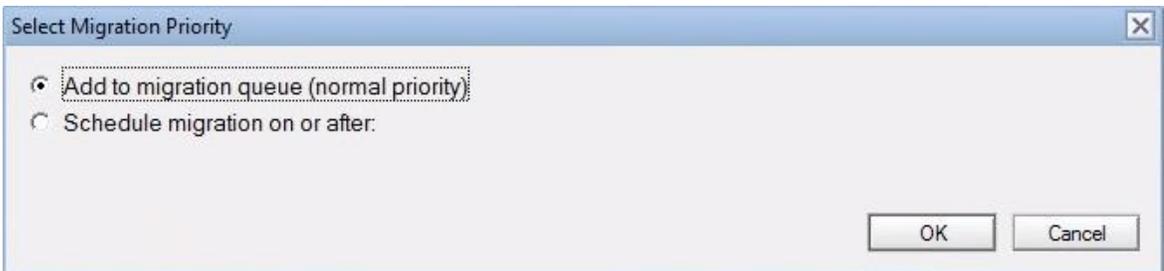
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*Advanced View – Remove Migrated Data*

Select an option to migrate in the **Select Remove Migrated Data Priority** dialog box, and then click **OK**; the Exchange mailbox associated with the user opens and the previously migrated items are removed:



5. This will submit the account for migration worker to process the data removal. The status for this can be checked in the **Migration | 2. Migrate** view

# Section 6. Rooms and Resources Database Migration

The Rooms and Resources database consists of multiple calendars. You cannot migrate all Rooms and Resources at once because multi-calendar databases are not supported in Microsoft Exchange. For this reason, you need to import each room and resource from this database separately into the server.

The Rooms and Resource Import process will create individual nsf files for the migration of the specific calendar data for the entry to be migrated. The location of these nsf files can be configured on the Settings – Rooms & Resources tab.

**NOTE !** The Excel import process cannot be used for Rooms and Resources because there is additional processing required to extract the specific calendar information for each room or resource from the Domino reservation application.

**NOTE !** The import and creation of the room or resource .nsf files with the extraction of the calendar data is a point-in-time process and will not automatically pick up changes to bookings after the import is completed. The items to be migrated should be imported as close to the migration time as possible.

The Rooms and Resources database can be migrated either to a .pst file or to the Exchange server. Migrating the Rooms and Resources database to a .pst file is considered an easier method as it doesn't require manually matching or resolving the database to the Exchange server.

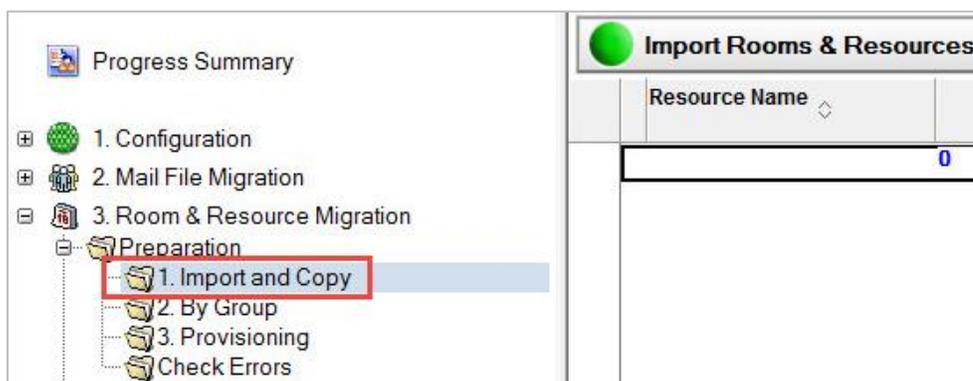
In this section, you will learn to prepare the Rooms & Resources database for migration and migrate rooms and resources to a .pst file as well as to the Exchange server.

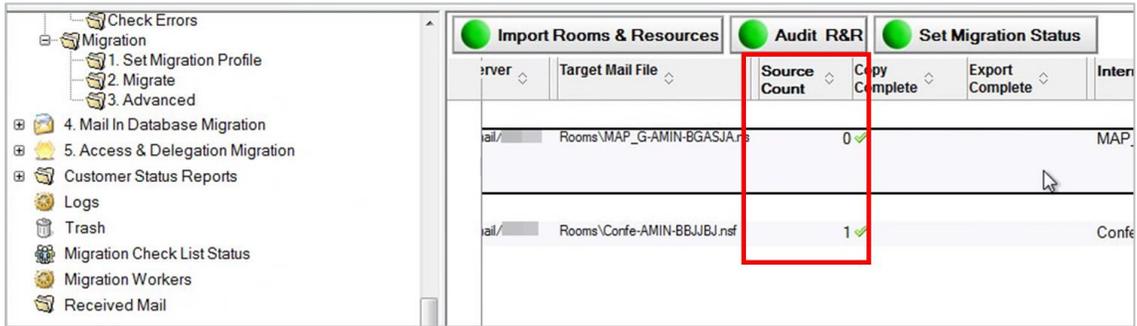
**NOTE !** Irrespective of which method is employed to migrate the Rooms & Resources database, the preparation steps remain common to both the methods.

## 6.1 Preparing for Rooms and Resource Migration

To prepare for Rooms and Resources migration:

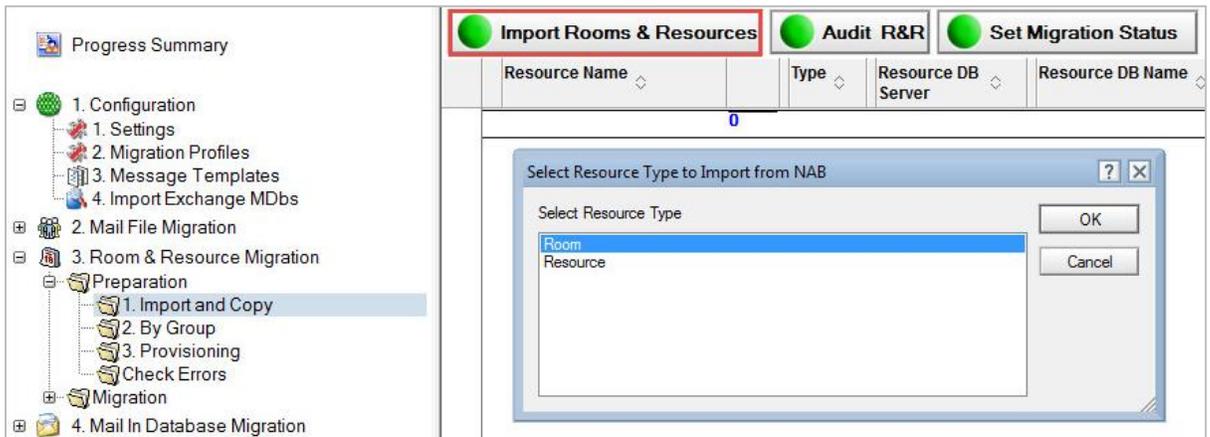
1. Expand the **Rooms & Resources Migration | Preparation | Import and Copy** view in the Navigation Pane:





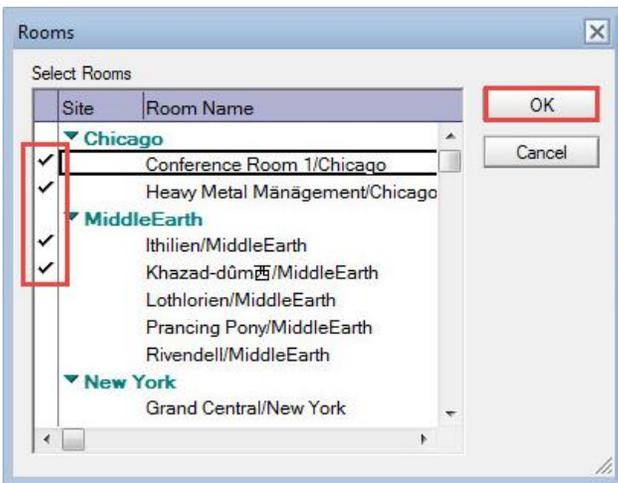
Source Count indicates the number of resources that might be necessary to migrate.

- Click the **Import Rooms & Resources** button in the Data Pane:



*Import Rooms & Resources*

- The **Select Resource Type to Import from NAB** dialog box appears; **Room** is selected by default; click **OK**:
- The **Rooms** dialog box appears; select a room and click **OK**:

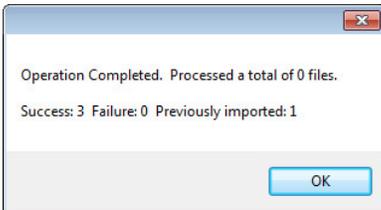


*Rooms Dialog Box*

- A message box appears displaying the rooms you selected in the previous step; click **OK** to continue:



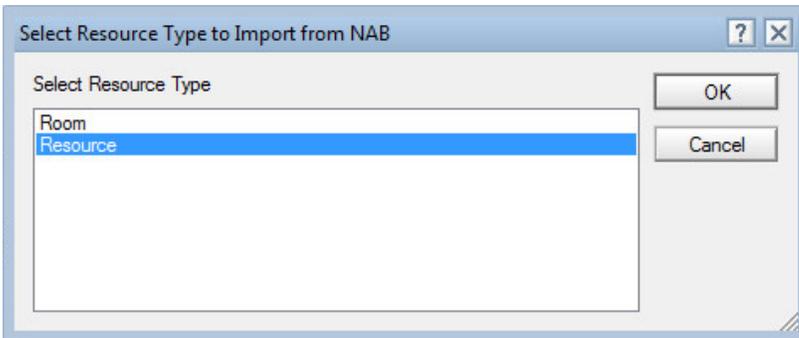
6. A confirmation box appears; click **OK**



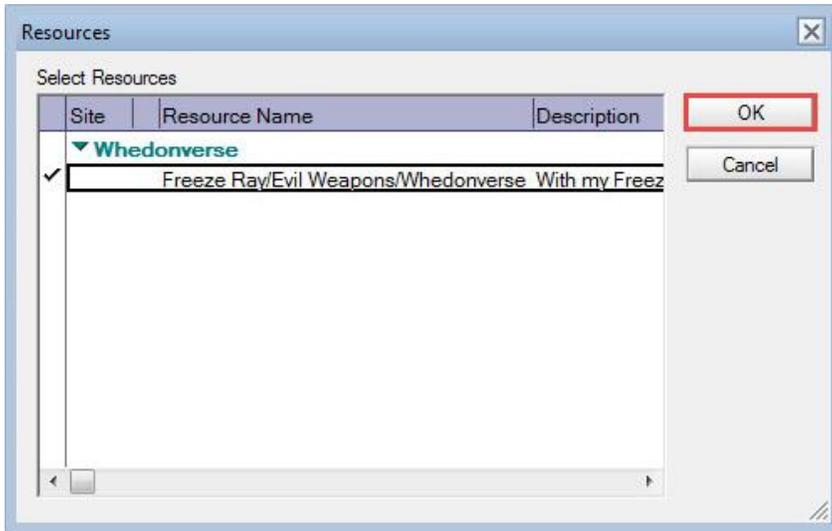
The Data Pane displays the rooms that are imported:

<input checked="" type="radio"/> <b>Import Rooms &amp; Resources</b>		<input checked="" type="radio"/> <b>Audit R&amp;R</b>		<input checked="" type="radio"/> <b>Set Migration Status</b>				
Resource Name	Type	Resource DB Server	Resource DB Name	Target Server	Target Mail File	Copy Complete		
<b>Migration Group Not Set</b> 4								
Conference Room 1/Chicago	Room	w28dom8mail/CMTU	Resource.nsf	w28dom8mail/CMTU	Resources\Confe-APEE-B9YLZB	✓		
Heavy Metal Mänagement/Chicago	Room	w28dom8mail/CMTU	Resource.nsf	w28dom8mail/CMTU	Resources\Heavy-APEE-B9YM36	✓		
Ithilien/MiddleEarth	Room	w28dom8mail/CMTU	Resource.nsf	w28dom8mail/CMTU	Resources\Ithil-APEE-B9YM38.nsf	✓		
Khazad-düm西/MiddleEarth	Room	w28dom8mail/CMTU	Resource.nsf	w28dom8mail/CMTU	Resources\Khaza-APEE-B9YM39	✓		

7. Click the **Import Rooms & Resources** button, select **Resource** and click **OK** to import from NAB:



8. The **Resources** dialog box appears; select a room and click **OK**:



*Resources Dialog Box*

9. A message box appears displaying the resources you selected in the previous step; click **OK** to continue
10. A confirmation box appears; click **OK**
11. The Data Pane displays the resources that are imported

## 6.2 Rooms and Resources Replicas

Rooms and Resources staging replicas can be created and managed if Replication is required and enabled. Note that Replication must be enabled and configured in the Replica Settings tab of Settings. Replication views do not appear if Replication is disabled.



Replication for Rooms and Resources is not necessary if the Settings | Rooms and Resources | Target Server is the same server as the Settings | Replica Settings | Staging Server(s).

To manage replication:

1. Expand **Preparation** and click **Create Replicas**
2. To create replicas, select one or more entries and click the **Create Replicas** button; this will create individual replicas; a Quick Push Replication option is also available in this view
3. You may clear and repopulate or delete selected databases from the **Repopulate or Delete** view if necessary:

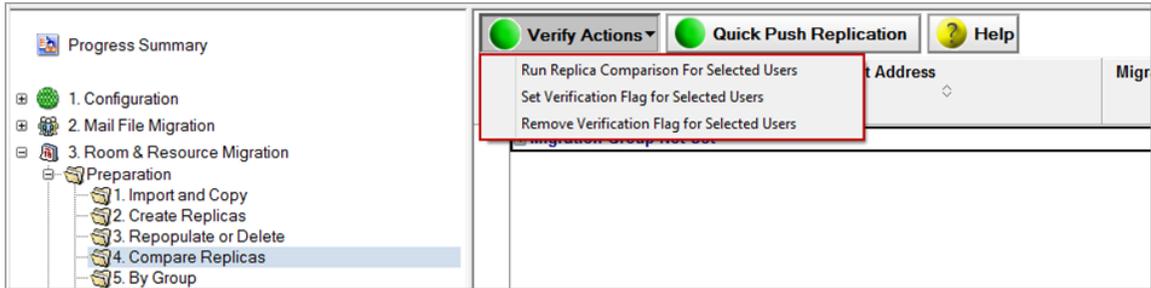


*Repopulate or Delete View*

4. Click **Compare All Replicas**; the replica comparison will allow you to compare a room or

resource and the staging replica

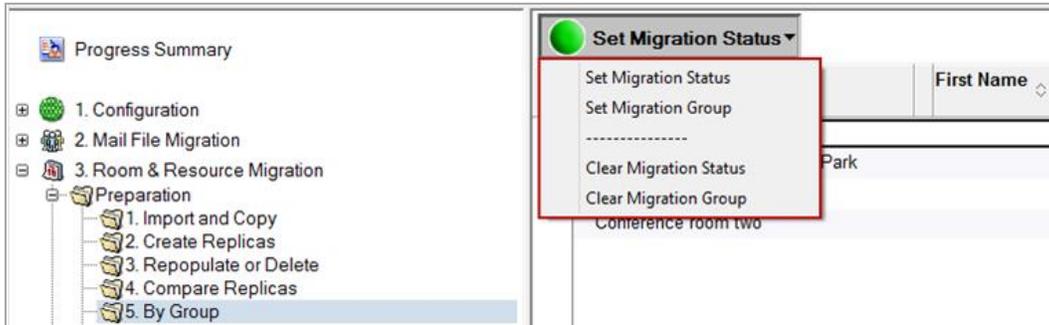
5. Select an option from the **Verify Actions** drop-down menu; a Quick Push Replication option is also available; click the **Help** button for more information about the replica comparison view:



The following table describes the function of each menu option:

Option	Description
Run Replica Comparison For Selected Users	Allows you to select entries and compare replicas
Set Verification Flag for Selected Users	Allows you to select entries and set a verification flag for them
Remove Verification Flag for Selected Users	Allows you to select entries and remove the verification flag for them

6. Click **Preparation | By Group**:



*Set Migration Status By Group*

7. This view gives you the ability set migration status and migration group
8. During the matching process, users that encounter an error are moved to the Check Errors folder in the Navigation Pane:



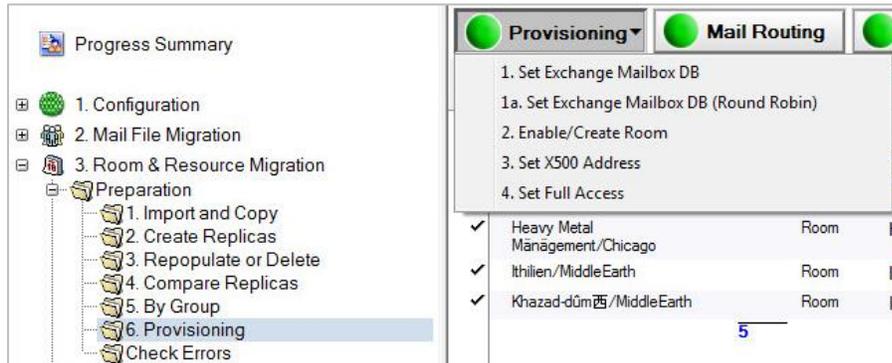
*Check Errors View*



If you cannot resolve the errors or need assistance determining why an error occurred, check the Knowledge Base under Support on the product web site or contact Product Support.

## 6.3 Provisioning Rooms and Resources

Refer to the *Provisioning View* screenshot below and set up the Exchange mailbox databases in the following steps:



*Provisioning View*

1. Expand the **Preparation | Provisioning** view
2. Select the appropriate resource in the Data Pane
3. Click the **Set Exchange Mailbox DB** button to manually choose a database from a list
4. Select a database and then click **OK** to continue
5. Select **Set Exchange Mailbox DB (Round Robin)** to distribute the rooms across all available Exchange mailbox databases



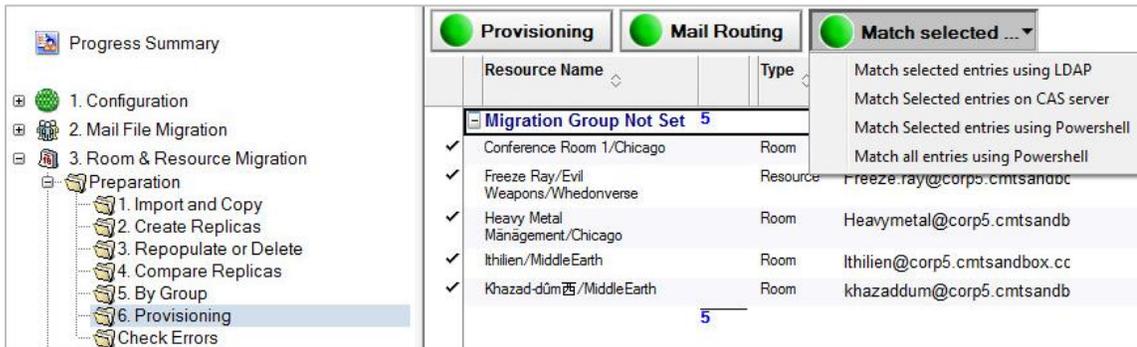
**Example of Round Robin:** If you have 10 Exchange mailbox databases set in Exchange to be used and you are provisioning 20 rooms, *Room1* is assigned to Exchange mailbox database 1, *Room2* to database 2, and so on. When it reaches the last database, it assigns the next room to Exchange mailbox database 1.

Once complete, the Exchange mailbox database is visible in the Room & Resource Migration view

Select the **Enable/Create Room** view to enable rooms, set X500 addresses and set full access; the Set X500 Address button only displays if you selected “Yes to separate the set X500 action” on the User Provisioning Settings tab

To match the selected Rooms and Resources:

1. Click **Match selected**
2. The drop-down menu displays four menu options:

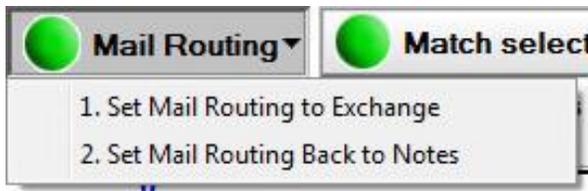


The following table describes each menu option:

Option	Description
Match selected entries using LDAP	Matches selected Rooms and Resources with their corresponding entries in AD using LDAP
Match Selected users on CAS server	Matches selected Rooms and Resources with their corresponding entries in AD on the Exchange CAS server
Match Selected entries using PowerShell	Matches selected Rooms and Resources using PowerShell
Match all entries using PowerShell	Matches all Rooms and Resources using PowerShell

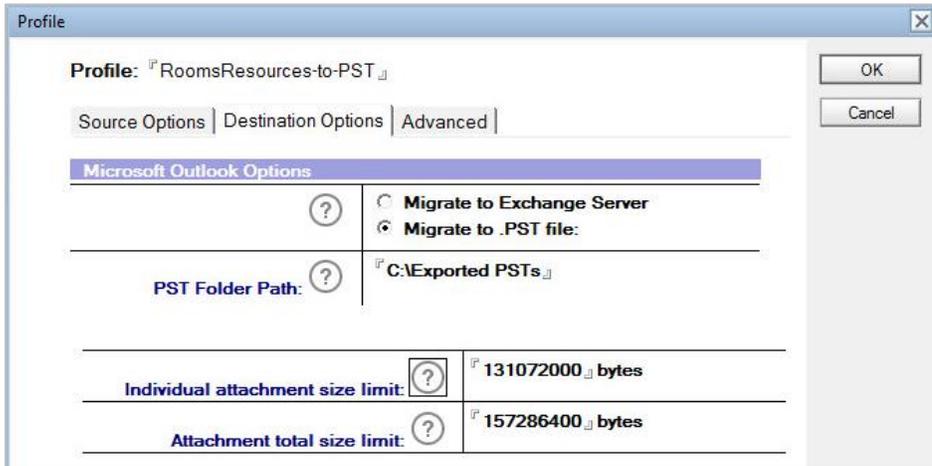
Once the migration is completed, you can update mail routing and update the AD primary and secondary SMTP.

1. Click the **Mail Routing** button to set mail routing to Exchange or update the AD primary and secondary SMTP; the **Set Mail Routing Back to Notes** option is for rolling back if needed:



## 6.4 Migrating Rooms and Resources to .PST

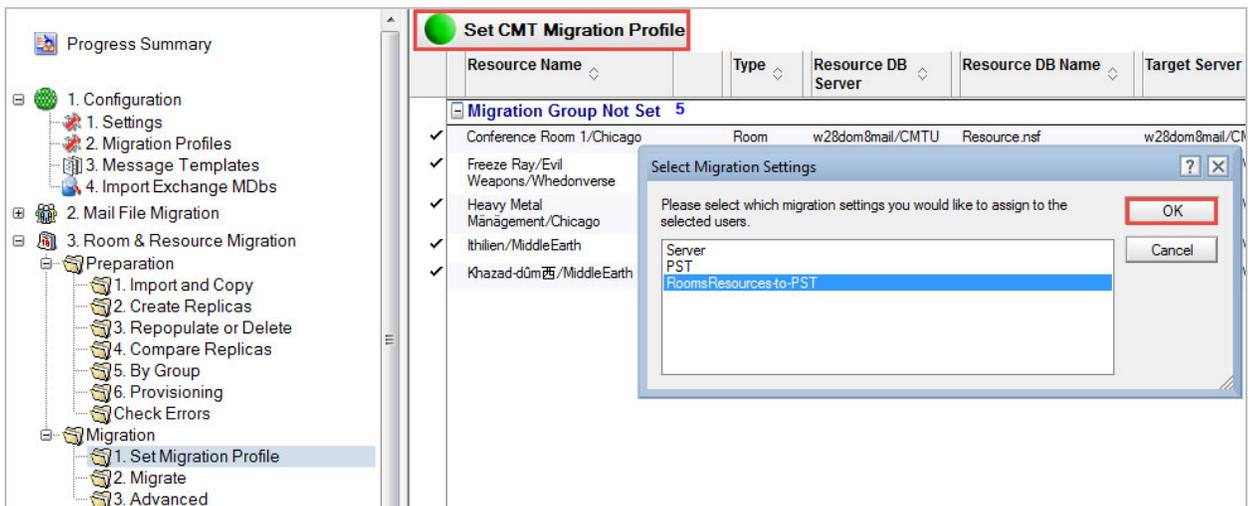
After you have exported Rooms & Resources databases information into the Migrator for Notes, create a migration profile for the rooms and resources to be migrated to a .pst file, and save it.



**NOTE !**

Be sure that room mailboxes have been created in Exchange for rooms and/or resources if the migrated .pst data is to be imported.

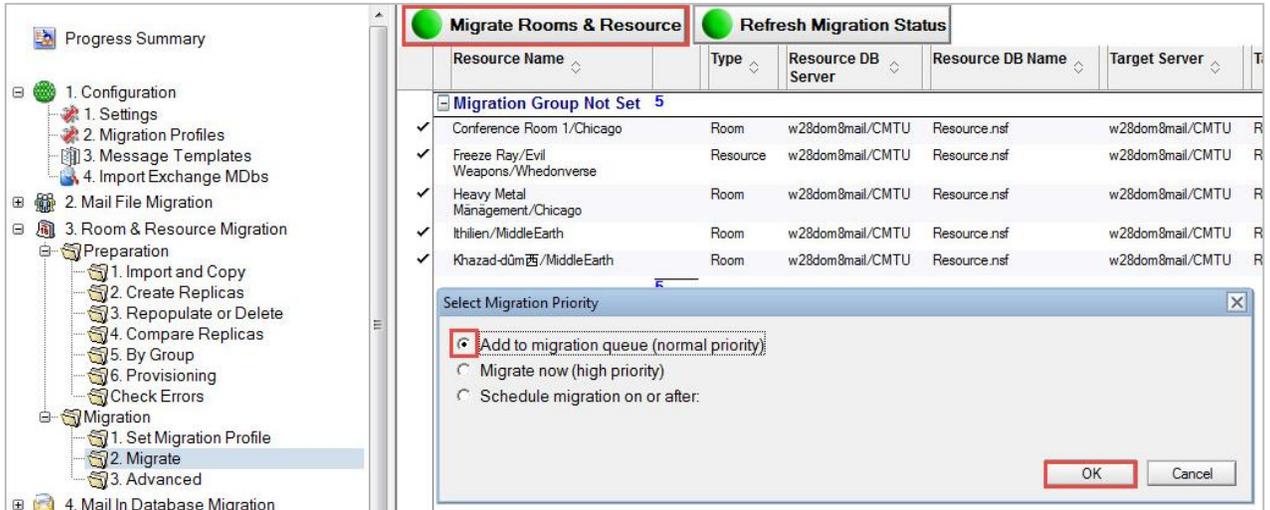
1. In the Navigation Pane, expand **3. Room & Resource Migration | Migration | 1. Set Migration Profile**
2. Select the rooms and resources in the Data Pane and click the **Set CMT Migration Profile** button
3. Select the migration profile created earlier to migrate rooms and resources to a .pst file, and click **OK**:



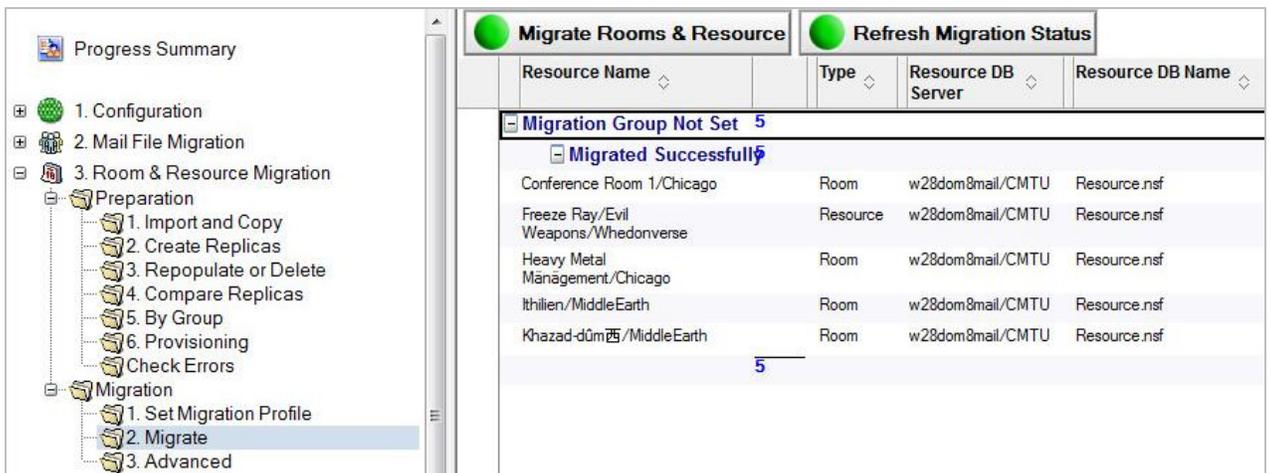
*Set CMT Migration Profile*

4. Click **Migrate** in the Navigation Pane
5. Select the room and resources in the Data Pane and click the **Migrate Rooms & Resource** button

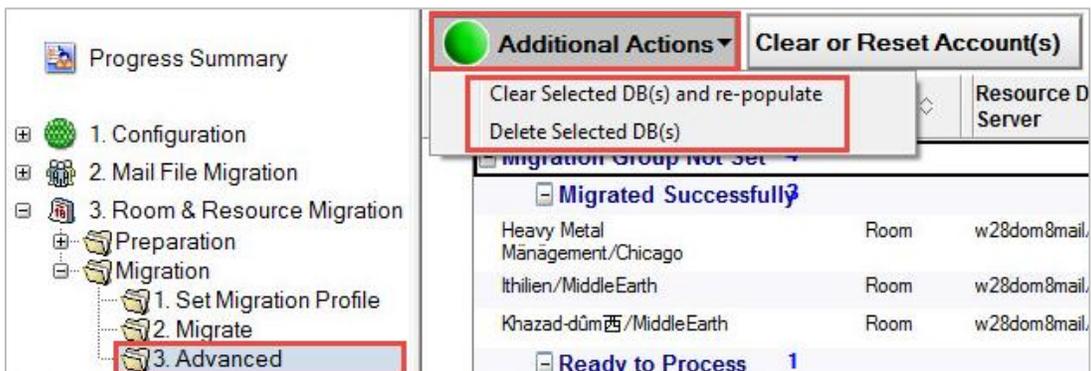
6. The **Add to migration queue** option is selected; click **OK**



Rooms and resources are migrated successfully to the location specified in the migration profile, for example C:\Exported PSTs folder



7. Before migrating, clear or delete any necessary databases; in the **Advanced** view, select the rooms and resources, click **Additional Actions** and select the appropriate drop-down menu item:



The following table describes the menu options:

<b>Option</b>	<b>Description</b>
Clear Selected DB(s) and re-populate	Selected room or resource import database created by Migrator for Notes will be cleared and then repopulated to import the updated information. This does not impact on the source Domino resource application
Delete Selected DB(s)	Selected room or resource will be deleted from the Migrator for Notes database as well as the temporary database created by Migrator for Notes into which the rooms or resources schedule was exported

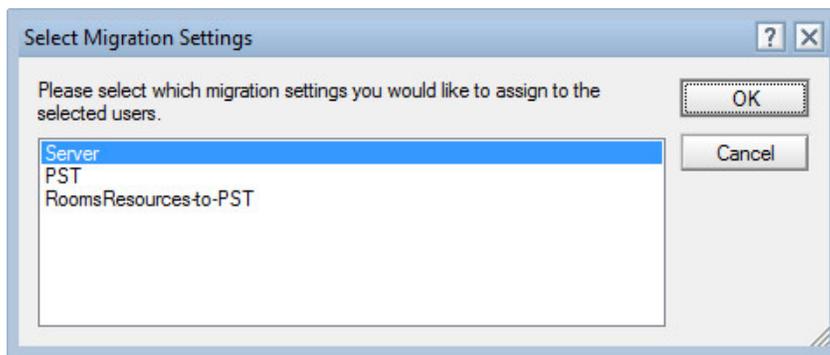
## 6.5 Migrating Rooms and Resources to Exchange Server

After you have exported Rooms and Resources databases information into Migrator for Notes and matched them with their corresponding AD entries (using the **Match selected** button in the Import and Copy view), you can prepare the Rooms and Resources for migration.

**NOTE !**

Be sure that room mailboxes have been created in Microsoft Exchange for rooms and resources.

1. Expand the **Rooms & Resource Migration | Migration | Set Migration Profile** view in the Navigation Pane
2. Select rooms and resources in the Data Pane and click the **Set CMT Migration Profile** button
3. Select the **appropriate** profile from the dialog box and click **OK**:



For information on manually setting migration statuses, see [Appendix E: Migration Result Statuses](#).

# Section 7. Mail-in Database Migration

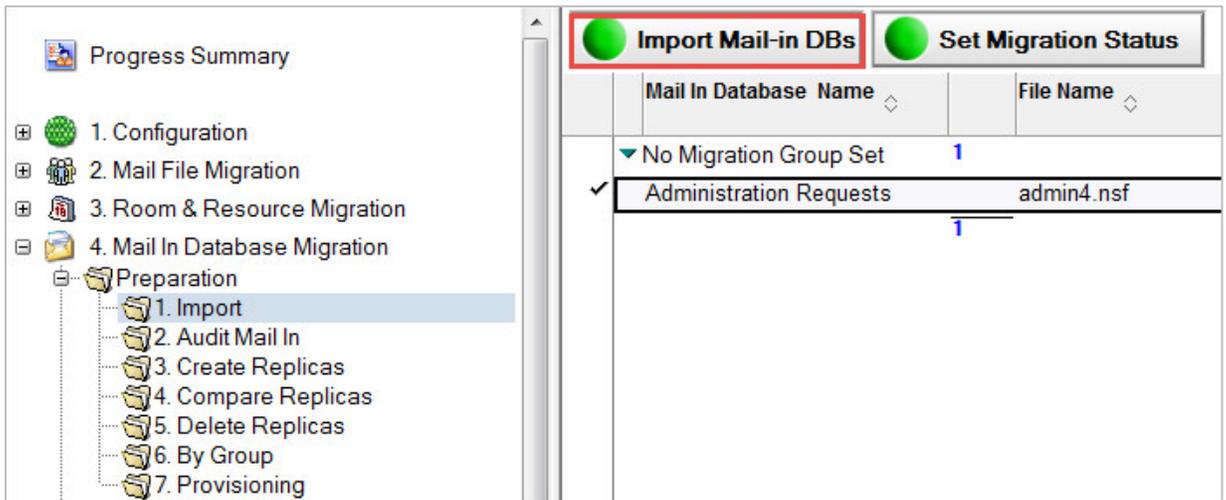
## 7.1 Preparing for Mail-in Database Migration

If you have already added all names to the Translation Table in a previous step, Mail-in databases are already there. If not, add them now by going back to the Email Repliability view. You can match these entries in either view as needed.

A Mail-in database can be migrated either to a .pst file or to the Exchange server.

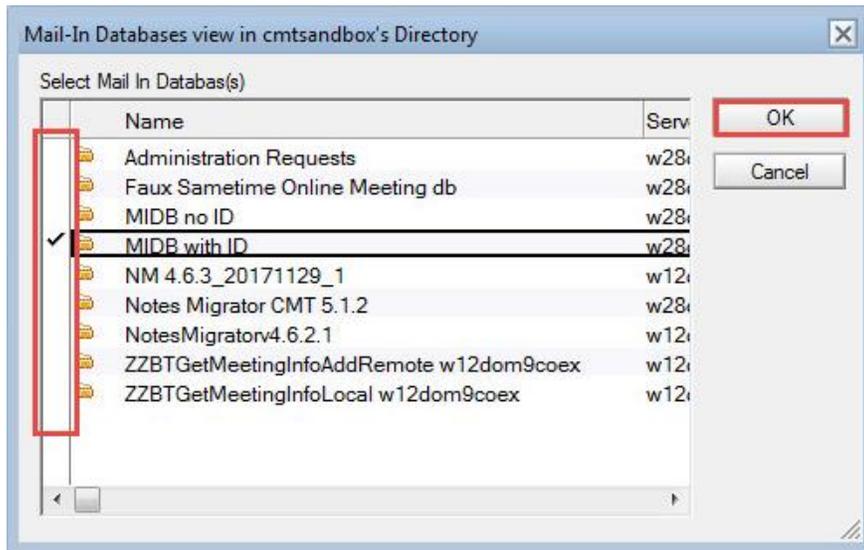
The first step in the migration of a mail in database is to import it into Migrator for Notes and prepare it for migration.

1. Expand **Mail In Database Migration | Preparation | Import** in the Navigation Pane:

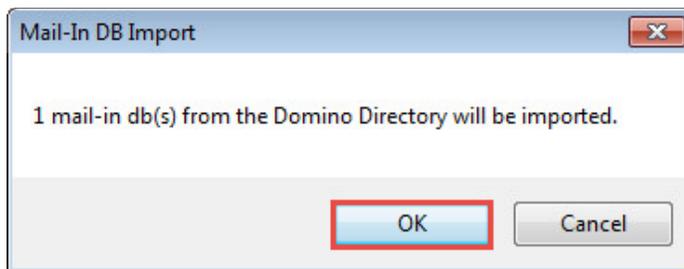


*Import Mail-in DBs button*

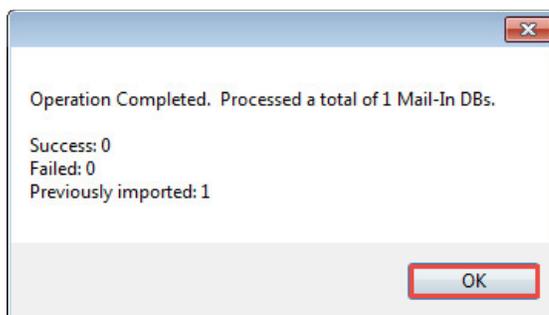
- Click the **Import Mail-in DBs** button
- From the **Mail-In Databases view in <Domino directory>** dialog box, select the mail-in database that you want to migrate and click **OK**:



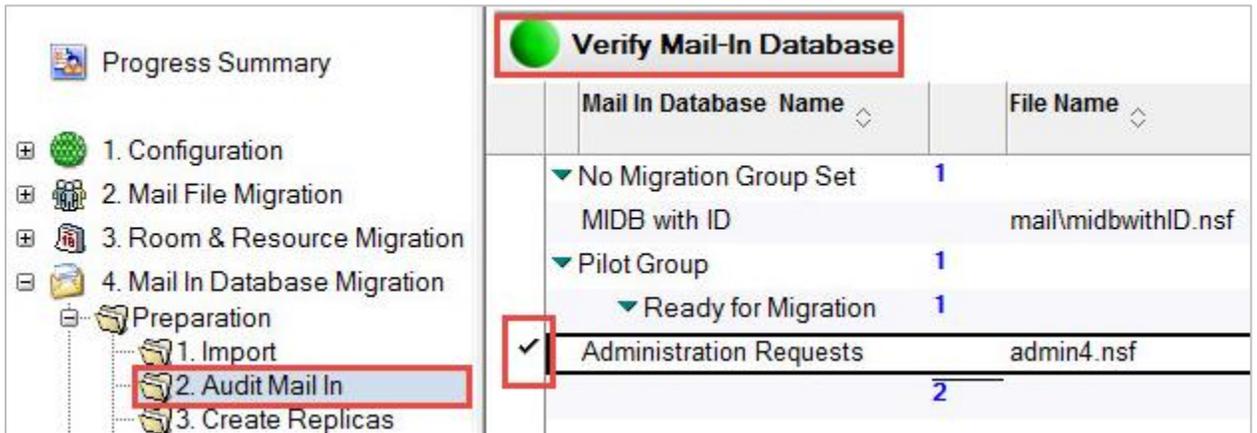
- Click **OK** in the message box:



- Click **OK** in the results box:



- Expand the **Migration | Advanced** view in the Navigation Pane
- Select the database in the Data Pane and set its migration status, group and workstation
- Database appears under its assigned group and displays its current migration status.
- Expand the **Audit Mail In** view; verify the database by selecting it and then clicking the **Verify Mail-In Database** button:



10. Click **Yes** in the confirmation box:



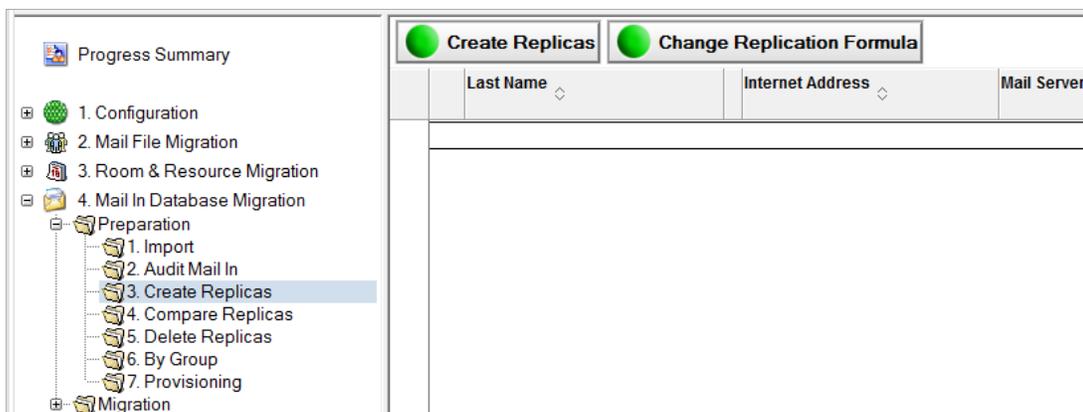
11. Click **OK** in the box that appears showing that the database has been audited; the database is audited and its status and group are set.

## 7.2 Mail-In Database Replicas

Mail-In Database Replicas can be created and managed if Replication is required and enabled. Note that Replication must be enabled and configured in the Replica Settings tab of Settings. Replication views do not appear if Replication is disabled.

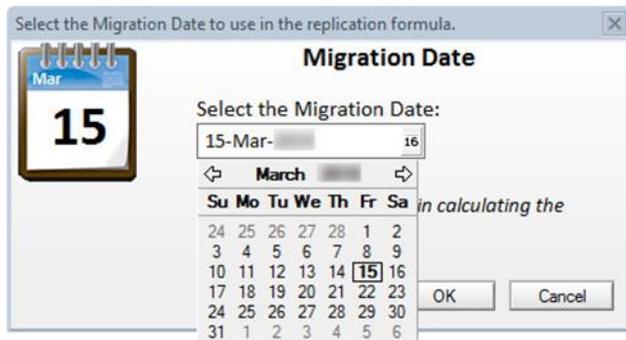
To manage replication:

1. Expand the **4. Mail In Database Migration | Preparation | Create Replicas** view:



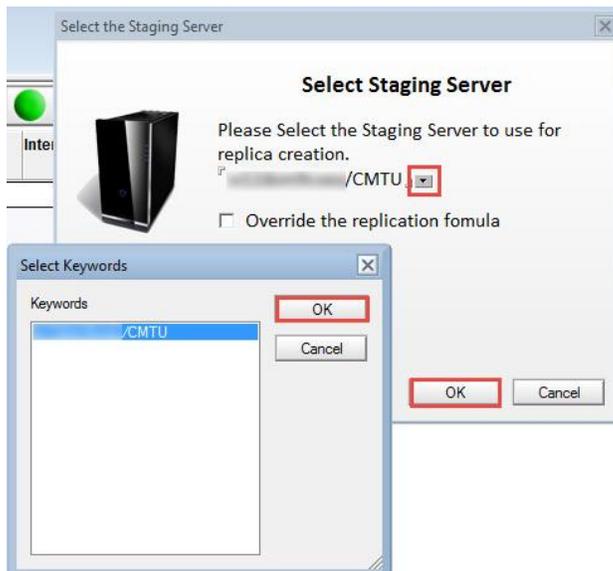
2. To create replicas, select one or more entries and click the **Create Replicas** button; the **Change Replication Formula** option is also available in this view

3. A dialog box will appear prompting you to enter the data when the migration will commence; select a date from the calendar picker and click **OK**:

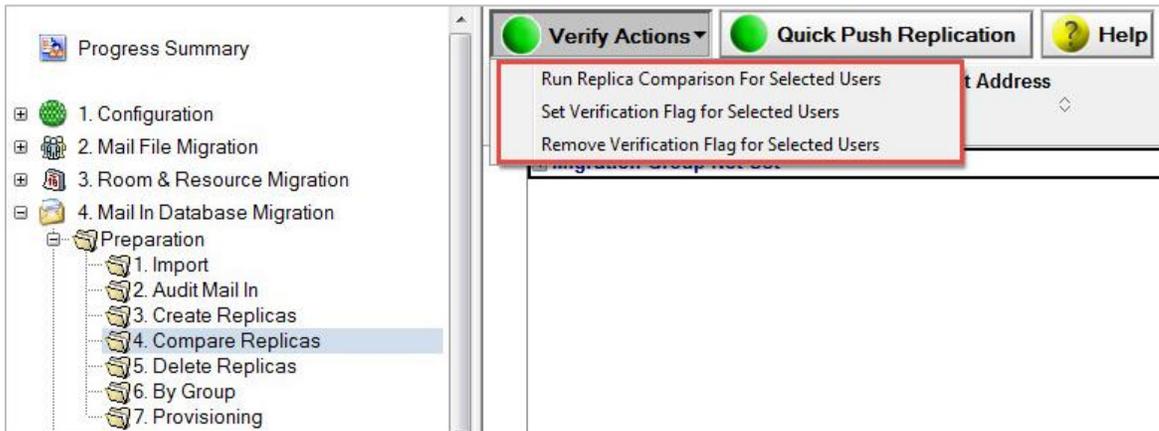


4. When the **Select the Staging Server** dialog box appears, select a server from the dropdown menu and click **OK**

Only check the **Override the replication formula** if you want to override your replication formula in the **Replica Settings** document:



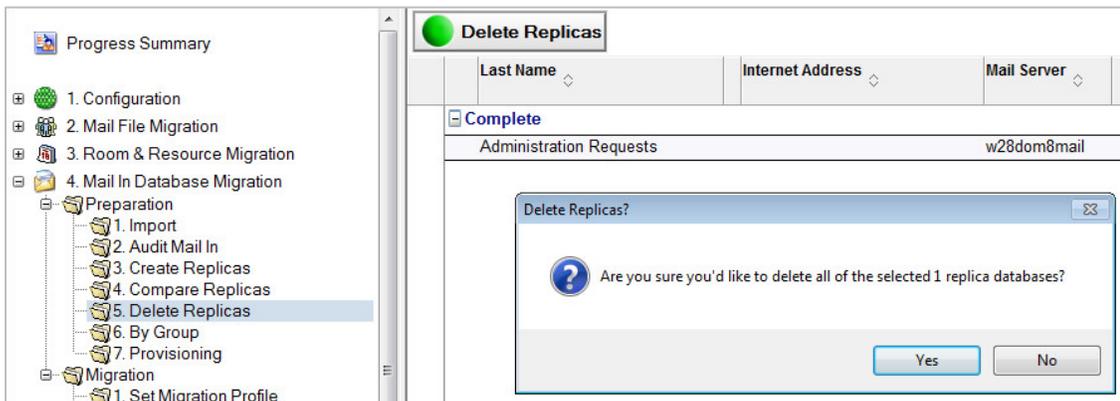
5. Click **Yes** in the **proceed with Replica Creation?** dialog box
6. A **Results** dialog box appears to show the results of the replication; click **OK**
7. Click **Compare Replicas**; the replica comparison will allow you to compare the original mail-in database and the staging replica
8. Select an option form the Verify Actions drop-down menu; a Quick Push Replication option is also available; click the **Help** button for more information about the replica comparison view:



The following table describes the function of each menu option:

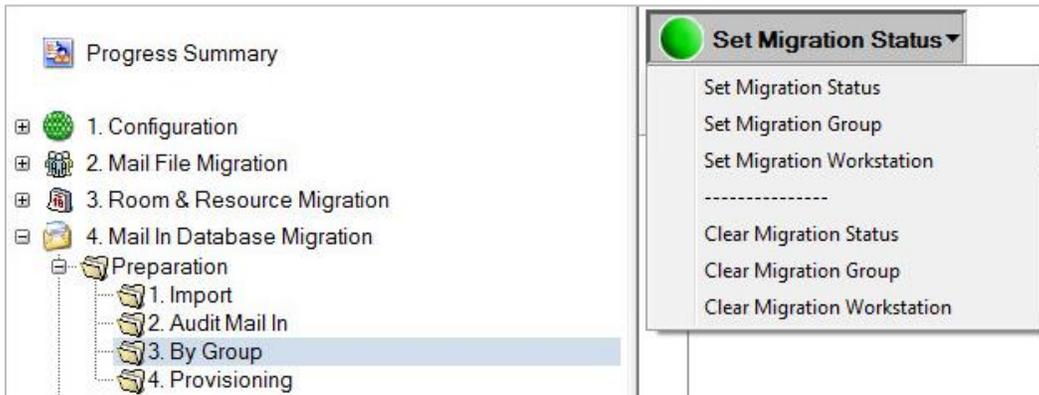
Option	Description
Run Replica Comparison For Selected Users	Allows you to select entries and compare replicas
Set Verification Flag for Selected Users	Allows you to select entries and set a verification flag for them
Remove Verification Flag for Selected Users	Allows you to select entries and remove the verification flag for them

9. You may delete selected mail-in databases from the **Delete Replicas** view:



10. Click **By Group | Set Migration Status**

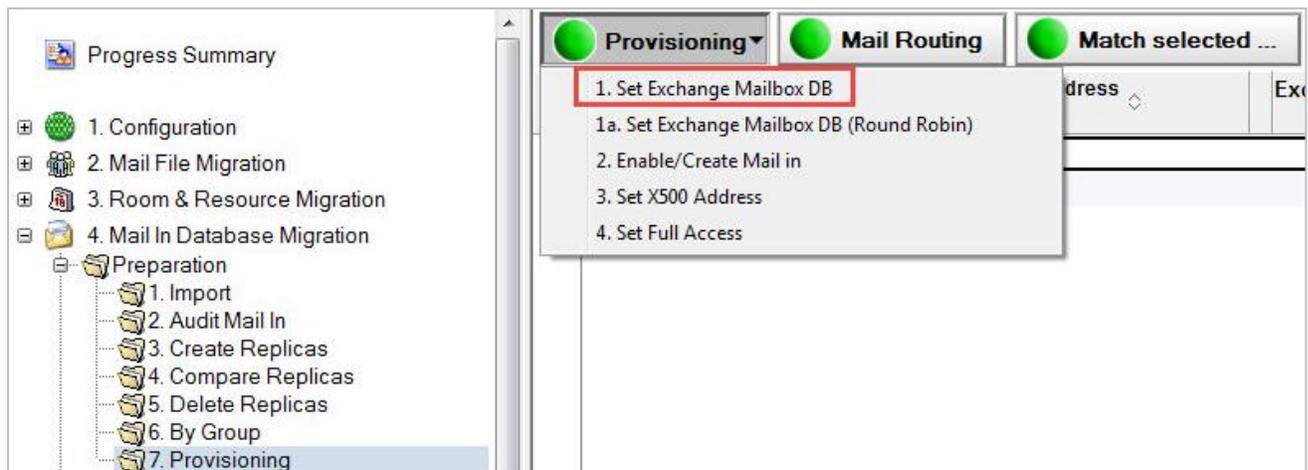
This view gives you the ability set the migration status, group and workstation:



### 7.3 Provisioning Mail-in Databases

Perform the following steps to set up the Exchange mailbox databases.

1. Select the appropriate Mail-in databases
2. Click the **Set Exchange Mailbox DB** button to manually choose a database from a list.
3. Select a database and then click **OK** to continue
4. Select **Set Exchange Mailbox DB (Round Robin)** to distribute the Mail-in databases across all available Exchange mailbox databases:



Set Exchange Mailbox DB



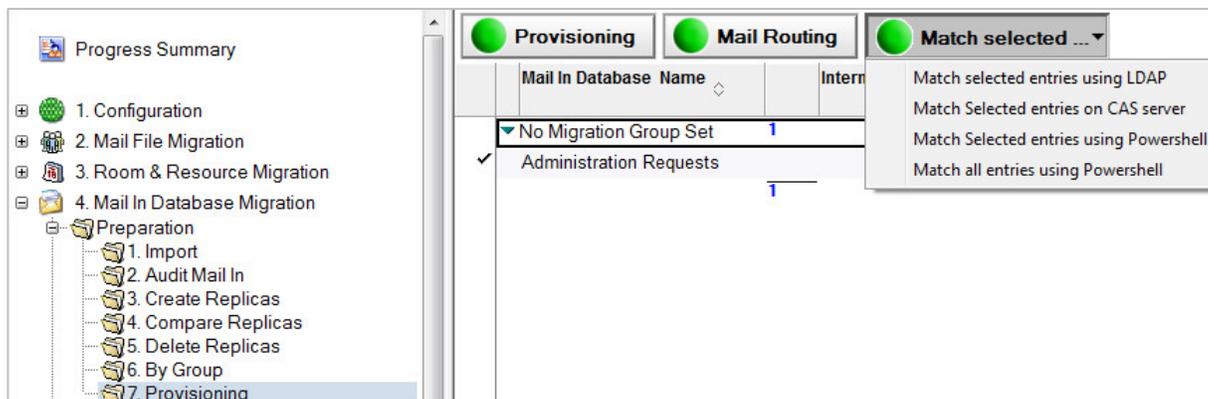
**Example of Round Robin:** If you have 10 Exchange mailbox databases set to be used and you are provisioning 20 Mail-in databases, *Mail-indatabase1* is assigned to Exchange mailbox database 1, *Mail-indatabase2* to database 2, and so on. When it reaches the last database, it assigns the next Mail-in database room to Exchange mailbox database 1.

Once complete, the Exchange mailbox database is visible in the Mail-in Database Migration view.

5. Select the **Enable/Create Mail In** view to begin enabling Mail-in databases, set X500 Addresses and set full access; the Set X500 Address button only displays if you selected “Yes to separate the set X500 action” on the User Provisioning Settings tab

To match the selected Mail-In databases:

1. Expand **Preparation** and click **Provisioning**
2. Click **Match selected**
3. The drop-down menu displays four menu options:



The following table describes each menu option:

Option	Description
Match selected entries using LDAP	Matches selected Mail-in databases with their corresponding entries in AD using LDAP.
Match Selected users on CAS server	Matches selected Mail-in databases with their corresponding entries in AD on the Exchange CAS server.
Match Selected entries using PowerShell	Matches selected Mail-in databases using PowerShell.
Match all entries using PowerShell	Matches all Mail-in databases using PowerShell.

### Match Selected Entries using LDAP

1. Select the **Match selected entries using LDAP** menu option
2. The selected Mail-in databases are matched in AD
3. Click **OK** to close the message box

### Match Selected users on CAS Server

Use this option if the destination mailbox server and the CAS servers are not the same server.

1. Select the Match Selected users on CAS server menu option
2. The selected Mail-in databases are matched on the Exchange CAS server; click OK to close the message box

### Match Selected entries using Powershell

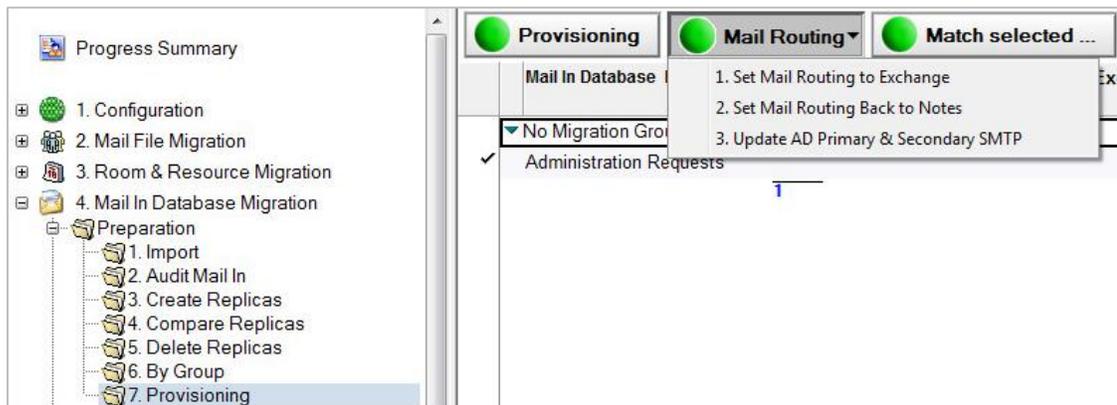
3. Select the **Match Selected entries using PowerShell** menu option
4. The selected Mail-in databases are matched using PowerShell; click **OK** to close the message box

### Match all entries using Powershell

1. Select the **Match all entries using PowerShell** menu option
2. All Mail-in databases are matched using PowerShell; click **OK** to close the message box

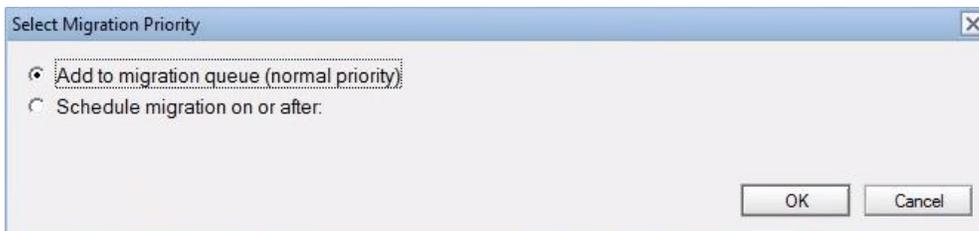
Once the migration is completed, you can update mail routing.

1. Click the **Mail Routing** button to set mail routing to Exchange. The **Set Mail Routing Back to Notes** option is for rolling back if needed.



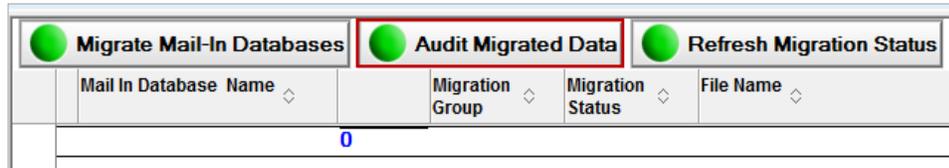
## 7.4 Migrating Mail-in Databases

1. Go to **Migration Profiles** under the **Configuration** view in the Navigation Pane; create a profile to migrate the mail in databases to Exchange migrations or a .pst file and save it
2. Navigate back to the **Mail In Database Migration | Migration | Set Migration Profile** view in the Navigation Pane
3. Select the database and then click the **Set CMT Migration Profile** button
4. Select the migration profile you created to migrate the mail in databases to a .pst file in the **Select Migration Settings** dialog box, and click **OK**.
5. Click the **Migrate** view in the Navigation Pane  
Select the database and then click Migrate Mail-In Database.
6. From the **Select Migration Priority** dialog box, select a priority and click **OK**:



7. Depending on the size of the data being migrated, the transfer may take few minutes to several minutes
8. The **Refresh Migration Status** button allows you to refresh the status of the selected mail-in databases

If the **Audit Exchange Migrated Data** option is enabled in the Settings, an Audit Migrated Data button will appear.



This agent audits the Exchange mailbox post-migration and creates a CSV file in the C:\Program Files\Binary Tree\CMT for Exchange\Logs directory of the workstation used to initiate the audit.

The CSV file has the following format:

Column A - UNID

Column B - NoteID

Column C - Migration Status (0=Unknown Result Status, 1=Successful, 2= Partially Migrated - Encrypted Body, unable to migrate attachment, but part of the message was converted and is available in Outlook)

Column D - Message Subject

The last line of the CSV file states "Audit Completed" when the agent completes. Contact and Group migrations are not included in the audit. Child documents that are integrated with the parent documents are not be listed in the CSV file.

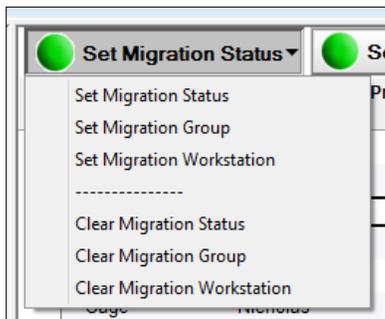
## Section 8. Setting Migration Status

The Set Migration Status options are available in the following views:

- Mail File Migration > Preparation > Import Users
- Mail File Migration > Preparation > Advanced
- Mail File Migration > Provisioning > Advanced
- Rooms & Resource Migration > Preparation > Import and Copy
- Rooms & Resource Migration > Preparation > By Group
- Rooms & Resource Migration > Migration > Advanced
- Mail In Migration > Preparation > Import
- Mail In Migration > Preparation > By Group
- Mail In Migration > Migration > Advanced

To set the migration status:

1. Select items in the Data Pane, and then click the **Set Migration Status** button:

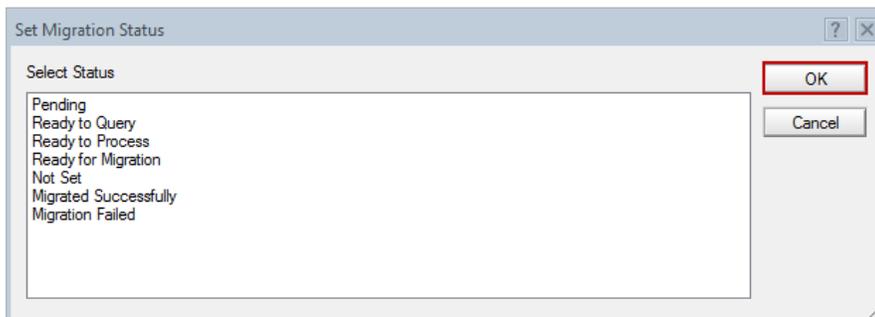


The following table describes the function of each menu option:

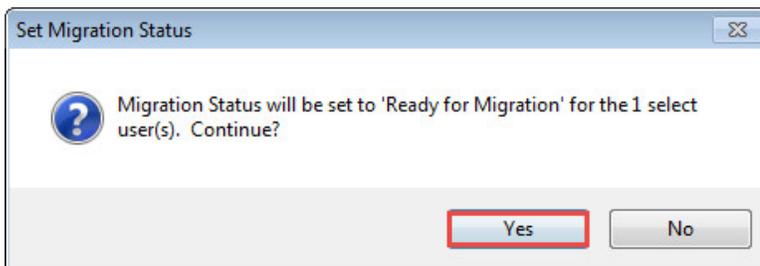
Option	Description
Set Migration Status	Allows you to set the item's migration status, such as Schedule Pending, Migration Scheduled, Pending Migration, or Migration Completed Successfully based on the options included in the Settings document
Set Migration Group	Allows you to assign a group to item(s) to create logical batches for display in Migrator for Notes; This will enable you to manage a group of entries instead of individually migrating items

Option	Description
Set Migration Workstation	Allows you to manually assign a migration workstation from the farm to process an item's data; This will enable you to distribute the workload across multiple migration workstations during migration;  If you do not set a migration workstation, then the farm will distribute the work automatically
Clear Migration Status	Allows you to clear the migration status of item(s)
Clear Migration Group	Allows you to clear a migration group assigned to item(s)
Clear Migration Workstation	Allows you to clear the migration workstation assigned to item(s)

- From the **Set Migration Status** drop-down menu, select the **Set Migration Status** menu option; a dialog box appears with a list of status codes you specified in the **Required Settings** tab:
- Select a status code, and then click **OK**:

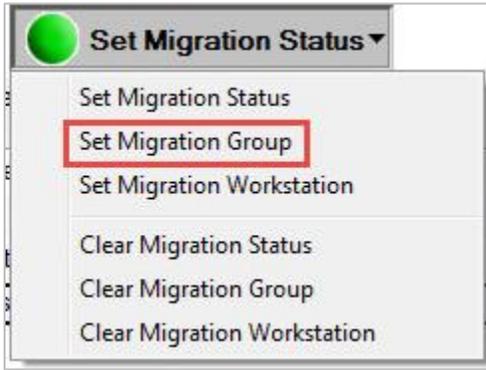


- A confirmation box appears; click **Yes** to confirm that you want the migration status to be set to the selected status for the selected items:



To set the migration group:

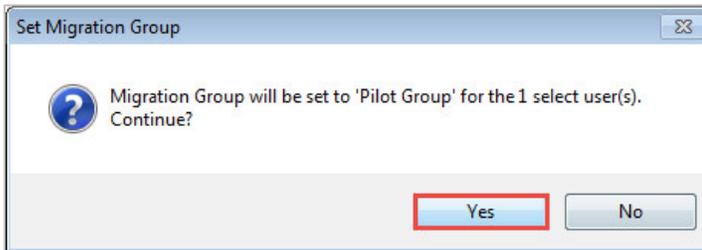
- Select users. Click the **Set Migration Status** button; select the **Set Migration Group** drop-down menu option:



2. Specify a name for the migration group in the Migration Group dialog box and click **OK**:

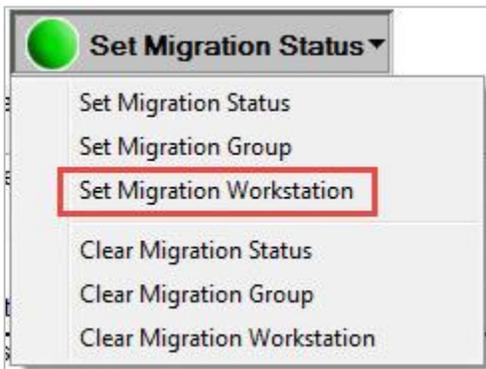


3. A confirmation box appears. Click **Yes**. The selected items are in the specified migration group:

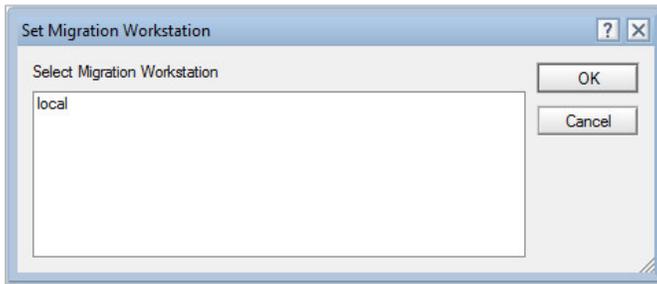


If you want items to be migrated on a specific Migration Workstation, you can set it here. Otherwise, they will be distributed across all available workstations.

4. Select items, then select **Set Migration Status > Set Migration Workstation**:



5. The Set Migration Workstation dialog box appears; select a workstation for the selected items where their migration will be carried out, and then click **OK**:



6. A confirmation box appears; click **Yes** to confirm that you want the selected migration workstation to be set for selected items

You can clear set migration status, migration group, and migration workstation by selecting appropriate options.

## Section 9. Access and Delegation Migration

### 9.1 Access and Delegation Migration Overview

Delegation migration migrates access to Exchange mailboxes, such as Send As/Manager access and access to specific folders like Calendars and Contacts. Delegation migration attempts to set access control on objects in Exchange based on the Access Control List (ACL) in Notes which dictates overall access to the Exchange mailbox. The delegation migration can be run by a scheduled process or manually on selected documents.

The following is required for delegation migration:

- Address translation must be fully populated when migrating Access and Delegation. The SMTP address must match the primary SMTP in Exchange
- PowerShell 4 must be installed on the workstation/server that the migration process is to run from
- The Administration account for the CAS Server has the **ApplicationImpersonation** role in the domain
- Exchange delegates must have domain accounts and be mailbox-enabled



- Delegation migration to Mail-in databases are treated like other mail files
- The access control for Rooms and Resources is not included in delegation migration
- Automatic Forwarding settings in the Notes client are not migrated
- For ACL Groups permissions migrations, Notes groups must migrate to a security mail-enabled group in Exchange and have an Internet Address assigned or be converted to Multi-Purpose groups
- In hybrid Exchange installations, with both Office 365 and on-prem Exchange servers:
  - Delegation access can only be set for users on the same system; Office 365 users can set delegation access to the mailbox to other Office 365 users, but not to Exchange users; Exchange users can set delegation access to other Exchange accounts, but not to Office 365 users; Access delegation is not supported between Exchange on-prem users and Office 365 accounts
  - You must set application impersonation in each domain (once for the on-prem Exchange servers, and once in the Office 365 tenant); Impersonation in the on-prem servers does not automatically propagate to Office 365 because they are separate domains and AD objects

Delegation also allows you to audit the user's mail files for database ACL and delegation data and send an email containing the user's current delegation settings, so the user can determine if the settings are valid for migration to Outlook.

## 9.2 Migrate Delegation – Scheduled

The scheduled delegation migration and the scheduled delegation migration agent must be enabled in the Delegation settings. When enabled, the agent will attempt to migrate delegation data for all mailboxes that have been successfully migrated to an Exchange Server since the last delegation migration.

Scheduled delegation migration runs in the background locally in HCL Notes on a workstation. This requires a local replica of the Notes Migrator.nsf from the Domino server on the workstation and Notes must be running and background agents must be enabled on the client and background replication for the local replica.

When enabled the scheduled delegation migration agent runs once a day at 3:00 AM. Note that if the agent is changed to run at a time interval that is too short, the PowerShell tasks may not have time to complete.

The status of the delegation migration can be viewed on the **Delegation Migration** view:

Mailbox Migration	Delegate Migration Date Time	Delegate Migration	Last Name	First Name	Delegation
<b>02/18/2016</b> 4					
<b>Delegation Migration Status: Failure</b> 3					
Ready for migration	02/18/2016 08:58:28 AM	Failure	Dom851	Bcc_2	To_1 De To_2 De User1 D User1 D User2 D
Ready for migration	02/18/2016 08:58:28 AM	Failure	Dom851	To_2	To_1 De Bcc_1 f User1 D
Ready for migration	02/18/2016 08:58:28 AM	Failure	Dom851	User4	User3 D User1 D User2 D
<b>Delegation Migration Status: Success</b> 1					
Ready for migration	02/18/2016 08:44:48 AM	Success	Dom851	Bcc_1	User3 D win23d OtherD Anonyr Bcc_2

*Delegation Migration View*

The status for delegation migration can be successful, incomplete (partially migrated), or a failure. If the status is either incomplete or failed, the delegation migration will be retried until it reaches the successful status, or until the retry limit is exceeded. If the retry limit is exceeded, it will go in to suspended status, where it can be reset and re-queued for background processing.

The failure or incomplete status will occur if one or more delegates does not exist, because either the delegate does not exist as a mailbox-enabled AD account or security enabled group in the target domain.

**NOTE !**

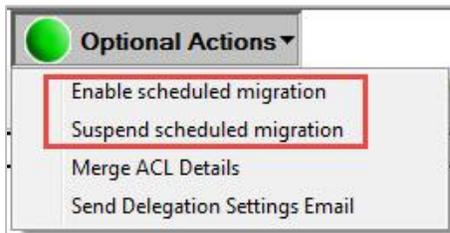
Failed scheduled delegation migrations will continue to be retried until successful or until the schedule migration is suspended.

For user delegation this will only be applied once the account that is a delegate has a mailbox. Not all delegation is expected to complete successfully until all Notes accounts are migrated.

It is recommended to schedule migrations for users and delegates who require access to email or calendar data in the same migration batch.

### 9.3 Enable and Suspend Scheduled Migration

Enable and suspend scheduled migration options are available under Optional Actions:

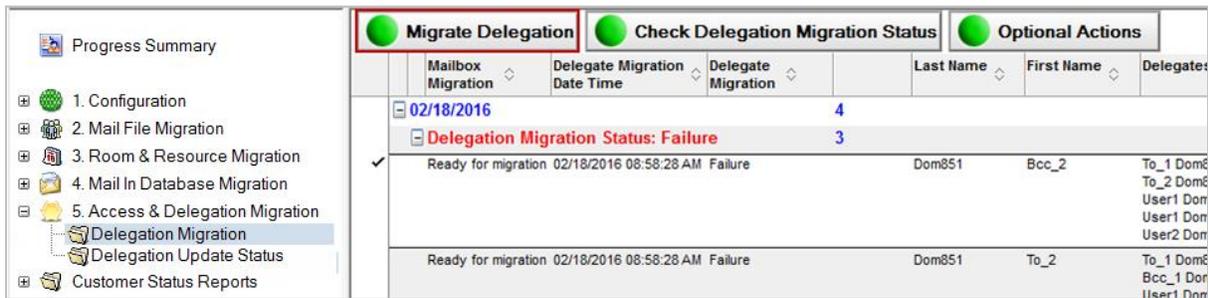


Select one or more mailboxes and click **Optional Actions | Suspend scheduled migration** to stop the scheduled delegation migration

Select one or more mailboxes and click **Optional Actions | Enable scheduled migration** to set the scheduled delegation migration attempts; you may want to use this option after attempting a manual delegation migration

### 9.4 Migrate Delegation – Manual

Delegation data for selected mailboxes can also be manually migrated immediately using the local machine. Manually migrating delegation data will remove the mailbox from the scheduled state and it must then be validated by the same machine. As stated in the Access and Delegation Migration Overview, PowerShell 4 must be installed on the workstation/server that the migration process is to run from. You can use the **Enable scheduled migration** option to reset to the scheduled state.



To manually migrate delegation data:

1. On the Delegation Migration view, select one or more mailbox and click the **Migrate Delegation** button; the local machine immediately attempts to migrate delegate information

### 9.5 Active Delegation – Operation

#### Audit the mailfiles

This process can be run in conjunction with the Active Mailbox process; after the mail file audit process has completed, select the **Delegation Migration** option to switch to the following view:

Mailbox Migration	Delegate Migration Date Time	Delegate Migration	Last Name	First Name	Delegation
<b>02/18/2016</b> 4					
<b>Delegation Migration Status: Failure</b> 3					
	Ready for migration 02/18/2016 08:58:28 AM	Failure	Dom851	Bcc_2	To_1 D To_2 D User1 D User2 D
	Ready for migration 02/18/2016 08:58:28 AM	Failure	Dom851	To_2	To_1 D Bcc_1 User1 D
	Ready for migration 02/18/2016 08:58:28 AM	Failure	Dom851	User4	User3 D User1 D User2 D
<b>Delegation Migration Status: Success</b> 1					
	Ready for migration 02/18/2016 08:44:48 AM	Success	Dom851	Bcc_1	User3 D win23d OtherD Anonyr Bcc_2

This view displays the mail file owner, a list of people assigned delegate access, the level of access in ACL terms, and whether the calendar is “open” for public viewing.

**NOTE !** This view only shows a maximum of nine delegates per user. If there are more, these can be viewed by opening the person document and switching to the **Delegation Information** tab.

**Bcc\_2 Dom851**  
*Bcc\_2 Dom851/CMTU*

Migration Status: **Ready for migration**  
Migration Group:  
Migration Date:  
VIP: **No**

General User Information | Delegation Information

**My Delegates**

Username	Access Level	1	2	3	4	5	6	7	8	9
To_1 Dom851	Editor	Y						Y	Y	Y
To_2 Dom851	Author							Y	Y	Y
User1 Dom851	Reader							Y	Y	Y
User1 Dom656	No Access							Y	Y	
User2 Dom703	Reader							Y	Y	

Calendar Open : No  
Delegation Update Status: Delegate Update Error:

The values “1, 2, 3, 4, 5, 6, 7, 8, 9” refer to the “tick” settings in the database ACL as shown below:

<input checked="" type="checkbox"/> Create documents	1 - Create documents
<input checked="" type="checkbox"/> Delete documents	2 - Delete documents
<input checked="" type="checkbox"/> Create private agents	3 - Create private agents
<input checked="" type="checkbox"/> Create personal folders/views	4 - Create personal folders/views
<input checked="" type="checkbox"/> Create shared folders/views	5 - Create shared folders/views
<input checked="" type="checkbox"/> Create LotusScript/Java agents	6 - Create LotusScript/Java agents
<input checked="" type="checkbox"/> Read public documents	7 - Read Public Documents
<input checked="" type="checkbox"/> Write public documents	8 - Write public documents
<input checked="" type="checkbox"/> Replicate or copy documents	9 - Replicate or copy documents

This form also displays the **Forward Meeting Notice** settings as configured in the delegation settings of the mail file associated with this user:

My Delegates											
Username	Access Level	1	2	3	4	5	6	7	8	9	Calendar Open : No Delegation Update Status:
To_1 Dom851	Editor	Y						Y	Y	Y	
To_2 Dom851	Author							Y	Y	Y	
User1 Dom851	Reader							Y	Y	Y	
User1 Dom656	No Access							Y		Y	
User2 Dom703	Reader							Y		Y	

Forwarding Information:	
Forward Meeting Notices where I am Chair to:	User1 Dom656
Forward Meeting Notices where I am an invitee to:	User1 Dom656 User2 Dom703
Forward Private Information:	Forward without private details

## 9.6 Merge ACL Details

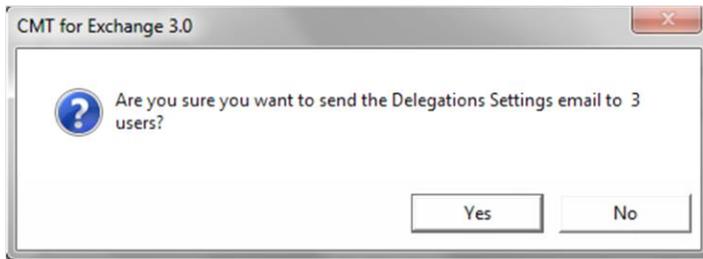
Merging ACL details is an optional process to populate the **I am a Delegate for** section of the person document. Once the Audit process has completed, it is necessary to run an agent to consolidate the data from these users. This agent displays if the user is also a “Delegate For” another user. To run this agent, click on the **Merge ACL Details** option under the **Optional Actions** button in the action bar at the top of the view. This agent runs against all documents in the view and can be rerun at any time. If the mail file audit agent is run again, **Merge ACL Details** must also be run.

Once the agent has run, the view displays data in the **I am a Delegate for** section. This view is limited to nine delegates per person. Open the person document for full details.

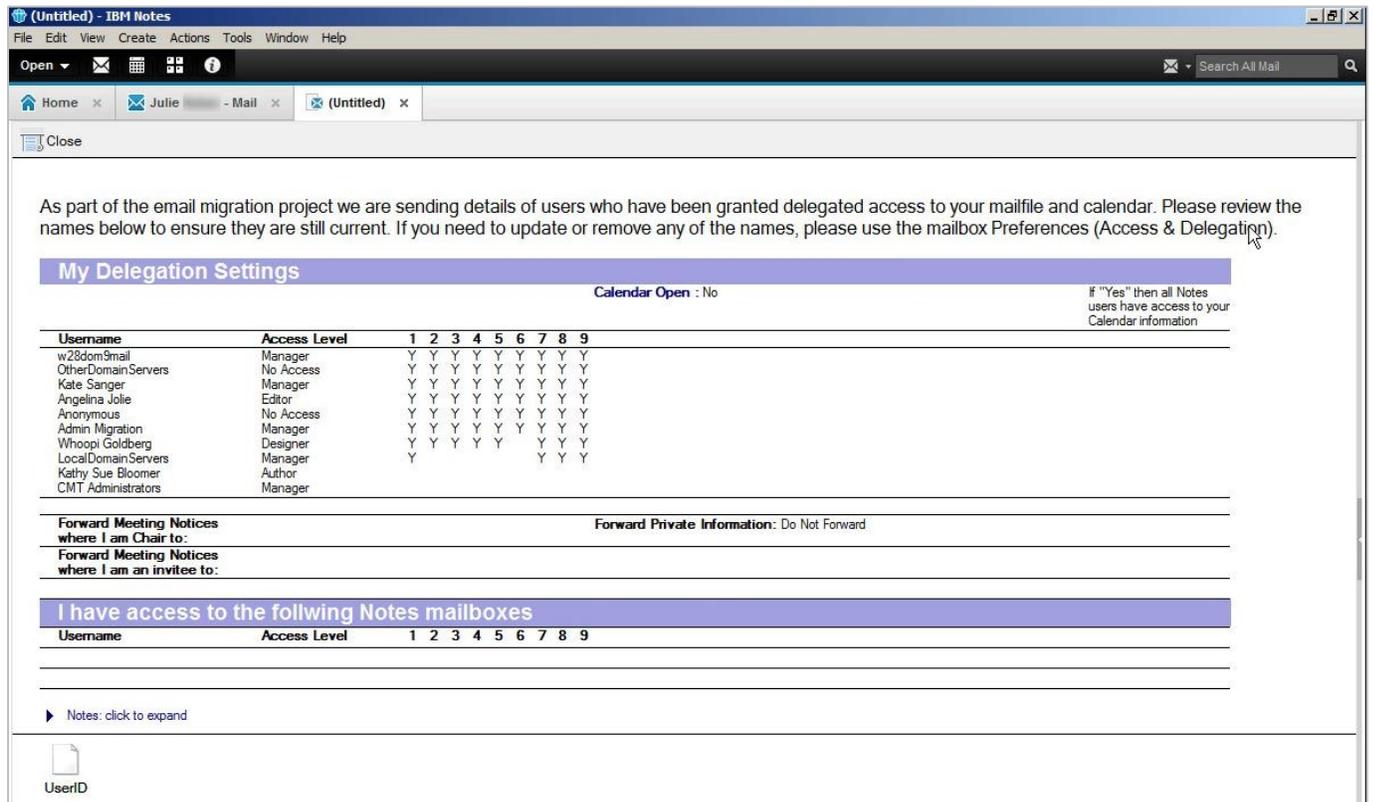
<b>Denise Adley</b> <i>Denise Adley@Home</i>		Migration Status: Migration Group:									
General User Info.   Delegate info.											
My Delegates											
Username	Access Level	1	2	3	4	5	6	7	8	9	Calendar Open : No Delegation Update Status: Delegate Update Error:
Keith Adley	Editor	Y	Y	Y	Y	Y	Y	Y	Y	Y	
<b>Forward Meeting Notices where I am Chair to:</b>		<b>Forward Private Information:</b> Do Not Forward									
<b>Forward Meeting Notices where I am an invitee to:</b>											
I am a Delegate for											
Username	Access Level	1	2	3	4	5	6	7	8	9	
Keith Adley	No Access							Y	Y	Y	
Vicki Adley	Editor	Y	Y					Y	Y	Y	
Test User1	No Access							Y	Y		
Test User10	No Access							Y	Y		
Test User2	No Access							Y	Y		
Test User21	Reader							Y	Y		
Test User22	Reader							Y	Y		
Test User23	Reader							Y	Y		
Test User24	Reader							Y	Y		
Test User25	Reader							Y	Y		
Test User26	Reader							Y	Y		
Test User27	Reader							Y	Y		
Test User28	Reader							Y	Y		
Test User29	Reader							Y	Y		
Test User3	No Access							Y	Y		
Test User30	Reader							Y	Y		
Test User4	No Access							Y	Y		
Test User5	No Access							Y	Y		
Test User6	No Access							Y	Y		
Test User7	No Access							Y	Y		
Test User71	No Access							Y	Y		
Test User73	Reader							Y	Y		
Test User8	No Access							Y	Y		
Test User89	Author	Y	Y					Y	Y	Y	

## 9.7 Send Delegation Settings email

At this point, if you do not intend to migrate mailbox delegation, you can send the end users a report of their delegation settings; select the users from the view and click on the **Optional Actions | Send Delegation Settings Email**; you will be asked for confirmation before proceeding:



When you click **Yes**, the selected users receive an email message similar to the one shown below:



At this stage, you can work with your users to audit and tidy up delegation settings in Notes prior to migration. If users update their delegation settings, you need to rerun the audit agent and the Merge ACL Details agent to capture the most updated data.

## Section 10. All Accounts

Summarizes all accounts including Rooms & Resources and Mail-in Databases in the Migrator for Notes application.

Last Name	First Name	Current Step	ShortName	Internet Address	Migration Status
No Migration Group Set					
Conference Room 1			Confe-AMIN-BTHRVG	Conferenceroom1@corp5.cmtsa	
MIDB one			MIDB-AMIN-BTHRWX	mailindb1@corp5.cmtsandbox.c	
AutoDiscover Failure					
Sanger	Kate	Migrate	KSanger	KSanger@corp5.cmtsandbox.co	AutoDiscover
Migrated Successfully					
Nold	Lisa	Migrate	LNold	LNold@corp5.cmtsandbox.com	Migrated Successfully
Pending					
Reber	Julie	Migrate	JReber,JReber@corp5.cmtsand	JReber@corp5.cmtsandbox.com	Pending

## Section 11. Customer Status Reports

Migration status reports can be manually run or scheduled. Manual reports require Microsoft Excel installed on any workstation when reports are run. Scheduled reports are CSV files and do not require Microsoft Excel. Please ensure that you have populated the Migration Status Report section of the Additional tab in the Required Settings document.

To manually run migration status reports:

1. Go to the **Customer Status Reports** view in the Navigation Pane; options to remove entries from the view, refresh the migration status of entries, and set/clear migration status, group, or workstation are available
2. Click the **Customer Status Report** button; the drop-down menu displays four options:

Migration Group	Status
	Pending
	Pending

*Customer Status Reports View*

The following table describes each menu option:

Option	Description
Send All Migration Status Reports	Sends both the customer and operator status reports in XLS format; This process is run from the local client

Option	Description
Send Migration Status Report to Customer	Sends the customer status reports (simplified) in XLS format; This process is run from the local client
Send Migration Status Report to Operators	Sends the operator status reports (detailed with errors) in XLS format; This process is run from the local client
Compose Final Migration Status Report	Exports all documents in the "Customer Status" view to a CSV file then composes a new memo with the migration summary in the body; Then, it opens the CSV file for any manual editing that maybe required; After which, the file can be saved and attached to the status report

To schedule migration status reports:

1. From the **Customer Status Reports** view in the Navigation Pane
2. Click the **Enable or Disable Scheduled Agents** button. The drop-down menu displays four options

The following table describes each menu option:

Option	Description
Enable Refresh Migration Status	Runs on a local MCC server/workstation and retrieves the current status of the migrating accounts for the scheduled status reports to operate without requiring manual refreshes
Enable Customer Status Report	Runs on the Domino server and creates a CSV (text) file on the server, composes an email, populates the body with the migration summary totals designed for customers and then sends the message to the customer
Enable Operator Status Report	Runs on the Domino server and creates a CSV (text) file on the server, composes an email, populates the body with the migration summary totals with all errors for an operator to review in details and then sends the message to the operator
Disable Refresh Migration Status	The Refresh Migration Status process is disabled
Disable Customer Status Report	The Customer Status Report process is disabled
Disable Operator Status Report	The Operator Status Report process is disabled

**NOTE !**

When selecting agents to run from the local workstation, background agents must be enabled. To enable this option in Notes:

1. From the Notes File menu, click **Preferences**
2. Expand **Accounts** and click **Basic Notes Client Configuration**
3. Check **Enable scheduled local agents**
4. Click **OK**

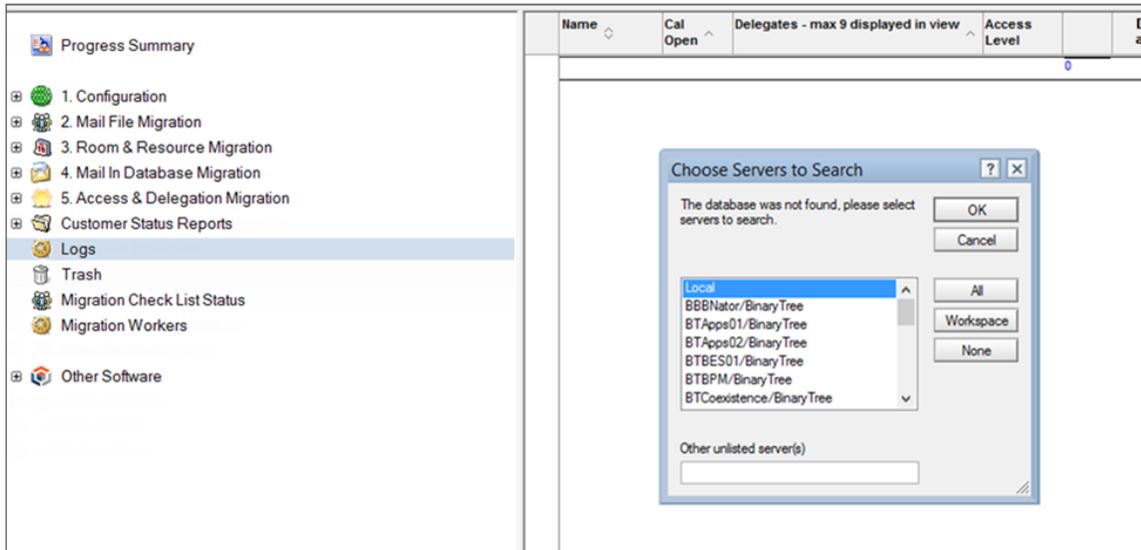
To view status report logs.

1. Click **Logs** under **Customer Status Reports** in the Navigation Pane. Refer to the **Logs** section of this document for more information.

## Section 12. Logs

Logs are available from the Navigation Pane. The log record in the Data Pane below shows information about the last time the Custom Status Report agent was run.

2. Click **Logs** in the Navigation Pane
3. If prompted, select a server to search and click **OK**:



	Created	Subject
<ul style="list-style-type: none"> <li>Progress Summary</li> <li>1. Configuration</li> <li>2. Office 365</li> <li>3. Room &amp; Resource Migration</li> <li>4. Mail In Database Migration</li> <li>5. Access &amp; Delegation Migration</li> <li>Customer Status Reports</li> <li>Logs</li> <li>Trash</li> <li>Migration Check List Status</li> <li>Migration Workers</li> </ul>	03/15/2019 05:14:40 PM by Admin Migration/CMTU	

## About us

Quest creates software solutions that make the benefits of new technology real in an increasingly complex IT landscape. From database and systems management, to Active Directory and Office 365 management, and cyber security resilience, Quest helps customers solve their next IT challenge now. Around the globe, more than 130,000 companies and 95% of the Fortune 500 count on Quest to deliver proactive management and monitoring for the next enterprise initiative, find the next solution for complex Microsoft challenges and stay ahead of the next threat. Quest Software. Where next meets now. For more information, visit [www.quest.com](http://www.quest.com).

## Technical support resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at <https://support.quest.com>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request
- View Knowledge Base articles
- Sign up for product notifications
- Download software and technical documentation
- View how-to-videos
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product.

# Appendix A: Staging Replicas

You may choose to migrate from Domino staging servers, instead of production mail servers for reasons such as connectivity constraints between Domino and Exchange or to use Domino replication to limit the data migrated. The following steps outline a process for doing so. This section assumes that a Domino System Administrator, with the appropriate knowledge and access will perform these tasks.

## Creating Connection Documents

This process outlines how to set up and configure Domino Connection documents for the purpose of replicating data from the production Domino environment to Domino staging server(s).

At least one connection document with replication enabled is required for each server pushing data to the staging server for the source mail files. Another connection document is required to push the Migrator for Notes database (Notes Migrator.nsf also known as the EMM Customer Module) to the staging server. Additional connection documents are required if Rooms and Resources are being migrated in the project. The following sections outline how to set up each of these connection document types for the purposes previously outlined.

### Data Intended for Migration

Create a new connection document from each Domino server hosting databases intended for migration to the Domino Staging server(s).

1. On the **Replication/Routing** tab, complete the fields with the following entries:
  - **Replication task:** Enabled
  - **Replicate databases of:** Low & Medium & High priority
  - **Replication Type:** Push Only
  - **Files/Directories Paths to Replicate:** <mail directories>
  - **Routing task:** -None-

The screenshot shows the 'Server Connection' dialog box with the 'Replication/Routing' tab selected. The 'Replication' section is expanded, showing the following settings:

Replication task:	Enabled
Replicate databases of:	Low & Medium & High priority
Replication type:	Push Only
Files/Directory paths to replicate:	<INSERT MAIL DIRECTORIES HERE> (all if none specified)
Files/Directory paths to NOT replicate:	
Replication time limit:	minutes

1. On the **Schedule** tab, it recommended to use every 60 minutes, but you should use an interval that best suits your environment
2. Create additional connection documents for each Domino server hosting databases intended for migration

## Enterprise Migration Manager (EMM) Database

Create another connection document from the Domino server hosting the Migrator for Notes database to the Domino Staging server.

### Rooms & Resources

If rooms and resource reservations are to be migrated, create another connection document from the Domino server hosting the Resource Reservations database(s) to the Domino Staging Domino server(s). Repeat for each Resource Reservation database being migrated.

## Creating Replica Stubs for Users

This process outlines how to configure Migrator for Notes for creating database replica stubs on the selected Domino staging server. Ensure that the Domino Staging servers have a minimum of Reader access to all databases that are to be replicated.

### Configuring EMM Customer Module Database

The first step in the process is to configure Migrator for Notes with the proper replication formula for your requirements.

Common practice is to replicate 90 days, 1 year of calendar + all future Calendar documents, Contacts and To Do's (shown below). Adjust the replication formula as needed.

The standard replication formula is as follows:

SELECT

```
((@LowerCase(Form)="appointment":"contact":"deliveryreport":"group":"memo":"nondeliveryreport":"notice":"person":"phone message":"reply":"reply with history":"return receipt":"returnnonreceipt":"task":"tasknotice":"trackingresponse") & @Modified > @Adjust(@Date([20.08.2010]);0;0;-100;0;0;0)) |
```

```
((@LowerCase(Form) = "appointment" & Repeats="1") |  
(@contains(@LowerCase(Form);"appointment":"notice") & @Date(StartDate) >  
@Adjust(@Date([20.08.2010]);0;0;-375;0;0;0)) | (@LowerCase(Form) = "person") | (@LowerCase(Form)  
= "contact") | (@LowerCase(Form) = "group"))
```

The first portion of the formula selects the various message forms by the date highlighted in this example and selects back 100 days from the date set.

The second portion of the formula selects the various calendar forms by the date highlighted in this example and selects back 375 days from the date set.

Ten additional days are added to the formulas by default to catch any content that could be missed by replication.

The following information will assist in the configuration of the Migrator for Notes with regards to replication formulas and settings. This configuration is completed in **Settings > Replica Settings**.

1. Enter the **Staging Server** name in the field provided
2. Enter the **Staging File Folder** name in the field provided
3. Select how to build the replication formula in the **Replication Formula Options**; select either, **Specify My Own Formula** or **Build Formula Via Selections**
4. If you are specifying your own formula, enter the **Replication Formula** in the field provided; this is only required if selecting the option to, **Specify My Own Formula**

5. Enter the **Number of Calendar Days** that should be replicated in the field provided
6. Enter the **Number of Email Days** that should be replicated in the field provided
7. Click the arrow to select the **Forms to Include in Replica** from the selection window
8. Select which option to use for the **Replicate Each Replica at Creation** option:

Required Settings	Email Repliability	Mail File Processing	User Provisioning	Office 365	End user archives	Rooms & Resources	Replica Settings
<b>Replica Creation Settings</b>							
Configure these settings if you will be creating replicas of mail files or mail in databases prior to migration.							
Migrate using Staging Servers: <input type="radio"/> Yes <input checked="" type="radio"/> No							
Staging Server(s): <input type="text" value=""/>							
Staging Server File Folder: <input type="text" value="ReplicaTest"/>							
Replication Formula Option: <input type="radio"/> Specify My Own Formula <input checked="" type="radio"/> Build Formula Via Selections							
Replication Formula: <input type="text" value=""/>							
Number of Calendar Days: <input type="text" value="30"/>							
Number of Email Days: <input type="text" value="30"/>							
Forms to Include in Replica: <input type="text" value="Appointment, Contact, DeliveryReport, Notice, Person, Phone Message, Reply, Reply With History, Return Receipt, ReturnNonReceipt, Task, TaskNotice, TrackingResponse"/>							
Replicate Each Replica at Creation: <input checked="" type="radio"/> Yes <input type="radio"/> No							
Exclude Trash from Replica Comparison: <input checked="" type="radio"/> Yes <input type="radio"/> No							

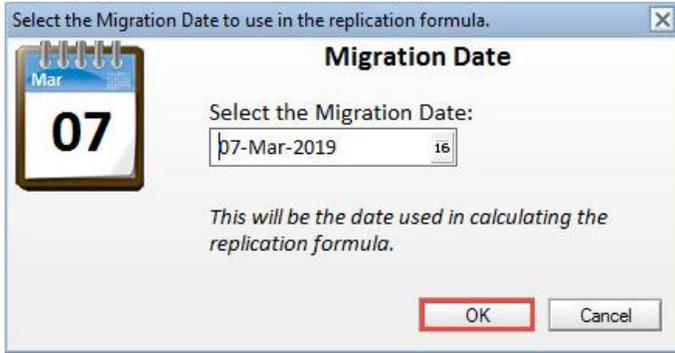
## Creating Replica Stubs on Staging Server(s)

The next step in the process is to create the database replica stub on the selected staging server in the Domino environment.

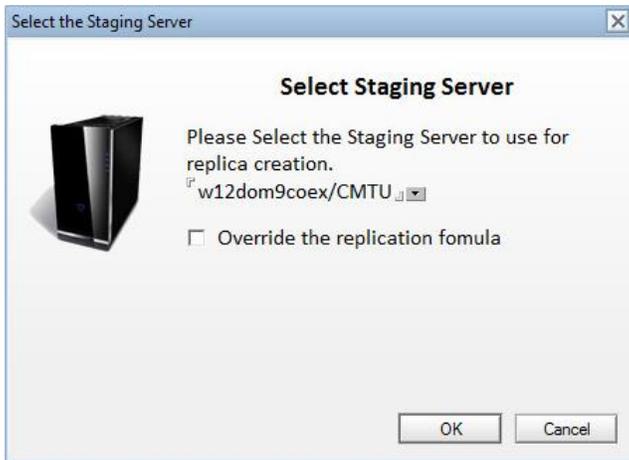
1. Expand the **Create replicas** view. Select **Users** and click **Create Replicas**:

Create Replicas					
Last Name	First Name	Profile	# Encrypted Items	# Contacts	# Jobs
<b>Not Started</b>					
✓	NotesMigrator0	1Aúrelia	Server	1	

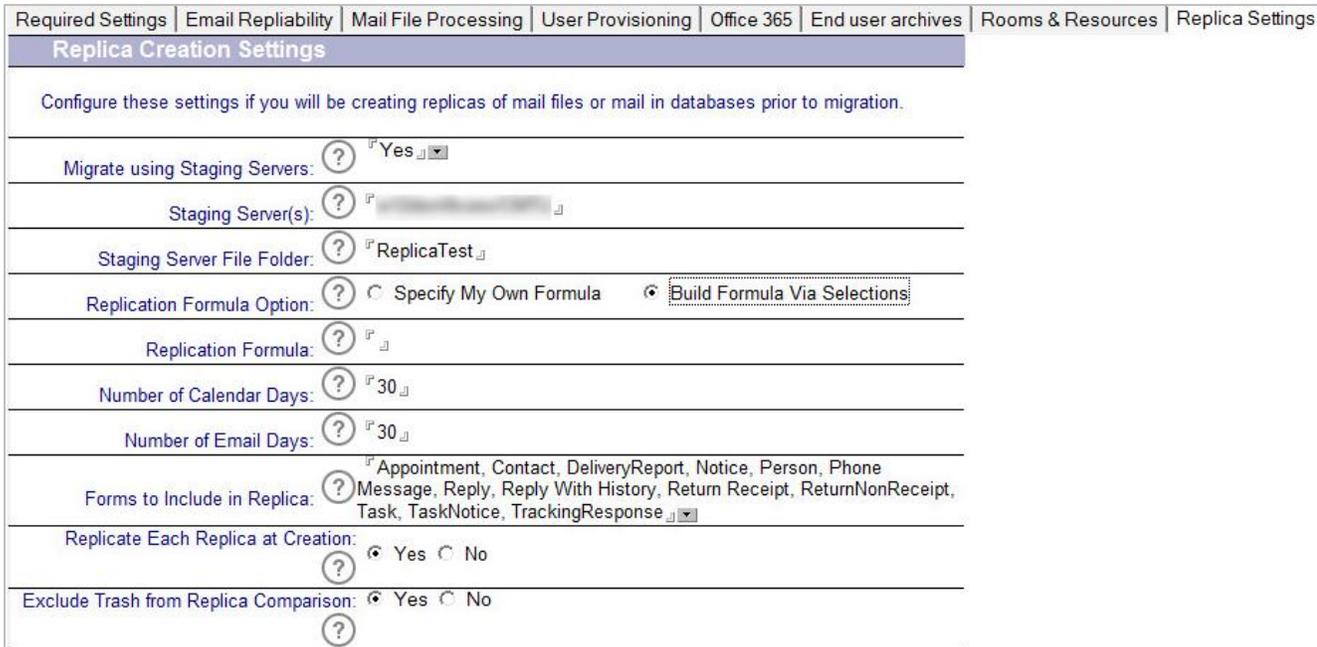
2. Select **Migration Date** and click **OK**:



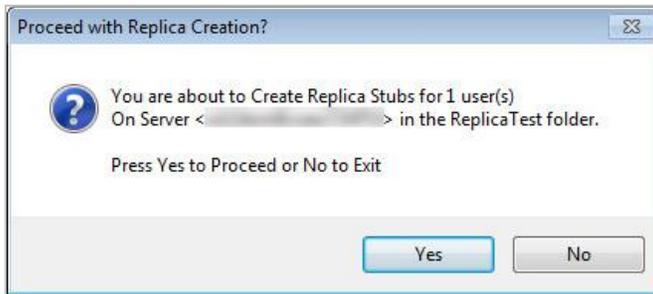
3. Select the staging server, then select the **Override the replication formula** checkbox if necessary and click **OK**:



4. Select the **Replica Settings** tab:

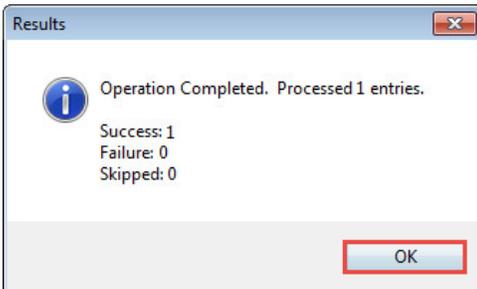


1. Click **Yes** to proceed with the replica creation or **No** to exit:



2. The Results window displays:

3. Click **OK**:



4. The Replica Information section displays:

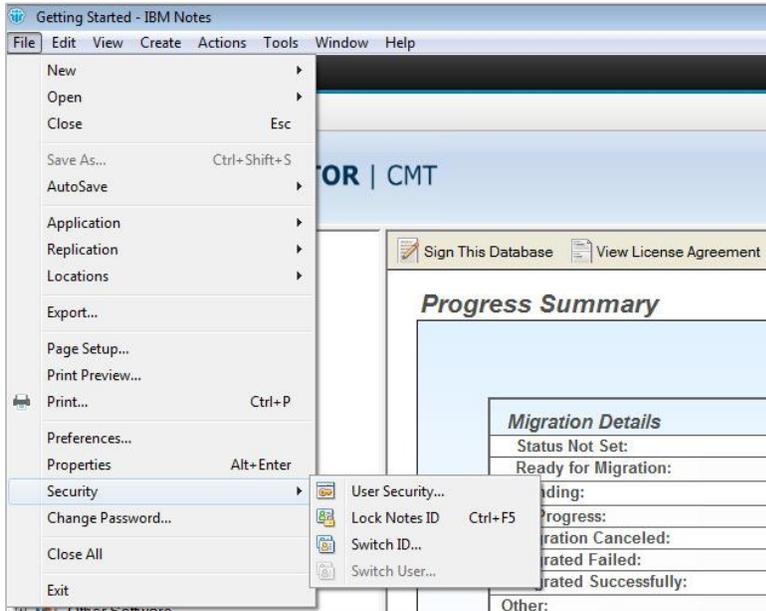
Replica Information	
Replica Staging Server:	w12dom9coex/CMTU
Replica Mail File Name:	ReplicaTest\dletterm.nsf <a href="#">Open</a>
Replica Creation Date:	03/28/2019 11:23
Replication Failure Reason:	
Replication Formula Used:	SELECT (((@LowerCase(Form)="appointment"."contact"."deliveryreport"."notice"."person"."phone message"."reply"."reply with history"."return receipt"."returnnonreceipt"."task"."tasknotice"."trackingresponse") & @Modified > @Adjust(@Date([03/28/2019]);0;0;-30;0;0))   ((@LowerCase(Form) = "appointment" & Repeats="1")   (@contains(@LowerCase(Form);"appointment"."notice") & @Date(StartDate Time) > @Adjust(@Date([03/28/2019]);0;0;-30;0;0)))   (@LowerCase(Form) = "person")   (@LowerCase(Form) = "contact"))
Replica creation Status:	Complete

# Appendix B: Pre-Migration Troubleshooting

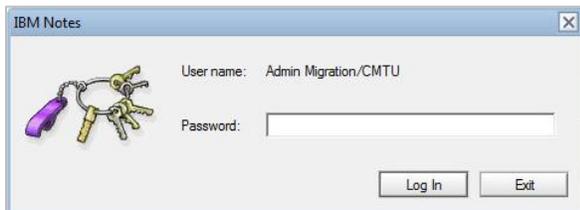
Migrator for Notes requires access to source Domino applications (email .nsf and resources .nsf files) through the Notes client on the Migration Controller Server and any Migration Workers. Access to Exchange mail enabled AD objects is also required to provision these to have mailboxes for migration.

## Notes Security Validation:

Check the Notes ID that is currently logged in for access to the Migrator for Notes application. This can be accessed through the Notes client using **File | Security | User Security**:



This will show the current Notes ID User name:



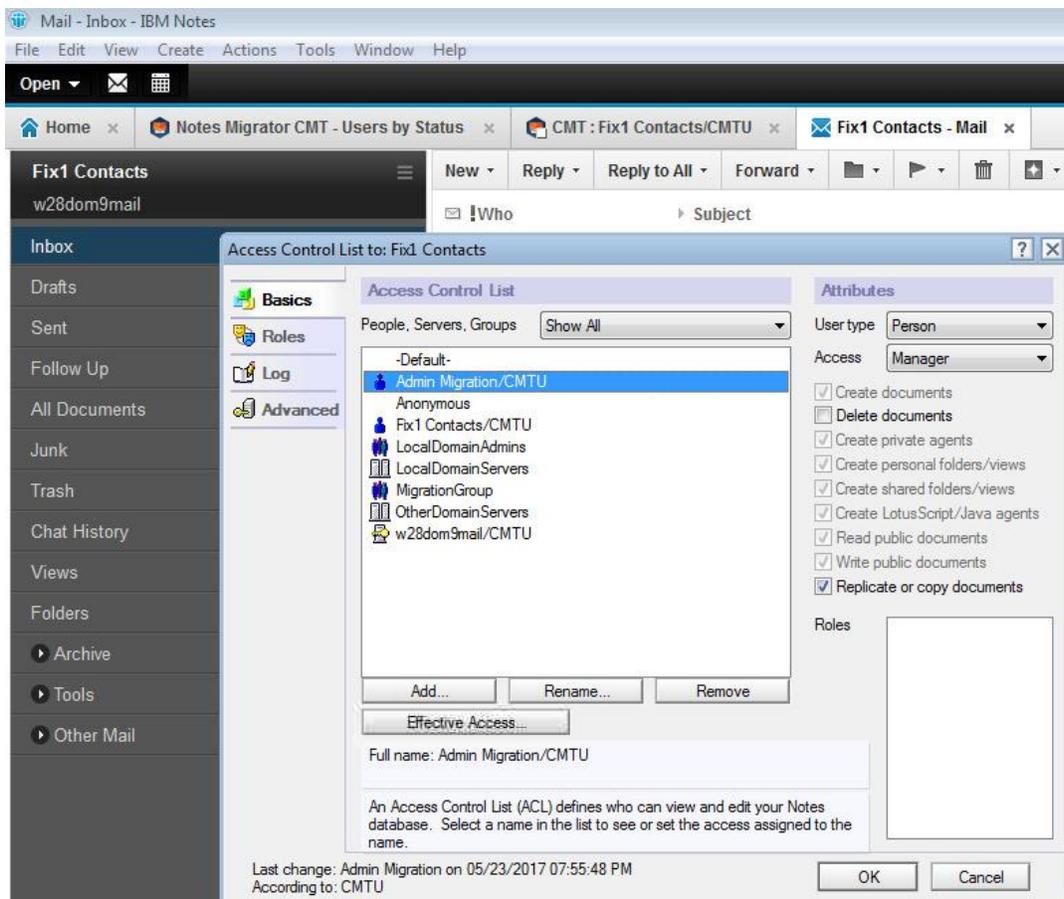
The current Notes ID user name must be present on the mail file Access Control List (ACL), as a Person entry or as part of a Domino Group, for all accounts to be migrated.

To check a mail file ACL for an account in Migrator for Notes, the current Notes Server and Mail File .nsf path can be checked on the imported account document by opening it in Migrator for Notes. The Notes Information tab will have the Notes Mail Server and Notes Mail File Name listed.

General User Information	Delegation Information
<b>General User Information</b>	
First Name:	<input type="text"/>
Last Name:	<input type="text"/>
Middle Initial:	<input type="text"/>
Internet Address:	<input type="text"/> @ <input type="text"/>
Target Mailbox Address:	<input type="text"/>
CMT Key:	<input type="text"/>
Notes Information	Additional Databases   All NAB Fields   Exchange Information
<b>Notes Information</b>	
Notes Full Name:	<input type="text"/> Jimmy <input type="text"/> Jimmy
Notes Short Name:	<input type="text"/> J <input type="text"/>
Notes Mail Server:	<input type="text"/> w <input type="text"/>
Notes Mail File Name:	<input type="text"/> mailj <input type="text"/> <a href="#">Open</a>

The Notes ACL can be accessed by opening the mail file through the Open link. This can be checked in the Notes Administration client by opening the Notes Mail server and locating the mail file in the Files tab.

To check the mail file ACL, in the Notes client, with the mail file open, navigation to **File | Application | Access Control**. The currently logged in Notes ID should be listed as a Manager on the mail file:



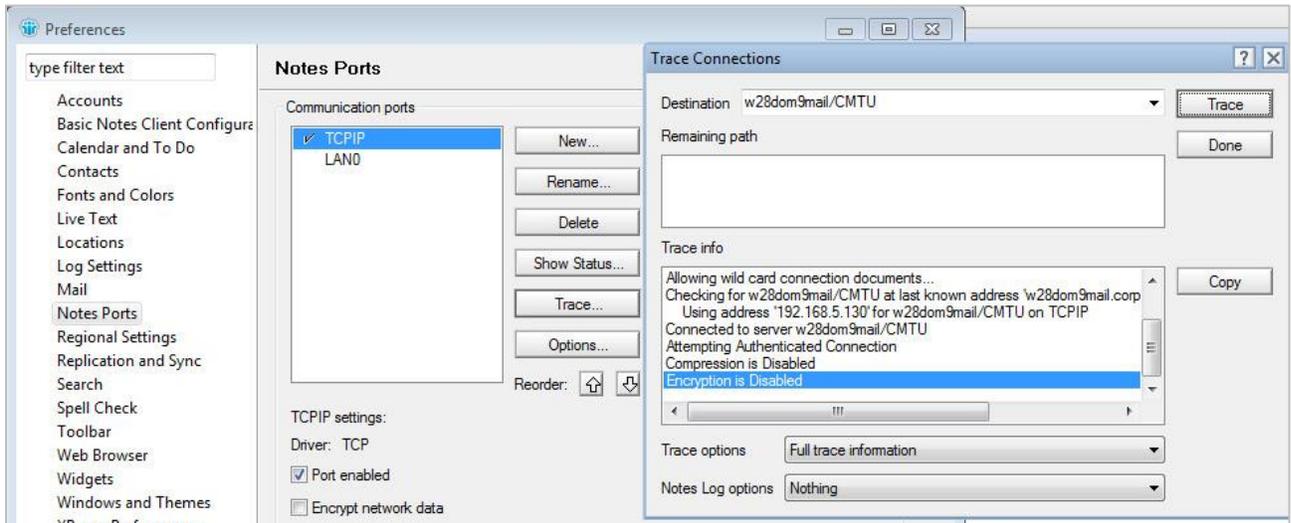
If you receive an error when opening the mail file or if your Notes ID is not listed as a Manager, you will need to switch Notes ID to a different account that has Administration access to the Notes system. This can be done in the Notes client using **File | Security | Switch ID**. You will be asked to select the file name of the Administration Notes ID and then required to enter the password for that Notes ID.

Once the Notes ID switch is completed you can open the mail file and access the Notes ACL for the mail file. Click on the **Add** button to apply your Migrator for Notes Notes ID to the ACL or a Group from the Domino Directory that has your Notes ID listed as a member. Be sure that this is set as a Manager for the Access type.

### Notes Server Access Validation:

The Notes client being used to manage the Migrator for Notes application will require access to the Notes Servers on which the mail files and resource application are located.

To verify the Notes client connectivity to the Notes Mail Server that is specified in an account document, in Migrator for Notes you can check the network connectivity in the Notes client. To do this use **File | Preferences | Notes Ports** to perform a *trace* to the Notes Mail Server. If there are any connection errors reported then the network connectivity should be reviewed for the Windows Operating System on which the Notes client is installed.



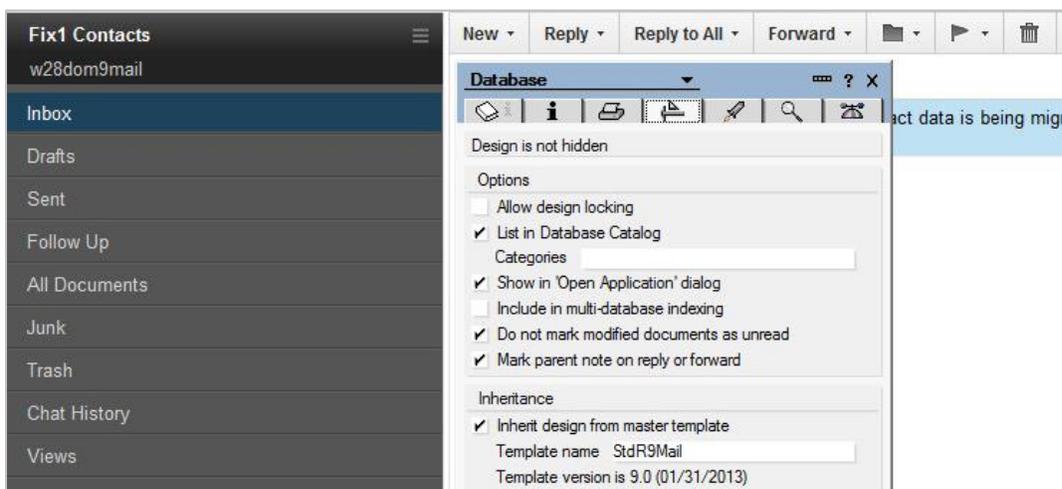
## Notes Template Validation:

To perform a migration of Notes mail file and resource data, the source Notes mail files must have a valid Notes email template applied. This must be a standard Notes email template (.ntf) and meet the required version from the Migrator for Notes Requirements Guide.

To verify the mail file template, check the account document in Migrator for Notes after the mail file is audited:

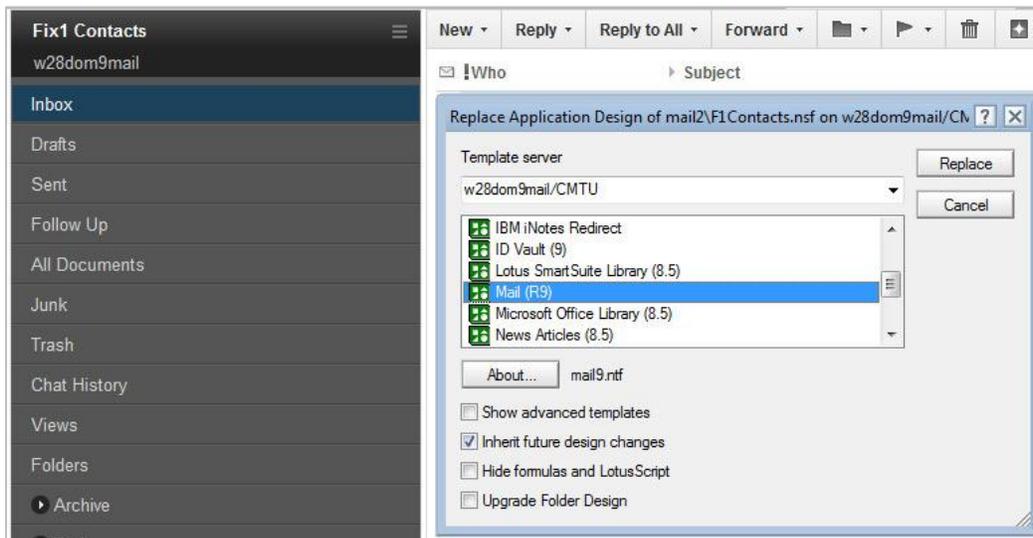
Notes Database Statistics	
Mail File Size:	30,147 (k)
Notes Mail Template:	StdR9Mail

The template can also be checked directly on the mail file properties by opening the mail file and using **File | Application | Properties**.



The Notes template on a mail file can be changed by opening the mail file and using **File | Application | Replace Design**. This will open a dialog box to select the template server (can be the same as the Notes

Mail Server) and then the template to apply. This template should be a standard mail template such as Mail (85) or Mail (9):



This can also be completed through a console command on the Notes Mail Server using the Notes Mail File Name from the Migrator for Notes account document. Additional details on running Notes server console commands can be in the Notes Administration client help topics.

For example, on the Notes Mail Server console run: `Load convert -u mail2\f1contacts.nsf * mail9.ntf`



It is recommended to verify a backup of any mail files that require a template design replacement prior to making any updates.

## Active Directory Account Validation:

Migrator for Notes allows for a pre-migration validation process of accounts to be migrated. This will check the target migration system for mail enabled user accounts that do not have mailboxes associated with them in Exchange.

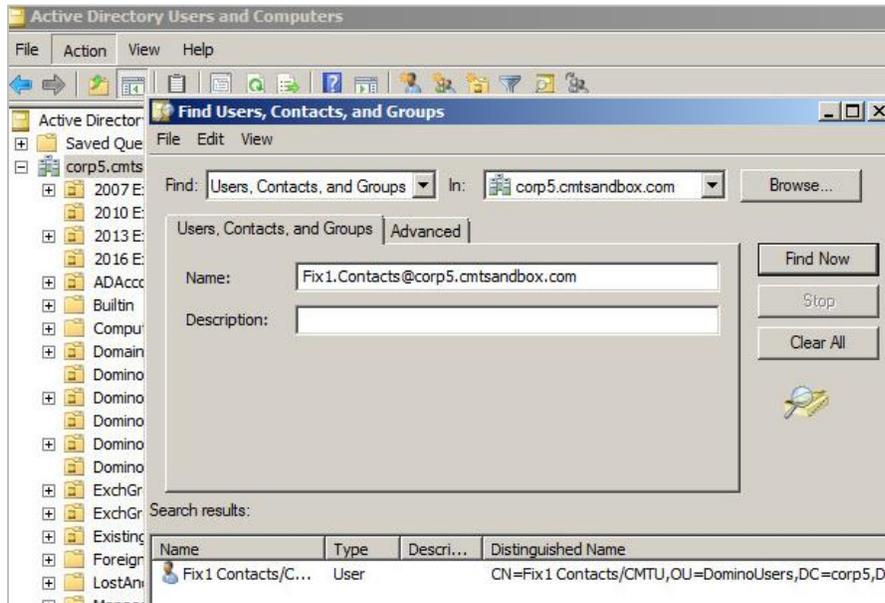
This validation will use the matching field value for the Notes accounts and check this against Active Directory using the **Match AD Account To** configuration found in **Settings | User Provisioning**.



Migrator for Notes assumes that accounts will have mailboxes provisioned during the migration process workflow, but it is possible to migrate into accounts that already have a mailbox that was enabled outside of the Migrator for Notes processing. If accounts already have a mailbox, the Migrator for Notes validation will report this but the account can still be migrated.

Accounts that do report an error during validation should be checked in Active Directory to ensure that the corresponding account entry does exist, has the correct match value data and that the account matching is unique.

The matching value data can be checked in Migrator for Notes by opening the account document and checking the field data value. This field value can then be verified in Active Directory using the **Action | Find** option and entering the Notes matching field data value.



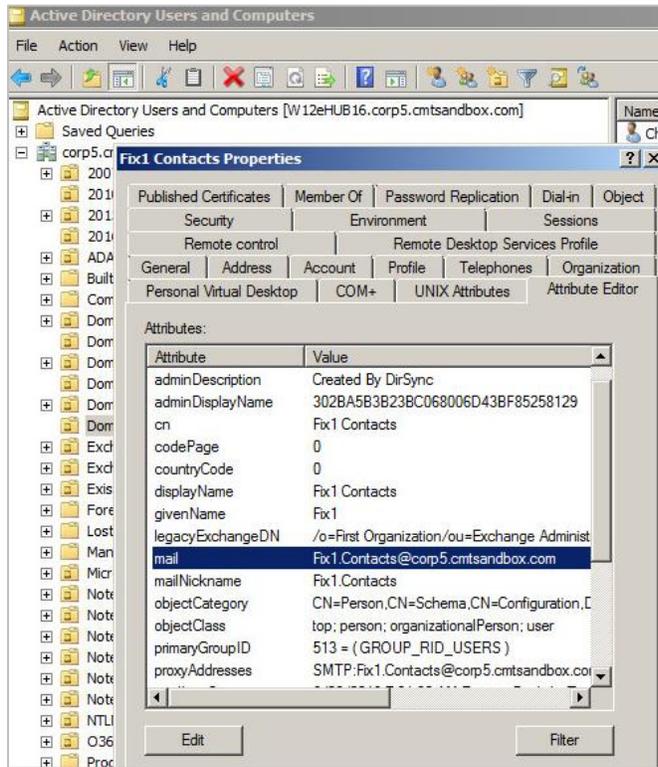
The account can then be checked for the Active Directory matching Attribute value.

If there are multiple accounts returned in Active Directory for the Notes matching field data then the Active Directory accounts should be verified to determine which account is correct for the Notes account to be migrated to. Then, any additional accounts returned should be checked, and the matching value data, in the Active Directory Attribute, should be removed or corrected for other Notes accounts.

If there are no accounts returned, then Active Directory should be checked for the correct account and the matching value data added to the Active Directory Attribute specified for the matching.



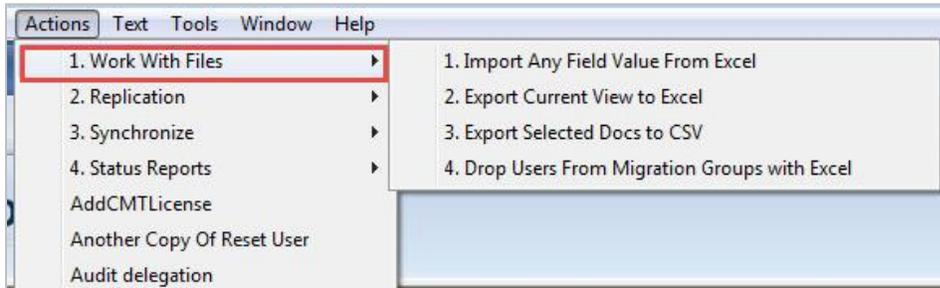
The Migrator for Notes Settings are configured for a Custom Match using the Other Domino Field Name "InternetAddress" and Other AD Property Name "mail". The Person account to be migrated has Internet Address set to "Fix1.Contacts@corp5.cmtsandbox.com". Also, in Active Directory, the "mail" Attribute should have a value of "Fix1.Contacts@corp5.cmtsandbox.com" for a correct validation match.



# Appendix C: Work with Files (Import/Export)

Migrator for Notes allows users to set specific field data through an Excel import and for export view data to Excel or comma separated text files (csv).

These options can be access through the Notes Action menu under the **1. Work with Files** drop down menu:



## Import any field value from Excel

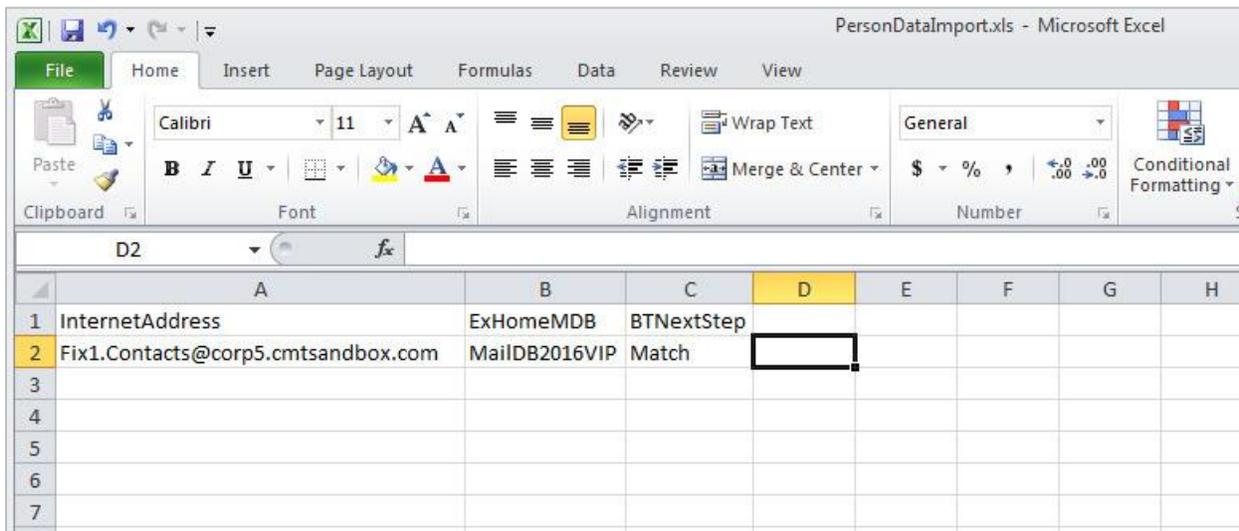
An Excel spreadsheet can be configured with specific column Headers to represent Notes field items on account entries in the Migrator for Notes application. When imported, the field values on the account documents will be updated in the Migrator for Notes application with the relevant data in the Excel spreadsheet.

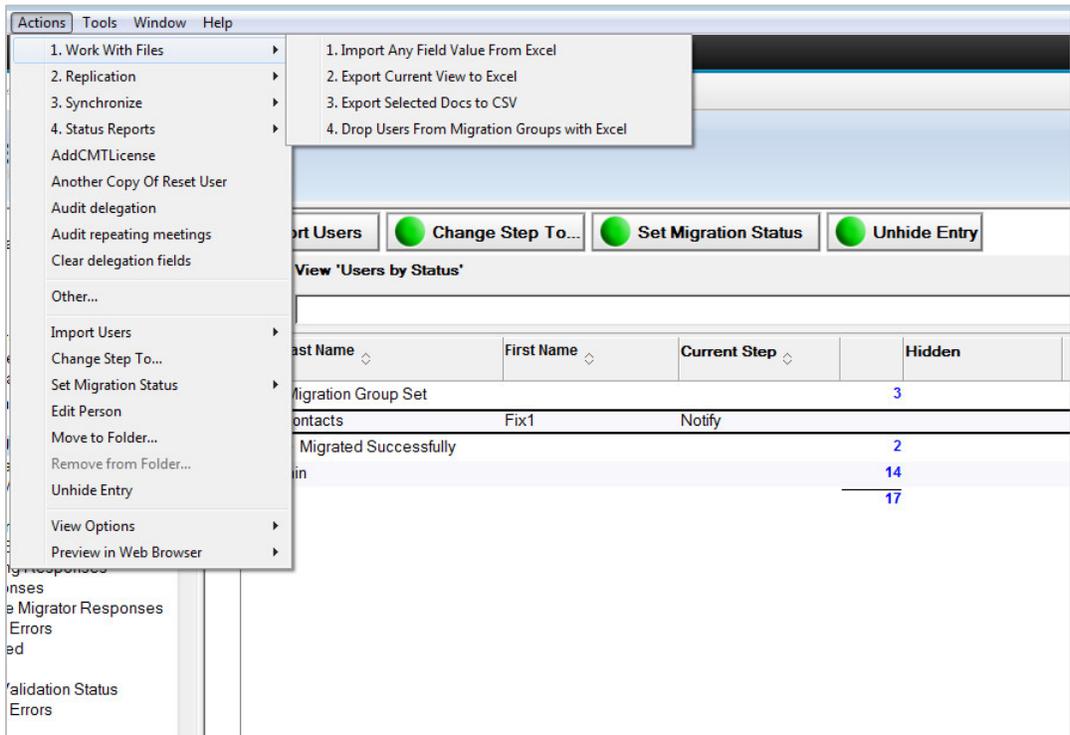


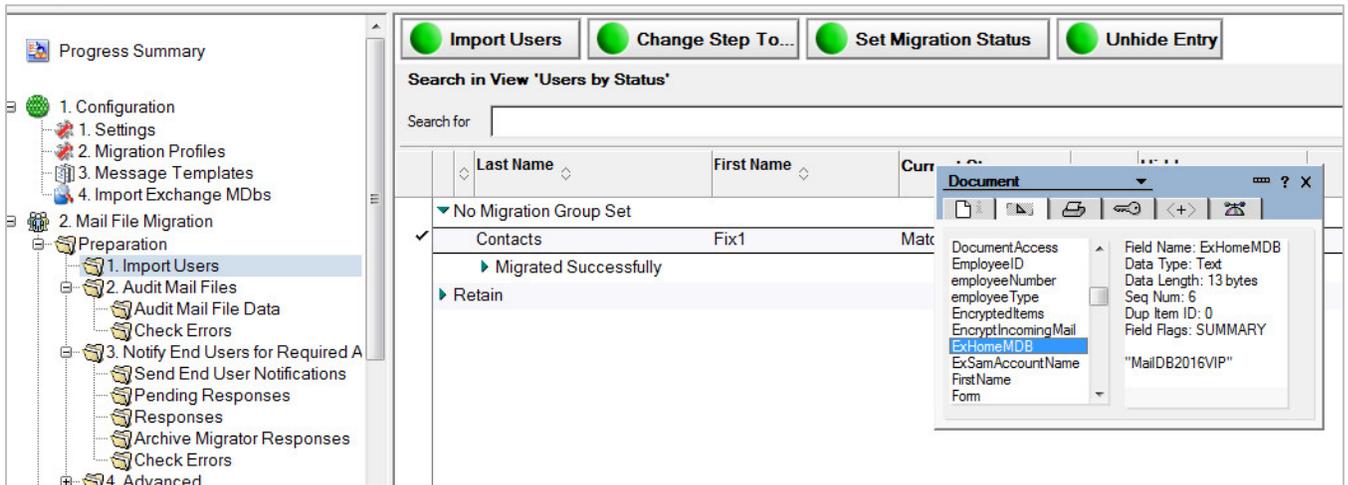
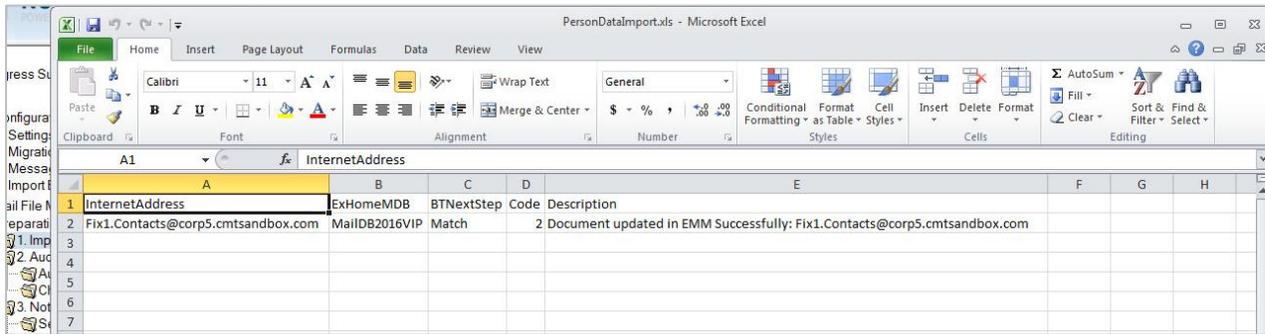
This process does not import accounts into the Migrator for Notes application, it is only intended to update field values on previously imported accounts.

The Excel spreadsheet should have the first column configured with either the Internet Address or the Short Name to locate the account entries that need to be updated. The import process is the same as the **Import Selected Users From Excel** option.

Any Notes data field can be updated through the Excel import and will overwrite existing Notes field data.

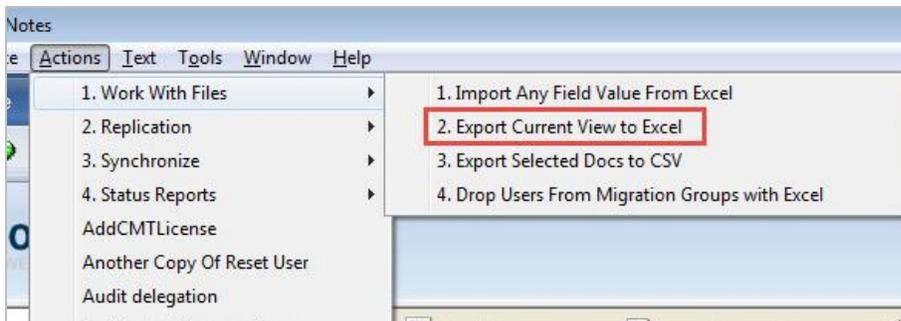




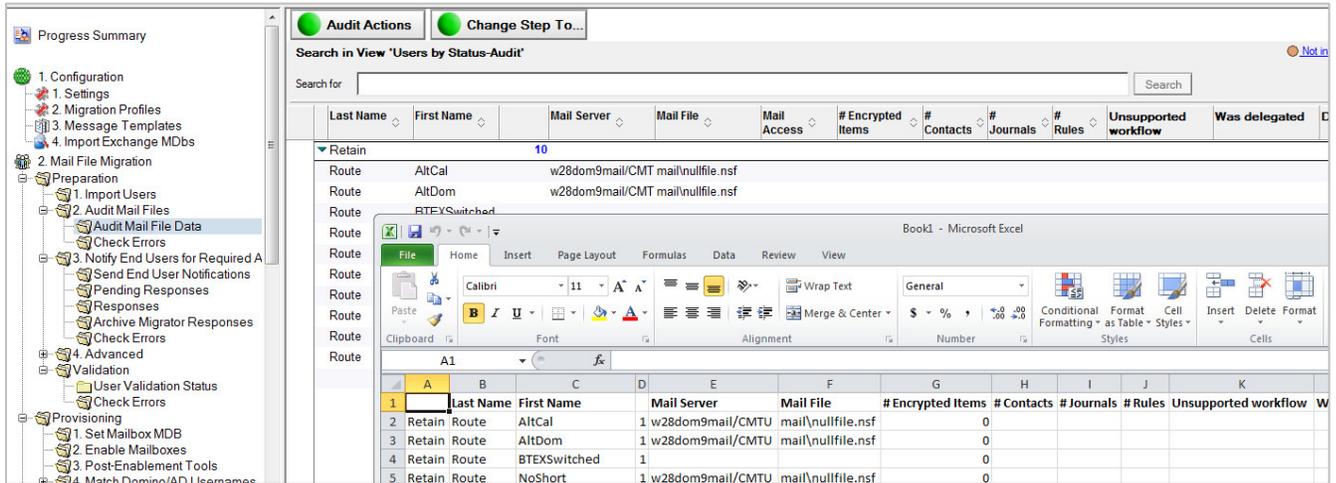


## Export Current View to Excel

Data on any view within Migrator for Notes can be exported to an Excel spreadsheet.

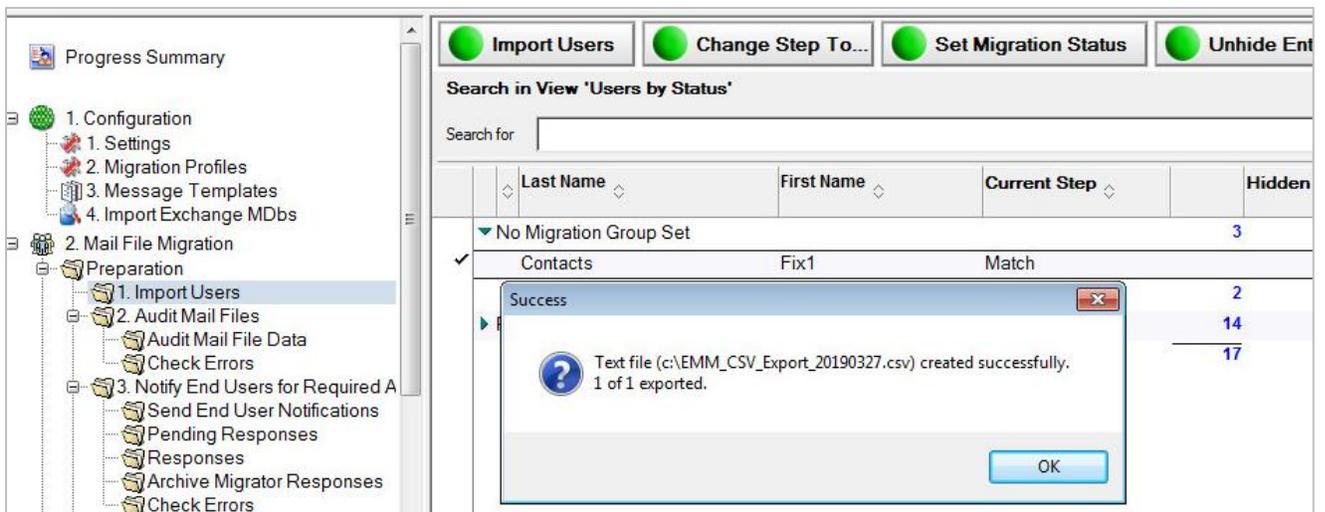
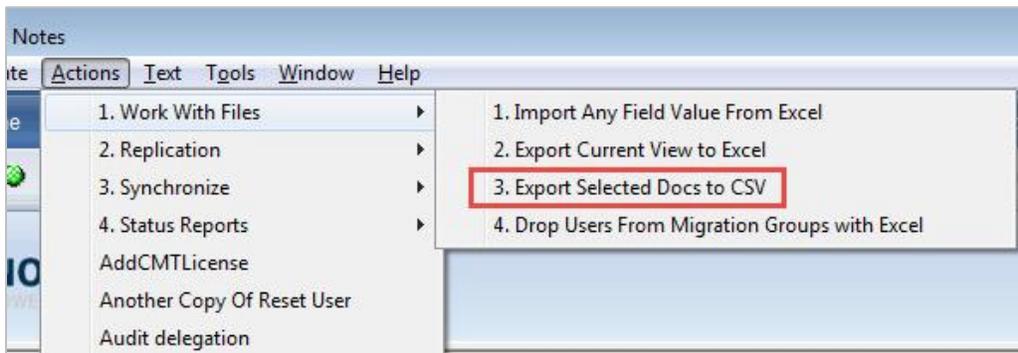


Once a view is selected, all data in the Data Pane, along with their corresponding column headers, can be exported.



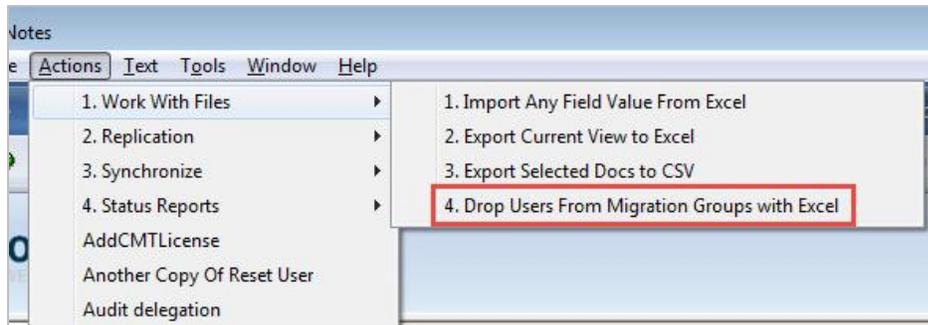
## Export Selected Docs to CSV

The selected account data on any view within Migrator for Notes can be exported to a text file. Once entries in the Data Pane are selected, all data, along with their corresponding column headers, can be exported to a .csv file.

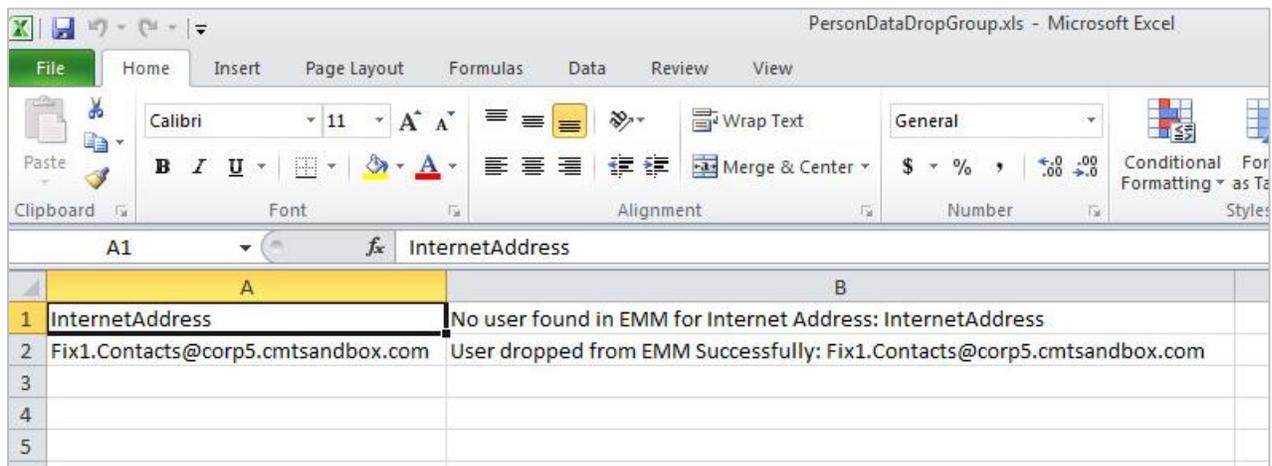


## Drop Users From Migration Groups with Excel

Account entries can be removed from Migration Groups in the Migrator for Notes application through an Excel spreadsheet import process. The Migration Group for the accounts will be changed back to the **No Migration Group Set** status.



The Excel spreadsheet should have the first column configured with either the Internet Address or the Short Name to locate the account entries that need to be updated. The import process is the same as the **Import Selected Users From Excel** option.



PersonDataDropGroup.xls - Microsoft Excel

	A	B
1	InternetAddress	No user found in EMM for Internet Address: InternetAddress
2	Fix1.Contacts@corp5.cmtsandbox.com	User dropped from EMM Successfully: Fix1.Contacts@corp5.cmtsandbox.com
3		
4		
5		

# Appendix D: Item Processing Results

The following results are returned for individual items when migrating and are recorded in the migration log:

- **Success** – Processing of item completed as expected and the corresponding item was created or updated in Exchange
- **Error** – A serious failure in processing the item/user has occurred. Possible failures include:
  - Failed to open Source Mail file, DB information or a Document
  - Failure to get Document counts from collection
  - Initialization failures (missing settings files, templates, and so on)
  - No documents selected by filtering to be processed
  - Critical fields missing from documents
- **Warning** – Unusual data or condition exists, but the item may have been processed. Log entries of the minor issue are provided
  - Examples include missing fields in Notes or invalid data
  - Some warnings may later be reported as errors if the missing data has no alternates and processing of the item cannot continue
  - The item is marked as processed
- **Skipped** – The Item cannot be processed due to filtering, bad data, duplicate of previously processed item, and so on; skipped items will no longer return a warning or error
  - The item is not marked as processed
- **Notification** – Processing of an item completed but an informational detail was recorded based on migration settings.
  - A source attachment exceed the set size on the Settings | Other Settings for processing in the MIME Stream and the attachment was processed and migrated separately to the message body.



The level of detail in the logs may vary depending on the migration profile settings for the log level.

# Appendix E: Migration Result Statuses

The following results are returned to the migration controller server for the overall migration status of all items:

- **Migrated Successfully** – Completed processing all items, no problems during initialization, no critical errors encountered; there may be non-critical Warnings, Errors or failures during individual document processing, but these do not stop the migration; the migration will still be considered successful even if there are document warnings or errors
- **Migration Failed** – Critical errors/failures encountered that prevent the migration from continuing/completing; this status is typically caused by network/server connectivity problems
- **Terminated Abnormally** – This status is set by the migration worker when CMTProxy.exe (migration engine) crashes; this is typically caused by corrupt source data, a Notes client crash or Exchange terminating the migration connection
- **Failed to Initialize** – Incorrect/Incompatible configuration settings, missing configuration or reference files, failure to connect to source or destination servers, and so on; no data is migrated
- **Migration cancelled** – Manual cancellation of the migration the user
- **Not Queued: Migration history is pending update** – The migration was not started due to the history of a previous migration not being updated
- **Migration failed: Exchange is not available** – The migration failed because Exchange was not available
- **Nothing in Source File** – The source mailfile is able to open but does not contain any data
- **Source Database Not Initialized** – The source mailfile fails to open with “Database Not Initialized”
- **AutoDiscover Failure** – The Target mailbox fails to connect with Autodiscover
- **No License** – The migration was not processed as there were no available licenses to apply to the entry.



Additional details for a migration can be viewed in the migration log. Most commonly encountered errors with resolutions can be found in the Knowledge Base that is hosted on the product web site under the Support section.

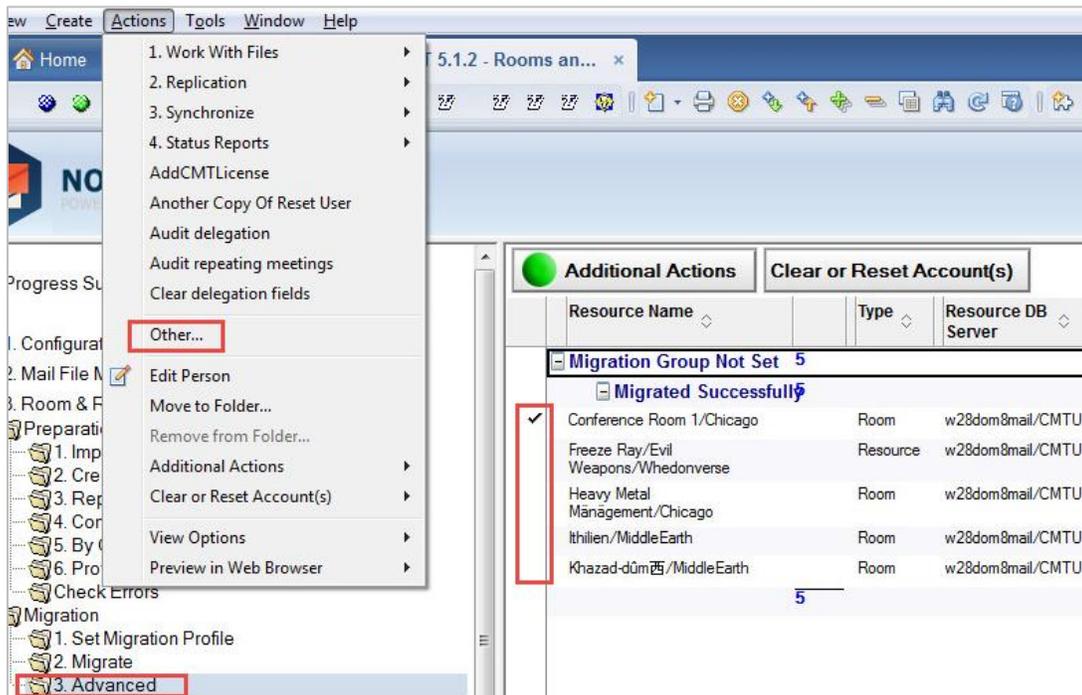


A migration of an account can be marked as Migrated Successfully but have non-critical errors for individual source Notes documents items. The individual items with errors will not necessarily have migrated correctly. If there are errors recorded during a successful migration the error count will be shown in the Migrator for Notes Migration views. These can be checked in the Migration Log for the account and verified. For example, the end user did not decrypt source Notes messages or a source Notes document did not have all expected field data. In these cases, the migration is considered as successful as the source data for individual documents could not be processed but the migration was not aborted by either Notes or Outlook. Re-migrating the account could potentially resolve these errors. In cases where specific details are required a migration profile with Verbose logging enabled should be used to re-migrate an account.

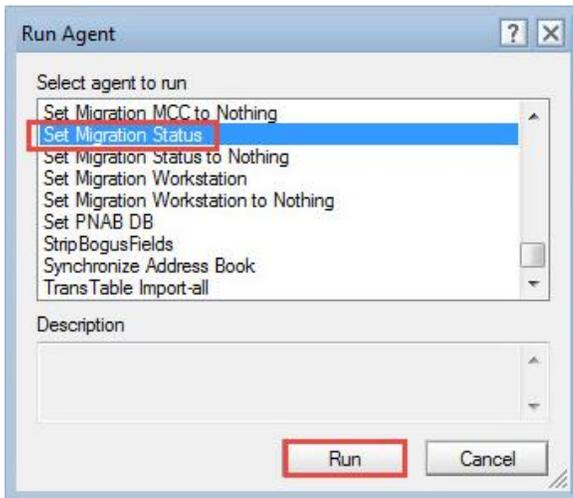
## Set Migration Status

To manually update the status of migrated items, follow the steps below.

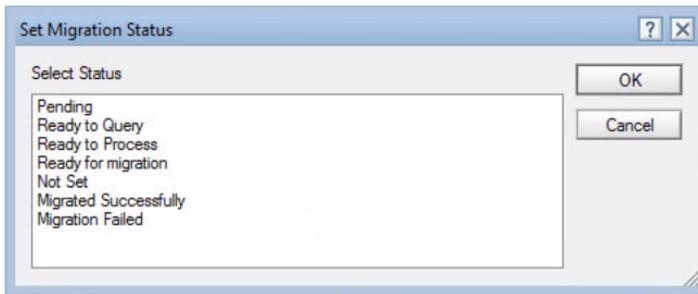
1. Expand the **Migration | Advanced** view; select rooms and resources in the Data Pane



2. At the top menu, click **Actions | Other**; the **Run Agent** dialog box will open
3. Select **Set Migration Status** and click **Run**:



- From the **Set Migration Status** dialog box, then, for example, select **Ready to Process** and click **OK**:



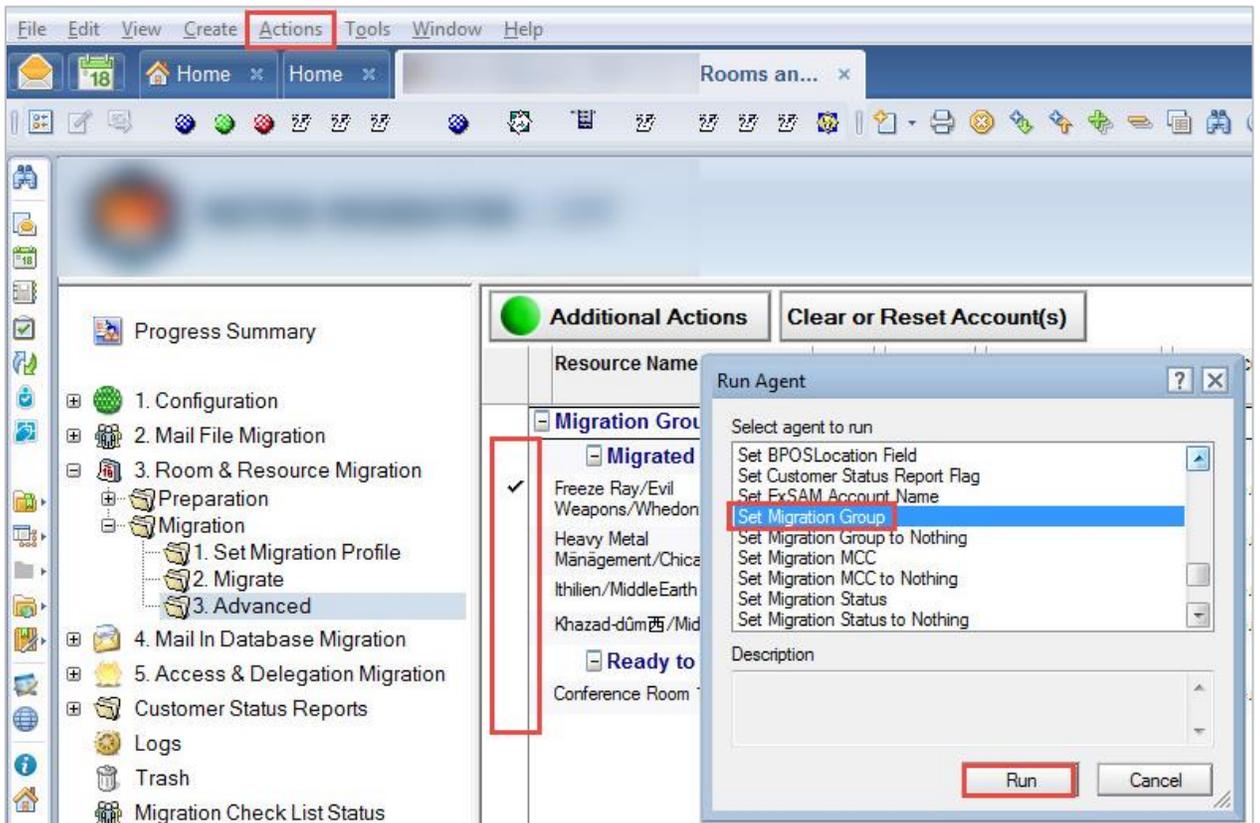
- A status message box displays showing that the migration status will be changed for the selected rooms; click **Yes** to confirm

Notice that the selected rooms and resources are now listed under the applied status:

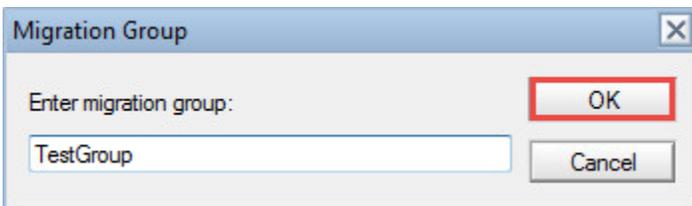
Resource Name	Type	Resource DB Server
<b>Migrated Successfully</b> 5		
Freeze Ray/Evil Weapons/Whedonverse	Resource	w28dom8mail/CMTU
Heavy Metal Management/Chicago	Room	w28dom8mail/CMTU
Itthilien/MiddleEarth	Room	w28dom8mail/CMTU
Khazad-dûm西/MiddleEarth	Room	w28dom8mail/CMTU
<b>Ready to Process</b> 1		
Conference Room 1/Chicago	Room	w28dom8mail/CMTU
5		

## Set Migration Group

1. At the top menu, click **Actions | Other**; the **Run Agent** dialog box will open
2. Select **Set Migration Group** in the dialog box and click **Run**:



3. Specify the migration group name in the **Migration Group** dialog box and click **OK**:



- A status message box displays showing that the migration group will be changed for the selected rooms; click **Yes** to confirm

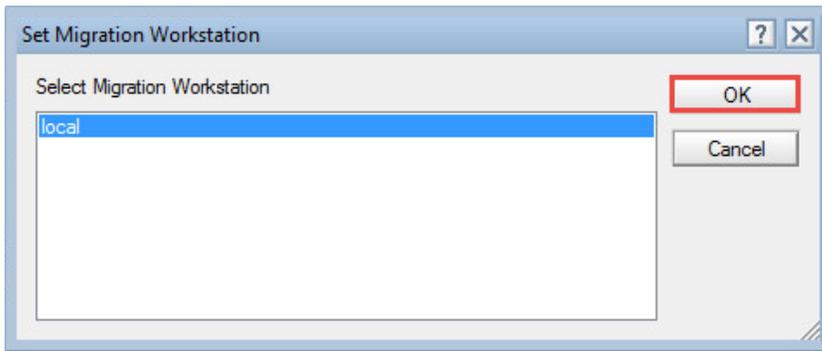
Notice that the selected rooms and resources are now listed under the applied status:

Resource Name	Type	Resource DB Server
<b>Migration Group Not Set 4</b>		
<b>Migrated Successfully</b>		
Heavy Metal Management/Chicago	Room	w28dom8mail/CMTU
Ithilien/MiddleEarth	Room	w28dom8mail/CMTU
Khazad-dûm西/MiddleEarth	Room	w28dom8mail/CMTU
<b>Ready to Process 1</b>		
Conference Room 1/Chicago	Room	w28dom8mail/CMTU
<b>TestGroup 1</b>		
<b>Migrated Successfully</b>		
Freeze Ray/Evil Weapons/Whedonverse	Resource	w28dom8mail/CMTU

### Set Migration Workstation

- At the top menu, click **Actions | Other**; the **Run Agent** dialog box will open
- Select **Set Migration Workstation** in the dialog box and click **Run**:

- From the **Set Migration Workstation** dialog box, select a workstation on which to run the selected users' migrations, and then click **OK**:

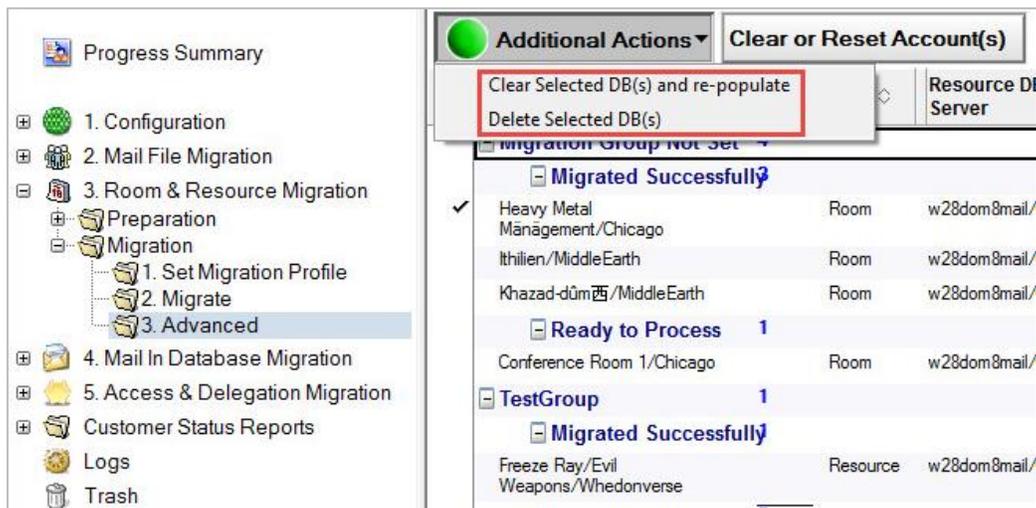


- A confirmation box appears; click **Yes** to confirm that you want the selected migration workstation to be set for selected rooms and resources
- A status message box displays showing that the migration workstation will be set for the selected rooms; click **Yes** to confirm

Notice that the selected rooms and resources are now listed under the applied status

### Clear Migration Status

- In the same way, you can clear set migration status, migration group, and migration workstation by selecting appropriate options; if you do not set the migration workstation manually, Migrator for Notes will automatically farm the migration job out to the next available worker in the migration farm
- Select the rooms and the resources, then click the **Additional Actions** button to display its drop-down menu options:



The drop-down menu options are as follows:

Option	Description
Clear Selected DB(s) and re-populate	Selected room or resource will be cleared and then repopulated to import the updated information

---

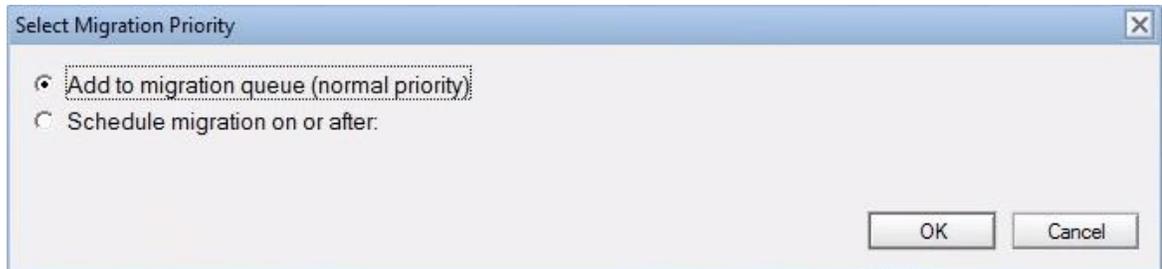
Delete Selected DB(s)

---

Selected room or resource will be deleted from the Migrator for Notes database as well as the database into which the rooms or resources schedule was exported

---

3. After you have performed all the pre-migration actions on the rooms and resources, go back to the Migrate view
4. Select all the rooms and resources you wish to migrate then click the **Migrate Rooms & Resources** button in the Data Pane toolbar
5. The **Select Migration Priority** dialog box appears; click **OK** to trigger the migration:



Depending on the size of the data being migrated, the transfer may take from few minutes to several minutes

6. The **Refresh Migration Status** button allows you to refresh the status of the selected rooms and resources

### Set Migration MCC

In some cases, you have the option to set the Migration MCC. Refer to the chart below for a description of these MCC options:

**NOTE !**

This option should only be used in cases where more than 120 migration workers are required and an additional migration control center server cannot be deployed.

Option	Description
Set Migration MCC	Appears only if multiple Migration Control Centers (MCCs) are enabled on the Migrator for Notes Settings   Other Settings   Enable Advanced Features
Clear Migration MCC	Allows you to manually assign a Migration Control Centers (MCC) to process an item's data Appears only if multiple Migration Control Centers (MCCs) are enabled; Allows you to clear the Migration MCC assigned to item(s)

# Appendix F: Recovery Process

The Migrator for Notes migration engine has been enhanced to track the status of processed messages during migration to help recover failed migrations.

If a critical failure occurs in the migration engine, the migration process can terminate unexpectedly. The user status must be reported in Notes Migrator.nsf as "Migration terminated abnormally." After correcting the cause of the failure, the new recovery feature allows Migrator for Notes users to restart migrating to an Exchange mail store or to a PST file from the point of crash. It prevents the application from reprocessing messages that were migrated during the initial run of the migration and moves to the next message in the message store without attempting to reprocess the message that caused the failure.

In addition, this feature also allows Migrator for Notes users to restart the migration on a secondary workstation if the first workstation is now busy after the original failed status.

In cases where a failure is caused by API errors processing the data, from Notes using the HCL Notes API or into Outlook using the MAPI API, the source document reference (UNID) will be marked in the migration history as a bad document. These types of faults are typically caused by memory exception errors as a result of source data that the vendor's API cannot process.

Subsequent migrations will skip processing (not migrate) a source document that caused a memory exception error where the migration worker was able to obtain the document UNID.

This section outlines the common reasons for a failed migration and recovery processes for each possible scenario and provides a background to the implementation and usage of this new feature.

## Implementation and Feature Functionality

By default, this feature is enabled in the **Enable Recovery** setting in the *Advanced* tab of the migration profile used on each migration workstation. With this setting enabled, during each migration, the migration engine generates a text file, **CMTUProcessedNoteIDs-[username].txt**, in the temp directory. This .txt file contains all the NoteIDs processed during the migration. If a crash occurs causing the migration to fail, the last entry in the .txt file is the NoteID that caused the failure. If the migration is successful, this file is deleted during cleanup.

A migration workstation, when it first starts and between user migrations, checks the temp directory (typically c:\windows\temp\ ) for any existing **CMTUProcessedNoteIDs-[Username].txt file(s)**. If a file is found, the migration workstation uploads the list of NoteIDs from the file into the migrated messages table in Migrator for Notes before starting the migration. This updates the Migrator for Notes migrated message table for the failed migration, then processes the pending queue as normal. This allows any migration workstation to run follow-up migrations.

## Common Failure Types

Before restarting a failed migration, you must first examine the migration status of the user and log files from the failed migration to determine the cause of the failure. If the cause of the failure is corrupted views or database design elements, restarting the migration will not help. The migration will continue to fail until the problem is resolved and the recovery process will not allow the migration to continue past the point of failure.

If the cause of the failure is a failed physical attribute that needs correcting, then provided below are the four most common types of physical attribute failures with their corresponding example log files, and possible resolutions.

### Cannot Open Mail File: "Migration initialization failed"

If the mail file does not exist at the specified location, or the migration account does not have access to the mail file, Migrator for Notes reports a status of "Migration initialization failed." This status can appear if

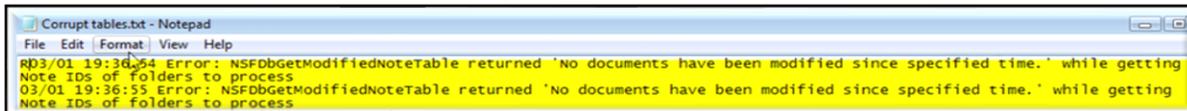
either the source or destination server is unavailable, or if the migration account does not have access to the message store. Regardless of the number of attempts made, this type of problem cannot be successful until it is resolved. If the log file records a similar message as the following example, “Unable to open mail file CN=SERVERNAME/OU=MS/OU=SVR/O=ONE!!mail6\harr0156,” either the mail file is not present or there is an ECL alert on the workstation that is running that user. In case of ECL alerts, click through them until they stop appearing.



```
Cant open mail file (2).txt - Notepad
File Edit Format View Help
03/01 02:23:36 Error: Unable to open mail file CN=PHLMS169/OU=MS/OU=SVR/O=ONE!!mail6\harr0156 for Todd Harris on
server: CN=PHLMS169/OU=MS/OU=SVR/O=ONE. CN=PHLMS169/OU=MS/OU=SVR/O=ONE!!mail6\harr0156
```

### Corrupt Tables:

When the log file records the following statement “NSFDbGetModifiedNoteTable returned 'No documents have been modified since specified time.' while getting Note IDs of folders to process”, the tables in the mail template are corrupt. To fix this, the common practice is to create a new copy of the mail file, then replace the database design.



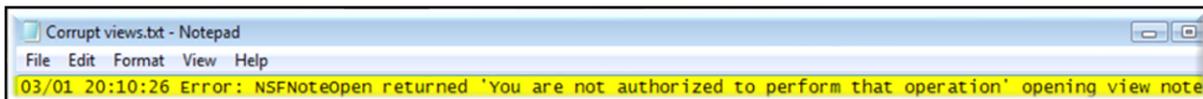
```
Corrupt tables.txt - Notepad
File Edit Format View Help
03/01 19:36:54 Error: NSFDbGetModifiedNoteTable returned 'No documents have been modified since specified time.' while getting
Note IDs of folders to process
03/01 19:36:55 Error: NSFDbGetModifiedNoteTable returned 'No documents have been modified since specified time.' while getting
Note IDs of folders to process
```

**NOTE!** When you create a copy or a replica of the mail file to correct corrupt tables, you must remember that the recovery log does not work as expected with the copy or the replica. This is because all the documents in the mail file now have new NoteIDs. So, when you restart the migration, all the documents in the mail file are migrated and you will end up with duplicates.

To resolve this, when you restart the migration, you must treat it as a complete redo of that user’s mail file migration, and clear the contents of the user's Exchange mailbox before proceeding.

### Corrupt Views:

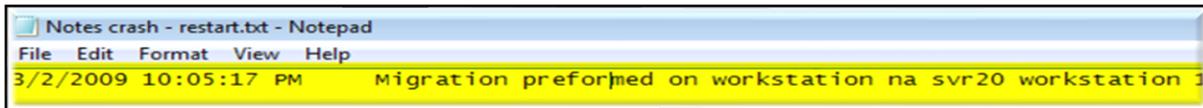
When the log file contains a statement like the one shown right before the summary “Error: NSFNoteOpen returned 'You are not authorized to perform that operation' opening view note”, some of the views in the mail template are corrupt, and you need to create a new copy of the mail file, then replace design as instructed above.



```
Corrupt views.txt - Notepad
File Edit Format View Help
03/01 20:10:26 Error: NSFNoteOpen returned 'You are not authorized to perform that operation' opening view note
```

### Notes Crash:

If there is a critical error in the Lotus Notes client, the user’s status must be reported as “Migration Terminated Abnormally.” The can also be verified by viewing the migration log: the log file’s last statement will show this “3/2/2009 10:05:17 PM Migration preformed on workstation na svr20 workstation 1.” To resume migration, restart the migration worker application on the Migration Workstation that is stated at the end of the log, then reset the user in Migrator for Notes and migrate again. Users in this status can be restarted and the migration will be successful.



This type of crash can be easily identified if the log file does not contain a summary of the events before ending the log with the statement “*Migration performed on workstation...*”. In such a case, if you restart the migration with recovery enabled, the migration is allowed to continue past the point of failure. However, if the log ends without the “*Migration performed on workstation...*” statement, then when you restart the migration, you will need to ensure that the migration is processed by the same workstation (that processed it earlier at the time of crash) to ensure that it properly resumes from the point of failure.

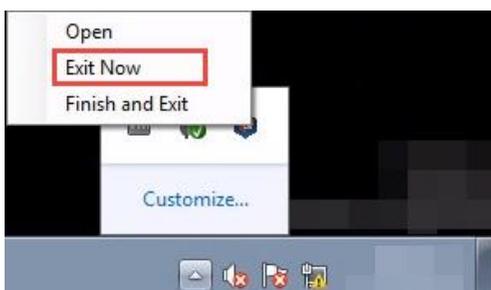
## General Recovery

If a crash condition does occur, then the following procedures should be followed to recover from the failed migration. A failed status in Migrator for Notes will appear as illustrated in the image below.

Depending on the reason why the migration failed, the status may also be set to *Migration Cancelled*, in which case the same procedure should be followed to recover the migration. As stated earlier, a recovery can be executed on the Migration Control Center or on one of the AWD (Automated Workload Distribution) Migration Workstations within the original set or farm. The following sections outline the procedures for recovery for all scenarios.

### General Recovery Process:

1. Open Migrator for Notes on the Migration Control Center where the migration failed
2. Under *Mail File Migration*, expand **Migration** and click **Advanced**
3. Select the user in the Data Pane whose migration failed
4. Click the **Clear or Reset User(s)** button in the Data Pane, and select **Reset User(s)** from the drop-down menu
5. Open the AWD Migration Workstation where the original migration failed
6. Right-click on the **Migrator for Notes Worker App** icon located on the Task Bar, and then select **Exit Now** to shut down the service:



7. Right-click on the Windows Bar, then select Task Manager
8. Close the *Outlook.exe* process if still running. If the *CMTPProxy.exe* process is still running, you may shut it down
9. (Optional) You may restart or log-off the workstation to avoid steps 6 – 8
10. If you restarted, then verify that the original workstation has restarted and the Migrator for Notes Worker App is running again

11. Go back to the Migration Control Center
12. Select **Migrate** in the *Mail File Migration -> Migration* view; select the user(s) to be migrated in the Data Pane
13. Select the same profile as previously used for this migration

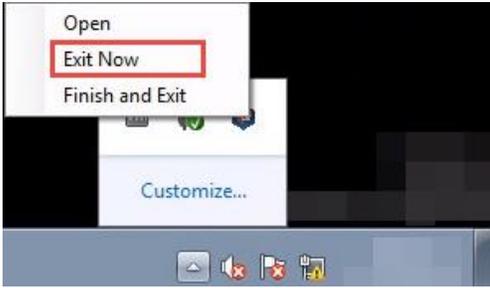
14. Select the original workstation or a new workstation to continue the migration process where it left off; AWD assigns a migration workstation when a new migration job is queued, and it may or may not be the original workstation where the crash occurred, but if you want to specify a specific workstation to perform the migration, then you can follow the procedure given below:
  - a. Select the user in the **Migrate** view, click the Change to... button, and select any one of the options to bring the user to the *Preparation* view
  - b. Once moved, go to the *Preparation -> Advanced* view, and select the user
  - c. Click the **Set Migration Status** button, and select the **Set Migration Workstation** option from the drop-down menu
  - d. From the dialog box, select either the same workstation that originally processed the user or a new one
15. If migrating to PST, make sure the file is available to the workstation now running the process; if it is not available, then a new PST is created and you may end up with two PSTs; this may not be desirable
16. Monitor the migration as needed; to recover a failed migration, when you restart a migration, it does not start right from the last message that was migrated. It, in fact, processes every message again just like the first time; however, the recovery table and the migration history allow Migrator for Notes to skip everything that was previously migrated; therefore, the first part of the migration proceeds through all the folders and messages very quickly until it reaches the point where it previously failed, then it slows down as it starts moving data again
17. The migration should complete with a status of **Migrated Successfully** unless it encounters a new error, in which case follow the same process to recover

The final sections will cover each variant within this procedure so you may gain a better understanding of how the feature operates with respect to your migration project.

## Recovery to Exchange

Recovery from a migration failure to a Microsoft Exchange mailbox is a very simple process whether you are recovering from the original workstation or a secondary one as long as the original AWD farm is utilized.

1. Open Migrator for Notes on the Migration Control Center where the migration failed
2. Under *Mail File Migration*, expand **Migration** and click **Advanced**
3. Select the user in the Data Pane whose migration failed
4. Click the **Clear or Reset User(s)** button in the Data Pane and select **Reset User(s)** from the drop-down menu
5. Open the AWD migration workstation where the original migration failed
6. Right- click on the **Migrator for Notes Worker App** icon located on the Task Bar, then select **Exit Now** to shut down the service:

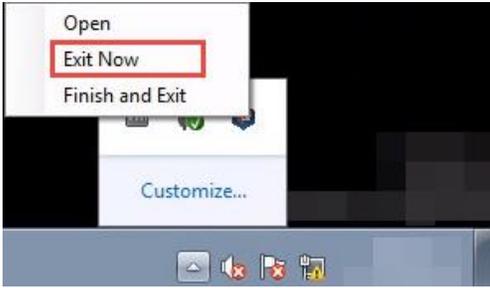


7. Right-click on the Windows Bar, then select Task Manager
8. Close the *Outlook.exe* process if still running; if the *CMTPProxy.exe* process is still running, you may shut it down
9. (Optional) You may restart or log-off the Migration Workstation to avoid steps 6 – 8
10. If you restarted, verify that the original workstation has restarted and the Migrator for Notes Worker App is running again
11. Go back to the Migration Control Center
12. Select **Migrate** in the *Mail File Migration* -> *Migration* view; select the user(s) to be migrated in the Data Pane
13. Select the same profile as previously used for this migration
14. Select the original workstation or a new workstation to continue the migration process where it left off; refer to step 14 in the *General Recovery* procedure for more details on this step
15. Monitor the migration as needed
16. The migration should complete with a status of **Migrated Successfully** unless it encounters a new error, in which case follow the same process to recover

## Recovery to PST

Recovery from a PST migration is no different from the above process except that it involves a PST rather than the Exchange message store. The following process is the preferred method for recovery from a failed PST migration because it assumes the same workstation is being utilized at the time of restart as was during the original run.

1. Open Migrator for Notes on the Migration Control Center where the migration failed
2. Under Mail File Migration, expand Migration and click Advanced
3. Select the user in the Data Pane whose migration failed
4. Click the Clear or Reset User(s) button in the Data Pane and select Reset User(s) from the drop-down menu
5. Open the AWD Migration Workstation where the original migration failed
6. Right-click on the Migrator for Notes Worker App icon located on the Task Bar, and then select Exit Now to shut down the service:



7. Right-click on the Windows Bar, then select Task Manager
8. Close the *Outlook.exe* process if still running. If the *CMTPProxy.exe* process is still running, you may shut it down
9. (Optional) You may restart or log-off the workstation to avoid steps 6 – 8
10. If you restarted, verify that the original workstation has restarted and the Migrator for Notes Worker App is running again
11. Go back to the Migration Control Center
12. Select **Migrate** in the *Mail File Migration* -> *Migration* view. Select the user(s) to be migrated in the Data Pane
13. Select the same profile as previously used for this migration
14. Select the original workstation to continue the migration process where it left off; perform the following procedure to select the original workstation for migration; Select the user in the **Migrate** view, click the **Change to...** button, and select any one of the options to bring the user to the *Preparation* view:
  - a. Once moved, go to the *Preparation* -> *Advanced* view, and select the user
  - b. Click the **Set Migration Status** button and select the **Set Migration Workstation** option from the drop-down menu
  - c. From the dialog box, select the workstation that originally processed the user
15. Monitor the migration as needed
16. The migration should complete with a status of **Migrated Successfully** unless it encounters a new error, in which case follow the same process to recover.

## Recovery to PST using secondary AWD Workstation

As in the previous process, the recovery from a PST migration is no different from any other except for the location of the PST file. Either it must be centrally located (shared drive) for all workstations to update or the PST must be copied to the AWD Migration Workstation where the processing is designated to restart. This method is used when the original workstation is busy with other migrations.

1. Open Migrator for Notes on the Migration Control Center where the migration failed
2. Under *Mail File Migration*, expand **Migration** and click **Advanced**
3. Select the user in the Data Pane whose migration failed
4. Click the **Clear or Reset User(s)** button in the Data Pane and select **Reset User(s)** from the drop-down menu

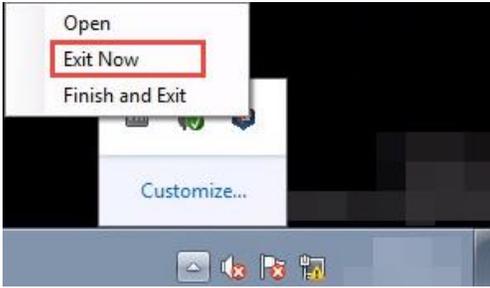
5. Open the AWD Migration Workstation where the original migration failed
6. Right-click on the **Migrator for Notes Worker App** icon located on the Task Bar, and then select **Exit Now** to shut down the service:



7. Right-click on the Windows Bar, then select Task Manager
8. Close the *Outlook.exe* process if still running. If the *CMTProxy.exe* process is still running, you may also shut it down
9. (Optional) You may restart or log-off the workstation to avoid steps 6 – 8
10. If you restarted, verify that the original workstation has restarted and the Migrator for Notes Worker App is running again
11. Go back to the Migration Control Center
12. Select **Migrate** in the *Mail File Migration* -> *Migration* view; select the user(s) to be migrated in the Data Pane
13. Select the same profile as previously used for this migration
14. Select a new workstation to continue the migration process where it left off. Refer to step 14 in the *General Recovery* procedure for more details on this step
15. When migrating to PST, make sure the file is available to the workstation now running the process; if it is not available, then a new PST will be created and you may end up with two PSTs, which is not desirable
16. Monitor the migration as needed
17. The migration should complete with a status of **Migrated Successfully** unless it encounters a new error, in which case follow the same process to recover

## Recovery to PST using Manual Processes

1. Open Migrator for Notes on the Migration Control Center where the migration failed
2. Under *Mail File Migration*, expand **Migration** and click **Advanced**
3. Select the user in the Data Pane whose migration failed.
4. Click the **Clear or Reset User(s)** button in the Data Pane, and select **Reset User(s)** from the drop-down menu
5. Open the AWD Migration Workstation where the original migration failed
6. Right- click on the **Migrator for Notes Worker App** icon located on the Task Bar, then select **Exit Now** to shut down the service:



7. Right-click on the Windows Bar, then select Task Manager
8. Close the *Outlook.exe* process if still running. If the *CMTPProxy.exe* process is still running, you may also shut it down
9. (Optional) You may restart or log-off the workstation to avoid steps 6 – 8
10. If you restarted, verify the original workstation has restarted and the Migrator for Notes Worker App is running again.
11. Go back to the Migration Control Center
12. Select **Migrate** in the *Mail File Migration* -> *Migration* view. Select the user(s) to be migrated in the Data Pane
13. Select the same profile as previously used for this migration
14. Select the original workstation or a new workstation to continue the migration process where it left off; Refer to step 14 in the [General Recovery](#) procedure for more details on this step
15. If migrating to PST, make sure the file is available to the workstation now running the process; if it is not available, then a new PST is created and you may end up with two PSTs, which is not desirable
16. Monitor the migration as needed
17. The migration should complete with a status of **Migrated Successfully** unless it encounters a new error, in which case follow the same process to recover

# Appendix G: Automatic Migration Restart

## Overview

Automatic Migration Restart is a process by which any abnormal termination of the Migrator for Notes engine (commonly referred to as a 'crash') is identified, and the migration job is automatically re-queued. If this occurs, the migration is restarted and resumed on the next document in the message store, until either the migration completes process the message store, or the maximum number of retries has been exceeded.

Automatic Migration Restart works in conjunction with the existing migration recovery features in Migrator for Notes to resume a migration on the next document immediately after the document which caused the crash.

## Terminology

This following table lists and describes the terms commonly used when describing the automatic restart process.

Term	Description
Migrator for Notes	Migrator for Notes application environment, encompassing the server instance.
Job	A migration event. Within the context of Migrator for Notes, each migration job is a unique event.
Migration server	Refers to the system running the Migrator for Notes web services. This is the primary instance where the web server and CMT Monitor are installed.
Migrator for Notes Database (or Notes Migrator.nsf)	Used for configuring settings, managing user records, and queuing users to the migration server.
Migration worker	An instance of the CMT_MigrationWorker.exe application running on a migration workstation. This application runs continuously on the migration workstation, polls the migration server for pending migration jobs, and initializes an instance of the migration engine (CMTProxy.exe) for each migration job.
Migration engine (or CMTProxy)	An instance of CMTProxy.exe, which is initialized and managed by the Migration worker. CMTProxy.exe performs the actual data migration.
Crash	Abnormal termination of the migration engine, resulting in a status of "Migration terminated abnormally."

## Configuring Automatic Restart

Automatic restart is controlled by a parameter in the Web.config file for the Migrator for Notes server. This file is located in `[installDirectory]\CMT for Exchange\CMT_XMLServer\Web.config`, for example "C:\Program Files (x86)\BinaryTree\CMT for Exchange\CMT\_XMLServer\web.config".

The Web.config file contains the startup parameters for the Migrator for Notes server. Located in this file is an \appSettings\MaximumRetryCount XML node, which indicates the maximum number of times a migration will be automatically restarted.

```
<appSettings>
    ---snip ----
    <add key="ScheduleTimerInterval" value="3"></add>
    <add key="UseSQL" value="1"></add>
    <add key="MaximumRetryCount" value="10"></add>
    <add key="RetryJobStatus" value="#001;#002"></add>
</appSettings>
```

The MaximumRetryCount is set to 10 by default. A value of 0 or a negative number will disable the Automatic Restart functionality.

RetryJobStatus is set by default to resubmit if the #001 (Notes memory exception) or #002 (Outlook memory exception) job status code is returned.



If MaximumRetryCount or "RetryJobStatus" is changed or disabled, the Migrator for Notes server instance must be restarted for the change to take effect. This can be done by opening a command prompt on the migration server and typing "iisreset" at the prompt, or manually restarting the IIS service.



Windows Error Reporting can prevent the Migration Worker from completing the Automatic Restart. This can be disabled on Windows using Disable-WindowsErrorReporting, for more information please refer to Microsoft Online Documentation for this functionality.

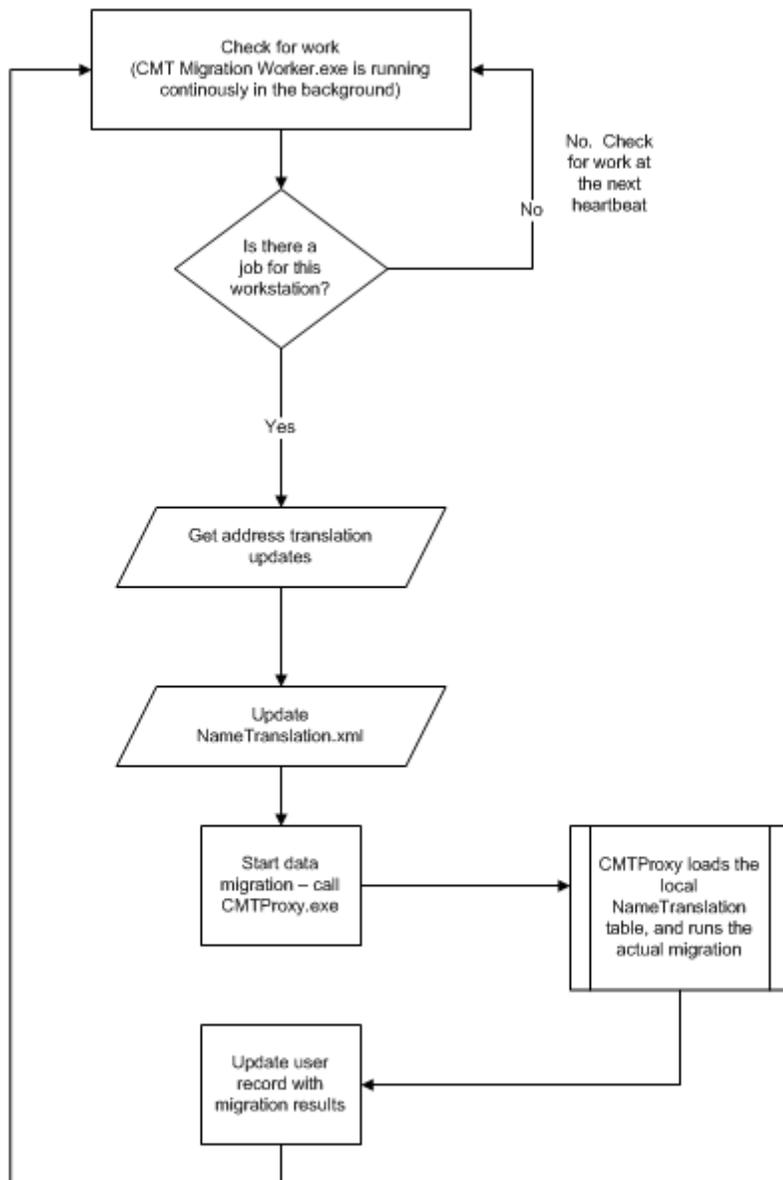
## Migrator for Notes Worker Basics

The Migrator for Notes Worker is an application that runs in the task bar of windows. This application is responsible for queuing, migrating, and updating the status of a migration job on the Migrator for Notes server.

The Migrator for Notes Worker has three basic states:

- Offline – the migration worker is not started.
- Online – the service is running, and actively checking for migration jobs
- Migrating – a migration job is in progress.

When the Migration Worker application is online, the application periodically checks the Migrator for Notes server for pending migration jobs. If a job is available, the migration server passes back the job number from the migration queue, along with settings and user information required to start the migration. The worker then starts the migration by calling CMTPProxy.exe as a separate process with the appropriate parameters, which begins the actual data migration. Once the migration starts, the migration worker application sends notification back to the Migrator for Notes server that the workstation is in Migrating status. During the course of the migration, the migration worker periodically communicates throughput and migration time statistics back to the migration server.



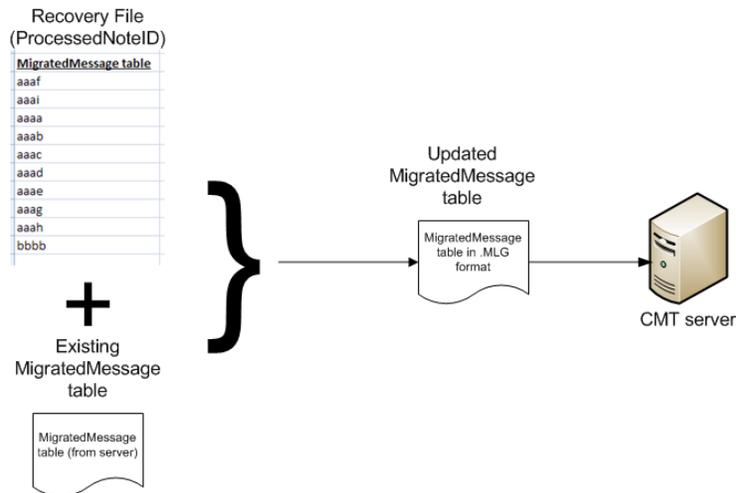
When the migration has completed, the Migration Worker updates the CMT server and then uploads the history of migrated messages and relevant log files.

The key concept is that the Migration Worker is responsible for checking the Migrator for Notes Control Center Server for work, triggering a migration job when required, updating the Migration Control Center Server during the migration, and finally uploading log files once the job has been completed.

## Migrator for Notes Recovery Basics

During a migration, the Migrator for Notes engine reads and catalogs the unique identifier of each message it encounters before the message is processed. This identifier is stored in memory to prevent migrating a document multiple times, and is also immediately written to disk in a "ProcessedNoteID-*username.txt*" file on disk, where *username* is the unique key of the user on the migration server.

In the event of a crash, the ProcessedNoteID file on disk contains the list of unique identifiers of each document processed during the failed migration. This file is read by the Migration Worker application, merged with any existing migrated message information residing on the server for the user, and stored back on the migration server prior to the next migration. This ensures that the migrated message table on the Migrator for Notes Server is up to date when the migration is restarted.



When the migration engine is restarted, the migrated message table is read and all previously processed messages (including the ID of the message that was being processed when the migration crashed) are skipped in subsequent runs. This allows Migrator for Notes to resume where it left off, and prevents re-migrating documents repeatedly on subsequent runs.

**NOTE!** The migrated message table is not used if the Discover History from Migrated Data option is used. In this case, the previously processed messages are read from the Exchange Mailbox directly.

## Detecting abnormal termination of a migration

The Migrator for Notes Worker application is a key component in detecting when a migration crashes. When the Migrator for Notes Worker application starts a migration job, it launches the migration by calling CMTProxy.exe in a separate process. While the migration is running, the Migrator for Notes Worker application periodically sends information back to the Migrator for Notes server indicating migration time and throughput for the current migration.

If the migration engine (CMTProxy.exe) crashes, the handle to the migration engine becomes invalid, and the Migration Worker application knows that the currently running migration has crashed. At this point, the Migration Worker reads the ProcessedNoteID table from the temporary directory, merges it with any existing information in the Migrated Message table on the Migrator for Notes server, and updates the status of the job to “Migration Terminated Abnormally.”

**NOTE!** The Migration Worker does not actually re-queue the job, it reports only “Migration Terminated Abnormally” status back to the Migrator for Notes server. The Migrator for Notes server is responsible for determining if the job will be re-queued.

## Automatic re-queue of a migration job

The sections above describe how the Migrator for Notes Worker application identifies a crash in the migration engine and returns “Migration terminated abnormally” status. This section describes how the Migrator for Notes server re-queues the user and resulting migration status values.

If the migration worker application returns a value of “Migration terminated abnormally” or one of the `RetryJobStatus` codes to the Migrator for Notes server, the migration server determines if the `RetryCount` exceeds the `MaximumRetryCount` configured for the server.

- If the `RetryCount` is less than the `MaximumRetryCount`, the job is re-queued by creating a new migration job in the migration queue. This job will be a high-priority job queued for the specific workstation, ensuring that it is the next job processed by that workstation.
- If the `RetryCount` for a particular migration is greater or equal to the `MaximumRetryCount`, the migration will be left in “Migration terminated abnormally” status or the last job status. This allows the migration administrator to determine which migrations have exceeded the maximum allowable number of automatic restarts, and indicates that the file will need additional remediation before resetting and remigrating the user. It should be noted that the migration server will contain a history (in the form of a migrated message table) corresponding to all of the data that has been migrated up to that point. After remediation, the migration administrator can simply reset and requeue the user to continue the migration from this point, or clear previously migrated data and clear the migrated message table to restart the migration from the beginning.
- If a migration has been automatically restarted by this process, the Notes Migrator.nsf database will only show the status of the last migration that was restarted. Consider the situation where a migration crashed, was automatically restarted, and continued to completion without further errors. The migration status in the Migrator for Notes Database will report “Migration completed successfully” even though there was a crash on the initial run. The migration history will indicate the first migration completed with a status of “Migration terminated abnormally” status, but this may not be evident in the Notes Migrator.nsf Lotus Notes application interface. Advanced or customized installations of the Lotus Notes application may retrieve and summarize the complete migration history for a user, but a complete migration history is not included in the default Notes Migrator.nsf application interface.

The `RetryJobStatus` parameter is a string list of semicolon delimited codes that will automatically be resubmitted if the job returns with that specific status code. By default, Migrator for Notes will resubmit memory exception codes #001 (Notes memory exception) and #002 (Outlook memory exception).

## Summary

In this section, we have reviewed how the Migrator for Notes Migration Worker application detects a crash of the migration engine, how the Migrator for Notes Control Center Server processes the “Migration Terminated Abnormally” status and requeues the job if necessary, and ultimately how the migration automatically restarts on the same workstation.

In this manner, the Automatic Restart process in Migrator for Notes allows migration administrators to queue jobs to the migration server and know that if a crash were to occur the migration will automatically be restarted without intervention up to the maximum number of times indicated by the `MaximumRetryCount` parameter. This feature reduces the amount of resources required to monitor Migrator for Notes migrations and eliminates the need for administrator intervention in the case where the migration engine has crashed.

Again, it should be noted that the Lotus Notes application interface (Notes Migrator.nsf) will report the *last migration status* for the user. Any automatic restart events will be evident in the complete migration history but will not be reflected directly in the interface. In the case where the maximum restart count has been exceeded, the last migration event will be reported as “Migration terminated abnormally.”

# Appendix H: Folder Processing Order

Folders are processed in the following order:

<b>Order</b>	<b>Notes Folder</b>	<b>Outlook Destination</b>
1	<i>\$Contacts or \$PeopleGroupsFlat</i>	<i>Contacts</i>
2	<i>\$Meetings</i>	<i>Calendar</i>
3	<i>\$Drafts</i>	<i>Drafts</i>
4	<i>\$Tasks</i>	<i>Tasks</i>
5	<i>\$Inbox</i>	<i>Inbox</i>
6	<i>Sent Items to OL Sent Folder (Sent Option A)</i>	<i>Sent Items</i>
7	<i>Custom Folders</i>	<i>Custom Folder</i>
8	<i>Junk E-Mail</i>	<i>Junk Email</i>
9	<i>Trash</i>	<i>Deleted Items</i>
10	<i>Journal (Notebook)</i>	<i>Notes</i>
11	<i>Sent Items to Custom Folder (Sent Option B)</i>	<i>Specified Folder or Sent Items</i>
12	<i>All Documents/Unfiled</i>	<i>Unfiled (may be skipped/not migrated)</i>



Folders with names containing "Alarms", "Rules", "\$MAPI", or "Group Calendars" are skipped.