Migration Guide: Single User Mailbox

Novell GroupWise → Microsoft Exchange/Outlook (PST)

Transend Migrator 10.x
Transend Migrator Forensic Edition 10.x

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Section 1: Introduction

This guide demonstrates how to perform a simple conversion of the following items from Novell GroupWise to Microsoft Exchange/Outlook using Transend Migrator 10.x and Transend Migrator Forensic Edition 10.x:

- Email Messages/Folders
- Address Books
- Calendar Entries
- Tasks/To Do

For more detailed information about your specific application, security requirements, and additional migration options, please review the Help File. The Transend Migrator Help File is context sensitive. Selecting the help button will take you to the specific section related to the screen you are in.

This Migration Guide only details the conversion of a single user mailbox. For detail about performing a batch migration, please see the appropriate Batch Migration Guide or the Help File.

Section 2: User Interface Overview

Transend Migrator contains an easy to use interface, designed to simplify the migration experience while allowing for maximum flexibility. Setting up your project to convert E-mail, Address Books, Calendars, and Tasks is accomplished within one user interface allowing you to quickly complete your migration in one run.

Menu Bar

The Menu Bar is where you will make these data type selection choices. The top level Menu is where you will find additional commands for saving configurations, setting various migrations options, viewing and setting logging and reporting options, and setting up batch migrations for multiple users.
User Interface

The following screen is an example of the Transend Migrator user interface. The same interface is used whether you are migrating a single user mailbox or multiple user mailboxes at once (Batch Mode). Each screen for the E-mail, Address Book, Calendar, or Task/To Do menu is similar. Differences will be related to the specific data types. Please review all data type configurations before starting your migration project.

The Email Configuration screen is shown in the example, above. Your screen may vary depending on the email system you are migrating from or to. Each data type must be configured and enabled prior to beginning the migration. You can migrate one data type at a time or all types together. Below is a brief summary of the Interface. The item numbers on the above screen shot correspond to the item numbers listed below:

1. The **Top Level Menu** is where you set Migration Options, review log files, and configure batch migration data.
2. The **Buttons** represent each data type available for migration: E-mail, Address Book, Calendar, and Task/To Do. You can migrate one or more data types at a time. Each data type is to be configured individually and enabled individually. A green checkmark will appear on the button when it is enabled for migration.
3. The **Source drop-down menu** displays a list of all the available messaging systems you can migrate from.
4. After the Source system is chosen, data entry text boxes will display. Fill out the information required for your source system.
5. The *Folders* button allows you to specifically choose or exclude individual email folders. By default, all folders will migrate. Therefore, you do not have to configure the source Folders list. This is optional.

6. The *Copy Configuration* button allows you to copy configuration information from the first screen into all other data type configuration screens. By default, Transend Migrator will fill in the information it can for you. Once you make changes, this button allows you to update the other data type screens with those changes. Only similar or like-fields will be updated. When you use the Copy Configuration button, you must re-enable the other data types for migration.

7. The *Target drop-down* menu displays a list of all the available systems you can migrate into.

8. After the Target system is chosen, data entry text boxes will display. Fill out the information required for your target system.

9. Enable the migration after you have configured both the source and target system by checking the *Enable Migration* checkbox. Once a data type is enabled a green checkmark will appear on that section’s button. Only the Enabled data types will migrate.

10. Select the *Start Single Migration* button when you are ready to proceed with the migration. The *Start Single Migration* button will migrate just one account at a time.

**Section 3: Migrating Messages/Folders**

The following example provides a step-by-step guide of how to migrate messages/folders from Novell GroupWise to Microsoft Exchange/Outlook:
1. Select the Email Button to configure the email choices.
2. Select GroupWise from the From drop down selection box on the Source Pane on the left side of the screen.
3. Enter the GroupWise user name, and the password for the GroupWise account to be migrated.
4. Select the Folders button to choose which folders to migrate. All folders will migrate by default.
5. Optionally, select the Use Archive checkbox if you will migrate email data from the GroupWise archives rather than the live email account. Transend Migrator will use the archive path as defined with the GroupWise settings.
6. Select Exchange/Outlook from the To drop down selection box in the Target pane on the right side of the screen.
7. Enter the profile name, PST file name, or direct mode syntax. Here is more information about those choices:
   a. **Profile Method:** Choose an existing Outlook profile by selecting the drop down arrow next to the Profile or PST: text box.
   b. **Direct File Method:** Type in the path and filename of an existing PST file when migrating from Exchange/Outlook, or type in the path and filename of an existing PST file. If one does not exist then Transend Migrator will create one for you with the name you provide.
   c. **Syntax Method:** If you do not want to create an Outlook Profile, and if you have permission to access the account then use the following syntax:

   `<servername>!!<username>`

   For example, if your servername is PDCEX and your username is beverly.johnson enter in the information as follows:

   PDCEX!!beverly.johnson

   This will allow you to migrate directly from or to the Exchange Server account if you have permission to do so.

8. Place a checkmark in the Enable Migration Checkbox to enable Email for migration. Once a data type is enabled a green checkmark will appear on the Email button. Only the Enabled data types will migrate.
9. Optionally, configure and enable the other migration choices (Address Book, Calendar, and Task), as described below, if they are to be included with this email account migration.
10. Select the Start Single Migration button to complete the migration. The Migration Monitor will start and display the real-time migration progress.
11. Once complete, select the OK button to go back to the main screen.

**Important Novell GroupWise (Source) Information:**
There are two migration methods when migrating email from GroupWise. The first method is the GroupWise Object API, which requires the GroupWise email client installed. It contains a set of Dynamic Link Libraries (DLL), or application files that are included with the Novell GroupWise Client software.

The second method is the IMAP4 protocol method. Rather than migrating from GroupWise using the GroupWise API, enable IMAP4 support and then migrate from GroupWise using the IMAP4 Server choice. This choice is often more reliable and faster than using the GroupWise API method, and is the preferred choice when migrating between GroupWise and Microsoft Outlook.

- **Requirements.** The GroupWise client software is required when migrating via the GroupWise API. The IMAP4 protocol must be enabled on the GroupWise server if using the IMAP4 method. An active or live GroupWise email account must exist. The logon and password is required. Optionally, you can migrate another account if you have proxy access to that account or by using Trusted Mode.

  **Note**
  Ensure you are running a stable release of GroupWise, and use the recommended patches or updates required by Novell. If you are running GroupWise versions 6 we recommend you patch to version 6.5.7. If you are running version 7 we recommend you patch your version to 7.0.3 or greater. Similarly, if you are running GroupWise version 8 we recommend you patch to version 8.0.1 or greater.

- **Data File.** The GroupWise data is stored within a GroupWise email server. Therefore, the GroupWise server must be running. Since GroupWise email data is located on a live GroupWise server there aren’t any source files; however, GroupWise archives can be stored on a local workstation or on a network share. Transend Migrator can convert from the archives. The GroupWise API is required in order to migrate GroupWise archives unless those archives are unarchived back into the live account. In that case, you will also be able to use the IMAP4 protocol.

**Recommendation**

If you are migrating email between GroupWise and Microsoft Outlook the recommended email migration method is via the IMAP4 protocol. This is because GroupWise and Outlook both use a program file called MAPI32.DLL, and both email programs use their own versions. Because of this, you may run into problems when attempting to convert email directly between GroupWise and Outlook. As aforementioned, we recommend you use the IMAP4 Migration choices when it is possible. Review IMAP4 for more information.

**2-Step Migration via the Transport File**

The safest and most reliable method for migrating data between GroupWise and Exchange/Outlook is via the Transport File. If you are experiencing connection problems between GroupWise and Outlook with both the GroupWise API and the IMAP4 protocol, then we recommend performing a 2-step migration. A 2-step migration includes the conversion to a Transport File, which is a 4GB container or database created by Transend. Migrating GroupWise data to Exchange/Outlook via the Transport File requires you to convert data into the Transport File, and then convert the same data from the Transport File to Microsoft Exchange/Outlook. While performing a 2-Step migration is not ideal, integrating the
Transport File into the migration process completely eliminates all MAPI conflicts that are present when attempting to migrate from GroupWise to Exchange/Outlook.

**Important Microsoft Exchange/Outlook (Target) Information:**

Microsoft Outlook must be the default email program for Windows when converting from or to Microsoft Exchange/Outlook.

**Data File.** Microsoft Outlook stores email data within PST files. The PST file is also considered an email archive file. In a typical Exchange/Outlook environment the client workstation will not have PST files unless messages are archived to the local workstation. If there are archived messages within Outlook, the messages are stored within an Outlook Personal Folder File.

The two main differences between a stand-alone version of Microsoft Outlook and a Microsoft Exchange Server based version of Outlook is where the email and data is stored. This is primarily determined and setup by the Microsoft Outlook email profile which can be found in the Windows Control Panel.

In an Outlook Stand-alone version, the email data is stored inside a Personal Folder message store or file. This file is commonly called a PST file. This message store can have any valid name, and it has a .PST file extension. Normally, this file is located on the workstation hard drive, but can be placed onto the network.

In an Outlook and Exchange Server environment, Outlook connects to the Exchange Server and the message data is stored on the Exchange Server. When a person logs into the Exchange Server, they normally go through a profile which contains the important logon name information. Optionally, a user can store or archive email to their local hard drive. This means that they can store email inside a PST file in addition to having email stored onto Microsoft Exchange.

### Section 4: Migrating Address Books

Transend Migrator can read address information directly from a GroupWise 5.5+ address book. You must be running Transend Migrator on a PC that has the GroupWise client installed. (Note: 5.5 or greater is required). If you have an earlier version of GroupWise, please use the Novell NAB format instead.

If there are connection problems when migrating from a Novell GroupWise address book, verify the account connection by opening the GroupWise account with the GroupWise client software. Next, open up the address books and note the name of the personal address book. Some versions of GroupWise name the address book "Personal Address Book" while some installations name the address book with the username. When migrating from GroupWise address books, use the asterisk * to tell Transend Migrator to migrate all personal address books.

When migrating a GroupWise personal address book to Microsoft Outlook you may run into a connection or MAPI32.DLL file conflict. This is because GroupWise and Outlook use their own version of MAPI32.DLL and they are not compatible with each other. You may need to migrate to an intermediate
file format, such as a GroupWise NAB (Novell NAB) file, to work around the MAPI32.DLL connection conflict.

- **Requirements.** The GroupWise client software is required and a live connection to a GroupWise server is required. Ensure you are running a stable release of GroupWise, and use the recommended patches or updates required by Novell. If you are running GroupWise versions 6 we recommend you patch to version 6.5.7. If you are running version 7 we recommend you patch your version to 7.0.3 or greater. Similarly, if you are running GroupWise version 8 we recommend you patch to version 8.0.1 or greater.
- **Data File.** The GroupWise address books are located inside the GroupWise account. A MAPI connection is required. Address books must be specified by name, or an asterisk can be specified to migrate all user address books to a different system.

The following example provides a step-by-step guide of how to migrate Address Books from GroupWise Address Books to Exch/Outlook Contacts:

1. Select the **Address Book** Button to configure the Address Book choices.
2. Select **GroupWise** from the **From** drop down selection box on the **Source** pane on the left side of the screen.
3. Enter the address book name. Use an asterisk * to migrate all address books.
4. Enter the GroupWise user name and password.
5. Select **Exch/Outlook Contacts** from the **To** drop down selection box in the **Target** pane on the right side of the screen.
6. Enter the required information for the target application.
7. Place a checkmark in the *Enable Migration* Checkbox to enable Address Books for migration. Once a data type is enabled a green checkmark will appear on the *Address Book* button. Only the Enabled data types will migrate.

8. Select the *Start Single Migration* button to complete the migration. The *Migration Monitor* will start and show you the migration progress.

9. Once complete, select the *OK* button to go back to the main screen.

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**Section 5: Migrating Calendar Entries**

Transend Migrator converts from GroupWise Calendar items.

- **Requirements.** The GroupWise client software is required and a live connection to a GroupWise server is required. Ensure you are running a stable release of GroupWise, and use the recommended patches or updates required by Novell. If you are running GroupWise versions 6 we recommend you patch to version 6.5.7. If you are running version 7 we recommend you patch to 7.0.3 or greater. Similarly, if you are running GroupWise version 8 we recommend you patch to version 8.0.1 or greater.

- **Data File.** The GroupWise calendars are located inside the active GroupWise account. Transend Migrator uses MAPI to connect to GroupWise. Therefore, no local files are involved with the migration. You will need the logon credentials for the GroupWise user being migrated.

The following example provides a step-by-step guide of how to migrate Calendar Entries from GroupWise Calendar to Microsoft Exchange/Outlook:

![Calendar Configuration](image)
1. Select the Calendar button to configure the calendar choices.
2. Select *GroupWise Calendar* from the *From* drop down selection box on the *Source* pane on the left side of the screen.
3. Enter the GroupWise user account and password.
4. Optionally, check the *Upcoming events only* checkbox to convert future items. Enabling this checkbox migrates only items originally created for future dates.
5. Select *Outlook Calendar* from the *To* drop down selection box in the *Target* pane on the right side of the screen.
6. Enter the required information for the target application.
7. Type in the alternate target calendar folder name if this is an option on your screen. Leave this entry blank to accept the default calendar.
8. Once the required information is entered check the *Enable Migration* checkbox. Notice, the green arrow appears on the *Calendar* button after you check the *Enable Migration* checkbox.
9. Select the *Start Single Migration* button to complete the migration. The *Migration Monitor* will start and show you the migration progress.
10. Once complete, select the *OK* button to go back to the main screen.

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**Section 6: Migrating Tasks/To Do Items**

Transend Migrator migrates *Task/To Do* items from Novell GroupWise.

- **Requirements.** The GroupWise client software is required and a live connection to a GroupWise server is required. Ensure you are running a stable release of GroupWise, and use the recommended patches or updates required by Novell. If you are running GroupWise versions 6 we recommend you patch to version 6.5.7. If you are running version 7 we recommend you patch to 7.0.3 or greater. Similarly, if you are running GroupWise version 8 we recommend you patch to version 8.0.1 or greater.

- **Data File.** The GroupWise Tasks are located inside the active GroupWise account. Transend Migrator uses MAPI to connect to GroupWise. Therefore, no local files are involved with the migration. You will need the logon credentials for the GroupWise user being migrated.

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The following example provides a step-by-step guide of how to migrate *Task/To Do* Items from GroupWise Tasks to Microsoft Exchange/Outlook:
1. Select the Task/To Do button to configure the task choices.
2. Select **GroupWise Tasks** from the *From* drop down selection box in the *Source* pane located on the left side of the screen.
3. Enter the GroupWise user account and password.
4. Select **Use Archive** if you are migrating Tasks from the Archives instead of the live GroupWise account.
5. Choose **Outlook Tasks** from the *To* drop down selection box in the *Target* pane located on the right side of the screen, and then enter the required information for your target task application.
6. Type in the alternate target task folder name if this is an option on your screen. Leave this entry blank to accept the default task folder.
7. Once the required information is entered check the **Enable Migration** checkbox. Notice, the green arrow appears on the Task/To Do button after you check the **Enable Migration** checkbox.
8. Select the **Start Single Migration** button to begin the task migration.
Section 7: Custom Options

Custom Options are additional settings that allow you to alter the default behavior of Transend Migrator. There are hundreds of custom options to choose from. You do not have to enable custom options, but you can use these options if you want to alter the default settings. All Custom Options are detailed in the Help File.

Select Migration Options | Custom Options from the main menu in order to configure available options.

Search Information

If you want to enable an option but do not know where to find it, enter a keyword inside the search text box to search for the option. Transend Migrator will search for that keyword inside the entire Custom Options section and display how many times it was found.

Select the Next button to review all the sections where your keyword was found. Enable the correct option. You may also search by a specific option switch (e.g. /D140). Sometimes an option can be found in two or more locations. Review the correct location for the option and then enable it in the source or target section related to your specific project.
Review enabled Options by selecting the *View Enabled Options* button on the *Custom Options* screen or by selecting *Enabled Migration Options* from the View menu. These choices will display all enabled options by category.
Section 8: Migration Monitor

The Migration Monitor displays the email accounts as they are migrated during a migration. Information about the status of the accounts is displayed in real time. The Migration Monitor is a multi-threaded process, which means that multiple accounts can be migrated at the same time if the email systems support concurrent migrations, and if your license permits.

Display
The Migration Monitor will display the status of the migration project for each account being migrated. Extend the size of the display to see all available columns.

Section 9: Reporting / Logging
**Reporting**

Migration reports in XML format will be created after each successful run, and they can be opened up with Microsoft Excel. Those reports can be found inside the default subfolder or in a folder containing the name of the custom configuration. Each time a migration is run a new Migration Report will be created, and it will be assigned an incremental number beginning with the number 1.

The default detail contained within the XML Report contains the following information:

- User ID
- Database / User
- Time Started
- Time Ended
- Folder Count
- Address Count
- Task Count
- Skipped Entries
- Status
- Time Started
- Elapsed Time
- Email Count
- Calendar Count
- Attachment Count
- Data Rate (megabytes per hour)

**Note**

Transend Migrator reports the number of attachments converted with each message; however please be aware that this number may include graphic images embedded within HTML documents. Therefore, the number of actual attachments visible in your email client, such as Word or Excel files, may be different than reported.

**Logging**

Transend Migrator will create a master log file named *tmlog.html* inside the default system directory. This log file contains detailed information about the migration session. User specific log files will be called Tmlog-#.html. The number # will correspond with the specific job number for that user as found in the Migration Monitor. This file contains detailed information about a specific user. Since the log files are HTML they are viewable by using your Internet browser. If you want text based log files then use the /LTEXT switch option located inside the Log File section in Custom Options.

You can find the log files inside one of the following system directories:

- **Windows XP**  
  C:\Documents and Settings\All Users\Application Data\Transend

- **Windows Vista**
- **Windows 7**  
  C:\ProgramData\Transend
Section 10: Troubleshooting

General Logon Errors
There are four possible error messages you may receive when attempting to log on to your email system.

1. **Invalid user name or ID:** This error generally appears only for IMAP, Outlook, and GroupWise. Check that you have entered the correct user name, including case and spelling.
2. **Invalid password:** As above, generally this will occur only with IMAP, Outlook or GroupWise. Check the spelling, punctuation, and case.
3. **Invalid database or directory:** This error can occur for systems where it is necessary to identify a directory where email files may be found. This would include Netscape, Eudora, cc:Mail archives, EML, and Web. It can also occur for systems where you have to identify a specific database file, such as a Lotus Notes .nsf file. For Notes, the file must exist in a readable directory. For the other systems mentioned, assuming that the directory itself exists, the program is checking for the presence of specific files. For example, the Netscape directory must have at least one .snm or .msf file. The Eudora directory must have a .mbx file, and the Pegasus directory must have a .pmm file.
4. **Unable to connect with mail system:** This is a generic error that can indicate a variety of problems. Close Transend Migrator and verify the connection with your email client. Use those same settings when migrating email data with Transend Migrator.

Usually more information is available about a logon problem in the log file. If the error message in the log file is not helpful, please send a copy to our technical support for further analysis.

Antivirus and Spam Filters
If you have viruses in your email then your antivirus or spam filter might intercept those viruses during migration. Therefore, it is best to clean your email before or after performing a migration. If the message is intercepted during migration it could interfere with a successful migration.

If you have antivirus and spam prevention software running on your source or target server, and even the workstation performing the migration, you will slow down the amount of time it takes to migrate your data. To improve performance and to decrease the amount of time it takes to migrate your data turn off antivirus or spam filtering software. Any software designed to intercept email traffic will impede performance.

Application Violations
These errors can be difficult to troubleshoot but are mostly related to corrupted email messages, or files that are not email messages but you tried to convert them. If the latter is the case then remove the offending file.

1. If an application violation (AV) happens then make note of the folder the problem happened in.
2. Enable the /LSUB switch option for logging. The /LSUB switch option will log each message subject converted (or attempted) into the log file.
3. Attempt an isolated conversion of that specific folder. When the AV happens close Transend Migrator.
4. Open the Log File with Notepad or alternate text editor.
5. Make note of the last message converted. This will tell you where to look for the problem.
6. Open the source message account and search for the message subject causing the AV.
7. Move that message into a TEMP or SAVE message folder.
8. Optionally, move the next message into the same TEMP or SAVE folder. Quite often, it was not the last message converted that caused the AV. It could be the next one in line. Therefore, this is why you need to move the next one into the TEMP or SAVE message folder.
9. Begin another migration, but this time skip the TEMP or SAVE message folder. When the migration is successful you can continue on. You will have successfully identified the corrupted or problem messages.

Novell GroupWise
If you are migrating between Novell GroupWise and Microsoft Outlook you may receive an Access Violation. If this happens it is often a conflict between the GroupWise email client and the Outlook email client.

1. Upgrade your email clients to the latest versions and/or upgrade your Windows service packs to the latest versions.
2. Make sure the “Novell GroupWise” Outlook profile is the default email profile for Outlook.
3. Consider using IMAP4 as the conversion method for GroupWise email. This will eliminate the MAPI32 conflict.
4. Consider performing your email migration in two steps. Migrate from GroupWise mail into a Transport File, and then migrate the Transport File to Outlook/Exchange.
5. In some cases, Access Violations can be avoided by migrating directly to ANSI style Outlook PST files. Use the /OLDPST switch option to create the old style (pre-2003) of PST file.

IMAP4 Connections
Make sure you have the correct username, server address, and password for the account to be migrated. Some servers require the entire user email address rather than just the username. For example, you may need to enter jsmith@acme.com instead of jsmith. If your IMAP server uses SSL security then enable the /SSL option.

Microsoft Outlook
Microsoft Outlook must be the default email system for Windows when migrating Outlook email data. At least one profile must be created so that Outlook will set itself up for your email environment. Once this is done then no other profiles are needed if using the special syntax to access accounts directly.

You do not need a profile to migrate multiple Exchange accounts. Profiles are not required. But, your Windows account must have permissions to access the account you are accessing. Contact your Network Administrator to gain access to other people’s email accounts. If you are performing migrations for selected Exchange users then you must be granted RECEIVE-AS permissions on the mailbox to be migrated.

When you are using the Transend Migrator graphical User Interface you can migrate other people’s email accounts as long as you have created a profile for that user, and have the login ID and password for that user. This is not the recommended method. The recommended method is to be granted access permissions so that a password is not needed and so that a profile is not needed.
If you are migrating multiple users and/or will be using the Batch Mode Processor then give your Windows account (the account or group doing the migration) the RECEIVE-AS permissions on the Mailbox Database for your Exchange Server.

**Section 11: Technical Support**

Technical support is available to help you understand how to use Transend Migrator with your migration project. Please review the Help File and online resources before contacting technical support.

Technical support is available Monday through Friday, 9:00AM - 5:00PM (Pacific Time).

You are encouraged to submit questions through email. This will allow us time to properly research your situation and make appropriate recommendations.

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