

Quest® Migrator for GroupWise 4.6.1
Administration 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, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

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About this guide

This *Administration Guide* is intended to provide operating instructions and application notes for all of the component applications of Quest Migrator for GroupWise.

This Guide is intended for network administrators, consultants, analysts, and any other IT professionals who will use the product or participate in planning for a migration project.

Other Migrator for GroupWise documentation

This *Administration Guide* is one of several documents that explain various aspects of Quest Migrator for GroupWise product. The complete documentation suite also includes:

- **Quick Start Guide:** An orientation to the product's basic purposes and features, and to how its component tools are most typically used within the broader context of an overall migration project. Also includes instructions for downloading and installing the software.
- **Pre-Migration Planning Guide:** Critical considerations and other strategic and tactical issues that an organization must consider and accommodate before beginning a migration project.
- **Scenarios Guide:** Migration process instructions that show how Migrator for GroupWise tools and features can be used in a variety of migration scenarios— migrating to different target environments, with different preferences and under different circumstances.
- **Administration Guide:** Operating instructions, application notes and screen-by-screen field notes for the administrator components of Migrator for GroupWise.
- **Self Service Desktop Migrator User Guide:** Operating instructions, application notes and screen-by-screen field notes for the Self Service Desktop Migrator (SSDM) component of Migrator for GroupWise. The SSDM User Guide is provided as a separate document so that an administrator can distribute it to any end users who will run the per-desktop program.
- **Online Help:** Context-sensitive field definitions and application notes for all of Migrator for GroupWise's component applications.

AddProxy utility

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Why and when to use AddProxy

Use the AddProxy utility if you have determined that this is the best way for the other Migrator for GroupWise applications to access your users' GroupWise source data. This choice, and other options, are explained in chapter 3 of the *Migrator for GroupWise Pre-Migration Planning Guide*—see the topic *Method of Access to GroupWise User Data*.

The AddProxy program can be executed automatically from a network login script, and can therefore be virtually transparent to end users. As each user logs in to GroupWise, the AddProxy utility automatically logs the successful procurement of proxy rights for his or her account, in a .csv log file. The .csv log file can then serve as the user-list input file for Quest Administrator-Driven Batch Migrator program.

The AddProxy utility should be installed and configured to run early in the pre-migration process, as documented in the Migrator for GroupWise *Scenarios Guide*. AddProxy will run only upon each user's next login, but that may not be a daily or even weekly occurrence for some users. Quest therefore recommends that you install and configure AddProxy as part of the *Pre-Migration Preparations*. The process instructions then call for several other administrative tasks in the *Pre-Migration Preparations* and *Batch Migration Process* instructions before the first migration program run, which should allow enough time for most users to log off and back on again.

AddProxy prerequisites

You may use the AddProxy program if *any* of these three conditions is met:

- Your users are running GroupWise 6 with Enhancement Pak.
(A bug in the Novell Object API for GroupWise prevents the use of AddProxy to add new proxy rights under certain versions of GroupWise unless one of the other two conditions below is met.)
- Your organization does *not* use Internet addressing.
- All migrating users have previously granted other proxy rights to the migration (proxy) administrator account. (Even if AddProxy cannot create new proxy rights due to a failure to meet either of the other two conditions listed above, the program can still modify *existing* proxy rights to include the rights needed for the migration.)

If users have already granted other proxy rights to the migration admin account: Use a text editor to edit the *addproxy.ini* file, to change the *AllowAdd=1* parameter to *AllowAdd=0*. Then save the change and close the file.

Installing AddProxy

To install and configure Quest AddProxy utility:

- 1 Create a folder (or note the name and location of an existing folder) that is readable and writeable by all users who will run the AddProxy program, to contain the AddProxy program and log files. Example:

```
\\XYZSRV\SYS\PUBLIC\ADDPROXY
```
- 2 Copy *addproxy.ini* from your Quest programs folder to the above folder (keeping the same *addproxy.ini* name), and edit the copy to accommodate your circumstances and preferences. (See [Addproxy.ini specifications](#) below for item definitions and specifications for the *addproxy.ini* file.)
- 3 Copy *addproxy.exe*, *_addproxy.exe* and *mfc42.dll* to the above folder.
- 4 Modify the network system login script (or the login scripts of selected users) to run *addproxy.exe*. For example, if the program were installed to the above folder, you would add this line to your network system login script:

```
\\XYZSRV\SYS\PUBLIC\ADDPROXY\ADDPROXY
```

Note: If you are using a Netware login script, be sure to add an @ symbol to precede the name of the executable you want to run. For example:

```
@\\XYZSRV\SYS\PUBLIC\ADDPROXY\ADDPROXY
```

As each user logs into the network and thereby activates the system login script, the AddProxy program will automatically run on his or her machine. If the program succeeds in authorizing proxy rights, it will note the success in the log file for successes (designated by the *SuccessLog=* parameter in *addproxy.ini*). If the program fails, it will generate an error entry in the log file for failures (designated by the *FailureLog=* parameter in *addproxy.ini*).

A successful run of AddProxy generates an item in the user's Windows' registry at *HKEY_CURRENT_USER\Software\Wingra Technologies\GroupWise Migrator\AddedProxies*, in the form of a new DWORD Value of the user and the proxy user, like this:

```
User@Acme.com:ProxyUser@Acme.com
```

AddProxy will not run more than once for any single user unless the configuration settings, such as a new proxy user, have changed. The parameter setting *Force=1* in the *addproxy.ini* file will override this and always force AddProxy to run, regardless of the registry setting.

Is it working?

To determine whether the AddProxy utility is working, check the *SuccessLog* file to see whether user runs of the program are being recorded there. The AddProxy program automatically logs each successful run in its log file for successes— designated by the *SuccessLog=* parameter in *addproxy.ini*.

Uninstalling the AddProxy program

After all users have run the AddProxy program, remove the line that runs AddProxy from your network login script(s) — the line you added in step 4 of the installation instructions in the preceding section. You may then remove the files *addproxy.ini*, *addproxy.exe*, *_addproxy.exe* and *mfc42.dll* from your server.

Addproxy.ini specifications

The *addproxy.ini* file is a text file containing parameters that govern how the AddProxy program will run. Use a text editor to edit the parameters in this file to suit your circumstances and preferences. The file contents format is:

```
[AddProxy]
User=admin@sitraka.com
UserGroupWiseAddr=admin.gwpo.gwdom
Force=1
AllowSearch=0
SuccessLog=..\..\addproxy.csv
FailureLog=..\..\addproxyerr.csv
AllowAdd=1
Rights=ALL
```

addproxy.ini required parameters

- **User:** Internet address of the administrative user who will be authorized (by proxy) to access users' archives and/or mailboxes during migration.
- **UserGroupWiseAddr:** The GroupWise address of the **User** specified above. The format is *userid.postoffice.domain*. This parameter is required if *AllowSearch=0* (below).
- **Force:** Determines whether the AddProxy program will attempt to update a user's proxy settings more than once. If set to "0" (the default), the program will update a user's proxy settings only once. If set to "1," the program will update a user's proxy settings every time it runs. The default setting "0" will normally be appropriate.
- **AllowSearch:** Determines whether the AddProxy program will search the system address book for addresses. In some situations, system address book searches do not work correctly. In such cases, this parameter can be set to "0" and *UserGroupWiseAddr* can be specified to allow the addproxy program to function without system address book searches. The default value is *AllowSearch=1*.
- **SuccessLog:** Specifies the name and location of a .csv file to which successful proxy updates will be logged. The value must be specified as a full UNC path, including the file name, that is valid and writeable from every desktop where AddProxy will run. If this parameter is omitted or not specified, no success log will be written.

The first line of the file contains the column headers. Subsequent lines represent successful proxy update attempts:

```
Date,DisplayName,SourceAddress,TargetAddress,Status
8/4/2011 7:56:14,Joe Blow,JBLOW.GWPO.GWDOM, Joe.Blow@sitraka.com,OK
```

- **FailureLog:** Specifies the name and location of a .csv file to which failed proxy updates will be logged. The value must be specified as a full UNC path, including the file name, that is valid and writeable from every desktop where AddProxy will run. If this parameter is omitted or not specified, no failure log will be written.

The first line of the file contains the column headers. Subsequent lines represent unsuccessful proxy update attempts:

```
Date,DisplayName,SourceAddress,TargetAddress,ErrorText
8/4/2011 7:51:44,Joe Blow,JBLOW.GWPO.GWDOM,Joe.Blow@sitraka.com,
Can't find user...
```

- **AllowAdd=1:** Do not edit this parameter unless you are manually granting proxy rights to the administrator and using AddProxy to modify the proxy rights for migration. (This is explained above under [AddProxy prerequisites](#).)

addproxy.ini optional parameters

- **PiggyBack:** Specifies whether the program should wait for the user to login to GroupWise or immediately prompt the user for a userid and password. The two valid values are:

- **PiggyBack=0:** Prompt immediately for userid and password if the user is not already logged into GroupWise.
- **PiggyBack=1 (default):** Do not prompt for userid and password. (Wait for the user to log into GroupWise.)
- **PiggyBackRetry:** Specifies how long (in seconds) to wait between checks if AddProxy is waiting for the user to log into GroupWise (parameter is ignored if *PiggyBack=0*). The default value is 15.
- **PiggyBackTimeout:** Specifies the total time (in seconds) to wait for the user to login to GroupWise before exiting (parameter is ignored if *PiggyBack=0*). The value "0" tells the program to wait indefinitely. The default value is 7200.
- **Rights:** Specifies the list of rights to grant to the administrative user. You may specify two or more rights by listing them with a space between each pair, as in:

```
Rights=archive read private settings
```

The default is *Rights=all*. Other valid values are:

- **all:** All rights.
- **read:** Includes readAppointments, readMailAndPhone, readNotes, and readTasks.
- **write:** Includes writeAppointments, writeMailAndPhone, writeNotes, writeTasks.
- **alarms:** Allows access to alarms.
- **archive:** Allows access to the archive.
- **notifs:** Allows access to notifications.
- **private:** Allows access to items marked as *private*.
- **settings:** Allows access to Preferences, Rules, and Groups.
- **readAppointments:** Allows read access to appointments.
- **readMailAndPhone:** Allows read access to mail messages and phone messages.
- **readNotes:** Allows read access to reminder notes.
- **readTasks:** Allows read access to tasks.
- **writeAppointments:** Allows write access to appointments.
- **writeMailAndPhone:** Allows write access to mail messages and phone messages.
- **writeNotes:** Allows write access to reminder notes.
- **writeTasks:** Allows write access to tasks.
- **none:** No rights.

Directory Exporter

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- [To export GroupWise custom directory attributes](#)
- [Online search feature](#)
- [Per-screen instructions and field notes](#)
- [Did it work?](#)
- [Modify \(if necessary\) the data files](#)

Why and when to use the Directory Exporter

Quest Directory Exporter gathers user information from the GroupWise server to create four data files that will later provide critical input data to the Quest migration and PDL-provisioning programs:

- **AddressTranslation.csv** (in *Shared* subfolder, under Migrator for GroupWise program folder): Contains the display names, GroupWise addresses, and primary Internet addresses of your GroupWise users. Quest migration programs — both the Administrator-Driven Batch Migrator and the Self Service Desktop Migrator — use the information in AddressTranslation.csv to convert addresses in messages, address books, and frequent contacts to the appropriate Internet address for each user.
- **UsersToMerge.csv** (in Migrator for GroupWise program folder): Contains the information the AD Object Merge Tool will need to merge Exchange Contacts into corresponding Active Directory accounts, to create a single mail-enabled security object per user in AD.
- **UsersToMigrate.csv** (in Migrator for GroupWise program folder): A duplicate of *AddressTranslation.csv*, to serve as a template for the creation of the user-list input files that identify which users to migrate in a particular run of the Administrator-Driven Batch Migrator. (The UsersToMigrate.csv is copied to another file name, and the copy is then edited — deleting all users except the ones to be included in a particular migration group.)
- **GroupsToProvision.txt** (in Migrator for GroupWise program folder): Contains the information about GroupWise public distribution lists (PDLs) that the Administrator-Driven Batch Migrator will read to provision the PDLs in Exchange as distribution groups.

Since other Migrator for GroupWise components require these data files as inputs, the Directory Exporter must be run before the first run of the AD Object Merge Tool or any Migrator for GroupWise migration program. In our migration process instructions (in the Migrator for GroupWise *Scenarios Guide*), the first Directory Exporter run occurs in the *Pre-Migration Preparations*: step 9 if migrating to a local proprietary Exchange target, or step 8 if migrating to Office 365.

Then, throughout the migration period, the Directory Exporter should be re-run in every pass through the batch migration process loop (per user-list .csv file), as described in the Migrator for GroupWise *Scenarios Guide*. The Directory Exporter re-runs are necessary to update the program's data files, following each directory synchronization, to accommodate staff changes recorded in GroupWise during the transition period.

To export GroupWise custom directory attributes

Migrator for GroupWise's Directory Exporter can export GroupWise custom directory attributes into its csv data files. The *CustomAttr[#]* program parameter(s), in the [GroupWise] section of *gwdirapp.ini*, let you define which GroupWise custom attributes you want the Directory Exporter to capture:

```
[GroupWise]
CustomAttr1=Name_of_a_GroupWise_Attrib
CustomAttr2=Name_of_Another_GroupWise_Attrib
CustomAttr3=Name_of_Some_Other_GroupWise_Attrib
CustomAttr4=Name_of_Yet_Another_GroupWise_Attrib
```

If you want to capture GroupWise custom directory attributes, you must define these parameters before you run the Directory Exporter. You may define as many as 20 attributes to capture, *CustomAttr1* through *CustomAttr20*. The Directory Exporter will then export the data values associated with the defined attributes, and save them in its csv data files, so the information will be available to Migrator for GroupWise's AD Object Merge tool as it provisions users into Active Directory.

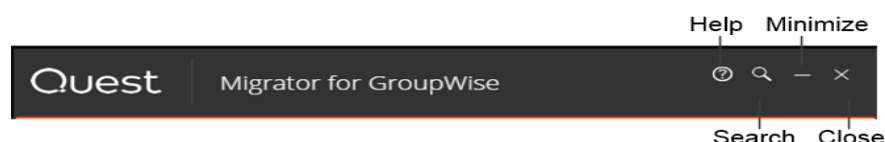
The AD Object Merge tool will need to know which of these GroupWise custom attributes you want to assign to which AD attributes. You must therefore add another set of *CustomAttr[#]* parameter(s) to the [ActiveDirectory] section of *adobjmerge.ini*, as described in the *AD Object Merge* chapter of this Guide.

After you have exported custom directory attributes into Migrator for GroupWise's data files, you can use them to sort and/or select the contents of *UsersToMigrate.csv*, to create migration groups (user-list input files) on that basis. You might, for example, create a migration group by selecting only users where the value of *CustomAttr3* is XYZ.

Online search feature

Every screen in the Directory Exporter offers an online search feature that opens a browser window to a Quest URL of online product resources, and relays a keyword search string to the URL to find pertinent information in Quest online documentation. To launch an online search:

- 1 Click the magnifying-glass icon that appears in the masthead of any program screen:



A popup prompt then asks you to specify the keyword you want to search.

- 2 Type the search keyword, and click **Search**.

The feature then sends your query to the Quest URL, where you will find a list of resources returned by the search.

The popup search prompt closes within the Directory Exporter, which remains running in the background while the focus shifts to the browser.

Per-screen instructions and field notes

Start the Directory Exporter from your Windows **Start** menu, in the Migrator for GroupWise program group.

Welcome

Review the *Welcome* screen and click **Next**.

GroupWise System Information

Enter the requested *GroupWise System Information* and click **Next**.

- **Admin user ID:** The name of the admin's GroupWise account (not the Novell account).
- **Admin password:** The password for the admin's GroupWise account (not the Novell account).
- **GWIA TCP/IP hostname:** The hostname of the GroupWise Internet Agent LDAP server. This value must be a resolvable name or IP address for the GroupWise server, to which the Migrator for GroupWise admin workstation can talk.
- **GWIA LDAP context** (disabled if no value is entered for **GWIA TCP/IP hostname** above): This is the context within which the user account will search for objects to export. For example, if you want to include users in the context named *Marketing*, but not users in the context *Sales*, then set this value to *O=Marketing* instead of *[Top]*. If necessary you can find this path in the ConsoleOne or NWAdmin NetWare admin program: In the ConsoleOne navigation tree, select the name of the server, and then double-click **GWIA** in the adjacent window to open a *Properties of GWIA* dialog box for the selected server. On the **LDAP** tab, the *LDAP context* shown there is the value to use for this field — for example: *O=Acme,C=US*.
- **Domain path:** The file system path to your GroupWise domain file *wpdomain.db*, as specified during the GroupWise installation in the form *\\SERVER\SHARE*.
- **GroupWise SOAP Server URL** (optional): Location of the GroupWise SOAP web service. This field is optional, but will help resolve a duplicate-meetings issue that can occur in some scenarios in some environments where Quest CMG coexistence product is also deployed. When a GroupWise user creates a meeting in GroupWise, and then changes it (or changes one instance of a recurring series) after he/she is migrated, the invitees' calendars may show duplicate instances unless the SOAP service is enabled and its URL is specified here. This solution works only for GroupWise 8 and later (not for GroupWise 7).

Status

The *Status* screen reports the progress while the export process is running, and the program automatically advances to the *Finished* screen when it is finished.

Finished

Note the location of the program's exported data files and click **Exit**.

This *Finished* screen may also offer an **Error Log Report** button if the Directory Exporter encountered any errors during its run. If the **Error Log Report** button does appear, you should click it to view the program log and assess the severity of the errors. (They may be trivial, since the logging feature tends to be picky.) The **Error Log Report** button launches Quest Log Viewer utility (see *The Log Viewer* chapter) to help you interpret and resolve logged issues.

Did it work?

The first and simplest way to verify that Quest Directory Exporter has done its job is to see whether it has generated its four output data files:

<u>In Migrator for GroupWise</u>	<u>In Migrator for GroupWise Shared</u>
<u>Program Folders:</u>	<u>Subfolders:</u>
GroupsToProvision.txt	AddressTranslation.csv
UsersToMerge.csv	
UsersToMigrate.csv	

Since these files contain critical input data for other Migrator for GroupWise applications, it is important to verify that the information they contain is properly formatted.

All three .csv files contain essentially the same data, so you can open any one .csv file to look for any obvious format or translation errors. Examples include missing users, an empty column, exotic characters, or inappropriate data forms in any fields. These would indicate that the extraction process was somehow corrupted or otherwise unsuccessful. A .csv (comma-separated values format) file is a simple text file that can be opened and edited in a text editor, but you may prefer Microsoft Excel or some other spreadsheet or database application that can display the contents of a .csv file in an easy-to-read column format.

GroupsToProvision.txt is also a simple text file that you can open with any text editor to verify that it is free of the same sorts of format or translation errors.

Modify (if necessary) the data files

The post-export review is also a chance for you to manually edit any addresses in the .csv files before performing the actual migration. For example, a particular user name and address-composition format may produce an embarrassing or unflattering address, but you can manually edit the address in the .csv files before the files are used to define user addresses in the new Exchange environment. If you do decide to edit any addresses in the .csv files, remember:

- Before you edit any values, copy the entire *TargetAddress* column contents into the *TargetAlias* column, and enter your changes only in the *TargetAddress* column.

i **NOTE:** The Directory Exporter will replace an apostrophe in a user's SMTP address with an underscore character ("_") in the *TargetAddress* as stored in the CSV file. Also, when creating Exchange accounts, Migrator for GroupWise will replace any apostrophe that occurs in the *TargetAddress* in the CSV file with an underscore character ("_"). Please see TFS 227717 for detail.

- **If you edit any of the .csv files, be sure to copy the new file to the other two filenames.** The three .csv files usually must have identical contents (with one small exception, noted below). If you edit one, you should replace the others with copies of the edited file. Then:
- **If you have copied either of the other two .csv files to UsersToMerge.csv:** Open *UsersToMerge.csv* and add a new column titled *SearchKey*.

AD Object Merge Tool

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- [Before you begin...](#)
- [Online search feature](#)
- [Per-screen instructions and field notes](#)
- [Did it work?](#)

Why and when to use the AD Object Merge Tool

The AD Object Merge Tool is used only when provisioning to a local, proprietary Active Directory—either as a final destination, or as an intermediary (when using Microsoft’s DirSync tool to provision from a local AD to Office 365).

The AD Object Merge Tool does not provision directly to an Office 365 target Active Directory. A hosted AD (for Office 365) is provisioned either with Microsoft’s DirSync tool, or can be provisioned directly by Migrator for GroupWise’s Admin-Driven Batch Migrator, or manually by Microsoft’s Office 365 admin tools.

The AD Object Merge Tool is used for either or both of two purposes:

- **To mail-enable existing AD objects.** Quest Migrator for NDS copies data from NDS to create security objects in AD, or to add NDS data to existing AD objects, but the AD objects are not mail-enabled by this process. Or you may already have AD up and running, and populated with security objects, for network authentication. In either case, we use the AD Object Merge Tool to merge GroupWise source addresses into the AD accounts.
- **To consolidate duplicate objects in AD.** If migrating users already use Active Directory security objects for network authentication, some provisioning tools may create corresponding Contacts in AD. In this case, the AD Object Merge Tool can (and should) be used prior to migration to consolidate such duplicates, to merge the Contacts and existing security objects into a single mail-enabled object per user.

The AD Object Merge Tool is our tool of choice for mail enabling in the *Pre-Migration Preparations* (as described in the Migrator for GroupWise *Scenarios Guide*). The AD Object Merge Tool updates and mail-enables Active Directory accounts identified in a *UsersToMerge.csv* file specified during the program run. Since that data file is generated by the Migrator for GroupWise Directory Exporter, the AD Object Merge Tool cannot be run until after the Directory Exporter.

For each user, if an Exchange Contact address matches the GroupWise *SourceAddress* in *UsersToMerge.csv*, the program merges the GWISE and SMTP aliases from the Contact into the AD security object, and then deletes the Contact, to consolidate the pair into a single mail-enabled security object. If no such corresponding Contact exists, the program simply merges the *SourceAddress* from *UsersToMerge.csv* into the AD security object, to mail-enable the object.

Before you begin...

Optional: Prepare UsersToMerge.csv File

If you want the program to identify users in AD by an Active Directory attribute, you must prepare the *UsersToMerge.csv* file before the program run. (The program can be told to identify users in AD by any of three methods, which you will specify in *Per-Screen Instructions and Field Notes* below.) If you choose to identify users by attribute, then the *UsersToMerge.csv* file must contain a *SearchKey* column to specify, per user, the attribute values by which users can be identified in Active Directory. The AD Object Merge Tool will prompt you for the name of the AD attribute that the program should read to identify users, so the per-user values for that attribute must be specified in the *SearchKey* column of *UsersToMerge.csv* prior to the program run.

Optional: Configure for Custom Directory Attributes

Chapter 2 describes how Migrator for GroupWise's Directory Exporter can be configured to export GroupWise custom directory attributes into its csv data files. The exported attribute values are then available to the AD Object Merge tool as it provisions users into Active Directory. To do this, however, the AD Object Merge tool must be told which of these GroupWise custom attributes you want to assign to which AD attributes. You must therefore add another set of *CustomAttr[#]* parameter(s) to the [ActiveDirectory] section of *adobjmerge.ini*, as in this example:

```
[ActiveDirectory]
CustomAttr1=extensionAttribute14
CustomAttr2=Name_of_Existing_AD_Attrib
CustomAttr3=Name_of_Another_AD_Attrib
CustomAttr4=Name_of_Yet_Another_AD_Attrib
```

The *adobjmerge.ini* attribute definitions must correspond exactly to those in *gwdirapp.ini*. For example, the above *adobjmerge.ini* parameters could have been defined to correspond to these already defined for the Directory Exporter:

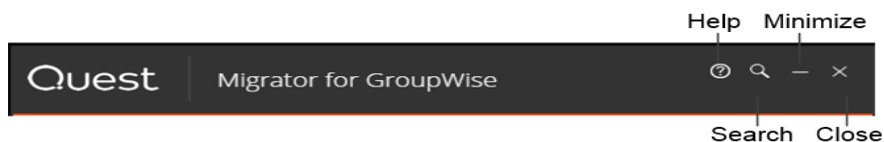
```
[GroupWise]
CustomAttr1=Name_of_a_GroupWise_Attrib
CustomAttr2=Name_of_Another_GroupWise_Attrib
CustomAttr3=Name_of_Some_Other_GroupWise_Attrib
CustomAttr4=Name_of_Yet_Another_GroupWise_Attrib
```

In that case, the values for the GroupWise custom attribute *Name_of_a_GroupWise_Attrib* will be assigned to AD's *extensionAttribute14*, since both are designated as Migrator for GroupWise's *CustomAttr1*.

Online search feature

Every screen in the AD Object Merge Tool offers an online search feature that opens a browser window to a Quest URL of online product resources, and relays a keyword search string to the URL to find pertinent information in Quest online documentation. To launch an online search:

- 1 Click the magnifying-glass icon that appears in the masthead of any program screen:



A popup prompt then asks you to specify the keyword you want to search.

- 2 Type the search keyword, and click **Search**.

The feature then sends your query to the Quest URL, where you will find a list of resources returned by the search.

The popup search prompt closes within the AD Object Merge Tool, which remains running in the background while the focus shifts to the browser.

Per-screen instructions and field notes

Start the AD Object Merge Tool from your Windows **Start** menu, in the **Migrator for GroupWise** program group. When you start the program, it briefly displays an introductory "splash" screen, and then its *Welcome* screen.

Welcome

Review the *Welcome* screen, and click **Next** when you are ready to begin entering the values that will define this merge process.

Specify Users for Update

Enter the requested information and click **Next**.

- **Input user list (.csv) file:** Use the **Browse** button to locate and specify the user-list .csv file for this program run, or just type the path and filename into the text box. The Directory Exporter automatically generates a *UsersToMerge.csv* file that you may use for this purpose.
- **Target Exchange system:** Specify your migration destination environment from the drop-down list. (Office 365 *without* Federation is not an option in this list because the merge function is invalid for that scenario.)
- **Provision users if not found:** Mark or unmark the checkbox to indicate whether you want the program to create a new mail-enabled object in AD if none is found to correspond with a user in the user list. A checkmark here tells the program to display another screen, on which you will specify where and how you want any such new objects provisioned.

Specify AD Information

Specify the Active Directory information and provide the administrator credentials and other information Exchange will need to perform the selected administrative functions, and click **Next**.

- **Global Catalog:** Type the name of the AD Global Catalog server—for example, *servername.mydomain.com*.
- **Domain Controller:** Specify the PowerShell Domain Controller that the program will call to perform operations in Exchange.
- **Client access server** (appears on the screen only if migrating to Exchange 2013 or 2010): The name of the target Exchange client access server.
- **User name:** The user name of the administrator by whose authority the program will perform its functions.
- **Password:** The password of the administrator named above.
- **How do you want to find users in Active Directory:** Specify the method by which you want the program to identify users within the Active Directory. Select any of the listed options:
 - **Find users by pre-Win2K user name:** The users' pre-Win2K logon names, as defined in AD. (The **SQL server** fields do not apply.)
 - **Find users from the Quest Migrator for NDS database:** The output data file created by the Migrator for NDS (a separate Quest product). For this option, you must also specify this **SQL server** information:
 - **Server:** The name of the SQL server.
 - **Authenticate by:** Method of authentication to the SQL server. Choose **Current Windows login** or **SQL user ID and password**. If you choose the SQL method, you must also provide the associated **SQL User ID** and **SQL Password** in text boxes below.

- **Find users by attribute:** Find users by the AD **Attribute** named in the accompanying text box (below). If you select this option, the associated user-list .csv file must contain a **SearchKey** column, containing the corresponding **Attribute** values for all users in the table. (The **SQL server** fields do not apply.)

Specify Provisioning Information

This screen appears only if you told the program to **Provision users if not found**. If you left that option unmarked, skip ahead to the next step below. Otherwise, enter this necessary information on the *Specify Provisioning Information* screen and click **Next**.

- **Enable users:** This checkbox determines whether you want the program to logon-enable the users this program will provision.
- **Users container:** Use the **Browse** button to find and specify the relative domain name for an existing organizational unit (for example, *cn=users*) where any new user objects will be created in AD—when the AD Object Merge tool encounters a Contact for which there is no existing corresponding AD user account.

Specify Run Information

Specify a directory for storing program reports and logs, and enter a process run name, and click **Next**.

- **Directory for reports and log files:** The directory where all reports and log files for this merge run will be written.
- **Run name:** Enter a name for this merge process. The program verifies the run name is unique by scanning the log file directory for other run names.

Settings Summary

Review the settings you have specified for this merge process.

If any settings are incorrect, use the **Back** button to correct the choices and values on previous screens. Then return to this screen to review and confirm them. When this summary of settings accurately defines what you want to accomplish, click **Next** to begin the run.

Progress

When you click **Next** from the *Settings Summary*, a status screen reports the program's progress while the process is running, and the program then automatically advances to the last screen (*Results*).

Results

Review the process results. Click on **Merge Report** to view a .csv file of the results, or just click **Exit**.

This *Results* screen may also offer an **Error Log Report** button (not shown here) if the AD Object Merge Tool encounters any errors or warnings during the program run. If the **Error Log Report** button does appear, you should click it to view the program log and assess the severity of the errors or warnings. The **Error Log Report** button launches Quest Log Viewer utility (see *The Log Viewer* chapter) to help you interpret and resolve the errors or warnings.

Did it work?

A successful run of the AD Object Merge Tool will yield a single mail-enabled security object for each migrating user. Any Contacts that had been duplicates corresponding to existing AD security objects should now be deleted, and the surviving security objects should be mail-enabled with GroupWise addresses.

Administrator-Driven Batch Migrator

- [Why and when to use the Admin-Driven Batch Migrator](#)
- [Before running the Admin-Driven Batch Migrator ...](#)
- [Online search feature](#)
- [Per-screen instructions and application notes](#)
- [Did it work?](#)
- [Remember to distribute any user .pst files](#)

Why and when to use the Admin-Driven Batch Migrator

The Administrator-Driven Batch Migrator is a multi-function application that lets you perform various functions in various combinations in a single program run. Certain screens in each program run ask you what you want to accomplish. The program then proceeds through a linear sequence of screen displays, skipping any screens that do not pertain to the functions you have selected. Available program functions are grouped into four categories:

- **GroupWise Administrative Functions:**
 - Remove forwarding
 - Set forwarding
 - Set user password
 - Set user visibility
- **Exchange Administrative Functions:**
 - Set forwarding
 - Remove forwarding
 - Remove user free/busy forwarding to GroupWise
 - Other account creation and maintenance features (available features depends on designated Exchange target type)
- **Migrate Users:** Migrates user data, including any combination of server-based or archived mail, calendar data, or the trash folder, or personal address books, from GroupWise to Exchange.
- **Provision Distribution Groups:** Copies GroupWise public distribution lists (PDLs) into Active Directory.

In a typical migration scenario the Administrator-Driven Batch Migrator is run twice for each migration group: first to perform administrative functions, and then again to migrate the user data. In the migration process (chapters 2 and 3 of the *Migrator for GroupWise Scenarios Guide*), the Admin Batch Migrator is run at steps 4 and 6 of each pass through the *Batch Migration Process* loop (per user group). The Batch Migrator is then run again after the last group, to provision public distribution lists (PDLs) as Exchange distribution groups.

The instructions and field notes in this chapter cover all uses of the program.

Before running the Admin-Driven Batch Migrator ...

If you want to migrate GroupWise custom message attributes

A GroupWise message contains several standard attributes such as the *From*, *To* and *Subject* fields, and can also include user-defined fields. Migrator for GroupWise's Admin Batch Migrator and SSDM can migrate custom GroupWise message attributes to unused properties in the MAPI target mailboxes, but only if the migration application knows which properties in the target correspond to which attributes in the source. The migration of custom attributes therefore requires that an admin map these source-to-target attribute associations in a tsv data file, before the migration, so the migration applications can refer to that file to migrate the attributes.

The attribute-mapping file must be a unicode (not ANSI) file named *customattrs.csv*, in the default installation folder for the Admin Batch Migrator (typically *C:\Program Files\QuestMigrator for GroupWise* for a 32-bit OS, or *C:\Program Files (x86)\QuestMigrator for GroupWise* for a 64-bit OS), and in the folder containing *gwdtapp.exe* if you want to migrate GroupWise custom attributes via the SSDM. Migrator for GroupWise installs an *attrs.csv* file, with the same column headings required for *customattrs.csv*, that you can use as a template to create the *customattrs.csv* file.

To create and prepare the *customattrs.csv* file

- 1 Use a text editor to open the *attrs.csv* template, and save the open copy under the new name *customattrs.csv*. Make sure you save *customattrs.csv* as a unicode (not ANSI) file, in the folder(s) noted above, and delete any data rows that may appear in the copy.
- 2 Enter a data row for each GroupWise custom attribute you want to migrate, as follows:
 - **ID:** Name of the custom attribute—a unique string that distinguishes this row's custom attribute from all others in the file.
 - **NOTE: Caution:** If any data row(s) remain in the original *attrs.csv* file, make sure that no **ID** value in *customattrs.csv* is the same as any **ID** value in *attrs.csv*. *Custom attributes will not migrate correctly if any ID value appears in both files.*
 - **SourceProperty:** Name of an attribute that has been added to a GroupWise mail message, to be migrated to a property on an Exchange message.
 - **TargetPropertySet:** The GUID for the target property set, which must be one of these values:
 - PS_PUBLIC_STRINGS
 - PS_MAPI
 - {hhhhhhhh-hhhh-hhhh-hhhh-hhhhhhhhhhhh}
 - ... where each 'h' is a hexadecimal char, with letters uppercased.If **TargetPropertySet** is PS_PUBLIC_STRINGS or PS_MAPI, the familiar GUID for the set named will be substituted for the string provided.

TargetPropertySet can be left blank, but in that case **TargetProperty** (see below) must be an integer property ID in the range 0x0000-0x7FFF.
 - **TargetProperty:** Name of the corresponding MAPI property in Exchange. A hexadecimal user-property value will be created in Exchange on each migrated mail message with the GroupWise property, which will hold the value. The hexadecimal values of the created properties will be reported in the log (search for "custom attr" in the log file).

If **TargetPropertySet** (above) is left blank, this **TargetProperty** value must be specified as a 16-bit integer in the range 0x0000- 0x7FFF that is not already defined for some other MAPI property.

- **TargetPropertyType:** The data type of the MAPI property, which must logically correspond to the data type used in GroupWise. Valid values are:

STRING MV_STRING SYSTIME BOOLEAN LONG

Also, "PT_" may be prepended to any of the five types above, so valid values include PT_STRING, PT_MV_STRING, etc.

- 3 Save and close the updated *customattrs.csv* file.

For example, a typical *customattrs.csv* file might look something like this:

ID	SourceProperty	TargetPropertySet	TargetProperty	TargetPropertyType
Attr1	EV26C5E2CCF2B9267C.Archived	{D0F41A15-9E91-D111-84E6-0000F877D428}	Archive ID	STRING
Attr2	EV26C5E2CCF2B9267C.ArchivedDate	{D0F41A15-9E91-D111-84E6-0000F877D428}	Archived Date	STRING
Attr3	EV26C5E2CCF2B9267C.SaveSetId	{D0F41A15-9E91-D111-84E6-0000F877D428}	SaveSet ID	STRING
Attr4	EV26C5E2CCF2B9267C.RetentionCategory	{D0F41A15-9E91-D111-84E6-0000F877D428}	Retention Category	STRING
Attr5	EV26C5E2CCF2B9267C.HasAttachments	{D0F41A15-9E91-D111-84E6-0000F877D428}	HasAttachments	STRING

Troubleshooting problems in migrating GroupWise custom attributes

You can use Microsoft's *MfcMapi.exe* utility to view the property and its value, if they have been created. (The utility is a free download from Microsoft; Google- search for "mfcmap" and visit the www.microsoft.com/downloads link.) Most problems in migrating custom attributes can be diagnosed by these quick tests:

- Verify that the target property specified in the *customattrs.csv* file does not already exist, and that the target property is in the correct format. (See [About MAPI Properties](#) below for more information.)
- Verify that the *customattrs.csv* file is UNICODE, not ANSI.
- Verify that the last line in the *customattrs.csv* file is followed by a line feed and carriage return (achieved by positioning the cursor at the end of the last line and pressing **Enter**).
- If any data row(s) remain in the original *attrs.csv* file, make sure that no **ID** value in *customattrs.csv* is the same as any **ID** value in *attrs.csv*. Custom attributes will not migrate correctly if any **ID** value appears in both files.

About MAPI properties

A named property's name is a property-set GUID and an ID that is either a 32-bit integer or a string. A 16-bit integer alias in the range 0x8000–0xFFFF is assigned to the named property by MAPI. That alias is mailbox-specific.

An unnamed property's name is a 16-bit integer in the range 0x0001–0x7FFF. That 16-bit integer is valid in all mailboxes. Examples of unnamed properties are 0x0070 (i.e., *PR_CONVERSATION_TOPIC*) and 0x6656, both of which happen to be used by MAPI. So these two examples cannot be used as target property values since they are already used.

A custom property can be unnamed or named. If it is unnamed, you must select a 16-bit integer *TargetProperty* in the range 0x0001–0x7FFF that is not already used by MAPI. If it is named, you can select any property-set GUID. If you select a property set already in use, you must choose a 32-bit integer or string ID not already in use in that property set. If you select a brand new property-set GUID, you need not worry about IDs already in use because there will not be any.

If you want named custom properties, Quest recommends you use the *PS_PUBLIC_STRINGS* property-set GUID (*PS_PUBLIC_STRINGS* being an alias for {00020329-0000-0000-C000-000000000046}), and use string IDs with a prefix that is unique to your application (like "Quest-").

Prepare the *UsersToMigrate.csv* for mailbox-enabling (conditional)

This section applies only if the AD/Exchange environment is configured for a resource forest and a user forest, with corresponding user accounts. In that case, you must configure the global default settings in *gwmigapp.ini*, in:

\Program Files\Quest\Migrator for GroupWise (for a 32-bit OS); or
\Program Files (x86)\Quest\Migrator for GroupWise (for a 64-bit OS)

Then, prepare (or verify) the values in a column of the exported directory data for the Batch Migrator to properly associate the resource accounts with the user accounts and properly enable mailboxes.

Before you begin, you must determine which column in the *UsersToMigrate.csv* will correspond to which AD attribute for the Batch Migrator to match corresponding user accounts in the resource forest and user forest. The column (*AdSearchCol*) and attribute (*AdAttribute*) are both specified in the [ActiveDirectory2] section of the program parameters in *gwmigapp.ini*:

- **AdSearchCol:** The column in the *UsersToMigrate.csv* that contains values the program should search for each particular *AdAttribute* value to match corresponding user accounts in the resource forest and user forest. The column specified here and its per-user values must exist before the Batch Migrator is run.

i | **IMPORTANT:** In the current Migrator for GroupWise version, the *AdSearchCol* parameter value must be set to *SearchKey2* (the default value for this parameter) for the mailbox-enabling process to succeed.

- **AdAttribute:** The AD attribute whose values the program should read in the *AdSearchCol* column of *UsersToMigrate.csv*, to match corresponding user accounts in the resource and user forests. For example:

```
[ActiveDirectory2]
AdSearchCol=SearchKey2
AdAttribute=userPrincipalName
```

... tells the Batch Migrator to match AD objects with users such that the value of each AD object's *userPrincipalName* attribute matches the value of the corresponding user's *SearchKey2* column in *UsersToMigrate.csv*.

To configure the program parameters:

- 1 Edit the parameter settings in the *gwmigapp.ini* file using a text editor, such as Notepad.
- 2 In the [ActiveDirectory2] section, set the appropriate parameter value for *AdAttribute*, as described above.
- 3 Close Notepad. The next time you run Migrator for GroupWise it will use this setting.

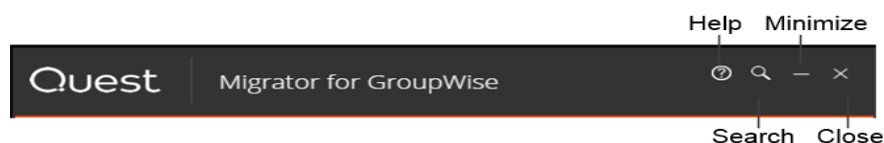
If you need to enter or edit the *AdSearchCol* column values:

- Use Microsoft Excel to enter or edit the contents of the column you have designated as the *AdSearchCol* column in your *UsersToMigrate.csv*.

Online search feature

Every screen in the Admin-Driven Batch Migrator offers an online search feature that opens a browser window to a Quest URL of online product resources, and relays a keyword search string to the URL to find pertinent information in Quest online documentation. To launch an online search:

- 1 Click the magnifying-glass icon that appears in the masthead of any program screen:



A popup prompt then asks you to specify the keyword you want to search.

- 2 Type the search keyword, and click **Search**.

The feature then sends your query to the Quest URL, where you will find a list of resources returned by the search.

The popup search prompt closes within the Admin-Driven Batch Migrator, which remains running in the background while the focus shifts to the browser.

Per-screen instructions and application notes

To start the Administrator-Driven Batch Migrator program:

- 1 Start Quest Administrator-Driven Batch Migrator program from the **Start** menu, in the **Migrator for GroupWise** program group. When you start the program, it briefly displays an introductory "splash" screen, and then its *Welcome* screen.
- 2 See the instructions and application notes below for the program's Welcome screen (screen #1). Then refer to the instructions and notes for other screens as they occur in the program sequence.

i **NOTE:** The numbers associated with the screens in this chapter indicate the screens' relative positions within the overall program sequence. The program will skip screens that pertain only to features and functions you have chosen to not use in the current program run.

1: Welcome Screen

Review the *Welcome* screen and the displayed license information.

If you have obtained a more recent program license key than the one identified here, you may click **Update your license** to update that information and upgrade or extend your use of Migrator for GroupWise. If you do choose to **Update your license**, the program will return you to this screen after you have entered the new license information.

When you are ready to begin the substance of this program run, click **Next**.

2: Select Operations

This screen asks you which of the program's features you want to use in this program run, and requires that you specify the type of Exchange network to which you will migrate. Enter the information, and click **Next**.

Four checkboxes let you mark the categories of operations (one or more) you want the program to perform:

- **GroupWise administrative functions:** Select if you want to perform any of these functions:
 - Set or remove GroupWise-to-Exchange mail-forwarding rules.
 - Set users' GroupWise passwords (a common method for the program to access user data in GroupWise).
 - Specify the scope of users' visibility in the GroupWise directory.
- **Exchange administrative functions:** Select if you want to perform any of these functions:
 - Set or remove Exchange-to-GroupWise mail-forwarding rules.
 - Remove user free/busy forwarding to GroupWise.
 - Remove the directory synchronization exclusion.

- Mailbox-enable existing Active Directory accounts. (In a typical scenario, users' AD accounts are created by Quest Migrator for NDS and mail-enabled by Migrator for GroupWise's AD Object Merge Tool.)
- **Migrate users:** Select if you want to migrate users' server-based data, and/or archives, and/or personal address books.
- **Provision distribution groups:** Select if you want to provision GroupWise public distribution lists (PDLs) in Active Directory. If you mark **only** this option, then you can click **Next** and skip ahead to screen #10 (the intervening screens do not apply and do not appear).
 - i** **NOTE:** Technically you can **Provision distribution groups** (PDLs) in the same program run with other data-migration and admin functions listed here. But some admins report latency problems when trying to provision PDLs in the same run with other features. Quest therefore recommends against it unless you have some compelling strategic reason to use the program in this way. Our *Batch Migration* procedure in the *Scenarios Guide* suggests you **Provision distribution groups** in a separate program run, after you migrate the users.

NOTE: For the same reason, Quest recommends that GroupWise and Exchange admin functions not be performed in the same program run as **Migrate users**. Instead, Quest recommends you run the Admin-Driven Batch Migrator twice for each user group: first to perform the admin functions, and then again to **Migrate users**.
 - i** **NOTE:** The **Provision distribution groups** option will appear grayed-out (unavailable) here if the program cannot find the *GroupsToProvision.txt* file it needs to provision PDLs. If the program cannot find the file, it is likely that the Directory Exporter (which generates *GroupsToProvision.txt*) has not yet been run. See the step sequences in the Migrator for GroupWise *Scenarios Guide* for more information.
 - i** **IMPORTANT:** If you use Migrator for GroupWise to provision groups to a CN made by Quest CMG, you must do one of three things:
 - Clear the nonexistent OU string of the setting "GroupContactsContainer."
 - Change the value to another container type, such as:
GroupContactsContainer=CN=Contacts.
 - Change the value to an existing OU — if you have changed the AD Structure Rules and successfully created the OU you need (under a CN).
- **Target Exchange system:** Select the migration destination environment from the drop-down list. If you select *Office 365 (only)*, this checkbox appears:
 - **This site is using Microsoft Online Services Directory Synchronization:** Mark this checkbox if you will use the Microsoft DirSync tool to provision the Office 365 Active Directory by a directory synchronization from an existing local, proprietary AD. This method of provisioning will permit what Microsoft calls *single sign-on*, or *identity federation*, so your users can access Office 365 services with the same corporate credentials (user name and password) they already use for your existing proprietary AD.

Note that several of the feature options listed above will be available (in later screens) only for certain target Exchange environments. A feature that does not apply to a particular selected **Target Exchange system** will not appear in the on-screen lists of available features.

3: Specify Users for Update

This screen appears only if you have chosen, on screen #2: [Select Operations](#), to perform **GroupWise** or **Exchange administrative functions**, or to **Migrate users**. Use the **Browse** button to locate and specify the user-list .csv file for this program run (or just type the path and filename into the text box), and click **Next**. This is the .csv file that you prepared in step 3 of the *Batch Migration (per User Group)* process (chapter 3 in the Migrator for GroupWise *Scenarios Guide*).

4: Select GroupWise Administrative Operations

This screen appears only if the **GroupWise administrative functions** option was marked on screen #2: [Select Operations](#).

If that option was *not* marked, this screen (and several others) will not appear and you may skip ahead to screen #9: [Select Exchange Administrative Operations](#). Otherwise:

Use this screen to specify which GroupWise administrative functions you want the program to perform, for users in the associated user-list .csv file:

- **Set forwarding from GroupWise to Exchange:** Sets mail-forwarding rules in the users' GroupWise mailboxes to forward mail to their Exchange mailboxes, and disables any existing rules in user mailboxes. The program will prompt you, in a later screen, for the server information it needs to set these mail-forwarding rules, and another screen will prompt you to specify any additional forwarding-related features you may want to apply.
- **Remove forwarding from GroupWise to Exchange:** Deletes any migration-associated mail-forwarding rules in the users' GroupWise mailboxes. (This is a selective operation, to delete only those rules associated with the migration, but not any other rules that may be set for a given mailbox.)
- **Set proxy in GroupWise:** Select this checkbox to add a user to the proxy access list of the user(s) specified in the input user list (.csv file). This is the .csv file entered on the Specify Users for Update screen. Then, on the Specify GroupWise Login Information screen, specify a user under the Login method/Use proxy account fields. The user specified here will be added to the proxy access list.
- **Remove proxy from GroupWise:** Select this checkbox to remove a user from the proxy access list of the user(s) specified in the input user list (.csv file). This is the .csv file entered on the Specify Users for Update screen. Then, on the Specify GroupWise Login Information screen, specify a user under the Login method/Use proxy account fields. The user specified here will be removed from the proxy access list.
- **Set user password in GroupWise:** Tells the program to change users' GroupWise passwords to new values (to be specified in a later screen in this program). Select this option only if you will use passwords to access GroupWise user data for the migration. (Leave this option unmarked if you will use the Trusted App or proxy-access method.)
- **Set user visibility in GroupWise:** Lets you specify (in a later screen) the scope of users' visibility in the GroupWise directory. User visibility determines whether the Quest CMG Directory Connector will synchronize the GroupWise account into AD.

5: GroupWise Forwarding Options

This screen appears only if the **Set forwarding** option was marked on screen #4: [Select GroupWise Administrative Operations](#). This screen lets you set GroupWise-to-Exchange mail-forwarding rules and options for users in the specified user-list .csv file. Specify the options listed on this screen, and click **Next**.

- **Set forwarding rule to auto-decline/delete forwarded messages:** Two checkboxes that determine whether GroupWise will auto-forward messages to users' Exchange addresses. This option is set independently for **Mail items** and **Calendar items**. Note that GroupWise sends an auto-decline reply to the originator of a meeting invitation if the invitation is forwarded elsewhere.
- **Set forwarding rule to purge messages:** Two checkboxes that determine whether to delete a message from the GroupWise *Inbox* if it is auto-forwarded from GroupWise to Exchange. The option is set independently for **Mail items** and **Calendar items**.
- **Set rule to delete sent items:** Two checkboxes that determine whether auto-forwarded messages should be deleted from the GroupWise *Sent* folders. The option is set independently for **Mail items** and **Calendar items**.
- **Set rule to forward junk mail:** Tells forwarding server to forward junk mail to Exchange.
- **Add autoreply rule with forwarding rules:** Tells forwarding server to automatically generate a standard reply to every message and meeting request received and forwarded. The *Subject* line and message body of the autoreply will be, respectively, the **Autoreply subject** and **Autoreply text** specified below.

6: Specify Source-to-Target Mail Forwarding Domain

This screen appears only if the **Set forwarding** option was marked on screen #4: [Select GroupWise Administrative Operations](#). Enter the information the program needs to set forwarding rules in GroupWise mailboxes, and click **Next**.

- **Use the CSV field for forwarding:** Use the drop-down list box to specify the column in your user-list .csv file that contains the preferred form for users' target addresses. The program will form target-mailbox forwarding addresses by combining the names in this column with the target domain defined in the **SMTP** setting below.
 - **NOTE:** Quest Directory Exporter automatically generates columns of data in the .csv file for three options in the drop-down list: *TargetAddress*, the GroupWise *Userid*, and the Novell *NdsUserName*. If you want to use some other addressing scheme, you must manually add a *Forwarding- Address* column and appropriate per-user values to the .csv file before this program run. The *ForwardingAddress* option will not appear in the list if no *ForwardingAddress* column occurs in the .csv file.
- **SMTP Domain:** The domain name assigned to the Exchange server for the transition period of this migration. If you have assigned a temporary MX subdomain to the Exchange server for this purpose (in the *Pre-Migration Preparations*), enter that subdomain here. Otherwise, if you have assigned a new domain name to the Exchange server, enter the new domain name here.

7: Specify GroupWise Passwords

This screen appears only if the **Set user password** option was marked on screen #4: [Select GroupWise Administrative Operations](#). Specify how you want to change users' GroupWise passwords, and click **Next**.

- **Set a single common password value for all users:** Changes the users' GroupWise passwords to the common **New password value** specified below, for all users listed in the designated user-list .csv file. The program will copy this value to the *Password* column of the .csv file.
- **Set each user's password to the corresponding value in the user list (.csv) file:** Uses the password designated for each user in the *Password* column of the associated user-list .csv file.
- **Set random passwords for all users:** Changes users' GroupWise passwords to random strings of 12 alphanumeric characters (random and unique for each user), and copies these new passwords to the *Password* column of the user-list .csv file, to facilitate the migration process and document the passwords for future reference.

8: Select GroupWise Visibility

This screen appears only if the **Set user visibility** option was marked on screen #4: [Select GroupWise Administrative Operations](#).

Select one of the available options here to specify the preferred scope of user visibility in the GroupWise directory, and click **Next**.

GroupWise visibility options are:

- **None:** User is not visible anywhere, and the user account will not get synced to AD by the Quest CMG Connector.
- **System:** User is visible to everyone.
- **Domain:** User is visible only to other users in the same domain.
- **PostOffice:** User is visible only to other users in the same PostOffice.

9: Select Exchange Administrative Operations

This screen appears only if the **Exchange administrative functions** option was marked on screen #2: [Select Operations](#). Specify which Exchange admin functions you want to perform (see the table below), and click **Next**.

The available function categories appearing on this screen depend on the **Target Exchange System** you designated on screen #2. We therefore describe this screen separately, in separate subsections for each of the three target types:

- [Migrating to a proprietary Exchange, or to a non-Office-365 hosted Exchange](#)
- [Migrating to Office 365 with Microsoft's DirSync](#)
- [Migrating to Office 365 without Microsoft's DirSync](#)

Migrating to a proprietary Exchange, or to a non-Office-365 hosted Exchange

The *Exchange Administrative Operations* screen offers these options when migrating to a proprietary Exchange 2016, 2013 or 2010, or to a *Hosted Exchange* (other than Office 365):

- **Set forwarding from Exchange to GroupWise:** Tells the program to display a screen (later in the program sequence) to set mail-forwarding rules from the target back to the source, for all users in the user-list csv file. Typically set when target AD objects are mail-enabled but not yet migrated, so Exchange will correctly route mail to users who are still active in GroupWise.
- **Remove forwarding from Exchange to GroupWise:** Tells the program to display a screen (later in the program sequence) to remove mail-forwarding rules from the target back to the source, for all users in the user-list .csv file. Typically selected when users are migrated to Exchange, to remove the forwarding rules that previously (before they were migrated) routed mail to them in GroupWise.
- **Remove user free/busy forwarding to GroupWise:** Tells the program to remove forwarding of CMG free/busy queries to GroupWise for all users in the user-list .csv file. Typically selected when users are migrated to Exchange, to remove the forwarding rules that previously (before they were migrated) routed F/B queries for them to GroupWise.
- **Remove directory synchronization exclusion:** Removes the attribute value (in AD) that disables dirsyncls in the Exchange-to-GroupWise direction by Quest CMG Directory Connector. Removing the attribute (by this feature) enables bidirectional dirsyncls, including in the E-to-G direction. For more information, see the *CmgExcludeFromDirSync* parameter notes in the *Migrator for GroupWise Program Parameters Reference*.
- **Mailbox-enable existing Active Directory accounts** (option disabled for *Hosted Exchange* target): Creates a new Exchange mailbox for every user in the designated user-list .csv file whose Exchange account has already been mail-enabled, and for every security object found in the target Active Directory. (When migrating to a proprietary Exchange target, typically users' Exchange accounts are first created by Quest Migrator for NDS, and then mail-enabled by Migrator for GroupWise's AD Object Merge Tool.)

i **NOTE:** This option can also create mailbox-enabled users for AD contacts where there are no corresponding AD users, by setting *mboxfromcontact=1* in the [ActiveDirectory] section of *gwmi-gapp.ini*. (See that parameter entry in the *Migrator for GroupWise Program Parameters Reference* for more information.)

Select any number and combination of features you like, and then click **Next**.

Migrating to Office 365 with Microsoft's DirSync

The *Exchange Administrative Operations* screen offers the below options when migrating to Office 365 and using Microsoft's DirSync tool to provision Office 365 from a local AD. You may select any number and combination of features you like, **except**:

- IMPORTANT:** You must *Prepare local AD accounts for MS Online Service DirSync* separately, **before** you run the program for any other function. When you select *Prepare local AD accounts*, all other options are disabled (grayed out); when you select any other option, the *Prepare Local AD accounts* option is disabled.
- **Prepare local AD accounts for MS DirSync:** Prepares the accounts in your local AD to be provisioned into the Office 365 AD by Microsoft's DirSync tool. *This is a necessary administrative step that must precede your running the MS DirSync.* After running the MS DirSync, you must then run this Batch Migrator program again and select *Set Office 365 resource capacity* (next item below) to complete mailbox-enabling in Office 365.
- **Set Office 365 resource capacity:** Reads (from the local AD) the capacities of all resource objects in the user-list .csv, and then copies that information to the corresponding object records in Office 365. Do not select this operation until you have completed the *Prepare local AD accounts* operation (above) and successfully run MS DirSync.
- **Set forwarding from Exchange to GroupWise:** Tells the program to display a screen (later in the program sequence) to set mail-forwarding rules from the target back to the source, for all users in the user-list .csv file. Typically set when target AD objects are mail-enabled but not yet migrated, so Exchange will correctly route mail to users who are still active in GroupWise.
- **Remove forwarding from Exchange to GroupWise:** Tells the program to display a screen (later in the program sequence) to remove mail-forwarding rules from the target back to the source, for all users in the user-list .csv file. Typically selected when users are migrated to Exchange, to remove the forwarding rules that previously (before they were migrated) routed mail to them in GroupWise.
- **Remove user free/busy forwarding to GroupWise:** Tells the program to remove forwarding of CMG free/busy queries to GroupWise for all users in the user-list .csv file. Typically selected when users are migrated to Exchange, to remove the forwarding rules that previously (before they were migrated) routed F/B queries for them to GroupWise.
- **Remove directory synchronization exclusion:** Removes the attribute value (in AD) that disables dirsyncs in the Exchange-to-GroupWise direction by Quest CMG Directory Connector. Removing the attribute (by this feature) enables bidirectional dirsyncs, including in the E-to-G direction. For more information, see the *CmgExcludeFromDirSync* parameter notes in the Migrator for GroupWise *Program Parameters Reference*.

Select any number and combination of features you like, and then click **Next**.

Migrating to Office 365 without Microsoft's DirSync

The *Exchange Administrative Operations* screen offers these options when migrating to Office 365 and provisioning directly from Migrator for GroupWise to Office 365 (without Microsoft's DirSync tool):

- **Set forwarding from Exchange to GroupWise:** Tells the program to display a screen (later in the program sequence) to set mail-forwarding rules from the target back to the source, for all users in the user-list .csv file. Typically set when target AD objects are mail-enabled but not yet migrated, so Exchange will correctly route mail to users who are still active in GroupWise.
- **Remove forwarding from Exchange to GroupWise:** Tells the program to display a screen (later in the program sequence) to remove mail-forwarding rules from the target back to the source, for all users in the user-list .csv file. Typically selected when users are migrated to Exchange, to remove the forwarding rules that previously (before they were migrated) routed mail to them in GroupWise.
- **Remove user free/busy forwarding to GroupWise:** Tells the program to remove forwarding of CMG free/busy queries to GroupWise for all users in the user-list .csv file. Typically selected when users are migrated to Exchange, to remove the forwarding rules that previously (before they were migrated) routed F/B queries for them to GroupWise.

- **Remove directory synchronization exclusion:** Removes the attribute value (in AD) that disables dirsyncs in the Exchange-to-GroupWise direction by Quest CMG Directory Connector. Removing the attribute (by this feature) enables bidirectional dirsyncs, including in the E-to-G direction. For more information, see the *CmgExcludeFromDirSync* parameter notes in the Migrator for GroupWise *Program Parameters Reference*.
- **Create Office 365 accounts:** Creates a new O365 Exchange mailbox and sets user properties for each user in the designated users .csv file.
- **Manage password and license for Office 365 users:** Select this checkbox to display (later in the program sequence) the *Select Office 365 Administrative Operations* screen. From that screen, you can reset user passwords and specify licensing options.

Select any number and combination of features you like, and then click **Next**.

10: Select Office 365 Administrative Operations

This screen appears if you selected the **Manage password and license for Office 365 users** checkbox on the *Exchange Administrative Operations* screen. It lets you select these options:

- **Reset user passwords:** Resets the user passwords for mailboxes in the user-list .csv file. This function assigns random one-time-only passwords that let a user logon to Office 365 the first time, and then he/she must reset the password to something more durable and memorable.

i **NOTE:** An admin must send these passwords to end users so they can log into Office 365 for the first time. Migrator for GroupWise saves the passwords as plain text (not encrypted) in the .csv files, to permit admin access to them. You may therefore want to consider some security measures to protect the folder (or the entire computer) containing the .csv files.

- **Assign user licenses:** When this checkbox is selected, Migrator for GroupWise performs a new O365 user licensing operation.

i **IMPORTANT:** The Admin-Driven Batch Migrator reads a mandatory program parameter to get the two-character *Usage Location* code that Microsoft requires for its Office 365 licenses (per [this Microsoft article](#)). Be sure to set a value for:

```
[Exchange]
O365UsageLocation=<xx>
```

... in Migrator for GroupWise's *gwmigapp.ini* configuration file **before** you try to **License users**. The parameter value must be a two-letter keyword, which must conform to the standardized values listed for [ISO 3166-1-alpha-2](#).

i **NOTE:** If this O365 licensing feature returns a *Multiple Account- Skus* error (in the log), then the Batch Migrator has detected multiple accounts and requires that you specify just one for this feature. Use the *Get-MsolAccountSku* cmdlet to retrieve the *AccountSkulds* for all valid licenses, then review the list and pick the one you want to use. Specify the license you want in Migrator for GroupWise's *gwmigap.ini* configuration file:

```
[Exchange]
O365AccountSkuld=<YOUR_TENANT_NAME:SKU_PART_NMBR>
```

- **License users:** Select this option to assign licenses to users. The following checkboxes allow the administrator to specify which service plans are available to licensed users:

Office Professional Plus

Lync Online

SharePoint Online

Office Web Apps

Exchange Online

Note that *SharePoint Online* is a prerequisite service plan for Office Web Apps.

- **Unlicense users:** Select this option to remove user licenses.

11: Specify Active Directory Information

This screen appears only if the **Exchange administrative functions, Migrate users or Provision distribution groups** option was marked on screen #2: [Select Operations](#). Specify the Active Directory server, and provide the administrator credentials and other information the program will need to manipulate Active Directory accounts, and click **Next**.

- **Global Catalog:** Type the name of the AD Global Catalog server—for example, `servername.mydomain.com`.
- **Domain Controller:** Specify the PowerShell Domain Controller that the program will call to perform operations.
- **Client access server** (appears only if migrating to Exchange 2013 or 2010): Name of the target Exchange client access server.
- **User name:** The user name of the administrator by whose authority the program will perform its functions.
- **Password:** The password for the admin **User name** cited above.

The last two fields may or may not appear grayed out (unavailable), depending on whether you are migrating users or PDLs in this program run:

- **How users were loaded into Active Directory** (only if migrating users, not PDLs, in this program run): Use the drop-down list box to specify the method by which user data was loaded into AD. In a typical migration scenario (documented in chapter 1), user data is loaded into AD by *Quest Migrator for NDS + Object Merge*. If you are following that typical scenario, select that option from the drop-down list box. Otherwise, use the list box to specify the alternate method by which user data was loaded into AD.
- **Path to an existing organizational unit for distribution groups** (only if you are migrating PDLs, not users, in this program run): Type the groups' OU path into the text box. Then, when you click **Next**, if you are migrating only PDLs you may skip ahead to screen #22: [Specify GroupWise Domain Path](#) (the intervening screens do not apply and will not appear).

When you click **Next** from this screen, the program scans the associated user-list .csv file and compares that information to your program entries to see if it can identify any conflicts or other issues.

If no such problems are apparent, the program simply advances to the next screen (skip ahead to the next screen below). But if it does find a problem, it notifies you in *User-list error* dialog box.

In the dialog box: Click the **View** button to see a .csv file listing of errors and warnings. The program will save the .csv file to your Quest admin directory by appending "-error" to the same filename as your current user list.

Review the list, and decide whether you want to continue or abort the run:

- **To continue the program run:** In the *User-list error* dialog box, click OK to dismiss the dialog box and advance to the next screen.
- **To abort the program run:** In the *User-list error* dialog box, click Cancel to dismiss the dialog box and return to the previous program screen. Then click the Cancel button to abort the program run.

12: Specify Exchange Mailbox Information

This screen appears only if the **Mailbox-enable ... accounts** option was marked in screen #9: [Select Exchange Administrative Operations](#).

From the drop-down list boxes, select the locations of the Exchange mail **Server** and of the Exchange **Mailbox database**.

- **Personal Archive / Create personal archive mailboxes** (checkbox, appears only if migrating to Exchange 2013 or 2010): Mark the checkbox if you want to create personal archive mailboxes in Exchange.

Click **Next** to advance to the next screen.

13: Specify Target-to-Source Mail Forwarding Domain

This screen appears only if the **Set forwarding** or **Remove forwarding** option was marked in screen #9: [Select Exchange Administrative Operations](#). Enter the name of the domain or subdomain that is assigned to your GroupWise server through the transition period of this migration, and click **Next**.

Mail arriving in Exchange mailboxes can be forwarded back to users' GroupWise mailboxes by this domain. If you have assigned a temporary MX subdomain to the Exchange server (in the *Pre-Migration Preparations*), then your GroupWise server may still carry your original domain name; enter that original domain name here. If, on the other hand, you have assigned a temporary subdomain to the GroupWise server for this purpose, then enter that temporary subdomain.

14: Specify Data for Migration

The Specify Data for Migration screen appears only if the **Migrate users** option was marked on screen #2: [Select Operations](#). Specify the data you want to migrate in this program run, and click **Next**.

This screen is designed to let you migrate email messages and calendar data independently, from the server and/or from the archives:

- **Migrate server based data:** Users' mail, appointments, and tasks located on the GroupWise server will be migrated. For the migration of this server-based data, you may specify one or more of: **Migrate e-mail messages**, **Migrate calendar data**, **Migrate trash folder** or **Migrate Document References**.
- **Migrate archives:** User archives that are located on a central file server will be migrated. For the migration of archived data, you may specify one or more of: **Migrate e-mail messages**, **Migrate calendar data** or **Migrate trash folder**.
- **Migrate personal address books:** Users' personal address books located on the GroupWise server will be migrated.
 - **File contacts as:** Determines how the contacts are displayed in the Contacts folder. The *File As* attribute is also used by Outlook to alphabetize your Contacts. The three available options are:
 - **Use current display name:** Use the *Display Name* attribute of the address book entry.
 - **First Last:** Create the *File As* using the first name and last name attributes separated by a space.
 - **Last, First:** Create the *File As* using the last name and first name attributes separated by a comma.
 - **Include Frequent Contacts with PABs:** Tells the program to migrate GroupWise Frequent Contacts from the GroupWise server into a Frequent Contacts folder.

i

NOTE: A GroupWise *Organization Object* is like a business card associated with one or more users in a personal address book. An Organization Object contains business-wide or similar "entity" information such as the organization name, address, phone and fax number—information that could be shared by several or many users associated with the same organization. When you create a contact, you can enter his/her organization information, and then link other contacts to that same Organization Object. Or you can create an Organization Object without associating any other contacts with it. Migrator for GroupWise treats an Organization Object as another address book entry and migrates it as a contact.

15: Select Date and Size Filters

This screen appears only if you have selected, on the preceding Specify Data for Migration screen, to migrate server-based data and/or archive data. Select the desired date and attachment size filter settings (if any), and click **Next**.

- **Mail dates:** You may use date-based filtering to limit the amount of data that is moved, or move all data. Select a radio button in this group to indicate your choice, and if necessary click the **Select date** button(s) to enter any required date value(s).
 - i** **NOTE:** Any date filters defined are applied **only** to mail items, and **not** to users' contacts. For example, if you use this feature to migrate different date ranges of mail in two or more successive runs of the program, and if you have selected Frequent Contacts for migration in two or more of the runs, the program will create an entire duplicate set of contacts in the Exchange environment.
- **Calendar dates:** You may use date-based filtering to limit the amount of data that is moved, or move all data. Select a radio button in this group to indicate your choice, and if necessary click the **Select date** button(s) to enter any required date value(s).
 - i** **NOTE:** Any date filters defined are applied **only** to calendar items, and **not** to users' contacts. For example, if you use this feature to migrate different date ranges of calendar data in two or more successive runs of the program, and if you have selected Frequent Contacts for migration in two or more of the runs, the program will create an entire duplicate set of contacts in the Exchange environment.
- **Attachment sizes:** You may use size-based filtering to limit the amount of data that is moved, or move all data. Select a radio button to indicate whether you want to filter migrating attachments by size. If you do choose to filter by attachment size, you must also specify the size limit (in KB). Migrating only attachments smaller than a specified size will reduce the amount of disk space needed to create the new .pst files or server database.
 - i** **NOTE:** Even if you filter attachments based on size, all messages are migrated. The filter excludes only **attachments** that exceed the size limit, but the messages to which oversized attachments were attached are still migrated.
 - i** **NOTE: If Office 365 is selected as the Target Exchange System:** The **Attachment size** defaults to 20480 KB (20 MB), which is the maximum message size allowed by Office 365. If the limit is set any higher (for an Office 365 target), the program will try to read and copy larger messages that will ultimately be disallowed by Office 365, generating an error and wasting time.

16: Specify GroupWise Information

This screen appears only if the **Migrate archives** option was marked in screen #14: [Specify Data for Migration](#). Use the **Browse** button to locate and specify the root directory for your users' GroupWise archive files (or just type the value into the text box), and click **Next**.

- **Archive root directory:** The top-level directory where user archives reside. Any archives to be migrated must be in this directory or its subdirectories. If other locations (e.g., a different disk drive) also contain archives, you must either rerun this program for each archive location, or run the Self Service Desktop Migrator program from each user's desktop (or have your users run it).
 - i** **NOTE:** If you specify an **Archive root directory** here, and user archives are in diverse directory subtrees under the root, Migrator for GroupWise will search all subfolders under the root until it finds the archive it needs, and will repeat that search for every user. To speed up that process, leave this **Archive root directory** field empty, but then specify each user's subfolder path in the user-list .csv file, in the *Archives* column. The optional *Archives* column can be used like this to limit the volume of data the program must scan to find each user's archive, by specifying a subset of a larger shared directory structure. Multiple paths can be designated by separating them with a pipe (|) character. Examples:

```
c:\archive
\\server\home\user
```

17: Specify GroupWise Login Information

This screen appears only if the **Migrate users** option was marked on screen #2: [Select Operations](#), or if the **Set forwarding** or **Remove forwarding** option was marked in screen #4: [Select GroupWise Administrative Operations](#).

Specify the **Login method** (if necessary), and **GroupWise PostOffice Path** (if you want to access GroupWise via direct mode—see below), and click **Next**. If the GroupWise source is version 6.5 or higher and you are not setting or removing GroupWise mail-forwarding in this program run, the **Login method** will not apply and will appear grayed-out. For more information about this circumstance, see the topic *Method of Access to GroupWise User Data*, in chapter 3 of the *Migrator for GroupWise Pre-Migration Planning Guide*.

- **Login method** (if offered): Select the appropriate option to indicate how the program should access users' GroupWise accounts:
 - **Use proxy account:** Tells the program to rely on proxy rights for access to users' accounts.
 - **For GroupWise 6.5 or higher:** This option is available only if Migrator for GroupWise will set or remove GroupWise mail-forwarding in this program run. Enter the **GroupWise user ID**, **Password**, and the associated **Email address** in either GroupWise or SMTP format. For example:

```
User.GroupWisePO.GroupWiseDom
User@groupwise.com
```

These values pertain to whatever account will be used to set or remove forwarding. You need not establish any proxy rights prior to the program run.
 - **For GroupWise 6.0:** Enter the **GroupWise user ID** and **Password** of the admin account that has been granted proxy rights for these migrating users' accounts. The **Email address** field does not apply and therefore does not appear. The proxy rights must already be established before this program run; the AddProxy Utility can automate the process of obtaining proxy rights.
 - **Use user passwords:** Option available only when the GroupWise source is version 6.0, and will be grayed-out when the source is version 6.5 or higher. It tells the program to access users' GroupWise data by logging into their accounts individually. If you opted to **Set user password** (in screen #4: [Select GroupWise Administrative Operations](#)), the program will use the passwords specified in screen #7: [Specify GroupWise Passwords](#). If you did *not* opt to **Set user password**, the program will use the passwords in the *Password* column of the user-list .csv file.

Note that this option will appear grayed-out (unavailable) if you have not told the program to reset user passwords, or if the program finds no *Password* column in your user-list .csv file. (In this case, the program would have no way of knowing user passwords, and therefore would be unable to access accounts by passwords.)

- **Direct connection (optional) / GroupWise PostOffice path:** This option lets you tell the program to access the GroupWise server via direct mode rather than via client-server mode, since direct mode is usually faster. If you leave this text box blank, the program will default to whichever mode was last used to connect to the GroupWise server. Otherwise, to require direct-mode access: Type your **GroupWise PostOffice path** into the text box, or use the **Browse** button to locate and specify your **GroupWise PostOffice path**.

i **NOTE:** If necessary you can use the NetWare Administrator program, NWAdmin or ConsoleOne, to find the **GroupWise PostOffice path**: From the **Tools** menu, select **GroupWise View ...**, and then in the folder tree expand the branch for the GroupWise domain name. Right-click on the PostOffice name, and select **Details**. The displayed value for **UNC Path** is your **GroupWise PostOffice path**.

18: Specify Destinations for Migrated Data

This screen appears only if the **Migrate users** option was marked in screen #2: [Select Operations](#). Specify the desired target location for each category of migrated data, and click **Next**.

- **Archives:** Archive data can be migrated to a personal folder (.pst) file or a server-based mailbox. The default: a .pst file.
- **Address books:** Address book data can be migrated to a personal folder (.pst) file or a server-based mailbox (the default).
- **Server-based data:** Server-based data can be migrated to a personal folder (.pst file) or a server-based mailbox. The default: server-based mailbox.

19: Specify How To Migrate Shared Information

This screen appears only if your entries on earlier screens indicate that you intend to migrate shared folders, shared address books or proxy/delegate rights. Enter the requested information to indicate your preferences for the migration of shared items and proxy/delegate rights, and click **Next**.

A shared folder or address book in GroupWise can be migrated either to its owner (only) in Exchange, or to all of the users to whom the item was shared in GroupWise. The *Migrator for GroupWise Pre-Migration Planning Guide* (see the *Migrating Shared Folders* topic in chapter 3) explains how Migrator for GroupWise maps shared folders to Outlook.

For *Shared Folders*, choose to migrate shared folders either **for each user** or **only for the owner** (mutually exclusive):

- **Migrate a separate copy ... for each user having access rights:** Tells the program to migrate a separate copy of the shared item for every user who had access to it in GroupWise.

If you choose to migrate to **each user that has access rights**, the program will migrate a complete copy for each user, and the multiple copies will become independent of one another upon migration. That is, any changes made to such a copy by User A will apply only to User A's copy, and not to User B's or any other user's independent copy.

- **Migrate ... only for the owner (single copy migrated):** Tells the program to migrate only a single copy of the item, to the user who owned it in GroupWise. If you do choose to migrate **only for the owner**, you may also (optionally):
 - **Define ACLs on the Exchange server using the shared folder permissions:** Tells the program to read the GroupWise ACL for each shared item, and recreate it in Exchange, so that the migrated item will be re-shared with the same users who had access to it in GroupWise.

i | **NOTE:** The program will ignore a checkmark here if [GroupWise] *MigrateEmptyFolders=0* and [General] *ACLRootVisibleOnly=0* (in *gwmigapp.ini*).

Also, if you choose to migrate **only for the owner**, you may:

- **Post a message informing users how to access their shared folders:** A checkbox that tells the program to post a message in each folder that was shared, explaining how to open the shared item in Exchange. If you select this feature, you can (optionally):
- **Message body:** This button opens the associated RTF template file for editing, using whatever application is associated with RTF files (usually Microsoft Word) on your desktop. The template filename is *SharedFolderNotificationTemplate.rtf*. If you edit the template, be sure to save it as an RTF file—not as a Word doc file or any other file type.

i | **NOTE:** When migrating shared folders and making them visible to shared recipients in Outlook, the parent folders' permissions are modified to add "folder visible" for those users, for all future new folders created under the common root.

For *Shared Address Books*, choose to migrate shared address books either **for each user** or **only for the owner** (mutually exclusive):

- **Migrate a separate copy ... for each user having access rights:** Tells the program to migrate a separate copy of the shared item for every user who had access to it in GroupWise.
 - **NOTE:** If you choose to migrate to **each user that has access rights**, the program will migrate a complete copy for each user, and the multiple copies will become independent of one another upon migration. That is, any changes made to such a copy by User A will apply only to User A's copy, and not to User B's or any other user's independent copy.
- **Migrate ... only for the owner (single copy migrated):** Tells the program to migrate only a single copy of the item, to the user who owned it in GroupWise. If you do choose to migrate **only for the owner**, you may also (optionally):
 - **Define ACL on the Exchange Server:** Tells the program to read the GroupWise ACL for each shared item, and recreate it in Exchange, so that the migrated item will be re-shared with the same users who had access to it in GroupWise.
 - **NOTE:** The program will ignore a checkmark here if [GroupWise] *MigrateEmptyFolders=0* and [General] *ACLRootVisibleOnly=0* (in *gwmigapp.ini*).
 - **Post a message informing users how to access their shared PABs:** Tells the program to post a message in the folder that was shared, explaining how to open the shared item in Exchange. If you select this feature, you can (optionally):
 - **Message body:** This button opens the associated RTF template file for editing, using whatever application is associated with RTF files (usually Microsoft Word) on your desktop. The template filename is *SharedPabNotificationTemplate.rtf*. If you edit the template, be sure to save it as an RTF file—not as a Word doc/docx file or any other file type.

For proxy/delegate access rights, you may:

- **Migrate GroupWise Proxy Rights to equivalent Exchange ACL and Delegate settings**
 - **NOTE:** To migrate Groupwise Proxy Rights to Equivalent Exchange ACL and Delegate settings with Administrator Driven Batch Migration, the GroupWise domain must be same as the primary SMTP Address domain in Exchange/Office 365.

If you choose this feature, you may (optionally):

- **Message body:** This button opens the associated RTF template file for editing, using whatever application is associated with RTF files (usually Microsoft Word) on your desktop. The template filename is *DelegateACLNotificationTemplate.rtf*. If you edit the template, be sure to save it as an RTF file—not as a Word doc file or any other file type.

20: Select Destination Exchange Server

This screen appears only if the **Migrate users** option was marked on screen #2: [Select Operations](#). Enter the information that will authorize (or forgo) the program's connection to the Exchange server, and click **Next**.

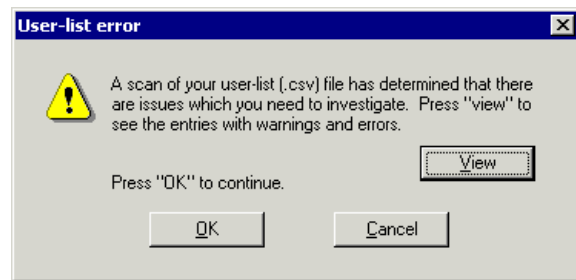
- **Do not connect to an Exchange server:** This feature makes possible the migration of data to Outlook personal folder (.pst) files prior to the setup of your Exchange server, but the checkbox is available only if none of your entries on earlier screens requires a connection to an Exchange server (for example, if the program is configured to create Exchange mailboxes, or to migrate data to server-based mailboxes, etc.) If you do forgo a connection to an Exchange server, attendees' free/busy information will be unavailable in migrated calendar appointments.
- **Profile name:** If the program will connect to an Exchange server, use this drop-down list box to specify the Admin profile created for the target Exchange environment. The designated profile must have *Receive As* rights.
- **Administrator user name:** Exchange user name for the migration account configured with *Receive As* rights to the target mailboxes.
- **Administrator password:** Password associated with the Administrator user name cited above.
- **Administrator user domain:** Active Directory domain where the administrative account resides.

When you click **Next**, the program scans the associated user-list .csv file and compares that information to your program entries to see if it can identify any conflicts or other issues. If no problems are apparent, the program simply advances to the next screen (skip ahead to the next screen). But if it does find a problem, it notifies you in a dialog box.

Click the **View** button to see a .csv file listing of errors and warnings. The program will save the .csv file to your Quest admin directory by appending "-error" to the same filename as your current user list.

Review the list, and decide whether to continue or abort the program run:

- **To continue the program run:** In the *User-list error* dialog box, click **OK** to dismiss the dialog box and advance to the next screen.
- **To abort the program run:** In the *User-list error* dialog box, click **Cancel** to dismiss the dialog box and return to the previous program screen. Then click the **Cancel** button to abort the program run.



21: Specify PST Output Root Directory

This screen appears only if you have selected, in screen #18: [Specify Destinations for Migrated Data](#), to migrate one or more types of data to Outlook personal folders (.pst) files.

Select the preferred method and location for delivering any Outlook Personal Folders (.pst) files generated during the migration, and click **Next**.

- **Home directory of NetWare account:** Places new.pst files in the home directories of users' accounts.
- **Directory specified in .csv file:** Places new.pst files in the directory specified for each user in the .csv file, in the *pst_dir* column. The *pst_dir* column values must be in the user-list (.csv) file prior to this program run. (This option will appear grayed-out, as unavailable, if the user-list file does not contain a *pst_dir* column.)
- **Subdirectories of root directory specified below:** Places .pst files in subdirectories under this directory. This option creates a directory structure that matches the user's GroupWise post office hierarchy. For example, the location of the .pst file for a GroupWise user in the GWDOM domain and the MAILPO post office, with a userid of GWUSER, would be: *GWDOMMAILPOIGWUSER.pst*.

Select a .pst file format, by Outlook version:

- **Use Outlook 97-2002 Personal Folders File (.pst):** Tells the program to format the .pst files in this format, which supports up to 2GB of data.
- **Use Office Outlook Personal Folders file (.pst):** Tells the program to format the .pst files in this format, which supports up to 20GB of data. This option requires that Outlook 2003 or later be installed on the migration machine. (The option will appear grayed-out, as an unavailable choice, if Outlook 2003 or later is not installed.)

22: Specify GroupWise Domain Path

This screen appears only if one or more of your choices on earlier screens will require an administrative login session to your GroupWise server.

Type your **GroupWise Domain path** into the text box, or use the **Browse** button to locate and specify your **GroupWise Domain path**, and click **Next**.

The **GroupWise Domain path** is the file system path to your GroupWise domain file *wpdomain.db*. If necessary you can find this path by using the NetWare Administrator program, NWAdmin or ConsoleOne: From the **Tools** menu, select **GroupWise System Operations ...**, and then in the dialog box click *System Connection*. The *System Connection* dialog box then displays a list of GroupWise domains; the one labeled as the primary domain (format *\\WWSERVER\SYSTEMMAIL\GWDOM*) is the value you need to enter for the **GroupWise Domain path** in this screen.

22: Office 365 Mail Settings

This screen appears only if you are migrating to an Office 365 target—either with or without the Microsoft DirSync. Enter the information the program will need to connect as an administrator to your Office 365 admin account.

- **Profile name:** The Outlook profile associated with the admin account that is running the Batch Migrator. Note that this profile must have *Receive As* rights.
- **Administrator user name:** The *User Name* portion of the Office 365 access credentials for the admin account running the Batch Migrator.
- **Administrator password:** The *Password* portion of the Office 365 access credentials for the admin account running the Batch Migrator.
- **Office 365 user domain:** The Office 365 domain that should be used to compose users' Microsoft Online Services ID (logon names and email addresses) in Office 365. The **Office 365 user domain** selected here will be the portion of each user's email address that follows the @ symbol. The list options are collected online from Office 365, so there may be some delay in populating the full list.

Conditional checkboxes on this screen

These other checkboxes may or may not appear on this screen, depending on how you have configured the Admin-Driven Batch Migrator in earlier screens.

Appears if you are migrating users in this program run:

- **Use admin account pool:** Mark this checkbox if you want Migrator for GroupWise to use your Admin Account Pool to migrate data. Next to this checkbox are two buttons that will run the Admin Account Pool Utility by either of two options:
 - **Manage** (button): Launches Migrator for GroupWise's Admin Account Pool utility.
 - **Reset** (button): Used to reset the pool, this button launches Migrator for GroupWise's Admin Account Pool utility, and then automatically deletes all admin accounts from the pool and exits.

Appears only if you have selected only non-provisioning functions for this program run:

- **Validate target mailboxes exist before proceeding:** Tells the program to verify the existence of target mailboxes for the designated user list before trying to apply the selected features to these users.

Appears if you have selected G-to-E mail forwarding, and have selected (in the Specify Source-to-Target Mail Forwarding Domain screen) a csv field other than targetAddress to use for forwarding:

- **Validate mail-forwarding addresses:** Tells the program to validate the non-*targetAddress* forwarding address before setting the forwarding rule.

The program may or may not be configured (as described below) to also show these two checkboxes:

- **Resolve attendees for server mail:** Determines whether the program will look up SMTP addresses in server mail in the Exchange GAL, to get Exchange addresses—so free-busy lookups will succeed.
- **Resolve attendees for archive mail:** Determines whether the program will look up SMTP addresses in user archives in the Exchange GAL, to get Exchange addresses—so free-busy lookups will succeed.

These **Resolve attendees** features are enabled by default (as if the checkboxes were marked), but the checkbox controls do not appear in the screen by default. To make them appear in the screen, set *ShowResolveAttendee-Opt=1* in the [Exchange] section of *gwmigapp.ini*. You can disable either or both features by unmarking the checkboxes—for example, if you want to migrate to PST files without connecting to the Exchange server.

23: Specify Run Information

The remaining screens documented here all appear in all program runs, regardless of Exchange target type or other scenario factors. Enter the information to define how and where the program should document its run in a log file, and set the desired number of migration threads. Then click **Next**.

- **Directory for reports and log files:** The directory where all reports and log files for the migration run are written.
- **Run name:** Enter a unique name for this migration run. The program scans the log file directory for other run names to verify uniqueness.
- **Log level:** Tells the program how much detail to include in its run logs. Select **Normal** for a routine production run, or **Verbose** if you are having trouble and want to diagnose a problem.
- **Number of migration threads (simultaneous user migrations):** The number of simultaneous processes the program will use to perform migrations. The optimum number of threads depends on several factors such as processor speed and bandwidth. Most administrators report optimum performance from settings of 8 to 12 concurrent processes when migrating to any Exchange target type *other than* Office 365, or 2 to 4 threads when migrating to Office 365. (See *Migration to Microsoft's Office 365* in chapter 1 of the *Migrator for GroupWise Scenarios Guide*, for an explanation of that difference.) You may want to experiment with different values to determine the optimum setting for your network configuration and processing capacity. The program also lets you change this value on a later screen, while the processes are running.

24: Migration Settings Summary

Review the settings you have set for this migration. If any settings are incorrect, use the **Back** button to correct the choices and values on previous screens. Then return to this screen to review and confirm them. When this summary of settings accurately defines what you want to accomplish, click **Run** to begin the run.

25: Progress screen

Quest Administrator-Driven Batch Migrator provides a progress bar and migration statistics as it runs, and offers you the option of changing the number of migration threads (simultaneous migration processes) while the program runs. (The **Maximum threads** control here is the same as the **Number of migration threads** option you set in screen #23: [Specify Run Information](#).)

NOTE: If you cancel a migration run, you will not see a record of this action in the log file.

Whether or not you change the **Maximum threads** value, the program automatically advances to its Results screen when the process is complete.

26: Results screen

Review the migration results, and click on Migration Report to view a csv file of the results, or click **Exit**.

The **Migration Report** button is an optional feature that lets you view a csv-format file of the migration results. The feature will launch whatever application you have associated with the csv file type, and will work only if you have defined (in Windows) that association.

This *Results* screen may also offer an **Error Log Report** button if the program encountered any errors during its run. If the **Error Log Report** button does appear, click it to view the program log and assess the severity of the errors. The **Error Log Report** button launches Quest Log Viewer utility (see [The Log Viewer](#)) to help you interpret and resolve the errors.

Did it work?

Verifying the outcome of an Admin-Driven Batch Migrator run will require different checks depending on what you have asked the program to do.

- **If you used Admin Batch Migrator to provision PDLs:** Check Active Directory to see if AD now contains the PDLs.
- **If you used Admin Batch Migrator for admin functions:** Check NDS and/or AD and/or Exchange to verify that the admin task(s) have been correctly applied.
- **If you used Admin Batch Migrator to migrate users:** Check Exchange to verify that migrated users are mailbox-enabled, and check with the users to make sure they are receiving mail.

Remember to distribute any user .pst files

If the batch migrator program has migrated any data to Outlook Personal Folder (.pst) files, then when the migration is complete you must either:

- Notify users of the locations of their new.pst files (so each user can specify the location within his or her own desktop copy of Outlook);
— OR —
- Distribute the newly created .pst files to users' desktops.

Quest Administrator-Driven Batch Migrator program names any new .pst files by their associated *User IDs*, with incrementing numbers appended to the filename if more than one file is generated per User ID—for example, *Smith.pst*, *Smith-1.pst*, *Smith-2.pst*, and so forth.

The Log Viewer

The Log Viewer utility simplifies the viewing and interpretation of program log files, which document alerts and warnings in Quest programs. The same Log Viewer program is used for several Quest products, including Migrator for GroupWise.

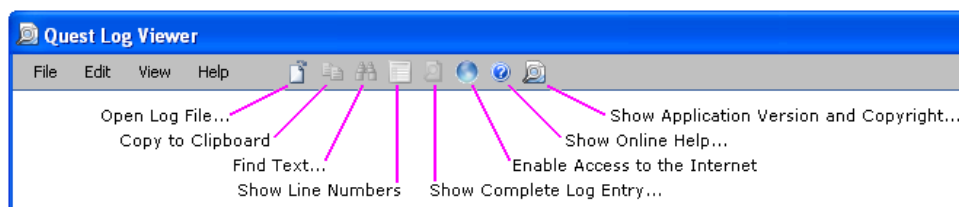
IMPORTANT: The full benefit of Quest Log Viewer requires the application to transmit log event codes from the computer hosting the Log Viewer to a remote Quest database of *Solutions* (useful information about the events associated with the log codes). The Quest *Solutions* database then sends a corresponding *Solution* back to the Log Viewer for display to the user.

This feature is enabled by default, but can be disabled by deselecting the **Enable Internet Access** option on the **View** menu. For more information, see the **IMPORTANT** disclosures in the **View** menu topic below, in the field notes for the **Enable Internet Access** option.

- [Log Viewer menus and toolbar](#)
- [How to ...](#)

Log Viewer menus and toolbar

Most Log Viewer features are accessible by the program's menus and/or the program tool bar, which share a horizontal band across the top of the screen:



Several features are also available directly from the keyboard, and those keyboard shortcuts are displayed in the menus and noted here.

The Log Viewer menus are: [File menu](#) • [Edit menu](#) • [View menu](#) • [Help menu](#)

File menu

- **Open Log File...** (or Ctrl+O): Opens a standard Windows *Open* dialog box, from which you can specify the file you want to open into the Log Viewer. The Log Viewer can open and display *WLog* (optionally compressed) files, and plain text files.

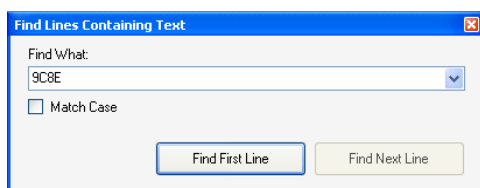
NOTE: Drag-and-Drop Option: You can also open a wlog file in the Log Viewer by dragging and dropping a filename from Windows Explorer into the Log Viewer window.

- **Save Copy Of Log File As...** (appears only when a file is open): Opens a standard Windows *Save As* dialog box, from which you can specify the filename and location where you want the open file to be saved. The Log Viewer lets you edit the contents of an open file, but will not replace the original on disk with the edited version (you cannot save it under the same name in the same location).

- **Recent Files:** Shows a list of recently opened files, from which you can select a file to re-open (to quickly re-open a file you have recently viewed and closed).
- **Exit:** Closes the Log Viewer window.

Edit menu

- **Copy** (or Ctrl+C): Copies the selected line to the Windows clipboard.
- **Find...** (or Ctrl+F): Opens a **Find** dialog box that lets you specify a text string to search for within the open file:



The dialog box lets you search for the next or preceding occurrence, or for the first or last occurrence in the file. The **Find** feature highlights the entire line that contains the target string.

- **Go To Line Number:** Opens a dialog box that lets you jump to a particular line number of the file. (Enter the line number and click **OK**.)

View menu

- **Show Line Numbers** (or Ctrl+L): Toggles the display of line numbers (within the open file) on and off.
- **Show Complete Log Entry** (or F5): Opens a *Log Detail* window that shows the entire string for the selected item—useful when the item text overruns the Log Viewer’s maximum line length (maximum 259 characters), or if the line extends beyond the right edge of the viewer window without wrapping.
- **Enable Internet Access:** Toggles the Internet connection on and off. Note these important disclosures:

i IMPORTANT: The full benefit of Quest Log Viewer requires the application to transmit log event codes from the computer hosting the Log Viewer to a remote Quest database of *Solutions* (useful information about the events associated with the log codes). The Quest *Solutions* database then sends a corresponding *Solution* back to the Log Viewer for display to the user.

This feature is enabled by default, but can be disabled by deselecting this **Enable Internet Access** option (on the **View** menu). Note:

- The Log Viewer sends event codes to Quest servers in the United States, as the codes appear in a log file that has been opened into the Log Viewer window.
- The Log Viewer sends only event codes and source IP addresses to Quest server. No personally identifying information other than IP addresses is collected or sent.
- Quest transmission of *Solutions* corresponding to received event codes is fully automated (no human intervention or observation). Quest tallies the frequencies of event codes received and *Solutions* sent in reply, but does not associate those tallies with IP addresses or any other personally identifying information, and no other information is logged.
- Quest servers treat each received event code as a query. Quest uses an event code only to determine which *Solution* to send back to the source of the query, and uses an IP address only to transmit the *Solution* to the source of the query. Quest servers log querying IP addresses as a matter of course, but Quest does not use them for any other purpose and does not disclose them to any other entity.
- You may opt out of this feature, to prevent the transmission of event codes and IP addresses to Quest, by unmarking the **Enable Internet Access** option on the **View** menu.

- **Goto Line Number:** Prompts for a line number in the file to display.

Help menu

- **Online Help...** (or F1): Opens Quest online Help file for the Log Viewer, which documents its features.
- **About...:** Opens a window of information about the Log Viewer—identifying the current release, and asserting Quest intellectual property rights to the software.

How to ...

This section describes how to complete various tasks in the Log Viewer.

To open a specific log:

- Drag and drop a wlog file name from Windows Explorer into the Log Viewer window.

— OR —

Click the **Open Log File** button (in the Toolbar) to view a list of log files that can be opened. In the *File* section of the screen, select a log file and click **OK** to open the log in the Quest Log File Viewer.

To find a particular text string within an open file:

- **Edit** menu | **Find...** (or Ctrl+F): Opens a **Find** dialog box that lets you specify a text string to search for within the open file. The **Find** feature highlights the entire line that contains the target string.

To re-open a recently viewed file:

- **File** menu | **Recent Files**: Shows a list of recently opened files, from which you can select a file to re-open (to quickly re-open a file you have recently viewed and closed).

To save a copy of a file:

- **File** menu | **Save Copy Of Log File As...** (appears only when a file is open): Opens a standard Windows *Save As* dialog box, from which you can specify the filename and location where you want the open file to be saved. (This feature does not permit any revisions to the open file. It simply lets you save the file *in its original form* to a new filename and/or a new location.)

To show or hide line numbers:

- **View** menu | **Show Line Numbers (or Ctrl+L)**: Toggles the display of line numbers (within the open file) on and off.

To jump to a particular line number in the file:

- **Edit** menu | **Go To Line Number**: Opens a dialog box that lets you specify the destination line number. (Enter the number and click **OK**.)

To view an entire untruncated log entry:

- **View** menu | **Show Complete Log Entry (or F5)**: Opens a Log Detail window that shows the entire string for the selected item—useful when the item text overruns the Log Viewer's maximum line length (maximum 259 characters), or if the line extends beyond the right edge of the viewer window without wrapping.

To turn internet access on or off:

- **View** menu | **Enable Internet Access**: Toggles the Internet connection on and off.

To copy a selected line to the clipboard:

- **Edit** menu | **Copy** (or Ctrl+C): Copies the selected line to the Windows clipboard.

To close the log viewer:

- **File** menu | **Exit**: Closes the Log Viewer window, or click the Log Viewer **Close** box (**[X]**) to dismiss the window and return to the previous display.

Office 365 Admin Account Pool Utility

- [About the Account Pool Utility](#)
- [Necessary preparations for the Admin Account Pool Utility](#)
- [Managing the Admin Account Pool](#)

About the Account Pool Utility

Microsoft currently imposes various throttles in Office 365 to ensure service availability and performance for all tenants. Some of these throttles take effect when any account (including a migration admin account) initiates more than two concurrent connections. Each migration thread counts as a connection, so throttling can have a dramatic impact on migration performance to Office 365. Quest migration solutions commonly achieve optimal throughput with eight to twelve threads for migration to local targets, and potentially more threads for higher-end hardware. To achieve similar results to Office 365, separate migration admin accounts must be used to bypass the throttling limitations.

i | **IMPORTANT:** When running Migrator for GroupWise in a federated Office 365 environment, the Account Pool Utility cannot use a federated domain.

Since Microsoft's throttle is applied per admin account, Migrator for GroupWise runs multiple admin accounts simultaneously, on separate machines, each set to migrate with only one thread at a time. The net throughput then becomes a function of the sum of all these multiple accounts' processing threads—one per admin account. The Office 365 admin users in the pool are not assigned licenses in Office 365, so they do not consume available licenses.

i | **TIP:** Instead of defining the same pool of Admin accounts for all machines to share, define a smaller pool of different Admin accounts for each machine. This increases the speed of the migration process.

Migrator for GroupWise includes an Admin Account Pool Utility that helps you manage a "pool" of Office 365 admin accounts for this purpose. The utility is designed to help you manage the admin accounts.

i | **NOTE:** The Admin-Driven Batch Migrator in Migrator for GroupWise versions 4.5.0.25 and later supports migration to Office 365 by Admin Account Pooling when a user's primary target address in the user-list csv file matches the proxy address, but not the primary SMTP address.

Necessary preparations for the Admin Account Pool Utility

Some preparations are necessary before you can use the Admin Account Pooling Utility. **These steps are mandatory.**

1. Install the Office 365 cmdlets.

Migrator for GroupWise's Account Pool Utility uses Microsoft Office 365 cmdlets to issue commands to Office 365, and these cmdlets must be installed before Migrator for GroupWise can use account pooling. Note these requirements before you can install the cmdlets:

- You can install the cmdlets on a Windows 7 or Windows Server 2008 R2 computer.
- Windows PowerShell 2.0 and the .NET Framework 3.5.1 must be enabled.
- You must install the MSOL *Sign-in Assistant*. Download and install one of the following from the Microsoft Download Center:

[32-bit version](#) — or — [64-bit version](#)

To install the cmdlets:

- 1 Download the MSOL Module for Windows Powershell:

[32-bit version](#) — or — [64-bit version](#)

- 2 To install the cmdlets, double-click the *AdministrationConfig.msi* file.

The installer adds the program to your **Start** menu, and adds a shortcut to your desktop.

2. Enable the Admin Account Pool.

Migrator for GroupWise's Account Pool Utility helps you manage account pool membership, but it does not tell the other Migrator for GroupWise applications to make use of its pool of accounts. To make use of the account pool check the **Use admin account pool** checkbox on the Admin-Driven Batch Migrator's *Office 365 Mail Settings* screen.

The **Use admin account pool** checkbox is available only when Office 365 is selected as the Target Exchange System on the Admin-Driven Batch Migrator's *Select Operations* screen.

Managing the Admin Account Pool

Use the Admin Account Pool Utility to manage your account pool. This allows you to view the accounts in the pool, change the common password for all admin accounts in the pool, and/or change the number of accounts in the pool.

To start the Admin Account Pool Utility:

- Click the **Manage** or **Reset** button on the Admin-Driven Batch Migrator's *Office 365 Mail Settings* screen. The **Reset** button launches the utility with instructions to delete all admin accounts from the pool and exit.
— OR —
- Run the program file (*AdminAcctPool.exe*) independently.

The Admin Account Pool Utility contains a single screen titled *Manage Migration Admin Account Pool*. This screen features a list of all admin pool accounts that are registered in the Migrator for GroupWise's database. Every time the program is started, it automatically uses remote PowerShell to scan Office 365, to synchronize Migrator for GroupWise's list of accounts with Office 365's list.

The *Manage Migration Admin Account Pool* screen reports these values:

- **Password:** The password assigned to all pooled admin accounts. This password can be changed by entering a new password.
- **Current pool size:** The current number of admin accounts in the pool.
- **New pool size:** Specify the number of admin accounts to include in the account pool.
- **Account:** The user the admin account is currently being used to migrate.
- **Current Owner:** The owner of the admin account.

- **Allocate Time:** The time when the admin account was allocated for use by its current owner.
- **Use Count:** The number of times the admin account has been used.

And the screen offers these command buttons:

- **Refresh:** Refreshes the *Current Owner*, *Allocate Time* and *Use Count* information for all admin pool accounts registered in the Migrator for GroupWise installation folder. These values change as migrations allocate, use and release admin pool accounts, but you can always get the current values by clicking **Refresh**.
- **Synchronize:** Refreshes the list of admin pool accounts registered in the Migrator for GroupWise installation folder by scanning O365 using remote PowerShell. The admin pool accounts are all members of a special Role Group called GroupWise Migrator Admins Role Group in O365. The Manage Migration Admin Account Pool utility automatically performs a synchronize operation each time it is launched to ensure that the list of admin pool accounts registered in the Migrator for GroupWise installation folder is up to date. (This is the same synchronization feature the utility performs each time you start the program, as noted above.)
- **Apply:** Adds or removes accounts as needed to achieve the size specified in the **New pool size** control, and updates the passwords of all accounts to the value in the **Password** textbox. It then automatically performs a synchronize and refresh to ensure that the list of registered accounts is up to date.
- **Close:** Closes the application.

While any of these operations is in progress, the status bar (bottom of the screen) displays progress information, and the **Close** button temporarily changes to a **Cancel** button (to cancel the current process).

The Admin Account Pool Utility will autodiscover the information it needs to create Outlook profiles on the fly for the multiple admin accounts you have configured in the Utility as described above.

Discovery utility

- [About Discovery utility](#)
- [Command-line switches](#)
- [Discovery.exe limitations](#)

About Discovery utility

Discovery.exe is a pre-migration discovery tool that collects mailbox and archive information. This information is written to a csv file, and can be used to plan a migration. The Migrator for GroupWise installer puts *Discovery.exe* in this default directory:

```
C:\Program Files\Quest\Migrator for GroupWise\Pre-migration Discovery\Discovery.exe  
... for a 32-bit OS, or in C:\Program Files (x86)\Quest\... for a 64-bit OS.
```

Command-line switches

Command-line switches for *Discovery.exe* let you specify the types of information you want to capture, where you want it to be saved, and other program run options:

- **-v [version]:** The version for current auditing. The default is 1.
- **-a [path]:** Gather the archive data to an automatically generated CSV file in the %TEMP% folder if no file path is specified.
- **-m [path]:** Gather the audit mailbox data to an automatically generated CSV file in the %TEMP% folder if no file path is specified.
- **-s [path]:** Gather shared folders data to an automatically generated CSV file in the %TEMP% folder if no file path is specified.
- **-p [path]:** Gather proxy rights data to an automatically generated CSV file in the %TEMP% folder if no file path is specified.
- **-l [path]:** The log file location. The default is put into the %TEMP%\Pre-migration Discovery folder.
- **-t [time]:** The timeout (in seconds) to wait for GroupWise client to launch. The default is 36000.
- **-d [delay]:** The delay (in seconds) to wait for GroupWise client to launch. The default is 15.
- **-f: [force]:** Force auditing the specified type of users.

Discovery.exe needs at least one of these options to be specified: **-a**, **-m**, **-s**, or **-p**. The others are optional. If you specified a path during auditing, *Discovery.exe* audits the specified audit type (-a, -m, -s or -p) only one time. This is controlled by the Registry items.

Re-auditing the specified type of information:

- 1 Use **-v [version]**. The version number should be greater than last version. See the sample login script below:


```
@\\127.0.0.1\Pre-Migration Discovery\Discovery.exe -a
  \\127.0.0.1\SharedFiles\Archive.csv -v 2
```

The above "version" is greater than default "version" 1, so it will do re-auditing.

- 2 Use **-f: [force]** to force auditing the specified type of users. See the sample script below:

```
@\\127.0.0.1\Pre-Migration Discovery\Discovery.exe
  -a \\127.0.0.1\SharedFiles\Archive.csv -f
```

If auditing or exported data to *%TEMP%*, *Discovery.exe* will audit the specified audit type (-a, -m, -s or -p) once the users log in to the Novell client and GroupWise client.

Running Discovery.exe

- 1 Install the latest version of Migrator for GroupWise.
- 2 Modify the network system login script (or the login scripts of selected users) to run *Discovery.exe* with the desired options. See the sample login scripts below:

- Audit users' archive and shared folders, and export to *%TEMP%*:

```
@\\127.0.0.1\Pre-Migration Discovery\Discovery.exe -a -s
```

- Audit users' mailbox and proxy rights, and export to the specified files:

```
@\\127.0.0.1\Pre-Migration Discovery\Discovery.exe
  -m \\127.0.0.1\SharedFiles\Mailbox.csv
  -p \\127.0.0.1\SharedFiles\ProxyRights.csv
```

- Force auditing users' archive, mailbox, shared folders and proxy rights — though those have ever been audited:

```
@\\127.0.0.1\Pre-Migration Discovery\Discovery.exe
  -f \\127.0.0.1\SharedFiles\Archive.csv
  -m \\127.0.0.1\SharedFiles\Mailbox.csv
  -s \\127.0.0.1\SharedFiles\SharedFolders.csv
  -p \\127.0.0.1\SharedFiles\ProxyRights.csv
```

The folder **\\127.0.0.1\Pre-Migration Discovery** should be shared to Everyone with a minimum of Read and Right permission.

The folder **\\127.0.0.1\SharedFiles** should be shared to Everyone with Read and Write permission.

- 3 On the Windows terminal, log in to the Novell client. *Discovery.exe* will be running in the background. After the user has logged in to the GroupWise client, the specified CSV file is generated after a period of time that depends on the amount of data. *Discovery.exe* exits automatically.

After completing the procedure above, *Discovery.exe* runs automatically when the end users logon Novell system with the login script configured by ConsoleOne.

To run Discovery.exe minimized

The logon script is:

```
@%<Comspec> /c start /min \\wombatii\discovery\rundisc.bat
```

The contents of *rundisc.bat* are:

```
\\wombatii\discovery\discovery.exe
  -a \\wombatii\discovery\reports\archive.csv
  -m \\wombatii\discovery\reports\mailbox.csv
  -s \\wombatii\discovery\reports\sharedfolders.csv
  -p \\wombatii\discovery\reports\proxyrights.csv
```

Discovery.exe limitations

- *Discovery.exe* cannot export the UserRights with GroupWise client 8.0.0/8.0.2 on Windows Vista or above while auditing shared folders. This is a known issue.
- *Discovery.exe* cannot export the FolderOwner and FolderDirection for shared address books, due to a GroupWise API limitation.
- *Discovery.exe* cannot run with GroupWise client 6.5 on Windows Vista or above. This generates a COM error:

```
System.Runtime.InteropServices.COMException (0x80040154): Retrieving the  
COM class factory for component with CLSID {99C5B7D2-8CF7-40C1-A8E0-  
0EE54FF92AB9} failed due to the following error: 80040154
```

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