

Quest® Migrator for GroupWise 4.7
Quick Start Guide



© 2019 Quest Software Inc.

ALL RIGHTS RESERVED.

This guide contains proprietary information protected by copyright. The software described in this guide is furnished under a software license or nondisclosure agreement. This software may be used or copied only in accordance with the terms of the applicable agreement. No part of this guide may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording for any purpose other than the purchaser's personal use without the written permission of Quest Software Inc.

The information in this document is provided in connection with Quest Software products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of Quest Software products. EXCEPT AS SET FORTH IN THE TERMS AND CONDITIONS AS SPECIFIED IN THE LICENSE AGREEMENT FOR THIS PRODUCT, QUEST SOFTWARE ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL QUEST SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF QUEST SOFTWARE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Quest Software makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Quest Software does not make any commitment to update the information contained in this document.

If you have any questions regarding your potential use of this material, contact:

Quest Software Inc.
Attn: LEGAL Dept.
4 Polaris Way
Aliso Viejo, CA 92656

Refer to our website (www.quest.com) for regional and international office information.


Patents

Quest Software is proud of our advanced technology. Patents and pending patents may apply to this product. For the most current information about applicable patents for this product, please visit our website at www.quest.com/legal.

Trademarks

Quest, the Quest logo, and Join the Innovation are trademarks and registered trademarks of Quest Software Inc. in the U.S.A. and other countries. For a complete list of Quest Software trademarks, please visit our website at www.quest.com/legal. All other trademarks, servicemarks, registered trademarks, and registered servicemarks are the property of their respective owners.

Legend

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

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

Contents

About this guide	4
Other Migrator for GroupWise documentation	4
Product overview	5
The challenges of migration	5
The solution: Quest Migrator for GroupWise	6
Product components	6
System requirements	7
Account permissions and security considerations for migration to a proprietary Exchange target	7
Account permissions for migration to Office 365	9
Requirement specifications	9
Conceptual walkthrough	10
Migration scenarios	12
Migration process overview	13
Necessary pre-migration preparations	13
Migration process (per migration group)	15
Post-migration activities	16
Getting started	17
Product licensing	17
Upgrade considerations	18
Before you install the software	18
Installing Migrator for GroupWise	18
Specifying antivirus software for the Migrator for GroupWise Prerequisites Checker ...	19
Uninstalling Migrator for GroupWise	20
Evaluating Migrator for GroupWise	20
About us	22
Technical support resources	22

About this guide

This *Quick Start Guide* is designed to be 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. This document also includes instructions for downloading and installing the software.

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

- **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 (SSDM) 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.
- **Program Parameters Reference:** Detailed specifications for all of the program parameters (“INI” parameters) that you can use to fine-tune the behavior and performance of Migrator for GroupWise applications.
- **Online Help:** Context-sensitive field definitions and application notes for all of Migrator for GroupWise's component applications.

The Migrator for GroupWise Quick Start Guide, *Pre-Migration Planning Guide*, *Scenarios Guide* and *Administration Guide* are intended for network administrators, consultants, analysts, and any other IT professionals who will install the product, use its administrative tools, or contribute to migration project planning. The *SSDM User Guide* is intended for end users or administrators who will use the Self Service Desktop Migrator component.

To understand the capabilities and typical uses of Migrator for GroupWise, we strongly recommend that all administrators read this entire Quick Start Guide, and the entire *Pre-Migration Planning Guide*, and then browse the *Scenarios Guide* to see which scenario matches or is closest to your own needs and circumstances. These materials are designed both to familiarize you with Migrator for GroupWise features, and to help you devise a migration strategy and a written Migration Plan that suits the needs of your network configuration, your users, any institutional imperatives of your organization, and of course your own preferences.

You may then refer as needed to the Migrator for GroupWise component operating instructions, application notes, and per-screen field notes in the Migrator for GroupWise *Administration Guide*.

Product overview

- [The challenges of migration](#)
- [The solution: Quest Migrator for GroupWise](#)
- [Product components](#)
- [System requirements](#)
- [Conceptual walkthrough](#)
- [Migration scenarios](#)
- [Migration process overview](#)

The challenges of migration

While the benefits of migrating from Novell GroupWise to Microsoft Exchange are well understood, the migration of a large enterprise is typically a complex process that requires careful planning and project management. A high-level summary checklist of necessary tasks can be quite long, and will expose a good number of details that must be addressed for a successful migration. The "choreography" in the sequence, timing, and coordination of tasks is important.

A few products and services are available to help organizations with various pieces of the migration puzzle, but the best solution would be a single coordinated toolkit to provide a comprehensive, project-scale approach to overall migration planning, management, and execution. The component tools and the package as a whole would be versatile enough to accomplish a wide range of migration strategies, and would accommodate these critical project needs:

- **Preservation of valuable information stored on the GroupWise system.** This includes the mail, attachments, calendar appointments, tasks, and so forth stored on the server, and also information such as address books and local stores. Ideally data on the GroupWise server should be moved to the Exchange server while GroupWise local stores should be moved to desktops in Outlook "personal storage" (.pst) format. The migration should have high fidelity and all messages should be reply-able at all times during and after the migration project.
- **Limited user involvement in the migration project.** Users will likely be using a new mail client (Outlook) with the new server, and will need some training. But administrators should be able to perform the migration project with minimal end user involvement.
- **Provisioning of user accounts and distribution lists into Active Directory.** Quest Coexistence Manager for GroupWise (CMG) and Migrator for NDS (separate Quest products) can read GroupWise server data to automatically provision users and groups in Active Directory much more completely than other tools, migrating much GroupWise data into the new AD object records. But these tools do not mail-enable AD security objects, or create Exchange mailboxes, and cannot move GroupWise public distribution lists into AD—all necessary tasks in a migration. Also, any Internet mail aliases that worked in GroupWise must be supported on Exchange.
- **Coexistence of the two systems during migration** (for medium and large enterprises). Small companies may choose to migrate all users together as a single group to avoid having to support coexistence between the GroupWise and Exchange directories through the transition period. But most medium and large companies (more than 400 or so users) will need to provide for some level of directory, email, calendar and free/busy coexistence. Users should be able to email one another, and schedule meetings and accept/decline invitations, without having to know the migration status of other users.

The solution: Quest Migrator for GroupWise

Quest Migrator for GroupWise is a set of coordinated software applications designed to facilitate a variety of migration strategies for organizations moving from Novell GroupWise to an Exchange environment—either to a proprietary Exchange network, or to Office 365.

The Migrator for GroupWise applications are designed to complement other Quest and Microsoft products, to deliver these comprehensive, integrated solutions to the challenges of a GroupWise-to-Exchange migration:

- **Migration of server data:** Migrator for GroupWise migrates mail, appointments, tasks, personal address books, and frequent contacts from the GroupWise environment, and lets you specify the destinations for different data types, either to the Exchange server or to Outlook personal folders (.pst) files.
- **Migration of GroupWise archives:** Migrator for GroupWise can migrate archives from either a central file server or user desktops, to either Outlook .pst files or the Exchange server.
- **User involvement:** Migrator for GroupWise lets an administrator migrate most, or even all, user data with no user involvement whatsoever. In a typical migration scenario, all user data is migrated in batches by an administrator—a hundred or more users migrated at a time, over a series of migration runs.
- **Provisioning:** Migrator for GroupWise extracts user data from the GroupWise server to mail-enable user accounts in Active Directory that were provisioned by Migrator for NDS, which facilitates Exchange-to-GroupWise mail routing for not-yet-migrated users. The batch-migrator component then mailbox-enables the accounts as users are migrated, copies users' GroupWise addresses, aliases and nicknames from GroupWise to Active Directory, and provisions GroupWise personal distribution lists directly into Active Directory.
- **Coexistence:** While Quest CMG Directory Connector can synchronize the two directories, Migrator for GroupWise's Directory Exporter updates the data files that Quest migration programs use to migrate data and convert addresses. Migrator for GroupWise also offers dynamic mail forwarding that automatically sets, updates and removes mail-forwarding rules in user mailboxes, on both servers, to assure correct mail routing throughout the transition.

Migrator for GroupWise, together with Quest Migrator for NDS and CMG Directory Connector, and Outlook deployment tools, can perform or facilitate every administrative task associated with a GroupWise-to-Exchange migration. Other CMG components can facilitate short- or long-term mail and calendar coexistence as well. All Quest programs support operational options that allow great flexibility in devising and implementing a suitable migration strategy to suit most any network configuration, circumstances and preferences.

Meanwhile, the accompanying Quest documentation provides a truly project-scale approach to migration planning and management, with a comprehensive checklist of pre-migration planning topics, and broad-context process instructions that explain how the Quest tools fit into the overall flow of a variety of migration scenarios.

Product components

Migrator for GroupWise contains several related applications, which may be used in various combinations to accomplish a wide range of migration strategies:

- **Directory Exporter:** Extracts user data from the GroupWise directory to build four data files, which provide necessary source data to other Migrator for GroupWise applications.
- **AD Object Merge Tool:** Merges users' GroupWise addresses into AD security objects, to mail-enable the accounts. Also, if the program finds Exchange Contacts for users who also have AD accounts, the program merges some of the Contact attributes into the corresponding accounts, and then deletes the Contacts, to merge the pair into a single mail-enabled security object per user.
- **Addproxy:** Automates the process of setting proxy rights for migrating users. (Used only for administrator-driven batch migrations when resetting users' GroupWise passwords is impractical or otherwise inadvisable.)

- **Administrator-Driven Batch Migrator:** Used by an administrator to provision GroupWise public distribution lists (PDLs) in Active Directory, or to perform various combinations of these tasks for the users specified in a user-list .csv file:
 - Mailbox-enable Exchange accounts.
 - Change the GroupWise passwords for migrating users.
 - Specify users' visibility in the GroupWise directory.
 - Update mail-forwarding rules for groups of migrating users.
 - Migrate users' GroupWise data to Exchange.
 - Provision GroupWise public distribution lists (PDLs) in Active Directory.
- **Admin Account Pool Utility:** Helps an administrator manage a "pool" of Office 365 admin accounts to improve migration throughput to Office 365 within the constraints of Microsoft throttling limitations.
- **Discovery.exe:** 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.
- **Self Service Desktop Migrator:** Used by end users, or by administrators on behalf of end users, to migrate users' GroupWise data to Exchange.
- **Log File Viewer:** Simplifies the viewing and interpretation of Quest program log files, which are generated by most Migrator for GroupWise components to document process errors and warnings.
- **Migrator for GroupWise Prerequisites Checker:** Scans the environment to determine whether it conforms to the system requirements for the Migrator for GroupWise applications. The Migrator for GroupWise Prerequisites Checker looks for required software and settings, connectivity, permissions, and access rights.

System requirements

Account permissions and security considerations for migration to a proprietary Exchange target

This section applies only if you are migrating to a proprietary Exchange target. If you are migrating to Office 365, skip ahead to [Account permissions for migration to Office 365](#).

Different organizations have varying network security standards that determine the number and configuration of user accounts necessary to perform a migration. It is possible to configure a single migration admin account in Active Directory with all the necessary rights in both AD and Exchange to run a full migration. But many organizations prefer, and Quest recommends, not to concentrate so much administrative authority in a single account. The alternative is to configure two separate accounts, each with more restrictive access rights to perform different portions of the overall migration process: one account for access to Active Directory containers and data, and the other for access to Exchange mailboxes. We describe both approaches here.

To divide permissions between two accounts

One account is configured for access to Active Directory containers and objects, corresponding to Migrator for GroupWise's *AD Information* screens. This account must be a domain user account with full access to the target OU. If the contacts will be merged with existing Active Directory user objects, the account must have full control of the OUs/containers where the AD user objects currently reside. This ensures Migrator for GroupWise has sufficient access to properly join to the merged user objects, and prevents the creation of duplicate contacts.

To Set AD Container Permissions in Exchange 2016, 2013, 2010 or Office 365:

Use PowerShell to assign necessary permissions to the AD and Enterprise admins, by this cmdlet:

```
Add-RoleGroupMember 'Organization Management' -member <UserAcct>
```

... where <UserAcct> is the admin's *SecurityPrincipallIdParameter*.

The other account is configured to provide Exchange credentials from Migrator for GroupWise, corresponding to Migrator for GroupWise's *Exchange Information* screens, and must be configured with *Receive As* rights to each mailbox store. To set *Receive As* rights In Exchange 2016, 2013 or 2010, for *all* mail stores:

In PowerShell, type this command:

```
get-mailboxdatabase | add-adpermission -user <username> -extendedrights receive-as
```

Also, for Exchange 2016, 2013 or 2010: This admin account must be configured with remote PowerShell enabled, by this Exchange Shell command:

```
Set-User <alias> -remotepowershellenabled $true
```

... where <alias> is the AD account to which you are granting access.

To combine all necessary permissions in a single account

Remember: This option applies only when migrating to a proprietary Exchange.

The single account will be used to login to the migration workstation and provide the Exchange server credentials and AD credentials as needed. In Active Directory, configure user access to AD containers and data by delegating permissions at the OU level:

- 1 If you don't already have a mailbox-enabled account for this purpose: Create a new AD user in any OU, and **Create an Exchange mailbox** housed on a target Exchange server (where user data will be migrated) for the user.
- 2 Use AD's Delegation of Control Wizard to delegate permissions *for each OU* that Migrator for GroupWise will touch:
 - a On the *Users or Groups* screen: **Add** the user, and click **Next**.
 - b On the *Tasks to Delegate* screen: Click **Create a custom task to delegate**, and click **Next**.
 - c On the *AD Object Type* screen: Select the radio button **Only the following objects in the folder**. Then select (mark checkboxes) **Contact objects**, **Group objects**, and **User Objects**. Finally, mark the checkboxes for both **Create selected objects in this folder** and **Delete selected objects in this folder**, and click **Next**.
 - d On the *Permissions* screen: Mark the **General** checkbox, and then mark the checkboxes for **Read**, **Write** and **Write All Properties**.
- 3 On each Exchange mailbox store to which the users are migrating, the account must be added to the security access control list with at least *Receive As* rights (as described for the two-account option above), and must be mailbox-enabled before any data can be migrated to it.

i **IMPORTANT:** Do *not* establish OU access by simply adding the user to the *Domain Admins* group. It may seem like an easier method to achieve the same results, but *Domain Admins* explicitly denies the *Receive As* right, which is also required (see next step below) for this single-account approach.

i **NOTE:** Exchange cannot send a free/busy query to an external (non-Exchange) server for a not-yet-migrated user who already has an Exchange mailbox. Exchange can direct such queries only to the user's Exchange mailbox. Our scenario procedures therefore do not create users' Exchange mailboxes until just prior to their migration. If you will not configure free/busy coexistence for your transition period, you could create Exchange mailboxes earlier in the process. See the Migrator for GroupWise *Scenarios Guide* for more information.

Account permissions for migration to Office 365

- i** | **IMPORTANT:** When migrating to Office 365, it is particularly important to involve your IT security specialists early in the project planning, to accommodate all of the account permissions and configuration requirements that are unique to the hosted system.

Migrator for GroupWise automatically sets and removes most permissions needed for migration to Office 365. But you must manually set *account impersonation* for a Microsoft- hosted Exchange target. To set account impersonation:

- In Office 365 **Management | Users | Settings**, assign administrator permissions to the admin migration account, and this admin migration account must be granted full access permissions to all mailboxes that you migrate.

- i** | **TIP:** Please do not run the migration immediately after granting full access permissions to the admin migration account, until the permission synchronization, between the Azure AD database and the Exchange Online database, is fully complete.
To make sure the synchronization is complete, click on one of the mailboxes you want to migrate in Outlook, and notice that the folder can be expanded.

- **Also:** The AD admin account must be configured with *Application Impersonation*, by this PowerShell cmdlet:

```
New-ManagementRoleAssignment -Role "ApplicationImpersonation" -User <userid>
```

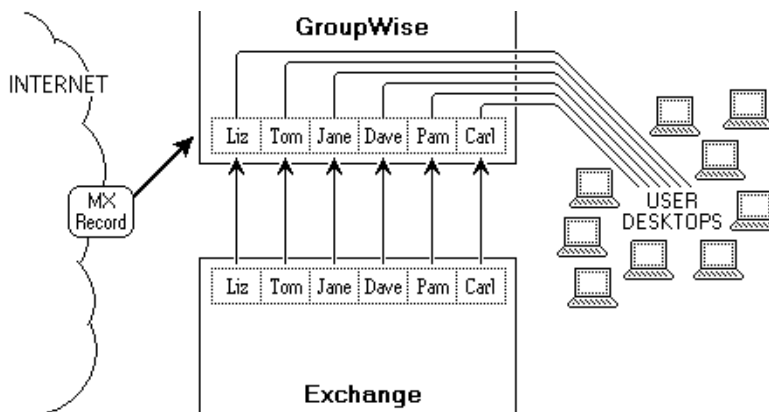
Requirement specifications

Migrator for GroupWise requires certain hardware and software prerequisites on the various machines associated with the overall migration project. These requirements are specified in the most recent RTM *Release Notes* that accompany the product in every release.

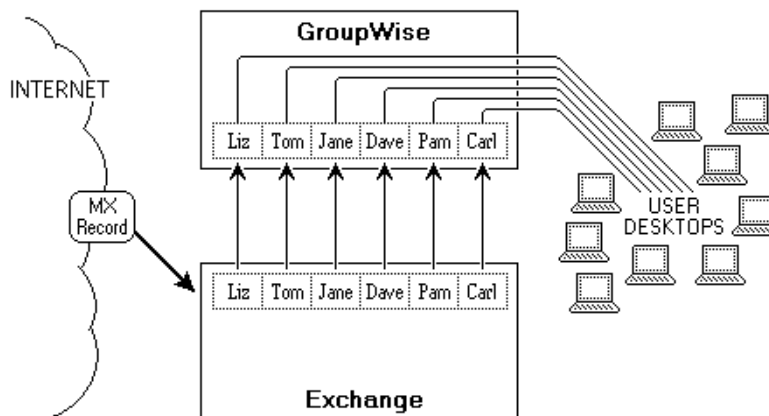
Conceptual walkthrough

In a typical migration to a local, proprietary Exchange environment:

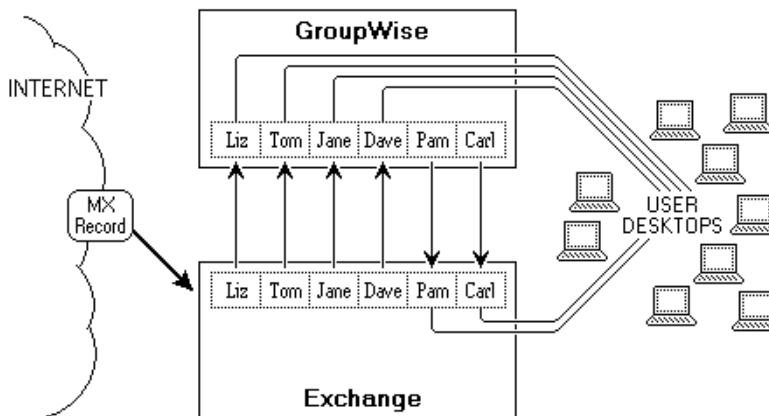
We provision the Active Directory with either Quest CMG or Quest Migrator for NDS (other Quest products, not parts of Migrator for GroupWise), which extracts data from the GroupWise server to create AD user accounts. Migrator for GroupWise's AD Object Merge Tool then mail-enables the new objects by adding users' GroupWise addresses to the AD account records.



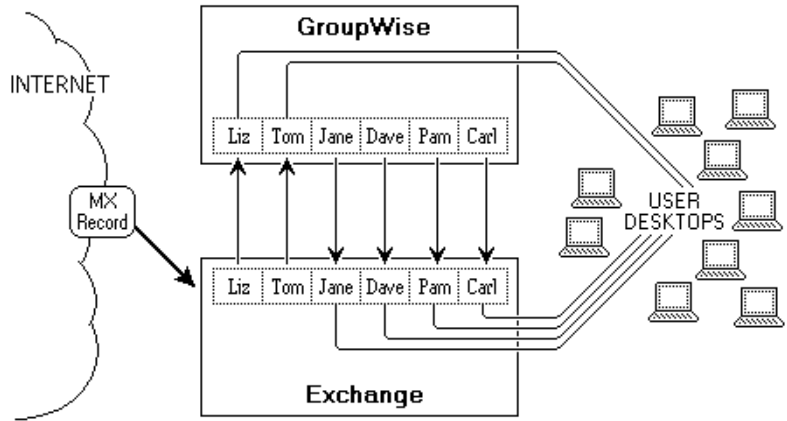
Exchange can then route mail to not-yet-migrated GroupWise users, to facilitate correct delivery of inbound external (Internet) mail to GroupWise users, and also of internal mail from already-migrated Exchange users. The MX record can be switched at any time after the AD accounts are mail-enabled—before, during or after the actual migration.



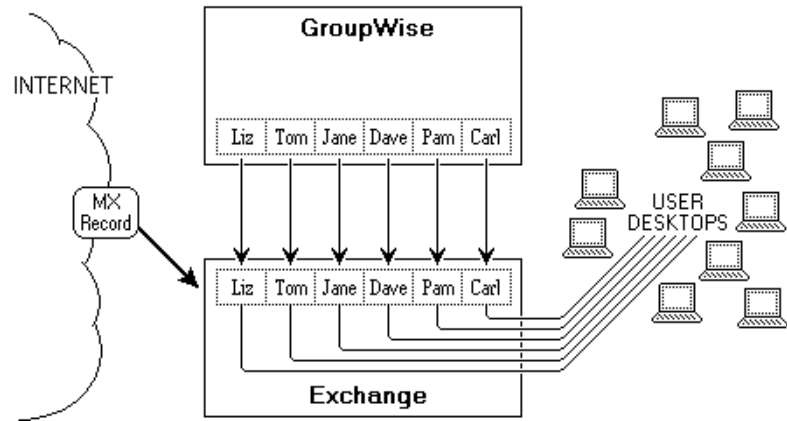
Migrator for GroupWise's Administrator-Driven Batch Migrator program "mailbox-enables" (creates mailboxes for) the Exchange accounts of migrating users, and sets mail-forwarding rules in GroupWise so any mail addressed to an already-migrated user at GroupWise will be forwarded to the user's now-active Exchange mailbox.



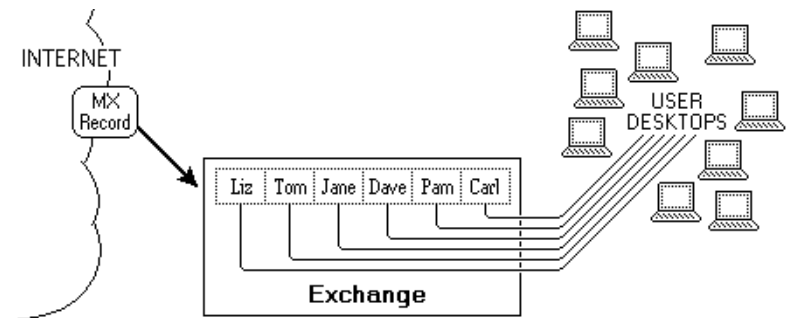
This process repeats as each user group migrates to the new server.



When the last group is migrated to Exchange ...



... the old GroupWise server can be decommissioned.



Migration scenarios

Virtually all migrations follow a similar *basic* process, with variations to accommodate each organization's circumstances and needs—what we collectively call a *scenario*. Your migration scenario determines much of the migration process and your necessary pre-migration preparations, so it is critical to define your scenario at the outset. Most variations to the basic migration process are determined by:

- **Migration Destination** (the Exchange "target" type):
 - **Proprietary local Exchange network**

A *proprietary* Exchange environment is one whose hardware and software are wholly under the control of the migrating organization. Ordinarily this is a local Exchange network—on the same premises as the GroupWise source, or at least near enough to use high-performance network cables for data transfer. But a proprietary Exchange server may reside at a location distant from the source (geographically and/or from a network perspective).
 - **Office 365 ("the cloud")**

Microsoft's Office 365 is a *hosted* Exchange platform (also known as "the cloud"). Cloud computing is a service model in which the hardware and software are owned and controlled by a third party (Microsoft). Microsoft then sells, as a service, access to disk space and the Exchange/Outlook software features.
- **Pre-Migration State of Local Active Directory (if any):** Your organization may already have Active Directory running for login and security purposes. Part of the migration process will depend on whether you do have an existing AD and, if so, on the state of any objects already provisioned in the local AD.
 - **If migrating to proprietary Exchange:** Do you already have Active Directory configured and, if so, in what state are any previously provisioned objects? (If the objects exist, are they already mail-enabled, mailbox-enabled, or neither?)
 - **If migrating to hosted Exchange:** Will you maintain a local Active Directory—either temporarily to provision the hosted AD, or permanently? (One popular option is to provision first to a local AD, which can then be synchronized to the cloud platform.) Or will the cloud AD be provisioned directly from GroupWise? Does the hosting organization have certain provisioning requirements or procedures?

Different combinations of target types and states of an existing local AD (if any) produce an array of migration scenarios. The scenarios listed below cover almost all variations to a GroupWise-to-Exchange migration, and the Migrator for GroupWise *Scenarios Guide* describes them all, with suggested process instructions:

- **Migration to Proprietary Exchange:**
 - No objects yet exist in Active Directory
 - AD objects exist, but are not mail-enabled or mailbox-enabled
 - Offline migration—to proprietary but non-local Exchange
- **Migration to Office 365:**
 - Provisioning O365 from local AD
 - Provisioning O365 without local AD

The *Scenarios Guide* also describes three special-case scenarios, any of which would occur in combination with one of the above-listed scenarios:

- **Offline Migration:** A proprietary Exchange server may reside at a physical location distant from the source environment (geographically and/or from a network perspective). An *offline migration* is a two-phase migration strategy in which the GroupWise source data is migrated first to a nearby intermediate storage medium, which can be physically transported to another location where you have a more favorable bandwidth connection to the Exchange server. The data is then migrated from the intermediate medium into Exchange.
- **Phase (Staged) Migration:** A phased-migration approach is a strategy by which users remain on the GroupWise server(s) throughout most of the transition period, receiving and sending mail and managing

their calendars in GroupWise just as they always have, while their oldest data (90-95% or even more of the total) is migrated to the new Exchange environment. After the older data has been migrated, the proportionately smaller volume of data remaining can be migrated relatively quickly, so that larger numbers of users can be migrated together within a shorter window, typically in one final cutover weekend.

- **SSDM Silent Mode Migration:** The Migrator for GroupWise Self Service Desktop Migrator (SSDM) offers a *Silent Mode* configuration, commonly used to minimize end user involvement when SSDM is deployed, but while maintaining the flexibility and other benefits of a distributed migration.

Migration process overview

- [Necessary pre-migration preparations](#)
- [Migration process \(per migration group\)](#)
- [Post-migration activities](#)

i | **NOTE:** This brief narrative is not meant to be a substitute for the detailed step-by-step process instructions in the Migrator for GroupWise *Scenarios Guide*. The material here is intended only to familiarize you with Migrator for GroupWise, and the contexts in which its components are typically used.

This section briefly describes a typical migration scenario using Migrator for GroupWise, to migrate from Novell GroupWise 8.0.0 to a proprietary on-premises Exchange 2010 server. Details of this process appear in chapter 2 of the Migrator for GroupWise *Scenarios Guide*. In this scenario, an administrator performs the migrations for a series of user groups with no user input or interaction.

The approach described here is appropriate for many migrations, but the configuration, circumstances and preferences of different sites often dictate variations to this process. Migrator for GroupWise also supports migrations to Microsoft's Office 365. Migrator for GroupWise also includes a per-desktop migration tool that can be used by end users, or by administrators acting on behalf of end users. Meanwhile, Migrator for GroupWise also supports offline migrations (two-phase migrations to remote Exchange servers). Migrator for GroupWise product components offer plenty of operational options that allow great flexibility in devising and implementing a broad range of migration strategies for all of these migration destinations and circumstances. The Migrator for GroupWise *Scenarios Guide* explains how to approach and execute a migration in any of the most common scenarios and variations. For information and help with other scenarios, contact your Quest sales representative.

Necessary pre-migration preparations

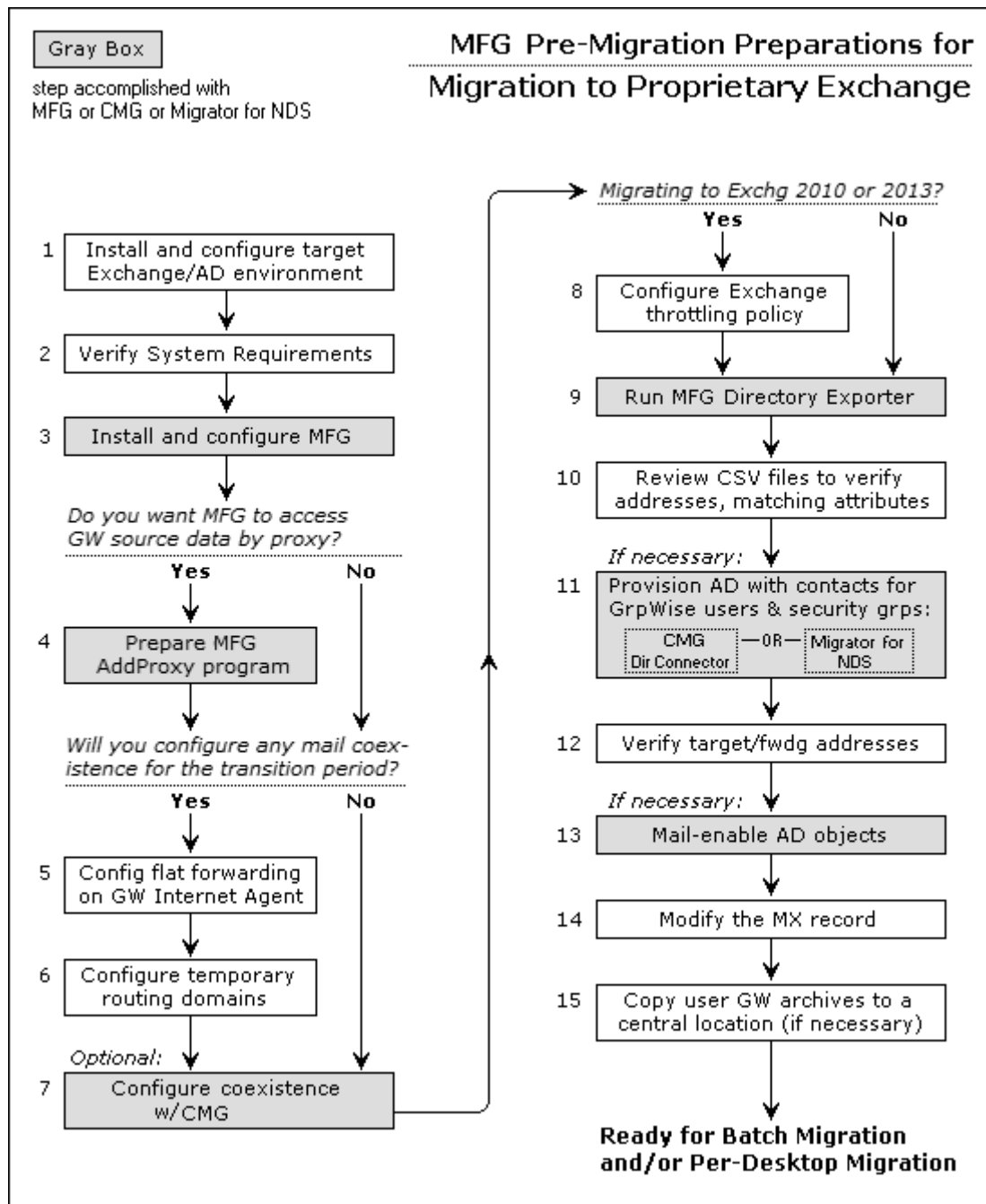
The pre-migration process for this scenario is illustrated in the accompanying flow chart (next page).

The process begins with existing user accounts and mailboxes on a GroupWise server. The destination Exchange server is set up on another machine and the migration process will require admin accounts on both servers. In this scenario we will use Quest Coexistence Manager for GroupWise (CMG) to facilitate directory, email and free/busy coexistence during the transition period. Microsoft Outlook is installed on users' desktops. And of course the Migrator for GroupWise software must be installed on the admin's migration server.

Migrator for GroupWise will access GroupWise user data as a GroupWise Trusted Application (see chapter 3 of the *Migrator for GroupWise Pre-Migration Planning Guide*), so we skip the step for preparing Migrator for GroupWise's AddProxy program.

Users in this scenario will migrate in a series of groups, over a period of several weeks, and want to continue using their calendar features throughout the transition period. We therefore install and configure the Quest CMG connectors for email routing, calendar free/busy queries, and directory synchronizations throughout the transition period.

We run Migrator for GroupWise's Directory Exporter to read the GroupWise directory data and generate the data files required by other Quest applications. Next we install and run Quest Migrator for NDS to provision Active Directory with user and group data from NDS. And then we run Migrator for GroupWise's AD Object Merge Tool, which reads one of the Directory Exporter's data files to merge users' GroupWise addresses into the AD objects provisioned by Quest Migrator for NDS, thus mail-enabling the objects. If the AD Object Merge Tool finds any



Exchange contacts for users who also have AD accounts, the program merges the contact information into the corresponding accounts, and then deletes the contacts, to consolidate each such pair into a single mail-enabled security object per user.

This process does not create mailboxes *per se*, but rather provisions new objects in Active Directory as mail-enabled accounts—associating users' existing GroupWise addresses with their AD accounts to make mail routing possible. The new AD objects are said to be *mail-enabled* because Exchange can receive inbound (Internet) mail addressed to these users and immediately route it to the corresponding GroupWise mailboxes. Now that we have created mail-enabled AD accounts for all GroupWise users, we modify the MX record to direct external (Internet) mail to the Exchange environment.

Before the first users are migrated, we use a text editor to change a parameter in the *gwmigapp.ini* file so that a later directory synchronization will work properly.

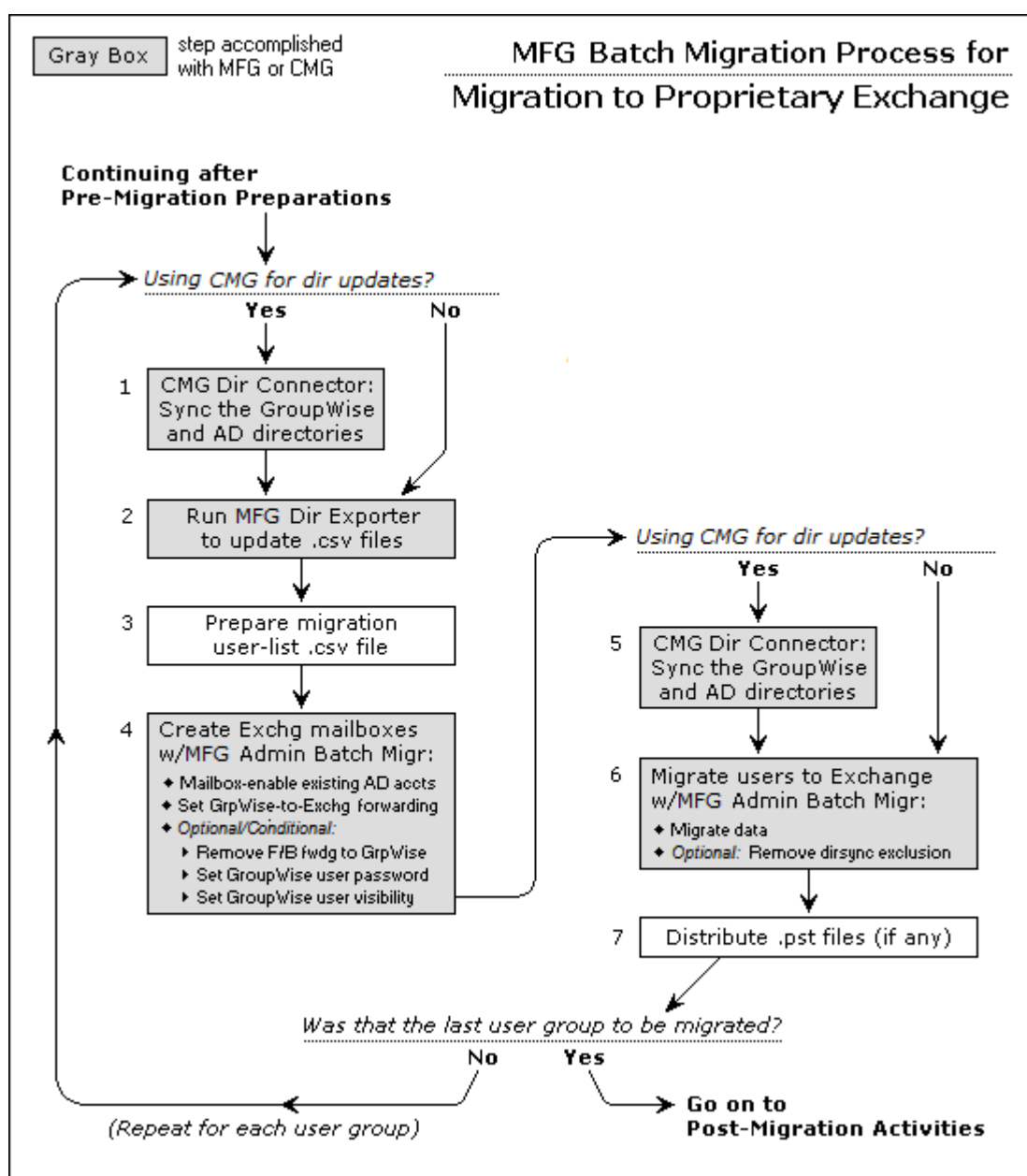
Migration process (per migration group)

Most organizations migrate their users in a series of groups over a period of days, weeks or even months. In this scenario, an admin performs the migrations for groups of users by changing their GroupWise passwords to a common value for access to their source accounts. All of the tasks and conditions noted in the preceding section are prerequisites to the migration of the first user group.

This process is illustrated in the flow chart below.

Our project includes directory coexistence by Quest CMG, and our organization has hired six new people since the last run of the Directory Exporter. We therefore perform two updating tasks before we begin migrating user data:

- We run the CMG Directory Connector to re-update the directories, from GroupWise to Exchange.
- We re-run Migrator for GroupWise's Directory Exporter to update the .csv files that the Admin-Driven Batch Migrator will read to perform its functions.



Next, we define the current migration group in a .csv file. We copy *UsersToMigrate.csv* (generated by Directory Exporter) to another filename, and then edit the copy (in Microsoft Excel) to remove the users who will *not* be in this group.

We then run Migrator for GroupWise's Admin-Driven Batch Migrator for the users in the .csv file, to:

- Mailbox-enable the previously mail-enabled Exchange accounts (effectively creating the users' Exchange mailboxes);
- Reset GroupWise passwords to a known value (so the program can access users' data files);
- Set users' visibility to **None** in the GroupWise directory (to prevent migration and synchronization of duplicates in AD and NDS); and
- Set mail-forwarding rules for the migrating users, from their old GroupWise mailboxes to their new mailboxes on the Exchange server.

Next we run CMG's Directory Connector again to perform a reverse synchronization of the two directories, from Exchange back to GroupWise. And then we run Migrator for GroupWise's Admin-Driven Batch Migrator a second time to migrate user data from GroupWise to the Exchange environment.

Finally, if the program migrates any data to Outlook Personal Folder (.pst) files, we must either distribute the newly created .pst files to users' desktops, or notify users of the locations of their new .pst files, so each user can specify the location in his or her own desktop copy of Outlook.

This process, beginning with the re-run of the directory synchronization and the Directory Exporter (if necessary), is repeated for each group of migrating users.

Post-migration activities

When all the users have been migrated, we run the Batch Migrator program once more to copy GroupWise public distribution lists (PDLs) to Active Directory, where they are provisioned as AD distribution groups. (PDLs are typically provisioned separately, after users are migrated in the batch-migration process.)

Finally, we verify that the old GroupWise server is idle (no longer processing any mail traffic), and then delete the temporary *migrate.domain.com* domain, and decommissions the GroupWise server.

Getting started

- [Product licensing](#)
- [Upgrade considerations](#)
- [Before you install the software](#)
- [Installing Migrator for GroupWise](#)
- [Uninstalling Migrator for GroupWise](#)
- [Evaluating Migrator for GroupWise](#)

Product licensing

Quest Migrator for GroupWise is a metered-use product that requires the application of a valid license key. Quest sells license keys for particular numbers of users to be migrated. When the limit is reached the software continues to function nominally for users that have already been migrated, but will not migrate additional users. The same license is used for all product functions for a particular user. That is, when any feature of any Migrator for GroupWise component is applied to a particular user, then all features of all components can be applied to the same user under the same license. Moreover, users can be re-migrated (if necessary) using the original license; remigration does not require an additional license.

You can obtain your first or a subsequent license key by contacting a Quest sales representative. For either a trial or perpetual license, the key takes the form of a file *GroupWiseMgrEX_4-###-#####.asc* (where *###-#####* represents your unique license number) attached to an email sent to you from Quest Licensing.

The product will install without a license key, but will prompt you to apply a license key the first time you try to run the software. You will be prompted to find and specify the license key file that Quest provided.

To install a Migrator for GroupWise license key (or upgrade/extend an existing license key):

- 1 Copy to your Desktop, or to some other convenient location, the license file (*GroupWiseMgrEX_4-###-#####.asc*) sent to you by email from Quest Licensing.
- 2 If you have not yet installed Quest Migrator for GroupWise, run the *Setup* program to install the software.
- 3 Once the software is installed, run the *Admin-Driven Batch Migrator* program. The *Welcome* screen shows any previously installed licenses. To install a new license (or upgrade/extend a previously installed license), click **Update your license**.
- 4 In the *License Update* dialog box, use the **Browse** feature to locate and specify the Quest license file you want to install. Select the file in the list, and click **OK**.

The program returns to the *Welcome* screen after you enter the new license information.

About Evaluation (or Trial) Licenses

An Evaluation (or Trial) License is intended to let you try the Migrator for GroupWise software in your own environment, with your own data, to help you determine whether Migrator for GroupWise's capabilities are suitable to your needs. Under an Evaluation/Trial license, therefore, the program stamps a "*MIGRATION EVALUATION*" prefix into the *Subject* of every migrated message, and also imposes these limitations:

- Calendar items more than two weeks into the future are not migrated.

- When migrating personal address books, only five contacts and five groups are migrated per PAB.

Upgrade considerations

Upgrading from Migrator for GroupWise 4.x to 4.7

There is no need to uninstall a previous 4.x version before installing a new version. The upgrade installation and setup from a 4.x version are fully automated, and will preserve any data already migrated, so you may simply resume the migration process from wherever you left off with the previous version.

Upgrading from Migrator for GroupWise 3.x to 4.7

There is no direct upgrade path from Migrator for GroupWise 3.x to Migrator for GroupWise 4.7. To upgrade from 3.x to 4.7 you must:

- 1 Uninstall Migrator for GroupWise 3.x. Use Windows' *Add/Remove Programs* feature in the Control Panel.
- 2 Install Migrator for GroupWise 4.7 (see [Installing Migrator for GroupWise](#) below).

This will rebuild the Migrator for GroupWise Address Translation Table, but will preserve the program's configuration and .csv files.

i | **IMPORTANT:** If upgrading from any version of this product earlier than 4.5, you must also contact a Quest Software sales representative to request a new license key, due to the product name change that became effective with version 4.5.0.

Before you install the software

For Migrator for GroupWise to work correctly with the GroupWise and Outlook software, the non-Quest applications should be installed on the administrator's migration server in the order as specified in the [Requirement specifications](#) above. If these applications are already installed before you install the Quest software, and you then experience problems accessing GroupWise address books, the most likely cause will be the installation sequence. To solve the problem, uninstall these other applications and then reinstall them in the order specified above.

Installing Migrator for GroupWise

To Install Migrator for GroupWise:

- 1 Download the *Migrator for GroupWise* zip folder from the Quest.com website, and extract all files into an installation folder. Then run **Autorun.exe** from the installation folder.
Or: You could instead simply insert a Migrator for GroupWise product CD/DVD, which runs the *Autorun* utility automatically.
Windows then launches the *Autorun* utility, where you can browse product information including the **Prerequisites** and all Migrator for GroupWise **Documentation** before installing the product.
- 2 Verify that your environment conforms to the [System requirements](#) specified in the Migrator for GroupWise Quick Start Guide. Several of the required third-party components may be downloaded from links on the *Autorun* **Prerequisites** tab.
- 3 When you are ready to install, select the *Autorun* **Install** tab.
- 4 Select the *Quest Migrator for GroupWise* product name, and click **Next**.

- 5 Review the *Welcome* screen and click **Next**.
- 6 Follow the remaining instructions and prompts in the Migrator for GroupWise Installer.

The last screen of the Migrator for GroupWise Installer includes a checkbox that lets you (optionally) launch Migrator for GroupWise's Prerequisites Checker upon exiting the program Installer (check either, or neither, but not both):

Launch the Prerequisite Checker when setup exits:
 For On-premises Exchange Target.
 For Migration to Office 365.

Mark the appropriate checkbox if you want to run the wizard (recommended). If your migration server is configured with an antivirus product other than:

System Center Endpoint Protection • Avast!
 AVG Antivirus • Symantec Antivirus

... see [Specifying antivirus software for the Migrator for GroupWise Prerequisites Checker](#) below for information about how to specify an alternate antivirus checker.

i **NOTE:** The checker can also be run independently from your Windows **Start** menu, in the **Quest | Migrator for GroupWise** group. The Prerequisites Checker log file is written to `%SystemDrive%\ProgramData\Quest\`.

- 7 Click **Finish** from the last screen to complete the installation.

The Migrator for GroupWise Installer then exits. If you marked the checkbox for the Prerequisites Checker, that wizard will now run (see [Specifying antivirus software for the Migrator for GroupWise Prerequisites Checker](#) below). If you have not marked that checkbox, the Migrator for GroupWise Installer returns you to the *Autorun* utility, on the **Install** tab.

- 8 If you like, you may browse the other *Autorun* tabs.
- 9 When you are finished browsing other *Autorun* tabs, click the **Close** box (**[X]**) in the top-right corner of the window) to close the *Autorun* utility.

Specifying antivirus software for the Migrator for GroupWise Prerequisites Checker

Among other tests, the Prerequisites Checker will test the status of any antivirus software that may be running on the migration server. The wizard is configured to look for four popular antivirus products: System Center Endpoint Protection, Avast!, AVG Antivirus, and Symantec Antivirus. If you use another antivirus product, you can tell the Prerequisites Checker to add it to the list (to be checked) by adding it to the wizard's configuration file (`\Prerequisite Checker\ConfigFile\CheckerManager.config`, in the MFG installation folder). To do this:

- 1 Open the *CheckerManager.config* configuration file in a text editor.
- 2 Find `<Section Name="AVSChecker">` in *CheckerManager.config*.
- 3 Within the *AVSChecker* section, find these parameters:
 - `<Key Name="ProgramNames" ...>` lists the names of antivirus programs the wizard will check, separated by semicolons (;). The names will appear in the wizard's results exactly as they are listed here.
 - `<Key Name="ProcessNames" ...>` lists the names of antivirus program processes that are associated with the *ProgramNames* listed above, separated by semicolons (;).
- 4 Add the name of your additional antivirus program to the `<Key Name="ProgramNames" ...>` list.
- 5 Add the name of its corresponding process to the `<Key Name="ProcessNames" ...>` list. **Important:** The *ProcessNames* in this list must appear in the same order as their associated *ProgramNames* in the *ProgramNames* list above. The wizard associates the first *ProcessName* in the list with the first *ProgramName*, and associates the second with the second, and the third with the third, etc.

- 6 Save and close the *CheckerManager.config* configuration file.

For example, the default configuration appears like this:

```
<Section Name="AVSChecker">
...
<Key Name="ProgramNames" Value="System Center Endpoint Protection;
Avast!;AVG AntiVirus;Symantec Antivirus" />
<Key Name="ProcessNames" Value="mssecex;AvastSvc;avgwdsvc;SMC" />
```

Uninstalling Migrator for GroupWise

To uninstall Migrator for GroupWise:

- 1 From your Windows **Start** button, select **Settings | Control Panel**.
- 2 Double-click **Add/Remove Programs**.
- 3 Select **Migrator for GroupWise** and click **Remove**.

Evaluating Migrator for GroupWise

If you have installed Migrator for GroupWise with an Evaluation License, you can now perform a migration with a small representative sampling of your actual data, to see how these tools would work for you.

- i** **NOTE:** An Evaluation (or Trial) License is intended to let you try the Migrator for GroupWise software in your own environment, with your own data, to help you determine whether Migrator for GroupWise's capabilities are suitable to your needs. Under an Evaluation/Trial license, therefore, the program stamps a "MIGRATION EVALUATION" prefix into the *Subject* of every migrated message, and also imposes these limitations:
- Calendar items more than two weeks into the future are not migrated.
 - When migrating personal address books, only five contacts and five groups are migrated per PAB.

These instructions will guide you through an actual migration for a comparatively small volume of data. Migrator for GroupWise does not change or delete any data within the GroupWise system. It is safe to use a portion of your production GroupWise environment for your evaluation.

To perform an evaluation migration

- 1 In your Exchange Active Directory, create a new account for each user you intend to migrate in this evaluation run. (For simplicity in this evaluation, most administrators migrate only themselves, or only two or three users.)
- 2 Start Migrator for GroupWise Directory Exporter, from the Migrator for GroupWise **Start** menu.
- 3 Supply the GWIA server details and the login information as requested. On the GroupWise System Information screen, be sure to enter the GroupWise (not Novell) Admin user id and Admin password.
- 4 On the Directory Exporter *Finished* screen: Note the directory locations for the .csv data files:
 - *AddressTranslation.csv*: by default in *Program Files\Quest\Migrator for GroupWise\Shared* for a 32-bit OS, or *Program Files (x86)\Quest\Migrator for GroupWise\Shared* for a 64-bit OS
 - *UsersToMigrate.csv*: by default 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
- 5 In the directory identified in the previous step, copy the *UsersToMigrate.csv* file to *Migrun1.csv*. This file contains a list of all the users in the GroupWise directory.

- 6 Use Excel or another program to open *Migrun1.csv* and:
 - a Delete the lines for users you do not want to migrate in the evaluation. (The table should contain only users who are defined in Active Directory, as in step 1 above.)
 - b Add a *Password* column to the table, and add the users' GroupWise passwords to this column.
 - c Be sure to save the file in .csv format.
- 7 Run Administrator-Driven Batch Migrator from the Migrator for GroupWise **Start** menu.

The instructions from the next step forward cover the most common usage, for migration to a proprietary, local Exchange system, but you may select alternate options. See your Migrator for GroupWise *Scenarios Guide* for more information about other scenarios.

- 8 Select Operations: Select only the **Migrate users** option.
- 9 Specify Users for Update: Specify the user-list input file you created and modified above: *Migrun1.csv*.
- 10 Specify Data for Migration: Mark all of the checkbox options. Leave the **File contacts as ...** option set to its default: Use current display name.
- 11 Select Date and Size Filters: Migrate all messages with no date filtering, and all attachments with no size filtering.
- 12 Specify GroupWise Information: Specify the GroupWise root directory that contains your users' archives.
- 13 Specify GroupWise Login Information: Mark the **Use user password(s)** option.
- 14 Select Destinations for Migrated Data: Use the drop-down list boxes to specify where you want each type of migrated items to be stored: in a .pst file, or in a server-based mailbox.
- 15 Specify How to Migrate Shared Information: Select the Migrate a separate copy option for both Shared Folders and Shared Address Books.
- 16 Select Destination Exchange Server: Specify the Exchange profile to be used for this migration. (This is the Exchange profile that has "Receive As" permissions to the mail store.)
- 17 Specify PST Output Root Directory: Select Subdirectories of root directory..., and then specify a PST output root directory. The program will place its generated .pst files into this directory for each user in *Migrun1.csv*.
- 18 Specify GroupWise Domain Path: Specify the file system path to your GroupWise domain file *wdomain.db*.
- 19 Specify Run Information: Specify the directory you would like the program to use for its reports and log files, and enter *Migrun1* as the **Migration run name**. Keep the default value for the **Number of migration threads**.
- 20 Confirm your settings and start the migration.
- 21 When the migration completes, configure Outlook to access the new .pst files, and you can view the migrated data.

If you need any help with the evaluation process, please visit our Support Portal at <https://support.quest.com/> for extensive troubleshooting information, and answers to frequently asked questions. Our Support Portal also lets you request more personalized assistance from Quest Technical Support.

Quest provides software solutions for the rapidly-changing world of enterprise IT. We help simplify the challenges caused by data explosion, cloud expansion, hybrid datacenters, security threats, and regulatory requirements. We are a global provider to 130,000 companies across 100 countries, including 95% of the Fortune 500 and 90% of the Global 1000. Since 1987, we have built a portfolio of solutions that now includes database management, data protection, identity and access management, Microsoft platform management, and unified endpoint management. With Quest, organizations spend less time on IT administration and more time on business innovation. For more information, visit www.quest.com.

Technical support resources

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

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

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