Quest®
Migration Manager  8.8
for Exchange
User Guide
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About This Guide

Overview

This document has been prepared to assist you in becoming familiar with Quest Migration Manager for Exchange. This User Guide contains the information required to configure and use the product. It is intended for network administrators, consultants, analysts, and any other IT professionals using the product.

Conventions

In order to help you get the most out of this guide, we have used specific formatting conventions. These conventions apply to procedures, icons, keystrokes and cross-references.

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>CONVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select</td>
<td>This word refers to actions such as choosing or highlighting various interface elements, such as files and radio buttons.</td>
</tr>
<tr>
<td>Bolded text</td>
<td>Interface elements that appear in Quest products, such as menus and commands.</td>
</tr>
<tr>
<td><em>Italic text</em></td>
<td>Used for comments.</td>
</tr>
<tr>
<td><strong>Bold Italic text</strong></td>
<td>Introduces a series of procedures.</td>
</tr>
<tr>
<td>Blue text</td>
<td>Indicates a cross-reference. When viewed in Adobe® Acrobat®, this format can be used as a hyperlink.</td>
</tr>
<tr>
<td>!Bell!</td>
<td>Used to highlight additional information pertinent to the process being described.</td>
</tr>
<tr>
<td>!Exclamation mark!</td>
<td>Used to provide Best Practice information. A best practice details the recommended course of action for the best result.</td>
</tr>
<tr>
<td>!Warning!</td>
<td>Used to highlight processes that should be performed with care.</td>
</tr>
<tr>
<td>+</td>
<td>A plus sign between two keystrokes means that you must press them at the same time.</td>
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<tr>
<td></td>
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</table>
Pre-Migration Activities

Preparing Source and Target Environments

Before you start migrating your Exchange data, you should prepare your source and target Exchange environments as explained in the Migration Manager Installation Guide or in other corresponding documents.

Quest Migration Manager requires version 6.5.8190.0 or later of Microsoft Exchange Server MAPI Client and Collaboration Data Objects 1.2.1 to be installed on the computers where Migration Manager agents will run (that is, Exchange 2007 and 2010 Servers and agent hosts) and on the computer where the Migration Manager console will be installed. The MAPI CDO setup package is not available for distribution; for details about obtaining it, please see Microsoft Knowledge Base article 171440.

Registering Source and Target Organizations

Quest Migration Manager for Exchange lets you completely reorganize your messaging system by simultaneously migrating multiple Exchange organizations. To use this capability, before beginning your Exchange migration, register all the affected Exchange organizations in Migration Manager for Exchange.

To begin, use the shortcut menus of the Source Exchange Organizations and Target Exchange Organizations nodes of the management tree. The commands start graphical wizards that guide you through the registration process.
The wizards prompt you to specify the accounts that will be used to connect to the servers where Migration Manager for Exchange components are installed. The accounts you specify should have the appropriate privileges, as detailed in the System Requirements and Access Rights document. The account you specify in each wizard is used by default with all the servers of the registered Exchange organization.

When you add source and target Exchange organizations to the project, you specify the account to enumerate organizations. The account must have Read access in Active Directory (sufficient to read the Exchange configuration).

This account will be set by default as the Exchange account for all the Exchange servers in the registered organization for subsequent migration. If you do not want to change the Exchange account after the organization is registered for each server, grant this account the permissions required for Exchange migration. Refer to the System Requirements and Access Rights document.

To learn how you can use Migration Configuration Analyzer to check the most operation-critical permissions (including listed above), see the Migration Manager for Exchange Resource Kit User Guide.

To learn what steps should be taken to set each of the permissions that are required by the Quest Migration Manager for Exchange, see Appendix C. How to Set the Required Permissions for Exchange Migration of the System Requirements and Access Rights document

If needed, you can modify the connection settings for each of the registered Exchange servers using the General page of the appropriate server’s Properties dialog box.

### Enabling Mail Redirection for the Transition Period

To ensure that users do not lose their mail during the migration period, and to make the migration from one Exchange organization to another smooth, Migration Manager establishes mail redirection between the source and the target Exchange servers.

Accordingly, Migration Manager requires the following:

1. The source and target Exchange organizations must be connected using SMTP connectors; this is explained in the Environment Preparation documents for your particular versions of Exchange, which are included in the Migration Manager documentation.

2. The Directory Synchronization Agent, which is part of the Migration Manager for Active Directory toolset, must be configured to synchronize the Exchange-related portions of the source and target directories; this is detailed in the next section.

### Fine-Tuning Directory Synchronization Agent Options

First, open the Migration Manager for Active Directory console. Expand the node of the appropriate domain pair, and open the properties of the Synchronization node under it.

Go to the Specify Exchange Options step, and select the Apply Exchange options check box.
The Directory Synchronization Agent can create a mailbox for the accounts being synchronized if they do not have mailboxes yet. You can select the Exchange servers and mailbox stores where the mailboxes will be created.

**Target mailbox store**—Specify the mailbox store to mailbox-enable the target account if the source account is mailbox-enabled.

**Source mailbox store**—Specify the mailbox store to mailbox-enable the source account if the target account is mailbox-enabled.

For uninterrupted user collaboration during the migration, users in each source and target Exchange organization should see other users’ mailboxes in their Global Address Lists. That is why two mailboxes, source and target, exist for each user. However, all mail sent to the user should arrive to the mailbox he or she is currently using, no matter which mailbox it was sent to. To achieve this, mail should be automatically forwarded to the currently-used mailbox from the other mailbox.

Direct forwarding to a recipient in another Exchange organization can be done by using the target address property of the mailbox.

For mail redirection purposes, the Directory Synchronization Agent adds the secondary SMTP address to the proxy addresses list of the mailbox-enabled object (attribute: `proxyAddresses`). You can specify the SMTP address templates to create the secondary SMTP addresses that will be applied to the source and target mailbox-enabled objects.

You should analyze your environment for SMTP namespaces and for redirection implement SMTP address templates that are NOT being used.

To forward mail to a recipient in another Exchange organization, the Directory Synchronization Agent populates the target address property (the `targetAddress` attribute) of either the source or target mailbox, depending on which mailbox is currently being used, with the additional SMTP address created for redirection.
**Target SMTP address template**—Specify the SMTP address template for the target accounts so that the target users receive their mail during the synchronization.

**Source SMTP address template**—Specify the SMTP address template for the source accounts so that the source users receive their mail during the synchronization.

If contacts with the same SMTP or X500 address as the synchronized objects already exist in the opposite directory, Migration Manager can merge SMTP and X500 addresses and membership for these objects and delete the corresponding contacts. To use this functionality, select the **Merge objects with corresponding contacts** check box.

### Refreshing Organization Information

After you register the source or target organization, Migration Manager enumerates the administrative groups, servers, and recipient objects of the organization. Information about all Exchange objects of the registered organizations is stored in the Migration Manager database. This information is not updated automatically; you have to refresh it when changes occur.

To refresh the information for any Exchange server, right-click the server in the management tree and select **Refresh** from the shortcut menu.

If you do not need to refresh the entire server (which may take some time), you can simply add new recipients to the Migration Manager configuration database. Right-click a server that holds the recipients that should be added and click **Add Recipients to Database**. In the dialog box that appears, use the search tools to find the recipients you need, and then select them in the **Search results** list and click **OK**.
Managing Agents and Agent Hosts

By default, the best migration performance is achieved when Migration Manager for Exchange agents are installed on the same Exchange servers as the mailboxes and public folders they process. However in some situations, the only way to perform data migration successfully is to use a standalone agent host server instead of the Exchange server.

For detailed information about configuring and using agent hosts for Exchange migration please refer to Appendix C. Using Agent Hosts for Migration Agents in this guide.

Hereafter, when the discussion describes Migration Manager for Exchange agents being installed, run, etc. on the Exchange server, “the Exchange server” denotes either the Exchange server or a standalone agent host server, if configured.

The most convenient way to work with Migration Manager for Exchange agents is to use the Agents Management node in the management treeview. Selecting this node opens a console layout in the right pane with tools for finding, adding, removing and configuring agents. The scope of the Agents Management node is project-wide. For details about filtering agent information, see the Filtering Agents by Job and Collection section below.
Finding Installed Agents

The table at the top of the layout shows all agent hosts that have been registered in the project, whether or not Migration Manager for Exchange agents are installed on those hosts. Select an agent host to view its agents in the list below. Multiple instances are supported for some agent types. In the agent list, additional instances of such agents are marked by a number in parentheses appended to the agent name—for example: Calendar Synchronization Agent (EXCHANGE01)(3).

You can select multiple hosts to list agents installed on all of them; the name of the agent’s host is shown in brackets for each agent in the list.

- After you have enumerated an Exchange organization, all Exchange servers are registered as agent hosts for themselves by default.
- For an Exchange 2010 DAG, one of its CAS servers is automatically selected as the agent host. This is necessary because Exchange directs all mailbox database communication through the CAS server. By relying on the CAS role instead of the MBX role in the case of Exchange 2010, the agent prevents inefficient round-trip communication routes.

Installing and Removing Agents

The recommended way to install and remove agents is to use the following tools in the Actions panel:

- Assign Role
- Revoke Role
- Add Agents for Role
- Repair Agents
The role of an agent host is what it does in the migration: synchronizes calendars, acts as the mail source or target, and so on. The choice of role or roles determines what specialized agents are used on the agent host. Using roles ensures that you do not forget to install required agents or leave behind unnecessary agents when you remove them.

These tools run the Install/Uninstall Agents Wizard for your selection of agent hosts and roles.

You can speed up mail and calendar synchronization by installing multiple instances of the following agents on the same host:

- Mail Source Agent (for the mail source role)
- Mail Target Agent (for the mail target role)
- Calendar Synchronization Agent (calendar synchronization role)

Another way to install agents is to use the full Install/Uninstall Agents Wizard out of context, by clicking Tools | Install/Uninstall Agents in the main menu. This gives you the same role management and agent maintenance tools, and lets you register new agent hosts.

**Performing Agent Host-Specific Tasks**

When one or more agent hosts are selected in the list, the Actions panel contains a collection of tools that apply to the hosts (such as refreshing the agent status) or all of their agents at once (such as starting or stopping the agents). The same tools are available from the shortcut menu for the selection of agent hosts.

**Performing Agent-Specific Tasks**

When one or more agents are selected in the bottom list, the Actions panel contains a collection of tools that apply to these agents. The same tools are available from the shortcut menu for the selection of agents.

**Viewing the Agent Log**

The log for an agent can be shown below the agent list. Select an agent, and use the Show Log Panel/Hide Log Panel and Refresh Log commands in the Actions panel.

If you want the log to be refreshed automatically, open the Options dialog box (Tools | Options in the main menu) and configure the settings on the Agent Manager Options page. The same page lets you configure other log panel options, such as word wrapping and automatic scrolling.

**Filtering Agents by Job and Collection**

To manage the agents relevant to a specific job or collection, select the job or collection node in the management treeview, click Agent Manager in the toolbar, and use the console layout that opens in the right pane. This layout is identical to the one available from the Agents Management node, except the following differences:

- The agent host list shows only those hosts that are involved in the selected job.
- The agent list (under the agent host list) shows only those agents that are relevant to the job.

If you want to find out what other agents are installed on an agent host in the list, see the **Installed Agents** column, which shows the abbreviated types of all agents installed on the host.

### Specifying the License Server

Migration Manager for Exchange uses a distributed architecture. The agents obtain all license information from a single license server that you can specify in the **License** page of the **Options** dialog box. By default a server on which Migration Manager is installed is used as the license server.

⚠️ The **Remote Registry** service must be started on the license server.
Migration Process

Understanding Migration Tasks

The Exchange migration process includes the following migration tasks:

Public folder synchronization—Exact replicas of public folders are created and maintained on the target Exchange servers. This enables users who have been migrated to the target Exchange organization to access up-to-date public folder information.

Mailbox migration—Each user’s mailbox content is gradually transferred to the new Exchange mailbox. After a user’s new mailbox is an exact replica of the source mailbox,
the user can be switched to the target server. Once the mailbox is switched, the user’s Microsoft Outlook client profile is updated.

**Calendar synchronization**—Migration Manager synchronizes the personal Calendar folders of the migrated mailboxes, including scheduled meetings and appointments.

**Free/busy synchronization**—Free/busy information is synchronized between the source and target Exchange organizations. This lets the users of both the source and target organizations schedule meetings and view each other’s free/busy information.

To make Migration Manager for Exchange perform these tasks, you should set up synchronization jobs. While setting up the synchronization jobs, you are prompted to install the appropriate synchronization agents on the selected servers. Each agent can perform several synchronization jobs. The agents perform synchronization and migration tasks in parallel.

**Public Folder Synchronization Process**

Before the users are migrated to the new environment, you need to copy the contents of the public folders to the new servers. This will ensure that the first migrated user will access up-to-date public folder information.

Migration Manager for Exchange can synchronize public folders in two directions. When a user that is already migrated to the target environment posts a note to a target public folder, the note automatically gets posted to the corresponding source public folder. This lets the users share data throughout the migration process.

Client permissions on public folders are also preserved and synchronized in both environments. Source public folder permissions are automatically translated into the corresponding target public folder permissions.

Migration Manager for Exchange also allows you to reconfigure the structure of your public folders on the fly. You can use this ability to improve the public folder structure in the source and target environments.

**Public Folder Synchronization Job**

Public folder synchronization is performed by public folder synchronization jobs. It is sufficient to set up one job between each pair of Exchange servers on which public folders to be synchronized are hosted.
Because Migration Manager for Exchange can synchronize public folders in both directions, each server can be both a source and target for data at the same time. Accordingly, if two-way public folder synchronization is selected, install the source and target public folder agents and the transmission agent on each server involved in public folder synchronization.

For one-way synchronization, install the Public Folder Source Agent and the Transmission Agent on the source server, and install the Public Folder Target Agent on the target server. These agents are described in further detail below.

**Public Folder Collections**

Migration Manager allows you to fine-tune the public folder synchronization job using public folder collections.

A *collection* is a set of pairs of the source and target folders that will be used as roots of synchronization. Each collection can include several synchronization roots.

A job can handle multiple collections, and each of these collections has its own settings and priority. However, normally you do not need to set up more than one public folder collection.
You can easily exclude a public folder from the collection when you set up a public folder synchronization job or by using the public folder collection's **Properties** dialog box.

**Public Folder Synchronization Agents**

The following public folder synchronization agents are installed on the Exchange servers:

**Public Folder Source Agent**

The Public Folder Source Agent iterates through the folders of the currently processed public folder collection. For each folder under the synchronization root folder, the Public Folder Source Agent queries Exchange for the changes made since the last saved synchronization state. The agent retrieves these changes and puts them into a personal folders (PST) file.

PST files are data files that store your messages and other items on your computer. This file format is used by Microsoft Outlook to store and back up items.

The PST file is compressed and put to a service file (PUB) together with auxiliary information for the target agent.

The Public Folder Source Agent processes the public folder collections in the order of their assigned priorities, starting with the collection having the highest priority.

![](image)

During two-way public folder synchronization, the Public Folder Source Agent installed on the source server performs all of the above actions for the source server, and the Public Folder Source Agent installed on the target server performs the same actions for the target server, using it as a source of information.

**Transmission Agent**

Then the Transmission Agent moves the PUB files created by the Public Folder Source Agent to the target Exchange server. To reduce network load, the agent moves the PUB files with data directly to the destination server.

If public folder data from the server is synchronized with several servers, the Transmission Agent moves data in parallel, using a separate thread for each target server.

**Public Folder Target Agent**

The Public Folder Target Agent processes the incoming PUB files, decompresses their contents, and puts them into the target public folders.

The public folder synchronization agents do not change anything in the synchronized messages and folders; all the message fields (including the sent and received dates and all address fields) and folder properties remain unchanged. The users in both Exchange organizations see the same messages in their public folders.

![](image)

During two-way public folder synchronization, the Public Folder Target Agent installed on the target server performs all of the above actions for the target server, and the Public Folder Target Agent installed on the source server performs the same actions for the source server, using it as a target for public folder data migration.
Mailbox Migration Process

The primary goal of the mailbox migration is to move each user's mailbox content unchanged to the target Exchange mailbox. When the user's mailbox is switched to the target Exchange server, it should be an exact replica of the user's source mailbox. This is achieved by the mailbox synchronization process.

During mailbox synchronization, Migration Manager for Exchange gradually transfers the mail data from the source to the target Exchange servers. All mailbox content, including messages with attachments, contacts, and journal entries, is copied to the target mailboxes.

Mailbox Synchronization Job

Mailbox synchronization is performed as a separate mailbox synchronization job between each pair of the source and target Exchange servers.

To provide minimal stress to the production environment, Migration Manager for Exchange employs the distributed architecture shown in the figure below:

Mailbox Synchronization Collections

To provide flexibility, the mailboxes to be synchronized are grouped into mailbox collections. A mailbox synchronization job may handle multiple collections. Each of these collections has its own priority and settings, including the preferred dates for migrating the collection's mailboxes.

Collections can be populated as follows:

- While setting up a mailbox synchronization job
- While adding a new collection to the mailbox synchronization job
- Based on prepared import lists
- Randomly
Remote Users Collections

One widely-used Microsoft Outlook feature is offline access to a user's mailbox folders. The offline folders (OST) file is stored on a user's computer and keeps a local replica of the corresponding folders in the user's Exchange mailbox. In this document, users who typically work with the offline folder (OST) files and occasionally connect to their Exchange mailboxes are referred to as remote users.

Because each OST file is associated with only one Exchange mailbox and cannot be used with any other mailbox, a user cannot continue using the same OST file with the new mailbox after migration.

Therefore, Migration Manager for Exchange offers the Remote Users Collection feature, which allows for transparent migration for the remote and laptop users. The mailboxes of remote users should be grouped in Remote Users Collections and processed separately from other mailbox collections after the directory synchronization has been completed and before the mailbox synchronization is started. You can create one or several Remote Users Collections depending on the number of remote users.

The mailboxes of a Remote Users Collection are processed only by the Mail Source Agent. While processing these mailboxes, the agent recreates the target mailboxes corresponding to the source mailboxes contained in the Remote Users Collection. Therefore, while a mailbox is being processed by the agent, it is unavailable for the user. Accordingly, it is recommended to schedule processing of Remote Users Collections for off-peak hours when the users normally do not use their mailboxes.

Please refer also to the notes about Remote Users Collections throughout the Mailbox Migration section of this document.

Mailbox Switch

As soon as a user's source and target mailboxes are in sync, the Mail Source Agent can switch the mailbox to the target server. Mailbox switch allows all the Migration Manager for Exchange components to recognize the mailbox as switched and ensures that all new mail now arrives in the user's target mailbox.

Mailbox switch can be done either manually from the console or automatically by the Mail Source Agent. If you choose the latter, you can either schedule the mailbox switch operation for a specified time or have the agent switch each mailbox as soon as it is synchronized. Automatic switch is recommended because it is not subject to human error.

Automatic Mailbox Switch

To switch a mailbox, Mail Source Agent and Mail Target Agent do the following:

- When a source mailbox satisfies the conditions of automatic mailbox switch (as configured on the Workflow page of the Mail Collection Properties dialog), the Mail Source Agent prepares the PRV file with 'ready to switch' flag. This file is sent to the target Exchange server and processed there.
- The Mail Target Agent discovers the 'ready to switch' flag in the PRV file and marks the target mailbox with a special property.
During next session, the Mail Source Agent logs on to the target mailbox and checks whether the target mailbox is already marked with the special property. If so, the source and target mailboxes are considered to be in sync.

When the mailboxes are in sync, the Mail Source Agent modifies the mailbox **targetAddress** property so that all mail coming to the source mailbox is now redirected to the target mailbox.

After the **targetAddress** property is set for the source mailbox, the Mail Source Agent puts a hidden **switch message** into the source mailbox. The switch message contains the information about the corresponding target mailbox and is used for updating client profiles. Refer to the *Client Profiles Updating Utility* document for details.

During the next session, the Mail Source Agent processes the mailbox to make sure all mail is synchronized. All unsynchronized mail will be synchronized during this session.

Finally, the Mail Source Agent marks the mailbox as switched with a special property. The mailbox and calendar synchronization agents recognize a mailbox as switched if this property is set.

**Manual Mailbox Switch**

Mailbox switch can be performed manually using the Migration Manager console, as follows:

1. In the management tree, select the mailbox collection.
2. Select the mailboxes to be switched in the right-hand pane.
3. Right-click the selection and click **Switch Mailboxes** on the shortcut menu.

Remote Users Collections are switched automatically. Manual mailbox switch is impossible for the mailboxes included in a Remote Users Collection.

**Undo Mailbox Switch**

The mail agents do not change or delete anything on the source server. When a mailbox is switched to the target server, new mail arrives only in the target mailbox.

Therefore, any user having problems using the target mailbox can be switched back to the source mailbox by an administrator. To undo a mailbox switch, take the following steps:

1. In the management tree, select the mailbox collection.
2. Select the mailboxes to be switched back in the right-hand pane.
3. Right-click the selection and click **Undo Mailboxes Switch** on the shortcut menu.

If you undo the mailbox switch for a mailbox included in a Remote Users Collection, the Mail Source Agent will remove the previously created corresponding target mailbox and start re-synchronizing that mailbox.

**Mailbox Synchronization Agents**

Mailbox synchronization jobs are performed by the mail agents. The following agents are installed on the source and target Exchange servers:
Mail Source Agent

The Mail Source Agent goes from one mailbox of the currently processed mailbox collection to the next. For each mailbox, it queries Exchange for changes made since the last saved synchronization state and stores these changes in a new PST file.

The PST files are data files that store your messages and other items on your computer. This file format is used by Microsoft Outlook to store and back up items.

The PST file is then compressed and put into a service PRV file with auxiliary information for the Mail Target Agent.

When all mailboxes from the collection are processed, the Mail Source Agent goes back to the first mailbox, whether or not the previous PST file for the mailbox was removed.

It is the Mail Source Agent that switches synchronized mailboxes to the target server. Please see the Mailbox Switch section for details.

The Mail Source Agent processes Remote Users Collections using another algorithm.

Transmission Agent

The Transmission Agent moves the PRV files created by the Mail Source Agent to the target Exchange server. To reduce network load, the agent moves PRV files with data directly to the destination servers.

If mail data from the server is synchronized with several servers, the Transmission Agent uses a separate thread for each target server.

Mail Target Agent

The Mail Target Agent receives the PRV files, decompresses their contents, and puts them into the target mailboxes.

The mail agents do not change anything in the synchronized message; all the message fields (including the sent and received dates and all address fields) remain unchanged. After the switch, a user will have the same messages in his or her target mailbox as in the source mailbox.

Synchronization Specifics in Exchange 2010

How to Avoid Incompatible Mailboxes

An Exchange 2010 server may create unrequested empty mailboxes for mailbox-enabled users that have no mailboxes. This behavior was not present in previous Exchange versions.

The resulting mailboxes are incompatible with Migration Manager and cannot be used by it during Exchange migration. Instead of relying on Exchange to create mailboxes, you should delete such automatically created mailboxes and use mailbox creation settings in your migration project. Mailboxes created by Migration Manager are fully supported.
However, new Exchange 2010 mailboxes should not be deleted indiscriminately, because valid target mailboxes might be deleted in the process. The `ForbidDelMailbox2010` parameter has been introduced to facilitate cleanup.

Previously, the `ForbidDelMailbox` parameter in the mail transfer agent's INI file was the only setting responsible for preserving or removing target mailboxes whose `MailboxInfo` parameter did not match the same parameter in the source mailbox. The `ForbidDelMailbox` parameter is a precaution against the deletion of mailboxes that are in actual use in the target environment. By default, it is set to 1 so that non-matched target mailboxes are not deleted.

The additional `ForbidDelMailbox2010` parameter affects only Exchange 2010 target mailboxes. The following table shows the results of all possible combinations of the values of `ForbidDelMailbox2010` and `ForbidDelMailbox2010` for different Exchange versions:

<table>
<thead>
<tr>
<th>FORBIDDELMAILBOX2010</th>
<th>0</th>
<th>1</th>
<th>0 or 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORBIDDELMAILBOX</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>WHAT HAPPENS IN EXCHANGE 2003–2010</strong></td>
<td>If the mailbox is empty, delete it.</td>
<td>Keep the mailbox.</td>
<td>Delete the mailbox.</td>
</tr>
<tr>
<td>If the mailbox is not empty, keep it.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WHAT HAPPENS IN EXCHANGE 2000</strong></td>
<td>Keep the mailbox.</td>
<td>Keep the mailbox.</td>
<td>Delete the mailbox.</td>
</tr>
</tbody>
</table>

The `ForbidDelMailbox2010` parameter is not included in the mail transfer agent's INI file by default, and its value is assumed to be 0.

**Additional Requirement: Exchange Attendant from Shared Components**

Synchronization of mailboxes that are hosted on Exchange 2010 servers uses the specialized Exchange Attendant component of the Migration Manager suite. During installation of shared components, Exchange Attendant is registered as a service that starts automatically.

**Calendar Synchronization Process**

Real-time calendar synchronization during the Exchange migration period makes the transition transparent to the users. The users communicate as if they were within a single Exchange organization. For example, a user can always schedule a meeting with the users from another organization.

Calendar synchronization is performed as a separate calendar synchronization job between each pair of the source and target servers.
**Calendar Synchronization Job**

A calendar synchronization job is performed by the Calendar Synchronization Agent installed on either the source or target Exchange server.

While setting up a calendar synchronization job, you are prompted to install the Calendar Synchronization Agent on either the source or target Exchange server. The Calendar Synchronization Agent synchronizes the personal Calendar folders of the mailboxes hosted on the source Exchange server with the corresponding Calendar folders of the mailboxes hosted on the target Exchange server.

**Calendar Synchronization Agent**

For each personal Calendar folder, the Calendar Synchronization Agent synchronizes scheduled meetings and appointments as well as the folder permissions. The agent logs on to each source and target mailbox to locate unsynchronized calendar entries and copies them to the corresponding mailbox. The direction of synchronization depends on the type of calendar synchronization collection the mailbox belongs to and the mailbox switch status, as explained in the *Direction of Calendar Synchronization* section below.

The Calendar Synchronization Agent logs on to each source and target mailbox to locate unsynchronized calendar entries and copies them to the corresponding mailbox. This allows all the users in the organizations being migrated to view up-to-date detailed calendar information for other users and resource mailboxes, whether or not a mailbox is already migrated.
Direction of Calendar Synchronization

While synchronizing the permissions of the Calendar folder, the Calendar Synchronization Agent selects the direction of synchronization according to the mailbox switch status and depending whether the synchronization job is one-way or two-way.

One-Way Synchronization

If the mailbox is not switched and the user logs on to the source mailbox, the permissions are synchronized from the source mailbox to the target mailbox only.

If the mailbox is switched and the user logs on to the target mailbox, the Calendar folder permissions are synchronized from the target mailbox to source mailbox only.

Two-Way Synchronization

If the mailbox is not switched, the permissions are synchronized from source to target, and then from target to source.

If the mailbox is already switched, the permissions are synchronized from target to source, and then from source to target.

Calendar Synchronization Collections

To provide flexibility, the mailboxes whose Calendar folders should be synchronized are grouped into calendar synchronization collections. A calendar synchronization job can handle multiple collections. Each of these collections has its own priority and settings, including the preferred dates for migrating the collection’s mailboxes.

Collections can be populated either while setting up a calendar synchronization job; while adding a new collection to the calendar synchronization job; or using the list of mailboxes already added to the mailbox synchronization job set up between the same servers. One more way to populate the calendar synchronization collection is to add mailboxes using the Migration Manager console, as follows:

1. In the right-hand pane, select the mailboxes, groups, or containers to be added to the collection.
2. Right-click the selection, point to Add To, and then select Calendar Collection.
3. Specify the collection in the Add to Calendar Collection dialog box that appears.

Migration Manager for Exchange offers two types of calendar synchronization collections: user mailbox collections and resource mailbox collections. The Calendar Synchronization Agent processes the collections differently depending on their type, as detailed below.

Processing User Mailboxes

The Calendar folders of mailboxes included in user mailbox collections are always processed in one direction only. The direction depends on the mailbox switch status. If a user logs on to the source mailbox (i.e., the mailbox is not yet switched), the agent will always copy only changes made in the source mailbox Calendar folder. If a user logs on to the target mailbox (i.e., the mailbox is switched), the agent will copy only changes made in the target mailbox Calendar folder.
Processing Resource Mailboxes

The Calendar folders of mailboxes included in resource mailbox collections are always processed two ways. Which direction is first depends on the mailbox switch status. If a mailbox is not yet switched, the agent will first copy changes from the source Calendar folder to the target Calendar folder and then copy changes in the other direction. If the mailbox is switched, the agent will first copy the changes made in the target Calendar folder and then the changes made in the source Calendar folder.

Free/Busy Synchronization Process

If the Calendar Synchronization Agent synchronizes calendar information for the mailboxes in your environment, their free/busy information is updated automatically. However, you can explicitly set up free/busy information synchronization so that free/busy information will be synchronized as close to real time as possible and any user will be able to see whether any other user, in the same or another organization, is free or busy. Moreover, if you make the appropriate settings for the free/busy synchronization job, the free/busy synchronization job will create a new free/busy message when a new user is created in the opposite organization. For more information about free/busy synchronization jobs, refer to the Free/Busy Synchronization section of this document.

Free/Busy Synchronization Job

Free/Busy synchronization is performed as a separate free/busy synchronization job between the source and target Exchange organizations.

A free/busy synchronization job is performed by the Free/Busy Synchronization Agent.
While setting up a free/busy synchronization job, you are prompted to install the Free/Busy Synchronization Agent on either the source or target Exchange server.

**Free/Busy Synchronization Agent**

The Free/Busy Synchronization Agent locates the free/busy messages in the entire source organization and synchronizes them with the corresponding target free/busy messages. The free/busy information can be synchronized either one-way or two-ways depending on the settings you make while setting up the free/busy synchronization job.

*Free/busy synchronization is not available for Microsoft Exchange 2007 and Microsoft Outlook 2007, because by default in native Exchange 2007 organizations, free/busy lookups are performed by Availability service. To work around the issue, either force Outlook 2007 to look for Public Folder based Free/Busy information or perform full calendar synchronization.*

**Server Properties and General Options**

This section describes the general settings that affect either all the agents installed on a particular server or all the agents for the entire migration project.

For each server registered in the Migration Manager database, you can specify the connection settings for the associated domain controller and the limitations for the resources used by the agents installed on that server. The **Properties** pages for each server also allow you to see which other servers are involved in any synchronization jobs with that server, and to modify the switch messages sent to the mailboxes of the users whose mailboxes have already been switched.

*It is strongly recommended that you set up the server properties before starting the migration.*

To view or modify general server properties, open the properties dialog box for the server you need under the node of the source or target Exchange organization.

To view or modify server properties related to agents, go to the following locations:

- The **Agents Management** node—properties of all agents by hosting server
- The nodes nested under the **Synchronization Jobs** node—properties of agents by job type

With the necessary node selected in the treeview, find the server you need in the right pane, and open the server's properties.

**General Server Properties**

**Connection**

The **Connection** page displays the name of the server or database availability group (DAG) for which the connection settings are configured. The settings for a DAG, an Exchange server in a DAG and an individual server differ slightly. This is because different synchronization jobs are available in different configurations, as follows:
You can specify the Exchange account used by all of this server’s agents to connect to the server and perform all the actions required for synchronizing the server objects. Please note that this account must:

- Be member of the Administrators built-in group for the domains where the source Exchange organization recipients are located.
- Have Full Control rights for the Exchange organization including Send As and Receive As rights for the Exchange organization.
- Be a Local Administrator of all Exchange servers in the organization.
- Have an Administrator role in the ADAM partition where the migration project is stored.
- If there are cluster Exchange servers in the organization, the account should have Full Control rights for the clusters.

Please see the System Requirements and Access Rights document for details about the Exchange account used by the Migration Manager agents.

This page also allows you to specify the Mailbox Migration Administrator Mailbox and the Public Folder Migration Administrator Mailbox, which are described below.

**Mailbox Migration Administrator Mailbox**

Mailbox and Calendar Synchronization agents access the migrated mailboxes via the specified Administrator Mailbox. By default, the Microsoft System Attendant mailbox is
used as the Administrator Mailbox. It is not recommended to change this setting until either of the following occurs:

- Migration Manager agents fail to log on to the System Attendant Mailbox.
- Migration Manager console cannot commit settings of the synchronization job because of problems enumerating the System Attendant Mailbox.

If the **Specified mailbox** option is selected, the mailbox you specify should be hosted on the same server and must be fully accessible by the Mailbox and Calendar Synchronization agents.

### Public Folder Migration Administrator Mailbox

The Public Folder Migration Administrator Mailbox is used to get administrative access to the server’s public folders. It is the same mailbox that you select when setting up a public folder synchronization job. This mailbox does not need any rights on the public folders for the synchronization. The account that is used by the agent should have full access to the mailbox that is specified here.

Be careful when selecting the administrative mailboxes. Once you start the public folder synchronization process, you should not change the administrative mailboxes; doing so will lead to full resynchronization of public folder contents and might cause other issues.

### Associated Domain Controller

Because Exchange uses Active Directory to store the directory information, Migration Manager for Exchange uses domain controllers (DCs) to enumerate Exchange objects.

Migration Manager associates one DC with each Exchange server when you first register the source and target organization in the database. In some cases, you may need to change a DC associated with the server. For example, you may need to do this if a DC is temporarily unavailable.

The **Associated Domain Controller** page allows you to change the server association as well as the account used to work with Active Directory. The account must have the following rights:

- **Read** access to the domain in which the DC is located
- **Write** access to Active Directory
- **Full Control** on the OU where the proxy objects are stored
- **Full Control** on the OU belonging to the domain where the proxy objects will be created.

If you are working in a multi-domain environment, it is recommended that the associated DC have a copy of Active Directory Global Catalog. This is needed to apply the mailbox and public folder client permissions granted to users migrated to other Active Directory domains.
Default Agent Host

This page lets you specify an agent host—a computer that will host the Migration Manager agents performing the migration workload. By default, agents are installed directly on the participating Exchange servers, but you can change the location of the agents for load balancing or security reasons. For more information about the automatic choice of default agent host, see the Finding Installed Agents section. For general details about agent hosts, see Appendix C.

Agent-Related Server Properties

This section refers to properties of servers shown in the right pane when any of the following nodes is selected in the treeview:

- Agents Management
- Job nodes nested under the Synchronization Jobs node
Collecting Agent Statistics

To collect agent statistics from a server, select the Collect agent statistics from this server check box on the Connection page.

Controlling Resource Usage

For each server, you can specify the amount of disk space (either in megabytes or in a percentage of the total available drive space) that should not be used by the agents working on the server.

You can also specify the memory limit that should not be exceeded by each agent working on a server. We do not recommend changing this parameter unless your environment requires it.

Increasing the memory limit might be required if the agents' performance is slow and you see the following trace message in the log: “The agent’s system memory limit 64000 Kb has been exceeded. Agent will be terminated.” This affects the agents’ performance, so you might want to increase the memory limit if you have enough resources.

Decrease the memory limit if the server is unstable and low on memory. Be very careful with this option. Setting it to a lower value will affect the performance of all the agents. If the memory limit is reduced, we recommend that the PST size limit be set to a lower value, since this will reduce the impact on the performance of the mail and public folder agents.

Be aware that the agents might not even be able to start if the limit is too low. The lowest acceptable value depends on the server. An administrator should carefully test this in the environment to find a value that:

• Will not affect the performance of the agents too much
• Will not load the server memory too much
Enabling Notifications about Mailbox Switches

The Mail Source Agent can send a notification message to each user whose mailbox has been switched. The Switch notification page in the properties of the Mail Source Agent allows you to edit this message and select whether the notification should be sent to the source mailbox, the target mailbox, or both.

Migration Project Options

The settings that are applied to the entire Exchange migration project are all gathered in the Options dialog box. To open this dialog box, click Options on the Tools menu.

Each page of the dialog box is described below.
License Server

Because Migration Manager for Exchange uses a distributed architecture, the agents obtain all license information from a single license server that you can specify in this page. By default, a server on which Migration Manager is installed is used as the license server.

If the agents are running under an account that does not have access to the license server, you can force the agents to establish a Net use connection to the license server by selecting the Net use connection check box and specifying the appropriate credentials.

Please refer to the Licensing section of the Quest Migration Manager Installation Guide for further details.

Advanced Agent Management

For company collaboration that requires languages other than English, Migration Manager supports localized standard mailbox folder names (such as Inbox and Outbox), message subjects, user-created mailbox folder names, and public folder names. The Advanced Agent Management page allows you to specify whether Migration Manager should also create localized log files. In this case, the folder names mentioned in the log will be written correctly using national symbols, but the log file will increase in size up to double the size of its English version.

This page also allows you to select whether the public folders should be created as mail-enabled public folders.

If you force the agents to create mail-enabled public folders, the e-mail addresses of the public folders will not be synchronized and the target mail-enabled public folders will not receive the mail sent to the source public folder e-mail addresses.
Agent Manager Options

Migration Manager for Exchange allows you to manage synchronization agents using the Migration Manager console. To view the list of agents that perform a job, select the job in the management tree and click the Agent Manager button on the Migration Manager toolbar. To view the recent log entries for an agent, right-click the agent in the right pane and select Recent Log Entries from the shortcut menu.

The Agent Manager Options page allows you to fine-tune the refresh options for the information displayed. You can select the time intervals at which Migration Manager will refresh the agent’s list, the agent’s state, and the recent log entries.
Default Synchronization Properties

To set the default properties for the synchronization agents, synchronization jobs, and servers involved in synchronization, you can use the Default Properties dialog box. Instead of opening the properties of each server, job, or agent and modifying them separately, you can set the default properties all on one page. The default settings can be overridden by modifying the properties of a server, job, or an agent directly.

The Default Properties dialog box provides three sets of pages so you can select the default properties for synchronization agents, synchronization jobs, and servers involved in synchronization.

To change the default settings for agents, jobs, or servers, take the following steps:

1. Make your changes on the appropriate set of pages: the Agents pages, the Synchronization Jobs pages, or the Servers pages.
2. Select the check box to apply the properties you set, depending on the set of pages you are changing: the Apply these properties to all instances of the [Agent_name] check box, the Apply these properties to all [job_name] jobs check box, or the Apply these properties to all servers check box.
3. Click OK. Your settings will be applied to all existing agents, jobs, or servers, and to any new agents.

To cancel all changes you have made to the default settings for agents, jobs, or servers, take the following steps:

1. Click the Restore Defaults button.
2. Select the check box to apply the restore operation, depending on the set of pages you are changing: the Apply these properties to all instances of the [Agent_name] check box, the Apply these properties to all [job_name] jobs check box, or the Apply these properties to all servers check box.
3. Click OK. The default settings will be applied to all existing agents, jobs, or servers, and to any additional agents you install.

For detailed information about the default properties that you can set for synchronization agents, jobs, and servers, see the Migration Manager for Exchange online help.

Pre-Installing Agents

In large distributed networks with sites connected by slow links, agent deployment from Migration Manager can take up all available bandwidth and the Migration Manager application might appear to hang.

This happens because Migration Manager has to transfer the agent setup packages to each remote server before it can start installation. The shared components setup (EMWShared.exe) is about 15MB and can take considerable time and bandwidth to be transferred.
Migration Manager for Exchange includes files necessary for creating the installation package to install the Exchange agents on remote Exchange servers. You can create a package of files that can be distributed to remote sites on any removable media, and local site administrators can install the agents before starting the migration process. The package setup creates all necessary folders and shares on servers and copies files to required locations.

The following files are located in the Migration Manager for Exchange installation folder on the console computer (the \%Program Files\%\Quest Software\Migration Manager\Exchange Data folder, by default):

- **makepack.cmd** — creates the installation package on the console computer
- **clnsetup.cmd** — setup file for cluster servers
- **srvsetup.cmd** — setup file for non-cluster servers
- **ccrsetup.cmd** — setup file for Exchange 2007 CCR cluster servers

These batch files allow you to create an installation package that can be then distributed to remote locations without consuming network bandwidth.

These files do not eliminate the need to run the agent installation procedure in Migration Manager; they simply allow the setup files to be copied to the required locations in advance.

**Creating an Installation Package**

*To create a remote agent installation package, take the following steps:*

1. Run **makepack.cmd** from the Migration Manager for Exchange installation folder. By default the installation package is created in the QMMEX Remote Setup Files subfolder of the Migration Manager installation folder, for example, \C:\Program Files\Quest Software\Migration Manager\Exchange Data\QMMEX Remote Setup Files.

2. To change the path to the installation package, provide a new path as a command-line parameter as in the following example:

   ```bash
   makepack.cmd "C:\RemoteSitePack"
   ```

The created installation package contains two folders with the required agent files:

- **Agents** — Folder with agent setup files and hotfixes
- **Rcmd** — Folder with Quest Agent Installer files

The installation package also contains three **.cmd** files:

- **clnsetup.cmd** — Setup file for clusters
- **srvsetup.cmd** — Setup file for non-cluster servers
- **ccrsetup.cmd** — Setup file for Exchange 2007 CCR cluster servers
When running the setup on remote servers, all components are by default copied to a subfolder called Aelita Exchange Migration Wizard, which is created in the %systemroot%\system32 folder. On Microsoft Exchange x64 the default shared folder is created in the %SystemRoot%\SysWOW64 folder. This subfolder is shared as QMMEx$ServerName$. On a non-cluster server this can be changed to the location of other Migration Manager components. Once the files from this installation package are installed, start the desired migration project and work with remote Exchange organizations using Migration Manager.

**Installing Agent Files on a Non-cluster Server**

To install the agent files from the installation package on a non-cluster server, take the following steps:

1. Copy all files from the installation package to a folder on the Exchange server or Directory Synchronization Agent host server.
2. Run srvsetup.cmd. To change the default location of the QMM agent components, specify a new path as a command-line parameter as in the following example:

   ```
   srvsetup.cmd "C:\QMM Components\"
   ```

   The path must end with a backslash. If the path contains spaces, it must be enclosed in quotation marks.

**Installing Agent Files on Cluster Servers**

**Prepare Cluster Servers for Agent File Installation**

Before installing the Exchange agent components on a cluster server in a remote site, you must take the following steps for each Exchange organization that will take part in the migration process:

1. Run Migration Manager from the Start menu.
2. Register the source and target Exchange organizations in Migration Manager if you have not done this yet.
3. For each registered Exchange organization, right-click the Exchange server and select Properties on the shortcut menu. This will open the Properties dialog box.
4. Click OK in the Properties dialog box.
5. When prompted, type the path to the folder on Exchange cluster shared drive in which agent files will be located. After that, Migration Manager will create all necessary folders on the cluster server and share them.
**Install the Agent Files on Cluster Servers**

*To install the agent files on a cluster server, take the following steps:*

1. Copy all files from the installation package to a folder on each cluster node.
2. Run the following command on each active cluster node:
   
   ```cmd
   clnsetup.cmd VEServer
   ```
   
   where *VEServer* is the name of the Virtual Exchange Server running on a cluster node.
3. Run `clnsetup.cmd` without parameters on each passive cluster node.

**Install the Agent Files on Exchange 2007 CCR Cluster Servers**

*To install the agent files on Exchange 2007 CCR cluster server, take the following steps:*

1. Copy all files from the installation package to a folder on each CCR cluster node.
2. Run `ccrsetup.cmd` without parameters on each CCR cluster node. To change the default location of the QMM agent components, you can specify a new path as a command-line parameter as in the following example:
   
   ```cmd
   ccrsetup.cmd "C:\QMM Components\"
   ```
   
   The path must end with a backslash. If the path contains spaces, it must be enclosed in quotation marks.

**Installing the Agents**

Before deciding where to install agents, please read the *Migration Manager Agent Servers* section in the *System Requirements and Access Rights* document carefully. Some configurations are not supported by agents.

After the setup files are copied to the correct locations on the remote servers, run the normal agent installation procedure.

When you initiate agent installation using the console (by running the *Install Agents Wizard* or when setting up a new job), Migration Manager checks whether the setup files exist on the remote server and, if they do, does not transfer them across the network. It only creates the agent services running the setup packages with the necessary parameters.
Public Folder Synchronization

Public folder synchronization should be started before mailbox migration and before calendar and free/busy synchronization. This order of migration allows the users to keep using their public folders during the entire migration period, regardless of which mailbox (source or target) is currently used by the user.

Setting Up a New Public Folder Synchronization Job

To create a new public folder synchronization job, right-click the Public Folders Synchronization node of the console management tree and select the Add Public Folders Synchronization Job option from the shortcut menu.

This will start the Add Public Folders Synchronization Job Wizard that will help you to install the public folder synchronization agents and configure the job.

This section guides you through each step of the wizard and explains the available public folder synchronization options.

Step 1. Select Exchange Servers

The public folder synchronization job is set up between the source and target servers that you select in this step of the wizard.

For both the source and the target server, you should specify an administrative mailbox that will be used by the public folder synchronization agents.
The account under which the public folder synchronization agents are running must have full access to the administrative mailboxes so that they can get administrative access to the synchronized folders.

The path must end with a backslash. If the path contains spaces, it must be enclosed in quotation marks.

Migration Manager will retrieve the public folder hierarchy using the mailboxes you specify. If you are logged on under an account that does not have access to these mailboxes, click Advanced to use an alternate NT account to retrieve the hierarchy.

The wizard will also create the first collection for the job. This first step prompts you for the collection name.

**Step 2. Select Public Folders**

The next step allows you to configure the public folder synchronization collection. Select the root folders to be synchronized. If you don’t want to change the folder hierarchy, the easiest way is to select All Public Folders on both the source and target servers as the synchronization root. Simply select Public Folders in both the Source server box and the Target server box. The wizard will ask if you want to create a Public Folders folder on the target server and synchronize all the source public folders to this folder. Select Yes or No as appropriate.
Alternatively, you can select an existing Exchange folder as a target root folder. If the target root folder does not exist, you can create it by selecting the **Add New Folder** option from the shortcut menu as shown below.

Migration Manager for Exchange does not actually create the public folders. The public folder root will be created by the Public Folder Target Agent when the first PUB file comes from the corresponding source or target public folder.

To add a pair of folders to the collection, select the folders in both lists, set the synchronization direction, and click **Add**. The folders and all their subfolders will be marked as included to the collection.

You can also select the synchronization direction. Click the `<>` button to change the initial source -> target direction of synchronization if necessary.

Once you start the public folder synchronization process, do not change the synchronization roots for any jobs or collections. Changing the selected folder pairs after the synchronization has started might result in duplicate folders in one of the environments.

To exclude a folder from synchronization, right-click the folder in the tree and click **Exclude**. The public folder synchronization agents will not synchronize the content of the folder, but will create it on the corresponding server and synchronize its subfolders, if any.

Click **Exclude PF with subfolders** to exclude from synchronization a folder itself and all its subfolders.
Step 3. Specify Agent Installation Path

The wizard will install the public folder synchronization agents on the source and target Exchange servers. If no Migration Manager for Exchange component has been yet installed on these servers, you will be able to specify the installation path for the agents. As soon as the agents are installed, the QMMEx$ServerName$ shared folder will be created in the path you specified. All the agents or components you install later will be installed in the same location. However, if by the time you install the public folder agents, any other agents or components have already been installed, you will not be allowed to specify the installation path for the agents, and they will be installed in the location where the QMMEx$ServerName$ shared folder has been created.

By default the shared folder is created in the Windows %SystemRoot%\System32 folder. On Microsoft Exchange x64 the default shared folder is created in the %SystemRoot%\SysWOW64 folder.

Step 4. Completing the Wizard

After the agents are installed, the wizard will inform you that you can start the public folder synchronization job. It is strongly recommended that you verify all the agents and collection settings before starting the public folder synchronization. The available options are discussed in the Changing the Settings of a Public Folder Collection and Changing the Settings of Public Folder Synchronization Agents sections below in this guide.
**Step 5. Commit Changes**

After a new job is created, it is marked with an exclamation mark. This means that you need to update the public folder synchronization agents’ databases before starting the job. Right-click the job in the management tree and click **Commit Changes** on the shortcut menu to update the agents’ task lists on the remote servers.

You can also commit changes for all the public folder synchronization jobs you have created. To do that, right-click the **Public Folder Synchronization** node in the management tree and select **Commit All Public Folder Jobs** from the shortcut menu.

**Adding a Public Folder Collection**

To create a new collection for an existing public folder synchronization job, right-click the job in the management tree and select **Add Collection** from the shortcut menu.

This will start the **Add Public Folder Collection Wizard**, which will help you to set up and configure a new collection for the job. Each of the wizard’s steps is described below.

**Step 1. General Options**

Specify a name for the collection and set its priority. Optionally, you can provide a text description for the collection.

You can temporarily disable the collection and it will not be involved in the synchronization process until you enable it.
Step 2. Workflow

Set the preferred date to start migrating the collection. By default, the option to **Start as soon as possible** is selected.

![Add Public Folders Collection Wizard](image)

Step 3. Select Public Folders

Populate the collection with public folder pairs. Note that folders that are already synchronized within other collections of the job are marked in the folder lists and cannot be included in the collection.

Once you start the public folder synchronization process, do not change the synchronization roots for any jobs or collections. Changing the selected folder pairs after the synchronization has started might result in duplicate folders in one of the environments.

![Add Public Folders Collection Wizard](image)

Step 4. Complete the Wizard and Commit Changes

After the new collection is created, the job is marked with an exclamation mark that means that you need to update the public folder synchronization agents’ databases. Right-click the job in the management tree and click **Commit Changes** on the shortcut menu to update the agents’ task lists on the remote servers.
Changing the Settings of a Public Folder Collection

All the options that you specify in the Add Public Folder Synchronization Job Wizard and the Add Public Folder Collection Wizard are later available in the collection’s properties. Some additional options are available only within the collection’s Properties dialog box. These options are described below. To view or modify a collection’s settings, right-click the collection in the management tree and click Properties on the shortcut menu.

Resynchronization

If any errors occurred during the public folder synchronization and you need to fully or partially re-copy the data that has already been sent to the target server, you can select the appropriate options in the public folder collection’s Properties dialog box.

Three resynchronization options are available for the public folders of the collection. You can:

- Resynchronize all public folder data previously sent to the target server, including public folder items, folder permissions, etc.
- Resynchronize only public folder contents.
- Resynchronize only public folder permissions, rules, and other folder-associated information.

When you use the Public folder contents only option, then data such as the public folder type and mail-enabled status is not synchronized, even though it may differ in the source and target organization. This data is first synchronized when the public folders are created in the target organization, and later when you use the All or Only folders permissions, rules, and folder-associated information option.

If such differences exist between the source and target public folders and are intentional, use the Public folder contents only option to avoid changes to that data during resynchronization.

You can also select the resynchronization direction, which may differ from the original synchronization direction.

This page also allows you to remove the synchronization settings directly from the agents’ databases if for some reasons the resynchronization settings were not cleared after the resynchronization was performed.

After you modify any of the collection’s settings, the job is marked with an exclamation mark that means that you need to update the public folder synchronization agents’ databases. Right-click the job in the management tree and click the Commit Changes on the shortcut menu to update the agent’s task lists on the remote servers.
Changing the Settings of Public Folder Synchronization Agents

You can set scheduling, logging, and other options for each public folder synchronization agent. The **Source Server Properties** and the **Target Server Properties** dialog boxes allow you to configure the Public Folder Source Agent, Transmission Agent, and Public Folder Target Agent on every server involved in the migration. To open the dialog box, right-click the appropriate server in the management tree and select **Properties** from the shortcut menu.

It is strongly recommended that you set all the options before you begin the migration.

**General Options**

A number of options are available for the Public Folder Source Agent and the Public Folder Target Agent. The **General** pages of the source and target agents’ properties allow you to view and modify the following synchronization settings:

- The Administrator Mailbox is used to get administrative access to the server’s public folders. It is the same mailbox that you select when setting up a public folder synchronization job. This mailbox does not need any rights on the public folders for the synchronization. The account that is used by the agent should have full access to the mailbox that is specified here.

- The **Copy rules** check box allows you to select whether the folder rules should be synchronized. Select this check box for both the Public Folder Source Agent running on the source server and the Public Folder Target Agent running on the corresponding target server.

  To avoid possible conflicts, it is not recommended to select this check box for the Public Folder Target Agent running on the same server (if any).

- The agents store their configuration and statistics in separate database files. For each agent, you can specify how frequently the database should be compacted.

For the Public Folder Source Agent (but not the Public Folder Target Agent), you can also specify the following options:

- Whether the folders belonging to newsgroup hierarchies should be skipped
- Whether only messages that have been modified recently should be copied to the target

  If you change the value of the **Copy message not older than** option, the new value is applied only after the agent is restarted. In addition, if the new value is greater than the old value, you need to perform full resynchronization. If the new value is less, then resynchronization is not needed.
For the Public Folder Target Agent, you can also specify the following:

- Whether the agent should archive an incoming PST file that cannot be processed
- How long the agent should try to process each PST file

### Compression

The Public Folder Source Agent compresses the PST files before putting them into service PUB files and sending them to the destination servers. The **Data Transfer Units** page of the source server properties allows you to select whether the agent should compress public folder data and to specify the compression rate. If the agent does not compress data, it works faster; however, the network traffic increases because larger files are transferred to the target servers.
You can also specify the maximum size of public folder data put to each PST file.

Logging

Every Migration Manager agent saves its logs to the server on which the agent is installed.

For each agent, you can specify whether the log file will be overwritten or appended during each session. You can also select which events will be written to the text log and to the Exchange server application log files.

Scheduling Options

Each public folder synchronization agent has its own scheduling options. This lets you define separately when the agents are allowed to put additional stress on the Exchange servers and on the network.

For each agent you can specify:

- The hours during which each agent is allowed to run. On the agent’s Schedule page of the Server Properties, click Synchronization Schedule. Then select the time frame during which the agent should perform synchronization jobs.
- Whether there should be a sleep period between the agent’s sessions and the duration of that sleep period.
Starting Public Folder Synchronization

The public folder synchronization job should be started after all the target mailboxes already exist and have been matched to the source mailboxes. The matching step is critical for synchronization of public folder permissions.

To start the public folder synchronization agents, perform the following:

1. Select the public folder synchronization job in the navigation tree, and then click the Agent Manager toolbar button.
2. After that in the agent host pane select all necessary agent hosts.
3. Finally, in the Actions pane click Start Agents.
Mailbox Migration

Mailbox migration allows transparent mailbox migration to the target environment. It is recommended to start mailbox migration after the domain and directory migration is completed and after the public folder data is copied to the target environment. Calendar and free/busy synchronization should be started simultaneously with mailbox migration to enable users to work without interruption during the coexistence period.

Setting Up a New Mailbox Synchronization Job

To add a new mailbox synchronization job, right-click the Mailbox Synchronization node in the management tree and click Add Mailbox Synchronization Job on the shortcut menu.

This will start the Add Mailbox Synchronization Job Wizard, which will install the mailbox synchronization agents and help you to set up and configure the job.

This section guides you through each step of the wizard and explains the mailbox synchronization options.

Resource mailboxes are migrated to Microsoft Exchange 2007 as user/legacy mailboxes, not as room/equipment mailboxes.
Step 1. Select Exchange Servers

Select the source and the target servers for the mailbox synchronization job. The wizard will display the existing mailbox synchronization jobs in which the selected servers already participate.

![Add Mailbox Synchronization Job Wizard](image)

Step 2. Select Mailbox Store

The Mail Target Agent will create the Exchange mailboxes in the mailbox store you specify in this step. The mailbox store that you specify in this step of the wizard will be used as default for all the mailbox collections of the job. Later you can individually set a target mailbox store for each mailbox collection.

Please note that if an Exchange mailbox already exists, it will be moved to the mailbox store specified for the collection. For existing Exchange mailboxes, it is recommended to select the mailbox stores where they are hosted to avoid additional network traffic.

If Exchange is running in mixed mode, it will not allow the Mail Target Agent to move a mailbox between administrative groups. This factor should be considered while selecting a mailbox store for the mailbox collections.

Step 3. Create Collections

The wizard can automatically create mailbox collections for the job. You can select one of the following options:

- **Not to create mailbox collections.** In this case you should later create collections manually as described below.
- **Create one mailbox collection.** In this case the wizard will prompt you to populate the collection in the next step.
- **Create a separate mailbox collection for each mailbox store on the target server.** In this case the name of each collection will be the same as the name of the target mailbox store to which the mailboxes from the collection will be migrated. In the next step, the wizard will allow you to populate each of the collections.
- **Automatically create collections with the specified number of mailboxes.** In this case the wizard will create collections that are already populated, each with the specified number of mailboxes. You should also specify the collection name template; the wizard will add the number of the collection to this template when naming each collection.

![Create Collections](image)

**Step 4. Populate Collections**

The next step of the wizard allows you to populate the collections if you selected to create either one collection for the job or a collection per each target mailbox store. Select the collection name from the list to populate it.

![Populate Collections](image)
You can add mailboxes to the collection in the following ways:

- Explicitly add mailboxes to the collection by clicking the **Add User** button and selecting mailboxes from the list.

![Add Users Table]

- Implicitly add mailboxes located in the containers by clicking the **Add Container** button and selecting the appropriate container check box. To add the mailboxes from the subcontainers, select the **Include subcontainers** check box. Only mailboxes hosted on the source server are migrated.

![Add Containers Dialog]

- Implicitly add mailboxes listed in the groups. To add the mailboxes listed in the nested groups select the **Expand nested distribution groups** check box. Only mailboxes hosted on the source server are migrated.

You can create and apply a display filter to reduce clutter in the list using the **Advanced** tab.

- Implicitly add mailboxes listed in the groups. To add the mailboxes listed in the nested groups select the **Expand nested distribution groups** check box. Only mailboxes hosted on the source server are migrated.

This page also allows you to preview the list of mailboxes added to the collection by clicking the **Preview** button.

**Step 5. Specify Agent Installation Path**

The wizard will install the mailbox synchronization agents and transmission agent synchronization agents on the source and target Exchange servers. If by the time you install the mail agents, any other agents or components have been already installed on these servers, you will not be allowed to specify the installation path for the agents; they will be installed in the location where the QMMEx$ServerName$ shared folder has been created.

By default the shared folder is created in the Windows %SystemRoot%\System32 folder. On Microsoft Exchange x64 the default shared folder is created in the %SystemRoot%\SysWOW64 folder.
**Step 6. Complete the Wizard**

After the agents are installed, the wizard will inform you that you can start the mailbox synchronization job. We recommend that you verify all the agents and collection settings before starting the mailbox synchronization. The available options are discussed in the *Changing Mailbox Collection Settings* and *Changing Mailbox Synchronization Agents’ Settings* sections below in this guide.

**Step 7. Commit Changes**

After a new job is created, it is marked with an exclamation mark. This means that you need to update the mailbox synchronization agents' databases before starting the job. Right-click the job in the management tree and click **Commit Changes** on the shortcut menu to update the agents' task lists on the remote servers.

You can also commit changes for all the mailbox synchronization jobs you have created. To do that, right-click the **Mailbox Synchronization** node in the management tree and select **Commit All Mailbox Synchronization Jobs** from the shortcut menu.

**Adding a Mailbox Collection**

To create a new mailbox collection for an existing mailbox synchronization job, right-click the job in the management tree and click **Add Collection** on the shortcut menu.

This will start the **Add Mailbox Collection Wizard**, which will help you to set up and configure a new collection for the mailbox synchronization job. Each step of the wizard is described below.

Though Remote Users Collections are also added using the Add Mailbox Collection Wizard, the steps for creating a Remote Users Collection are somewhat different. Please pay attention to the notes regarding Remote Users Collections in the descriptions of the steps below.

**Step 1. General Options**

In the first step of the wizard, specify a name for the collection and set its priority. You can optionally provide a text description for the collection.

For load balancing purposes, you have the option of selecting two specific registered agent hosts that will work with the source mailboxes and target mailboxes respectively.

You can temporarily disable the collection and it will not be involved in the synchronization process until you enable it.
Step 2. Workflow

Set the preferred start date and other options for migrating the collection.

Each switch and synchronization option provided by this step is discussed in detail below:

- By default, the option to start as soon as possible is selected. You can specify a particular date and time to start migrating the collection.
- If you prefer to switch mailboxes manually using the Migration Manager console (rather than have the mail agent switch the mailboxes automatically), select the Do not automatically switch mailboxes option. For more information about the advantages and disadvantages of a manual switch, refer to the Manual Mailbox Switch section of this document.
To create a Remote Users Collection, select the **Switch mailboxes and preserve offline folder (OST) files** option. The mail agent will recreate the target mailboxes corresponding to the mailboxes of this collection (if they exist) and will try to preserve the offline folder (OST) files for these mailboxes. Since a mailbox processed by the mail agent within a Remote Users Collection is not available while it is being processed, it is recommended to schedule such a collection for off hours using the **Schedule** button.

If you want the mailbox synchronization agents to switch the mailboxes from the collection once they are synchronized, select the **Switch mailboxes with unsynchronized mail size** option and specify the size of mail that can remain unsynchronized by the time the agent starts switching mailboxes. You can optionally select whether a mailbox should be switched even if errors occurred during synchronization or if there are appointments that were not processed by the Calendar Synchronization Agent. Please note that no mail will stay unsynchronized by the time when the mailbox is finally switched, since the mailbox switch is a complex process and the mail agent makes several passes along the mailboxes of the collection between the moment when the switch is started and the moment when the mailbox is switched.

Use the **Start switching mailboxes** box to specify the preferred starting time of the automatic switch performed by the mail agent.

To schedule the time when the collection should be processed by the agent, click the **Schedule** button and select the times when the agent is allowed or not allowed to process the collection.

**Step 3. Populate the Collection**

You can add mailboxes to the collection in the following ways:

- Explicitly add mailboxes to the collection by clicking the **Add User** button and selecting mailboxes from the list.
- Implicitly add mailboxes located in the containers by clicking the **Add Container** button and selecting the appropriate container check box. To add the mailboxes from the subcontainers as well, select the **Include subcontainers** check box. Only mailboxes hosted on the source server are migrated. You can create and apply a storage filter to either the mailboxes of the server or to the mailboxes of the selected mailbox store using the **Storage** and **Advanced** tabs.
- Implicitly add mailboxes listed in the groups. To add the mailboxes listed in the nested groups, select the **Expand nested distribution groups** check box. Only mailboxes hosted on the source server are migrated.

To preview the list of mailboxes added to the collection, click **Preview**.

**Step 4. Complete the Wizard and Commit Changes**

After the new collection is created, the job is marked with an exclamation mark that means that you need to update the mailbox synchronization agents’ databases. Right-click the job in the management tree and click **Commit Changes** on the shortcut menu to update the agents’ task lists on the remote servers.
Importing Mailbox Collection Members

As explained in the previous sections, a mailbox collection can be populated when you set up a mailbox synchronization job or when you add a mailbox collection to the synchronization job. A third way to populate a mailbox collection is by importing a file with a list of mailboxes, which you might have created as an Excel spreadsheet or a plain text file.

Right-click the mailbox synchronization job node in the management tree and click Import Members on the shortcut menu.

This will start the Import Mailbox Collection Members wizard. The wizard's steps are described below.

**Step 1. Specify Import File**

Type the full path to the file or browse to it. Select the character used as the column separator and for quoting.

**Step 2. Select Matching Attribute**

The wizard displays the data from the file you specified. Indicate whether the first row of the table is the column header.

Select the attribute from the Match attribute list and click on the header of the column that contains this attribute. In the example below, the wizard will search for mailboxes whose Distinguished Name is equal to any value in the selected column.
Step 3. Mailbox Collections

Select the mailbox synchronization job and the collection to be populated. The wizard can either import members to an existing collection or create a new mailbox collection.

If the import file contains mailboxes that have already been added to other mailbox collections, you might not want to remove them from those collections. In this case, select the check box at the bottom of the page.

Step 4. Complete the Wizard and Commit Changes

The wizard displays the number of entries from the import file that were applied and the number of errors.

After you click Finish, the job is marked with an exclamation mark that means that you need to update the mailbox synchronization agents’ databases. Right-click the job in the management tree and click Commit Changes on the shortcut menu to update the agents’ task lists on the remote servers.
Changing Mailbox Collection Settings

All the options that you specify in the Add Mailbox Synchronization Job Wizard and the Add Mailbox Collection Wizard are later available in the collection’s properties. Some additional options are available only within the collection Properties dialog box; these options are described below. To view or modify any of a collection’s settings, right-click the collection in the management tree and click Properties on the shortcut menu.

In addition to the options you specify in the Add Mailbox Collection Wizard, you can specify the target mailbox store for the mailboxes of this collection. The Mail Target Agent will create the Exchange mailboxes in the mailbox store you specify.

Please note that if a mailbox already exists, it will be moved to the mailbox store specified for the collection.

When you select the target mailbox store for a Remote Users Collection, be careful if your target Exchange organization is operating in mixed mode. It is strongly recommended to select only the mailbox store located in the administrative group where the existing target mailbox is hosted. If you select another store for mailbox creation, you will not be able to move the mailbox to its store until you switch your organization to native mode.

Synchronization

If any errors occurred during the mailbox synchronization and you need to fully or partially re-copy the data that has already been sent to the target server, select the appropriate resynchronization options.

Three resynchronization options are available for the mailboxes of the collection. You can:

- Resynchronize all mailboxes previously copied to the target server, including mailbox items, mailbox folder permissions, etc.
- Resynchronize only mailbox contents.
- Resynchronize only mailbox folder permissions and folder-associated information.

You can also remove the synchronization settings directly from the agents’ databases if for some reasons the resynchronization settings were not cleared after the resynchronization was performed.
After you modify any of the collection's settings, the job is marked with an exclamation mark, which means that you need to update the mailbox synchronization agents' databases. Right-click the job in the management tree and click the **Commit Changes** on the shortcut menu to update the agent's task lists on the remote servers.

### Changing Mailbox Synchronization Agents’ Settings

You can set the scheduling, logging and other options for each mailbox synchronization agent. The **Source Server Properties** allow you to configure the Mail Source Agent and the Transmission Agent, and the **Target Server Properties** allow you to configure the Mail Target Agent. To open the dialog box, right-click the desired server in the management tree and select **Properties** from the shortcut menu.

It is strongly recommended that you set all the options before you start the migration.

### General Options

A number of options are available for the Mail Source Agent and the Mail Target Agent.

The **General** pages of the source and target agents’ properties allow you to view and modify the following synchronization setting:

- The Mail Source Agent and the Mail Target Agent store their configuration and statistics in separate database files. You can specify how frequently each database should be compacted.
In addition, for the Mail Source Agent you can specify:

- Whether only the messages modified recently should be copied to the target.
  
  If you change the value of the **Copy message not older than** option, the new value is applied only after the agent is restarted. In addition, if the new value is greater than the old value, you need to perform full resynchronization. If the new value is less, then resynchronization is not needed.

- The account under which the agent will connect to ADAM server and the ADAM replica. Since the domain migration and directory synchronization data is stored in the ADAM partition, the agent needs access to the ADAM server and partition where the directory synchronization database is stored.

  Please note that when the Mail Source Agent is processing the mailboxes of a Remote Users Collections, it will ignore the above settings except the database compaction frequency setting. For more information about Remote Users Collections, refer to the *Changing Mailbox Collection Settings* section of this document.

For the Mail Target Agent, you can also specify whether the agent should archive an incoming PST file that cannot be processed and how long the agent should try to process each PST file.

**Data Transfer Units**

The Mail Source Agent compresses the PST files before putting them into service PRV files and sending them to the destination servers. The *Data Transfer Units* page of the source server properties allows you to select whether the agent should compress mail data and to specify the compression rate. If the agent does not compress data, it works faster; however, the network traffic increases because larger files are transferred to the target servers.

You can also specify the maximum size of data put to each PST file.
Logging

Every Migration Manager agent saves its logs on the server on which the agent is installed.

For each agent you can specify whether the log file will be overwritten or appended during each session, and select which events will be written to the text log and Exchange server application log files.

Scheduling Options

Each mailbox synchronization agent has its own scheduling options. This lets you define separately when the agents are allowed to put additional stress on the Exchange servers and on the network.

For each agent you can specify:

- The hours during which each agent is allowed to run. On the agent’s Schedule page of Server Properties, click Synchronization Schedule. Then select the time frame during which the agent should perform synchronization jobs.
- Whether there should be a sleep period between the agent’s sessions, and the length of that period.

Starting Mailbox Synchronization

We recommend that the first mailbox synchronization job be started after the domain and directory migration are completed, after the public folders are replicated to the target
Exchange server, and together with all the calendar and free/busy synchronization jobs for all servers. This will ensure that the first user switched to the target mailbox will:

- See the full Global Address List (GAL)
- Have access to the public folders
- Have access to other users’ free/busy information and (if needed) detailed calendar data

To start the mailbox synchronization agents, perform the following:

1. Select the mailbox synchronization job in the navigation tree, and then click the Agent Manager toolbar button.
2. After that in the agent host pane select all necessary agent hosts.
3. Finally, in the Actions pane click Start Agents.

**Exchange 2010 Considerations**

If an Exchange 2010 organization is involved in the mailbox migration process, consider that in Exchange 2010 all mailbox communications flow via Client Access Servers (CAS) instead of Mailbox Servers as in previous versions of Exchange. Therefore Migration Manager for Exchange agents use CAS for mailbox and calendar processing.

In addition, in case of the Exchange organization is acting as a target organization in the mailbox migration process, consider the following:

- After a mailbox move operation or the creation of a new Exchange 2010 mailbox during the migration process, the mailbox does not immediately become available for login. The Mail Target Agent will record login errors until the mailbox is ready (this can take up to 20 minutes). In these situations, login errors can be safely ignored.
- If a mailbox move request completes with an error, delete this request before the agent creates a new one.
Calendar Synchronization

Calendar synchronization allows for migration of the Calendar folder data. It is recommended that calendar data migration be performed in parallel with the mailbox and free/busy data migration so that the users can view other users' free/busy data and can schedule meetings regardless of the environment they log on from.

If you are performing calendar synchronization in Microsoft Exchange 2007, it is recommended that the Public Folder database exists in your Exchange 2007 environment.

Setting Up a New Calendar Synchronization Job

To add a new calendar synchronization job, right-click the Calendar Synchronization node in the management tree and click Add Calendar Synchronization Job on the shortcut menu.

This will start the Add Calendar Synchronization Job Wizard, which will install the Calendar Synchronization Agent and help you to set up and configure the job.

This section guides you through each step of the wizard and explains the calendar synchronization options.

Step 1. Select Exchange Servers

Select the source and target servers for the calendar synchronization job. The wizard will display the existing calendar synchronization jobs in which the selected servers already participate.
Step 2. Select Mailbox Store

The mailbox store that you specify here will be used as the default for all calendar collections of the job. Later you can individually set a target mailbox store for each calendar synchronization collection. If the target mailbox does not exist by the time when the Calendar Synchronization Agent starts processing the source mailbox, the agent will create the target mailbox in the information store specified for the calendar synchronization collection. If the mailbox already exists, the Calendar Synchronization Agent will work with this mailbox regardless of which information store the mailbox is located in.

Step 3. Calendar Synchronization Collections

The wizard can automatically create calendar synchronization collections for the job. You can select one of the following options:

- **Do not create collections.** In this case you should later create collections manually as described below.
- **Create one collection.** In this case the wizard will prompt you to populate the collection in the next step.
- **Create two default collections for resource mailboxes and user mailboxes,** one named *Resource_mailboxes* and the other named *User_mailboxes*. You will be able to populate each collection in the next step of the wizard. Resource and user calendar collections are processed by the agent differently.
• **Import members from mailbox synchronization job between the same servers.** The wizard will create a collection and add to it all the mailboxes added to the mailbox synchronization job set up between the same servers.

![Add Calendar Synchronization Job Wizard](image)

**Step 4. Select Mailboxes for Calendar Synchronization**

To populate calendar synchronization collections, you can do any of the following:

- Explicitly add mailboxes to the collection by clicking the **Add User** button and selecting mailboxes from the list.
- Implicitly add mailboxes located in the containers by clicking the **Add Container** button and selecting the appropriate container check box. To add the mailboxes from the subcontainers as well, select the **Include subcontainers** check box. Only mailboxes hosted on the source server are migrated.

You can create and apply a storage filter to either the mailboxes of the server or to the mailboxes of the selected mailbox store using the **Storage** and **Advanced** tabs.

- Implicitly add mailboxes listed in the groups. To add the mailboxes listed in the nested groups select the **Expand nested distribution groups** check box. Only mailboxes hosted on the source server are migrated.
To preview the list of mailboxes added to the calendar synchronization collection, click the **Preview** button.

![Image of Add Mailbox Synchronization Job Wizard]

**Step 5. Specify Agent Installation Path**

The wizard will install the Calendar Synchronization Agent on the source or target Exchange server. If the agent has been already installed on one of the servers involved in the calendar synchronization job, the wizard will ask whether you want the agent that is already installed to perform this job.

By default the agents are installed in the Windows `%SystemRoot%\System32` folder. On Microsoft Exchange x64 the default shared folder is created in the `%SystemRoot%\SysWOW64` folder.

![Image of Add Calendar Synchronization Job Wizard]

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Step 6. Complete the Wizard and Commit Changes

After the agent is installed, the wizard will inform you that you can start the calendar synchronization job.

After a new job is created, it is marked with an exclamation mark. This means that you need to update the Calendar Synchronization Agent’s database before starting the job. Right-click the job in the management tree and click Commit Changes on the shortcut menu to update the agent’s task list on the remote server.

You can also commit changes for all the calendar synchronization jobs you have created. To do that, right-click the Calendar Synchronization node in the management tree and select Commit All Calendar Synchronization Jobs from the shortcut menu.

Adding a Calendar Collection

To create a new calendar collection for an existing calendar synchronization job, right-click the job in the management tree and click Add Collection on the shortcut menu.

This will start the Add Calendar Collection Wizard that will help you to set up and configure a new collection for the calendar synchronization job. Each step of the wizard is described below.

Step 1. General Options

First specify a name for the collection and set its priority. You can optionally provide a text description for the collection.

For load-balancing purposes, you have the option of selecting a specific registered agent host that will work with this collection.

You can also temporarily disable the collection, and it will not be involved in the synchronization process until you enable it.
Step 2. Workflow

Set the preferred start date for migrating the collection. By default, the option to Start as soon as possible is selected.

![Workflow Image]

Step 3. Select Collection Members

You can add mailboxes to the collection in the following ways:

- Explicitly add mailboxes to the collection by clicking the Add User button and selecting mailboxes from the list.
- Implicitly add mailboxes located in the containers by clicking the Add Container button and selecting the appropriate container check box. To add the mailboxes from the subcontainers as well, select the Include subcontainers check box. Only mailboxes hosted on the source server are migrated.

You can create and apply a storage filter to either the mailboxes of the server or to the mailboxes of the selected mailbox store using the Storage and Advanced tabs.

- Implicitly add mailboxes listed in the groups. To add the mailboxes listed in the nested groups select the Expand nested distribution groups check box. Only mailboxes hosted on the source server are migrated.
The **This collection includes resource mailboxes (two-way synchronization)** option should be turned off for calendar collections containing regular mailboxes. Leave it selected only for collections with resource mailboxes. It is recommended that you keep collections of regular and resource mailboxes separate, and not use mixed collections.

To preview the list of mailboxes added to the collection, click the **Preview** button.

**Step 4. Complete the Wizard and Commit Changes**

After the new collection is created, the job is marked with an exclamation mark that means that you need to update the Calendar Synchronization Agent’s database. Right-click the job in the management tree and click **Commit Changes** on the shortcut menu to update the agent’s task list on the remote server.

### Changing Calendar Collection Settings

All the options that you specify in the Add Calendar Synchronization Job Wizard and the Add Calendar Collection Wizard are later available in the calendar collection’s **Properties** dialog box, along with some additional options available only in that dialog. These options are described below. To view or modify any of a collection’s settings, right-click the collection in the management tree and click **Properties** on the shortcut menu.

In addition to the options you specify in the Add Calendar Collection Wizard, you can specify the target mailbox store for the mailboxes of the collection. If there will have been no target mailboxes corresponding to the mailboxes of the collection by the time the Calendar Synchronization Agent will start processing these mailboxes, it will create the mailboxes in the mailbox store you specify for the collection.

### Synchronization

If any errors occurred during the mailbox synchronization and you need to fully or partially re-copy the data that has already been sent to the target server, select the appropriate resynchronization option. You can:

- Resynchronize **all** mailboxes previously copied to the target server, including mailbox items, mailbox folder permissions, etc.
- Resynchronize **mailbox contents only**.
- Resynchronize only **mailbox folder permissions and folder-associated information**.

You can also remove the synchronization settings directly from the agents’ databases if for some reasons the resynchronization settings were not cleared after the resynchronization was performed.
After you modify any of the collection’s settings, the job is marked with an exclamation mark that means that you need to update the mailbox synchronization agents’ databases. Right-click the job in the management tree and click the Commit Changes on the shortcut menu to update the agent’s task lists on the remote servers.

### Changing Calendar Synchronization Agent’s Settings

To set the scheduling, logging, and other options for the Calendar Synchronization Agent, right-click the node of the server where the agent is installed under the Calendar Synchronization node, select Properties from the shortcut menu, and select the Agent node in the dialog box that appears.

It is strongly recommended that you set all the options before you start the migration.

#### General Options

The General page of the Calendar Synchronization Agent allows you to view and modify the following agent’s settings:

- The Calendar Synchronization Agent stores its configuration and statistics in a separate database file. You can specify how frequently the database should be compacted.
- Whether only the messages modified recently should be copied to the target.

If you change the value of the **Copy message not older than** option, the new value is applied only after the agent is restarted. In addition, if the new value is greater than the old value, you need to perform full resynchronization. If the new value is less, then resynchronization is not needed.
The account under which the agent will connect to ADAM server and the ADAM replica. Since the domain migration and directory synchronization data is stored in ADAM partition, the agent needs access to the ADAM server and partition where the directory synchronization database is stored.

Logging

Every Migration Manager agent saves its logs on the server on which the agent is installed. For each agent you can specify whether the log file will be overwritten or appended during each session, and select which events will be written to the text log and Exchange server application log files.

Scheduling Options

For each server where the Calendar Synchronization Agent is installed, you can define when the agent is allowed to put additional stress on the Exchange servers and on the network. You can specify:

- The hours during which each agent is allowed to run. On the agent’s Schedule page of the Server Properties, click Synchronization Schedule. In the dialog box that appears, select the time frame during which the agent should perform synchronization jobs.
- Whether there should be a sleep period between the agent’s sessions and the duration of that period.

Exchange 2010 Considerations

If an Exchange 2010 organization is involved in the mailbox migration process, consider that in Exchange 2010 all mailbox communications flow via Client Access Servers (CAS) instead of Mailbox Servers as in previous versions of Exchange. Therefore Migration Manager for Exchange agents use CAS for mailbox and calendar processing.
Free/Busy Synchronization

Free/busy synchronization is performed by the Free/Busy Synchronization Agent. While processing the free/busy synchronization job, the agent synchronizes all the free/busy messages it finds in the organizations selected for free/busy synchronization.

Setting Up a New Free/Busy Synchronization Job

To add a new free/busy synchronization job, right-click the Free/Busy Synchronization node in the management tree and select Add Free/Busy Synchronization Job from the shortcut menu.

This will start the Add Free/Busy Synchronization Job Wizard. The wizard will help you add a new free/busy synchronization job, install the Free/Busy Synchronization Agent, and configure the job.

The following sections guide you through each step of the wizard and explain the free/busy synchronization options.

Step 1. Select Exchange Organizations

The Free/Busy Synchronization Agent will synchronize the free/busy messages for all the mailboxes of the Exchange organizations you select in this step of the wizard.

**Source organization**—Select one of the source Exchange organizations registered in Migration Manager.
Target organization—Select one of the target Exchange organizations registered in Migration Manager.

Specify advanced options in the next wizard step—Select this option if you want to specify the desired period for searching for the new free/busy messages, the Administrative groups where the agent should search for the new free/busy messages, and other advanced settings.

Step 2. Select Administrative Groups

This step will be displayed only if the Specify advanced options in the next wizard step check box was selected in the previous step.

By default, the Free/Busy Synchronization Agent synchronizes free/busy messages from all the administrative groups of the source organization. If you want the agent to synchronize the free/busy messages located in the selected source administrative groups only, this step allows you to select these administrative groups.

If new users are added to the environments, new free/busy messages located in the selected administrative groups will be copied to the target and further synchronized. In this step you can also specify the time interval at which the agent will search for the new free/busy messages.

In the Search for new free/busy messages every ... minutes control, specify the time interval at which the Free/Busy Synchronization Agent should check whether any new free/busy messages were created in the selected Administrative group.

Source—Select the source administrative groups for which free/busy messages should be synchronized.

Target—Normally, system administrators prefer to administer only one environment. Thus, if the users are connecting to the source Exchange organization, the new users are also created in this organization. However, in some environments, new users are added both to the source and target organizations.
If you want to synchronize the existing target free/busy messages with the source free/busy messages, select the target administrative groups for which free/busy messages should be synchronized.

If you want the Free/Busy Synchronization Agent to synchronize new free/busy messages created in the target administrative groups, select the target administrative group and the Search for new free/busy messages in the target organization check box. Note that if the target administrative group is selected and no source administrative groups are selected, the free/busy data will be synchronized from target to source only.

**Synchronize orphaned free/busy folders**—The LegacyExchangeDN attribute of some users might contain the DN of a non-existing administrative group. This may happen if the administrative group where the users were originally located was deleted or renamed. In this case, you may want to select this check box to make the agent synchronize the free/busy messages for such users.

**Step 3. Select Administrative Mailboxes**

The Free/Busy Synchronization Agent requires two mailboxes, one hosted on the source server and one hosted on the target server, to access the users’ free/busy folders on the servers. Specify the mailboxes for the Free/Busy Synchronization Agent to use.

The Free/Busy Synchronization Agent must have full access to the specified mailboxes to get administrative access to the free/busy messages being synchronized.

**Step 4. Specify Agent Installation Path**

You can now select which server to install the agent on. If the agent has already been installed on one or both of the servers, you can select Use the agent running on target server or Use the agent running on source server to make the installed agent perform this synchronization job.

By default, the agent is installed in the %systemroot%\system32 folder. On Microsoft Exchange x64 the default shared folder is created in the %SystemRoot%\SysWOW64 folder. To change the agent’s installation folder, specify the full local path to the folder on the source or target server.
Step 5. Completing the Wizard and Committing Changes

After the agent is installed, the wizard will inform you that you can start the free/busy synchronization job.

When a new job is created, it is marked with an exclamation mark. This means that you need to update the Free/Busy Synchronization Agent’s database before starting the job. Right-click the job in the management tree and click Commit Changes on the shortcut menu to update the agent’s task list on the remote server.

You can also commit changes for all the free/busy synchronization jobs you have created. Simply right-click the Free/Busy Synchronization node in the management tree and select Commit All Free/Busy Synchronization Jobs from the shortcut menu.

Changing Free/Busy Synchronization Job Settings

To view and edit the free/busy synchronization job settings, right-click the job and select Properties. The available options are described below:

Servers

This page lets you view and modify free/busy synchronization job server settings.

The Server name fields display the names of the source and target servers that you selected when setting up the free/busy synchronization job. You can change either server by selecting another server name from the list.

You can also change the administrator mailboxes the Free/Busy Synchronization Agent will use to access the free/busy data on source and target.

Settings

This page lets you edit the advanced settings for the free/busy synchronization job.
The Search for new free/busy messages every … minutes control displays the time interval at which the Free/Busy Synchronization Agent checks whether any new free/busy messages were created in the selected Administrative Group. You can adjust this interval according to your needs.

**Source**—Select the source administrative groups for which free/busy messages should be synchronized.

**Target**—If you want to synchronize the existing target free/busy messages with the source free/busy messages, select the target administrative groups for which free/busy messages should be synchronized.

**Search for new free/busy messages in the target organization**—If you want the Free/Busy Synchronization Agent to synchronize new free/busy messages created in the target administrative groups, select the target administrative group and the Search for new free/busy messages in the target organization check box. Note that if the target administrative group is selected and no source administrative groups are selected, the free/busy data will be synchronized from target to source only.

**Synchronize orphaned free/busy folders**—The LegacyExchangeDN attribute of some users might contain the DN of a non-existing administrative group. This can happen if the administrative group where the users were originally located was deleted or renamed. In this case, you may want to select this check box to make the agent synchronize the free/busy messages for such users.

**Search for new free/busy messages now**—Select this option to initiate a matching session for free/busy messages immediately.

**Disable synchronization job**—Select this option to temporary disable the free/busy synchronization job. You can enable it at any time by clearing this check box.
Changing the Settings for the Free/Busy Synchronization Agent

Server

This set of pages allows you to view or modify the general options of the server where the Free/Busy Synchronization Agent is installed.

Server name—Displays the name of the server where the Free/Busy Synchronization Agent is installed.

Account—Displays the account used by the Free/Busy Synchronization Agent to perform the synchronization job. Click Modify to select another account.

Service priority—Displays the agent’s service priority.

Resource Usage

This page allows you to set the amount of disk space and memory that should not be used by the Free/Busy Synchronization Agent.

The Leave free space on drive option let you specify how much disk space should not be used by the agent:

- Percent of total available drive space ... %—The percentage of the available disk space to be kept free
- **Amount of drive space ... MB**—The amount of disk space in megabytes to be kept free

The **Agents memory limits** option let you limit the amount of memory used by the agent installed on this server. It is not recommended to change the default setting unless you are certain your environment requires a different setting.

- **No limits**—The memory that will be used by the agent installed on the server is not limited.
- **Use memory not more than ... KB**—Specify the maximum amount of memory that the agent working on a server may use.

**General**

This set of pages helps you specify general options for the Free/Busy Synchronization Agent.

**Compact the agent’s database**—The Migration Manager agent stores its configuration and statistics in a separate database file. Select whether you want to not to compact the database, compact the database when possible, or compact the database at the specified interval.

**Log warning if there is no corresponding mailbox in the target Administrative Group**—Select this option to force the agent to write a warning into the log if there is no target mailbox corresponding to the source mailbox whose free/busy messages are being processed.

**Logging**

The Free/Busy Synchronization Agent’s logs can be used to analyze and troubleshoot the free/busy synchronization process. Agent logs are stored on the server on which the agent is installed in the `QMMEx$ServerName$\FreeBusy Synchronization Agent` folder. The archived log files are stored in the `QMMEx$ServerName$\FreeBusy Synchronization Agent\LOGS` folder.
Text log—Select which events should be written to the text log file. It is recommended not to clear any of the events included in the log file by default.

Event log—Select which events should be added to the Exchange server application log file.

Append log—Select whether the log file should be appended or overwritten during each session.

Archive log file larger than ... MB—Select to archive the log file if its size exceeds the specified value.

Delete archived log older than ... days—Select if you want the archived log files to be deleted automatically. Specify the number of days after which the log files will be deleted.

Extended logging—Select to include extended logging if this is required for troubleshooting.

Also select what should be done with statistics information:

Do not write statistics—No statistics information will be accumulated.

Do not clear the agent's statistics—Agent's statistics will be accumulated.

Keep statistics for the last ... days—Specify the number of days for which statistics information will be kept.

Schedule

Specify the scheduling options for the agent.
**Synchronization Schedule**—Click to open a dialog where you can select the times when the agent is allowed to run. You can select off-peak hours to make sure the agent does not put stress on the server.

Also select whether or not the agent should pause for a sleep period after each synchronization session:

- **Synchronize continuously**—The agent will keep looking for unsynchronized mail throughout the allowed working hours.

- **Sleep duration between sessions ... minutes**—The agent will stop for the specified interval between synchronization sessions.
Creating Batches of Synchronization Jobs

The Import Job Wizard helps automate the creation of mailbox, public folder and calendar synchronization jobs. The wizard is useful if you have planned the migration in advance and know which Exchange server pairs are going to be involved in the migration.

Before you use the wizard, prepare a *.csv file with the job parameters using your preferred text editor or spreadsheet application. When the file is ready, load it with the Import Job Wizard by right-clicking the Synchronization Jobs node and selecting Import Jobs from File.

The format of the file is described below.

Job File Format

The job file should specify one job per line in the following format:

<Job Type>,<Source Server Name>,<Target Server Name>,<Source Administrator Mailbox LEDN>,<Target Administrator Mailbox LEDN>

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;Job Type&gt;</td>
<td>One of the following:</td>
</tr>
<tr>
<td></td>
<td>• Mail</td>
</tr>
<tr>
<td></td>
<td>• Calendar</td>
</tr>
<tr>
<td></td>
<td>• PublicFolder</td>
</tr>
<tr>
<td>&lt;Source Server Name&gt;</td>
<td>Name of the source Exchange server</td>
</tr>
<tr>
<td>&lt;Target Server Name&gt;</td>
<td>Name of the target Exchange server</td>
</tr>
<tr>
<td>&lt;Source Administrator Mailbox LEDN&gt;</td>
<td>Legacy Exchange distinguished name of the administrator's mailbox in the source organization</td>
</tr>
<tr>
<td>&lt;Target Administrator Mailbox LEDN&gt;</td>
<td>Legacy Exchange distinguished name of the administrator's mailbox in the target organization</td>
</tr>
</tbody>
</table>
Public Folder Synchronization Job Specifics

The `<Source Administrator Mailbox LEDN>` and `<Target Administrator Mailbox LEDN>` parameters are required only for public folder synchronization jobs. They are ignored if specified for the other job types. Make sure that the mailboxes they specify have been added to the migration project before you create the jobs with the Import Job Wizard. This can be done during enumeration or manually using the Add Recipients to Database dialog box.

Calendar Synchronization Job Specifics

Calendar synchronization jobs created by the Import Job Wizard always use the synchronization agent running on the source Exchange server.

Example

Outlook Profile Update

The Client Profile Updating Utility (EMWProf.exe) automatically updates Microsoft Outlook client profiles to use the target Exchange mailboxes. EMWProf updates all the profile settings associated with the Exchange server and preserves the offline folder (OST) files for the mailboxes included in Remote Users Collections.

EMWProf is integrated with the mailbox synchronization agents. The utility can be run from a logon script. As a source of information about mailbox switch status, it uses two hidden messages that Mail Source Agent creates when switching or recreating mailboxes. This makes the mailbox switch and profile update unnoticeable to the users.

When the utility updates the user profile configured for a mailbox, it also updates the mailbox rules, copies the read/unread status for the mailbox messages and preserves other additional features. This ensures that the user’s target Exchange mailbox is an exact replica of the source mailbox by the time the user first logs on to it.

Please refer to the Client Profiles Updating Utility document for details on the Client Profile Updating Utility (EMWProf).
Appendix A. Fine-Tuning the Agents

The following is a list of additional parameters that can be applied to the agents.

**ContinueWithoutReplication**

0—Migration will be performed only if passive node is available.
1—Migration will be performed even if passive node cannot be continuously available.

**Default Value:** 0

**Applies to:** All agents installed on Exchange 2007 CCR cluster server except the Directory Synchronization Agent

**CopyMessagesNotOlderFilter**

The Copy messages not older option in the properties of the Mail Source Agent and the Public Folder Source Agent will apply to messages of the specified types. Wildcards cannot be used to specify the parameter values.

This parameter does not apply to rules.

**Default Value:** For CSA: IPM.Appointment; for others: IPM.Note, IPM.Post

**Applies to:** Mail Source Agent, Public Folder Source Agent, Calendar Synchronization Agent

**LastPSTAppliedSwitch**

0—Mailbox switch is performed without additional check whether the PRV file with ‘ready to switch’ flag is already processed by the Mail Target Agent.
1—Mailbox switch is performed with additional check whether the PRV file with the ‘ready to switch’ flag is already processed by the Mail Target Agent.

**Default Value:** 1

**Applies to:** Mail Source Agent

**MaxReceivePSTCount**

-1—Agent processes all PRV (PUB) files moved from source Exchange servers to the target Exchange server where the agent is running.
0—Agent processes only PRV (PUB) files already added to configuration database during previous synchronization session.
1 or more—Agent processes the specified number of PRV (PUB) files moved from source Exchange servers to the target Exchange server where the agent is running per synchronization job.

**Default Value:** 1024

**Applies to:** Mail Target Agent, Public Folder Target Agent

**MessagesToSkipTypes**

Instructs the agent to skip messages of the specified types from synchronization.

**Default Value:** IPC.Microsoft.ICS.EventBinding, IPC.Microsoft.EventBinding
**MigrationLockerTimeout**

This parameter is involved in preventing a single mailbox or calendar from being processed by multiple agents at once. An agent locks a mailbox or calendar to work with it and unlocks it when the operation is complete. While a mailbox or calendar is locked, no other agents can process it. The `MigrationLockerTimeout` parameter controls the maximum lockout time for mailboxes and calendars. After this timeout, unlocking is forced. This is useful in situations where an agent fails during the operation before it can cleanly unlock the mailbox or calendar. The timeout is set in minutes.

**Default Value:** 240

**Applies to:** Mail Source Agent, Mail Target Agent, Calendar Synchronization Agent

**MinAvailableVirtualMemory**

This parameter sets the percentage of available memory that is restricted from the agent. The agent will not use that portion of the memory, even at maximum load. This parameter is not present in the configuration file by default. Increasing the percentage is recommended only if you experience agent database corruption. Decreasing the percentage is discouraged.

**Default Value:** 15

**Applies to:** Mail Source Agent, Mail Target Agent, Statistics Collection Agent, Free/Busy Synchronization Agent, Public Folder Source Agent, Public Folder Target Agent

**NoTargetExchangeConnection**

0—The parameter has no effect. All connections to target Exchanger server work as configured by other parameters.

1—All connections to the target Exchange server are disabled. Setting the parameter to 1 is useful only when connections from the source environment to the target server are prevented by policy or other restrictions. In this case, note the following:

The `LastPSTAppliedSwitch` parameter is ignored in this case.

During a mailbox switch, the agent does not check whether the target mailbox exists. If there is no such mailbox, the switch will still occur, which may result in broken mail flow and lost messages.

**Default Value:** 0

**Applies to:** Mail Source Agent

**ProcessPSTFromRemoteAgents**

0—Processing of PST files with agent host servers used is not supported.

1—Processing of PST files with agent host servers used is supported.

**Default Value:** 1

**Applies to:** Mail Target Agent, Public Folder Target Agent

**SkipCorruptedMessages**

0—Try to synchronize all messages in the mailbox (default value).

1—Skip corrupted messages without trying to synchronize them in every session.

**Default Value:** 0

**Applies to:** Mail Source Agent

**SyncDeletedFolders**

1—Synchronization of folder deletions is turned on.

0—Synchronization of folder deletions is turned off.

**Default Value:** 1

**Applies to:** All agents except the Directory Synchronization Agent

**SyncDeletedMessage**
1—Synchronization of message deletions is turned on.
0—Synchronization of message deletions is turned off.

**Default Value:** 1

**Applies to:** All agents except the Directory Synchronization Agent

**Terminate**

1—Stop the agent
0—Start the agent

**Default Value:** 0

**Applies to:** All agents except the Directory Synchronization Agent

**UseNetUse**

1—Establish a net use connection to the target server.
0—Establish a connection to the target server using trusts.

**Default Value:** 1

**Applies to:** Transmission Agent

**UseRecycleBin**

1—Use the Aelita EMW Recycle Bin folder during public folder synchronization.
0—Do not use the Aelita EMW Recycle Bin folder during public folder synchronization.

**Default Value:** 1

**Applies to:** Public Folder Source Agent, Public Folder Target Agent
Appendix B. Support for Exchange 2007 CCR Cluster Servers

Migration Manager fully supports Exchange 2007 Cluster Continuous Replication (CCR). Migration Manager detects such systems and configures agent services for automatic failover together with the Exchange services. This section describes the specifics of using Migration Manager for Exchange with Exchange 2007 CCR cluster servers.

Use Standalone Agent Hosts

All Migration Manager for Exchange agents work with Exchange 2007 CCR cluster servers. However, installing agents directly on CCR clusters is strongly discouraged for the following reasons:

- Agents on CCR nodes work considerably slower than on standalone agent hosts.
- An agent on a CCR node adversely affects Exchange performance by increasing the load on the cluster node.

Instead, install the agents on standalone hosts.

How Replication Works

To ensure the availability of data (such as job configuration databases, statistics data, and tracking databases), the agents perform replication from the active to the passive node of the CCR cluster server. The agents also copy PUB and PRV files to a passive node to ensure the availability of these files.

After the first synchronization session, the sets of installed agents and migration data become identical on the active and passive nodes. While the agents work, this information is kept in sync on the active and passive nodes. In particular, note that if a processed PUB or PRV file is deleted or archived by the agent on an active node, the file will be deleted from the passive node without delay.

The agents will not work if a passive node of the CCR cluster server is unavailable. In this case, the agent logs this error to the Application log and stops processing mailboxes and public folders until the next migration session when a passive node becomes available.
This procedure ensures that after a CCR clustered mailbox server is moved to a passive node the migration process will be restored without any data loss.

Migration without any data loss is possible only if administrator keeps a passive copy of Exchange database up to date. Migration Manager for Exchange agents do not monitor whether the passive copy is in a Healthy state.

Considerations

Although deploying of migration jobs on Exchange 2007 CCR server is similar to deploying migration jobs on stand-alone Exchange server, there are some differences that you must consider.

Planning for Scheduled Outages on the Exchange Server

If you plan to perform a scheduled outage on the Exchange server, then before you move a clustered mailbox server to a passive node, take the following steps:

1. Check whether any errors are present in the Application log.
2. Resolve any issues.
3. Restart the Migration Manager for Exchange agents.
4. Check the Application log to see whether any Migration Manager for Exchange application errors have appeared again.

Unplanned Outage

If an unplanned outage occurs, then in the Migration Manager Console, right-click all synchronization jobs that are configured with the affected CCR server and select the Reapply Agents Configuration option.

Passive Node Continuously Unavailable

If your passive node cannot be continuously available (for example, if you have not completed deploying the CCR environment in your Exchange organization), but you need to perform migration to the active node, you can force the agent using the ContinueWithoutReplication parameter. In case of failover, a full resynchronization of all mailboxes, calendars, and public folders involved in the migration must be performed. For more information, please contact Quest Support.
Appendix C. Using Agent Hosts for Migration Agents

By default, the best migration performance is achieved when Migration Manager for Exchange agents are installed on the same Exchange servers as the mailboxes and public folders they process. However, in some situations, the only way to perform data migration successfully is to use a standalone agent host server instead of the Exchange server.

An agent host is a server computer where you install any Migration Manager for Exchange agents (including the Public Folder Source Agent, Public Folder Target Agent, Mail Source Agent, Mail Target Agent, Calendar Synchronization Agent, and Free/Busy Synchronization Agent). The agent host server can be either an Exchange server or any other server.

For example, using standalone agent hosts is reasonable in the following cases:

- When installing additional software (i.e. Migration Manager for Exchange agents) on the production Exchange server is not advisable for some reason.
- If Migration Manager for Exchange agents installed on a particular Exchange server do not work correctly because of conflicts with third-party software also installed on that server.

This appendix explains several peculiarities of configuring agent hosts for Exchange migration.

How to Configure Agent Hosts

**System Requirements**

For details about agent system requirements and needed permissions, please refer to the System Requirements and Access Rights document.

**Considerations**

When deciding what agent hosts to use, be sure to consider the following issues.
Changing a Server's Agent Host

Once you have configured your synchronization jobs, it is possible to set up, remove, or change the agent host server for an Exchange server, but doing so can lead to the following issues:

- All configuration data related to synchronization jobs on the Exchange server will be deleted from the configuration databases located on the old agent host server.

  If you set up an agent host server for an Exchange 2007 CCR Cluster server for the first time, all configuration data related to synchronization jobs will be deleted from the configuration databases located on the active cluster node only.

- For all configured synchronization jobs, full resynchronization will be initiated automatically and the Commit option will be enabled.

  In the case of a two-way public folder synchronization job, resynchronization will be performed from the source Exchange server to the target.

  After changing the agent host server, you can manually perform the Remove all resynchronization settings from agent database operation. However if the agent host for source Exchange server is changed, the resynchronization of the hierarchy will take place anyway.

- After the synchronization jobs are committed, configuration data related to the synchronization jobs on the Exchange server will be saved into the configuration databases on the new agent host server.

  For the synchronization jobs to be committed successfully, the Migration Manager for Exchange agents must be already installed on the agent host server.

Statistics Collection

Statistics information is collected only from the agent host server; no statistics are gathered from the Exchange server itself.

If several Exchange servers are associated with the same agent host server, then the statistics from the agent host server will include data about all those Exchange servers collectively.
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</table>

* a copy of the source code for this component is available at [http://rc.quest.com](http://rc.quest.com).

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/* zlib.h -- interface of the 'zlib' general purpose compression library version 1.2.3, July 18th, 2005

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