

Quest® Migration Manager for Exchange 8.15

Target Exchange 2010 Environment Preparation (Legacy)

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Legend

- CAUTION: A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.
- i IMPORTANT, NOTE, TIP, MOBILE, or VIDEO: An information icon indicates supporting information.

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Target Exchange 2010 Environment Preparation (Legacy)

Follow the steps that are described in the Preparation Checklist topic to prepare your Exchange 2010 organization and its environment for being the target organization in the Exchange migration process conducted by Migration Manager for Exchange.

IMPORTANT: This document covers the case when mailbox and calendar synchronization is performed using legacy migration agents. If you perform those types of synchronization using legacy agents then refer to the *Target Exchange 2010 Environment Preparation (MAgE)* document.

On some of steps you may need to coordinate the setup process with the administrator of the source Exchange organization.

Preparation Overview

This section provides a short overview of the main steps that should be performed to set up your target Exchange 2010 organization and its environment for migration using Migration Manager for Exchange. These steps are described in detail in the related subtopics.

Setting up the target Exchange 2010 organization consists of four main steps:

Checking the System Requirements

On this step make sure that your environment meets the minimal system requirements for Migration Manager for Exchange agents. For more details, see Checking System Requirements.

Setting Up Accounts and Required Permissions

On this step you should set up the accounts and required permissions for Exchange migration. There are four main types of accounts used by Migration Manager for Exchange agents:

- Target Active Directory Synchronization Account
 This account is used by the Directory Synchronization Agent (DSA) to access the target Active Directory domain
- Target Exchange Account
 This account is used by Migration Manager for Exchange agents installed on agent host to access the target Exchange server.
- Target Active Directory Account
 This account is used by Migration Manager for Exchange agents to access the target domain.
- Target Agent Host Account
 This account is used to install and run the Migration Manager for Exchange agents on agent host and to access the license server.

You can simplify the setup by using a single account for all Migration Manager for Exchange processes. This account should have the permissions that are required for Migration Manager for Exchange console and all agents on every server that is involved in the migration.

For more details, see Setting Up Accounts and Required Permissions.

Preparing the Target Exchange Environment for Exchange Migration

On this step you should perform common environment preparations:

- · Back up Exchange.
- Create the Aelita EMW Recycle Bin public folder (optional)
- · Create administrator mailboxes for public folder and free/busy synchronization
- · Create administrator mailboxes for mailbox and calendar synchronization (optional)
- Create custom throttling policies
- Install Microsoft Exchange Server MAPI Client and Collaboration Data Objects 1.2.1 version 6.5.8353.0 or later.
- Disable RPC Encryption on target Exchange 2010 servers (optional)

For more details, see Preparing the Target Exchange Environment for Exchange Migration.

Setting Up Connection with the Source Exchange Organization Using SMTP Connectors

On this fourth step you should set up the connection with the source Exchange organization using SMTP connectors. This task consists of three subtasks given below:

- 1. Setting up the target Exchange 2010 organization for Internet mail flow between target and source Exchange organizations
- 2. Configuring target DNS server for mail forwarding
- 3. Testing the SMTP connectors (optional)

For more details, see Setting Up Connection with the Source Exchange Organization Using SMTP Connectors.

Preparation Checklist

This checklist will help you set up your target Exchange 2010 organization and its environment properly. Make sure you have done all the steps below before completing the preparation.

Check Step

Check the system requirements
Set up the Target Active Directory Synchronization Account
Set up the Target Exchange Account
Set up the Target Active Directory Account
Set up the Target Agent Host Account
Back up Exchange
Create the Aelita EMW Recycle Bin public folder (optional)
Create administrator mailboxes for public folder and free/busy synchronization
Create administrator mailboxes for mailbox and calendar synchronization (optional)

Check Step

Create custom throttling policies
Install Microsoft Exchange Server MAPI Client and Collaboration Data Objects 1.2.1 version 6.5.8353.0 or later
Configure the NSPI connection limit
Disable RPC Encryption on target Exchange 2010 servers (optional)
Set up the target Exchange organization for Internet mail flow between source and target Exchange organizations
Configure the target DNS server for mail forwarding
Test the SMTP connectors (optional)

Prerequisites

Before starting the preparation of the target Exchange 2010 organization and its environment, make sure that you have the privileges to grant all of the following permissions to accounts.

NOTE: The list of permissions given below contains all required permissions for the accounts. However some of the permissions can be replaced with their equivalents. For more information, see the corresponding steps for each account.

Target Active Directory Synchronization Account

. Membership in the Administrators or Domain Admins group of the target domain.

Target Exchange Account

- · Read access to the target domain.
- Membership in the local Administrators group on all target Exchange servers involved in the migration.
 If a server is a domain controller, the account should be added to the domain local Administrators
 group of the domain.
- Full Control permission on the organizational units (OUs) (and their child objects) where the target synchronized objects are located.
- **Full Control** permission on the Microsoft Exchange System Objects organizational unit in all domains in which target Exchange 2010 servers involved in public folder synchronization reside.
- Full Control permission on target Exchange 2010 organization
- · Membership in the Public Folder Management group.
- Permissions to log on to every mailbox involved in the migration.
- . Membership in the Recipient Management group.

Target Active Directory Account

- . Read access to the target domain.
- Full Control permission on the organizational units (OUs) (and their child objects) where the target

synchronized objects are located.

• Read permission for the Microsoft Exchange container in the target Active Directory.

Target Agent Host Account

- Membership in the local Administrators group on the license server (unless alternative credentials are
 used for the license server). If server is located in another trusted forest, the account should have local
 Administrator permissions on the license server.
- · Local Administrator permissions on the agent host server.

Checking System Requirements

CAUTION: Any computer that does not meet the requirements should be upgraded before installing Migration Manager for Exchange components.

Migration Manager for Exchange uses the following Exchange-specific agents involved in the migration process:

- · Public Folder Source Agent
- Public Folder Target Agent
- Mail Target Agent
- Calendar Synchronization Agent
- · Free/Busy Synchronization Agent
- · Transmission Agent
- · Migration Agent for Exchange

Agents work on agent host servers.

Agent host can be:

- 1. An Exchange server itself, which is the default configuration. After you enumerate an Exchange organization all Exchange servers are registered as agent hosts for themselves.
- 2. Another Exchange server from the same Exchange organization.
- 3. A stand-alone server. It can be located in another forest or workgroup.

For detailed information about system requirements for agent hosts, see the Exchange Migration Agents section of the *System Requirements and Access Rights*.

Target Exchange 2010 Organization Considerations

- The mailbox database containing the administrator mailbox (the System Mailbox used by default or custom administrator mailbox) should be mounted for each target Exchange 2010 server involved in the migration.
- The Migration Manager for Exchange console shows only those servers from target Exchange 2010
 organization that host the Mailbox role. This is required because only servers with actual data are
 considered for migration.
- Public folder stores are no longer mandatory for Exchange 2010 organizations.

- Some restrictions may apply in Exchange 2003 organization to Exchange 2010 organization migration scenario. For information, see Exchange 2003 to Exchange 2010 Migration Restrictions.
- To migrate Recoverable Items subfolders the In-Place Hold and Litigation Hold features should be
 disabled on the target during the migration. Refer to User Guide for instructions on how to prepare your
 environment and enable this feature.

Setting Up Accounts and Required Permissions

This section describes requirements for accounts working with the target Exchange servers. Migration Manager for Exchange allows you to use different administrative accounts for different purposes. Exchange data is migrated by Migration Manager for Exchange agents, which use the following accounts:

· Target Active Directory Synchronization Account

This account is used by:

- a. The Directory Synchronization Agent (DSA) to access the target Active Directory domain
- b. The Mail Source Agent (MSA) to perform mailbox switch

For more details, see Setting Up the Target Active Directory Synchronization Account.

- Target Exchange Account
 - This account is used by Migration Manager for Exchange agents installed on agent host to access the target Exchange server.
 - For more details, see Setting Up the Target Exchange Account.
- · Target Active Directory Account
 - This account is used by Migration Manager for Exchange agents to access the target domain.
 - For more details, see Setting Up the Target Active Directory Account.
- Target Agent Host Account
 - This account is used to install and run the Migration Manager for Exchange agents on agent host and to access the license server.
 - For more details, see Setting Up Target Agent Host Account.

Setting Up the Target Active Directory Synchronization Account

This section describes how to set the required permissions for the Target Active Directory Synchronization Account. This account is used by:

- The Directory Synchronization Agent (DSA) to access the target Active Directory domain
- The Mail Source Agent (MSA) to perform mailbox switch

The required privilege level for the Target Active Directory Synchronization Account is membership in the **Domain Admins** group of the target domain.

CAUTION: If for some reason you cannot grant such privileges to the Target Active Directory Synchronization Account, and then refer to the System Requirements and Access Rights document for the list of minimal required permissions.

To grant the necessary permission to the Target Active Directory Synchronization Account, perform the following:

- 1. On the target domain controller in the **Active Directory Users and Computers** snap-in, click **Users**, then in the right pane right-click **Domain Admins** and click **Properties**.
- Go to the Members tab, click Add and select the Target Active Directory Synchronization Account (in our example, QMM_Trg_DSA).
- 3. Close the dialog boxes by clicking OK.

Setting Up the Target Exchange Account

This section describes how to set the required permissions for the Target Exchange Account used by Migration Manager for Exchange agents. This account is used for the following:

- Working with target Exchange mailboxes and public folders (used by the Mail Target Agent, Public Folder Source Agent, and Public Folder Target Agent)
- Making the newly-created public folders mail-enabled (used by the public folder agents only: Public Folder Source Agent and Public Folder Target Agent)
- · Synchronizing Calendar information (used by the Calendar Synchronization Agent)
- Synchronizing free/busy data (optional) (used by the Free/Busy Synchronization Agent)
- · Moving mailboxes

The required privileges for the Target Exchange Account are as follows:

- · Read access to the target domain.
- Membership in the local Administrators group on all target Exchange servers involved in the migration.
 If a server is a domain controller, the account should be added to the domain local Administrators group of the domain.
- Full Control permission on the organizational units (OUs) (and their child objects) where the target synchronized objects are located.
- **Full Control** permission on the Microsoft Exchange System Objects organizational unit in all domains in which target Exchange 2010 servers involved in public folder synchronization reside.
- Full Control permission on target Exchange 2010 organization
- Membership in the Public Folder Management group.
- Permissions to log on to every mailbox involved in the migration.
- . Membership in the Recipient Management group.

To set up the Target Exchange Account, perform the steps described in the related subtopics.

NOTE: Note that the steps are given only as an example of a possible Target Exchange Account setup.

Changing Default Exchange Account

The default Exchange Account (initially displayed on the **Connection** page of the Exchange server **Properties**) is set when you add the source or target organization to the migration project (see the *Registering Source and Target Organizations* section of the *Migration Manager for Exchange User Guide* for details). If necessary, you can change the default Exchange Account by clicking **Modify** on the **General | Connection** page in the properties of the corresponding server in the Migration Manager for Exchange Console.

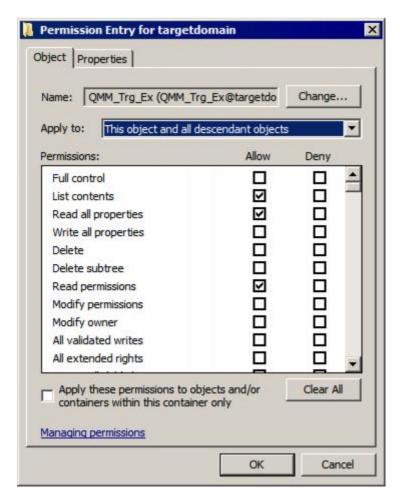
To go on using the default Exchange Account for Exchange migration, grant the permissions required for Exchange migration to this account (see the next steps).

Granting Read Access to the Target Active Directory Domain

Target Exchange Account should have **Read** access to the target Active Directory.

To grant this permission to the Target Exchange Account, complete the following steps:

- 1. In the **Active Directory Users and Computers** snap-in, right-click the domain name (in our example, targetdomain), and then click **Properties**.
- 2. On the Security tab, click Add and select the Target Exchange Account (in our example, QMM_Trg_Ex).
- Select the Target Exchange Account, and then check the Allow box for the Read permission in the Permissions box.
- 4. Click the **Advanced** button. In the **Advanced Security Settings** dialog box, select the account you specified on step 2, and click **Edit**.
- 5. In the **Permission Entry** dialog box, select **This object and all descendant (child) objects** from the **Apply to** drop-down list.



6. Close the dialog boxes by clicking OK.

Granting Membership in Server Local Administrators Group

The Target Exchange Account used by Migration Manager for Exchange agents should be a member of the local **Administrators** group on each target Exchange server involved in the migration.

[CAUTION: If the Exchange server is a domain controller, the account should be added to the domain local Administrators group of the domain.

To add the Target Exchange Account to the local Administrators group on each target Exchange server involved in the migration, perform the following:

- 1. Open the Computer Management snap-in (Click Start | Run, enter compmgmt.msc and then click OK).
- 2. In the left pane click System Tools | Local Users and Groups | Groups.
- 3. Right-click the Administrators group and click Add to Group.
- 4. Click Add and select the Target Exchange Account (in our example, QMM_Trg_Ex).
- 5. Close the dialog boxes by clicking **OK**.

Granting Full Control on Organizational Unit

To work with the target Active Directory objects, the Target Exchange Account needs the Full Control permission on the organizational units and their child objects that contain the objects to be synchronized. This permission should be set on the domain controller where the objects you need to synchronize are located.

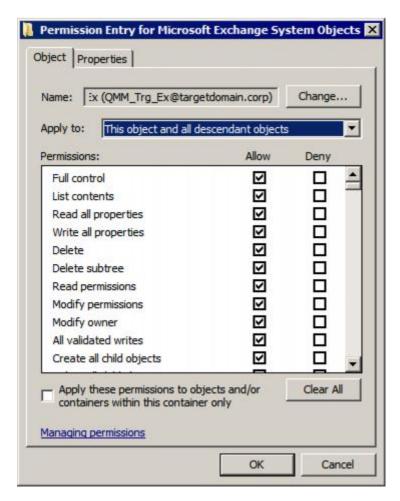
To grant the required permissions to the account, perform the following steps:

- In the Active Directory Users and Computers snap-in, right-click the OU where the objects are located, and click Properties.
- 2. On the Security tab, click Add, and select the Target Exchange Account (in our example, QMM Trg Ex).
 - NOTE: If there is no Security tab, you should select View | Advanced Features in the Active Directory Users and Computers snap-in.
- 3. Select the account name, and then enable the **Allow** option for the **Full Control** permission in the **Permissions** box.
- Click the Advanced button. In the Advanced Security Settings dialog box, select the account you specified on step 2, and click Edit.
- In the Permission Entry dialog box, select This object and all child (descendant) objects from the Apply onto drop-down list.
- 6. Close the dialog boxes by clicking OK.

Granting Full Control on the Microsoft Exchange System Objects Organizational Unit

The Target Exchange Account used by Migration Manager for Exchange agents needs the **Full Control** permission on the **Microsoft Exchange System Objects** organizational unit (OU) in all domains in which target Exchange 2010 servers involved in public folder synchronization reside.

- 1. In the Active Directory Users and Computers snap-in, right-click the Microsoft Exchange System Objects OU and click Properties.
 - NOTE: If there is no Microsoft Exchange System Objects OU, you should select View | Advanced Features in the Active Directory Users and Computers snap-in.
- 2. On the **Security** tab, click **Add**, and select the Target Exchange Account (in our example, **QMM_Trg_Ex**).
- Select the account name, and then enable the Allow option for the Full Control permission in the Permissions box.
- Click the Advanced button. In the Advanced Security Settings dialog box, select the account you specified on step 2, and click Edit.
- 5. In the **Permission Entry** dialog box, select **This object and all descendant (child) object**s from the **Apply to** drop-down list.

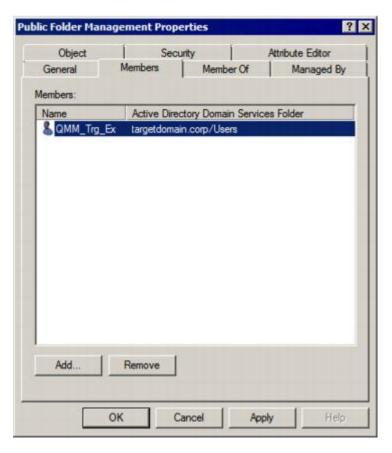


6. Close the dialog boxes by clicking **OK**.

Granting Permission to Make Public Folders Mail-Enabled

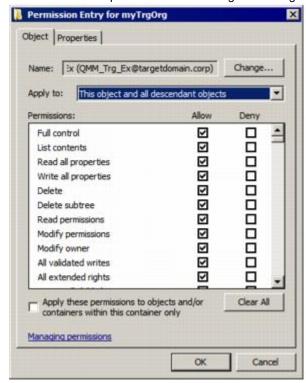
If a public folder is mail-enabled in the source organization, the Public Folder Target Agent needs to be able to make it mail-enabled in the target organization as well. To achieve this, assign your Target Exchange Account permissions to run the **Enable-MailPublicFolder** cmdlet, as follows:

- 1. Add this account to the Public Folder Management group in the target Exchange 2010 organization:
 - a. In the Active Directory Users and Computers snap-in select the Microsoft Exchange Security Groups node.
 - b. In the right pane, right-click Public Folder Management group and click Properties .
 - c. On the **Members** tab click **Add** and select the Target Exchange Account (in our example, QMM_Trg_Ex).



- d. Close the dialog boxes by clicking **OK**
- CAUTION: If the Target Exchange Account is located in another trusted forest, you cannot add the account to the Public Folder Management group. In this case grant the following permissions for the Exchange Administrative Group (FYDIBOHF23SPDLT) container and its descendant (child) objects to the account in the Configuration partition using the ADSIEdit snap-in:
 - Modify public folder replica list permission
 - Modify public folder deleted item retention permission
 - . Modify public folder quotas permission
- Give the account the Full Control permission on the CN=<ExchangeOrganizationName>,CN=Microsoft Exchange,CN=Services,CN=Configuration,DC=<...>,DC=<...> container:

- a. From the Start menu, select Run. In the Run dialog box, type ADSIEdit.msc. Click OK.
 - NOTE: If you have a Windows 2003 domain controller, the ADSIEdit utility, which is part of the Windows 2003 Support Tools, may not be installed. In this case install the Support Tools by running the Support Tools Suptools.msi file located on the Windows 2003 CD.
- b. In the ADSIEdit snap-in, open the CN=<ExchangeOrganizationName>,CN=Microsoft Exchange,CN=Services,CN=Configuration,DC=<...>,DC=<...> container
- c. Right-click the CN=<ExchangeOrganizationName> container and click Properties.
- d. In the Properties dialog box, click the Security tab.
- e. On the Security tab, click Advanced.
- f. In the Advanced Security Settings dialog box, click Add.
- g. In the **Select User, Computer, Service Account, or Group (or similar)** dialog box, select the Target Exchange Account (in our example, **QMM_Trg_Ex**) and click **OK**.
- h. In the **Permission Entry** for dialog box, select **This object and all descendant (child) objects** from the **Apply to** drop-down list.
- i. Allow Full Control permission for the Target Exchange Account.



j. Close the dialog boxes by clicking OK.

Granting Full Control on Exchange 2010 Mailboxes

The Target Exchange Account used by Migration Manager for Exchange agents needs the **Full Control** permission on each mailbox database involved in migration and on its associated public folder database if it exists.

To grant the required permissions to the *<User>* (in our example, *LA\QMM_Trg_Ex*), run the following two cmdlets in Exchange Management Shell:

Get-MailboxDatabase | Add-ADPermission -User <User> -AccessRights GenericAll ExtendedRights Receive-As

Get-PublicFolderDatabase | Add-ADPermission -User <User> -AccessRights GenericAll ExtendedRights Receive-As

To verify that all permissions for the Target Exchange Account are set correctly, select any mailbox involved in the migration in the Migration Manager Console and check that the Target Exchange Account has **Full Access** permissions for the mailbox.



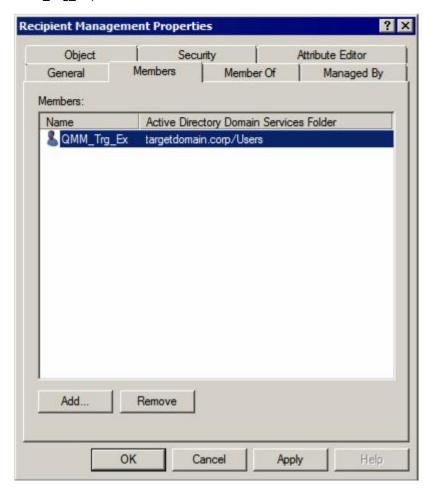
Granting Membership in Recipient Management Group

To perform **Move mailbox** operations, the Target Exchange Account needs to be assigned permissions to run the following cmdlets:

- New-MoveRequest
- Get-MoveRequest
- Remove-MoveRequest
- Get-MoveRequestStatistics

To grant these permissions, add the account to the Recipient Management group in the target Exchange 2010 organization, as follows:

- 1. In the Active Directory Users and Computers snap-in select the Microsoft Exchange Security Groups node.
- In the right pane, right-click Recipient Management group and select Properties from the shortcut menu.
- On the Members tab click Add and select the Target Exchange Account (in our example, QMM_Trg_Ex).



4. Close the dialog boxes by clicking OK.

Setting Up the Target Active Directory Account

This section describes how to set the required permissions for the Target Active Directory Account used by Migration Manager for Exchange agents. This account is used for the following:

- · Working with the target Active Directory
- Re-homing mailboxes
- Switching mailboxes and synchronize mailboxes in Remote Users Collections (Mail Source Agent, Mail Target Agent)

The required permissions for the Target Active Directory Account are as follows:

- Read access to the target domain
- Full Control permission on the organizational units (OUs) (and their child objects) where the target synchronized objects are located.
- Read permission for the Microsoft Exchange container in the target Active Directory

To set up the Target Active Directory Account, perform the steps described in the related subtopics.

NOTE: Note that these steps are given only as an example of a possible Target Active Directory Account setup.

Changing Default Active Directory Account

CAUTION: This section is relevant to the public folder synchronization only. Active Directory Account for mailbox or calendar synchronization is specified during corresponding job configuration.

The default Source or Target Active Directory Account (initially displayed on the Associated domain controller page of the Exchange server's properties) is set when you add the source or target organization to the migration project (see the *Registering Source and Target Organizations* section of the **Migration Manager for Exchange User Guide** for details).

To change the Source or Target Active Directory Account, click **Modify** on the **General | Associated domain controller** page of the corresponding source (target) server properties in the Migration Manager for Exchange Console.

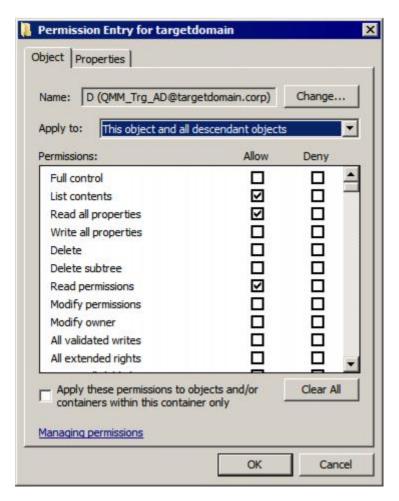
To go on using the default Source (Target) Active Directory Account for Exchange migration, grant the permissions required for Exchange migration to this account (see the next steps).

Granting Read Access to Active Directory Domain

The Target Active Directory Account used by Migration Manager for Exchange agents needs **Read** access to the target domain to work with servers and target Active Directory.

To grant this permission to the account, complete the following steps:

- 1. On the target domain controller in the **Active Directory Users and Computers** snap-in, right-click the domain name, and then click **Properties** on the shortcut menu.
- On the Security tab, click Add and select the account to which you wish to assign permissions (in our example, QMM_Trg_AD).
 - NOTE: If there is no Security tab, you should select View | Advanced Features in the Active Directory Users and Computers snap-in.
- Select the account name, and then enable the Allow option for the Read permission in the Permissions box.
- 4. Click the **Advanced** button. In the **Advanced Security Settings** dialog box, select the account you specified on step 2 and click **Edit**.
- 5. In the **Permission Entry** dialog box, select **This object and all descendant (child) objects** from the **Apply to** drop-down list.



6. Close the dialog boxes by clicking OK.

Granting Full Control on Organizational Unit (Target Active Directory Account)

To work with the target Active Directory objects, the Target Active Directory Account needs the **Full Control** permission on the organizational units and their child objects that contain the objects to be synchronized. This permission should be set on the domain controller where the objects you need to synchronize are located. To grant the required permissions to the account, perform the following steps:

- 1. In the **Active Directory Users and Computers** snap-in, right-click the OU where the objects are located, and click **Properties**.
- 2. On the **Security** tab, click **Add**, and select the Target Active Directory Account (in our example, **QMM_Trg_AD**).
 - NOTE: If there is no Security tab, you should select View | Advanced Features in the Active Directory Users and Computers snap-in.
- 3. Select the account name, and then enable the **Allow** option for the **Full Control** permission in the **Permissions** box.

- 4. Click the **Advanced** button. In the **Advanced Security Settings** dialog box, select the account you specified on step 2, and click **Edit**.
- 5. In the **Permission Entry** dialog box, select **This object and all child (descendant) objects** from the **Apply onto** drop-down list.
- 6. Close the dialog boxes by clicking OK.

Granting Read Permission for the Microsoft Exchange Container

In the target Exchange 2010 organization, the Target Active Directory Account requires the **Read** permission on the **Microsoft Exchange** container in the target Active Directory.

To grant this permission, take the following steps:

- 1. From the Start menu, select Run. In the Run dialog box, type ADSIEdit.msc. Click OK.
- 2. In the ADSIEdit snap-in, open the CN=Microsoft
 Exchange,CN=Services,CN=Configuration,DC=<...>,DC=<...> container.
- 3. Right-click the Microsoft Exchange container and select Properties.
- 4. In the Properties dialog box, click the Security tab.
- 5. On the Security tab, click Add and select the account to which you wish to assign permissions.
- Select the account name, and then enable the Allow option for the Read permission in the Permissions box.
- Click the Advanced button. In the Advanced Security Settings dialog box, select the account you specified on step 5 and click Edit.
- In the Permission Entry dialog box, select This object and all child (descendant) objects from the Apply onto drop-down list.
- 9. Close the dialog boxes by clicking **OK**.

Setting Up the Agent Host Account

This section describes how to set the required permissions for the Agent Host Account used by Migration Manager for Exchange agents. This account is used to install and run Migration Manager for Exchange agents on agent hosts and to access the license server. The required privileges for the Agent Host Account are as follows:

- Membership in the local Administrators group on the license server (unless alternative credentials are
 used for the license server). If server is located in another trusted forest, the account should have local
 Administrator permissions on the license server
- Local Administrator permissions on the agent host server.
- NOTE: By default each Exchange server is an agent host for itself. If you use the default agent host then to simplify the account setup process, you can grant these permissions to the Exchange Account and use it instead of the Agent Host Account.

To set up the Agent Host Account, perform the steps described in the related subtopics.

NOTE: Note that the steps are given only as an example of a possible Agent Host Account setup.

Changing the Default Target Agent Host Account

The default Target Agents Host Account (initially displayed on the **Default Agent Host** page of the Exchange server Properties) is set when you add the target organization to migration project (see the *Registering Source* and *Target Organizations* section of the *Migration Manager for Exchange User Guide* for details).

If necessary, you can change the default Target Agent Host Account by clicking **Modify** on the **General | Default Agent Host** page of the corresponding target server properties in the Migration Manager for Exchange Console.

To go on using the default Target Agent Host Account for Exchange migration, grant the permissions required for Exchange migration to this account (see the next steps).

Granting Membership in the Local Administrators Group on the License Server

The Target Agent Host Account should be a member of the local **Administrators** group on the license server (unless alternative credentials are used for the license server).

CAUTION:

- If license server is a domain controller, the account should be added to the domain local Administrators group of the domain.
- Local Administrator permissions are required on the license server if this license server is located in another trusted forest.

To add the Agent Host Account to the local **Administrators** group on the license server perform the following:

- 1. Open the Computer Management snap-in (Click Start | Run, enter compmgmt.msc and then click OK).
- 2. In the left pane click System Tools | Local Users and Groups | Groups.
- 3. Right-click the Administrators group and click Add to Group.
- 4. Click Add and select the Target Agent Host Account (in our example, QMM_Src_AH).
- 5. Close the dialog boxes by clicking OK.

Preparing the Target Exchange Environment for Exchange Migration

Perform the steps described in the related subtopics to ensure that your Exchange environment is ready for migration:

- · Backing Up Exchange
- Creating Aelita EMW Recycle Bin Public Folder (Optional)
- Creating Administrator Mailboxes for Public Folder and Free/Busy Synchronization
- Creating Administrator Mailboxes for Mailbox and Calendar Synchronization (Optional)
- · Creating Custom Throttling Policies
- Installing the Microsoft Exchange Server MAPI Client and Collaboration Data Objects 1.2.1

- · Configuring the NSPI Connection Limit
- Disable RPC Encryption on Target Exchange 2010 Servers (Optional)

Backing Up Exchange

Before implementing Migration Manager for Exchange in your production environment, back up your Exchange infrastructure. We recommend that Active Directory data be backed up at least twice a day during migration.

Transaction Log File Cleanup

When Migration Manager for Exchange synchronizes mail, for every megabyte of data migrated from the source to the target, a transaction log file of equal size is generated on the target Exchange server. Exchange-aware backup applications purge the transaction logs after the backup completes. By the time the backup finishes, all logged transactions have already been applied to the store and backed up to tape, making log cleaning safe. Large transaction logs that are generated during mailbox migration quickly occupy free disk space. To work around this problem, perform one of the following:

- If a full backup strategy is implemented in the organization or there is no backup strategy at all, then circular logging may be enabled for unattended log deletion.
- If an incremental or differential backup strategy is already implemented in the organization, then make sure that logs are cleared automatically when backup process is finished. Do not enable circular logging in this case.

Note also that Microsoft recommends turning OFF circular logging on the Exchange server. For more information, refer to Microsoft Knowledge Base article 147524: XADM: How Circular Logging Affects the Use of Transaction Logs.

Creating Aelita EMW Recycle Bin Public Folder (Optional)

CAUTION: If you skip this step, you must manually turn off using the Aelita EMW Recycle Bin folder during public folder synchronization (set the UseRecycleBin parameter to 0). See the Use Fine-Tuning the Agents section of the Migration Manager for Exchange User Guide for details.

If you plan to perform public folder synchronization using Migration Manager Public Folder agents, you should create a special public folder called **Aelita EMW Recycle Bin.** Replicate this folder to all the public folder servers involved in the public folder synchronization process.

This folder will help prevent data loss in case of accidental public folder deletion. When a public folder is deleted in one of the environments, the public folder synchronization agents move the corresponding folder in the other environment to the **Aelita EMW Recycle Bin** folder, if it exists, instead of permanently deleting the folder. You can use this folder to check whether important information has been deleted, and restore any data deleted by mistake.

CAUTION: Only deleted public folders will be put into the Aelita EMW Recycle Bin. If you delete a message from a public folder, it will be destroyed permanently in both the Source and Target Exchange organizations.

Creating Administrator Mailboxes for Public Folder and Free/Busy Synchronization

Administrator mailboxes should be created on all Exchange servers involved in public folder and free/busy synchronization. These mailboxes will be used to access the public folder tree and the Schedule+ Free/Busy folder when creating public folder and free/busy synchronization jobs.

The administrative mailbox selected for public folder synchronization should reside in a private mailbox database located on the same server as the public folder database. The mailbox database should be also associated with that public folder database. To set this association, in **Exchange Management Console** open properties of the mailbox database and specify the public database as **Default public folder database** on the **Client Settings** tab.

CAUTION:

- The administrator mailbox specified for the synchronization job should not be changed during the synchronization process.
- The administrator mailboxes should not be included in mailbox or calendar synchronization jobs.

Creating Administrator Mailboxes for Mailbox and Calendar Synchronization (Optional)

Mailbox and calendar synchronization agents access the migrated mailboxes via the administrator mailbox. By default, the Microsoft System Mailbox is used as the administrator mailbox on Exchange 2010 servers. However, in some cases it is necessary to create custom administrator mailboxes and use them instead of the Microsoft System Mailbox.

Creating Custom Throttling Policies

To prevent possible issues in an Exchange 2010 Service Pack 1 or later organization, you should create custom throttling policies, apply them to the Exchange Accounts and then restart the Microsoft Exchange Throttling Service.

To do this, run the following PowerShell commands for each Exchange Account:

```
New-ThrottlingPolicy <QMM_Exchange_Account_Throttling_Policy_Name>

Set-ThrottlingPolicy <QMM_Exchange_Account_Throttling_Policy_Name> -RCAMaxConcurrency

10000 -RCAPercentTimeInAD $null -RCAPercentTimeInCAS $null -

RCAPercentTimeInMailboxRPC $null

Set-ThrottlingPolicy <QMM_Exchange_Account_Throttling_Policy_Name> -

PowerShellMaxConcurrency <MaxConcurrency>
```

Set-ThrottlingPolicy <QMM_Exchange_Account_Throttling_Policy_Name> -EWSMaxConcurrency \$null -EWSPercentTimeInAD \$null -EWSPercentTimeinCAS \$null -EWSPercentTimeInMailboxRPC \$null -EWSMaxSubscriptions \$null -EWSFastSearchTimeoutInSeconds \$null -EWSFindCountLimit \$null

Set-ThrottlingPolicyAssociation -Identity <QMM_Exchange_Account_Name> - ThrottlingPolicy <QMM Exchange Account Throttling Policy Name>

Restart-Service -Name MSExchangeThrottling

where *MaxConcurrency* is the number of Migration Agent for Exchange (MAgE) instances simultaneously working with Exchange 2010 server, multiplied by the value of 5.

- NOTE: To ensure stable operation of MAgE agents when working with Microsoft Exchange 2010, you should increase the number of permitted user connections. For that, change the value for the MaxSessionsPerUser parameter using the client throttling policies, as follows:
 - On the computer that hosts the Microsoft Exchange CAS server, in %Program Files%\Microsoft\Exchange Server\V14\Bin, open the microsoft.exchange.addressbook.service.exe.config file in a text editor.
 - 2. Change the value of the MaxSessionsPerUser parameter to 100000.
 - 3. Save and close the file.
 - 4. Restart the Address Book service.
- IMPORTANT: Described script creates universal custom throttling policies regardless of whether communication with the source Exchange server is performed through MAPI (legacy agents or MAgE) or EWS protocol (MAgE only, used by default). If you migrate to Exchange 2013 (or higher) or Office 365 and the UseEwsProtocolForSourceIfAvailable parameter value is not changed, you can skip creation of throttling policies for MAPI by omitting the following line:

Set-ThrottlingPolicy <QMM_Exchange_Account_Throttling_Policy_Name> RCAMaxConcurrency 10000 -RCAPercentTimeInAD \$null -RCAPercentTimeInCAS \$null RCAPercentTimeInMailboxRPC \$null

For details about the UseEwsProtocolForSourceIfAvailable parameter, see Configuring Migration Using PowerShell.

Installing the Microsoft Exchange Server MAPI Client and Collaboration Data Objects 1.2.1

Migration Manager needs version 6.5.8353.0 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 only).

Since the MAPI CDO setup package is not available for distribution, you should download it from the Microsoft Web site. At the moment of the last document update, the download link is http://www.microsoft.com/en-us/download/details.aspx?id=42040.

After installing the API, restart the computer.

Configuring the NSPI Connection Limit

IMPORTANT: This step must be performed only if you have any Windows Server 2008 or later domain controllers acting as Global Catalog.

By default, the maximum number of simultaneous Name Service Provider Interface (NSPI) connections equals to 50 per user for Windows Server 2008 or later domain controllers. Therefore, to avoid possible issues related to exceeding that value, you may need to increase the NSPI connection limit on all Windows Server 2008 or later domain controllers acting as Global Catalog. The recommended limit value equals the number of agent instances working simultaneously multiplied by 5.

To change the default connection limit for a domain controller, take the following steps:

- 1. Click Start, click Run, type regedit, and then click OK.
- Locate and then click the following registry subkey:
 HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\NTDS
- 3. Click the Parameters key.
- 4. On the Edit menu, point to New, and then click DWORD Value.
- 5. Type NSPI max sessions per user, and then press Enter.
- 6. Double-click **NSPI max sessions per user**, type the appropriate maximum number of the NSPI connections, and then click **OK**.
- 7. Restart the computer or restart Active Directory Domain Services.

For additional information, see the following Microsoft Support articles:

- · Error: "Trying to connect to Microsoft Exchange Server" results in MAPI E LOGON FAILED
- NSPI connection to a Windows-based domain controller causes MAPI client applications to fail and returns a "MAPI E LOGON FAILED" error message

Disable RPC Encryption on Target Exchange 2010 Servers (Optional)

- CAUTION: This step should be performed only in the Exchange 2003 to Exchange 2010 migration scenario in the following cases:
 - Mailbox Source Agent (MSA) is installed directly on the Exchange 2003 server and is configured to check whether the last PST file has been delivered (default setting).
 - . Calendar Synchronization Agent (CSA) is installed directly on the Exchange 2003 server.

The **EncryptionRequired** parameter specifies whether encryption of connections to the Exchange 2010 server is required. The Exchange RPC Client Access service rejects unencrypted connections if this parameter is set to \$true.

During the migration, agents that are installed on the source Exchange Server 2003 require connection to Exchange 2010 to perform some operations. Migration Manager for Exchange agents create unencrypted connections, so if the agents are installed on the source Exchange Server 2003, you need to remove the RPC encryption requirement to log on to the target Exchange 2010 server.

- **NOTE:** To avoid disabling RPC encryption perform one of the following steps:
 - 1. Use agent hosts in the source Exchange 2003 organization.
 - 2. Install Calendar Synchronization Agent (CSA) in the target Exchange 2010 organization and disable last PST check.

To disable the RPC encryption requirement, use the Exchange Management Shell to run the following command on all target Exchange 2010 servers with mailbox databases and public folder databases that are associated with mailbox databases as well as on all target Exchange 2010 servers with the Client Access Server (CAS) role installed:

Set-RpcClientAccess -Server <Exchange 2010 Server Name> -EncryptionRequired \$false

Setting Up Connection with the Source Exchange Organization Using SMTP Connectors

This section describes how to set up a connection with the source Exchange organization using SMTP connectors. On this step you may need to coordinate with the administrator of the source Exchange organization to set up the connection properly.

For more details, see the related topics:

- Setting up Target Exchange 2010 Organization for Internet Mail Flow between Target and Source Exchange Organizations
- · Configuring Target DNS Server for Mail Forwarding
- Testing the SMTP Connectors (Optional)

Setting up Target Exchange Organization for Internet Mail Flow between Target and Source Exchange Organizations

You need to establish Internet mail flow between the target and the source Exchange organizations. For that, one of the following methods can be used:

- Establishing Internet mail flow directly through a Hub Transport server.
- Establishing Internet mail flow through a subscribed Edge Transport server.

Establishing Internet Mail Flow Directly Through a Hub Transport Server

If you choose this option, you need to create an **Internet Send** connector and **Receive** connector on an Exchange 2010 Hub Transport server that can be directly reached through the Internet.

To establish mail flow to and from the Internet through a Hub Transport server, follow these steps:

1. Create a Send connector (to send email from source Exchange 2010 organization to the Internet) on the Hub Transport server.

- Modify the default Receive connector for the source domain to accept anonymous e-mail from the Internet
- 3. Add the e-mail domain used for redirection to the list of accepted domains on the Hub Transport server.

Each step is explained in further detail in the related subtopics.

- NOTE: For information about configuring Receive connectors in Exchange 2010 organization, refer to the following Microsoft Knowledge Base articles:
 - · Allow Anonymous Relay on a Receive Connector
 - · Configure the Receive connector as externally secured

Creating Send Connector

To create a Send connector, you can use either Exchange Management Console or Exchange Management Shell.

To create a Send connector using Exchange Management Console

- 1. Open the Exchange Management Console. Select Organization Configuration | Hub Transport.
- 2. In the action pane, click New Send Connector. The New SMTP Send Connector wizard runs.
- When prompted, in the Name field, type a unique name for the connector, for example, "QMM Send Connector." From the Select the intended use for this Send connector drop-down list, select Custom, and then click Next.
- 4. On the **Address space** page, click **Add**. In the dialog box displayed, specify the address space you want to use for mail redirection from source to target (target to source) organization (for example, *.target.local or *.source.local), select the **Include all subdomains** option, click **OK** and then click **Next**.
- 5. On the Network settings page, select Use Domain Name System (DNS) "MX" records to route mail automatically. Select the Use the External DNS Lookup settings on the transport server option.
- 6. Next, on the **Source Server** page, click **Add**. In the dialog box displayed, select one or more **Hub Transport** servers in your organization, click **OK** and then click **Next**.
- 7. Finally, on the New Connector page, click New, and then on the Completion page, click Finish.

To create a Send connector using Exchange Management Shell

Run the following command for the source Exchange organization:

```
new-SendConnector -Name 'QMM Send Connector' -Usage 'Custom' -AddressSpaces 'SMTP:*.target.local;1' -IsScopedConnector $false -DNSRoutingEnabled $true -UseExternalDNSServersEnabled $true -SourceTransportServers 'ServerName'
```

where:

- *.target.local is the address space you want to use for mail redirection from source to target organization.
- · ServerName is the Hub Transport server name.

Run the following command for the target Exchange organization:

```
new-SendConnector -Name 'QMM Send Connector' -Usage 'Custom' -AddressSpaces
'SMTP:*.source.local;1' -IsScopedConnector $false -DNSRoutingEnabled $true -
UseExternalDNSServersEnabled $true -SourceTransportServers 'ServerName'
```

where:

- *.source.local is the address space you want to use for mail redirection from target to source organization.
- ServerName is the Hub Transport server name.

Modifying Default Receive Connector

To modify the default Receive connector for the source or target Exchange 2007/2010 organization to receive mail from the Internet, you can use either Exchange Management Console or Exchange Management Shell.

To modify the default Receive connector using Exchange Management Console

- 1. Run Exchange Management Console. Select the Server Configuration | Hub Transport node.
- 2. In the **Hub Transport** pane select the appropriate Hub Transport server.
- 3. On the Receive Connectors tab, select the Default <Server Name> connector. In the Actions pane, click Properties for this connector.
- 4. In Default <Server Name > Properties dialog box, open the Permission Groups tab.
- 5. Select Anonymous Users to add anonymous permissions.
- 6. Click **OK** to apply the settings.

To modify the default Receive connector using Exchange Management Shell

Run the following command:

Set-ReceiveConnector -PermissionGroups 'AnonymousUsers, ExchangeUsers, ExchangeServers, ExchangeLegacyServers' -Identity 'ServerName\Default ServerName'

Where ServerName is the Hub Transport server name.

Adding E-mail Domain Used for Redirection to the List of Accepted Domains on Hub Transport Server

To add a new Accepted domain on a computer that has the Hub Transport server role installed, you can use either Exchange Management Console or Exchange Management Shell.

To add a domain to Accepted Domains list using Exchange Management Console

- 1. Run the Exchange Management Console and select the **Organization Configuration | Hub Transport** node.
- 2. In the Actions pane, click New Accepted Domain. This will start the New Accepted Domain wizard.
- 3. On the first page, provide the following information:
 - Name—Specify the accepted domain in the user interface, such as source.local (target.local).
 - Accepted Domain—Specify the SMTP namespace for which the Exchange organization will accept e-mail messages, such as *.source.local (*.target.local).
- 4. Select the **Authoritative Domai**n. **E-mail is delivered to a recipient in this Exchange organization** option for the accepted domain type.

- 5. Click New.
- 6. On the Completion page, click Finish.

To add a domain to Accepted Domains list using Exchange Management Shell

Run the following command for the source Exchange organization:

```
new-AcceptedDomain -Name 'source.local' -DomainName '*.source.local' -DomainType
'Authoritative'
```

where *.source.local is the address space you want to use for mail redirection from the target to the source organization.

Run the following command the target Exchange organization:

```
new-AcceptedDomain -Name 'target.local' -DomainName '*.target.local' -DomainType
'Authoritative'
```

where *.target.local is the address space you want to use for mail redirection from the source to the target organization.

Establishing Internet Mail Flow through a Subscribed Edge Transport Server

The second option for establishing Internet mail flow between the target and the source Exchange organizations (or between the source and the target Exchange organizations) is to subscribe the **Edge Transport** server to an Active Directory site. The connectors that establish mail flow to the Internet are created automatically when you subscribe an Edge Transport server to an Active Directory site by using the Edge Subscription process.

Before you begin this procedure, verify that the following prerequisites are met:

- Authoritative domains are configured on the Hub Transport server.
- E-mail address policies are configured on the Hub Transport server.
- Network communications over the secure LDAP port 50636/TCP are enabled through the firewall separating your perimeter network from the Exchange organization.

To establish mail flow to and from the Internet through a subscribed Edge Transport server, follow these steps:

- 1. Export the Edge Subscription file from the Edge Transport server.
- 2. Import the Edge Subscription file on the Hub Transport server.
- 3. Force EdgeSync synchronization to begin on the Hub Transport server.

Each step is explained in further detail in the related subtopics.

Export the Edge Subscription file from the Edge Transport Server

1. Run the following command on the Edge Transport server, providing the complete file path of the Edge Subscription file that you are creating.

```
New-EdgeSubscription -FileName "C:\EdgeSubscriptionInfo.xml"
```

 $2. \ \ \, \text{Copy the resulting XML file to the Hub Transport server}.$

Import the Edge Subscription file on the Hub Transport Server

On the Hub Transport server, run the following command:

New-EdgeSubscription -filename "C:\EdgeSubscriptionInfo.xml" - CreateInternetSendConnector \$true -CreateInboundSendConnector \$true -site "Site-Name"

Where Site-Name is the name of Active Directory site where the Hub Transport server is located.

Force EdgeSync Synchronization

To force EdgeSync synchronization, run the following command from the Exchange Management Shell on the Hub Transport server:

Start-EdgeSynchronization

Configuring Target DNS Server for Mail Forwarding

After you have completed setting up the target Exchange 2007/2010 organization for Internet mail flow between target and source Exchange organizations, you should also add the Mail Exchanger (MX) record for the target domain to the DNS server. This is necessary to forward the mail (redirected to the additional SMTP addresses added by the Directory Synchronization Agent) to the target Exchange 2007/2010 server.

We will use the following additional address space given as example on the steps above:

 @target.local—to redirect mail from source to target mailboxes. A secondary SMTP address will be added to each target mailbox by the Directory Synchronization Agent according to this template.

To set MX record for the target domain

- In the DNS snap-in, connect to the target DNS server and browse to the Forward Lookup Zones container.
- 2. Right-click the Forward Lookup Zones and select New Zone.
- 3. In the New Zone wizard, select the Primary zone to be created.
- 4. Type local for the Zone name and complete the wizard.
- 5. Right-click the zone object local again, and click New Mail Exchanger on the shortcut menu.
- 6. In the New Resource Record dialog box, type target for the Host or child domain.
- 7. Click **Browse** and select the Exchange server in the target domain to which mail sent to the *@target.local* domain will be redirected.
- 8. Click OK.

Testing the SMTP Connectors (Optional)

After both source and target Exchange organizations have been set up for Internet mail flow as well as both source and target DNS servers have been configured for mail forwarding, it is recommended to test the connection between the source and the target organizations.

CAUTION: This step should be performed in coordination with the administrator of the Exchange organization.

To test the SMTP connectors:

- Create test mailboxes on the source and target Exchange servers. In this example, both mailboxes will be called mbx1.
- 2. Set the same primary SMTP address for both mailboxes.
- 3. In this example the primary address for both mailboxes will be mbx1@Westland.Exchange.com.
- 4. Set additional addresses for both mailboxes.
- 5. In this example additional address for the source mailbox will be **mbx1@source.local**, and **mbx1@target.local** for the target mailbox.
- 6. Create a contact on the source Exchange server and point it to the additional SMTP address of the target Exchange mailbox (mbx1@target.local).
- 7. Create a contact on the target Exchange server and point it to the additional SMTP address of the source mailbox (mbx1@source.local).
- 8. Open the test source mailbox and send a message to the source contact.
- 9. Open the test target mailbox and make sure that the message has arrived.
- From the test target mailbox, send a message to the target contact, and make sure the e-mail has reached the source test mailbox.

Exchange 2003 to Exchange 2010 Migration Restrictions

Exchange 2003 organization to Exchange 2010 organization migration scenario is not supported, if MSA or CSA is installed directly on the source Exchange 2003 server and one of the following situations takes place:

- Custom administrator mailbox is used as the administrator mailbox in the Exchange 2010 organization and Exchange 2010 organization does not have public folder store, or
- System Mailbox is used as the administrator mailbox in the Exchange 2010 organization

This issue is caused by the difference between the Exchange 2003 and Exchange 2010 MAPI logon methods that prevents logging on to Exchange 2010 through Exchange 2003 MAPI. To work around the issue, you need to use separate agent hosts for MSA or CSA instead of installing them directly on the source Exchange 2003 server.

NOTE: For detailed information about system requirements for agent hosts, see the Exchange Migration Agents section of the System Requirements and Access Rights document.

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