Quest

Quest® Migration Manager 8.14

Public Folder Synchronization (MAgE)

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Legend

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Migration Manager Public Folder Synchronization (MAgE)
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Contents

About This Document

This document help you perform public folders synchronization by enhanced Migration Agent for Exchange (MAgE) combined with extended MMEx PowerShell module instead of legacy agents in migration scenarios from Microsoft Exchange 2010/2013/2016/2019 to Microsoft Office 365 or Microsoft Exchange 2016/2019.

How It Works

To synchronize public folders you can use enhanced Migration Agent for Exchange (MAgE) combined with enhanced MMEx PowerShell module instead of legacy agents in migration scenarios from Microsoft Exchange 2010/2013/2016/2019 to Microsoft Office 365 or to Microsoft Exchange 2016/2019. This approach has lots of benefits including significantly increased performance, migration statistics right from the MMEx PowerShell module, more transparent set of required permissions, configuration, update and troubleshooting processes are simplified, etc.

Enhanced MMEx PowerShell module complements Quest Migration Manager by synchronizing the mail-enabled state and public folders directory properties.

IMPORTANT: To ensure permission synchronization you should set object matching for migrated by Quest Migration Manager for Active Directory (Microsoft Office 365) mail-enabled universal security distribution groups using Set-MMExGroupMatching cmdlet.

Public folder synchronization process is collection-based. All public folders are included in one public folder collection `DMMCONSOLE`. Public folder collection properties are used as synchronization process properties.

You can specify the direction that will be applied to all public folders:

- One-way, public folders are migrated from the source to the target, and then all source changes are periodically transferred to the target.
- Two-way, public folders are synchronized from the source to the target, and then source and target changes are synchronized.

Conflict resolution

Consider the following specifics on how conflicts will be resolved for migrated public folders after migration:

- In case both source and target messages / permissions are changed, source change will be used, target change will be discarded.
- In case there are no conflicts, any source change will be added to target, and then any target change will be added to source

Hierarchy changes handling

The following hierarchy changes can be handled automatically using folder ID:

- Public folder moved to another location
- Public folder renamed

Migration Agent for Exchange at the beginning of the session detects **a change of the full path** of the source or the target public folder.

In case of change, Agent changes data in the project database to restart synchronization in next session and the following record is reported **The folder path is changed. The folder will be processed in the next session**.

In the next session, the new path will be reported in the Migration Agent log and in the statistics (GetMMExPublicFolderStatistics cmdlet). Synchronization will be restarted using new data.

Migration Agent for Exchange at the beginning of the session detects **a change of the name** of the source or the target public folder. If the target public folder renamed after the migration has been started, the Get-MMExPublicFolderStatistics returns the **System.Exception: Not Found** error in **Last error** field.

In the next session, the new name will be reported in the MigrationAgent log and in the statistics (GetMMExPublicFolderStatistics cmdlet). Synchronization will be restarted using new data.

Refer to specific case workarounds for instructions on how to handle the rest of hierarchy changes.

Before You Begin

Before you begin migration to Microsoft Office 365, you need to provision user accounts in it. For that, use the Migration Manager for Active Directory (Office 365) console for migration to Office 365 or Migration Manager for Active Directory console for migration to Exchange 2019. The information about user matching is stored in the corresponding migration project database. It is important that you use the same migration project in the Migration Manager for Exchange console when you configure public folder synchronization.

This document introduces a toolkit of Windows PowerShell cmdlets to support public folder synchronization for supported configurations.

Supported Configurations

This document is intended for the following migration scenarios supported by MAgE:

- Migration from Microsoft Exchange 2010 to Office 365
- Migration from Microsoft Exchange 2013 to Office 365
- Migration from Microsoft Exchange 2016 to Office 365
- Migration from Microsoft Exchange 2019 to Office 365
- Migration from Microsoft Exchange 2010 to Microsoft Exchange 2016
- Migration from Microsoft Exchange 2010 to Microsoft Exchange 2019
- Migration from Microsoft Exchange 2013 to Microsoft Exchange 2016
- Migration from Microsoft Exchange 2013 to Microsoft Exchange 2019
- Migration from Microsoft Exchange 2016 to Microsoft Exchange 2016
- Migration from Microsoft Exchange 2016 to Microsoft Exchange 2019
- Migration from Microsoft Exchange 2019 to Microsoft Exchange 2016
- Migration from Microsoft Exchange 2019 to Microsoft Exchange 2019

System Requirements

Refer to System Requirements and Access rights document for the Migration Agent for Exchange (MAgE) requirements.

Required Permissions

The administrative accounts used for public folder synchronization requires the following minimal permissions

- Administrative account permissions required for target Office 365 organization
- Administrative account permissions required for target Exchange 2016/2019 organization

- Administrative account permissions required for source Exchange 2010 organization
- Administrative account permissions required for source Exchange 2013/2016/2019 organization

Target Office 365 Account

To set the target administrative account perform the following steps;

- Open Migration Manager Console
- Right click **Target Exchange Organization** node of the Migration Manager Console management tree.
- On General settings page specify **Office 365 credentials** to use as target administrative account.

IMPORTANT: The account assigned to be a target Office 365 administrative account used by Migration Agent for Exchange should meet the following requirements:

- Valid Microsoft Exchange Online license. This account should have a mailbox.
- Default UPN

The following permissions are required for target Office 365 administrative account used by Migration Agent for Exchange during public folder synchronization:

Permission	Used for	Used by	How to Grant
The **Public Folders** management role	Getting access permissions to perform public folder migration	MAgE and MMEX PowerShell module	Office 365 account: Granting the Public Folders Role
The **View-Only Configuration** management role	Getting organization configuration data	MAgE and MMEX PowerShell module (Get-OrganizationConfig)	Office 365 account: Granting the View-Only Configuration Role
Owner permission for each public folder you want to synchronize	Creating and syncing content and permissions (including Migration Manager Recycle Bin, if applicable)	MAgE and MMEX PowerShell module	Office 365 account: Granting Public Folder Owner Permission
CreateSubfolders and **FolderVisible** access rights to the root public folder folder (“\”) *	Creating Migration Manager Recycle Bin folder	MAgE and MMEX PowerShell module	Office 365 account: Granting **CreateSubfolders** and **FolderVisible** access rights to the root folder

* it is required only to create Migration Manager Recycle Bin from MMEx PoSh scripts, but if admin created it manually, he/she can skip it. Make sure Exchange Organization Account has **Owner** client permission for Migration Manager Recycle Bin folder.

Notify your users that they should expect to see this account as the owner of their public folders. Consider setting an informative display name for this account.

Target Exchange 2016/2019 Organization Account

To set the target administrative account perform the following steps;

- Open Migration Manager Console
- Right click **Target Exchange Organization** node of the Migration Manager Console management tree.
- In **Add Target Organization Wizard** on the **Specify Active Directory Domain** page provide or change, if necessary, the account credentials in the **Logon As** area and finish the wizard. This account will be used by MAgE for public folder synchronization.

CAUTION: Consider, in case you decide to change account in Mailbox Migration Job or Calendar Synchronization Job properties later, this account for access to Exchange will be used instead the target administrative account you specified using Add Source Organization Wizard. To avoid any issues, it is not recommended to use multiple administrative accounts.

IMPORTANT: The account assigned to be a target administrative account used by Migration Agent for Exchange should have a mailbox.

The following permissions are required for target Exchange account used by Migration Agent for Exchange during public folder synchronization:

Permission	Used for	Used by	How to Grant
Read permission for the Microsoft Exchange container in the **Configuration** partition of source Active Directory (including all descendant objects)	Adding source Exchange organization using the Add Source Organization Wizard	MMEx console	Granting Read Permission to Microsoft Exchange Container
The **Public Folders** management role	Getting access permissions to perform public folder migration	MAgE and MMEX PowerShell module	Granting the Public Folders Role
The **View-Only Configuration** management role	Getting organization configuration data	MAgE and MMEX PowerShell module (Get-OrganizationConfig)	Granting the **View-Only Configuration** Role
Owner permission for each public folder you want to synchronize	Creating and syncing content and permissions (including Migration Manager Recycle Bin, if applicable)	MAgE and MMEX PowerShell module	Granting Owner Permissions for Each Public Folder
CreateSubfolders and **FolderVisible** access rights to the root public folder folder (“\”) *	Creating Migration Manager Recycle Bin folder	MAgE and MMEX PowerShell module	Granting **CreateSubfolders** and **FolderVisible** access rights to the root folder

* It is required only to create Migration Manager Recycle Bin from MMEx PoSh scripts, but if admin created it manually, he/she can skip it. Make sure Exchange Organization Account has **Owner** client permission for Migration Manager Recycle Bin folder.

Notify your users that they should expect to see this account as the owner of their public folders. Consider setting an informative display name for this account.

Source Exchange 2010 Account

To set the source administrative account perform the following steps;

- Open Migration Manager Console
- Right click **Source Exchange Organization** node of the Migration Manager Console management tree.
- In **Add Source Organization Wizard** on the **Specify Active Directory Domain** page provide or change, if necessary, the account credentials in the **Logon As** area and finish the wizard. This account will be used by MAgE for public folder synchronization.

NOTE: Consider, in case you decide to change account in Mailbox Migration Job or Calendar Synchronization Job properties later, this account for access to Exchange will be used instead the source administrative account you specified using Add Source Organization Wizard. To avoid any issues, it is recommended to select one administrative account to use.

IMPORTANT: The account assigned to be a source administrative account used by Migration Agent for Exchange should have a mailbox.

The following permissions are required for source Exchange 2010 administrative account used by Migration Agent for Exchange during public folder synchronization:

Permission	Used for	Used by	How to Grant
Read permission for the Microsoft Exchange container in the **Configuration** partition of the source Active Directory (including all descendant objects	Adding source Exchange organization using the Add Source Organization Wizard	MMEx console	Granting Read Permission to Microsoft Exchange Container
The **Public Folders** management role	Getting access permissions to perform public folder migration	MAgE and MMEX PowerShell module	Granting the Public Folders Role
Owner permission for each public folder you want to synchronize*.	Creating and syncing content and permissions (including Migration Manager Recycle Bin, if applicable)	MAgE and MMEX PowerShell module	Granting **Owner** Permission for Public Folders
Full access right to the root public folder folder (“\”) **	Creating Migration Manager Recycle Bin folder	MAgE and MMEX PowerShell module	Granting **Full Access Permission** of public folder to an account

TIP:

* In case the one-way synchronization is selected, at least **Read** permission for each public folder you want to synchronize can be granted to make permissions more granular.

** It is required only to create Migration Manager Recycle Bin from MMEx PoSh scripts, but if admin created it manually, he/she can skip it. Make sure Exchange Organization Account has **Owner** client permission for Migration Manager Recycle Bin folder.

Source Exchange 2013/2016/2019 Organization Account

To set the source administrative account perform the following steps;

- Open Migration Manager Console
- Right click **Source Exchange Organization** node of the Migration Manager Console management tree.
- In **Add Source Organization Wizard** on the **Specify Active Directory Domain** page provide or change, if necessary, the account credentials in the **Logon As** area and finish the wizard. This account will be used by MAgE for public folder synchronization.

NOTE: Consider, in case you decide to change account in Office 365 Mailbox Migration Job or Office 365 Calendar Synchronization Job properties later, this account for access to Exchange will be used instead the source administrative account you specified using Add Source Organization Wizard. To avoid any issues, it is recommended to select one administrative account to use.

IMPORTANT: The account assigned to be a source administrative account used by Migration Agent for Exchange should have a mailbox.

The following permissions are required for source Exchange 2013/2016/2019 administrative account used by Migration Agent for Exchange during public folder synchronization:

Permission	Used for	Used by	How to Grant
Read permission for the Microsoft Exchange container in the **Configuration** partition of the source Active Directory (including all descendant objects)	Adding source Exchange organization using the Add Source Organization Wizard	MMEx console	Granting Read Permission to Microsoft Exchange Container
The **Public Folders** management role	Getting access permissions to perform public folder migration	MAgE and MMEX PowerShell module	Granting the Public Folders Role
Owner permission for each public folder you want to synchronize.	Creating and syncing content and permissions (including Migration Manager Recycle Bin, if applicable)	MAgE and MMEX PowerShell module	Granting Owner Permissions for Each Public Folder
The **View-Only Configuration** management role*	Creating and syncing content and permissions (including Migration Manager Recycle Bin, if applicable)	MAgE and MMEX PowerShell module	Granting the View-Only Configuration Role
CreateSubfolder and **FolderVisible** access rights to the root public folder folder (“\”) **	Creating Migration Manager Recycle Bin folder	MAgE and MMEX PowerShell module	Granting **CreateSubfolders** and **FolderVisible** access rights to the root folder

TIP:

* In case the one-way synchronization is selected, at least **Read** permission for each public folder you want to synchronize can be granted to make permissions more granular.

** It is required only to create Migration Manager Recycle Bin from MMEx PoSh scripts, but if admin created it manually, he/she can skip it. Make sure Exchange Organization Account has **Owner** client permission for Migration Manager Recycle Bin folder.

Considerations

Refer to Workarounds for instructions on how to resolve the specific cases related to public folder hierarchy changes.

- Before you migrate public folders to Microsoft Office 365 keep in mind the following cases:

  a. During synchronization of pubic folders with Microsoft Office 365 Exchange Online, MAgE is unable to set the message owner (creator) correctly for items in folders. The administrative account becomes the creator of the message instead of the actual mailbox owner. This causes unwanted effects on the target. For example, the user cannot modify and delete their own migrated messages unless they have **Owner** permissions on the containing folder. This behavior is a result of Exchange and Office 365 architecture aimed at preventing security risks.

  b. A single MAgE instance performs all migration to Office 365.

  c. The migrated public folders always inherit the client permissions from this root folder. To avoid granting unnecessary privileges, make sure that the client permissions for the target root folder are granted to the administrative account only before starting the migration.

  d. MAgE cannot automatically handle the following change in public folder hierarchy:

     - New public folder added

     Refer to Workarounds for instructions on how to resolve the issues related to public folder hierarchy change.

  e. Public folders matched with deleted (soft or hard deleted) public folders by default are moved to source or target Migration Manager Recycle Bin public folders. If the Migration Manager Recycle Bin public folder does not exist , it will be created automatically. Refer to The public folder deleted for details.

  f. Mail-enabled source folders are synchronized as non-mail-enabled to Office 365. As a workaround, use Sync-MMExMailPublicFolder to make the target folders mail-enabled and set directory properties for them.

  g. To ensure permission synchronization you should set object matching for migrated by Quest Migration Manager for Active Directory (Microsoft Office 365) mail-enabled universal security distribution groups using Set-MMExGroupMatching cmdlet.

Public Folder Synchronization

This section help you to perform the following tasks related to the public folder synchronization using PowerShell cmdlet toolkit:

- Managing Migration Agent for Exchange
- Configuring and starting public folder synchronization
- Managing public folder synchronization for specified objects
- Getting Synchronization Statistics
- Troubleshooting and workarounds

Managing Migration Agent for Exchange

The following cmdlets help you to manage Migration Agent for Exchange (MAgE):

- Install-MMExAgent
- Get-MMExAgent
- Start-MMExAgent
- Stop-MMExAgent
- Repair-MMExAgent
- Restart-MMExAgent
- Uninstall-MMExAgent

Starting Synchronization

After the user accounts were successfully provisioned and calendars were successfully synchronized with Microsoft Exchange Online, you can synchronize public folders if necessary.

It is recommended to synchronize public folders before you start to migrate mailboxes. 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 have access to up-to-date public folder information.

Two modes are now available:

- Simple mode with minimal customization
- Advanced mode

The following synchronization directions can now be selected to start synchronization process:

- One-way synchronization from source to target. All changes on the target will not be synchronized.
- Two-way synchronization between source and target. All changes will be synchronized.

This parameter can be set before migration project initialization using Export-MMExPublicFolderMappingor Initialize-MMExPublicFolderMigration cmdlets. Synchronization direction cannot be changed after initialization

To start public folder synchronization in simple mode, take the following steps:

1. Register the Source and Target organizations in Migration Manager Console
2. Verify that the host meets the requirements described in System Requirements.
3. Run MMExPowerShell module as described in Configuring Migration Using PowerShell.
4. Call Start-MMExPublicFolderMigration cmdlet for your source and target organizations. By default, all public folders from source organization will be added to synchronization job and synchronized to target . Refer to Start-MMExPublicFolderMigration for information on how you can limit the synchronization scope and for parameters you can set.

The following actions will be performed during the Start-MMExPublicFolderMigration execution with default settings:

- Migration Agent for Exchange (MAgE) will be installed on the host by Install-MMExAgent cmdlet in case it is not already installed.
- Object matching will be set for mail-enabled universal security distribution groups (Microsoft Office 365 only) by Set-MMExGroupMatching cmdlet.. Object matching is required to synchronize client permissions of these distribution groups. You can schedule this task using Task Scheduler. For details refer to Using Task Scheduler to Automate Tasks.
- A mapping file for synchronization will be generated by Export-MMExPublicFolderMapping cmdlet. All public folders from the source organization will be included in this mapping file.
- The mapping file will be used to create the empty public folders in the target organization by Import-MMExPublicFolderMapping cmdlet. Public folder structure and naming will fully match the source public folder hierarchy.
- Project database for synchronization of public folders will be prepared using Initialize-MMExPublicFolderMigration cmdlet.
- Migration Agent for Exchange (MAgE) will be started by Start-MMExAgent cmdlet.
- Target public folders will be mail-enabled in case matched source public folders are mail-enabled using Sync-MMExMailPublicFolder. You can schedule this task using Task Scheduler. For details refer to Using Task Scheduler to Automate Tasks.

TIP: To synchronize proxy addresses, Send As permissions, Send On Behalf permissions, alias, simple display name properties for these public folders call Sync-MMExMailPublicFolder again with necessary settings after the Start-MMExPublicFolderMigration execution.

To start public folder synchronization in advanced mode, take the following steps:

1. Register the Source and Target organizations in Migration Manager Console
2. Verify that the host meets the requirements described in System Requirements.
3. Run MMExPowerShell module as described in Configuring Migration Using PowerShell.
4. Install Migration Agent for Exchange (MAgE) using Install-MMExAgent cmdlet.

5. Call Set-MMExGroupMatching cmdlet for your source and target organizations to set object matching for migrated by Quest Migration Manager for Active Directory (Microsoft Office 365 only) mail-enabled universal security distribution groups.
6. Call Export-MMExPublicFolderMappingcmdlet for your source organization to generate a mapping file for synchronization.
7. Call Import-MMExPublicFolderMapping cmdlet for your target organization to create the empty public folders in the target organization according to the mapping file from the previous step.
8. Stop MAgE using Stop-MMExAgent cmdlet in case it is started.
9. Prepare project database for synchronization of public folders by calling Initialize-MMExPublicFolderMigration cmdlet.
10. Mail-enable target public folders in case matched source public folders are mail-enabled and synchronize proxy addresses, Send As permissions, Send On Behalf permissions, alias, simple display name properties for these public folders using Sync-MMExMailPublicFolder.
11. Start MAgE using Start-MMExAgent cmdlet to start synchronization.
12. Call Get-MMExPublicFolderStatistics cmdlet to get synchronization statistics and monitor the process.

Mapping File Structure

The mapping is CSV file with the following fields:

- **SourceFolder** field contains full path to source public folder, e.g.: in the following format: \CustomRoot\folder1
- **SourcePFMailbox** field contains source public folder mailbox associated with source public folder. It is empty in case Exchange 2010 on source.
- **FolderSize** specifies size of the source public folder.
- **FolderClass** specifies class of the source public folder. The following valued are available: <values>.
- **TargetFolder** field contains full path to paired target public folder in the following format: \CustomRoot\folder1.
- **TargetPFMailbox** contains target public folder mailbox associated with target public folder.

Managing Public Folder Synchronization

To manage public folder synchronization, use the following cmdlets:

To manage mail-enabled settings and directory properties

- The Restart-MMExPublicFolderMigration cmdlet searches the source for mail-enabled public folders, sets matched target public folders as mail-enabled, and synchronizes Active Directory properties of these public folder.

You can schedule this task using Task Scheduler. For details refer to Using Task Scheduler to Automate Tasks.

To manage synchronization process for specified folders

- The Restart-MMExPublicFolderMigration cmdlet restarts migration for specified public folders. This operation is also known as Resynchronization.
- The Suspend-MMExPublicFolderMigration cmdlet suspends migration for specified public folders.
- The Resume-MMExPublic FolderMigration cmdlet resumes suspended migration for specified public folders.
- The Remove-MMExPublicFolderMigration cmdlet removes public folder from the migration project to stop this public folder synchronization.

To monitor synchronization process

- The Get-MMExPublicFolderStatistics cmdlet gets synchronization statistics that can be used for all actions specified above as described in Tuning Statistics

Getting Synchronization Statistics

You can get public folder synchronization statistics using the Get-MMExPublicFolderStatistics cmdlet. To understand how to configure statistics and how to use it refer to Tuning Statistics.

IMPORTANT: Currently, regardless of which direction of synchronization is selected, all counters display source item statistics. But you can track all events, if any.

```
PS C:\Users\Administrator.LIMBO> Get-MMExPublicFolderStatistics

Source Name                    Progress Discovered Items Last processed time      Last error
-----------                    -------- ---------------- -------------------      ----------
                               0                         2019-07-11T13:52:02Z     Cannot bind to the root folder '\'. I...
Demo All Folders               100      0                2019-07-11T13:51:17Z
Finance                        100      4                2019-07-11T13:51:33Z
Management Consulting          100      4                2019-07-11T13:51:48Z
Offices                        100      24               2019-07-11T13:52:18Z
Group Calendars                100      1                2019-07-11T13:52:33Z
Transport Planning             100      4                2019-07-11T13:50:46Z
TempFolder                     100      2                2019-07-11T13:51:01Z     Cannot bind to the root folder '\Demo...
```

You can get information about public folder collection using Get-MMExPublicFolderStatistics cmdlet. Currently there is only one public folder collection.

Tuning Statistics

To select what information can be retrieved by cmdlet, use the following command:

Get-MMExPublicFolderStatistics | fl

The list of available fields is displayed.

TIP: Some hidden fields, like IsSuspended are not displayed, but can be used, as described below.

To obtain a list public folders to see for what folders synchronization is suspended, run cmdlet Get-MMExPublicFolderStatistics as follows:

Get-MMExPublicFolderStatistics | select Path, DisplayName, IsSuspended.

How to use with PowerShell Out-GridView

You can select type of statistics data to display:

Get-MMExPublicFolderStatistics | select Path, Progress, DiscoveredItems, ProcessedItems, FailedItems, LastProcessedTime, LastError, DisplayName, FolderID | Out-GridView

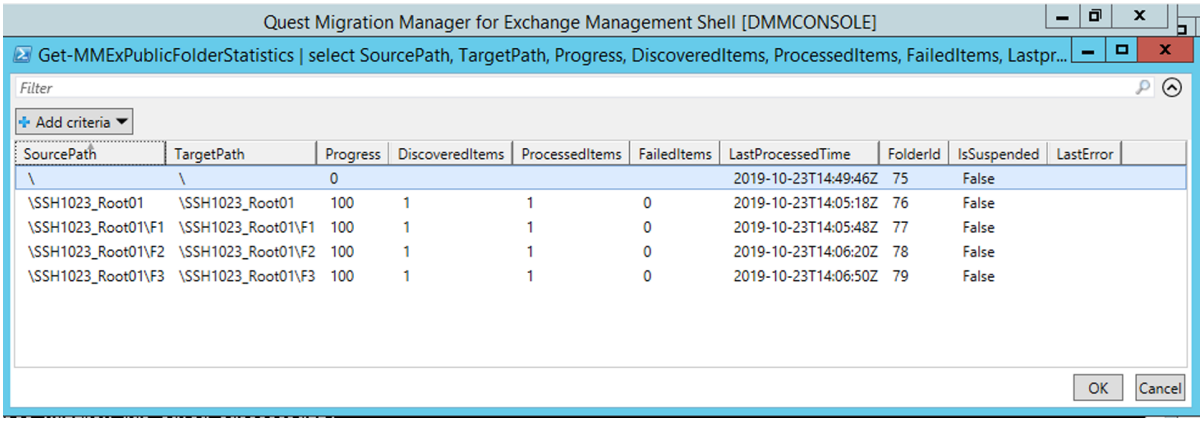
This command display statistics for the public folder including the following data:

- **Path** specifies the location of the folder in the folder hierarchy, for example, \Legal\Cases.
- **Progress** specifies current synchronization progress of a public folder. It is calculated as the ratio of number of items already processed by the agent to the total number of discovered items. Note that this number can also decrease when, for example, a new content is added causing number of discovered items to increase.
- **DiscoveredItems** specifies the number of items discovered in the public folder
- **ProcessedItems** specifies the number of the number of items processed in the public folder
- **FailedItems** specifies the number of the number of items that failed to be processed in the public folder
- **LastProcessedTime** specifies timestamp that indicates when last processing of a public folder was completed. The time zone is the same as used in console.
- **LastError** specifies the error message of the last appeared error (if any) in the current or previous migration sessions. After the error is fixed, the fields gets cleared.
- **DisplayName** specifies displayName property of a user who owns the public folder
- **FolderID** specifies public folder identifier

How to use with PowerShell Out-GridView -PassThru

To initiate resynchronization for the public folders that match selected criteria, take the following actions:

Request statistics using Get-MMExPublicFolderStatistics, select problem folders, press OK




```
 Get-MMExPublicFolderStatistics | select Path, Progress, DiscoveredItems,
ProcessedItems, FailedItems, LastProcessedTime, LastError, DisplayName, FolderID |
Out-GridView -PassThru |Restart-MMExPublicFolderMigration
```

Migration was restarted for the item 'F1' (#7) from the collection 'PFColl_DMMCONSOLE' (#2).

Migration was restarted for the item 'IPM_SUBTREE' (#4) from the collection 'PFColl_DMMCONSOLE' (#2).

Migration was restarted for the item 'Root01' (#6) from the collection 'PFColl_DMMCONSOLE' (#2).

Workarounds

IMPORTANT: Public Folders are matched by their EntryId values. Source EntryID and target EntryID pairs are stored in project database. In case of any EntryID change, refer to this section to work it around manually.

The following cases might need additional settings:

- The public folder deleted

The following cases need to be worked around manually:

- New public folders added

Resolving the public folder synchronization issues for specific environments:

- Synchronizing public folders containing more than 10000 elements from Exchange 2010

The public folder deleted

If the source or target public folder deleted (hard or soft), the deleted public folder be handled automatically depending on the UsePublicFolderRecycleBin parameter of migration project. The following cases are possible:

- If source public folder has been deleted including all subfolders and migration project parameter **UsePublicFolderRecycleBin** set as **True** (default), then matched target public folder with all subfolders will be moved to the target Migration Manager Recycle Bin folder. If the Migration Manager Recycle Bin public folder does not exist, it will be created automatically. In case the Migration Manager Recycle Bin folder already contains the deleted public folder, both versions will be retained, but a later version will have an added number tag for the folder name.
- If target public folder has been deleted including all subfolders, and migration project parameter **UsePublicFolderRecycleBin** set as **True**, and two-way synchronization is enabled, all matched source public folder with all subfolders will be moved to the source Migration Manager Recycle Bin folder. If the Migration Manager Recycle Bin public folder does not exist, it will be created automatically. In case the Migration Manager Recycle Bin folder already contains this deleted public folder, both versions will be retained, but a later version will have an added number tag for the folder name.
- If public folder has been deleted in source and target, this deleted folder will not appear in source and target Migration Manager Recycle Bin folder.

TIP: To avoid storing deleted public folders, set UsePublicFolderRecycleBin to **False**.

New public folders added

After migration starts, some never sync public folders are added and need to be synchronized.

Take the following steps to synchronize these new public folders:

1. Call `Stop-MMExAgent -Type PublicFolder -AgentHost <agent host name>`
2. Prepare updated CSV file using Export-MMExPublicFolderMapping cmdlet, you can also create new CSV file (only new folder can be included) manually.
3. Call Import-MMExPublicFolderMappingcmdlet using updated CSV file.
4. Call `Stop-MMExAgent -Type PublicFolder -AgentHost <agent host name>` to stop MAgE before synchronization start.
5. Call Initialize-MMExPublicFolderMigration cmdlet using updated CSV file.
6. Call `Start-MMExAgent -Type PublicFolder -AgentHost <agent host name>` to start synchronization.

You can see added public folders in the statistics with Get-MMExPublicFolderStatistics.

Synchronizing public folders containing more than 10000 elements from Exchange 2010

This section is applicable in case Microsoft Exchange 2010 as source.

In case source public folder contains more than 10000 elements it can take a while to gather necessary information related to content. It may cause MAgE cannot read necessary information or fails to transfer the content of such folders. In case the Progress value for a public folder returned by Get-MMExPublicFolderStatistics does not grow, and this public folder contains more than 10000 elements, you can take the following actions:

- Reduce the number of elements in a folder by dividing into several public folders

-OR-

- In **Public Folder Management console** open the public folder properties to clear **Maintain per-user read and unread information for this folder** option until the migration is complete.

Technical Reference

Cmdlet Reference

This is a collection of Windows PowerShell cmdlets to perform public folder synchronization for supported configurations:

Starting public folder migration in simple mode with minimal customization

- Start-MMExPublicFolderMigration

Configuring public folder synchronization in advanced mode

- Set-MMExGroupMatching (Microsoft Office 365 only)
- Export-MMExPublicFolderMapping
- Import-MMExPublicFolderMapping
- Initialize-MMExPublicFolderMigrationInitialize-MMExPublicFolderMigration
- Initialize-MMExPublicFolderMigration

Managing public folder synchronization (granular synchronization)

- Restart-MMExPublicFolderMigration
- Suspend-MMExPublicFolderMigration
- Resume-MMExPublic FolderMigration
- Remove-MMExPublicFolderMigration

Monitoring public folder synchronization

- Get-MMExPublicFolderStatistics
- Get-MMExAgent

Managing Migration Agent for Exchange (MAgE)

- Install-MMExAgent
- Get-MMExAgent
- Start-MMExAgent
- Stop-MMExAgent
- Repair-MMExAgent
- Restart-MMExAgent
- Uninstall-MMExAgent

For information about the parameter sets in the Syntax section below, see Exchange cmdlet syntax (https://technet.microsoft.com/library/bb123552.aspx).

Get-MMExPublicFolderStatistics

Gets synchronization statistics of public folders.

Detailed Description

The **Get-MMExPublicFolderStatistics** cmdlet gets synchronization statistics of public folders. The obtained information can be then exported to a CSV file. See Tuning Statistics to use full functionality of this cmdlet.

Syntax

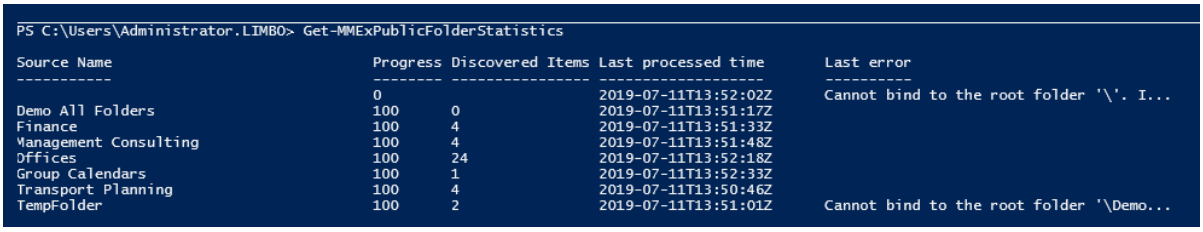
```
Get-MMExPublicFolderStatistics

      [-FolderPath] <String>
      [<CommonParameters>]
```

Examples

Example 1

```
Get-MMExPublicFolderStatistics
```



```
PS C:\Users\Administrator.LIMBO> Get-MMExPublicFolderStatistics

Source Name                    Progress Discovered Items Last processed time      Last error
-----------                    -------- ---------------- -------------------      ----------
                               0                         2019-07-11T13:52:02Z     Cannot bind to the root folder '\'. I...
Demo All Folders               100      0                2019-07-11T13:51:17Z
Finance                        100      4                2019-07-11T13:51:33Z
Management Consulting          100      4                2019-07-11T13:51:48Z
Offices                        100      24               2019-07-11T13:52:18Z
Group Calendars                100      1                2019-07-11T13:52:33Z
Transport Planning             100      4                2019-07-11T13:50:46Z
TempFolder                     100      2                2019-07-11T13:51:01Z     Cannot bind to the root folder '\Demo...
```

This command gets statistics of all public folders in the Migration Manager for Exchange project.

Example 2

```
Get-MMExPublicFolderStatistics |?{$_.SourcePath -eq '\Folder1'} | fl
```

This command gets detailed statistics of the public folder \Folder1:

```
Folder Id           : 9

Collection Id       : 1

Source Name         : Folder1

Source Path         : \Folder1

Source  EntryId          :
0x0000000093BDFE1CB63DD74E94AD8A0CD0028A730100F9B5E1322292134898CB269CC88977F40000B384
1FE50000

Target Path         : \Folder1
```

```
Target  EntryId         :
0x000000001A447390AA6611CD9BC800AA002FC45A03009521443180DC7248BBA93A26524A992600009DF9
A4030000

Progress            : 100

Discovered Items    : 463

Processed Items     : 463

Failed Items        : 0

Last Processed Time : 2019-07-02T15:47:35Z

Last Error          :
```

Example 3

```
 Get-MMExPublicFolderStatistics  | Out-GridView
```

This command gets statistics of all public folders in the Migration Manager for Exchange project and then sends the output to an interactive table in a separate window.

Example 4

```
Get-MMExPublicFolderStatistics |?{$_.Progress -eq 100}
```

This command gets synchronization statistics of the public folders that have progress = 100%.

Example 5

```
Get-MMExPublicFolderStatistics | ?{$_.Path -like "\PF_Root\*"}
```

This command gets statistics of the public folders that have path like = '\PF_Root*'.

Example 6

```
Get-MMExPublicFolderStatistics | ?{$_.Path -like "\PF_Root\*"} | Export-Csv -
NoTypeInformation -Encoding UTF8 -Path "C:\MMEx\export.csv"
```

This command gets statistics of the public folders and export it to the **export.csv** file.

Parameters

-FolderPath

The full path to the public folder to obtain statistics.

Required?	**false**
Position?	**1**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer and OutVariable. For more information, see about_CommonParameters.

Inputs

FolderPath

Outputs

Grid view
CSV file

Get-MMExAgent

Gets parameters of specified Agents.

Detailed Description

The **Get-MMExAgent** cmdlet gets parameters of one or more Agents specified by the Agent Host and type.

Syntax

Get-MMExAgent
-Type PublicFolder
-AgentHost <hostname>

Parameters

-Type

Specifies the agent type, currently only 'PublicFolder' is allowed.

Required?	**false**
Position?	**1**
Default value	**PublicFolder**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-AgentHost

Specifies host name to install specified agent.

TIP: If this parameter is not specified, the agent will be installed on the local server (localhost)..

Required?	**false**
Position?	**2**
Default value	**localhost**

Accept pipeline input?	**false**
Accept wildcard characters?	**false**

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer and OutVariable. For more information, see about_CommonParameters.

Examples

Example 1

```
Get-MMExAgent -Type PublicFolder
```

This command gets all Public Folder agents.

Example 2

```
Get-MMExAgent -AgentHost 'dmmconsole'
```

This command gets all agents from Agent host 'dmmconsole'.

Example 3

```
Get-MMExAgent -Type PublicFolder -AgentHost 'dmmconsole'
```

This command gets all Public Folder agents from Agent host 'dmmconsole'.

Start-MMExPublicFolderMigration

Starts public folders migration process in express-mode with minimal customization.

Detailed Description

The **Start-MMExPublicFolderMigration** cmdlet consequentially executes Install-MMExAgent, Set-MMExGroupMatching, Export-MMExPublicFolderMapping, Import-MMExPublicFolderMapping, Initialize-MMExPublicFolderMigration, Start-MMExAgent and Sync-MMExMailPublicFolder. This command should be executed after source and target organizations are added to migration project.

Syntax

Start-MMExPublicFolderMigration

-SourceOrganization <source organization name (as displayed in tree-view)>

-TargetOrganization <target organization name (as displayed in tree-view)>

[-Direction]

[-TargetMailboxSize <size limit>]

[-TargetRootFolderName <root folder name>]

[-TargetMailboxNameTemplate <mailbox name prefix>]

[-MigrateOnly <root folder name>]

[-SkipGroupMatching]

[-SkipSyncMailPublicFolders]

Examples

Example 1

```
Start-MMExPublicFolderMigration -SourceOrganization 'My Source Organization' -
TargetOrganization 'My Target Organization'
```

This command starts public folder migration from 'My Source Organization' organization to 'My Target Organization' organization.

Example 2

```
Start-MMExPublicFolderMigration -SourceOrganization 'My Source Organization' -
TargetOrganization 'My Target Organization' -TargetMailboxSize 2GB
```

This command calculates the number of mailboxes necessary to handle source public folder structure considering 2GB size limit for target folder mailboxes, and starts public folder migration from 'My Source Organization' organization to 'My Target Organization' organization.

Example 3

```
Start-MMExPublicFolderMigration -SourceOrganization 'My Source Organization' -
TargetOrganization 'My Target Organization' -TargetMailboxNameTemplate
"BrandNewMailbox"
```

This command calculates the number of mailboxes necessary to handle source public folder structure, and starts public folder migration from 'My Source Organization' organization to 'My Target Organization' organization. Target public folder mailboxes will be named like BrandNewMailbox plus numeric index.

Example 4

```
Start-MMExPublicFolderMigration -SourceOrganization 'My Source Organization' -
TargetOrganization 'My Target Organization' -TargetRootFolderName "CustomRoot"
```

This command calculates the number of mailboxes necessary to handle source public folder structure, and starts public folder migration from 'My Source Organization' organization to 'My Target Organization' organization. Target public folders hierarchy will reside in the root folder named "CustomRoot".

Example 5

```
Start-MMExPublicFolderMigration -SourceOrganization 'My Source Organization' -
TargetOrganization 'My Target Organization' - MigrateOnly "\Marketing"
```

This command calculates the number of mailboxes necessary to handle source public folder structure within \Marketing root, and starts public folder migration from 'My Source Organization' organization to 'My Target Organization' organization.

Example 6

```
Start-MMExPublicFolderMigration -SourceOrganization 'My Source Organization' -
TargetOrganization 'My Target Organization' - Direction TwoWay
```

This command starts 2-way synchronization of public folders between 'My Source Organization' organization and 'My Target Organization' organization.

Parameters

-SourceOrganization

Specifies the source organization from which mail-enabled universal security distribution groups will be migrated.

Required?	**true**
Position?	**1**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-TargetOrganization

Specifies the target organization to which mail-enabled universal security distribution groups will be migrated.

Required?	**true**
Position?	**2**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-TargetMailboxSize

Specifies maximum size allowed for target public folder mailbox.

Required?	**false**
Position?	**3**
Default value	**15GB**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-Direction

Specifies public folder synchronization direction. The following values are available:

- OneWay - 1-way public folder synchronization
- TwoWay - 2-way public folder synchronization

IMPORTANT: This decision applies to the current migration project and cannot be changed later. In case this parameter is not set you will be prompted to make this selection during initialization.

Required?	**false**
Position?	**4**
Default value	**none**

Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-TargetRootFolderName

Specifies name of a folder that will contain migrated public folders on target

Required?	**false**
Position?	**5**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-TargetMailboxNameTemplate

Specifies naming template for target public folders mailboxes.

Required?	**false**
Position?	**6**
Default value	**PfMigrationMailbox**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-MigrateOnly

Limits migration scope by specifying source public folder root to migrate.

NOTE: This parameter requires setting of the TargetMailboxNameTemplate parameter.

Required?	**false**
Position?	**7**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

SkipGroupMatching

Specifies if object matching for migrated by Quest Migration Manager for Active Directory (Microsoft Office 365) mail-enabled universal security distribution groups will be skipped.

Required?	**false**
Position?	**8**
Default value	**false**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

SkipSyncMailPublicFolder

Specifies if mail-enabling of target public folders and setting directory properties for them will be skippedt.

Required?	**false**
Position?	**9**
Default value	**false**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

Inputs

SourceOrganization
TargetOrganization
TargetMailboxSize (optional)
TargetRootFolderName (optional)
TargetMailboxNameTemplate (optional)
MigrateOnly (optional)
SkipGroupMatching (optional)
SkipSyncMailPublicFolder (optional)

Export-MMExPublicFolderMapping

Exports public folder configuration and calculated mapping between source and target public folder mailboxes into comma-separated values (CSV) file.

Detailed Description

The **Export-MMExPublicFolderMapping** cmdlet calculates the number of mailboxes necessary to handle source public folder structure according to specified size requirements, and exports public folder configuration and mapping between source and target public folder mailboxes into comma-separated values (CSV) file. This operation is required to prepare public folder synchronization and in case of changes in source public folder hierarchy as described in Workarounds

Syntax

Export-MMExPublicFolderMapping
    -SourceOrganization <source organization name (as displayed in tree-view)>
    -MappingFilePath <path and filename for the output CSV file>
    [-TargetMailboxSize <size limit>]
    [-TargetMailboxNameTemplate <mailbox name prefix>]
    [-TargetRootFolderName <root folder name>]

Examples

Example 1

```
Export-MMExPublicFolderMapping -SourceOrganization 'My Source Organization' -
MappingFilePath MigrationMapping.csv
```

This command calculates the number of mailboxes necessary to handle source public folder structure, and writes public folder configuration and mapping for public folder migration from 'My Source Organization' organization to "MigrationMapping.csv file.

Example 2

```
Export-MMExPublicFolderMapping -SourceOrganization 'My Source Organization' -
MappingFilePath MigrationMapping.csv -TargetMailboxSize 2GB
```

This command calculates the number of mailboxes necessary to handle source public folder structure considering 2GB size limit for target folder mailboxes, and writes public folder configuration and mapping for public folder migration from 'My Source Organization' organization to "MigrationMapping.csv file.

Example 3

```
Export-MMExPublicFolderMapping -SourceOrganization 'My Source Organization' -
MappingFilePath MigrationMapping.csv -TargetMailboxNameTemplate "BrandNewMailbox"
```

This command calculates the number of mailboxes necessary to handle source public folder structure, and writes public folder configuration and mapping for public folder migration from 'My Source Organization' organization to "MigrationMapping.csv file. Target public folder mailboxes will be named like BrandNewMailbox plus numeric index.

Example 4

```
Export-MMExPublicFolderMapping -SourceOrganization 'My Source Organization' -
MappingFilePath MigrationMapping.csv -TargetRootFolderName "CustomRoot"
```

This command calculates the number of mailboxes necessary to handle source public folder structure, and writes public folder configuration and mapping for public folder migration from 'My Source Organization' organization to "MigrationMapping.csv file. Target public folders hierarchy will reside in the root folder named "CustomRoot".

Parameters

-SourceOrganization

Specifies the source organization from which mail-enabled universal security distribution groups will be migrated.

Required?	**true**
Position?	**1**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-MappingFilePath

Specifies the full path for the output CSV file to be generated.

> **TIP:** If only file name is specified for CSV file, then the output file will be generated in the current directory.

Required?	**true**
Position?	**2**
Default value	**none**

Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-TargetMailboxSize

Specifies maximum size allowed for target public folder mailbox.

Required?	**false**
Position?	**3**
Default value	**15GB**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-TargetMailboxNameTemplate

Specifies naming template for target public folders mailboxes.

Required?	**false**
Position?	**3**
Default value	**PfMigrationMailbox**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-TargetRootFolderName

Specifies name of a folder that will contain migrated public folders on target

Required?	**false**
Position?	**3**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

Inputs

SourceOrganization
MappingFilePath
TargetMailboxSize
TargetMailboxNameTemplate
TargetRootFolderName

Outputs

CSV file

Set-MMExGroupMatching

Sets object matching for migrated by Quest Migration Manager for Active Directory (Microsoft Office 365 only) mail-enabled universal security distribution groups. This cmdlet cannot be used for on-premises targets.

This task can be scheduled as described in Using Task Scheduler to Automate Tasks.

Detailed Description

The **Set-MMExGroupMatching** cmdlet searches the source organization My Source Organization for mail-enabled universal security distribution groups and then copies legacyExchangeDN of each source group as an X500 address for migrated target group to set object matching. It is required to synchronize client permissions of these distribution groups.

> **CAUTION: This command should be performed before starting the public folder migration process. It is recommended to repeat this command in case a new mail-enabled universal security distribution group is added.**

Syntax

Set-MMExGroupMatching

-SourceOrganization <source organization name (as displayed in tree-view)>

-TargetOrganization <target organization name (as displayed in tree-view)>

Example

```
Set-MMExGroupMatching -SourceOrganization 'My Source Organization' -TargetOrganization
'My Target Organization'
```

This command searches the source organization My Source Organization for mail-enabled universal security distribution groups and then copies legacyExchangeDN of each source group as an X500 address to migrated mail-enabled universal security distribution group on the target organization My Target Organization to synchronize client properties of these distribution groups and to set object matching.

Parameters

-SourceOrganization

Specifies the source organization from which mail-enabled universal security distribution groups will be migrated.

Required?	**true**
Position?	**1**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-TargetOrganization

Specifies the target organization to which mail-enabled universal security distribution groups will be migrated.

Required?	**true**
Position?	**2**

Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

Import-MMExPublicFolderMapping

Imports public folder mapping to provision public folder mailboxes in target.

Detailed Description

The **Import-MMExPublicFolderMapping** cmdlet imports public folder mapping from a comma-separated values (CSV) file for provisioning necessary public folder mailboxes on target. This operation is required to prepare public folder synchronization and in case of changes in source public folder hierarchy as described in Workarounds

During import operation, Migration Manager for Exchange reads files and connects to source and to target organization using credentials from the project database to ensure that these public folders exist in source and in target and can be processed. In case this verification is successful, the public folder pair will be added to database for synchronization, but really synchronization will be started after initialization.

Syntax

Import-MMExPublicFolderMapping

-MappingFilePath <path and filename for the output CSV file>

-Organization <target organization name (as displayed in tree-view)>

[-TargetMailboxNameTemplate <Mailbox name prefix>]

[-TargetRootFolderName <root folder name>]

Examples

```
Import-MMExPublicFolderMapping -MappingFilePath MigrationMapping.csv -Organization 'My Target Organization'
```

This command imports public folder mapping from "MigrationMapping.csv" file and provisions public folder mailboxes and empty public folders in organization named 'My Target Organization' according CSV file values.

Parameters

-MappingFilePath

Specifies the full path for the output CSV file to be generated.

TIP: If only file name is specified for CSV file, then the output file will be generated in the current directory.

Required?	**true**
Position?	**1**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-Organization

Specifies the target organization to which mail-enabled universal security distribution groups will be migrated.

Required?	**true**
Position?	**2**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-TargetMailboxNameTemplate

Specifies naming template for target public folders mailboxes.

Required?	**false**
Position?	**3**
Default value	**PfMigrationMailbox**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-TargetRootFolderName

Specifies name of a folder that will contain migrated public folders on target

Required?	**false**
Position?	**3**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

Inputs

Organization
MappingFilePath
TargetMailboxNameTemplate
TargetRootFolderName

Outputs

CSV file

Initialize-MMExPublicFolderMigration

Prepares public folder migration project database for synchronization

IMPORTANT: MAgE must be stopped before this operation, in case it is started.

Detailed Description

The **Initialize-MMExPublicFolderMigration** cmdlet prepares project database for public folder migration using specified CSV file. This operation is required to start public folder migration and in case of changes in source public folder hierarchy as described in Workarounds. The CSV file contains SourceFolder, FolderSize, FolderClass, TargetFolder and TargetPFMailbox fields.

Syntax

Initialize-MMExPublicFolderMigration

-MappingFilePath <path and filename for the output CSV file>

-SourceOrganization <source organization name (as displayed in tree-view)>

-TargetOrganization <target organization name (as displayed in tree-view)>

[-Direction]

Examples

Example 1

```
Initialize-MMExPublicFolderMigration -MappingFilePath MigrationMapping.csv -
SourceOrganization 'My Source Organization' -TargetOrganization 'My Target
Organization'
```

This command imports public folder mapping from "MigrationMapping.csv" file and prepares project database for public folders migration from organization 'My Source Organization' to organization 'My Target Organization'.

Example 2

```
Initialize-MMExPublicFolderMigration -MappingFilePath MigrationMapping.csv -
SourceOrganization 'My Source Organization' -TargetOrganization 'My Target
Organization' -Direction OneWay
```

This command imports public folder mapping from "MigrationMapping.csv" file and prepares project database for public folders migration from organization 'My Source Organization' to organization 'My Target Organization' with 1- way synchronization from source to target.

Parameters

-MappingFilePath

Specifies the full path for the output CSV file to be generated.

TIP: If only file name is specified for CSV file, then the output file will be generated in the current directory.

Required?	**true**
Position?	**1**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-SourceOrganization

Specifies the source organization from which mail-enabled universal security distribution groups will be migrated.

Required?	**true**
Position?	**2**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

```
-TargetOrganization
```

Specifies the target organization to which mail-enabled universal security distribution groups will be migrated.

Required?	**true**
Position?	**3**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-Direction

Specifies public folder synchronization direction. The following values are available:

- OneWay - 1-way public folder synchronization
- TwoWay - 2-way public folder synchronization

IMPORTANT: This decision applies to the current migration project and cannot be changed later. In case this parameter is not set you will be prompted to make this selection during initialization.

Required?	**false**
Position?	**4**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

Inputs

SourceOrganization
TargetOrganization
MappingFilePath

Restart-MMExPublicFolderMigration

Restarts public folder synchronization..

Detailed Description

The **Restart-MMExPublicFolderMigration** cmdlet restarts migration for specified public folders. This operation is also known as Resynchronization. See Managing Public Folder Synchronization for details.

Two resynchronization modes are available depending on **UseSmartResync** value for the project:

UseSmartResync is set to **False**

Permissions and folder content will be resynchronized for specified public folder. Migration will be restarted for public folder and all currently available permissions and messages from source will be migrated to target again. It can be useful in case some messages or permissions were found to be migrated incorrectly, Restart of migration forces MAgE to repeat data transferring attempt.

> **NOTE:** Mage will not CleanUp ALL content of target public folder. For 1-way synchronization, Mage will reapply all permissions from the source folder to target and will migrate all source messages to target. If some of those messages had been previously migrated by Mage, old copies will be overwritten (recreated).

UseSmartResync is set to **True**

Only items that were not previously migrated to the target will bewill be resynchronized for specified public folder. For example, some messages failed to migrate to target with the following error: **The message exceeds the maximum supported size**. Administrator can reset the limits for affected public folder and initiate re-migration of such failed items using Restart-MMExPublicFolderMigration and UseSmartResync set to **True**.

> **IMPORTANT:** Permissions will not be resynchronized if UseSmartResync is set to **True**

Syntax

```
Restart-MMExPublicFolderMigration
```

-FolderId <public folder ID value>

[<CommonParameters>]

Examples

Example 1

```
Restart-MMExPublicFolderMigration -FolderId 5
```

This command restarts synchronization for single public folder specified by public folder identifier 5. Identifier could be retrieved using Get-MMExPublicFolderStatistics cmdlet or from a log file.

Synchronization was restarted for the public folder MyFolder with identifier 5

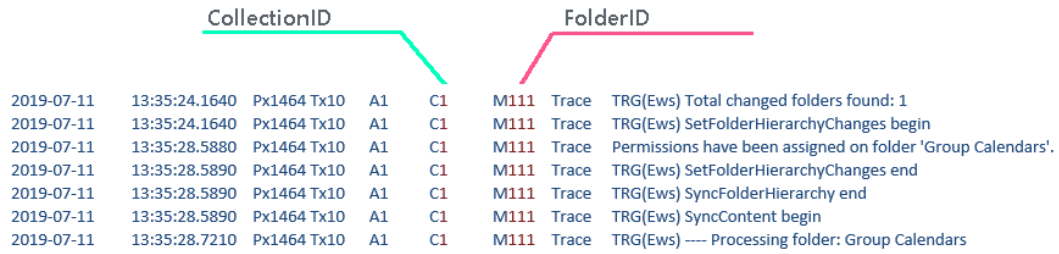
Parameters

-FolderID

Specifies the identifier of a public folder to restart.

Required?	**true**
Position?	**1**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

TIP: You can find public folder identifier in the log entry, it is a number after the "M":



e.g., in the following log entry

2019-01-28 11:50:52.7225 Px1F48 Tx27 A1 C2 M7 Trace ...

public folder identifier is "**7**".

Inputs

SourceOrganization

TargetOrganization

MappingFilePath

Sync-MMExMailPublicFolder

Searches the source for mail-enabled public folders, sets matched target public folders as mail-enabled, and synchronizes Active Directory properties of these public folder.

This task can be scheduled as described in Using Task Scheduler to Automate Tasks.

Detailed Description

The **Sync-MMExMailPublicFolder** searches the source for mail-enabled public folders, sets matched target public folders as mail-enabled, and synchronizes proxy addresses, Send As permissions, Send On Behalf permissions, alias, custom attributes, simple display name properties from mail-enabled source public folder to matched target public folder. Also this cmdlet synchronizes public folder mailbox visibility in the GAL and copies legacyExchangeDN of each source public folder as an X500 address for migrated target public folder.

CAUTION: It is highly recommended to execute right after public folder migration initialization. It is recommended to repeat this command in case of changes in the source that can affect public folder synchronization (for example, a new mail-enabled public folder added).

Syntax

Sync-MMExMailPublicFolder

-SourcePath <path to the source public folder>

-TargetPath <path to the target public folder>

-CollectionId <public folder collection identifier, integer>

[-SimpleDisplayName]

[-Alias]

[-ProxyAdresses]

[-PreservePrimarySMTP]

[-Permissions]

Examples

Example 1

```
Get-MMExPublicFolderStatistics |Sort-Object -Property CollectionID | Sync-
MMExMailPublicFolder -ProxyAddresses -Permissions
```

This command mail-enables target public folder, synchronizes proxy addresses and permissions of source mail-enabled publics folders.

Example 2

```
Sync-MMExMailPublicFolder -SourcePath "\PFScust25" -TargetPath "\PFScust25" -
CollectionId 1 -ProxyAddresses -PreservePrimarySMTP -Permissions -Alias -
SimpleDisplayName
```

This command synchronizes Active Directory properties of source mail-enabled public folder PFScust25 which belongs to collection with ID = 1, and target mail-enabled public folder PFScust25.

Parameters

-SourcePath

Specifies path to the source mail-enabled public folder. This public folder properties will be synchronized as specified by the cmdlet. This action will be performed for the public folder only, sub-folder properties, if any, should be synchronized separately.

Required?	**true**
Position?	**1**
Default value	**none**
Accept pipeline input?	**true**
Accept wildcard characters?	**false**

-TargetPath

Specifies path to the target mail-enabled public folder. This public folder properties will be synchronized as specified by the cmdlet.

Required?	**true**
Position?	**2**
Default value	**none**
Accept pipeline input?	**true**
Accept wildcard characters?	**false**

-CollectionId

Specifies identifier of public folder collection. The CollectionId can be retrieved using Get-MMExPublicFolderStatistics cmdlet, or from the log file.

Required?	**true**
Position?	**3**
Default value	**none**
Accept pipeline input?	**true**
Accept wildcard characters?	**false**

-SimpleDisplayName

Specifies if simple display name will be synchronized.

Required?	**false**
Position?	**3**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-Alias

Specifies if alias will be synchronized.

Required?	**false**
Position?	**4**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-ProxyAddresses

Specifies if proxy addresses will be synchronized.

Required?	**false**
Position?	**5**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-PreservePrimarySMTP

Specifies if target primary SMTP address will be preserved.

Required?	**false**
Position?	**6**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-Permissions

Specifies if Send As and CanSendOnBehalfTo permissions will be synchronized.

Required?	**false**
Position?	**7**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

Inputs

SourcePath
TargetPath
CollectionID
SimpleDisplayName
Alias
ProxyAddresses
PreservePrimarySMTP
Permissions

Suspend-MMExPublicFolderMigration

Suspends public folder migration.

Detailed Description

Suspends public folder migration.

To obtain a list of already suspended public folders, run cmdlet Get-MMExPublicFolderStatistics as follows:

Get-MMExPublicFolderStatistics | select FolderPath, DisplayName, IsSuspended.

Syntax

```
Suspend-MMExPublicFolderMigration
    [-FolderId] <Int32>
    [<CommonParameters>]
```

Examples

Example 1

```
Suspend-MMExPublicFolderMigration -FolderId 5
```

This command suspends migration of a public folder with identifier 5.

Migration was suspended for the following public folder: '\PF_Root\PF1' (#5) from the collection 'Public Folder Collection (agenthost)' (#1).

Example 2

```
Get-MMExPublicFolderStatistics -FolderPath "\PF_Root\PF1" | Suspend-
MMExPublicFolderMigration
```

This command suspends migration of a public folder returned by Get-MMExPublicFolderStatistics cmdlet using path to the public folder.

Migration was suspended for the following public folder: '\PF_Root\PF1' (#5) from the collection 'Public Folder Collection (agenthost)' (#1).

Parameters

-FolderID

Specifies the identifier of a public folder to restart.

Required?	**true**
Position?	**1**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

Inputs

FolderID

Resume-MMExPublic FolderMigration

Resumes suspended migration

Detailed Description

The Resume-MMExPublic FolderMigration cmdlet resumes public folder migration for specified public folders. To obtain a list of already suspended public folders, run cmdlet Get-MMExPublicFolderStatistics as follows:

Get-MMExPublicFolderStatistics | select FolderPath,

DisplayName, IsSuspended.

Syntax

Resume-MMExPublicFolderMigration

[-FolderId] <Int32>

[<CommonParameters>]

Examples

Example 1

```
Resume-MMExPublicFolderMigration -FolderId 5
```

This command resumes suspended migration of a public folder with identifier 5.

Suspended migration was resumed for the following public folder: '\PF_Root\PF1' (#5) from the collection 'Public Folder Collection (agenthost)' (#1).

Example 2

```
Get-MMExPublicFolderStatistics -FolderPath "\PF_Root\PF1" | Resume-
MMExPublicFolderMigration
```

This command resumes suspended migration of a public folder returned by Get-MMExPublicFolderStatistics cmdlet using path to the public folder.

Suspended migration was resumed for the following public folder: '\PF_Root\PF1' (#5) from the collection 'Public Folder Collection (agenthost)' (#1).

Parameters

-FolderID

Specifies the identifier of a public folder to restart.

Required?	**true**
Position?	**1**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

Inputs

FolderID

Remove-MMExPublicFolderMigration

Removes public folder from the migration project to stop this public folder synchronization.

Detailed Description

The Remove-MMExPublicFolderMigration cmdlet removes public folder from the migration project to stop this public folder synchronization.

> **CAUTION: Stop Migration Agent for Exchange (MAgE) using Stop-MMExAgent before execute this command. After the command has been executed restart the agent using Start-MMExAgent to continue synchronization process for the rest of public folders.**

Syntax

Remove-MMExPublicFolderMigration
    -FolderId <Int32>

Examples

Example 1

```
Remove-MMExPublicFolderMigration -FolderId 5
```

The following public folder: '\PF_Root\PF1' (#5) from the collection 'Public Folder Collection (agenthost)' (#1) was removed from the migration project.

This command removes a public folder with identifier 5 from migration project to stop this public folder synchronization.

Example 2

```
PS C:\>Get-MMExPublicFolderStatistics -FolderPath "\PF_Root\PF1" | Remove-
MMexPublicFolderMigration
```

The following public folder: '\PF_Root\PF1' (#5) from the collection 'Public Folder Collection (agenthost)' (#1) was removed from the migration project.

This command removes a public folder returned by Get-MMExPublicFolderStatistics cmdlet from migration project to stop this public folder synchronization.

Parameters

-FolderID

Specifies the identifier of a public folder to remove. Identifier could be retrieved using Get-MMExPublicFolderStatistics cmdlet or from the log file..

Required?	**true**
Position?	**1**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

Inputs

FolderID

Install-MMExAgent

Installs an agent on the selected host.

Detailed Description

The **Install-MMExAgent** cmdlet installs the agent specified by type on the selected host.

Syntax

Install-MMExAgent

-Type PublicFolder

-AgentHost <hostname>

-AgentHostAccount <PSCredential>

[-InstallPath <full path>]

[<CommonParameters>]

Parameters

-Type

Specifies the agent type, currently only 'PublicFolder' is allowed.

Required?	**true**
Position?	**1**

Default value	**PublicFolder**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-AgentHost

Specifies host name to install specified agent.

TIP: If this parameter is not specified, the agent will be installed on the local server (localhost)..

Required?	**false**
Position?	**2**
Default value	**localhost**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-AgentHostAccount

Specifies credentials of service account required to install the agent on the specified host.

Required?	**true**
Position?	**3**
Default value	**none**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-InstallPath

Specifies full path to the agent installation folder.

Required?	**false**
Position?	**4**
Default value	**$Env:ProgramW6432*\Quest Software\Migration Manager\Migration Agent for Exchange**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer and OutVariable. For more information, see about_CommonParameters.

Examples

```
Install-MMExAgent -Type PublicFolder -InstallPath "c:\QuestAgentPath
```

This command installs the public folder synchronization agent to the QuestAgentPath folder on the disc C.

Start-MMExAgent

Starts an agent on the selected host.

Detailed Description

The **Start-MMExAgent** cmdlet starts Migration Agent for Exchange (MAgE) installed on the selected host.

Syntax

Start-MMExAgent

-Type PublicFolder

[-AgentHost <agent host name>]

[<CommonParameters>]

Examples

```
Start-MMExAgent -Type PublicFolder
```

This command starts the agent installed on the localhost.

Parameters

-Type

Specifies the agent type, currently only 'PublicFolder' is allowed.

Required?	**true**
Position?	**2**
Default value	**PublicFolder**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-AgentHost

Specifies host name where specified agent is installed to start the agent.

TIP: If this parameter is not specified, the agent will be started on the local server (localhost)..

Required?	**false**
Position?	**1**
Default value	**<localhost>**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer and OutVariable. For more information, see about_CommonParameters.

Stop-MMExAgent

Stops an agent on the selected host.

Detailed Description

The **Start-MMExAgent** cmdlet stops the Migration Agent for Exchange (MAgE) running on the selected host.

Syntax

Stop-MMExAgent

-Type PublicFolder

[-AgentHost <agent host name>]

[<CommonParameters>]

Examples

```
Stop-MMExAgent -Type PublicFolder
```

This command stops the agent running on the localhost.

Parameters

-Type

Specifies the agent type, currently only 'PublicFolder' is allowed.

Required?	**true**
Position?	**4**
Default value	**PublicFolder**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-AgentHost

Specifies host name where specified agent is running on to stop the agent.

TIP: If this parameter is not specified, the agent will be stopped on the local server (localhost)..

Required?	**false**
Position?	**1**
Default value	**localhost**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer and OutVariable. For more information, see about_CommonParameters.

Repair-MMExAgent

Repairs an agent instance on the selected host.

Detailed Description

The **Repair-MMExAgent** cmdlet repairs an Migration Agent for Exchange (MAgE) instance installed on the selected host. This operation is used to update agents on a host after Public Update installation. During the Repair operation for an instance of MAgE agent or for the certain agent role, this update will be installed on all instances of all MAgE agent roles that reside on the agent host.

Syntax

Repair-MMExAgent

-Type PublicFolder

[-AgentHost <agent host name>]

[<CommonParameters>]

Examples

```
Repair-MMExAgent -Type PublicFolder
```

This command repairs the agent instance installed on the localhost.

Parameters

-Type

Specifies the agent type, currently only 'PublicFolder' is allowed.

Required?	**true**
Position?	**2**
Default value	**PublicFolder**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-AgentHost

Specifies host name where specified agent is installed to repair the agent instance.

TIP: If this parameter is not specified, the agent instance will be repaired or updated on the local server (localhost).

Required?	**false**
Position?	**1**
Default value	**<localhost>**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer and OutVariable. For more information, see about_CommonParameters.

Restart-MMExAgent

Restarts an agent on the selected host.

Detailed Description

The **Restart-MMExAgent** cmdlet stops and then starts again the Migration Agent for Exchange (MAgE) installed on the selected host.

Syntax

Restart-MMExAgent

-Type PublicFolder

[-AgentHost <agent host name>]

[<CommonParameters>]

Examples

```
Restart-MMExAgent -Type PublicFolder
```

This command restarts the agent installed on the localhost.

Parameters

-Type

Specifies the agent type, currently only 'PublicFolder' is allowed.

Required?	**true**
Position?	**2**
Default value	**PublicFolder**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-AgentHost

Specifies host name where specified agent is installed to restart the agent.

TIP: If this parameter is not specified, the agent will be restarted on the local server (localhost)..

Required?	**false**
Position?	**1**
Default value	**<localhost>**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer and OutVariable. For more information, see about_CommonParameters.

Uninstall-MMExAgent

Uninstalls an agent from the selected host.

Detailed Description

The **Uninstall-MMExAgent** cmdlet uninstalls Migration Agent for Exchange (MAgE) installed on the selected host.

Syntax

Uninstall-MMExAgent

-Type PublicFolder

[-AgentHost <agent host name>]

[<CommonParameters>]

Examples

```
Uninstall-MMExAgent -Type PublicFolder
```

This command uninstalls the agent installed on the localhost.

Parameters

-Type

Specifies the agent type, currently only 'PublicFolder' is allowed.

Required?	**true**
Position?	**2**
Default value	**PublicFolder**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

-AgentHost

Specifies host name where specified agent is installed to uninstall the agent.

TIP: If this parameter is not specified, the agent will be uninstalled from the local server (localhost).

Required?	**false**
Position?	**1**
Default value	**<localhost>**
Accept pipeline input?	**false**
Accept wildcard characters?	**false**

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer and OutVariable. For more information, see about_CommonParameters.

Granting Permissions

This section provides reference information on how to grant an administrative accounts the following required permissions:

Source Exchange 2010 Organization

- Granting the **Public Folders** Role
- Granting **Read** permission for public folders
- Granting **Owner** Permissions for Each Public Folder
- Granting Full Access Permission for Public Folder to an account

Source Exchange 2013/2016/2019 Organization

- Granting the **Public Folders** Role
- Granting **Read** permission for public folders
- Granting the **View-Only Configuration** Role
- Granting **Owner** Permissions for Each Public Folder
- Granting CreateSubfolders and FolderVisible Access Rights for the Root Folder

Target Exchange 2016/2019 Organization

- Granting Read Permission to Microsoft Exchange Container
- Granting the Public Folders Role
- Granting the **View-Only Configuration** Role
- Granting Owner Permissions for Each Public Folder
- Granting **CreateSubfolders** and **FolderVisible** access rights to the root folder
- Granting Mail Recipients and Mail Enabled Public Folders Roles

Target Office 365 Organization

- Office 365 account: Granting the **Public Folders** Role
- Office 365 account: Granting the View-Only Configuration Role
- Office 365 account: Granting Public Folder Owner Permission
- Office 365 account: Granting CreateSubfolders and FolderVisible access rights
- Office 365 account: Granting the Mail Recipients and Mail Enabled Public Folders Roles
- Office 365 account: Granting the Distribution Groups Role

Granting Read Permission to Microsoft Exchange Container

To grant this permission to an account, perform the following:

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** to provide the account to which you wish to assign permissions.
6. Select the account name, and then enable the **Allow** option for the **Read** permission in the **Permissions** box.
7. Click the **Advanced** button. In the **Advanced Security Settings** dialog box, select the account you specified on step 5 and click **Edit**.
8. In the **Permission Entry** dialog box, select **This object and all child (descendant) objects** from the **Apply onto** drop-down list.
9. Click **OK** to accept changes.

Granting the Public Folders Role

To grant the **Public Folders** management role to the <User> (for example, **LA\JohnSmith**), run the following cmdlet in Exchange Management Shell:

```
New-ManagementRoleAssignment -Role "Public Folders" -User "LA\JohnSmith"
```

Granting the View-Only Configuration Role

To grant the required permission to the <User> (for example, **JohnSmith**), run the following cmdlet in Exchange Management Shell:

```
New-ManagementRoleAssignment -Role "View-Only Configuration" -User "LA\JohnSmith"
```

Granting Mail Recipients and Mail Enabled Public Folders Roles

To grant the **Public Folders** management role to the <User> (for example, **LA\JohnSmith**), run the following cmdlet in Exchange Management Shell:

```
New-ManagementRoleAssignment -Role "Mail Recipients","Mail Enabled Public Folders" -
User "LA\JohnSmith"
```

Granting Read Permission for Each Public Folder

To grant the required permission the administrative account, for example, JohnSmith), run the following cmdlet in Exchange Management Shell:

```
Get-PublicFolder -Recurse | Add-PublicFolderClientPermission -User "LA\JohnSmith" -
AccessRights Reviewer
```

NOTE: This permission must be granted for all public folders you want to synchronize.

Granting Owner Permissions for Each Public Folder

To grant the required permission the administrative account, for example, JohnSmith), run the following cmdlet in Exchange Management Shell:

```
Get-PublicFolder -Recurse | Add-PublicFolderClientPermission -User "LA\JohnSmith" -
AccessRights Owner
```

NOTE: This permission must be granted for all public folders you want to synchronize.

Granting CreateSubfolders and FolderVisible Access Rights for the Root Folder

To grant CreateSubfolders and FolderVisible permission to the <User> (for example, LA\JohnSmith), run the following cmdlet in Exchange Management Shell:

```
Add-PublicFolderClientPermission -Identity "\" -User "LA\JohnSmith" -AccessRights
"CreateSubfolders","FolderVisible"
```

Granting Full Access Permission for Public Folder to an account

To grant **Full Access** permission for Public Folder to the account perform 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=Folder Hierarchies CN=Exchange Administrative Group(…) CN=Administrative Group CN=Microsoft Exchange,CN=Services,CN=Configuration,DC=<…>,DC=<…>** container.
3. Righ-tclick the **Folder Hierarchies** and select **Properties**.
4. In the **Properties** dialog box, click the **Security** tab.
5. On the **Security** tab, click **Add** to provide the account to which you wish to assign permissions.
6. Select the account name, and then enable the **Allow** option for the **Full Access** permission in the **Permissions** box.
7. Click the **Advanced** button. In the **Advanced Security Settings** dialog box, select the account you specified on step 5 and click **Edit**.
8. In the **Permission Entry** dialog box, select **This object and all child (descendant) objects** from the **Apply onto** drop-down list.
9. Click **OK** to accept changes

Office 365 account: Granting the Public Folders Role

To grant the required permission to the <User> (for example, **JohnSmith**), run the following cmdlet in Exchange Management Shell:

```
$session = New-PSSession -ConfigurationName Microsoft.Exchange -ConnectionUri
https://outlook.office365.com/powershell-liveid/ -Credential $cred -Authentication
Basic -AllowRedirection

Import-PSSession $session

New-ManagementRoleAssignment -Role "Public Folders" -User "JohnSmith"

Remove-PSSession $session
```

Office 365 account: Granting the View-Only Configuration Role

To grant the required permission to the <User> (for example, JohnSmith), run the following cmdlet in Exchange Management Shell:

```
$session = New-PSSession -ConfigurationName Microsoft.Exchange -ConnectionUri
https://outlook.office365.com/powershell-liveid/ -Credential $cred -Authentication
Basic -AllowRedirection

Import-PSSession $session

New-ManagementRoleAssignment -Role "View-Only Configuration" -User "JohnSmith"

Remove-PSSession $session
```

Office 365 account: Granting Public Folder Owner Permission

The administrative account should be granted by Owner permissions on all public folders. Grant this account Owner client permissions on all public folders you want to synchronize.

In the Office 365 Exchange admin center, do the following:

1. Click **public folders**.
2. Select the root folder.
3. In the toolbar on the right, click the ellipsis icon and select **Root permissions**.
4. Add the necessary account and assign it the **Owner** client permission. Select the **Apply changes to this public folder and all its subfolders** option and save your changes. In case the inheritance will be broken, the subfolders cannot be synchronized.

Office 365 account: Granting CreateSubfolders and FolderVisible access rights

To grant **CreateSubfolders** and **FolderVisible** permissions to the <User> (for example, LA\JohnSmith), run the following cmdlet in Exchange Management Shell:

```
$session = New-PSSession -ConfigurationName Microsoft.Exchange -ConnectionUri
https://outlook.office365.com/powershell-liveid/ -Credential $cred -Authentication
Basic -AllowRedirection

Import-PSSession $session

Add-PublicFolderClientPermission -Identity "\" -User "LA\JohnSmith" -AccessRights
"CreateSubfolders","FolderVisible"

Remove-PSSession $session
```

Using Task Scheduler to Automate Tasks

On the computer where the Migration Manager console is installed, you can create, edit, and delete scheduled tasks using **Task Scheduler**, and in this guide we'll show you how to do it. To create a scheduled task, perform the following:

1. From the Start menu, select **Run**. In the **Run** dialog box, type **taskschd.msc** to start Task Scheduler. Click OK.
2. Right-click the **Task Scheduler Library** and select **Create Task…**.
3. In the **Create Task** dialog box, name the task in **Name** field.
4. (Optional) In the **Description** field, create a description for the task.
5. Task Scheduler allows you to select from a number of triggers, including on a specific date, during startup, or when you or a particular user signs in. Depending on your requirements, you will need to configure additional parameters. Select desired security options: **Run only when user is logged on** or **Run whether user is logged on or not**.
6. On **Triggers** tab, click the **New** button to create a trigger.
7. In the **New Trigger** dialog box, schedule your task depending on how often your environment changes.
8. Use **Advanced** settings to schedule a recurrence of a task. Confirm to proceed.
9. On **Actions** tab, click the **New** button to create an action
10. Select **Start a program** action in **Action** drop-down box
11. In the **Settings** area provide the `powershell.exe(x86)` location, default location is **C:\Windows\SysWOW64\WindowsPowerShell\v1.0**.

12. In the **Add arguments(optional):** field, you can enter script for your task.
13. On **Settings** tab, specify additional settings for the task, select whether the task can be started in parallel. The **Run a new instance in parallel** setting would be useful for processing of multiple objects (e.g., more than 100 public folders).
14. Confirm to save your automated task.

NOTE: A separate task should be created for every synchronized source public folder root.

Below you can find examples of the scripts you can use for specific purposes:

- Detecting new public folders
- Mail-enable created public folders
- Add source **legacyExchangeDN** property as X500 in the target

Automate detecting new public folders

Use the following script with your parameters to create your own script for **Add arguments(optional):** field to automate new public folders detection:

```
Set-ExecutionPolicy RemoteSigned

cd "C:\Program Files (x86)\Quest Software\Migration Manager\Exchange
Data\Tools\MMExPowerShell"

Import-Module "C:\Program Files (x86)\Quest Software\Migration Manager\Exchange
Data\Tools\MMExPowerShell"

Export-MMExPublicFolderMapping -SourceOrganization 'My Source Organization' -
MappingFilePath 'MigrationMapping.csv'

Import-MMExPublicFolderMapping -MappingFilePath 'MigrationMapping.csv' -Organization
'My Target Organization'

Initialize-MMExPublicFolderMigration -MappingFilePath 'MigrationMapping.csv'-
SourceOrganization 'My Source Organization' -TargetOrganization 'My Target
Organization' -Direction 'My Direction'
```

Automate mail-enabling of created public folders

Use the following script with your parameters to create your own script for **Add arguments(optional):** field to automate mail-enabling of created public folders:

```
Set-ExecutionPolicy RemoteSigned

cd "C:\Program Files (x86)\Quest Software\Migration Manager\Exchange
Data\Tools\MMExPowerShell"

Import-Module "C:\Program Files (x86)\Quest Software\Migration Manager\Exchange
Data\Tools\MMExPowerShell"

Get-MMExPublicFolderStatistics |Sort-Object -Property CollectionID | Sync-
MailPublicFolder -ProxyAddresses -Permissions
```

Automate adding source legacyExchangeDN property as X500 in the target

Use the following script with your parameters to create your own script for **Add arguments(optional):** field to automate adding source **legacyExchangeDN** property as X500 in the target for group matching:

```
Set-MMExExecutionPolicy RemoteSigned

cd "C:\Program Files (x86)\Quest Software\Migration Manager\Exchange
Data\Tools\MMExPowerShell"

Import-Module "C:\Program Files (x86)\Quest Software\Migration Manager\Exchange
Data\Tools\MMExPowerShell"

Set-GroupMatching -SourceOrganization 'My Source Organization' -TargetOrganization 'My
Target Organization'
```

About us

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

Technical support resources

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

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

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