



GALSYNC® v8.5

Upgrade Instructions

NETsec

05. November 2024

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GALsync version 8.5

As of version 8.5, GALsync supports **Microsoft Graph** to access mailboxes in Exchange Online.

GALsync requires **.NET Framework 4.8, Windows PowerShell 5.1 and ExchangeOnlineManagement PowerShell module version 3.6 or later for Exchange Online PowerShell V3.**

As of version 8.2, GALsync has added support to **Modify existing contacts with source domain**. This option allows to migrate the export policy in a hybrid Exchange environment from the on-premises component to the Exchange Online component of a hybrid Exchange environment, and from the Exchange Online component to the on-premises component of a hybrid Exchange environment.

As of GALsync version 8.1, the certificate-based authentication method to establish a connection to Exchange Online is available in the Environment Configuration. Exchange Online connections using the certificate-based authentication method, Azure AD App Permissions of a registered application are used for access.

GALsync synchronizes the Global Address List (GAL) between different Exchange environments, which can be on-premises Exchange environments or Exchange Online of Office 365 tenants.

For each Exchange environment, you can select which mail-enabled objects will be synchronized as mail-enabled contacts to the other Exchange environments. Also, you can configure how the received mail-enabled objects from the other Exchange environments will be synchronized as mail-enabled contacts to your own Exchange environment.

This will make the mail-enabled objects from the other Exchange environments visible as contacts in the Global Address List (GAL).

As of GALsync version 8.0, the **Environment Configuration** describes the Exchange environment and its settings by which GALsync connects to Exchange, which eliminates the requirement configure authentication separately for each policy. Instead, GALsync now uses the credentials assigned to each configured environment.

** Microsoft stopped supporting Exchange 2013 on the 11th April 2023.*

As much as we would like to keep up compatibility for all versions, we cannot support an environment, which is no longer supported by the manufacturer.

Important: You have to upgrade all versions which synchronize data between your organizations. Synchronization between different GALsync versions is not supported.

Download

Download the most recent version from our website:

<https://www.netsec.de/en/products/galsync/download.html>

Important: You have to upgrade all versions which synchronize data between your organizations. Synchronization between different GALsync versions is not supported.

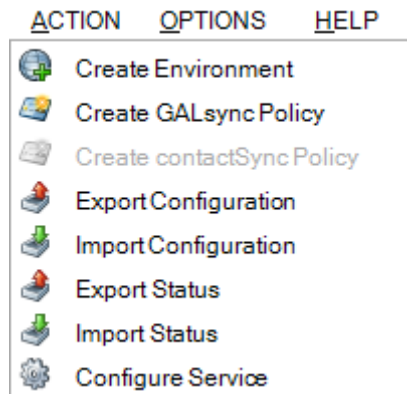
Upgrade Instructions

For updates from GALsync version 8.x to GALsync version 8.x

To install a new GALsync version, perform a backup of your GALsync data and install the new version.

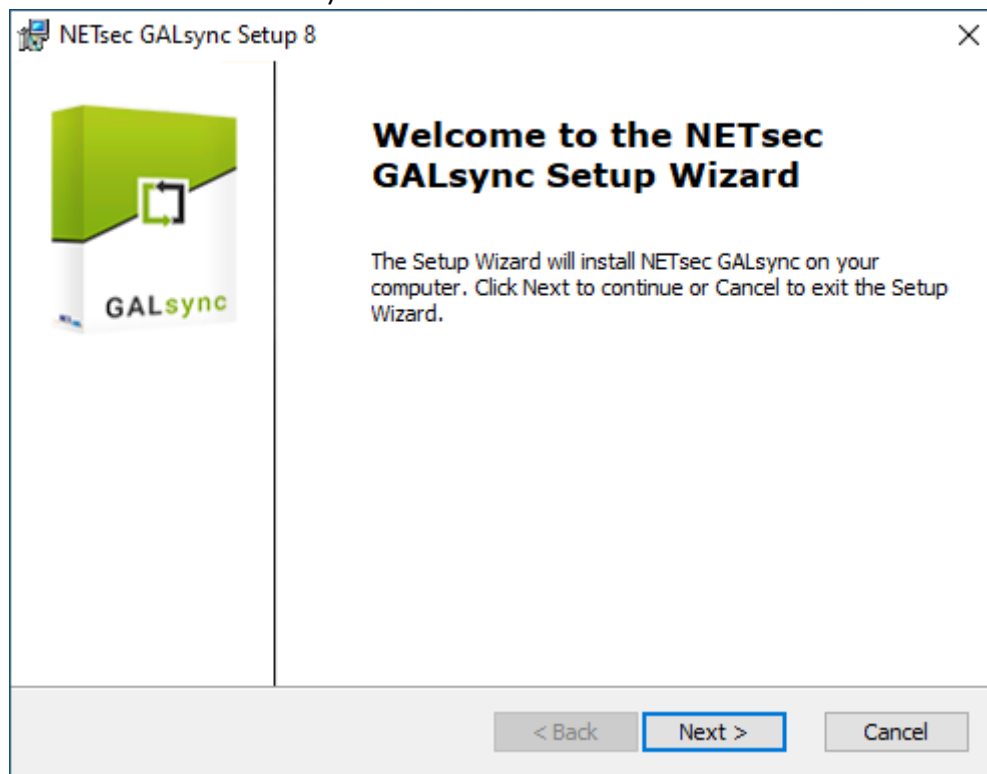
1. Backup (or copy) your GALsync program folder and the **common application data** folder.

In menu **Action** -> **Export Configuration** you can zip your policies.



In menu **Action** -> **Export Status** you can zip your log files.

2. Install the new GALsync version.



Please see the **Incompatibility** chapter.

Important: Depending on the version gap, it may be necessary to reconfigure some options in your policies.

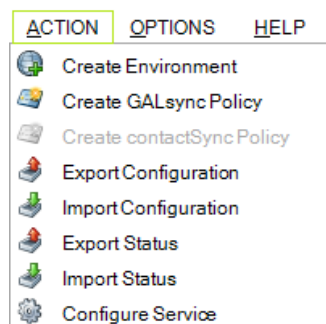
For updates from GALsync version 6 and 7 to GALsync version 8.x

To install a new GALsync version, perform a backup of your GALsync data and install the new version.

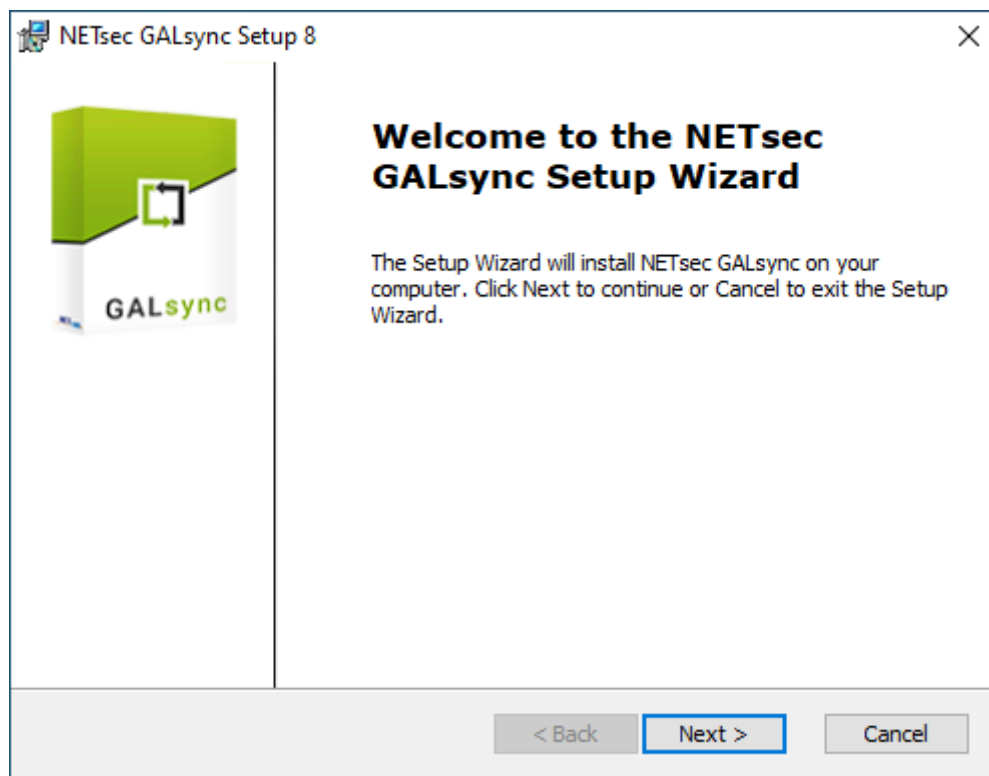
1. Backup (or copy) your GALsync program folder and the **common application data** folder.

Select **Action** -> **Export Configuration** to zip your Policy configuration.

Select **Action** -> **Export Status** to zip your log files.



2. Install the new GALsync version.



As of GALsync version 8, an **Environment Configuration** is necessary and must be configured. After that, existing policies can be migrated and new policies can be created and configured. The value for the source domain is expanded, so that the first import

policy run will update all imported GALsync objects after the upgrade from GALsync version 7 or earlier versions.

Important: Depending on the version gap, it may be necessary to reconfigure some options in your policies.

Please see the **Incompatibility** chapter.

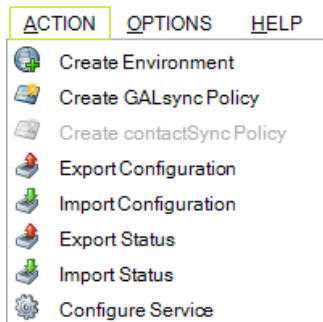
For updates from GALsync version 4 and 5 to GALsync version 8.x

To install a new GALsync version, perform a backup of your GALsync data and uninstall the old version.

1. Backup (or copy) your GALsync program folder and the common application data folder.

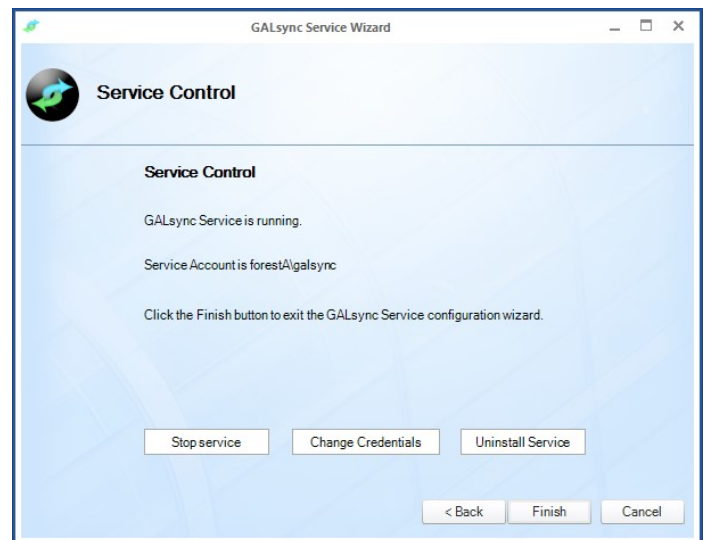
Select **Action** -> **Export Configuration** to zip your Policy configuration.

Select **Action** -> **Export Status** to zip your log files.



2. Uninstall the GALsync service before removing the GALsync software to prevent system from rebooting.

Select **Action** -> **Configure Service** to uninstall the GALsync service.



After clicking **Uninstall** Service finish the wizard.

3. Uninstall your current version (Windows control panel -> add/remove programs). Your policy data (configuration) in the folder **all users / application data** will be retained, so you can reuse them with the new version.

4. Install the new GALsync version.

As of GALsync version 8, an **Environment Configuration** is necessary and must be configured. After that, existing policies can be migrated, and new policies can be created and configured. The value for the source domain is expanded, so that the first import policy run will update all imported GALsync objects after the upgrade from GALsync version 7 or earlier versions.

Important: Depending on the version gap, it may be necessary to reconfigure some options in your policies.

Please see the **Incompatibility** chapter.

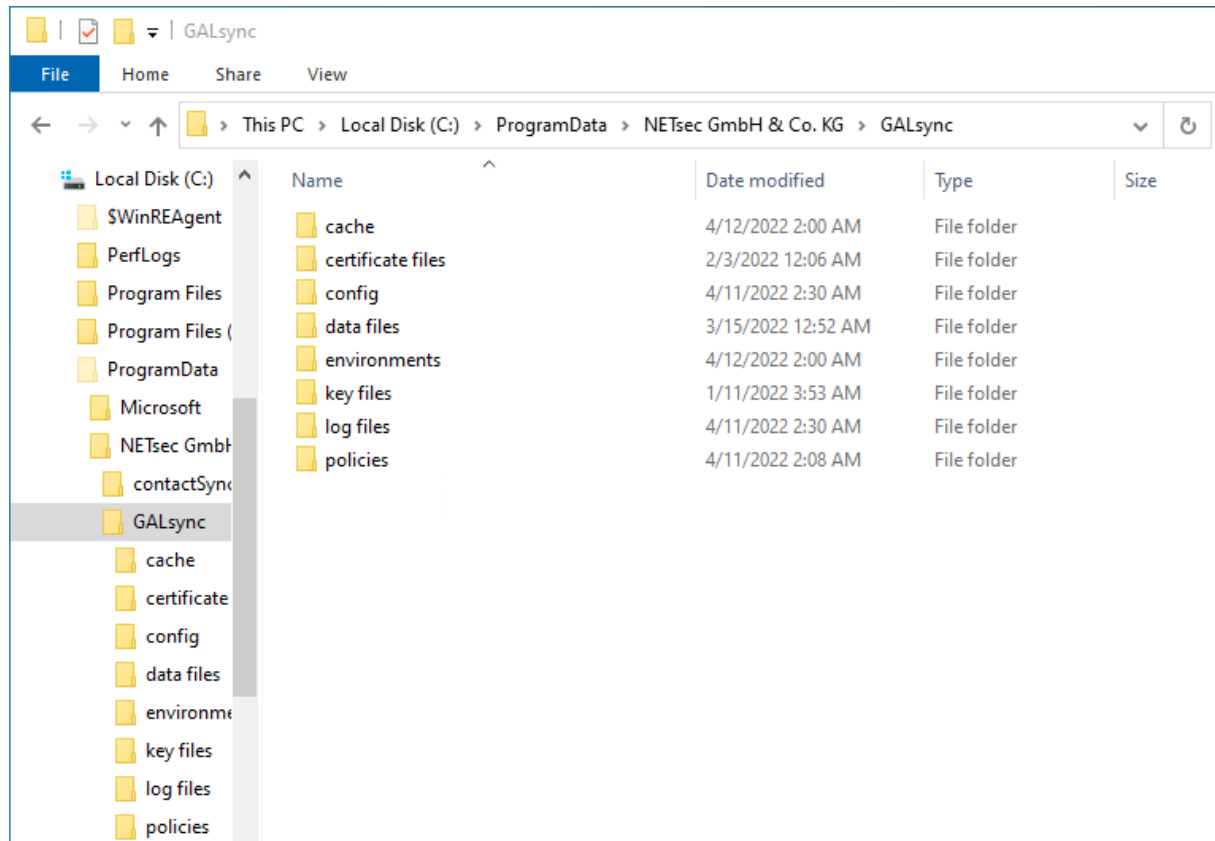
Where is the common application data folder?

The common application data folder can be retrieved in the Windows Explorer with the command

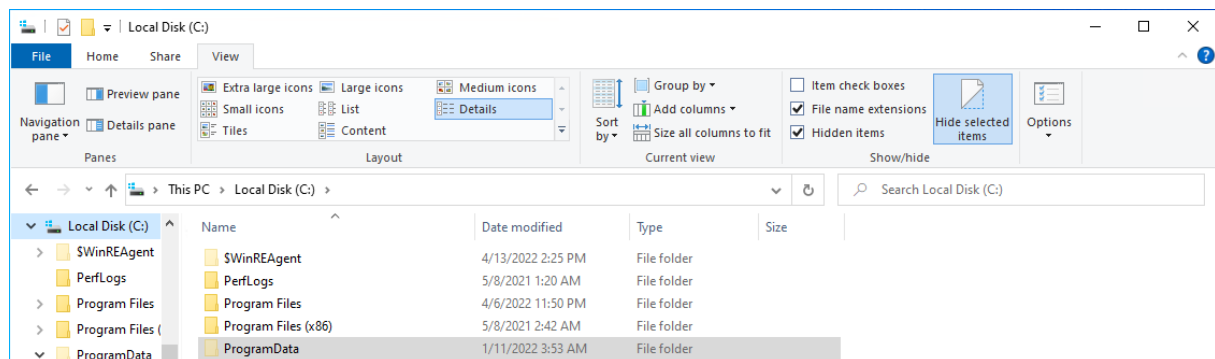
```
%ProgramData%\NETsec GmbH & Co. KG\GALsync
```

or

```
%systemdrive%\ProgramData\NETsec GmbH & Co. KG\GALsync
```



Note: The folder **ProgramData** is usually hidden. You may activate the option **Hidden items** of the File Explorer.



Incompatibility

GALsync version 8.5 compared with GALsync 8.4.6

1. As of version 8.5, GALsync requires **.NET Framework 4.8**, **Windows PowerShell 5.1** and **ExchangeOnlineManagement PowerShell module version 3.6** or later for **Exchange Online PowerShell V3**.

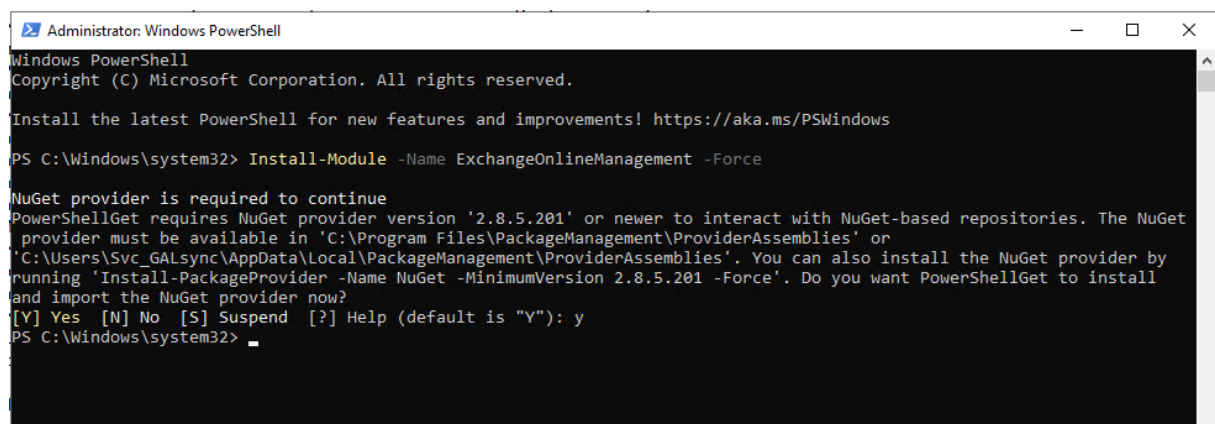
The **ExchangeOnlineManagement PowerShell module** needs to be installed or updated on the GALsync Server, so GALsync can directly communicate with a Microsoft 365 Exchange Online tenant.

Install ExchangeOnlineManagement PowerShell module

On the GALsync Server, open **Windows PowerShell** as **Administrator**, then run the following to install:

```
Install-Module -Name ExchangeOnlineManagement -Force
```

When prompted, enter **Y** for Yes then Return



Please have look at the **Prerequisites for the Exchange Online PowerShell module** chapter in the **Microsoft Docs: About the Exchange Online PowerShell module**

<https://learn.microsoft.com/en-us/powershell/exchange/exchange-online-powershell-v2?view=exchange-ps#install-the-exchange-online-powershell-module>

Update ExchangeOnlineManagement PowerShell module

On the GALsync Server, open **Windows PowerShell** as **Administrator**, then run the following to update:

```
Update-Module -Name ExchangeOnlineManagement -Force
```

Please have look at the **Prerequisites for the Exchange Online PowerShell module** chapter in the **Microsoft Docs: About the Exchange Online PowerShell module**

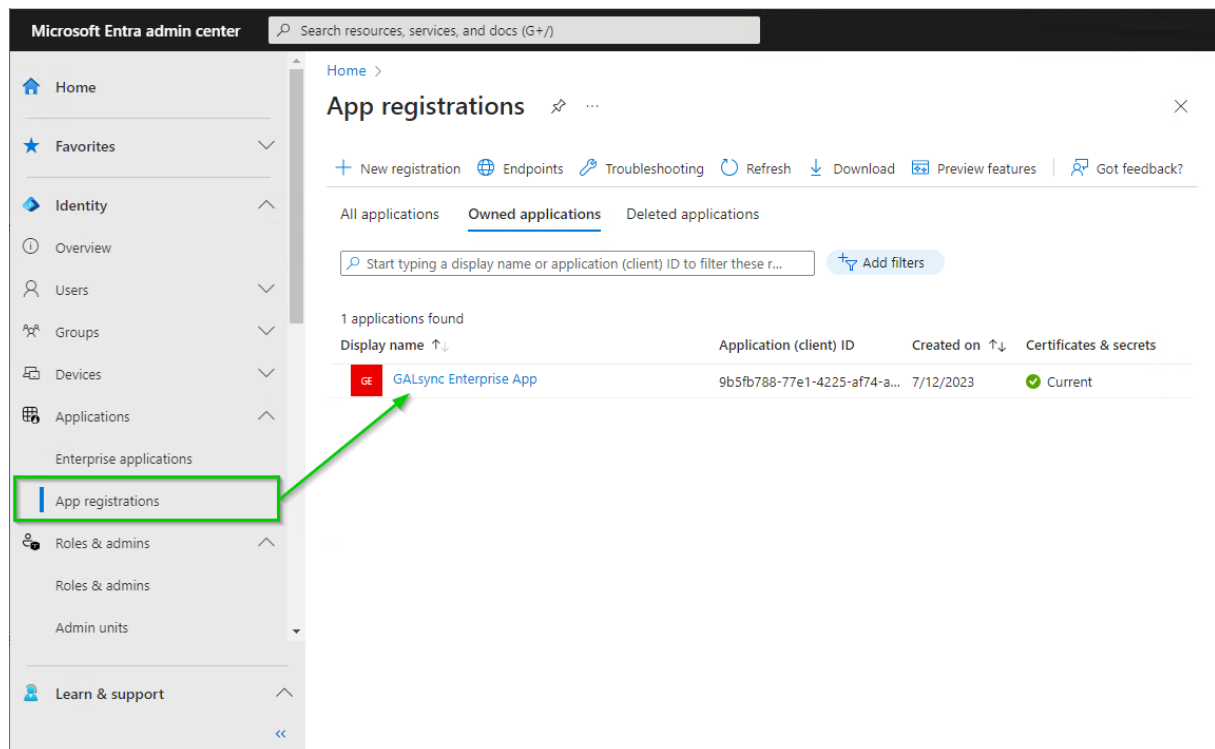
<https://learn.microsoft.com/en-us/powershell/exchange/exchange-online-powershell-v2?view=exchange-ps#update-the-exchange-online-powershell-module>

2. As of version 8.5, GALsync supports **Microsoft Graph** to access mailboxes in Exchange Online.

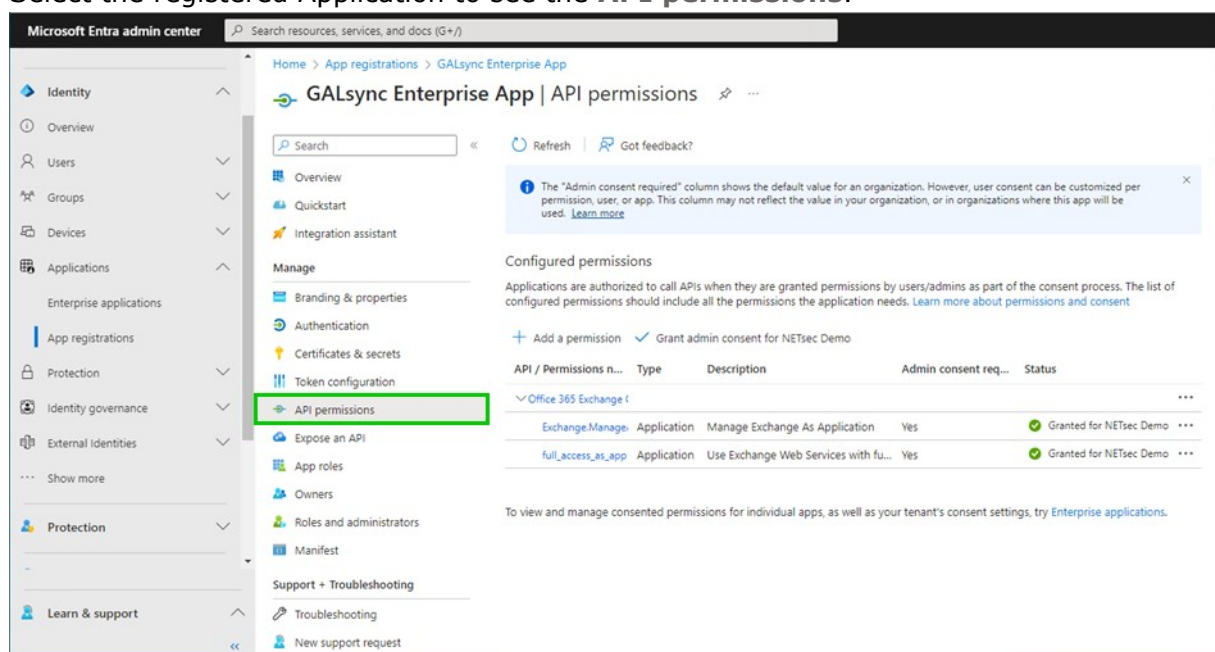
The following changes in the assigned API permissions of the App Registration in the **Microsoft Entra ID** are necessary to use Microsoft Graph to access mailboxes in Exchange Online.

The registered Application in App registrations

In the Microsoft Entra admin center menu, go to **Identity**, expand **Applications** and select **App registrations**.



Select the registered Application to see the **API permissions**.



The **Exchange.ManageAsApp** permission is also required to access Exchange Online mailboxes via **Microsoft Graph**.

API / Permissions name	Type	Description	Admin consent requ...	Status
Office 365 Exchange Online (2) ...				
Exchange.ManageAsApp	Application	Manage Exchange As Application	Yes	✔ Granted for NETsec Demo ...
full_access_as_app	Application	Use Exchange Web Services with full access to all mailboxes	Yes	✔ Granted for NETsec Demo ...

The **full_access_as_app** permission allows to access Exchange Online mailboxes via **Exchange Web Services** and is not needed to access Exchange Online mailboxes via **Microsoft Graph**.

Remove API permission for Exchange Web Services, if applicable

The **full_access_as_app** permission can be removed, except if you use contactSync policies, which are synchronizing contacts from a Public Folder, that are located in Exchange Online, which at the moment need the **full_access_as_app** permission for Exchange Web Services.

*Please note, if you also use **contactSync policies** in GALsync, it will be necessary to configure additional API permissions. Please take a look at the **Assign API permissions to the registered Application** chapter in the **contactSync manual**.*

If the **full_access_as_app** permission is not be needed anymore, it is necessary to **Revoke admin consent** first and then to **Remove permission** at the context menu of the permission entry.

API / Permissions name	Type	Description	Admin consent requ...	Status
Office 365 Exchange Online (2) ...				
Exchange.ManageAsApp	Application	Manage Exchange As Application	Yes	✔ Granted for NETsec Demo ...
full_access_as_app	Application	Use Exchange Web Services with full access to all mailboxes	Yes	✔ Granted for NETsec Demo ...

Remove permission

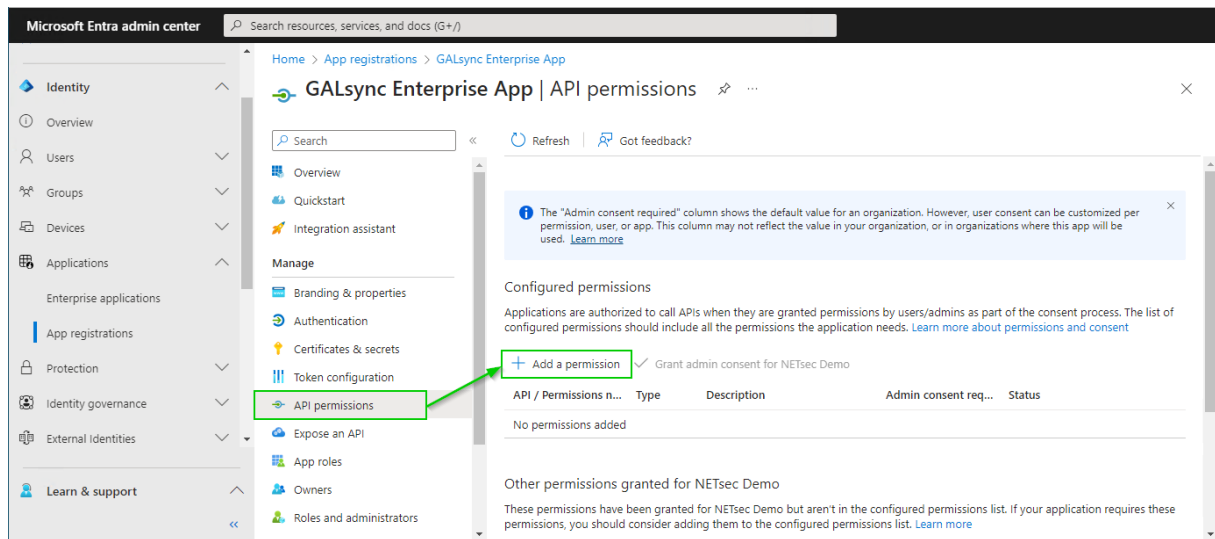
Revoke admin consent

Context menu

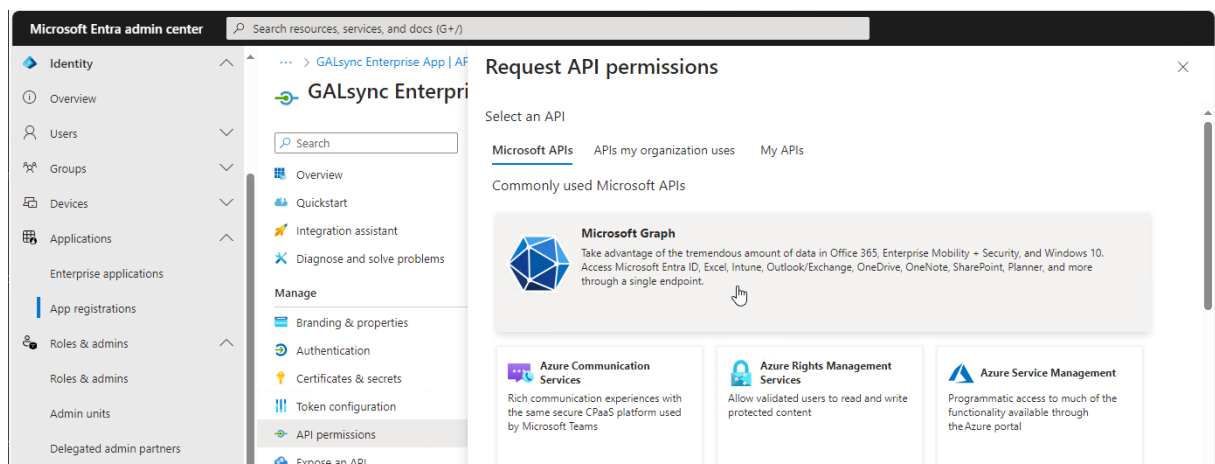
To view and manage consented permissions for individual apps, as well as your tenant's consent settings, try [Enterprise applications](#).

API permissions for Microsoft Graph

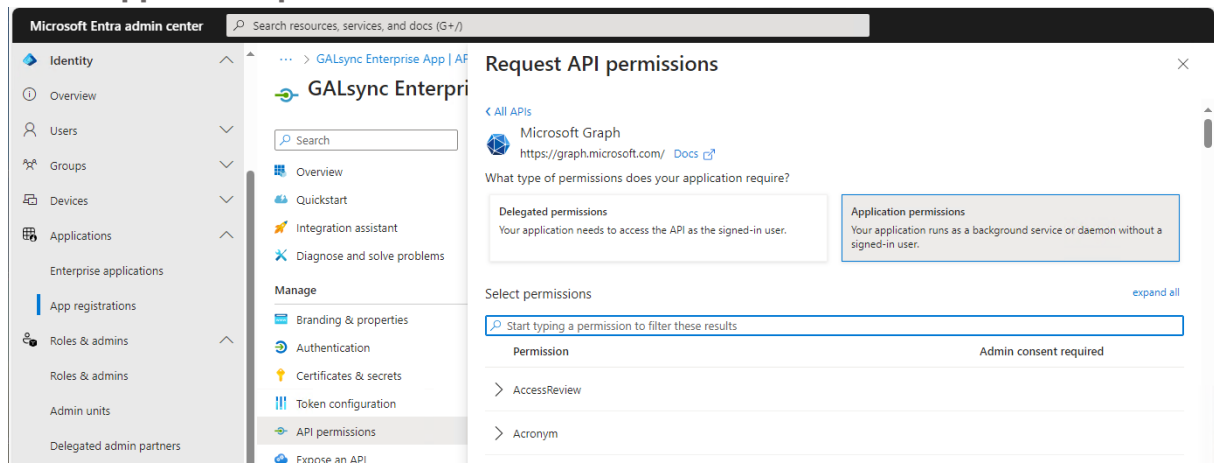
Go to **API permissions**, then select **Add a permission**



Select the **Microsoft APIs** and click on **Microsoft Graph**

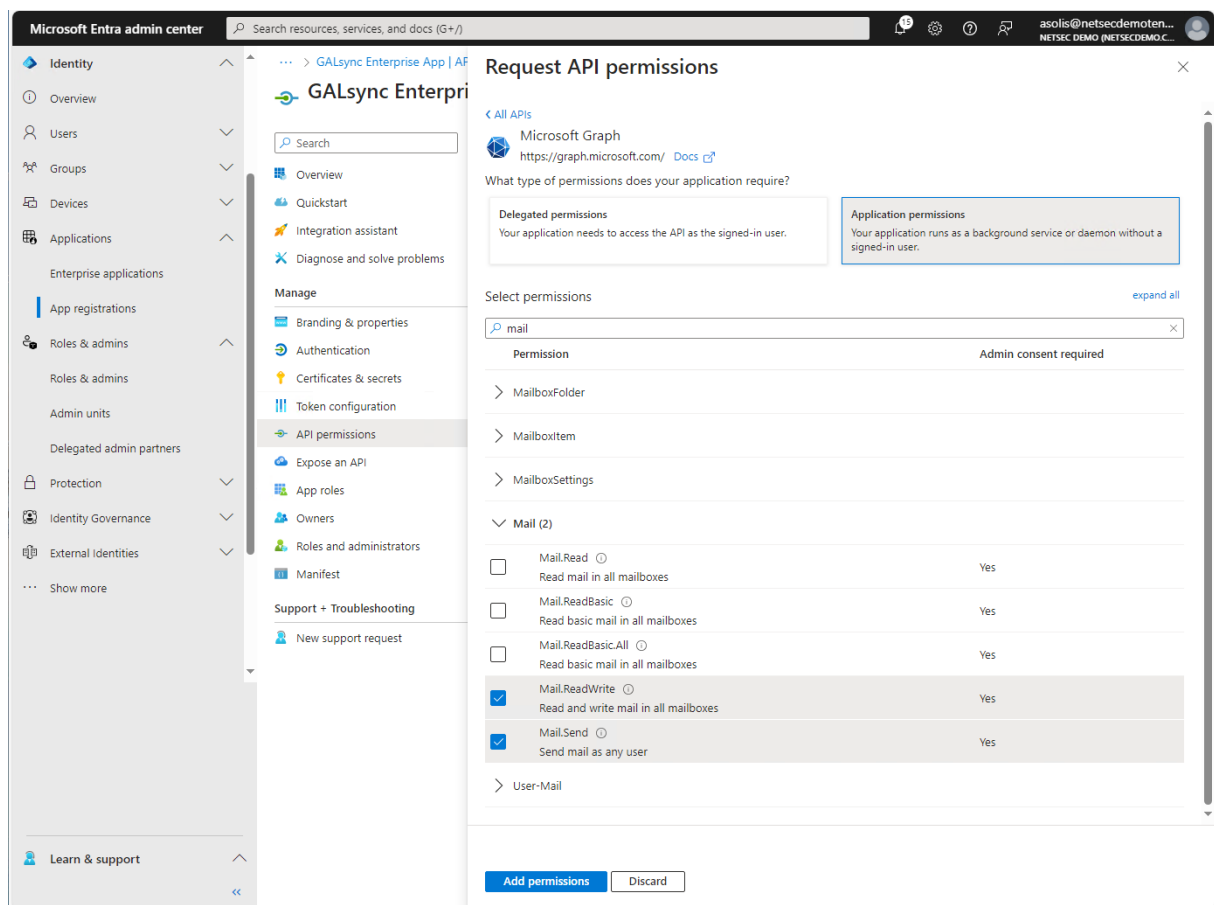


Select Application permissions



Search for **mail** and expand the **Mail** in the result list.

Select
Mail.ReadWrite
and
Mail.Send



Please note, if you also use **contactSync policies** in GALsync, it will be necessary to configure additional API permissions. Please take a look at the **Assign API permissions to the registered Application** chapter in the **contactSync manual**.

Click **Add permissions**

Click **Grant admin consent** for your tenant.

The screenshot shows the Microsoft Entra admin center interface. The left sidebar contains navigation options like Identity, Users, Groups, Devices, Applications, Roles & admins, Protection, Identity Governance, External Identities, and Learn & support. The main content area is titled 'GALsync Enterprise App | API permissions'. It includes a search bar, a refresh button, and a 'Got feedback?' link. A warning message states: 'You are editing permission(s) to your application, users will have to consent even if they've already done so previously.' Below this, a table lists configured permissions for the application. The 'Grant admin consent for NETSec Demo' button is highlighted in blue.

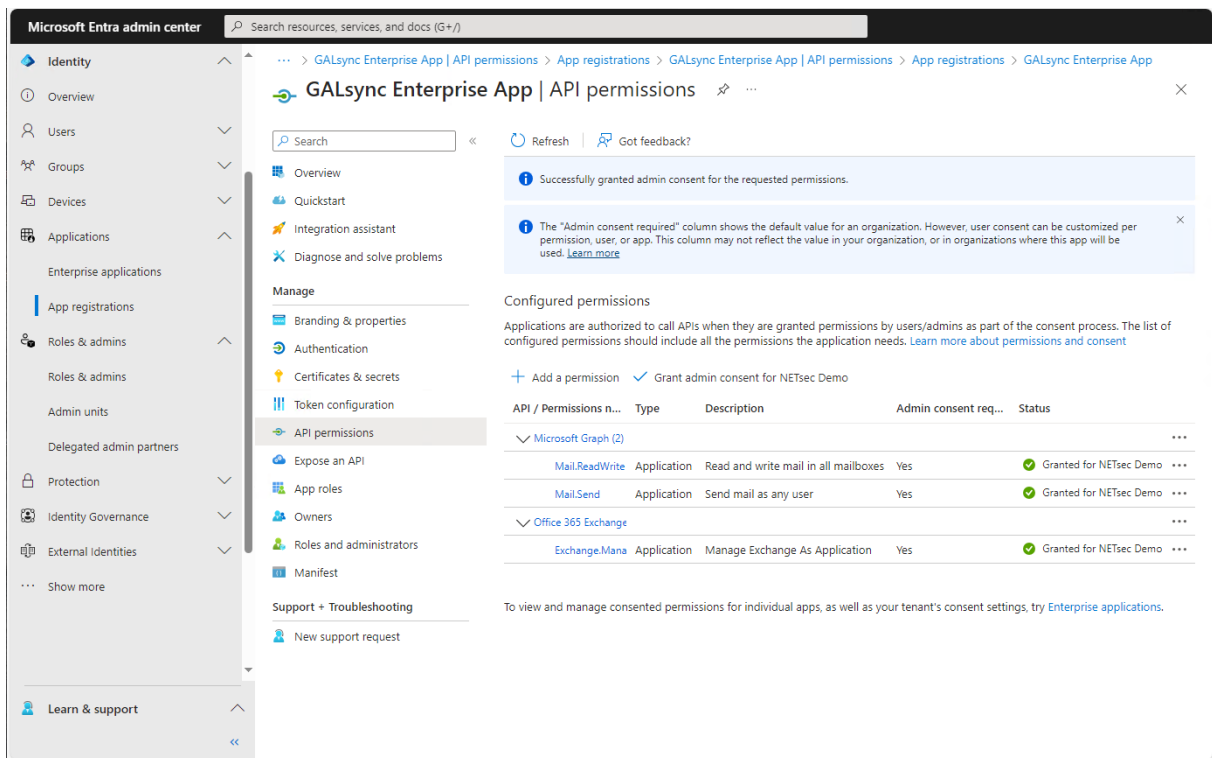
API / Permissions n...	Type	Description	Admin consent req...	Status
Microsoft Graph (3)				
Mail.ReadWrite	Application	Read and write mail in all mailb...	Yes	Not granted for NETSec ...
Mail.Send	Application	Send mail as any user	Yes	Not granted for NETSec ...
Office 365 Exchange				
Exchange.Manage	Application	Manage Exchange As Application	Yes	Granted for NETSec Demo

Click **Yes** to confirm the consent.

The screenshot shows the same Microsoft Entra admin center interface as the previous one, but with a 'Grant admin consent confirmation' dialog box open. The dialog box asks: 'Do you want to grant consent for the requested permissions for all accounts in NETSec Demo? This will update any existing admin consent records this application already has to match what is listed below.' The 'Yes' button is highlighted in blue.

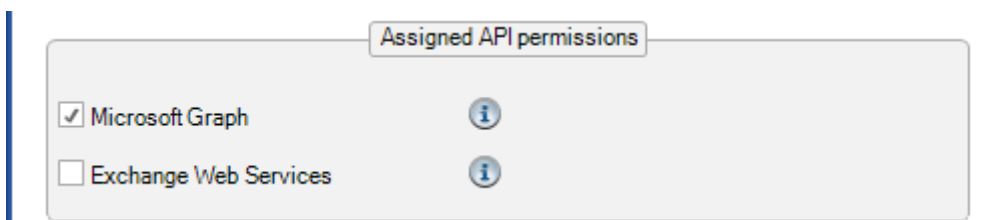
API / Permissions n...	Type	Description	Admin consent req...	Status
Microsoft Graph (3)				
Mail.ReadWrite	Application	Read and write mail in all mailb...	Yes	Not granted for NETSec ...
Mail.Send	Application	Send mail as any user	Yes	Not granted for NETSec ...
Office 365 Exchange				
Exchange.Manage	Application	Manage Exchange As Application	Yes	Granted for NETSec Demo

API permissions are assigned to the registered Application.



Update the Environment Configuration in GALsync

Accordingly, select **Microsoft Graph** at the **Assigned API permissions** group box in the **Exchange Online App Registration** dialog and uncheck the **Exchange Web Services**, if you have removed the **full_access_as_app** permission.



*Please note, if you also use **contactSync policies** in GALsync, it will be necessary to configure additional API permissions. Please take a look at the **Assign API permissions to the registered Application** chapter in the **contactSync manual**.*

NETsec Demo Hybrid Exchange - Environment Configuration

General
Exchange Scenario
Exchange Server on-premises
Exchange Online

Exchange Online

Manage the settings for the Exchange Online tenant.
All accounts of the Microsoft 365 tenant have Exchange Administrator role permission for Exchange Online.

Credentials

Add

Add

Modify

Remove

Username	Max. Connection
Primary Mailbox Account	
GALsync Enterprise App	2

Exchange Online App Registration

Corresponding settings for the Enterprise Application in the Microsoft Entra ID (formerly Azure AD) App registrations that enables access to Exchange Online.

Organization / Tenant

netsecdemotenant.onmicrosoft.com

Application Display Name

GALsync Enterprise App

Application ID

9b5fb788-77e1-4225-af74-a96f7c8fed5d

Certificate

Friendly Name

NETsecDemo from DemoGALsync03

Not After

2026-04-25

Subject

CN=NETsecDemoFromDemoGALsync03

Thumbprint

1F2A94427072121203617D6A7DAC0C28C047CD48

Has PrivateKey

True

User

NETSECDEMO\svc_galsync

Choose Certificate

Create Certificate

Assigned API permissions

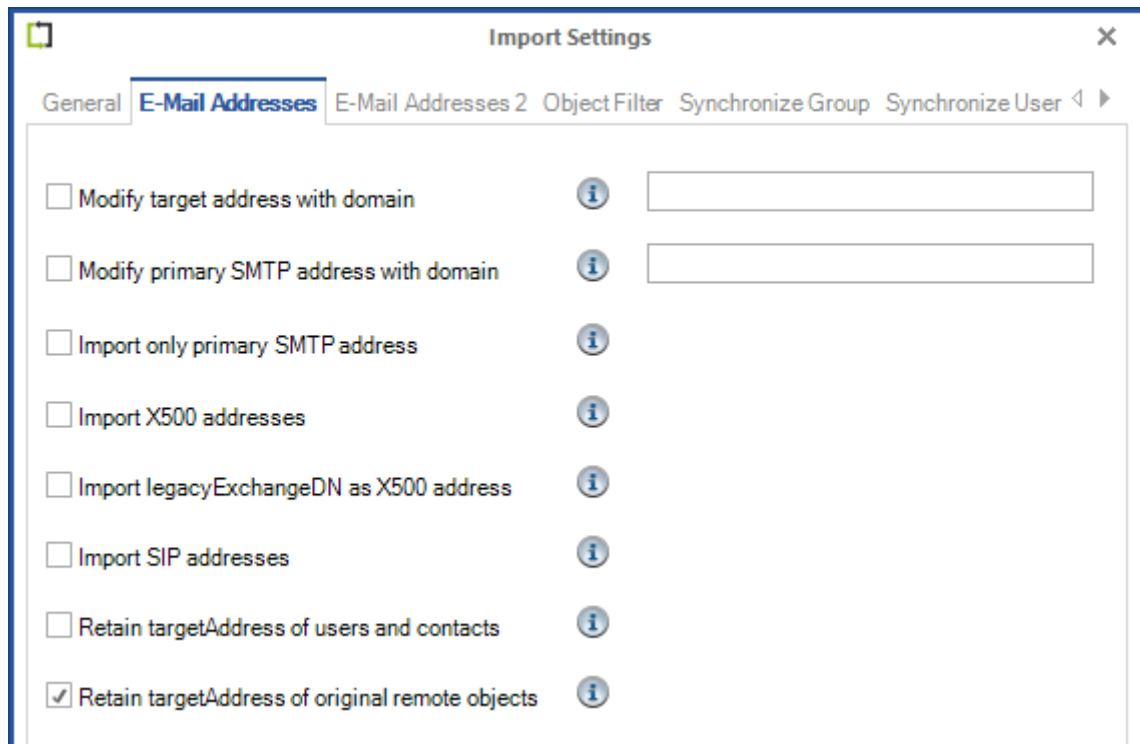
☒ Microsoft Graph

☐ Exchange Web Services

Maximum Connection

☒ Set as primary account

3. As of version 8.5, the new option **Retain targetAddress for original remote objects** on the **E-Mail Addresses** tab in the **Import Settings** is enabled for newly created import policies by default.



The screenshot shows the 'Import Settings' dialog box with the 'E-Mail Addresses' tab selected. The dialog has a title bar with a close button (X) and a tab bar with the following tabs: 'General', 'E-Mail Addresses' (active), 'E-Mail Addresses 2', 'Object Filter', 'Synchronize Group', and 'Synchronize User'. The 'E-Mail Addresses' tab contains a list of seven options, each with a checkbox, an information icon (i), and a text input field. The options are:

- ☐ Modify target address with domain
- ☐ Modify primary SMTP address with domain
- ☐ Import only primary SMTP address
- ☐ Import X500 addresses
- ☐ Import legacyExchangeDN as X500 address
- ☐ Import SIP addresses
- ☐ Retain targetAddress of users and contacts
- ☒ Retain targetAddress of original remote objects

GALsync exports the values found in the **proxyAddresses** attribute as well as the value of the **targetAddress** attribute.

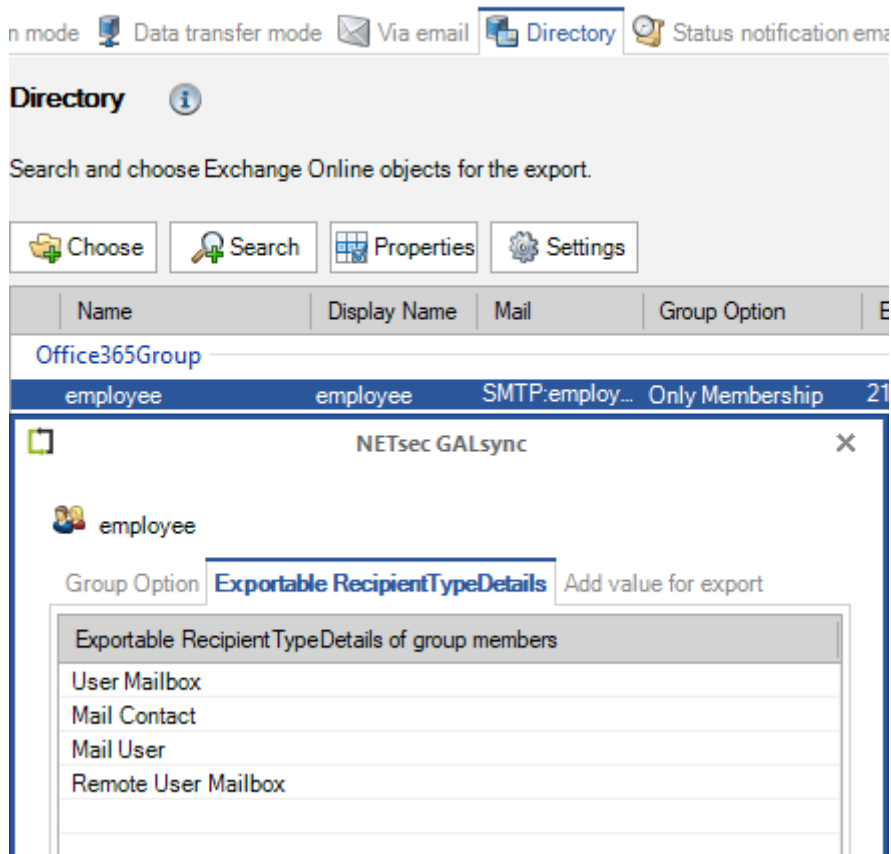
By default, during import the **targetAddress** of mailbox-users, mail-users and contacts is stamped with the value of the source primary SMTP address value.

If the **Retain targetAddress of original remote objects** option is selected, the **targetAddress** is retained while importing an object that has a remote **RecipientTypeDetails** value, e.g. *RemoteUserMailbox*, in the RecipientTypeDetails tag or in the original RecipientTypeDetails tag of the data file object.

This is useful for obtaining free/busy information between Exchange environments, e.g. when a hybrid Exchange environment is involved.

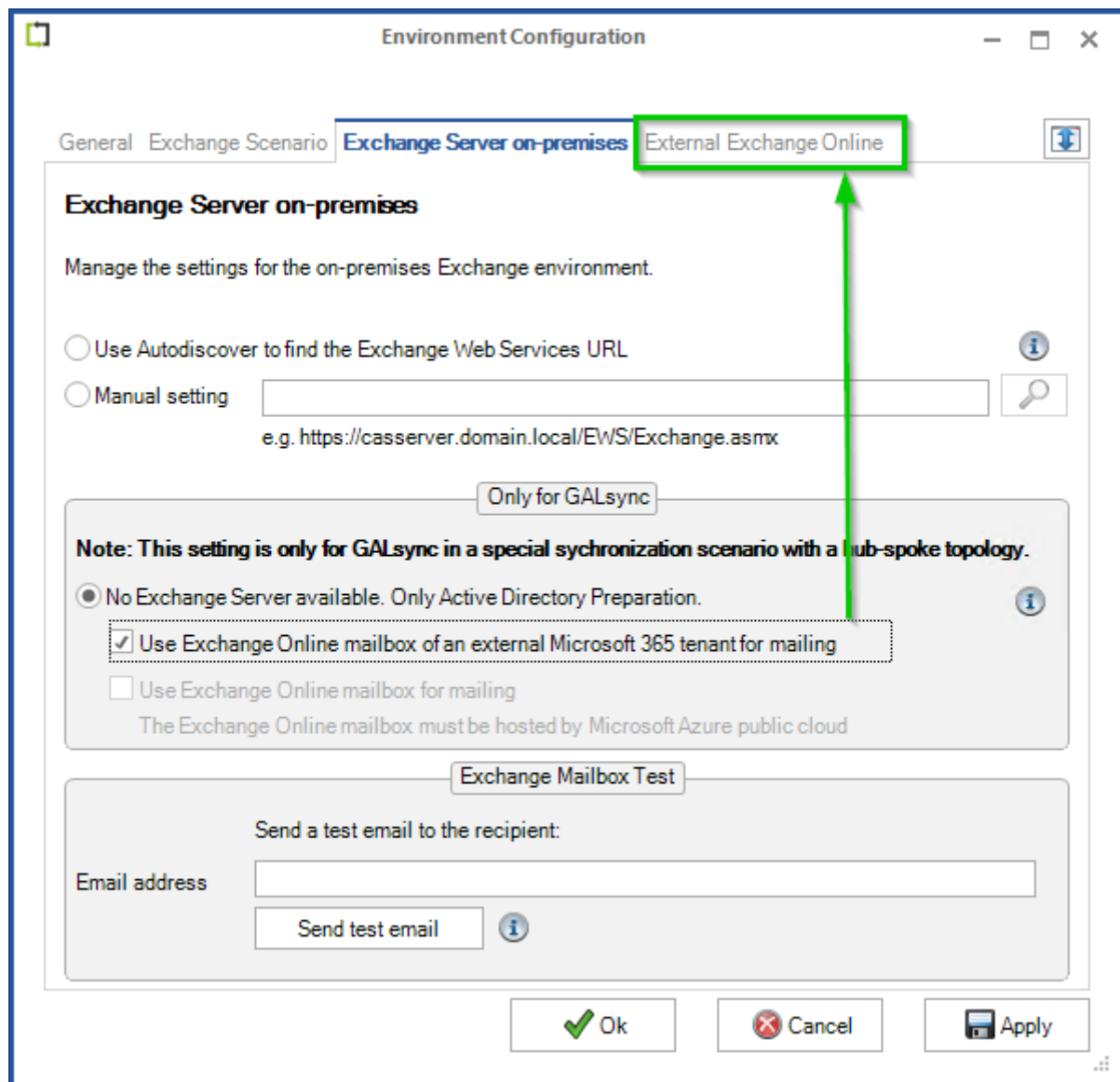
4. The behavior when exporting members of a selected group for policies, that export from Exchange Online, has been adapted to the behavior when exporting from on-premises.

The members of a group selected in the policy are resolved, even if a **RecipientTypeDetails** for exporting the group is missing from the **Exportable RecipientTypeDetails** list of the selected group.



GALsync version 8.4.6 and later compared with GALsync 8.4.5 and earlier

1. In an on-premises Exchange scenario that only has Active Directory Preparation but no Exchange Server, it is now possible to connect to the Exchange Online mailbox of an external Microsoft 365 tenant using certificate-based authentication.



This setting is only for GALsync in a special synchronization scenario with a hub-spoke topology.

The **External Exchange Online** tab will be visible. It is possible to use certificate-based authentication via AppRegistration for the external Exchange Online mailbox.

Please take a look at the **Use Exchange Online mailbox of an external Microsoft 365 tenant for mailing** chapter in the GALsync manual for a complete description of how it's configured.

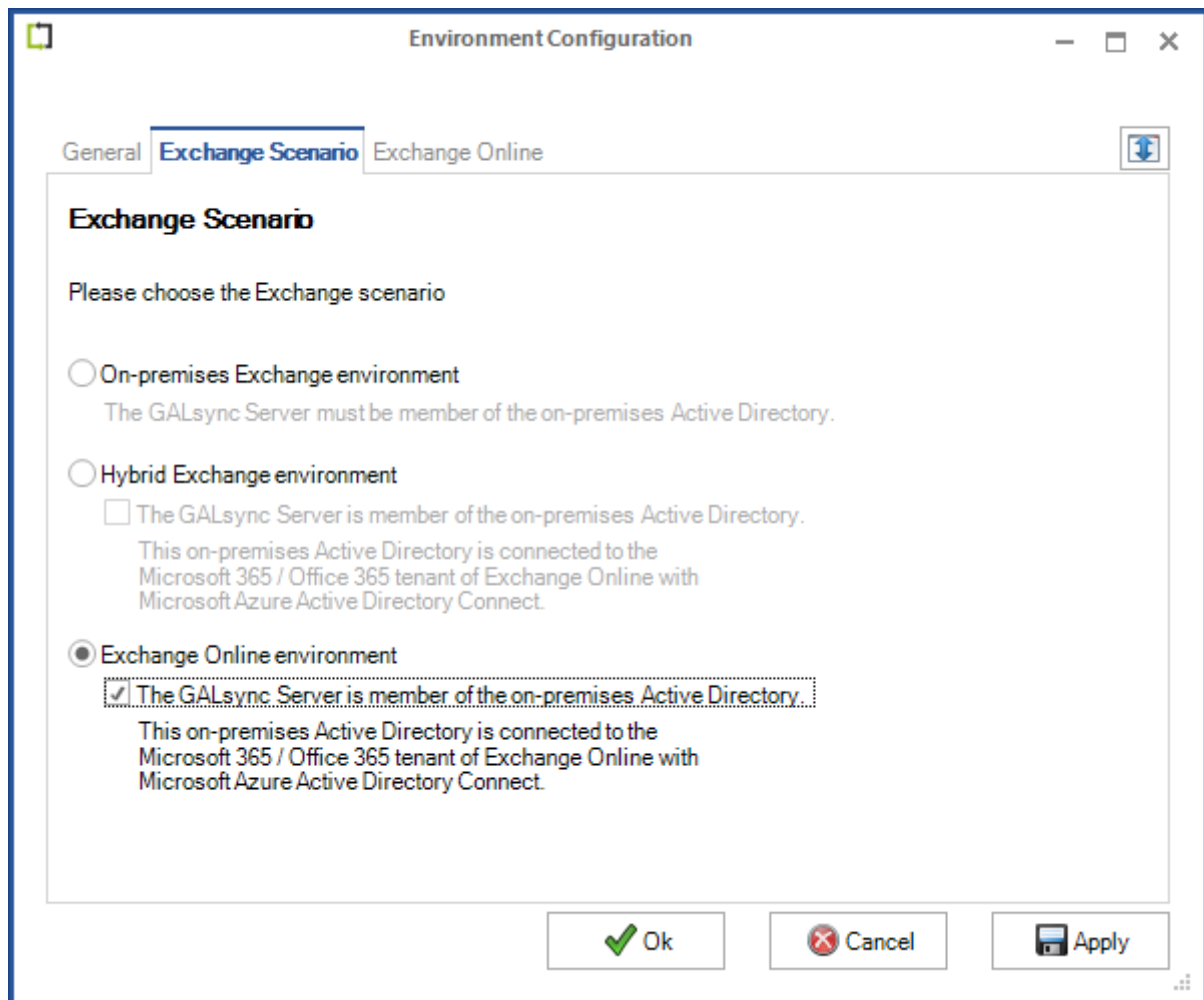
The settings on the **External Exchange Online** tab are the same as the default Exchange Online tab of a Hybrid Exchange environment or an Exchange Online environment.

The **Add** button on the left, will open a dialog window in which to configure **certificate-based authentication** via **App registration** for the Exchange Online tenant.

The screenshot shows the 'Exchange Online App Registration' dialog window. At the top, there's a title bar with a close button. Below it, a subtitle reads 'Corresponding settings for the Enterprise Application in the Microsoft Entra ID (formerly Azure AD) App registrations that enables access to Exchange Online.' The main area contains three input fields: 'Organization / Tenant', 'Application Display Name', and 'Application ID', each with an information icon to its right. At the bottom, there's a 'Certificate' tab button.

Please take a look at the **Use Exchange Online mailbox of an external Microsoft 365 tenant for mailing** chapter in the GALsync manual for a complete description of how it's configured.

2. It's now possible to synchronize with on-premises Active Directory in an Exchange Online scenario with a connected on-premises Active Directory, that has Active Directory Preparation in which the Active Directory Schema has extended Exchange properties and where the GALsync Server is member of.



Migrate an existing on-premises policy created by GALsync version 7 or earlier versions

It is now possible to migrate an existing on-premises policy created by GALsync version 7 or earlier versions, to such an Environment Configuration.

Create new policies to synchronize with on-premises

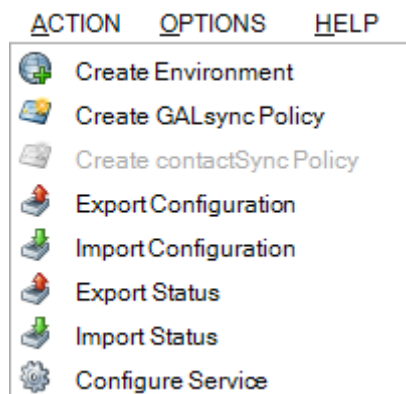
It is now possible to create new policies to synchronize with the on-premises Active Directory for such an Environment Configuration.

GALsync version 8.4.3 and later compared with GALsync 8.4.2 and earlier

1. Please backup the GALsync configuration of the earlier version than 8.4.3, before you install the latest one. The selection of mailboxes in contactSync policies will be automatically migrated to better support a hybrid Exchange environment.

Select **Action** -> **Export Configuration** to compress your Environment Configuration and Policy configuration to a zip file.

Select **Action** -> **Export Status** to compress your log files to a zip file.

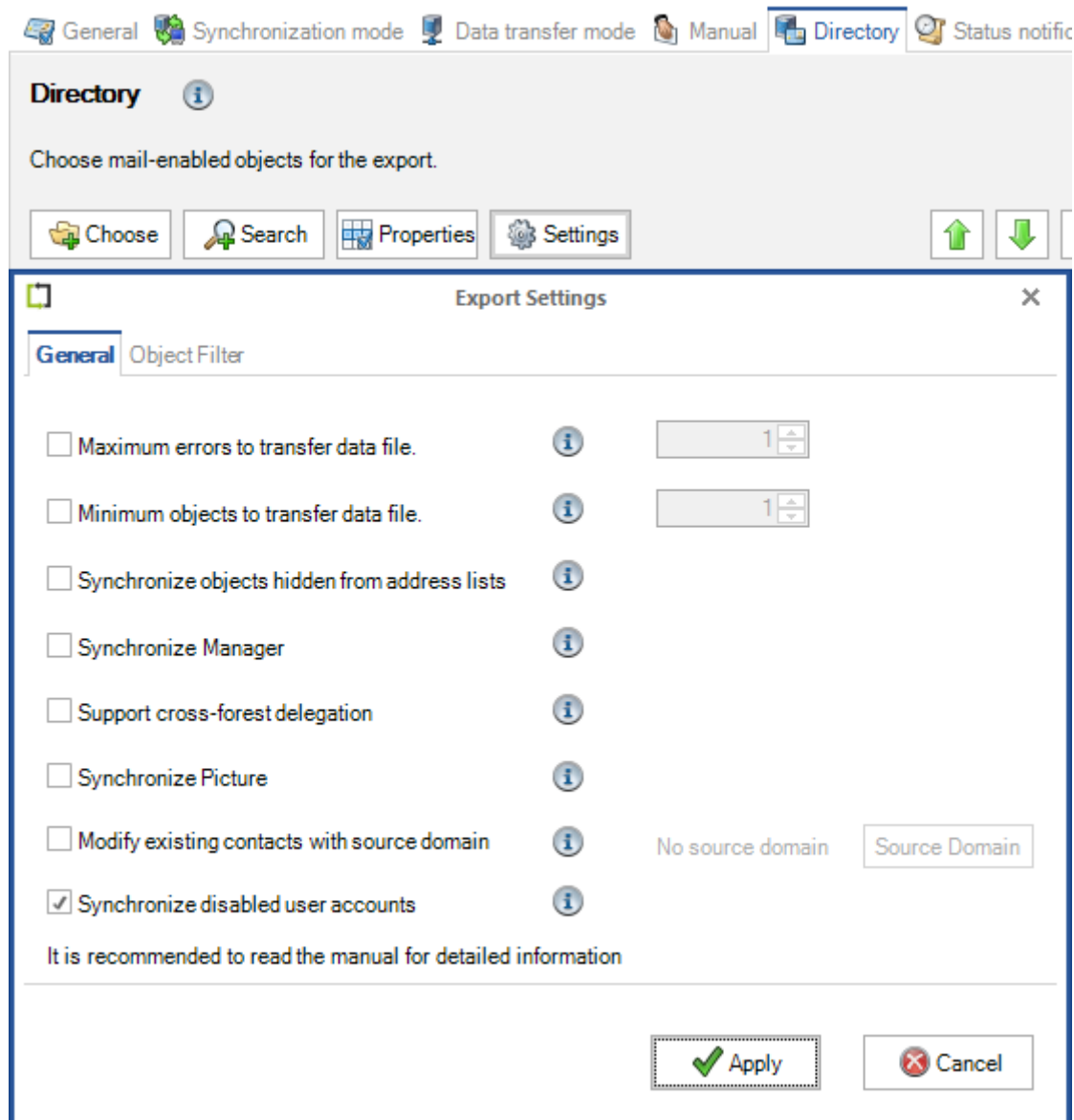


2. Please note, during the first **contactSync policy** run after upgrading GALsync from an earlier version than 8.4.0, it may update all previously synchronized contacts in the mailboxes.

3. As of version 8.4.2, user account objects that are disabled are no longer exported from on-premises Active Directory by default.

Enable the **Synchronize disabled user accounts** option on the **General** tab of the **Export Settings** to also export disabled user objects from on-premises.

In the event of an upgrade from a GALsync version 8.4.1 or earlier versions to a current GALsync version, the **Synchronize disabled user accounts** option is enabled in the existing policies.



4. As of version 8.4.3, it is possible to assign the **Exchange Recipient Administrator role** for Exchange Online instead of the **Exchange Administrator role** to the App Registration.

Please also take a look at the **Exchange Online certificate-based authentication via App Registration** chapter in the GALsync manual for the complete description of how to configure an App Registration. In the following, only the part **Exchange Administrator role for the registered Application** is replaced in order to be able to use the Exchange Recipient Administrator role for Exchange Online.

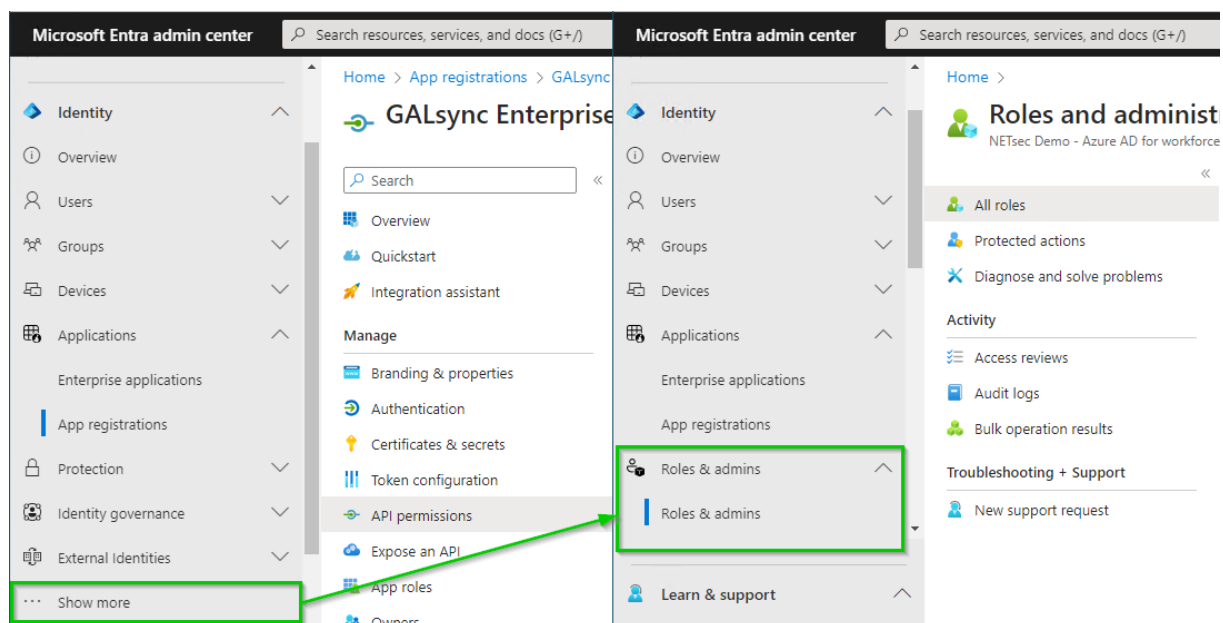
Exchange Administrator role or Exchange Recipient Administrator role for the registered Application (App Registration)

The **Exchange Recipient Administrator role** or the **Exchange Administrator role** for Exchange Online is necessary because GALsync communicates via the **Exchange Online PowerShell** with the Microsoft 365 tenant.

Please note that the Exchange Recipient Administrator role for Exchange Online has restrictions, e.g. it is not possible to check whether application access policies exist for the registered application (App Registration).

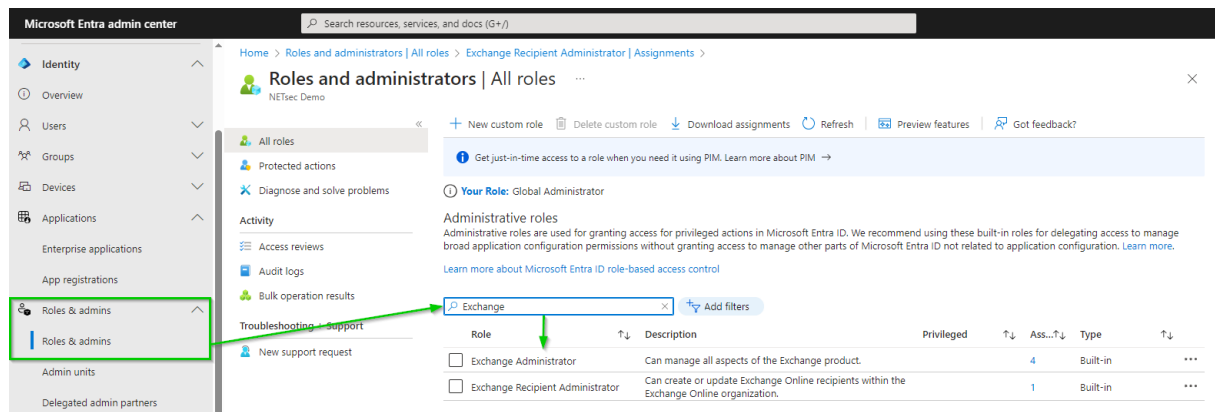
It may be that the Exchange Administrator role must be assigned to the registered application (App Registration) in the event of problems.

The application requires **Exchange Recipient Administrator role** or the **Exchange Administrator role** in the Microsoft 365 tenant, otherwise GALsync will not have access to the complete set of Exchange Online PowerShell cmdlets which are needed to function properly.



Expand **Roles & admins**. If you do not see **Roles & admins** in the **Identity** menu, click **Show more ...**

Go to **Roles & admins** in the expanded **Roles & admins** menu and search for **Exchange**.



The result is **Exchange Administrator** and **Exchange Recipient Administrator**.

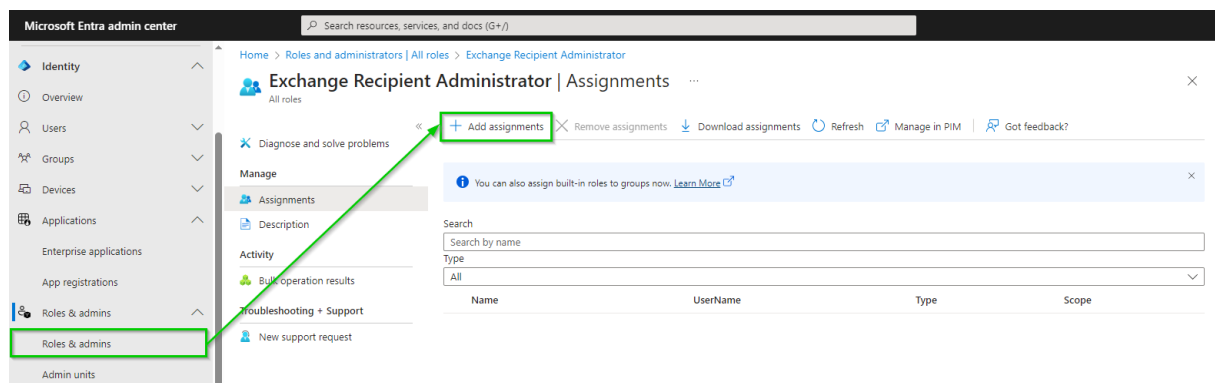
Decide which of the two roles should be assigned to the App Registration.

Please note that the Exchange Recipient Administrator role for Exchange Online has restrictions, e.g. it is not possible to check whether application access policies exist for the registered application (App Registration).

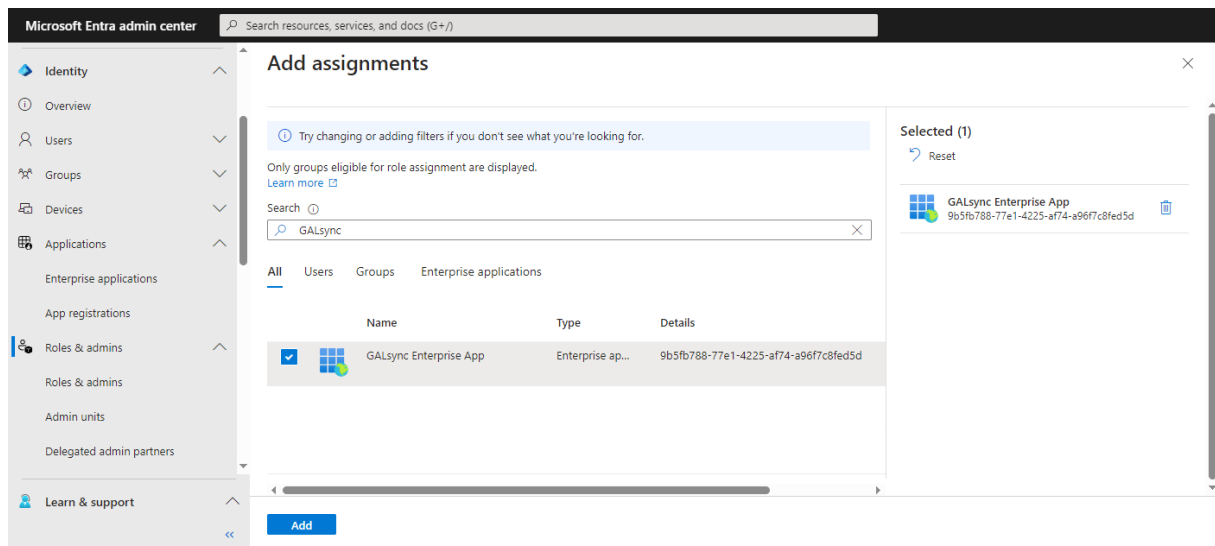
It may be that the Exchange Administrator role must be assigned to the registered application (App Registration) in the event of problems.

For example, the **Exchange Recipient Administrator** for Exchange Online.

Click on the **Exchange Recipient Administrator** in the result list to open the Exchange Recipient Administrator role.

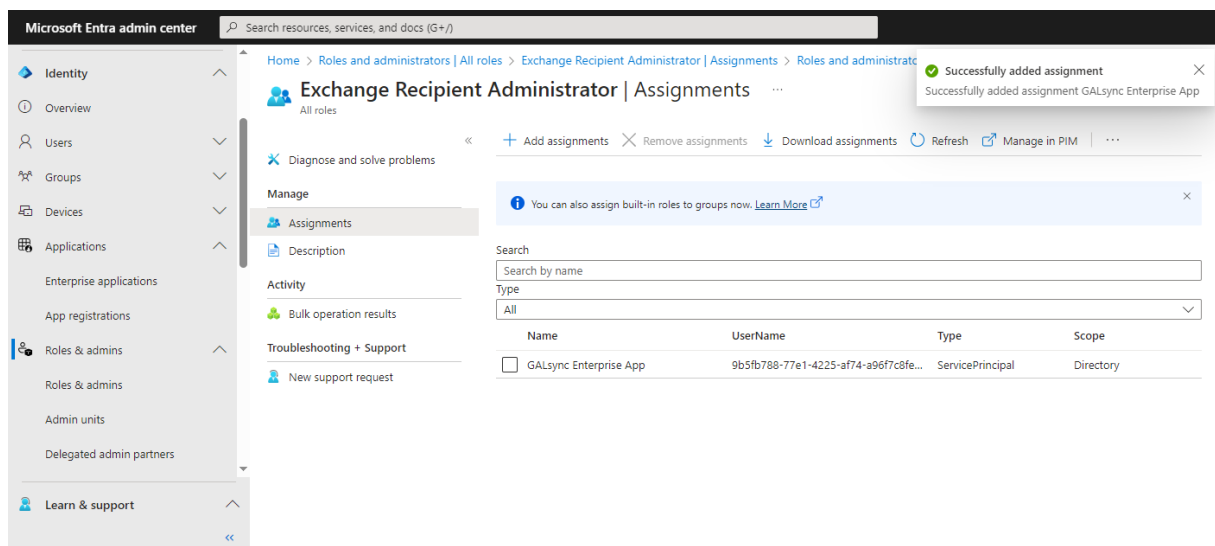


Click **Add assignments**, then search for the registered application.



Select the registered application and click **Add**.

The application has been assigned the **Exchange Recipient Administrator** role.



GALsync version 8.4 compared with GALsync 8.3.x

1. As of version 8.4, GALsync requires **.NET Framework 4.8**, **Windows PowerShell 5.1** and **ExchangeOnlineManagement PowerShell module version 3.4** or later for **Exchange Online PowerShell V3**.

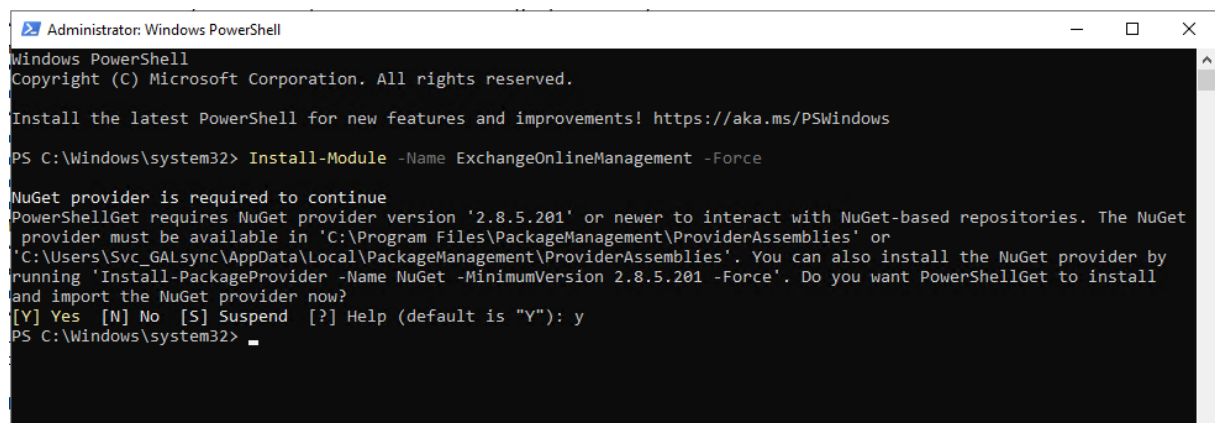
The **ExchangeOnlineManagement PowerShell module** needs to be installed or updated on the GALsync Server, so GALsync can directly communicate with a Microsoft 365 Exchange Online tenant.

Install ExchangeOnlineManagement PowerShell module

On the GALsync Server, open **Windows PowerShell** as **Administrator**, then run the following to install:

```
Install-Module -Name ExchangeOnlineManagement -Force
```

When prompted, enter **Y** for Yes then Return



```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Windows\system32> Install-Module -Name ExchangeOnlineManagement -Force

NuGet provider is required to continue
PowerShellGet requires NuGet provider version '2.8.5.201' or newer to interact with NuGet-based repositories. The NuGet
provider must be available in 'C:\Program Files\PackageManagement\ProviderAssemblies' or
'C:\Users\Svc_GALsync\AppData\Local\PackageManagement\ProviderAssemblies'. You can also install the NuGet provider by
running 'Install-PackageProvider -Name NuGet -MinimumVersion 2.8.5.201 -Force'. Do you want PowerShellGet to install
and import the NuGet provider now?
[Y] Yes [N] No [S] Suspend [?] Help (default is "Y"): y
PS C:\Windows\system32>
```

Please have look at the **Prerequisites for the Exchange Online PowerShell module** chapter in the **Microsoft Docs: About the Exchange Online PowerShell module**

<https://learn.microsoft.com/en-us/powershell/exchange/exchange-online-powershell-v2?view=exchange-ps#install-the-exchange-online-powershell-module>

Update ExchangeOnlineManagement PowerShell module

On the GALsync Server, open **Windows PowerShell** as **Administrator**, then run the following to update:

```
Update-Module -Name ExchangeOnlineManagement -Force
```

Please have look at the **Prerequisites for the Exchange Online PowerShell module** chapter in the **Microsoft Docs: About the Exchange Online PowerShell module**

<https://learn.microsoft.com/en-us/powershell/exchange/exchange-online-powershell-v2?view=exchange-ps#update-the-exchange-online-powershell-module>

2. The **General** tab of the **Import Settings** for an Exchange Online policy has an additional option **Mark synchronized guest users to delete**.

Import Settings

General | E-Mail Addresses | E-Mail Addresses 2 | Object Filter | Synchronize Group | Synchronize User

☐ Synchronize Manager

☒ Synchronize Guest User
A guest user rule is defined. [Guest User Rule Editor](#)

☒ Mark synchronized guest users to delete
Property for deletion mark.
extensionAttribute12 , CustomAttribute12

It is recommended to read the manual for detailed information

[Apply](#) [Cancel](#)

In addition, the **Mark synchronized guest users to delete** option can be enabled and configured, if the **Synchronize Guest User** option is enabled.

One of the CustomAttribute 1-15 can be selected, where GALsync will write the value, which starts with **GuestUser can be deleted ...**

The screenshot below displays an example of CustomAttribute12 of an existing Guest User:

```
Windows PowerShell
CustomAttribute7      :
CustomAttribute8      :
CustomAttribute9      : CN=Carla Wolke,DC=netseconline,DC=onmicrosoft,DC=example.com,objectClass=top;person;organizationalPerson;userMailbox
CustomAttribute10     :
CustomAttribute11     :
CustomAttribute12     : GuestUser can be deleted: 2024-02-05 10:11:08
CustomAttribute13     :
```

Please note, that guest users will not be deleted by GALsync.

It is recommended to use the same **CustomAttribute / extensionAttribute** for **Mark synchronized guest users to delete** as configured for the option **Mark synchronized mail-enabled users / mail users to delete**, if the option is enabled on the **Synchronize user** tab.

The screenshot shows the 'Import Settings' dialog box with the 'Synchronize User' tab selected. The 'Synchronize mail-enabled user / mail user' checkbox is checked. Below it, a text box explains that existing mail-enabled users are updated by default but not created or marked for deletion. The 'Mark synchronized mail-enabled users / mail users to delete' checkbox is also checked. Below it, a text box indicates that a mail user rule is defined. The 'Property for deletion mark' dropdown menu is set to 'extensionAttribute12 , CustomAttribute12'. The 'Create mail-enabled user / mail user' checkbox is unchecked. At the bottom, there is a message: 'It is recommended to read the manual for detailed information' and two buttons: 'Apply' and 'Cancel'.

Import Settings

General E-Mail Addresses E-Mail Addresses 2 Object Filter Synchronize Group **Synchronize User**

☒ **Synchronize mail-enabled user / mail user**

Existing mail-enabled users / mail users are updated by default, but not created or marked for deletion, provided the existing mail-enabled users / mail users match the synchronization conditions. The option to mark synchronized mail-enabled users / mail users to delete can be configured, but mail-enabled users / mail users will not be deleted. Create mail-enabled users / mail users can also be configured optionally.

Synchronize existing mail-enabled user / mail user

Synchronize existing mail-enabled user / mail user Mail User Rule Editor ⓘ

A mail user rule is defined.

☒ **Mark synchronized mail-enabled users / mail users to delete**

Mark synchronized mail-enabled users / mail users to delete

Property for deletion mark. extensionAttribute12 , CustomAttribute12 ⓘ

☐ **Create mail-enabled user / mail user** ⓘ

Create mail-enabled user / mail user

It is recommended to read the manual for detailed information

✓ Apply ✗ Cancel

3. Two additional default rules have been added to the **Object Filter** of the **Export Settings** for **Export Policies**, so **MailUsers** and **GuestUsers**, which are marked for deletion, will not be exported by GALsync.

Additional rules for export from on-premises

extensionAttribute 1-15 contains **MailUser can be deleted:**

extensionAttribute 1-15 contains **GuestUser can be deleted:**

Property	Condition	Value
extensionAttribute 1-15	contains	nogalsync
extensionAttribute 1-15	contains	MailUser can be deleted:
extensionAttribute 1-15	contains	GuestUser can be deleted:

Additional rules for export from Exchange Online

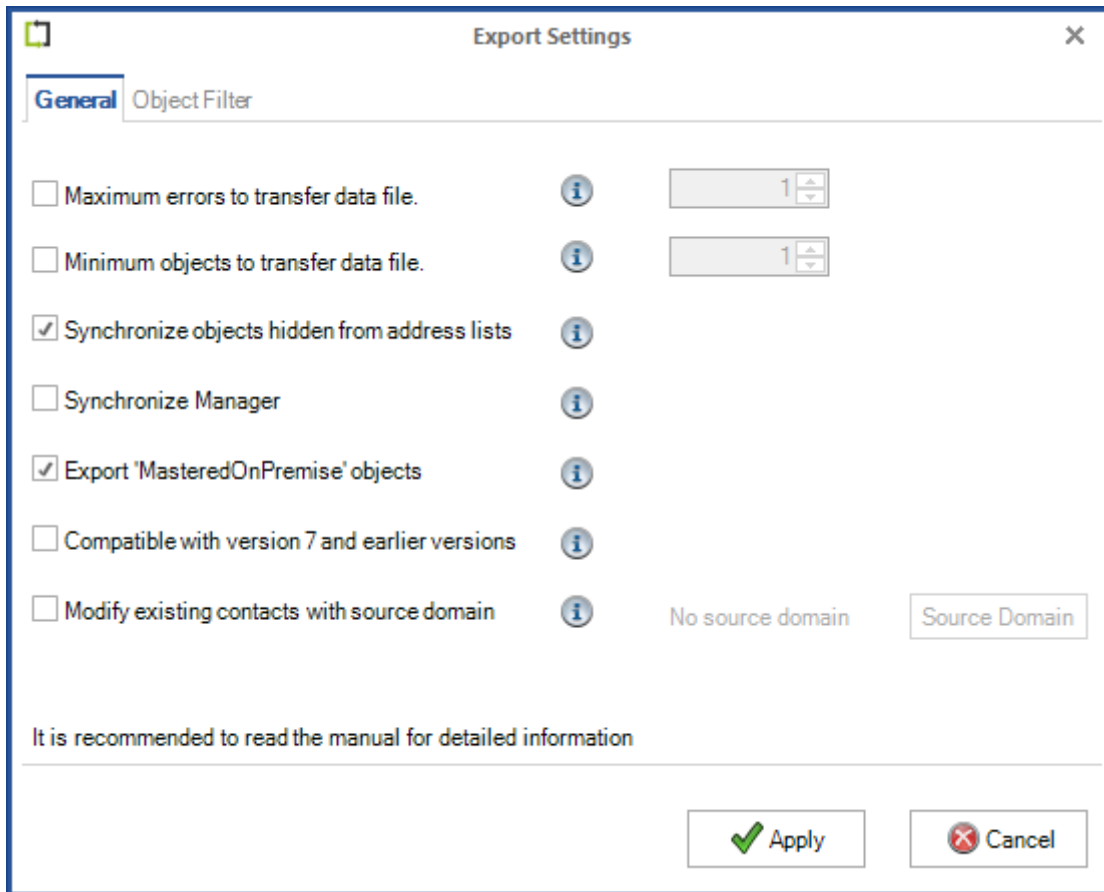
CustomAttribute 1-15 contains **MailUser can be deleted:**

CustomAttribute 1-15 contains **GuestUser can be deleted:**

Property	Condition	Value
CustomAttribute 1-15	contains	nogalsync
CustomAttribute 1-15	contains	MailUser can be deleted:
CustomAttribute 1-15	contains	GuestUser can be deleted:

4. As of version 8.4, objects that are hidden from address list are no longer exported from Exchange Online by default.

Enable the **Synchronize objects hidden from address lists** option on the **General** tab of the **Export Settings** to also export objects, that are hidden from address lists, from Exchange Online.



The screenshot shows the 'Export Settings' dialog box with the 'General' tab selected. The 'Object Filter' sub-tab is also visible. The settings are as follows:

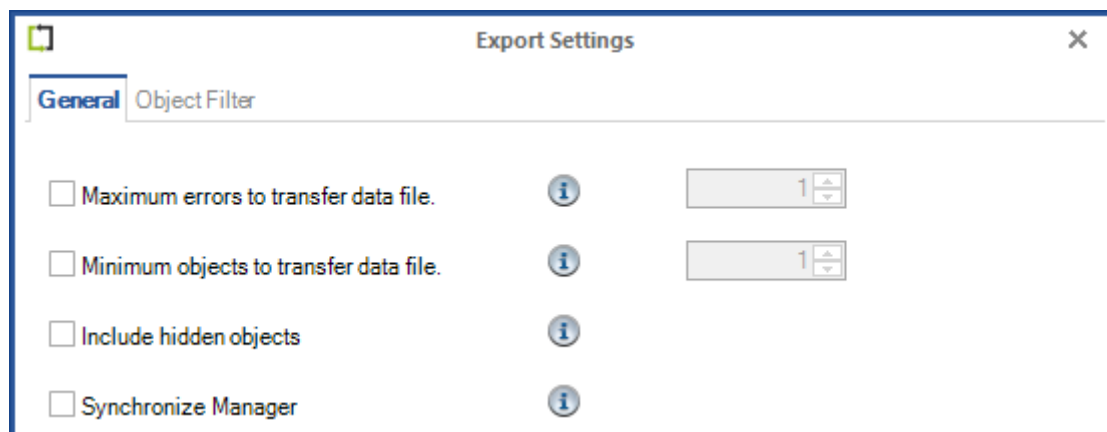
- ☐ Maximum errors to transfer data file. (Information icon) [1]
- ☐ Minimum objects to transfer data file. (Information icon) [1]
- ☒ Synchronize objects hidden from address lists (Information icon)
- ☐ Synchronize Manager (Information icon)
- ☒ Export 'MasteredOnPremise' objects (Information icon)
- ☐ Compatible with version 7 and earlier versions (Information icon)
- ☐ Modify existing contacts with source domain (Information icon) No source domain [Source Domain]

It is recommended to read the manual for detailed information

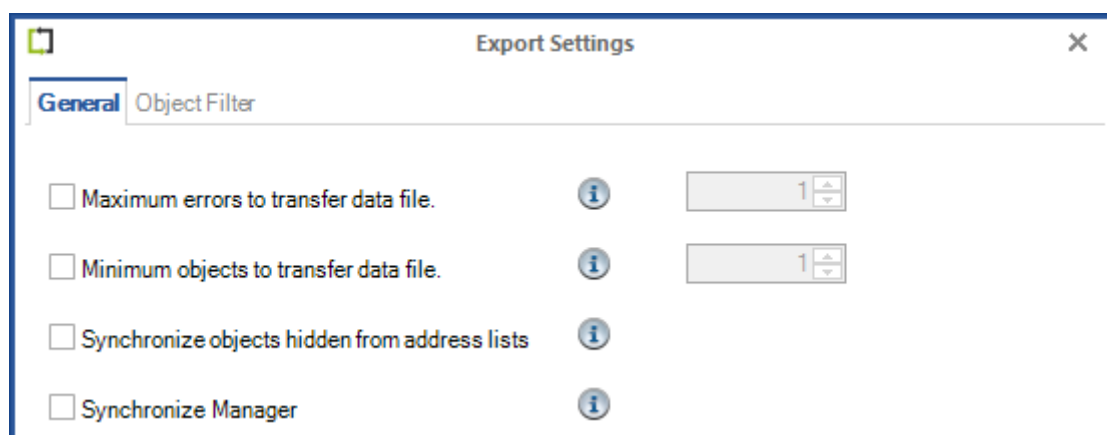
[Apply] [Cancel]

5. The Export Settings option **Include hidden objects** was renamed to **Synchronize objects hidden from address lists**. This will also export objects, that are hidden from address lists, from on-premises Exchange.

Old design of version 8.3

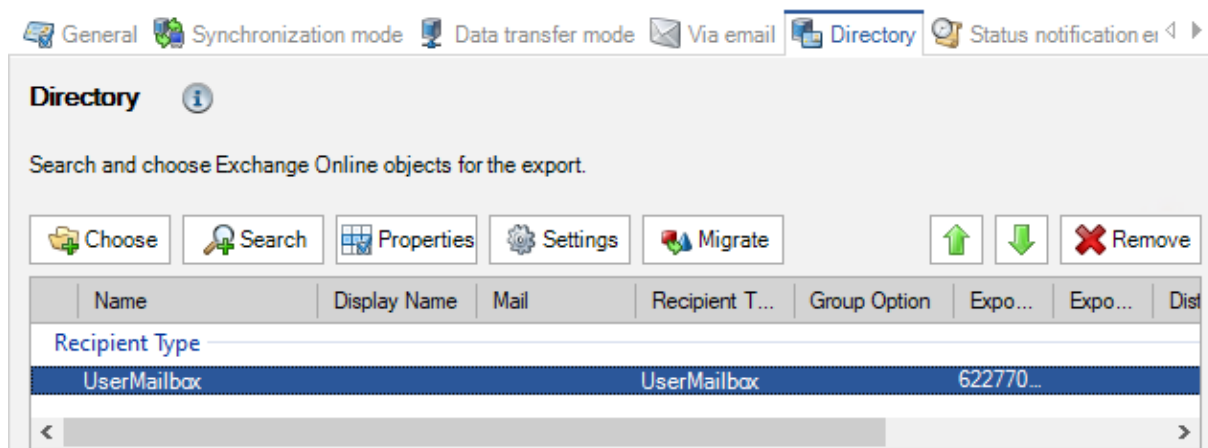


New design of version 8.4



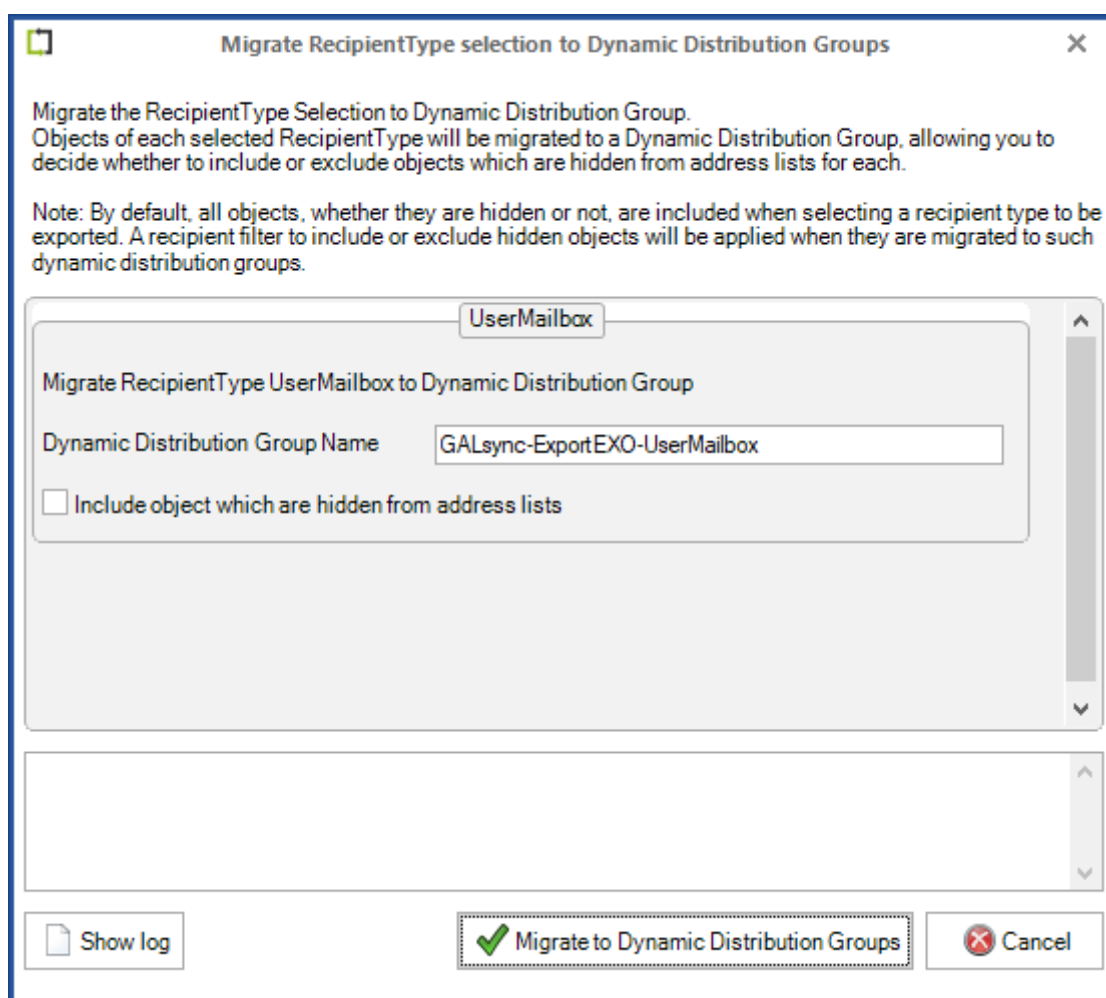
6. As of version 8.4, it is possible to migrate a selected **Recipient Type** on the **Directory** tab of a GALsync policy to a dynamic distribution group.

The selection by **Recipient Type** will be deprecated and is not recommended to use for configuration any longer. It is recommended to define the selection of objects to be synchronized by membership in a group. The group can be searched for in the **Search** dialog and only its members are exported with the group option **Only Membership**. This allows you to specify much more precisely which objects will actually be exported.



Select one or multiple **Recipient Type** entries in the list and click **Migrate**.

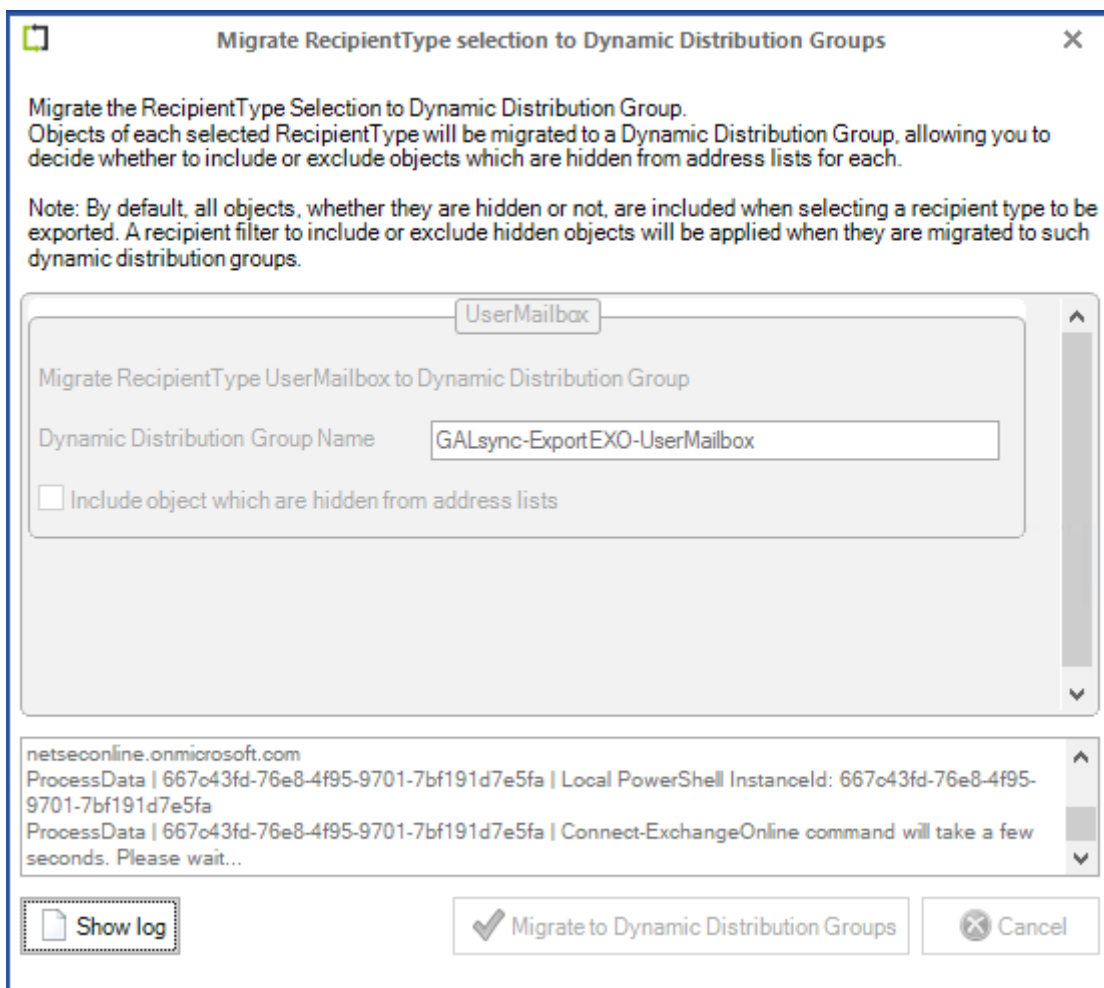
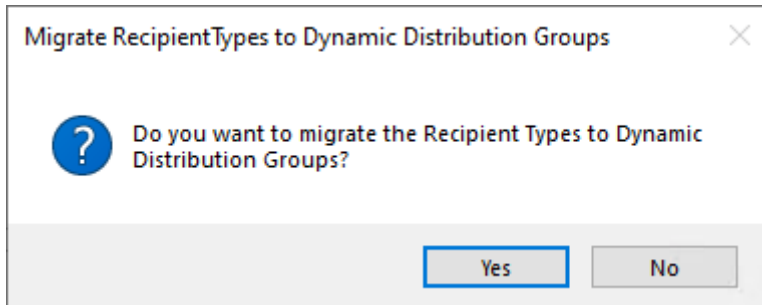
The **Migrate RecipientType selection to Dynamic Distribution Groups** dialog will open.



For each **Recipient Type** a dynamic distribution group will be created in Exchange Online.

The name of each dynamic distribution group must be unique in Exchange Online. The proposed name of the dynamic distribution group can be changed accordingly in the dialog before it's created in Exchange Online.

Click on **Migrate to Dynamic Distribution Groups**.

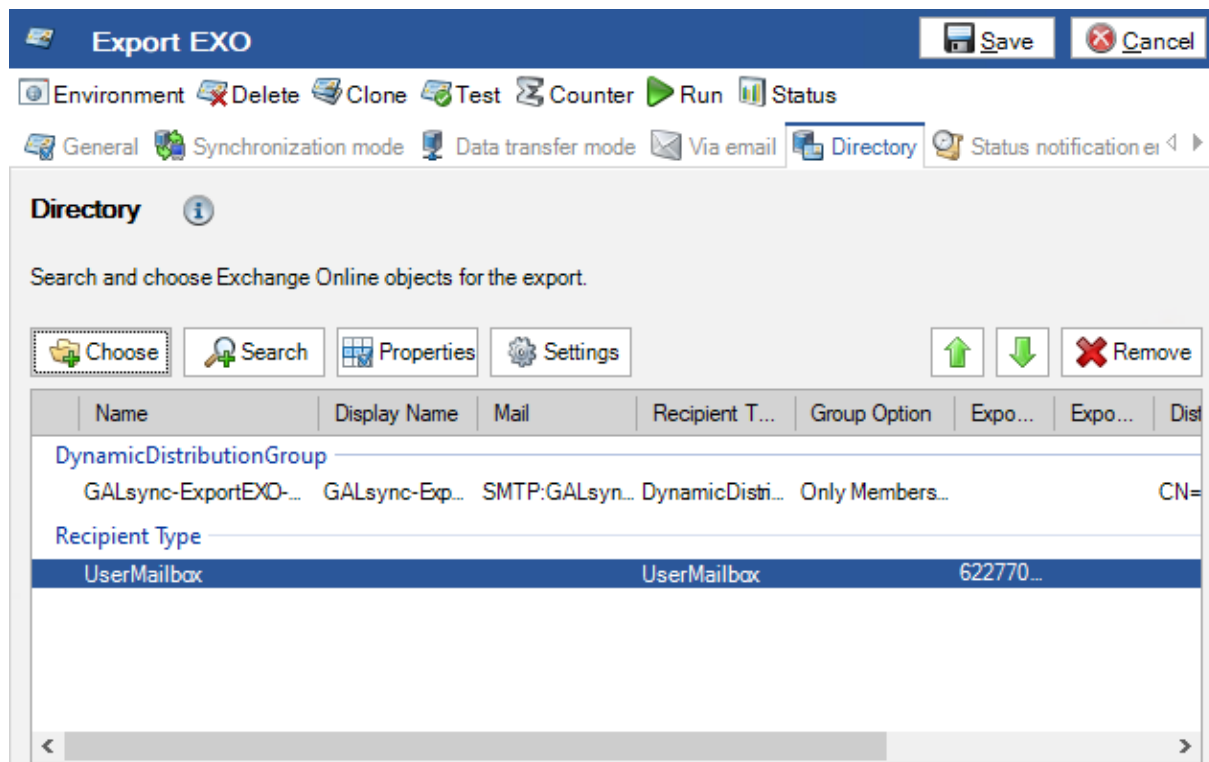


To create the dynamic distribution groups in Exchange Online, the **Exchange Online PowerShell** is used along with the settings from the **Environment Configuration**.

If the creation was successful, the dialog closes automatically.

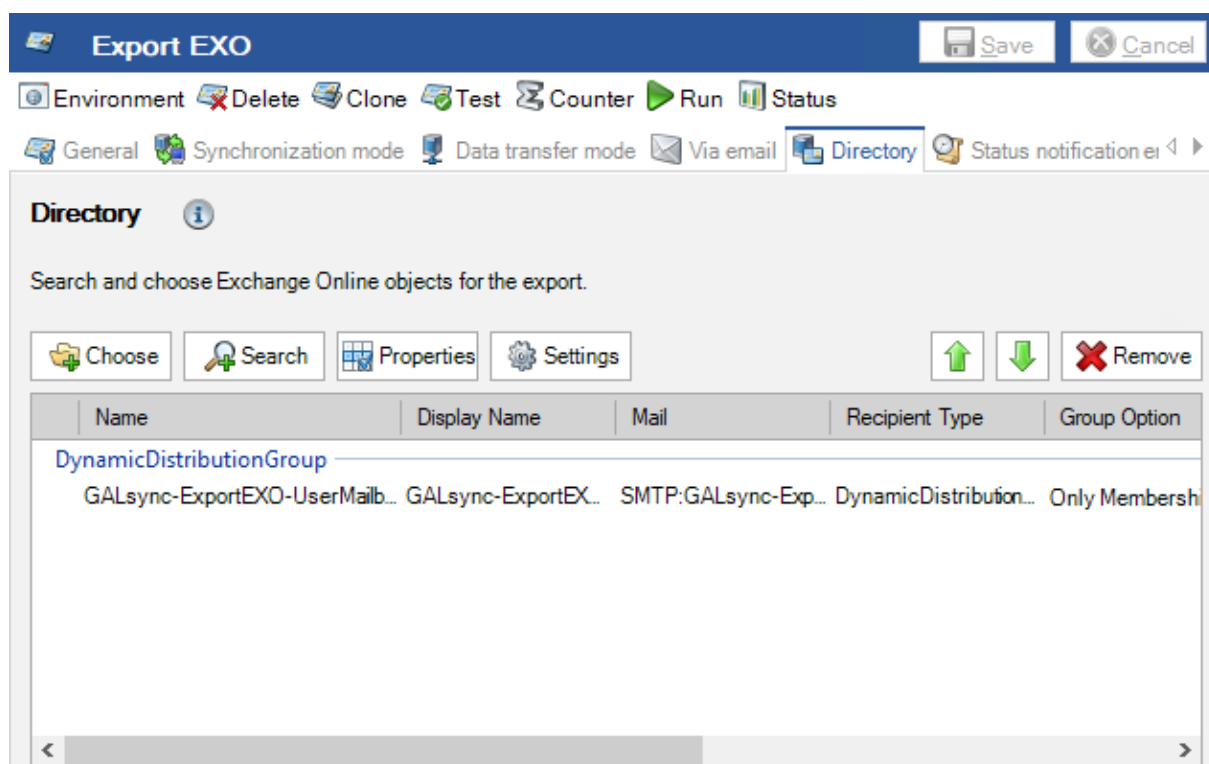
If an error occurs, the dialog remains open and the log file can be viewed by clicking on **Show log** in order to understand what did not work.

Once the dynamic distribution groups have been successfully created, the **Recipient Type** entries and the dynamic distribution group entries are displayed together until the policy is saved.



Please save the policy.

When the policy is saved, the migrated **Recipient Type** entries are removed from the list.



7. In GALsync version 7, when exporting from an Exchange Online tenant, the **ExternalEmailAddress / targetAddress** was set as the primary SMTP address in the **EmailAddresses / proxyAddresses**. This can cause problems, if the **ExternalEmailAddress** and the primary SMTP address are different.

As of GALsync version 8, the primary SMTP address of the **EmailAddresses** will not be changed by default when a new policy is created.

If the **Compatible with version 7 and earlier versions** option is enabled, GALsync will change the primary SMTP address of the **EmailAddresses** to the **ExternalEmailAddress** as with GALsync version 7.

In case of an upgrade from a GALsync version 7 and earlier to a current GALsync version 8, the **Compatible with version 7 and earlier versions** option is enabled.

Policies with enabled **Compatible with version 7 and earlier versions** option have warning symbol at the tree view node.



'Compatible with version 7' option is enabled. Please check the Export Settings on the Directory tab.

Please note, after disabling the option during importing on your partner's side, GALsync will modify existing objects that are being synchronized in order to possibly adjust the primary SMTP address and the value of the source domain property.

Please take a look at the chapters

Compatible with version 7 and earlier versions (Exchange Online only)

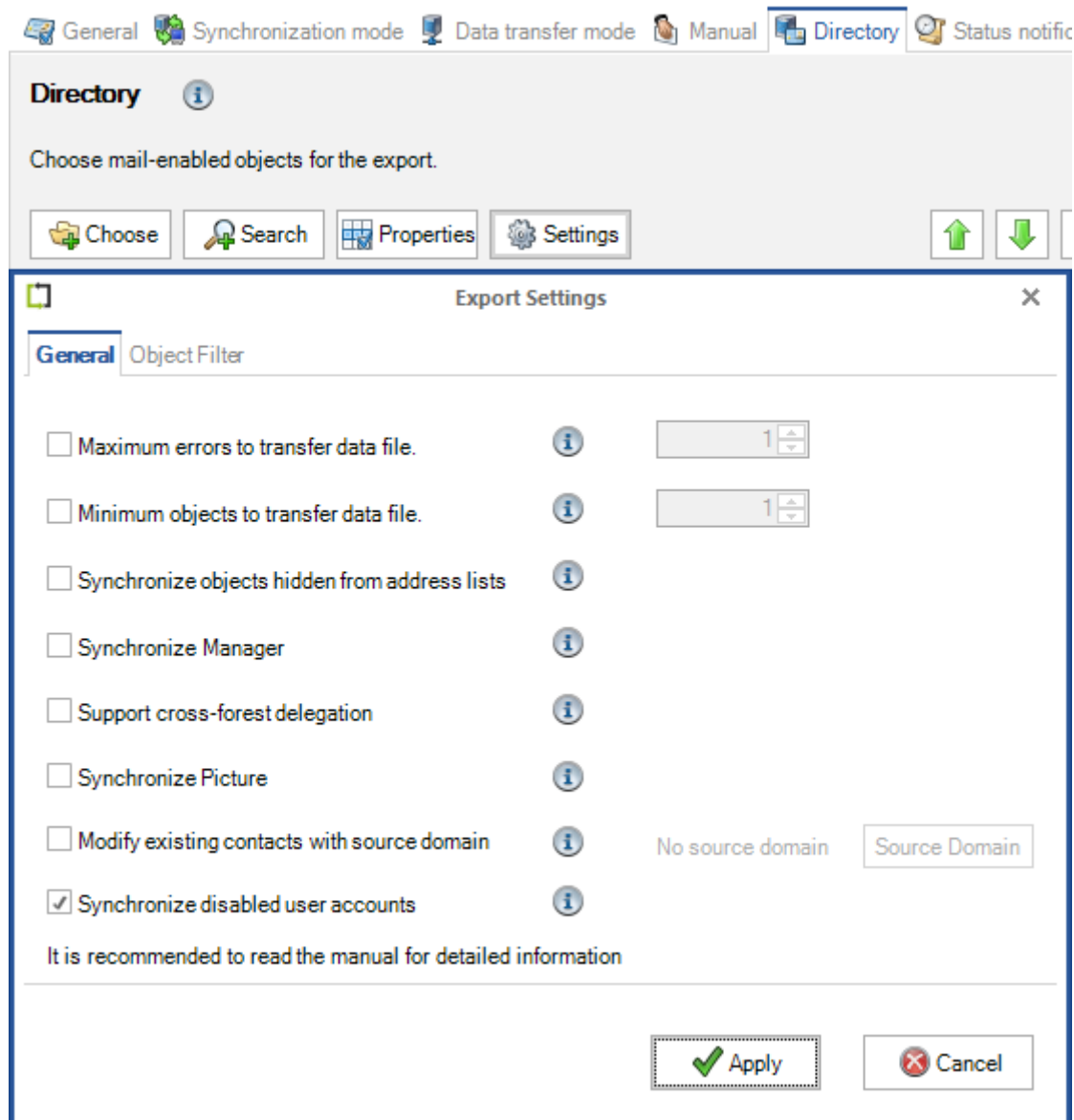
Migration steps for synchronization of multiple Exchange environments

8. Please note, during the first **contactSync policy** run after upgrading GALsync from an older version than 8.4.0, it may update all previously synchronized contacts in the mailboxes.

9. As of version 8.4.2, user account objects that are disabled are no longer exported from on-premises Active Directory by default.

Enable the **Synchronize disabled user accounts** option on the **General** tab of the **Export Settings** to also export disabled user objects from on-premises.

In the event of an upgrade from a GALsync version 8.4.1 or earlier versions to a current GALsync version, the **Synchronize disabled user accounts** option is enabled in the existing policies.



GALsync version 8.3 compared with GALsync 8.2.x

1. As of version 8.3, GALsync does not use Autodiscover to detect the Exchange Web Services URL for Exchange Online anymore, instead it uses the default Exchange Web Services URL for Exchange Online world-wide:

<https://outlook.office365.com/EWS/Exchange.asmx>

Otherwise please use the manual setting for the Exchange Web Services URL for Exchange Online.

2. As of version 8.3, GALsync does not support Exchange 2010 any longer.

3. As of version 8.3.3, the **Synchronize User** tab of the **Import Settings** has been redesigned to allow only updating existing mail users without creating new mail users by GALsync.

Old design of the Synchronize User tab

The screenshot shows the 'Import Settings' dialog box with the 'Synchronize User' tab selected. The dialog has a title bar with a close button (X) and a tab bar with the following tabs: 'Mail Addresses', 'E-Mail Addresses 2', 'Address Lists', 'Object Filter', 'Synchronize Group', and 'Synchronize User'. The 'Synchronize User' tab is active and contains the following elements:

- A checkbox labeled 'Synchronize user with RecipientTypeDetails as mail-enabled user' with an information icon (i) to its right.
- A note: 'Note: Mail-enabled user / Mail user will not be deleted.'
- A table with two columns: 'User with RecipientTypeDetails' and an empty column. The table has one row with the following data:

User with RecipientTypeDetails	
User Mailbox	
Mail User	
- A button labeled 'Add/Remove RecipientTypeDetails ...' with an information icon (i) to its right.
- A text field labeled 'Accepted domain of the target environment' with an information icon (i) to its right.
- A section titled 'Initial password' with two radio buttons: 'Set random initial password' (selected) and 'Set this initial password for all users'. The second radio button is followed by a text field and an eye icon (visibility toggle) with an information icon (i) to its right.
- A checkbox labeled 'Mark synchronized mail-enabled users to delete' with an information icon (i) to its right.
- A text field labeled 'Property for deletion mark.' with a dropdown arrow and an information icon (i) to its right.

At the bottom of the dialog, there is a message: 'It is recommended to read the manual for detailed information'. To the right of this message are two buttons: 'Apply' (with a green checkmark icon) and 'Cancel' (with a red X icon).

Synchronize user with RecipientTypeDetails as mail-enabled user
is renamed to **Synchronize mail-enabled user / mail user**

New design of the Synchronize User tab for Exchange on-premises

Import Settings

Mail Addresses E-Mail Addresses 2 Address Lists Object Filter Synchronize Group **Synchronize User**

☐ Synchronize mail-enabled user / mail user

Existing mail-enabled users / mail users are updated by default, but not created or marked for deletion, provided the existing mail-enabled users / mail users match the synchronization conditions. The option to mark synchronized mail-enabled users / mail users to delete can be configured, but mail-enabled users / mail users will not be deleted. Create mail-enabled users / mail users can also be configured optionally.

☐ Mark synchronized mail-enabled users / mail users to delete

Mark synchronized mail-enabled users / mail users to delete

Property for deletion mark. [Dropdown]

☐ Create mail-enabled user / mail user

Create mail-enabled user / mail user

Synchronize user with RecipientTypeDetails as mail-enabled user

User Mailbox
Mail User

Add/Remove RecipientTypeDetails ...

It is recommended to read the manual for detailed information

Apply Cancel

Existing mail-enabled users / mail users are updated by default, but not created or marked for deletion.

The option **Mark synchronized mail-enabled users / mail users to delete** can be enabled and configured.

One of the extensionAttribute 1-15 can be selected, where GALsync will be write the value starts with **MailUser can be deleted** ...

Please note, that mail-enabled users / mail users will not be deleted by GALsync.

Create mail-enabled users / mail users can also be configured optionally.

New design of the Synchronize User tab for Exchange Online

Import Settings

General E-Mail Addresses E-Mail Addresses 2 Object Filter Synchronize Group **Synchronize User**

☐ Synchronize mail-enabled user / mail user

Existing mail-enabled users / mail users are updated by default, but not created or marked for deletion, provided the existing mail-enabled users / mail users match the synchronization conditions. The option to mark synchronized mail-enabled users / mail users to delete can be configured, but mail-enabled users / mail users will not be deleted. Create mail-enabled users / mail users can also be configured optionally.

Synchronize existing mail-enabled user / mail user

Synchronize existing mail-enabled user / mail user Mail User Rule Editor

A mail user rule is defined.

☐ Mark synchronized mail-enabled users / mail users to delete

Mark synchronized mail-enabled users / mail users to delete

Property for deletion mark. [Dropdown]

☐ Create mail-enabled user / mail user

Create mail-enabled user / mail user

It is recommended to read the manual for detailed information

Apply Cancel

Existing mail users are updated by default, but not created or marked for deletion.

For GALsync to synchronize existing mail users in the target Microsoft 365 tenant they must be marked accordingly.

Note: GALsync cannot update Phone and Mobile Phone for Mail User in Exchange Online. Microsoft has changed the Exchange Online PowerShell command Set-User and excluded updating Phone and Mobile Phone for security reasons.

The option **Mark synchronized mail-enabled users / mail users to delete** can be enabled and configured.

One of the CustomAttribute 1-15 can be selected, where GALsync will be write the value starts with **MailUser can be deleted** ...

Please note, that mail-enabled users / mail users will not be deleted by GALsync.

Create mail users can also be configured optionally.

GALsync version 8.2 compared with GALsync 8.1.x

1. As of version 8.2, GALsync requires **Windows PowerShell 5.1** and **ExchangeOnlineManagement PowerShell module version 3.1 or later** for **Exchange Online PowerShell V3**.

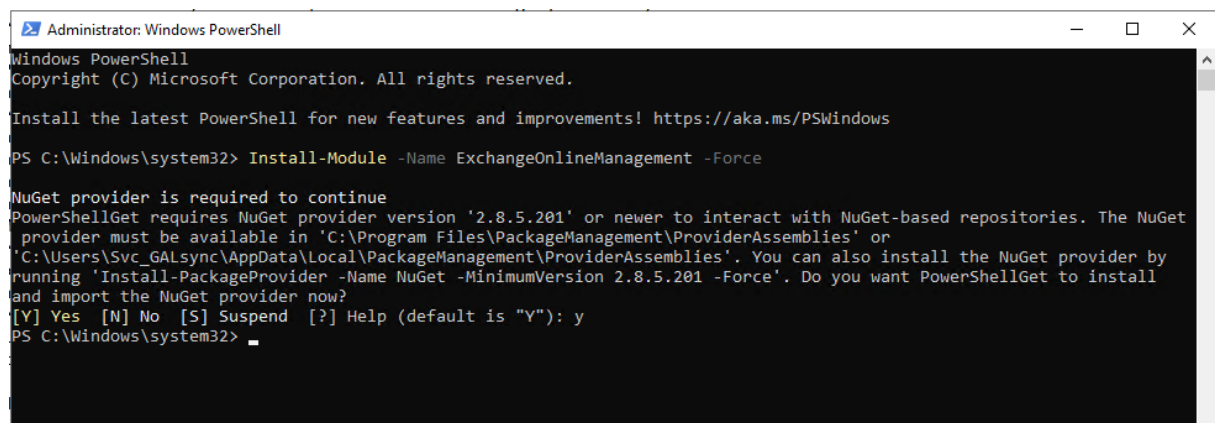
The **ExchangeOnlineManagement PowerShell module** needs to be installed or updated on the GALsync Server, so GALsync can directly communicate with an Office 365 Exchange Online tenant.

Install ExchangeOnlineManagement PowerShell module

On the GALsync Server, open **Windows PowerShell** as **Administrator**, then run the following to install:

```
Install-Module -Name ExchangeOnlineManagement -Force
```

When prompted, enter **Y** for Yes then Return



```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Windows\system32> Install-Module -Name ExchangeOnlineManagement -Force

NuGet provider is required to continue
PowerShellGet requires NuGet provider version '2.8.5.201' or newer to interact with NuGet-based repositories. The NuGet
provider must be available in 'C:\Program Files\PackageManagement\ProviderAssemblies' or
'C:\Users\Svc_GALsync\AppData\Local\PackageManagement\ProviderAssemblies'. You can also install the NuGet provider by
running 'Install-PackageProvider -Name NuGet -MinimumVersion 2.8.5.201 -Force'. Do you want PowerShellGet to install
and import the NuGet provider now?
[Y] Yes [N] No [S] Suspend [?] Help (default is "Y"): y
PS C:\Windows\system32>
```

Please have look at the **Prerequisites for the Exchange Online PowerShell module** chapter of the **Microsoft Docs: About the Exchange Online PowerShell module**

<https://learn.microsoft.com/en-us/powershell/exchange/exchange-online-powershell-v2?view=exchange-ps#install-the-exchange-online-powershell-module>

Update ExchangeOnlineManagement PowerShell module

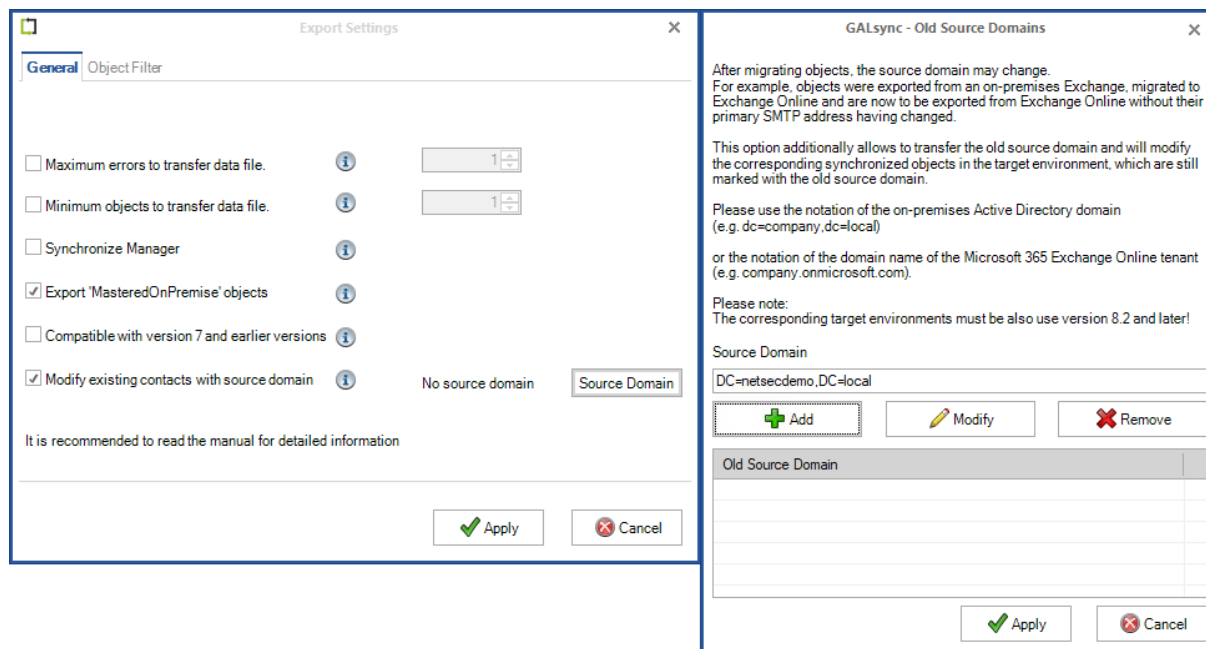
On the GALsync Server, open **Windows PowerShell** as **Administrator**, then run the following to update:

```
Update-Module -Name ExchangeOnlineManagement -Force
```

Please have look at the **Prerequisites for the Exchange Online PowerShell module** chapter of the **Microsoft Docs: About the Exchange Online PowerShell module**

<https://learn.microsoft.com/en-us/powershell/exchange/exchange-online-powershell-v2?view=exchange-ps#update-the-exchange-online-powershell-module>

2. As of version 8.2, GALsync has added support to **Modify existing contacts with source domain**. This option allows to migrate the export policy in a hybrid Exchange environment from the on-premises component to the Exchange Online component of a hybrid Exchange environment, and from the Exchange Online component to the on-premises component of a hybrid Exchange environment.



Please note, that the importing partners also need GALsync version 8.2 or later, if you enabled this option. Otherwise, the importing partners will get warnings or errors and GALsync cannot import the data file.

Please take a look for a detailed description at the **How to migrate the source of the export policy in a hybrid Exchange environment?** chapter in the **GALsync 8.2 manual** and later.

<https://www.netsec.de/en/products/galsync/documentation.html>

GALsync version 8.1 compared with GALsync 8.0.x

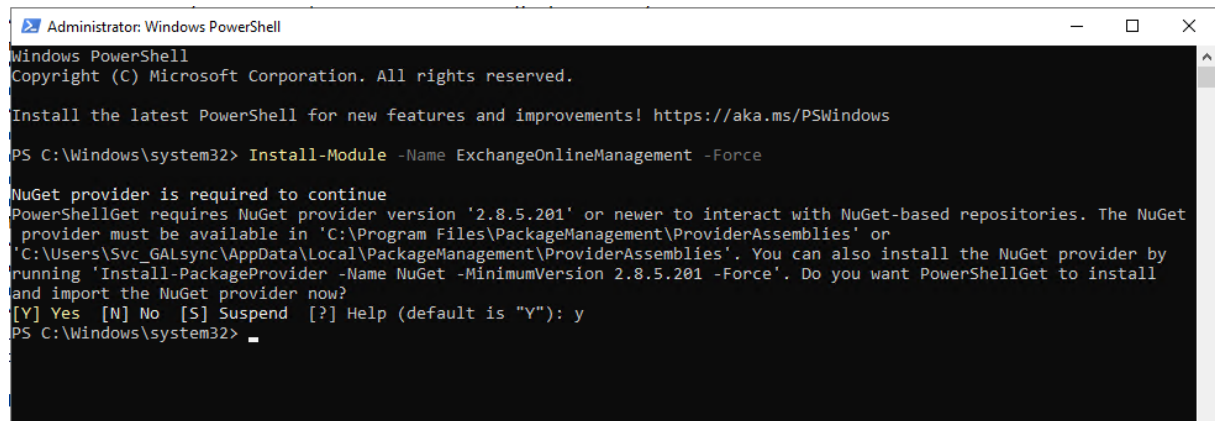
1. As of version 8.1, GALsync requires **Windows PowerShell 5.1** and the **ExchangeOnlineManagement PowerShell module** for **Exchange Online PowerShell V3**.

The **ExchangeOnlineManagement PowerShell module** needs to be installed on the GALsync Server, so GALsync can directly communicate with an Office 365 Exchange Online tenant.

On the GALsync Server, open **Windows PowerShell** as **Administrator**, then run the following:

```
Install-Module -Name ExchangeOnlineManagement -Force
```

When prompted, enter **Y** for Yes then Return



```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Windows\system32> Install-Module -Name ExchangeOnlineManagement -Force

NuGet provider is required to continue
PowerShellGet requires NuGet provider version '2.8.5.201' or newer to interact with NuGet-based repositories. The NuGet
provider must be available in 'C:\Program Files\PackageManagement\ProviderAssemblies' or
'C:\Users\Svc_GALsync\AppData\Local\PackageManagement\ProviderAssemblies'. You can also install the NuGet provider by
running 'Install-PackageProvider -Name NuGet -MinimumVersion 2.8.5.201 -Force'. Do you want PowerShellGet to install
and import the NuGet provider now?
[Y] Yes [N] No [S] Suspend [?] Help (default is "Y"): y
PS C:\Windows\system32>
```

Please have look at the **Prerequisites for the Exchange Online PowerShell module** chapter of the **Microsoft Docs: About the Exchange Online PowerShell module**

<https://learn.microsoft.com/en-us/powershell/exchange/exchange-online-powershell-v2?view=exchange-ps#prerequisites-for-the-exchange-online-powershell-module>

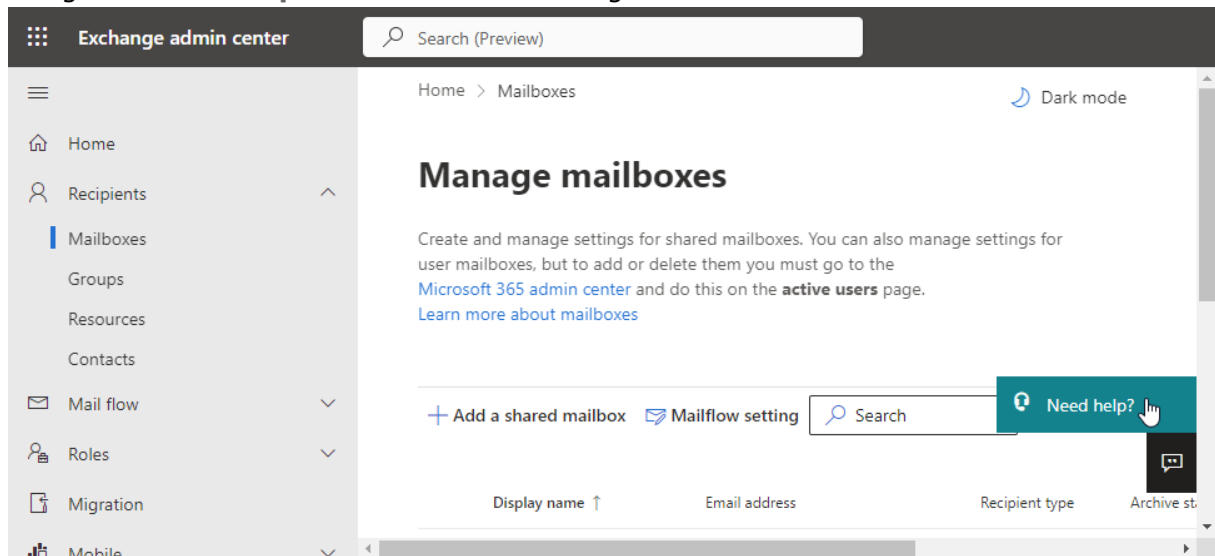
Remote PowerShell in Exchange Online is needed - Re-enabling or Extending RPS support

Microsoft announced the deprecation of Remote PowerShell (RPS) in Exchange Online, but offers the possibility of re-enabling or extending the RPS support in the Exchange Team Blog article:

[Deprecation of Remote PowerShell in Exchange Online – Re-enabling or Extending RPS support](#)

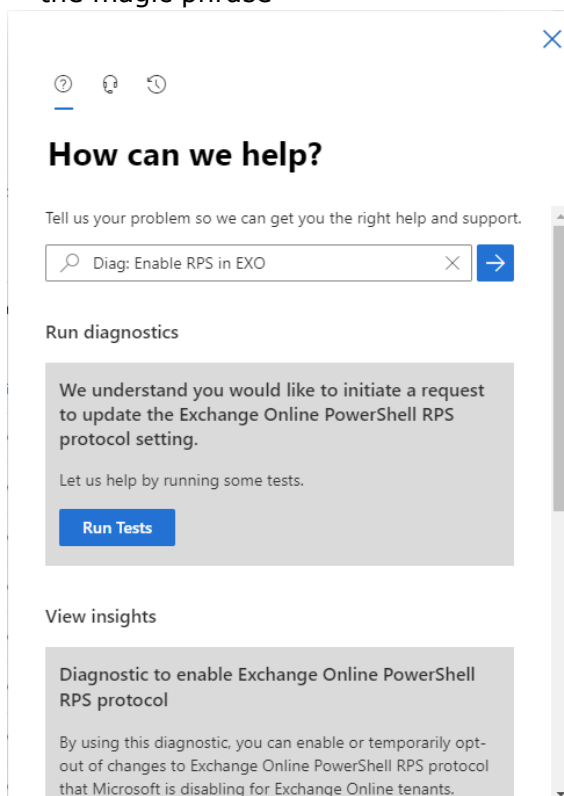
Using the Self-Service Tool

You can go to the Microsoft 365 admin center or the Exchange admin center and click on the green **Need help?** button in the lower right-hand corner of the screen.

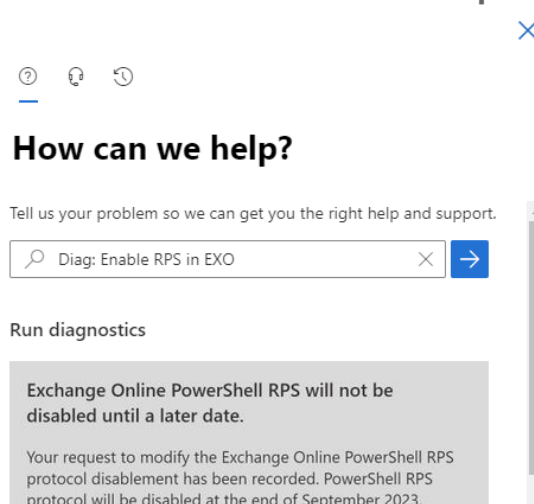


When you click the button, you enter our self-service help system. Here you can enter the magic phrase

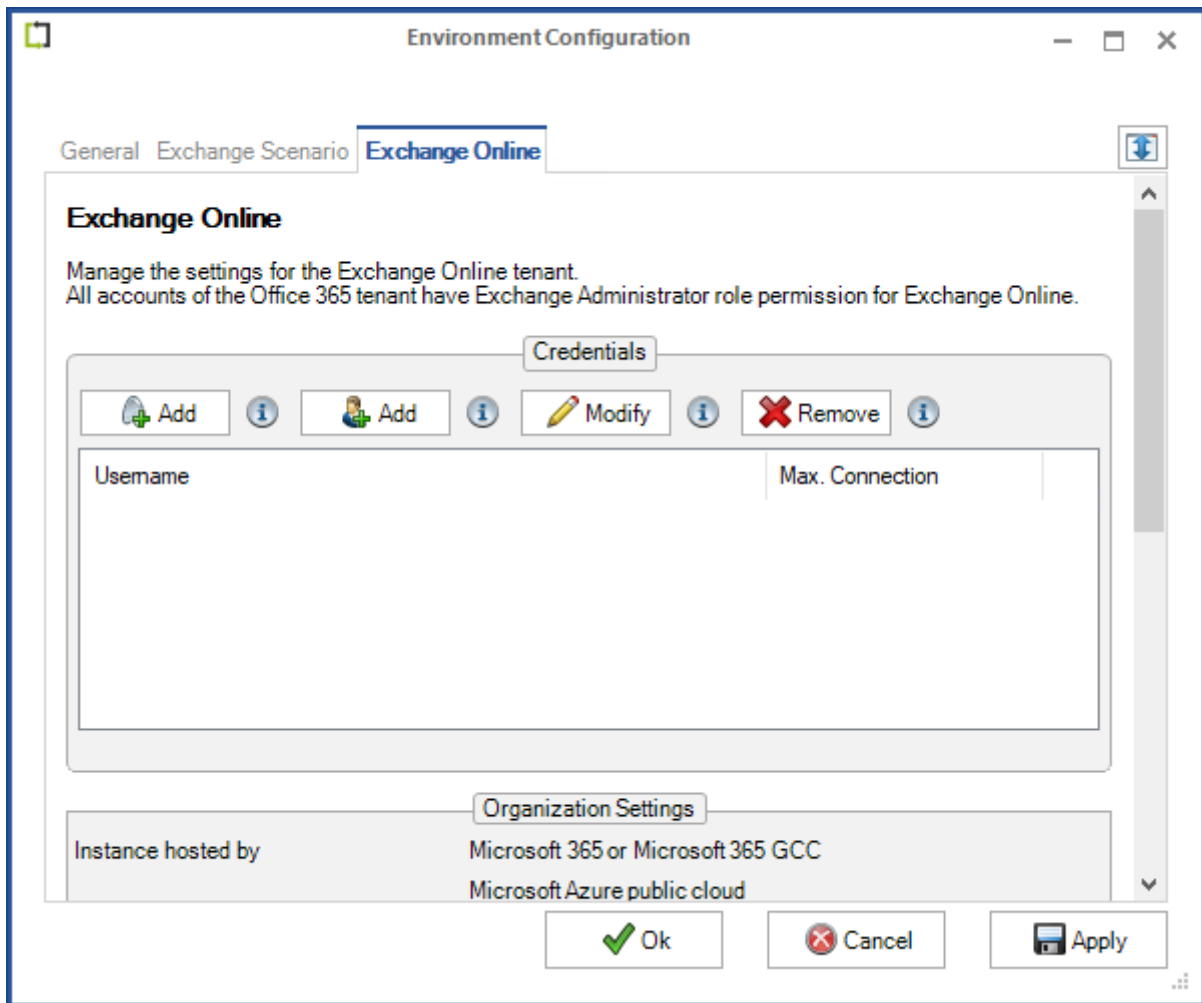
Diag: Enable RPS in EXO



Click **Run Tests** to check your tenant settings to see if we have disabled RPS, and then review the results. If we have not disabled RPS for your tenant, and you are running the diagnostic, we will offer you the option to temporarily opt out of RPS disablement or re-enable RPS. Click the checkbox and then click **Update**.



2. As of GALsync version 8.1, the **certificate-based authentication** method to establish a connection to Exchange Online is available on the Exchange Online tab of the **Environment Configuration**.



Please take a look at the **GALsync 8.1 manual** for further information

<https://www.netsec.de/en/products/galsync/documentation.html>









The **Add** button on the left, will open a dialog window in which to configure **certificate-based authentication** via **App registration** for the Exchange Online tenant.

General Exchange Scenario **Exchange Online**

Exchange Online


Manage the settings for the Exchange Online tenant.
All accounts of the Office 365 tenant have Exchange Administrator role permission for Exchange Online.


Credentials


 Add   Add   Modify   Remove 

Exchange Online App Registration

Corresponding settings for the Enterprise Application in the Office 365 Azure AD that enables access to Exchange Online.

Organization / Tenant 


Application Display Name 



Application ID 


Certificate


Friendly Name	FriendlyName
Not After	Not After
Subject	Subject
Thumbprint	Thumbprint
Has PrivateKey	Has PrivateKey
User	User


Choose Certificate

Create Certificate 

Maximum Connection  ☒ Set as primary account 

Email Address 

 Apply

 Cancel

Please take a look at the **Exchange Online certificate-based authentication via App Registration** chapter in the **GALsync 8.1 manual** for further information

<https://www.netsec.de/en/products/galsync/documentation.html>

The **Add** button on the right, will open a dialog window in which to configure **user-based authentication** via **Service Account** for the Exchange Online tenant.

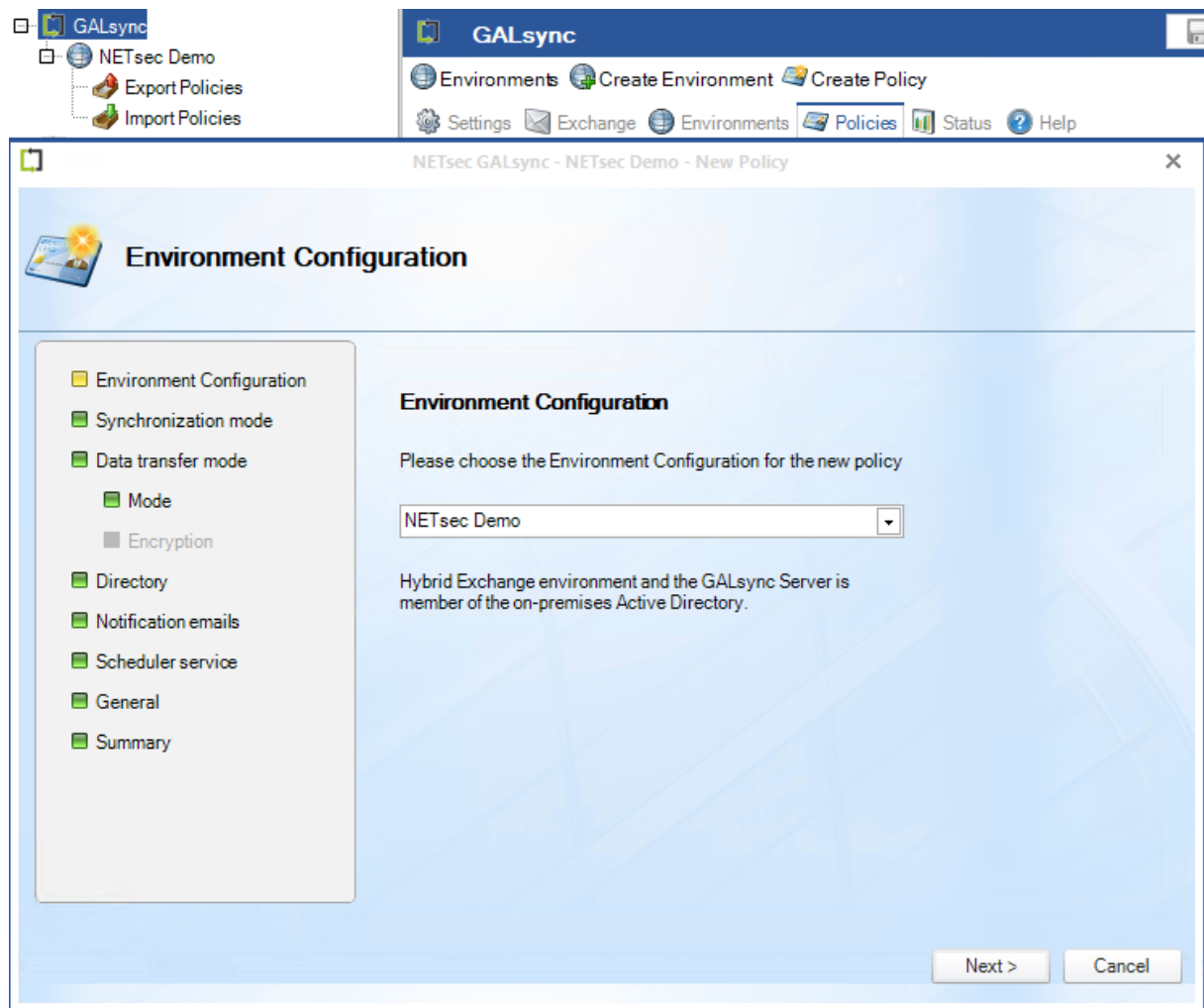
The screenshot shows the 'Exchange Online' tab in the 'Exchange Scenario' section. Below the tab, there is a 'Credentials' section with a toolbar containing 'Add', 'Modify', and 'Remove' buttons. The 'Add' button is highlighted. Below the toolbar, the 'Exchange Online Credential' dialog box is open. It contains fields for 'User-ID', 'Password', and 'E-mail', each with an information icon. There is a 'Maximum Connection' dropdown set to '2' and a 'Set as primary account' checkbox. Below these fields, there is a section titled 'The authentication method for Exchange Web Services of the Office 365 tenant' which contains a 'Please login for the Modern Authentication OAuth 2.0' message and a 'Modern Authentication OAuth 2.0' radio button. A 'Login' button is next to the radio button. At the bottom of the dialog are 'Apply' and 'Cancel' buttons.

Please take a look at the **Exchange Online authentication via Service Account** chapter in the **GALsync 8.1 manual** for further information

<https://www.netsec.de/en/products/galsync/documentation.html>

GALsync version 8.0 compared with GALsync 7.6.x

1. As of GALsync version 8.0, the value for the source domain attribute has been expanded. Because of this, all previously imported objects from GALsync 7 or earlier versions will be updated.
2. As of GALsync version 8.0, new policies can only be created for an **Environment Configuration**. You must create and configure an **Environment Configuration** before you can create a policy.



Please take a look at the **GALsync 8.0 manual** for further information

<https://www.netsec.de/en/products/galsync/documentation.html>

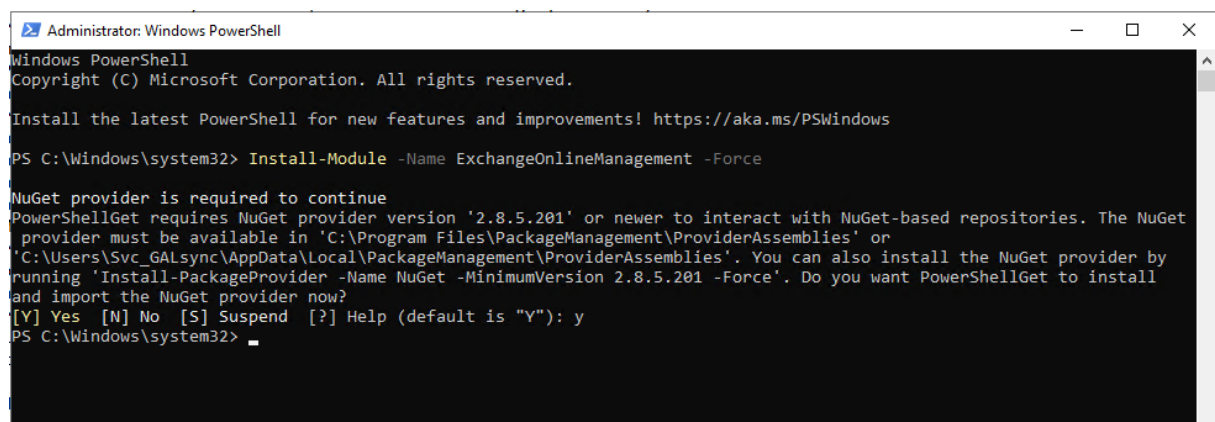
3. As of version 8.0, GALsync requires **Windows PowerShell 5.1** and the **ExchangeOnlineManagement PowerShell module** for **Exchange Online PowerShell V2** (ExchangeOnlineManagement module version 2.0.3 - 2.0.5)

The **ExchangeOnlineManagement PowerShell module** needs to be installed on the GALsync Server, so GALsync can directly communicate with an Office 365 Exchange Online tenant.

On the GALsync Server, open **Windows PowerShell** as **Administrator**, then run the following:

```
Install-Module -Name ExchangeOnlineManagement -RequiredVersion 2.0.5 -Force
```

When prompted, enter **Y** for Yes then Return



```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

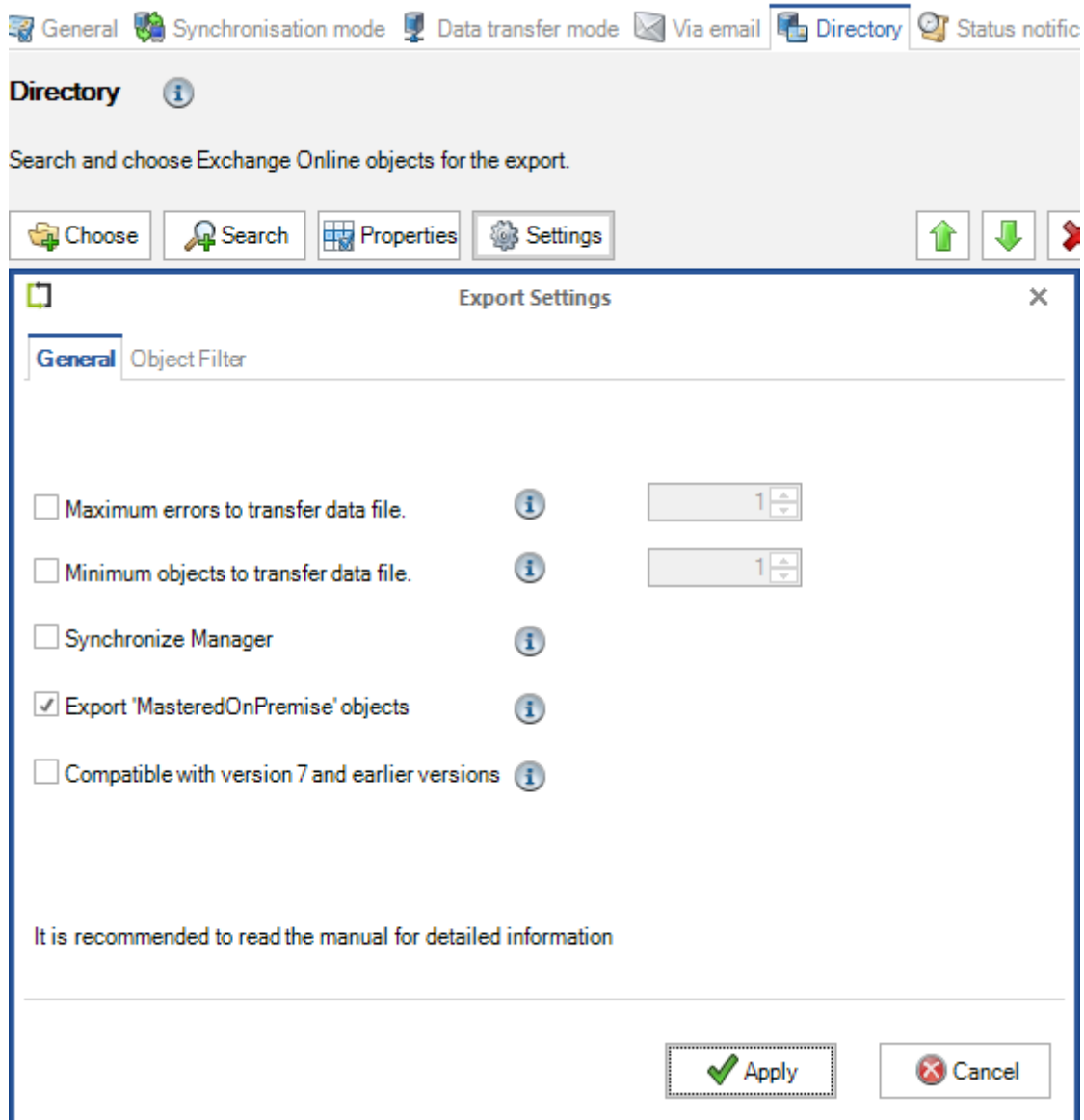
PS C:\Windows\system32> Install-Module -Name ExchangeOnlineManagement -Force

NuGet provider is required to continue
PowerShellGet requires NuGet provider version '2.8.5.201' or newer to interact with NuGet-based repositories. The NuGet
provider must be available in 'C:\Program Files\PackageManagement\ProviderAssemblies' or
'C:\Users\Svc_GALsync\AppData\Local\PackageManagement\ProviderAssemblies'. You can also install the NuGet provider by
running 'Install-PackageProvider -Name NuGet -MinimumVersion 2.8.5.201 -Force'. Do you want PowerShellGet to install
and import the NuGet provider now?
[Y] Yes [N] No [S] Suspend [?] Help (default is "Y"): y
PS C:\Windows\system32>
```

Please take a look at the **Prerequisites for the EXO V2 module** chapter of the **Microsoft Docs: About the Exchange Online PowerShell V2 module**

<https://docs.microsoft.com/en-us/powershell/exchange/exchange-online-powershell-v2?view=exchange-ps#prerequisites-for-the-exo-v2-module>

4. As of GALsync version 8.0, newly created export policies from Exchange Online have the **Export 'MasteredOnPremise' objects** option of the **Export Settings** enabled by default.



5. The synchronization mode **Import directory information (GAL) into contacts folder of user's mailboxes** has been deprecated.

As of GALsync version 8, it is no longer possible to create new policies with this synchronization mode.

Synchronization mode

1. What do you want to do?

- ☐ Export directory information (GAL)
- ☐ Import directory information (GAL)
- ☒ Import directory information (GAL) into contacts folder of user's mailboxes

2. Where are the mailboxes?

- ☒ The mailboxes are on an on-premises Exchange server
Import directory information (GAL) into a folder within a user's on-premises mailbox contacts.
- ☐ The mailboxes are in Office 365 Exchange Online tenant
Import directory information (GAL) into a folder within a user's Office 365 Exchange Online mailbox contacts.

As of contactSync version 8, you can now synchronize directory information from a hybrid Exchange environment's on-premises Active Directory into mailboxes located in the on-premises Exchange Server, or Exchange Online.

<https://www.netsec.de/en/products/contactsync/overview.html>

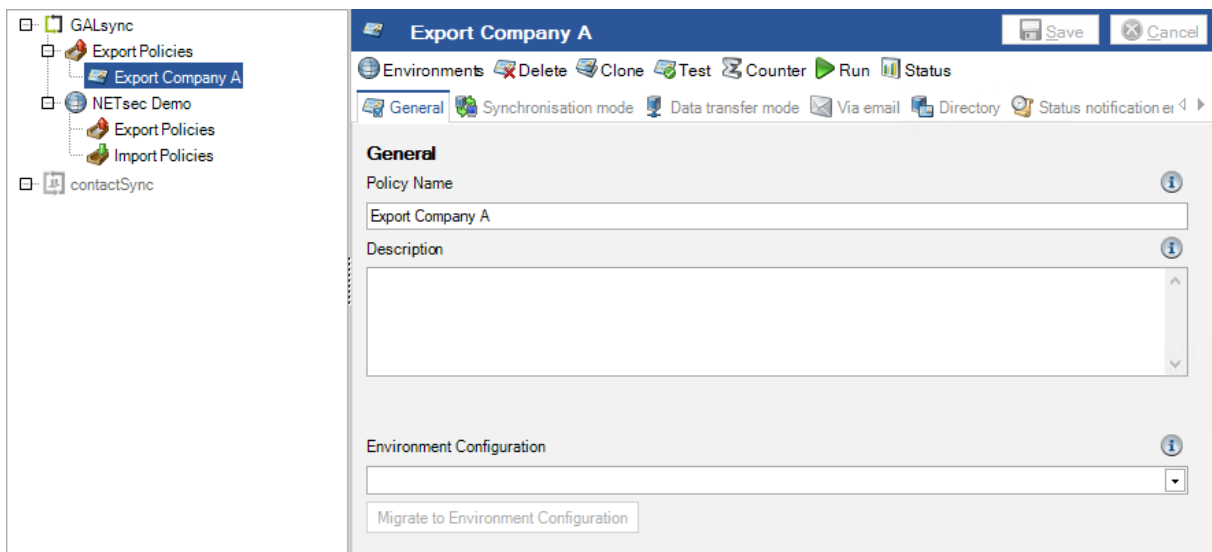
6. Please read the following chapters to understand the breaking changes of GALsync version 8, and how to handle it in your synchronization scenario.

We have described a possible issue using a synchronization scenario as an example.

There are other optional Export Settings and Import Settings in the Policies that similarly require your attention so that there are no problems when switching to the current GALsync version.

Migrate an existing policy

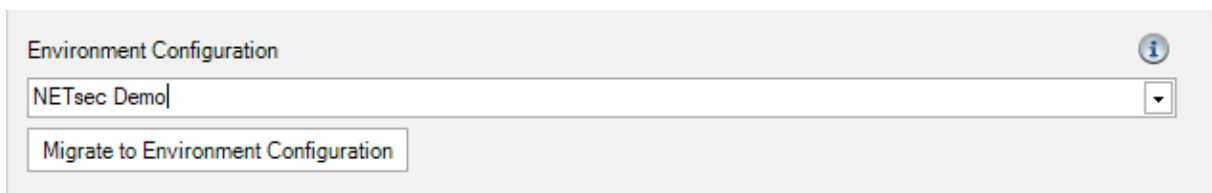
Policies created by GALsync version 7 or earlier versions have no Environment Configuration.



You can migrate such a policy to a corresponding Environment Configuration.

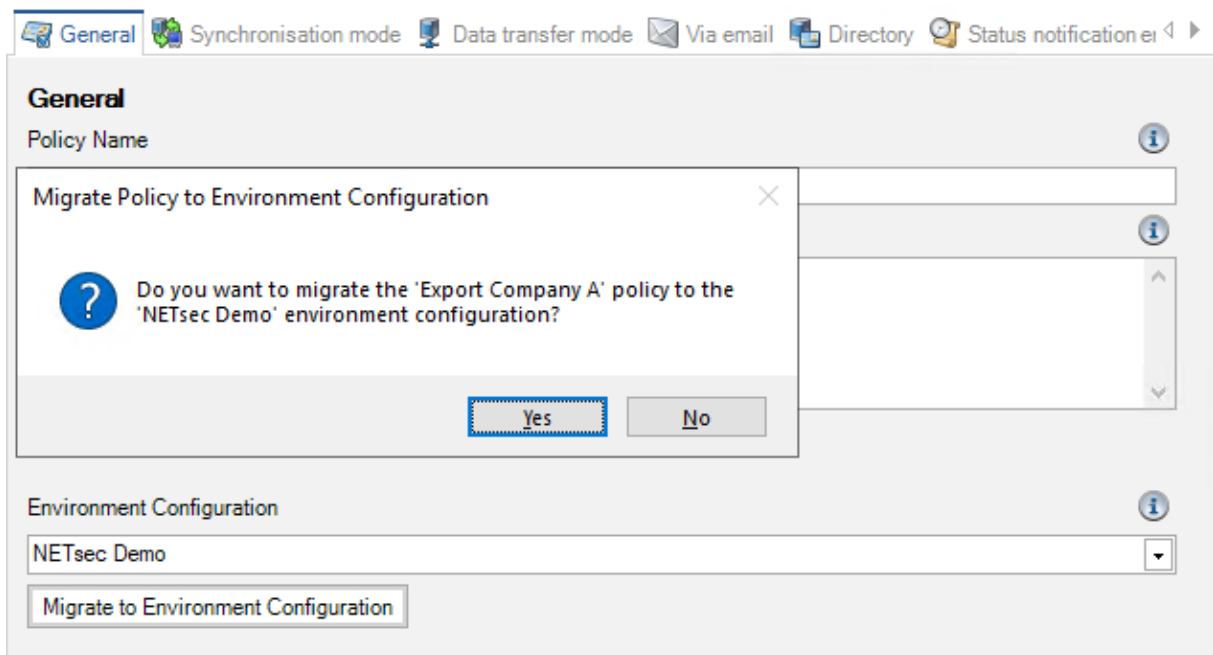
Please note that a policy can only migrate once.

Select the corresponding **Environment Configuration** on the **General** tab of the policy and click **Migrate to Environment Configuration**.



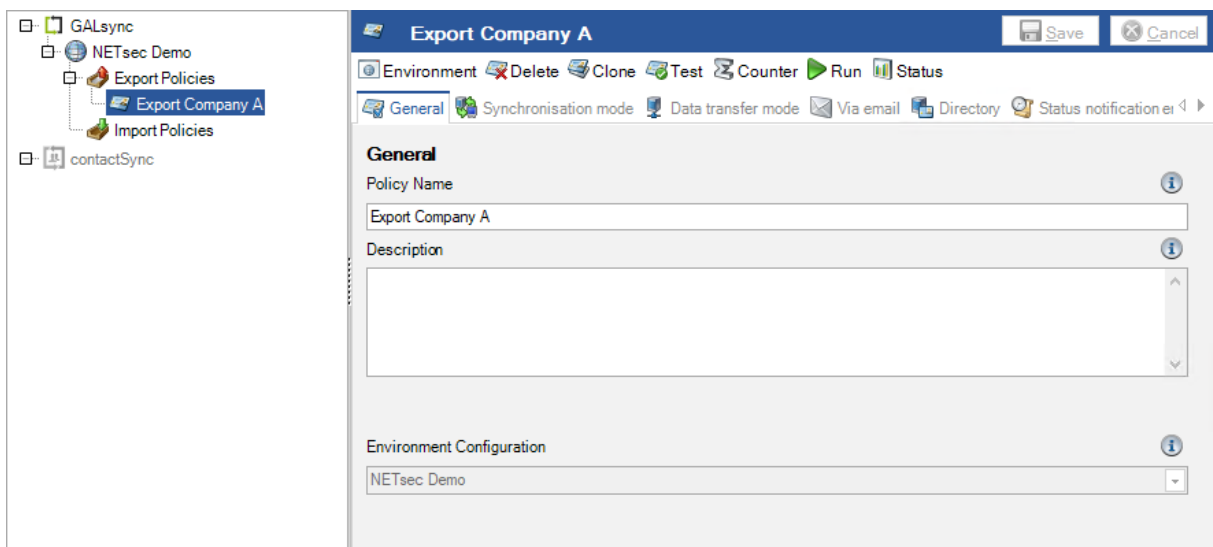
If you are sure, you have selected the correct **Environment Configuration** for the policy migration, click Yes to migrate the policy to the selected **Environment Configuration**.

Please note that a policy can only migrate once.



After that, please save the policy.

The policy belongs now to the corresponding Environment Configuration and uses the settings of the Environment Configuration for the Exchange environment.



Export policy from Exchange Online

GALsync 7: Export from Exchange Online

When exporting from Exchange Online with GALsync version 7 or earlier, if a mail-enabled object has an **ExternalEmailAddress**, this **ExternalEmailAddress** is written as the **primary SMTP address** to the **proxyAddresses** of the object in the data file.

Office 365 Exchange Online	
Name	John_Doe
EmailAddresses	SMTP:john.doe@partnerdemo.de
ExternalEmailAddress	SMTP:john.doe@contoso.com
PrimarySmtpAddress	john.doe@partnerdemo.de

GALsync Data File Version 7 and earlier	
name	John_Doe
proxyAddresses	smtp:john.doe@partnerdemo.de SMTP:john.doe@contoso.com
targetAddress	SMTP:john.doe@contoso.com

This behavior can cause email delivery problems in conjunction with hybrid Exchange environments, after importing such an object as a mail-enabled contact, if the **ExternalEmailAddress** and **primary SMTP address** of the source object are different and the **Import only primary SMTP address** option of the **Import Settings** is enabled for the corresponding import policy.

The screenshot shows the 'Import Settings' dialog box with the 'E-Mail Addresses' tab selected. The dialog has a title bar with a close button (X) and a tab bar with 'General', 'E-Mail Addresses', 'E-Mail Addresses 2', 'Object Filter', 'Synchronize Group', and 'Synchronize User'. The 'E-Mail Addresses' tab contains several options, each with a checkbox, an information icon (i), and a text input field. The options are: 'Modify target address with domain', 'Modify primary SMTP address with domain', 'Import only primary SMTP address' (which is checked), 'Import X500 addresses', 'Import legacyExchangeDN as X500 address', 'Import SIP addresses', and 'Retain targetAddress of users and contacts'. At the bottom, there is a message: 'It is recommended to read the manual for detailed information', and two buttons: 'Apply' (with a green checkmark icon) and 'Cancel' (with a red X icon).

Option	Information Icon	Input Field
<input type="checkbox"/> Modify target address with domain	i	
<input type="checkbox"/> Modify primary SMTP address with domain	i	
<input checked="" type="checkbox"/> Import only primary SMTP address	i	
<input type="checkbox"/> Import X500 addresses	i	
<input type="checkbox"/> Import legacyExchangeDN as X500 address	i	
<input type="checkbox"/> Import SIP addresses	i	
<input type="checkbox"/> Retain targetAddress of users and contacts	i	

It is recommended to read the manual for detailed information

GALsync 8: Export from Exchange Online

As of GALsync 8, the **primary SMTP address** will no longer change during an export from Exchange Online.

Office 365 Exchange Online	
Name	John_Doe
EmailAddresses	SMTP:john.doe@partnerdemo.de
ExternalEmailAddress	SMTP:john.doe@contoso.com
PrimarySmtpAddress	john.doe@partnerdemo.de

GALsync Data File Version 8	
name	John_Doe
proxyAddresses	SMTP:john.doe@partnerdemo.de
targetAddress	SMTP:john.doe@contoso.com

Unfortunately, the fix for the Exchange Online export may cause synchronization issues if you have upgraded from GALsync version 7 or earlier versions to GALsync version 8.

Especially if the **Import only primary SMTP address** option of the **Import Settings** is enabled for import policies.

The screenshot shows the 'Import Settings' dialog box with the 'E-Mail Addresses' tab selected. The dialog has a title bar with a close button (X) and a tab bar with the following tabs: 'General', 'E-Mail Addresses' (active), 'E-Mail Addresses 2', 'Object Filter', 'Synchronize Group', and 'Synchronize User'. The main area contains several options, each with a checkbox, an information icon (i), and a text input field:

- ☐ Modify target address with domain
- ☐ Modify primary SMTP address with domain
- ☒ Import only primary SMTP address
- ☐ Import X500 addresses
- ☐ Import legacyExchangeDN as X500 address
- ☐ Import SIP addresses
- ☐ Retain targetAddress of users and contacts

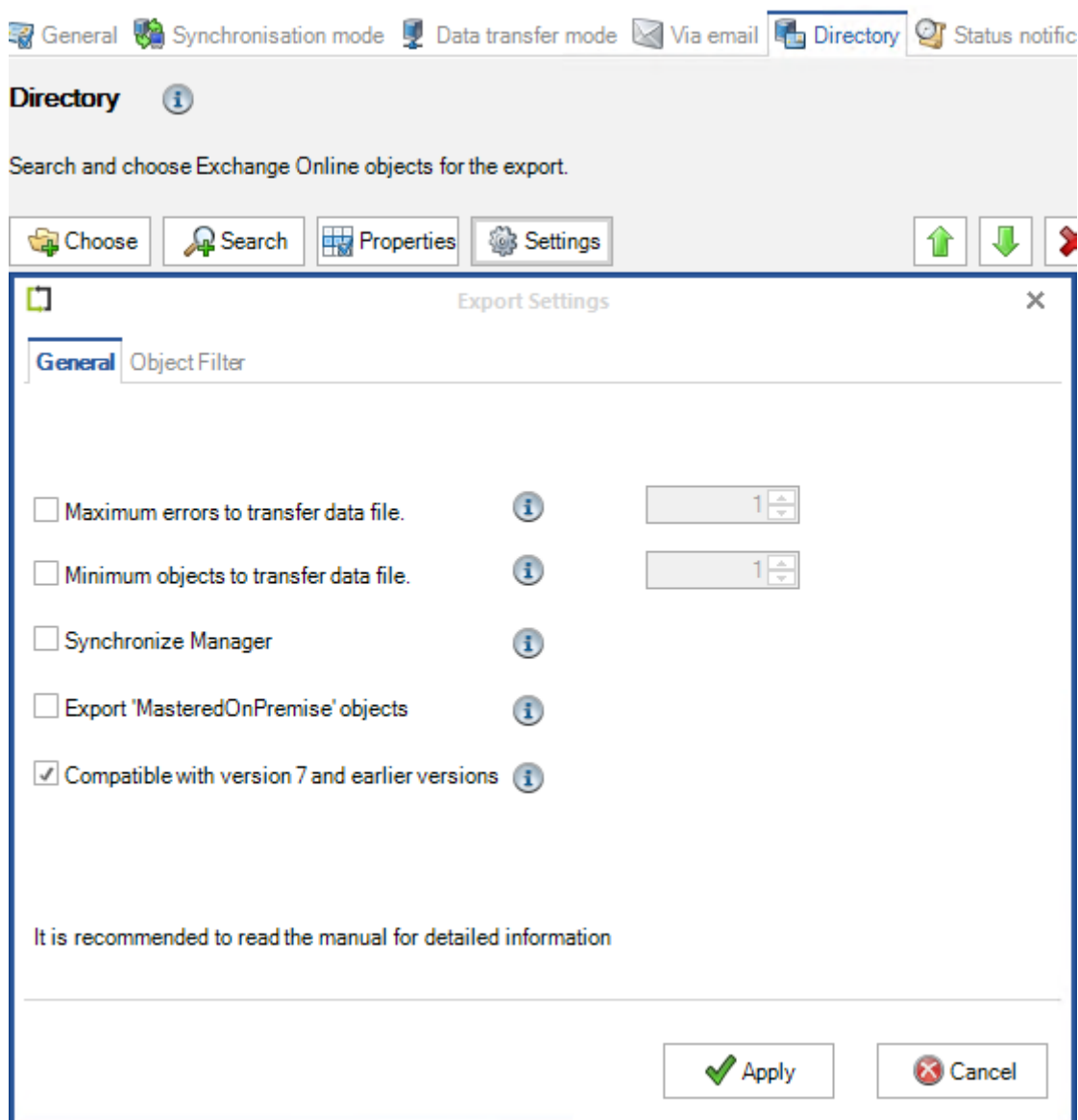
At the bottom, there is a message: 'It is recommended to read the manual for detailed information'. To the right of this message are two buttons: 'Apply' (with a green checkmark icon) and 'Cancel' (with a red X icon).

Import issue after upgrade from GALsync 7 or earlier to GALsync 8

During the initial import policy run, GALsync cannot detect existing objects that were previously synchronized with GALsync version 7 or earlier versions, if the original objects are exported from Exchange Online with a current GALsync 8, so that the existing imported mail contacts will be deleted and re-created.

Solution by default for existing export policies from Exchange Online

To prevent this behavior, there is the **Compatible with version 7 and earlier versions** option in the **Export Settings**, which is activated by default for existing export policies of GALsync version 7 and earlier versions, which export from Exchange Online.



Compatible with version 7 and earlier versions (Exchange Online only)

In GALsync version 7, when exporting from an Exchange Online tenant, the **ExternalEmailAddress** / **targetAddress** was set as the primary SMTP address in the **EmailAddresses** / **proxyAddresses**. This can cause problems, if the **ExternalEmailAddress** and the primary SMTP address are different.

As of GALsync version 8, the primary SMTP address of the **EmailAddresses** will no longer be changed by default, when a new policy is created.

If the **Compatible with version 7 and earlier versions** option is enabled, GALsync will change the primary SMTP address of the **EmailAddresses** to the **ExternalEmailAddress** like GALsync version 7.

In case of an upgrade from a GALsync version 7 and earlier to a current GALsync version 8, the **Compatible with version 7 and earlier versions** option is enabled.

Office 365 Exchange Online		GALsync Data File Version 8 Compatible with version 7 and earlier versions option is enabled	
Name	John_Doe	name	John_Doe
EmailAddresses	SMTP:john.doe@partnerdemo.de	proxyAddresses	smtp:john.doe@partnerdemo.de SMTP:john.doe@contoso.com
ExternalEmailAddress	SMTP:john.doe@contoso.com	targetAddress	SMTP:john.doe@contoso.com
PrimarySmtpAddress	john.doe@partnerdemo.de		

Migration steps for synchronization of multiple Exchange environments

Here is a description of the migration steps necessary (for example when some Exchange environments of a hub-spoke synchronization topology) when exporting from Exchange Online, and the import policies have the **Import only primary SMTP address** option of the **Import Settings** enabled.

Condition: All environments use GALsync 7

Step 1: Not all environments upgraded directly to GALsync 8

Step 2: All environments have upgraded to GALsync 8

Step 3: 'Compatible with version 7 and earlier versions' option can be disabled

Condition: All environments use GALsync 7

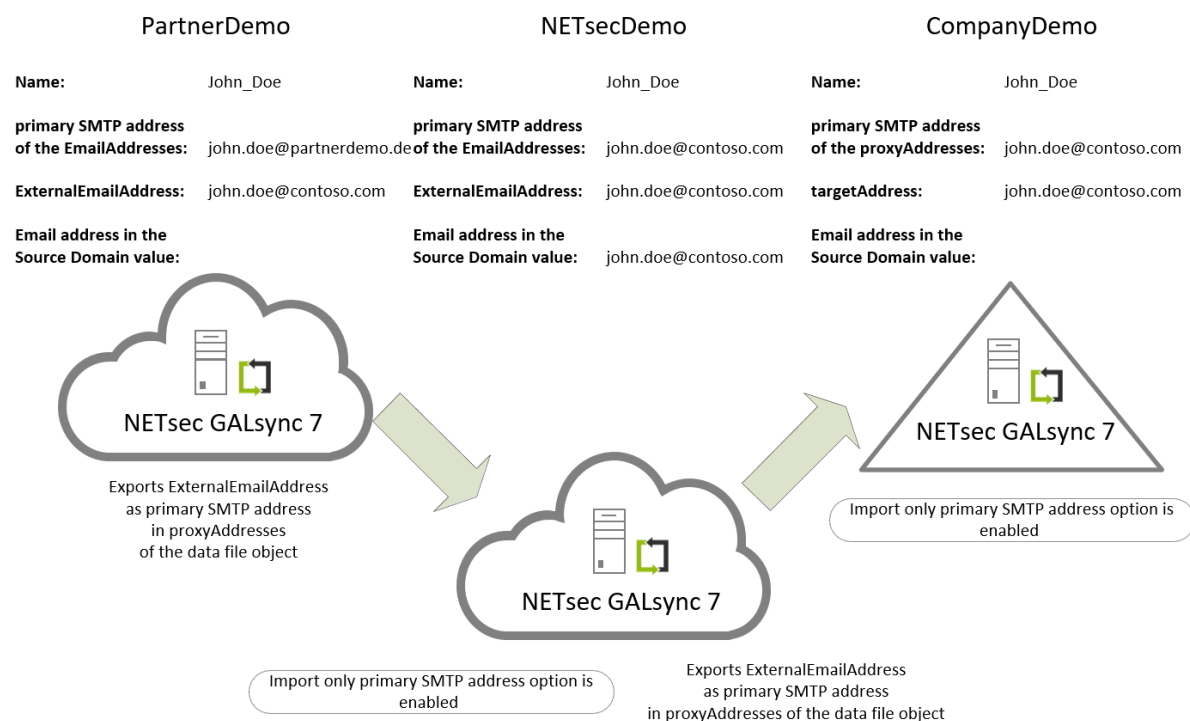
A synchronization with GALsync 7 between the three Exchange environments and the **John_Doe** object is exported from Exchange Online of the PartnerDemo environment as before.

PartnerDemo environment

The John_Doe object has **john.doe@partnerdemo.de** as primary SMTP address of the **EmailAddresses** and **john.doe@contoso.com** as **ExternalEmailAddress**.

GALsync 7 will add **john.doe@contoso.com** as primary SMTP address to the **proxyAddresses** of the object in the data file during the export.

john.doe@partnerdemo.de will be exported as secondary smtp address of the proxyAddresses.



NETsecDemo environment

The **Import only primary SMTP address** option of the **Import Settings** is enabled, so that GALsync 7 will only import the **john.doe@contoso.com** as primary SMTP address to the **proxyAddresses**, but not the secondary smtp address **john.doe@partnerdemo.de**.

The **targetAddress** is also **john.doe@contoso.com** of the imported contact.

An Export policy exports the **John_Doe** contact for the CompanyDemo environment.

CompanyDemo environment

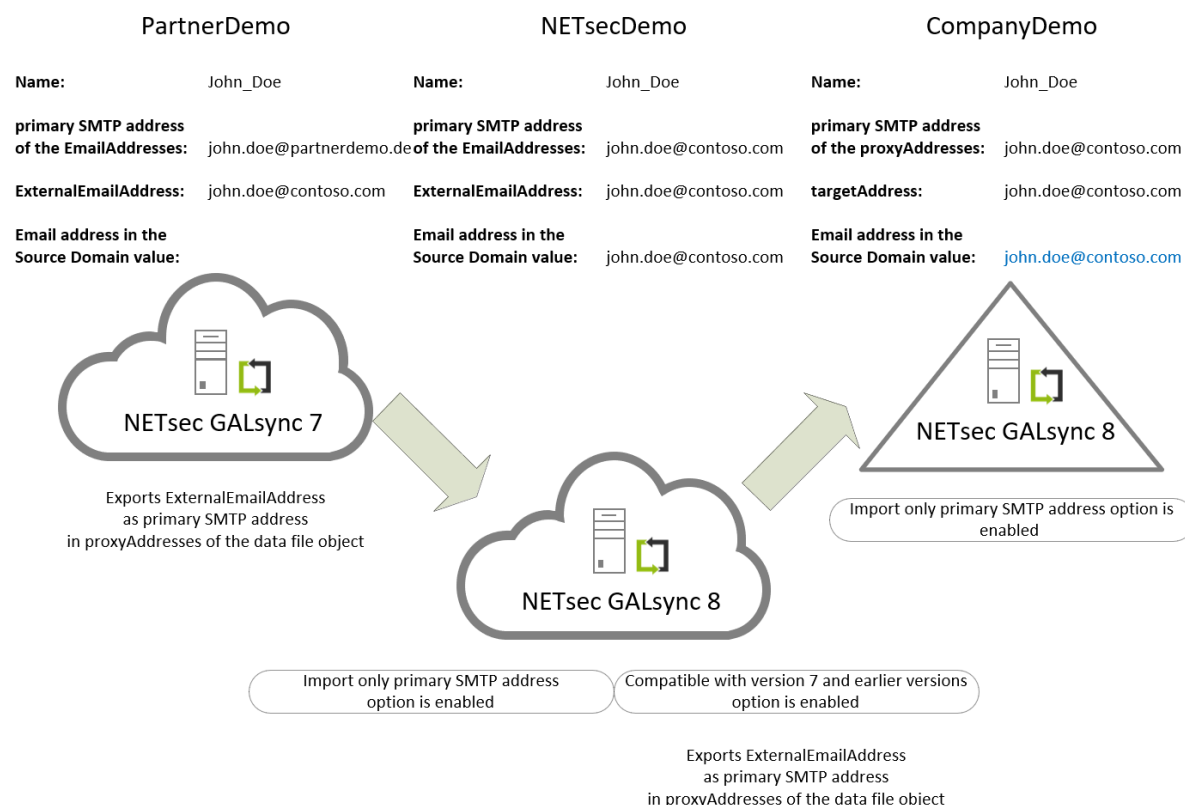
The **Import only primary SMTP address** option of the **Import Settings** is enabled, so that GALsync 7 will import the **john.doe@contoso.com** as primary SMTP address to the **proxyAddresses** and as **targetAddress**.

Step 1: Not all environments upgraded directly to GALsync 8

The PartnerDemo environment uses GALsync 7 but the two other environments have upgrade to GALsync 8.

PartnerDemo environment

GALsync 7 will export the **John_Doe** object from Exchange Online as before.



NETsecDemo environment

GALsync 8 will use the primary SMTP address **john.doe@contoso.com** of the **John_Doe** data file object for searching existing objects in the NETsecDemo environment. GALsync will find the corresponding **John_Doe** contact and will update it, if it is necessary.

GALsync 8 has enabled the **Compatible with version 7 and earlier versions** option in the **Export Settings**, so that the existing export policy exports the **John_Doe** contact for the CompanyDemo environment as before.

CompanyDemo environment

GALsync 8 will use the primary SMTP address **john.doe@contoso.com** of the **John_Doe** data file object for searching existing objects in the CompanyDemo environment.

GALsync will find the corresponding **John_Doe** contact and will update it. The SMTP address **john.doe@contoso.com** will be added to the Source Domain value.

Step 2: All environments have upgraded to GALsync 8

The PartnerDemo environment also upgrade to GALsync 8, so all environments have GALsync 8 for the first time.

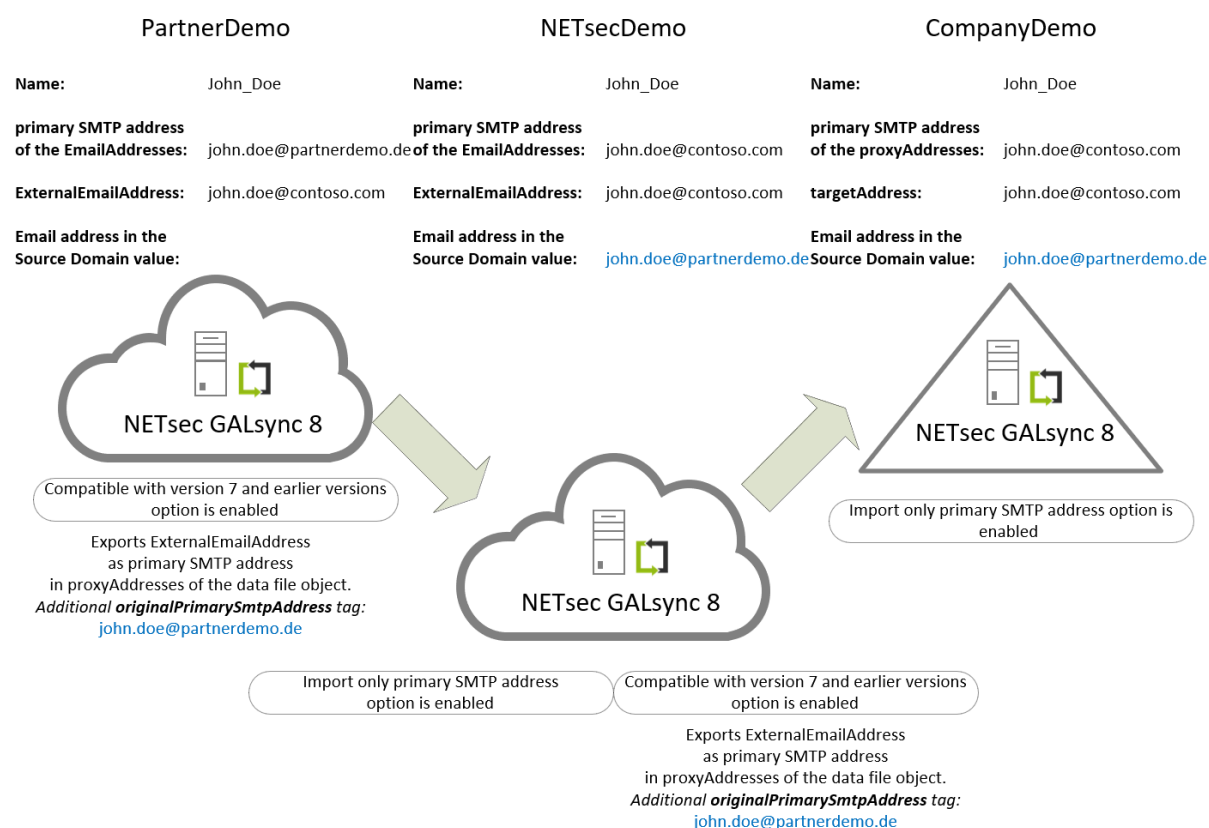
PartnerDemo environment

GALsync 8 has enabled the **Compatible with version 7 and earlier versions** option in the **Export Settings**, so that the existing export policy exports the **John_Doe** object for the NETsecDemo environment.

GALsync 8 will add **john.doe@contoso.com** as primary SMTP address to the **proxyAddresses** of the object in the data file during the export.

john.doe@partnerdemo.de will be exported as secondary smtp address of the proxyAddresses.

GALsync 8 will add the **originalPrimarySmtpAddress** tag to the data file object with the **john.doe@partnerdemo.de** value, which is the primary SMTP address of the source object.



NETsecDemo environment

GALsync 8 will use the primary SMTP address **john.doe@contoso.com** of the **John_Doe** data file object for searching existing objects in the NETsecDemo environment.

GALsync will find the corresponding **John_Doe** contact and will update the email address in the Source Domain value with **john.doe@partnerdemo.de** of the **originalPrimarySmtpAddress** tag of the data file object.

GALsync 8 has enabled the **Compatible with version 7 and earlier versions** option in the **Export Settings**, so that the existing export policy exports the **John_Doe** contact for the CompanyDemo environment like before, except that additionally now adds the **originalPrimarySmtpAddress** tag to the data file object with the value **john.doe@partnerdemo.de**, which is the email address of the Source Domain value.

CompanyDemo environment

GALsync 8 will use the primary SMTP address **john.doe@contoso.com** of the **John_Doe** data file object for searching existing objects in the CompanyDemo environment.

GALsync will find the corresponding **John_Doe** contact and will update the email address in the Source Domain value with **john.doe@partnerdemo.de** of the **originalPrimarySmtpAddress** tag of the data file object.

Step 3: 'Compatible with version 7 and earlier versions' option can be disabled

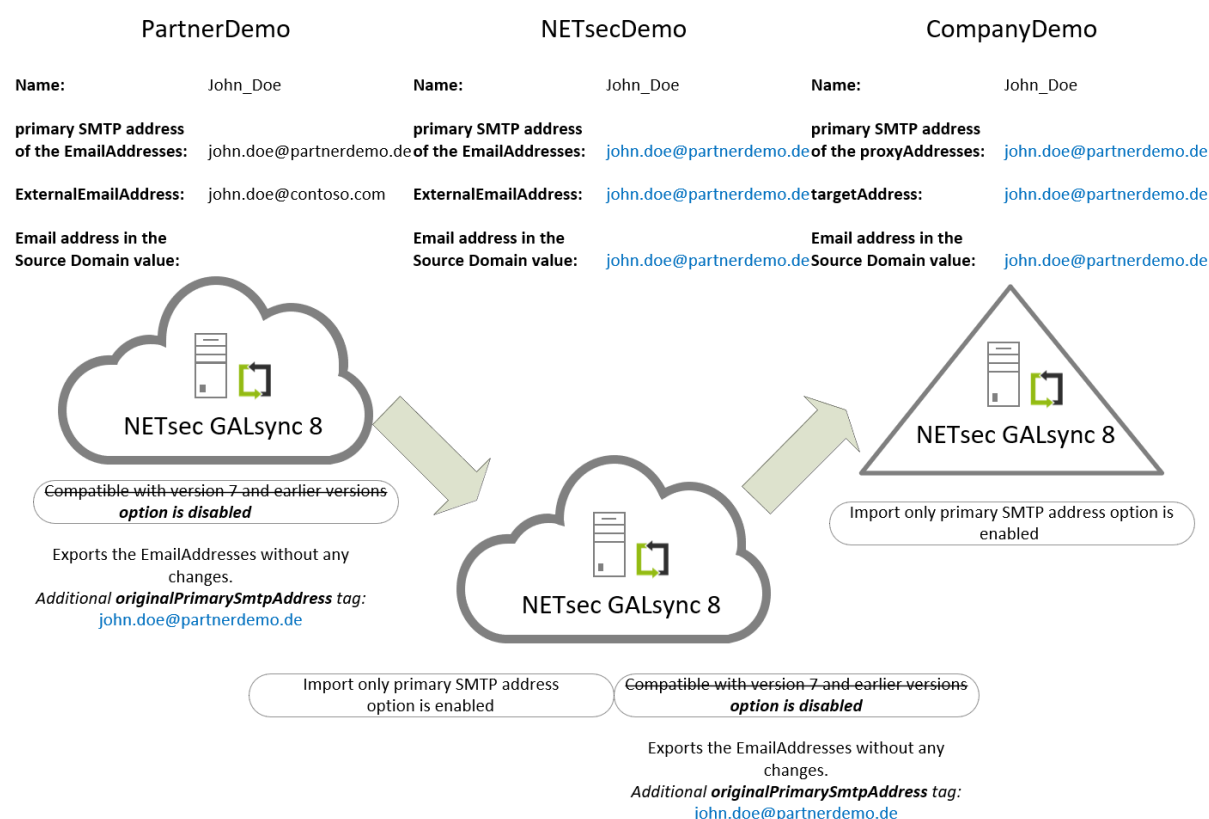
After the first complete synchronization between all involved Exchange environments, the **Compatible with version 7 and earlier versions** option in the **Export Settings** of the export policies from Exchange Online can be disabled, because the original primary SMTP address of the source objects is synchronized as email in the Source Domain value in each of the corresponding contacts synchronized by GALsync.

Please note, after disabling the option during importing on your partner's side, GALsync will modify existing objects that are being synchronized in order to possibly adjust the primary SMTP address and the value of the source domain property.

PartnerDemo environment

The **Compatible with version 7 and earlier versions** option in the **Export Settings** is disabled, so the existing export policy exports the **John_Doe** object for the NETsecDemo environment without changing the primary SMTP address for **proxyAddresses** in the data file object.

The primary SMTP address is now **john.doe@partnerdemo.de** in the **proxyAddresses**.



NETsecDemo environment

GALsync 8 will use the primary SMTP address **john.doe@partnerdemo.de** of the **John_Doe** data file object for searching existing objects in the NETsecDemo environment.

The corresponding **John_Doe** contact has only **john.doe@contoso.com** as smtp address in the **EmailAddresses** and as **ExternalEmailAddress**, but GALsync 8 will also look at the email address of the Source Domain value, which will match.

GALsync will update the **EmailAddresses** and **ExternalEmailAddress** of corresponding **John_Doe** contact.

The **Compatible with version 7 and earlier versions** option in the **Export Settings** is disabled, so that the existing export policy exports the **John_Doe** contact for the CompanyDemo environment without changing the primary SMTP address for proxyAddress in the data file object.

john.doe@partnerdemo.de is now the primary SMTP address in the **proxyAddresses** and the **targetAddress** in the data file object.

CompanyDemo environment

GALsync 8 will use the primary SMTP address **john.doe@partnerdemo.de** of the **John_Doe** data file object for searching existing objects in the CompanyDemo environment.

The corresponding **John_Doe** contact has only **john.doe@contoso.com** as a smtp address in the **EmailAddresses** and as an **ExternalEmailAddress**, but GALsync 8 will also look at the email address of the Source Domain value, which will match.

GALsync will update the **EmailAddresses** and **ExternalEmailAddress** of corresponding **John_Doe** contact.

Conclusion

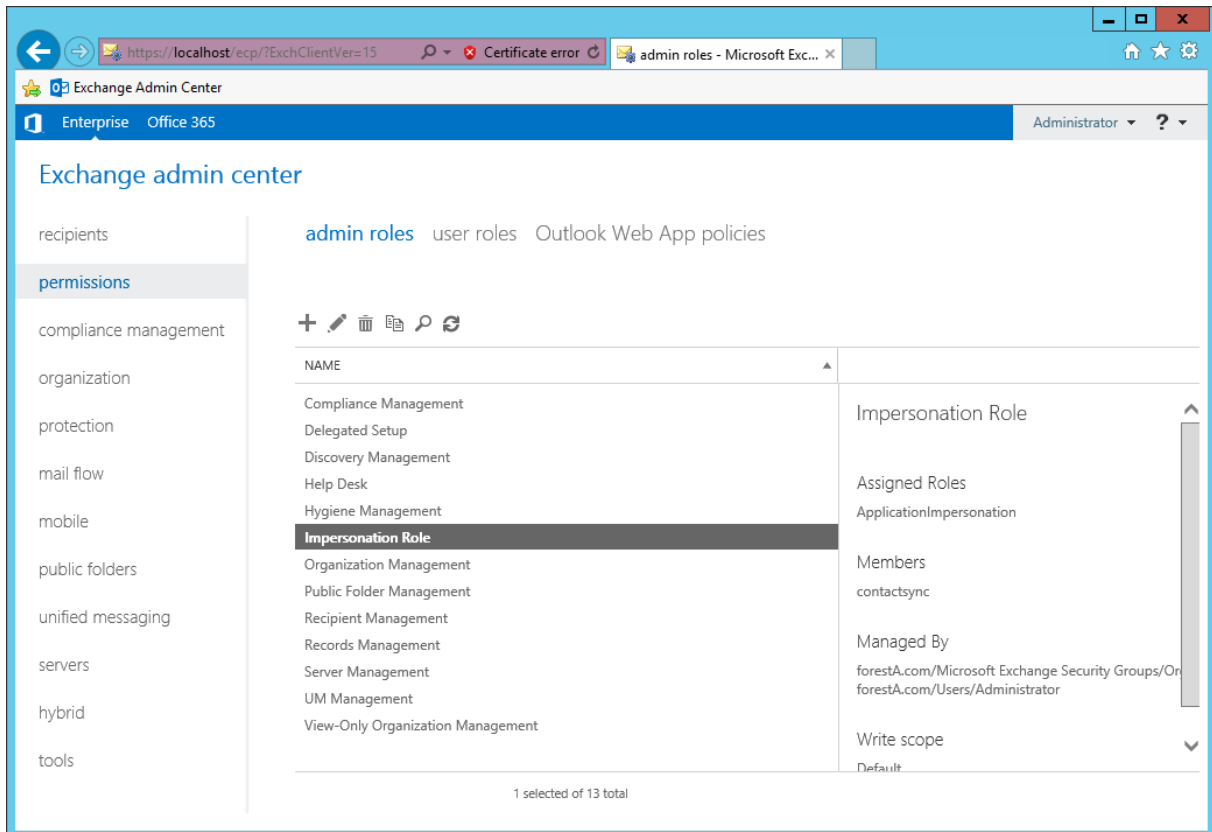
After the complete synchronization between all involved Exchange environments, everything will be updated and work like expected.

GALsync version 7.6 compared with GALsync 7.5.x

As of GALsync version 7.6, the default access method to the mailboxes has been changed to Exchange Impersonation on the **Access to mailboxes** Credentials tab of the **contactSync** policy.

The following setting is for contactSync policies:

The service account must be a member of an **Admin Role** in the **Exchange Admin Center**, which has the **ApplicationImpersonation** role assigned.



On-premises Exchange:

Access to Mailboxes

Access Method

- ☒ Use impersonation for access to mailboxes
- ☐ Use full access for access to mailboxes ☐ with disabled EWS Throttling

5 count of concurrent mailboxes getting the contacts
e.g. 5 mailboxes concurrently

Account for Access

- ☒ Credentials of the contactSync service account
- ☐ Credentials of a dedicated mailbox user

User Name:

Password:

E-Mail Address:

Exchange Web Services URL

- ☒ Use Autodiscover to find Exchange Web Services URL
- ☐ Manual setting e.g. <https://casserver.domain.local/EWS/Exchange.asmx>

If **Exchange Application Impersonation** is configured, maximum 5 mailboxes concurrently are recommended.

If **Full Access** is configured in an on-premises Exchange environment and the server-side EWS Throttling is disabled, maximum 5 mailboxes concurrently are recommended.

Note: It depends on the Exchange environment how many mailboxes getting the contacts to be synchronized at the same time.

Exchange Online:

Access to Mailboxes

Access Method

- ☒ Use impersonation for access to mailboxes
- ☐ Use full access for access to mailboxes

5 count of concurrent mailboxes getting the contacts
e.g. 5 mailboxes concurrently

Account for Access

- ☒ Credentials of the primary Exchange Online account
- ☐ Credentials of a dedicated mailbox user

User Name:

Password:

E-Mail Address:

Exchange Web Services URL of the Office 365 tenant

- ☒ Use Autodiscover to find Exchange Web Services URL
- ☐ Manual setting e.g. <https://outlook.office365.com/EWS/Exchange.asmx>

The authentication method for Exchange Web Services of the Office 365 tenant

Exchange Online provides the following authentication options for you to choose from:

- ☒ Basic
- ☐ OAuth 2.0

If **Exchange Application Impersonation** is configured, maximum 5 mailboxes concurrently are recommended.

If **Full Access** is configured only one mailbox concurrently is possible.

Note: It depends on the Exchange environment how many mailboxes getting the contacts to be synchronized at the same time.

GALsync version 7.5 compared with GALsync 7.4.x

1. The shortcut on the desktop and the start menu entry are renamed to NETsec GALsync.

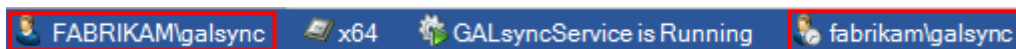


2. The GALsync service account of an Office 365 tenant needs access to its own mailbox. Therefore, Modern Authentication OAuth 2.0 for Exchange Web Services (EWS) must be configured.

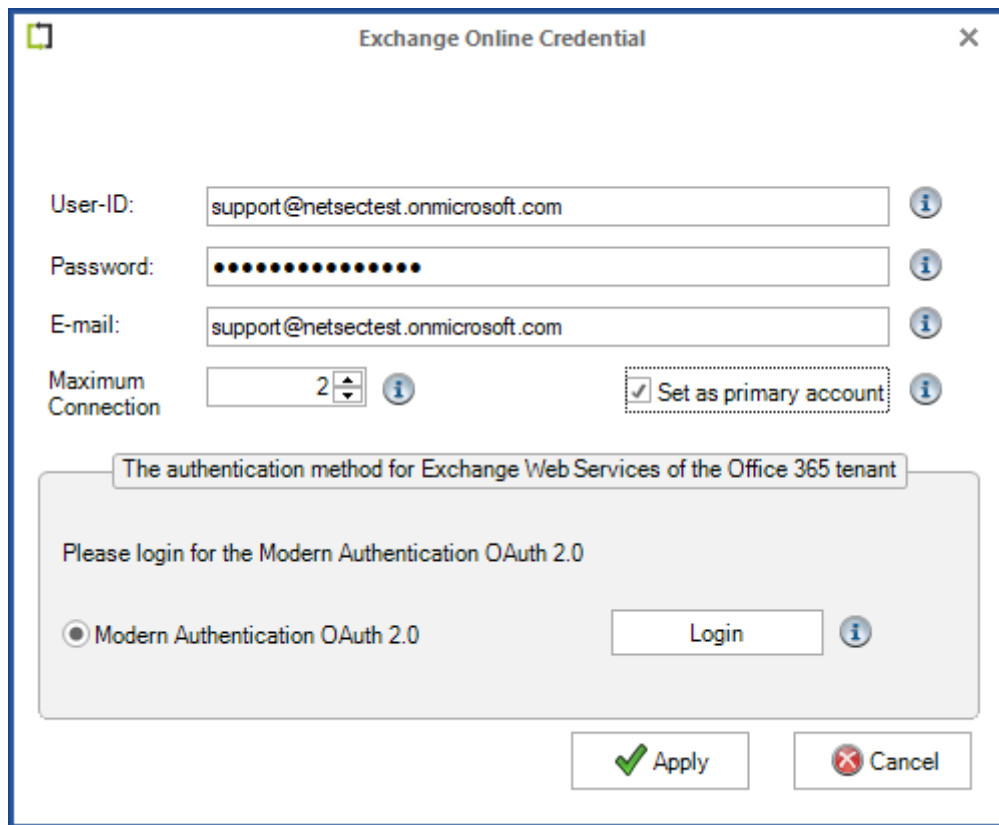
Please note, that Microsoft will stop supporting and fully decommission the Basic Authentication for Exchange Web Services (EWS) to access Exchange Online on 13th October 2020.

Please check first, that the GALsync GUI is running in the credentials of the local GALsync service account, otherwise GALsync cannot decrypt the token later.

You can check this on the information bar at the bottom of the GALsync GUI.



Enter the credentials of the GALsync service account, and click the **Login** button.




The dialog box is titled "Exchange Online Credential" and contains the following fields and controls:

- User-ID:** A text box containing "support@netsectest.onmicrosoft.com" with an information icon to its right.
- Password:** A text box filled with dots, with an information icon to its right.
- E-mail:** A text box containing "support@netsectest.onmicrosoft.com" with an information icon to its right.
- Maximum Connection:** A numeric spinner box set to "2" with an information icon to its right.
- Set as primary account:** A checkbox that is checked, with an information icon to its right.
- Authentication Method:** A section titled "The authentication method for Exchange Web Services of the Office 365 tenant" containing:
 - A message: "Please login for the Modern Authentication OAuth 2.0"
 - A radio button labeled "Modern Authentication OAuth 2.0" which is selected.
 - A "Login" button with an information icon to its right.
- Buttons:** At the bottom are "Apply" (with a green checkmark icon) and "Cancel" (with a red X icon) buttons.

Please note, that the User-ID and the E-mail address can be different for an Exchange Online mailbox user. This depends on your Office 365 Exchange Online tenant.


NETsec GALsync needs the requested permissions.

Sign in to your account

 Microsoft

support@netsectest.onmicrosoft.com

Permissions requested

 NETsec GALsync
galsync.netsec.de

This application is not published by Microsoft or your organization.

This app would like to:

- ✓ Access your mailboxes
- ✓ Maintain access to data you have given it access to
- ✓ View your basic profile

☐ Consent on behalf of your organization

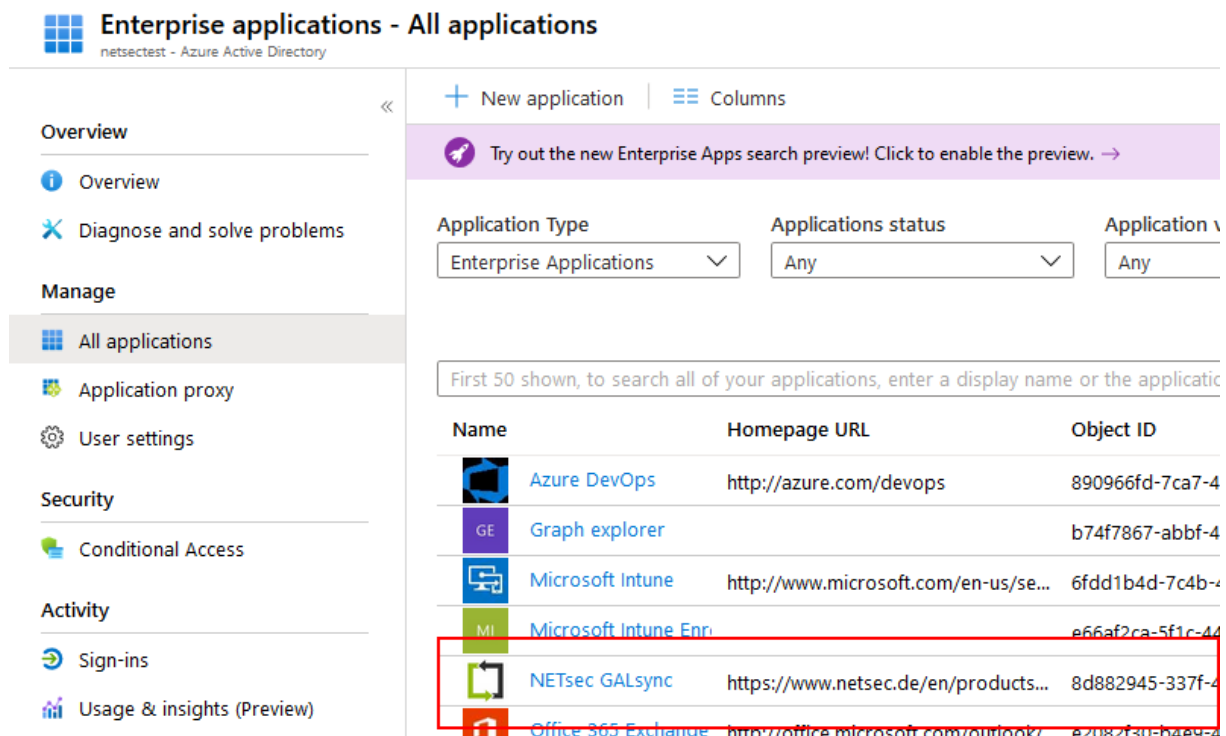
Accepting these permissions means that you allow this app to use your data as specified in their [terms of service](#) and [privacy statement](#). You can change these permissions at <https://myapps.microsoft.com>. [Show details](#)

Cancel

Accept

[Terms of use](#) [Privacy & cookies](#) ...

NETsec GALsync has an entry in **Enterprise Applications** of your Office 365 **Azure Active Directory Admin Center**, where you can also check and manage the permissions.



Enterprise applications - All applications
netsectest - Azure Active Directory

Overview

- Overview
- Diagnose and solve problems

Manage

- All applications**
- Application proxy
- User settings

Security

- Conditional Access

Activity

- Sign-ins
- Usage & insights (Preview)

+ New application | Columns

Try out the new Enterprise Apps search preview! Click to enable the preview. →

Application Type: Enterprise Applications | Applications status: Any | Application v: Any

First 50 shown, to search all of your applications, enter a display name or the applicati

Name	Homepage URL	Object ID
Azure DevOps	http://azure.com/devops	890966fd-7ca7-4
Graph explorer		b74f7867-abbf-4
Microsoft Intune	http://www.microsoft.com/en-us/se...	6fdd1b4d-7c4b-4
Microsoft Intune Enr		e66af2ca-5f1c-44
NETsec GALsync	https://www.netsec.de/en/products...	8d882945-337f-4
Office 365 Exchange	http://office.microsoft.com/outlook/...	87182f31-h284-2

3. GALsync sets **msExchRecipientTypeDetails** and **msExchRecipientDisplayType** for mail-enabled contacts and universal groups during import into on-premises Exchange environment.

4. GALsync compares the property values of existing objects in an Office 365 Exchange Online tenant during an import policy run.

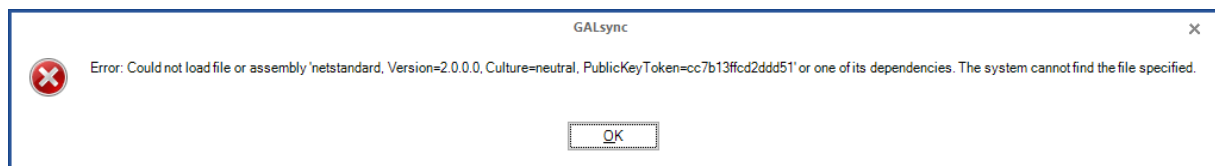
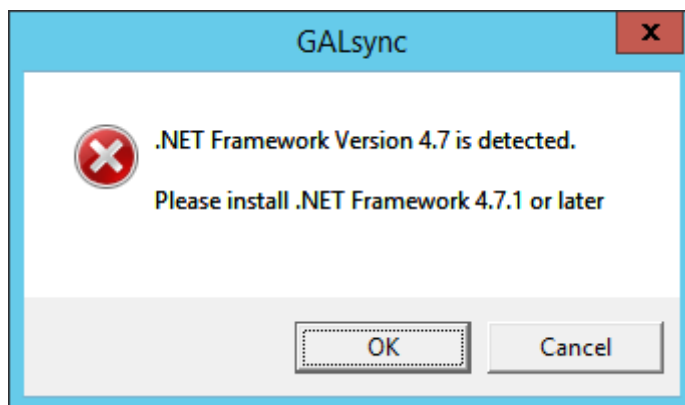
This may cause more objects being updated or assignment changes.

GALsync version 7.4 compared with GALsync 7.3.x

1. The old config.xml and old policy files may sometimes be incompatible.
2. The **Synchronize User** option is incompatible with GALsync data files created by GALsync versions older than GALsync version 7.4.0.

GALsync version 7.3 compared with GALsync 7.2.x

1. GALsync needs the .NET Framework 4.7.1 or later, otherwise you will receive the following errors, and GALsync will not work.



Error message:

Could not load file or assembly 'netstandard, Version=2.0.0.0, Culture=neutral, PublicKeyToken=cc7b13ffcd2ddd51' or one of its dependencies. The system cannot find the file specified.

Microsoft .NET Framework 4.7.1 can be downloaded here:

<https://www.microsoft.com/en-us/download/details.aspx?id=56116>

2. Please check all credentials for the Office 365 accounts, because on some occasions, credentials are unable to be upgraded to the new version.

Note: If you downgrade to an old version, you have to insert all credentials again.

3. The **Synchronize Group** option in the Import Settings dialog has been moved to the added **Synchronize Group** tab.

The old **Synchronize Group** option is renamed to **Synchronize group as group** option. This option is no longer recommended, because you cannot use the primary SMTP address of the source group for the imported group in an Office 365 tenant.

GALsync can now synchronize imported contacts as members to existing groups. This option works with an Office 365 Exchange Online tenant, too.

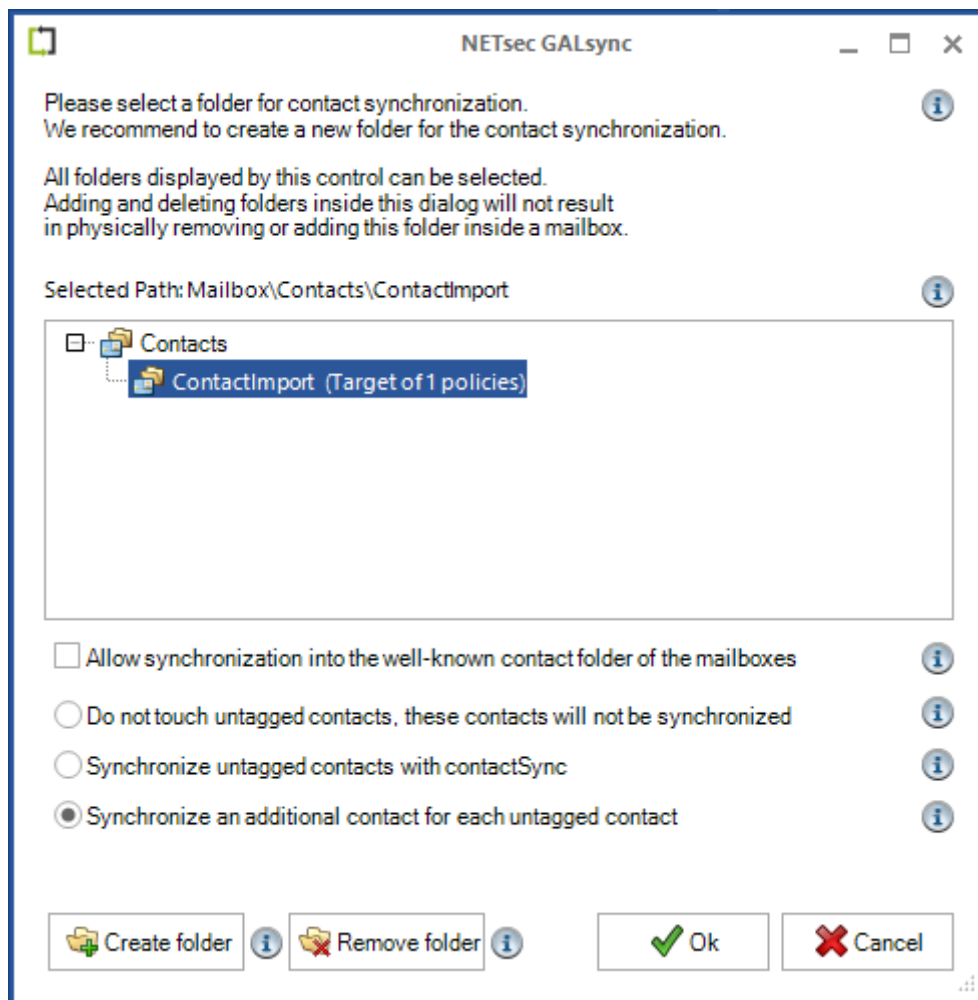
The screenshot shows the 'Import Settings' dialog box with the 'Synchronize Group' tab selected. The dialog has a title bar with a close button (X) and a tab bar with the following tabs: General, E-Mail Addresses, E-Mail Addresses 2, Address Lists, Object Filter, and Synchronize Group. The 'Synchronize Group' tab contains the following options:

- ☐ Synchronize imported contacts as members to existing group
Define the allocation of imported contacts as members to existing groups Group Rule Editor
No group rule is defined.
Note: Group members are created and synchronized as mail contacts and added as members of an existing group, but groups are not created in the target environment.
- ☐ Synchronize group as group [NOT RECOMMENDED]
Groups with members are created and synchronized as group
☒ Create groups without members as contact
☐ Create groups without members as group

At the bottom of the dialog, there is a message: 'It is recommended to read the manual for detailed information'. To the right of this message are two buttons: 'Apply' (with a green checkmark icon) and 'Cancel' (with a red X icon).

4. contactSync module has the option to create and synchronize the contacts into the well-known contact folder of the mailboxes.

Please be careful with this option because it allows you to directly change and delete contacts that your employees have created. This could also confuse some of your employees.



As of GALsync 7.2.10, the default has since changed for existing contacts that were not created by GALsync, but in the selected contact folder and below it.

The default is now, that an additional contact for each existing contact, which was not created by GALsync, will be created and synchronized in the selected contact folder inside the mailboxes.

GALsync version 7.2 compared with GALsync 7.1.x

1. GALsync 7.2 has a redesigned remote PowerShell management for Office 365 tenants. GALsync will now try to reconnect broken remote PowerShell sessions to the Office 365 tenant during a policy run.

Note: If a PowerShell connection to the Office 365 tenant is broken, then GALsync will try to reconnect to the Office 365 tenant, but it may happen, that some data are not completely synchronized due to the broken connection.

In this case GALsync will try to complete it in the next synchronization run.

In the worst case it can happen, that some existing contacts in the target environment of the synchronization will be deleted and that after they are re-created NDR issues in the target environment can occur.

2. The Synchronize Group option is incompatible with GALsync versions older than GALsync version 7.2.0. You will get errors if GALsync tries to import Office 365 group as group.

3. GALsync needs PowerShell 3.0 and later to connect to Office 365 tenants.

4. GALsync needs the email address at the Office 365 credentials. GALsync uses the User-ID as email address in existing policies.

Please check your policies, if the User-ID and the email address are not the same in the Office 365 tenant.

The screenshot shows a dialog box titled "Exchange Online Credential". It has four input fields: "User-ID:" with the value "support@galsync.onmicrosoft.com", "Password:" with masked characters, "E-mail:" with the value "support@galsync.com", and "Maximum Connection:" with a value of "2". There is an unchecked checkbox labeled "Set as primary account". At the bottom, there are two buttons: "Apply" with a green checkmark icon and "Cancel" with a red X icon.

5. GALsync will try to reconnect broken remote PowerShell sessions to the Office 365 tenant during a policy run.

Note: If a PowerShell connection to the Office 365 tenant is broken, GALsync will try to reconnect to the Office 365 tenant, but it may happen, that some data are not completely synchronized.

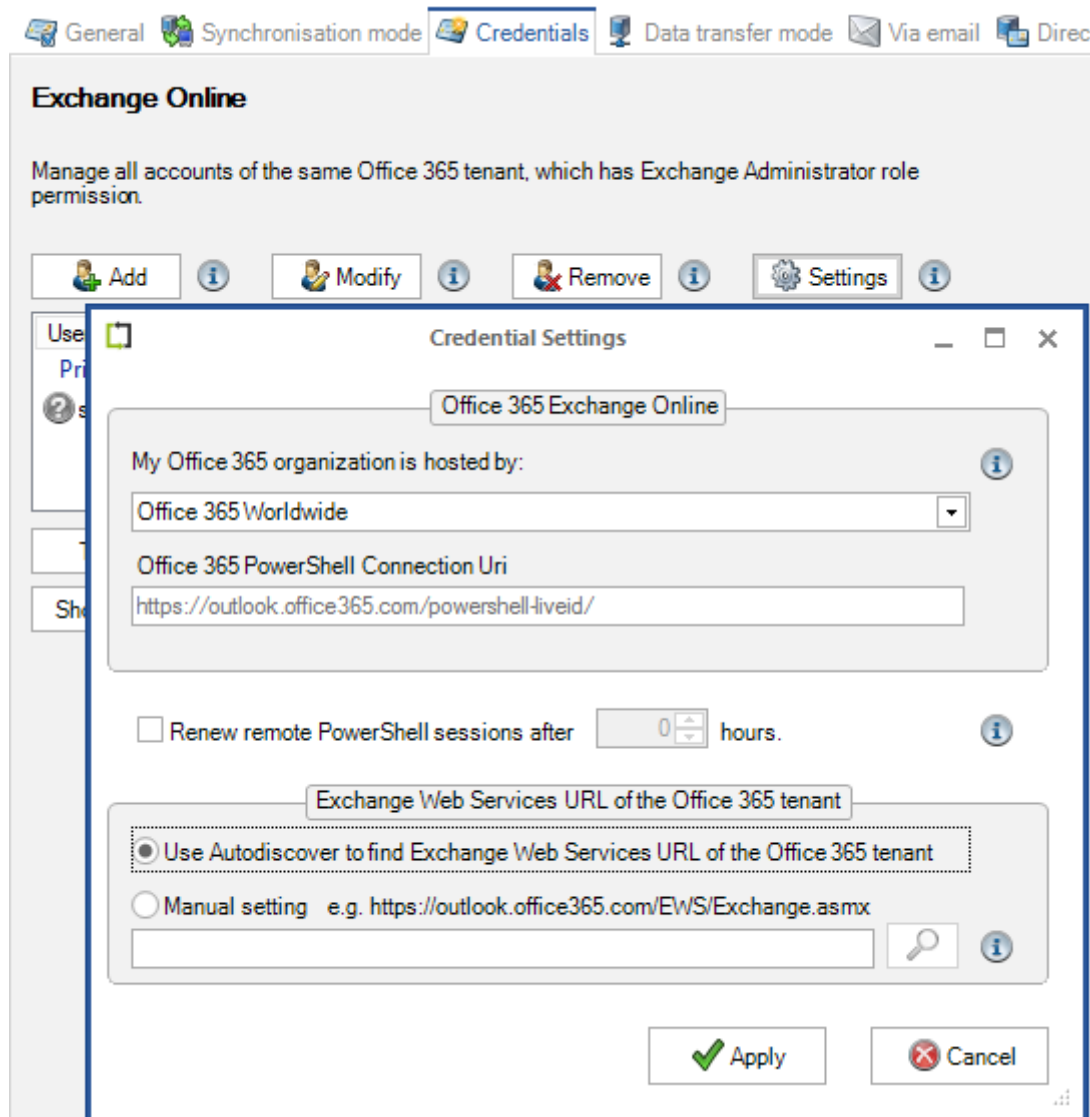
GALsync will try to complete it in the next synchronization run.

6. GALsync version 7.2 supports the local security option **System cryptography: Use FIPS compliant algorithms for encryption, hashing, and signing**.

If the local security option **System cryptography: Use FIPS compliant algorithms for encryption, hashing, and signing** is enabled, GALsync 7.2 cannot communicate encrypted with older versions.

7. GALsync supports different Office 365 locations, particularly Office 365 Germany.

Select the Office 365 location in the "Settings" dialog on the Exchange Online Credentials tab.



Note: GALsync uses the "Office 365 Worldwide" by default.

8. GALsync has a defined scope of RecipientTypeDetails, of which mail-enabled objects will be exported.

For example: This enables to export only mailbox users in a selected organizational unit (OU). GALsync uses a default scope of RecipientTypeDetails for existing export policies.

Please check your existing export policies, that all RecipientTypeDetails are in the scope.

Note: If the msExchRecipientTypeDetails / RecipientTypeDetails property is not set, the object will be exported

GALsync version 7.1 compared with GALsync 7.0.4 and lower

1. The GALsyncPolicyExecuter.exe has been renamed to NETsecPolicyExecuter.exe

Important: If you use the Windows Task Scheduler for running the policies, then you have to correct the command in your scheduled tasks.

2. The GALsyncLogViewer.exe has been renamed to NETsecLogViewer.exe

GALsync version 7.0.5 compared with GALsync 7.0.x

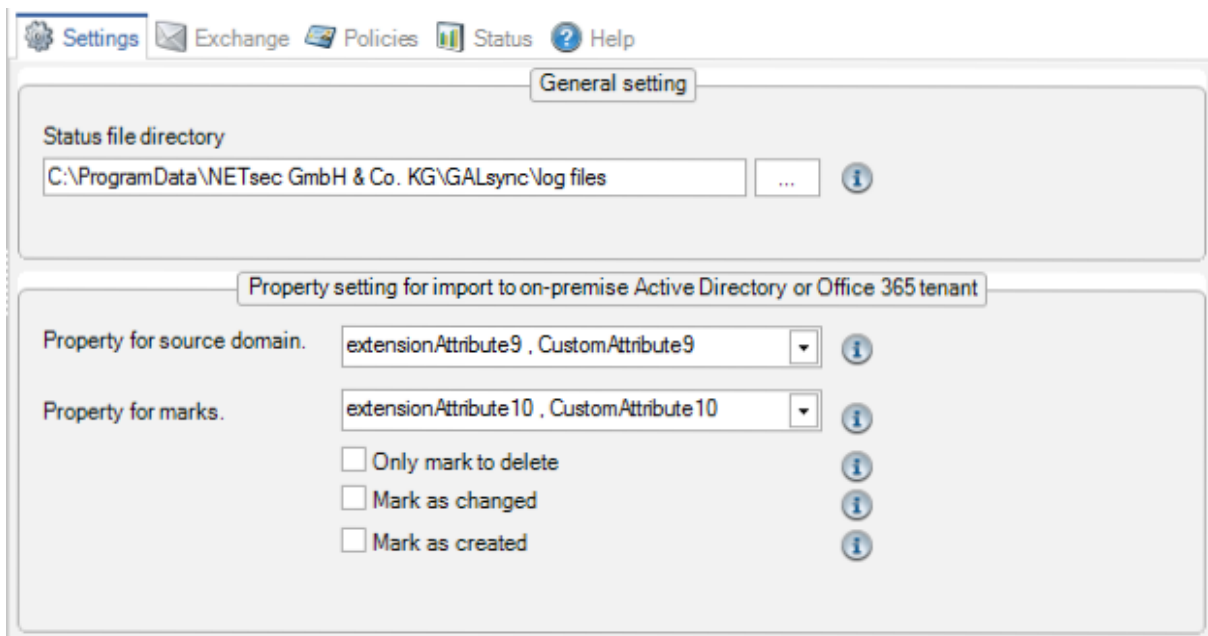
1. The GALsyncPolicyExecuter.exe has been renamed to NETsecPolicyExecuter.exe

Important: If you use the Windows Task Scheduler for running the policies, then you have to correct the command in your scheduled tasks.

2. The GALsyncLogViewer.exe has been renamed to NETsecLogViewer.exe

GALsync version 7.0 compared with GALsync 6.x

1. For importing data to an on-premise environment or to an Office 365 tenant, GALsync will use **extensionAttribute9 / CustomAttribute9** as the property for source domain by default. This feature is used to distinguish between objects being imported from multiple source organizations.



For importing data to a subfolder within a user's mailbox Contacts folder GALsync will create an **ExtendedProperty**, which is called **SourceDomain**. This feature is used to distinguish between objects being imported from multiple source organizations.

GALsync also creates an **ExtendedProperty**, which is named **LastTimeSynced**.

2. The option **Delete mails in GALsyncArchiv mail folder, Sent items folder and all data files in the GALsyncArchiv folder of other data transport modes after x days. is now activated by default.**

The default value was changed from 30 days to 7 days for this option.

Please check this option, if you have upgraded and never set this option before, because GALsync will enable this option.

The screenshot shows the GALsync settings window with the 'Exchange' tab selected. The 'General setting' section is active, displaying four configuration options:

- ☐ Maximum attachment size: 0,00 MB. (Information icon)
- ☐ Move lost packet emails to GALsyncArchiv mail folder after: 0 days. (Information icon)
- ☒ Delete mails in GALsyncArchiv mail folder, Sent Items folder and all data files in the GALsyncArchiv folder of other data transport modes after: 7 days. (Information icon)
- ☐ Delay for sending mail with the next package of a splitted data file after: 0 seconds (Information icon)

The 'Exchange On-Premise' section is also visible, showing three main options:

- ☒ Use Autodiscover to find Exchange Web Service URL
- ☐ Manual setting: [Text field] (Information icon)
i.e. `https://casserver.domain.local/EWS/Exchange.asmx`
- ☐ No Exchange server available. Only Active Directory Preparation. (Information icon)

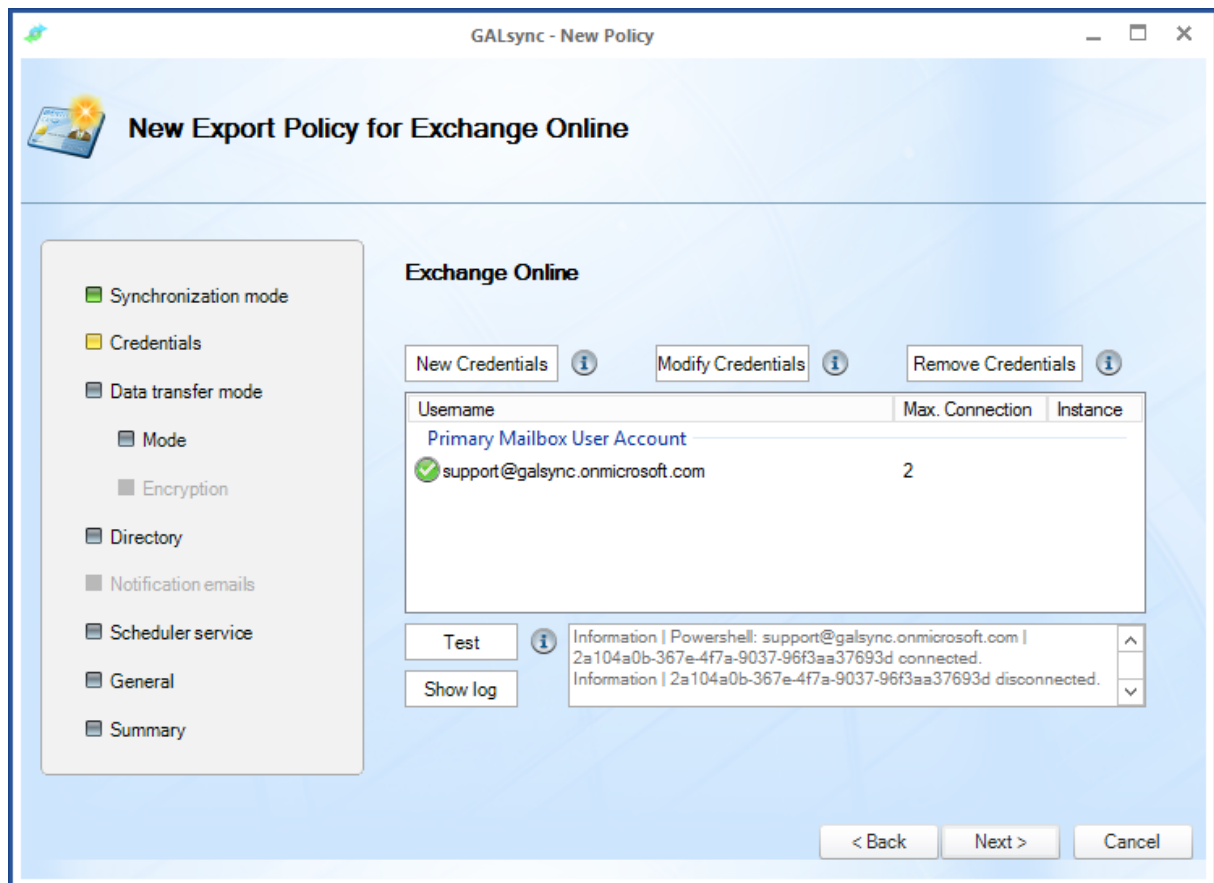
Below these, there is an option to 'Use Exchange Online for mailing' (unchecked), followed by 'User-ID:' and 'Password:' text fields, each with an information icon. A 'Test' button is located at the bottom of this section.

GALsync version 6.0 compared with GALsync 5.x

1. The GALsync program folder path changed from **C:\Program Files\GALsync** to **C:\Program Files\NETsec GALsync**

2. GALsync uses a new session management to connect Exchange Online (Microsoft Office 365).

We recommend to recreate the Export policies and Import policies for Exchange Online (Microsoft Office 365).



GALsync will only use the mailbox of the primary account to send and receive e-mails.

Note: All accounts must be from the same Exchange Online (Microsoft Office 365) tenant

3. The order of the selected objects on the directory tab will be automatically corrected. In some instances, the order of the selected objects changed due to an invalid selection order.

Please check that the order of the selected objects on the directory tab is correct, as the order has an impact on the quantity of objects, that will be exported.

As a last resort, objects will be deleted during the import at the target environment.

4. GALsync 6 cannot communicate with GALsync versions older than GALsync version 4.3.

GALsync version 5.0 compared with GALsync 4.3.x

1. By Default, GALsync will use the Exchange Autodiscover to get the Exchange Web Service URL. Should you experience any issue, you may check the URL by selecting **Manual setting** and clicking on the search button. This will fill the URL returned by Autodiscover into the textbox and you can adjust if it is not correct. GALsync will only use the provided URL.

Settings Exchange Policies Status Help

Exchange On-Premise

☒ Use Autodiscover

☐ Manual setting

☒ Maximum attachment size 0,10 MB.

☒ Move lost packet emails to GALsyncArchiv mail folder after 1 days.

☒ Delete mails in GALsyncArchiv mail folder and Sent Items folder after 30 days.

GALsync 5 will connect to the Exchange Mailbox using Exchange Web Services, and no longer uses any MAPI related library.

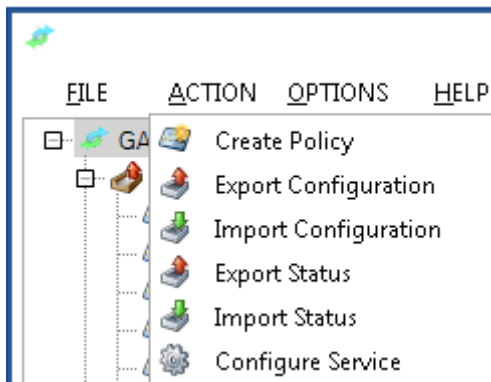
2. GALsync 5 no longer includes a Free/Busy option. Rather than exporting Free/Busy snapshots that may be antiquated on import, GALsync 5 enables you to use Microsoft Exchange Federation Gateway or Cross-Forest Delegation. For more details take a look at the Whitepaper **Free/Busy – Microsoft Federation and Cross-Forest Delegation**.

3. An upgrade from a version 4* installation to version 5 does involve the re-creation of your policies. This is caused due to structural modifications implementing Exchange Online.

4. GALsync 5 needs a service account which has the new **LegacyExchangeDN** syntax implemented in Exchange 2007 and higher.

If your current GALsync service account is migrated from an Exchange 2003, please create a new GALsync service account with a new mailbox and the same permissions like the old one.

After that, log on with the new GALsync service account, run the GALsync GUI and change the GALsync service to the new GALsync service account.

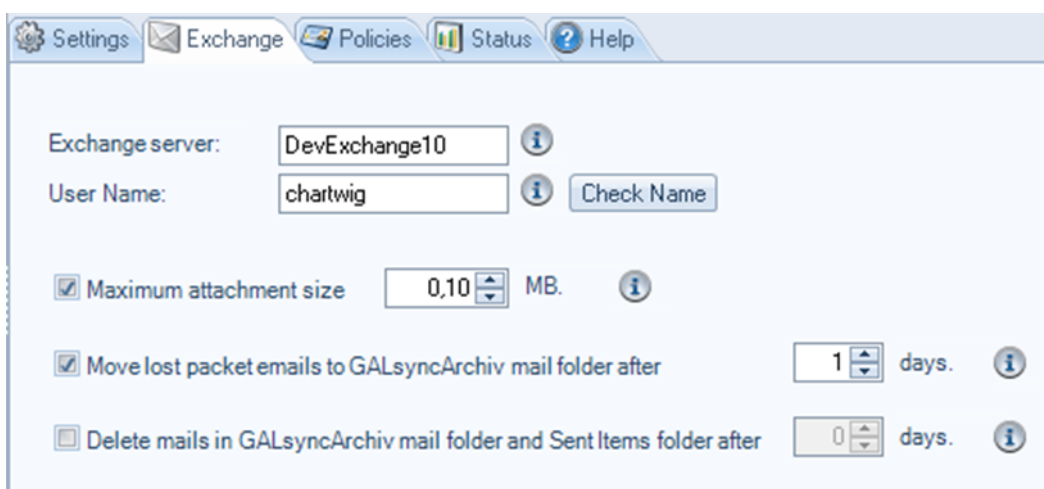


Use **Configure Service** to start the wizard for changing the service account of the GALsync service.

Important: Free/Busy will not be available between Exchange 2003 and Exchange 2013, Exchange 2016, Exchange 2019 or Exchange Online.

GALsync version 4.3 compared with GALsync 4.2.x

1. Exchange settings are now global:



These settings will now apply to all exchange related settings, such as sending and receiving emails and Free/Busy.

You may also choose in every Policy if you want to use the global settings or set different settings in this particular policy.

2. Maximum attachment size: If you encounter data files too large for your mail attachment policy, GALsync can now split the data file to comply with policy restrictions. Once the defined limit is reached, the data file will be split up into as many parts as needed for export. On import the data file parts will be merged together again.

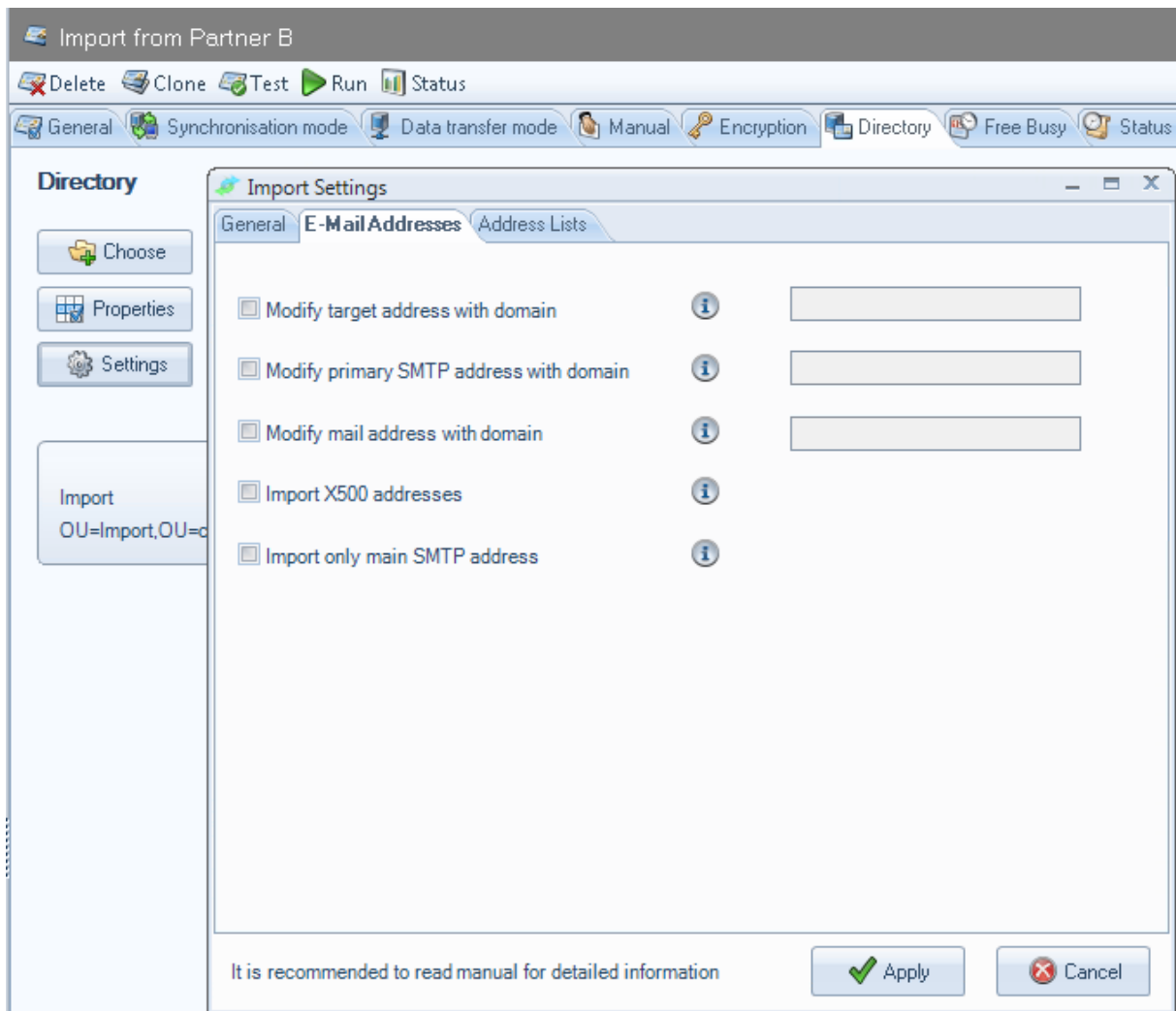
Important: Releasing this new feature, GALsync 4.3 will no longer be able to sync to prior versions, when using the transfer mode via email.

GALsync version 4.2 compared with GALsync 4.1.x

1. The introduction of the option **Compress data** is now available, if you use the **manual**, **ftp** or **network share** transport-method.

2. Using transport-method via email GALsync works now with modified technology. If you use configurations created with earlier versions you cannot receive emails.

3. You can configure the primary SMTP proxy address (so called reply-address) separately from configuring **TargetAddress** or **Mail Address**.



Important: Incompatibility with versions (<= 4.1.x)

If you have configured the option Create target address with domain, you now have to configure the option Modify target address with domain and option Modify primary SMTP address with domain to stay compatible.

4. The option Delete mails in GALsyncArchiv has been modified by adding and Sent Items folder. This means:

- a.** GALsync removes all messages in Outlook folder GALsyncArchiv.
- b.** GALsync removes all messages in Outlook folder Sent items, which have the keywords "GALsync data file" or "GALsync Summary of" in the body.

Important: It is recommended to use a separate mailbox-enabled GALsync service account.

Version 4.2

The screenshot shows the 'Create Policy' window in the GALsync application. The 'Settings' tab is selected. The 'Property for source domain' is set to 'extensionAttribute9'. The 'Property for marks' is set to 'extensionAttribute10'. There are three checkboxes: 'Only mark to delete', 'Mark as changed', and 'Mark as created', all of which are currently unchecked. The 'Status file directory' is set to 'C:\Dokumente und Einstellungen\All Users\Anwendungsdaten\NET'. At the bottom, there is a checkbox 'Delete mails in GALsyncArchiv mail folder and Sent Items folder after' followed by a spinner box set to '0' and the text 'days'.

Version 4.3

The screenshot shows the 'Exchange' tab in the GALsync application. The 'Exchange server' is set to 'DevExchange10'. The 'User Name' is set to 'chartwig'. There is a 'Check Name' button next to the user name. The 'Maximum attachment size' is set to '0,10 MB'. There are two checkboxes: 'Move lost packet emails to GALsyncArchiv mail folder after' and 'Delete mails in GALsyncArchiv mail folder and Sent Items folder after'. The first checkbox is checked and followed by a spinner box set to '1' and the text 'days'. The second checkbox is unchecked and followed by a spinner box set to '0' and the text 'days'.

Downgrading

Should you want to perform a downgrade to your previous version of GALsync, the changes you make in your new installation will not be reflected in the previous, older version. For downgrading, uninstall the new version, restore the backup of the GALsync program folder and C:\ProgramData folder and run your previous installation file.

Licensing

For our customers with valid support the new version will be free of charge.

If you do not have valid support, you can keep using your GALsync version. If you install a newer version of GALsync, you have to buy a new license.

If you run GALsync version 8.5 without a license you will not be able to export or import more than 100 objects for up to 21 days!

If you run the contactSync module without a license you will be able to import contacts into maximum 20 mailboxes for up to 21 days!

If you have any licensing questions or queries, please feel free to contact our

GALsync Sales Team

by phone +49 2421 998 78 20

or via e-mail sales@netsec.de

If you have any technical questions or queries, please feel free to contact our

GALsync Support Team

by phone +49 2421 998 78 16

or via e-mail support@netsec.de