

# GALSYNC® v8.3

Upgrade Instructions

#### **NETsec**

20. October 2023

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# **GALsync version 8.3**

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 version 8.2, GALsync uses the REST-based Exchange Online PowerShell v3 module to communicate with Exchange Online.

GALsync requires .NET Framework 4.7.1, Windows PowerShell 5.1 and ExchangeOnlineManagement PowerShell module version 3.1 or later for Exchange Online PowerShell V3.

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.

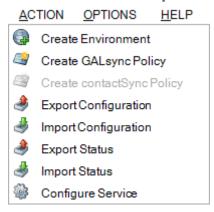
# **Upgrade Instructions**

# 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.

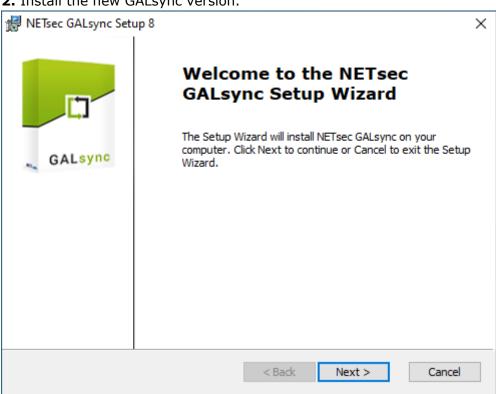
**1.** Backup (or copy) your GALsync program folder and the **common application data** folder.

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.

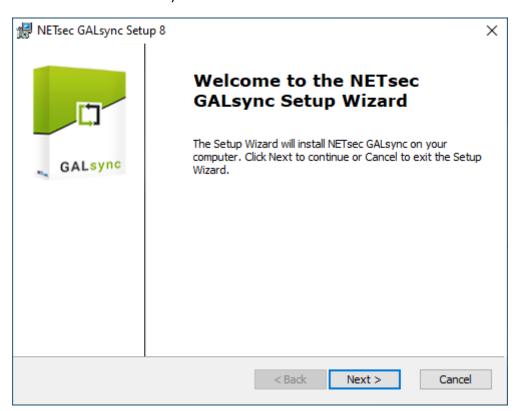
**1.** Backup (or copy) your GALsync program folder and the **common application data** folder.

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.

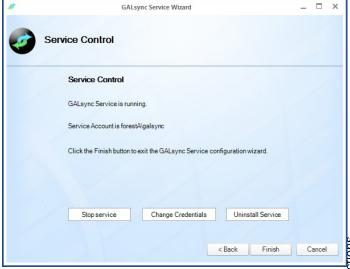
Select **Action** -> **Export Status** to zip your log files.



**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.

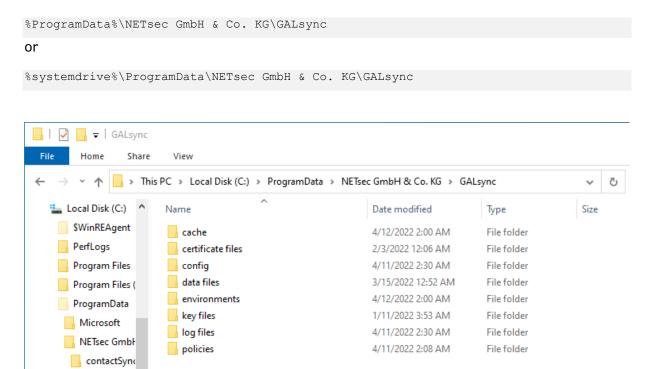
**Important:** Depending on the version gap, it may be necessary to reconfigure some options in your policies.

Please see the **Incompatibility** chapter.

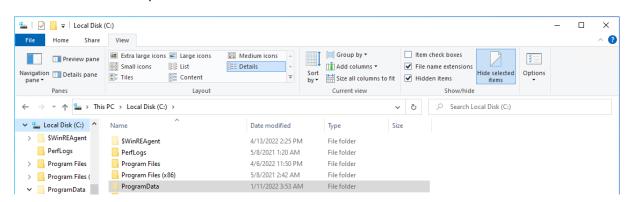
# Where is the common application data folder?

GALsync
cache
certificate
config
data files
environme
key files
log files

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



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



# **Incompatibility**

# **GALsync version 8.3 compared with GALsync 8.2.x**

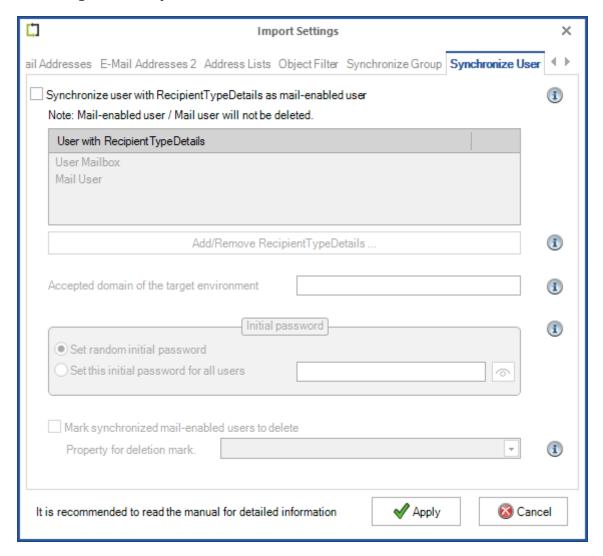
**1.** As of version 8.3, GALsync does not use Autodiscover to detect the Exchange Web Services URL for Exchange Online anymore, instead it uses the default Exchange Web Services URL for Exchange Online world-wide:

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

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

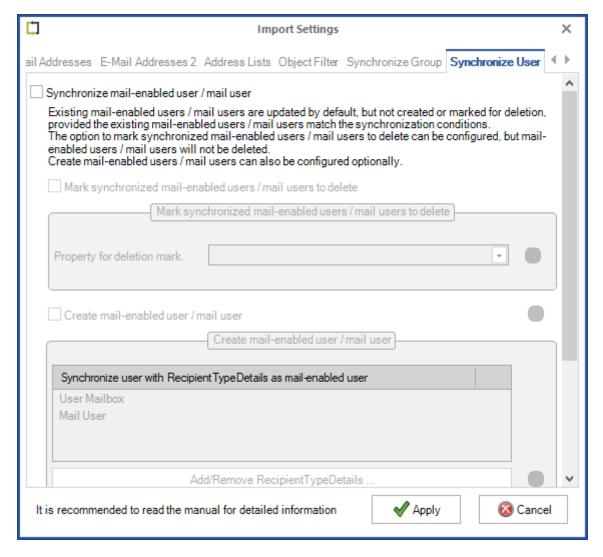
- 2. As of version 8.3, GALsync does not support Exchange 2010 any longer.
- **3.** As of version 8.3.3, the **Synchronize User** tab of the **Import Settings** has been redesigned to allow only updating existing mail users without creating new mail users by GALsync.

#### Old design of the Synchronize User tab



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



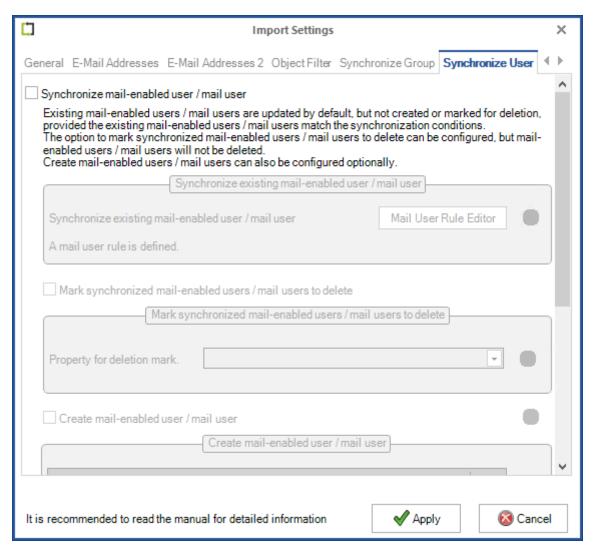
Existing mail-enabled users / mail users are updated by default, but not created or marked for deletion.

The existing mail-enabled users / mail users must be located in the import OU of the policy, if they are to be synchronized.

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.

#### New design of the Synchronize User tab for Exchange Online



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 to mark synchronized mail users to delete can be configured, but mail users will not be deleted.

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

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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

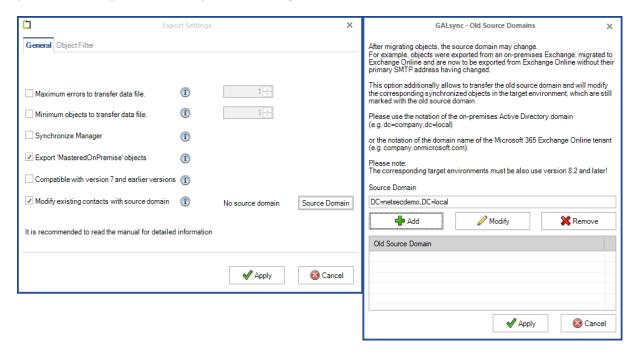
On the GALsync Server, open **Windows PowerShell** as **Administrator**, then run the following to update:

```
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.

# **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

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

 $\frac{\text{https://learn.microsoft.com/en-us/powershell/exchange/exchange-online-powershell-}{\text{v2?view} = \text{exchange-ps\#prerequisites-for-the-exchange-online-powershell-module}}$ 

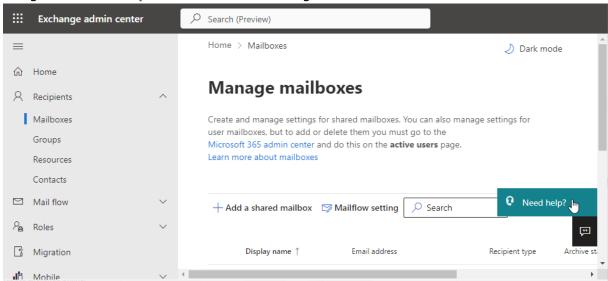
# Remote PowerShell in Exchange Online is needed - Re-enabling or Extending RPS support

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:

<u>Deprecation of Remote PowerShell in Exchange Online – Re-enabling or Extending RPS support</u>

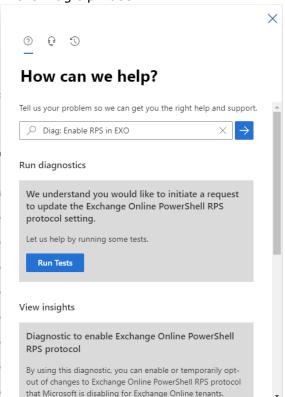
#### Using the Self-Service Tool

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.

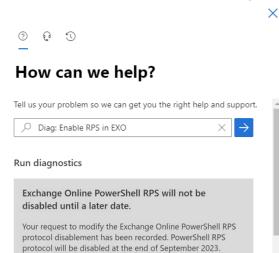


When you click the button, you enter our self-service help system. Here you can enter the magic phrase

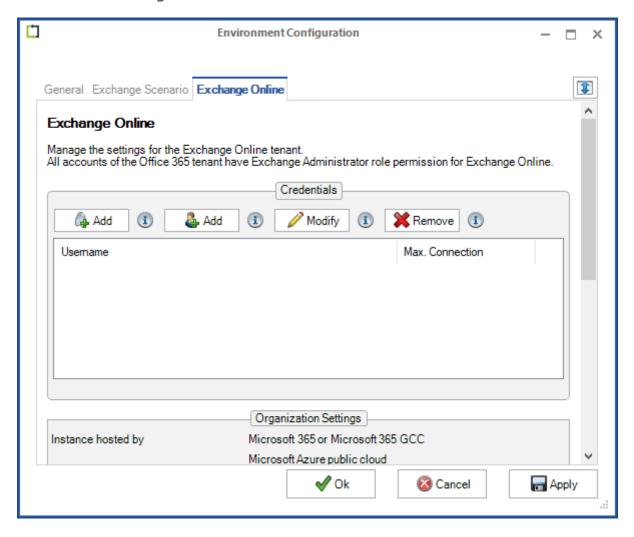
Diag: Enable RPS in EXO



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**.

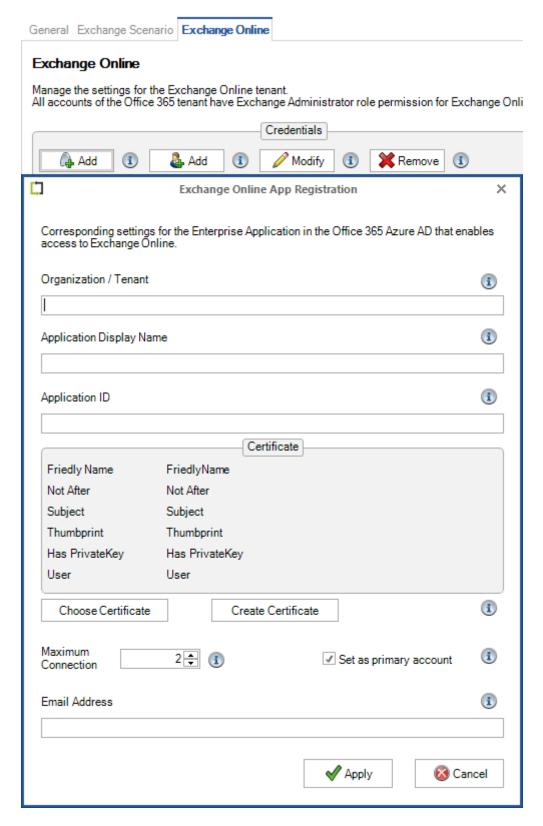


**2.** As of GALsync version 8.1, the **certificate-based authentication** method to establish a connection to Exchange Online is available on the Exchange Online tab of the **Environment Configuration**.



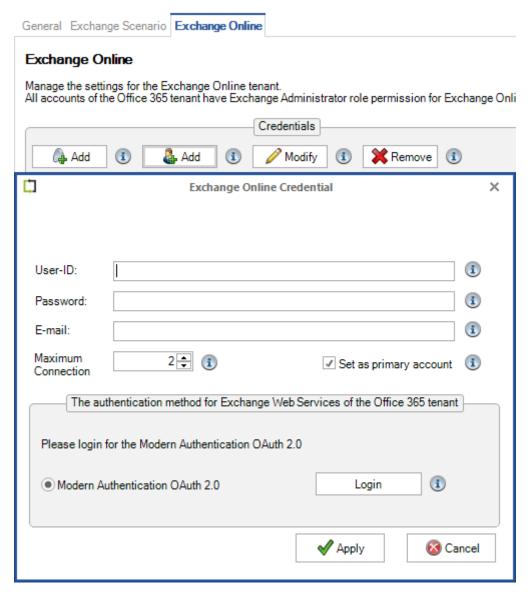
Please take a look at the GALsync 8.1 manual for further information

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



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

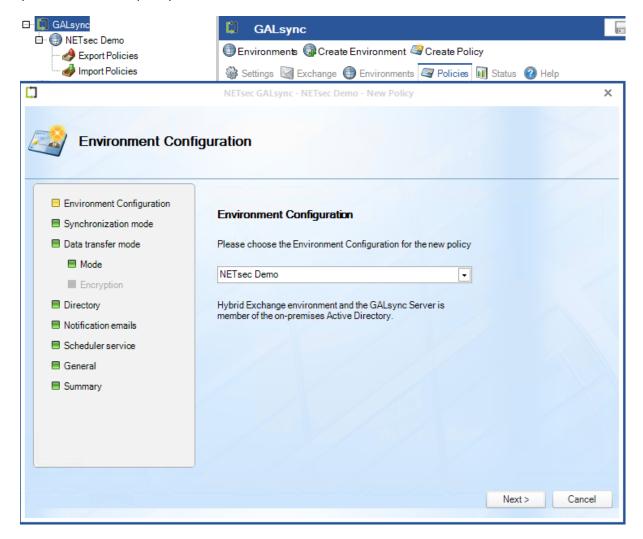
The **Add** button on the right, will open a dialog window in which to configure **user-based authentication** via **Service Account** for the Exchange Online tenant.



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

# **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

**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:

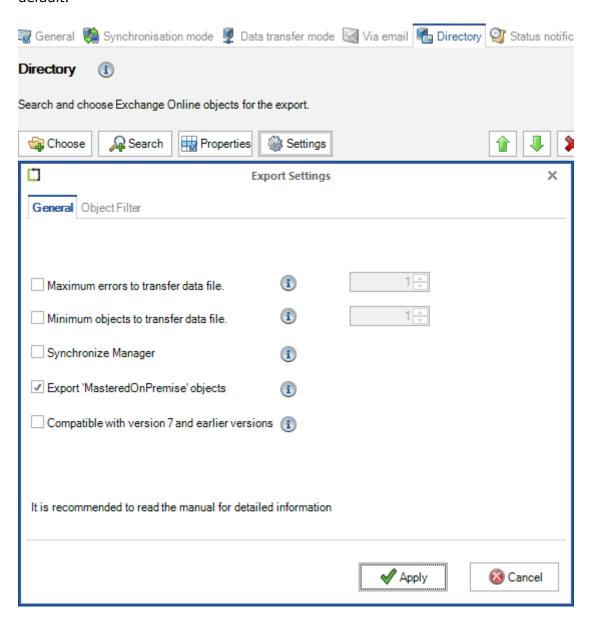
```
Install-Module -Name ExchangeOnlineManagement -RequiredVersion 2.0.5 -Force
```

When prompted, enter Y for Yes then Return

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

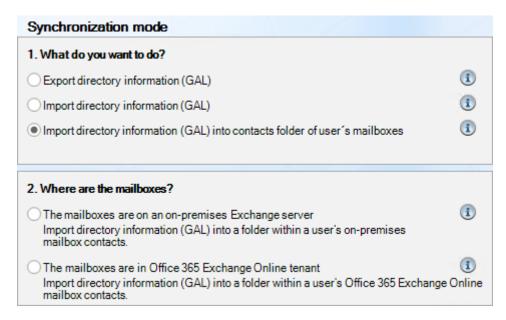
https://docs.microsoft.com/en-us/powershell/exchange/exchange-online-powershell-v2?view=exchange-ps#prerequisites-for-the-exo-v2-module

**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.



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

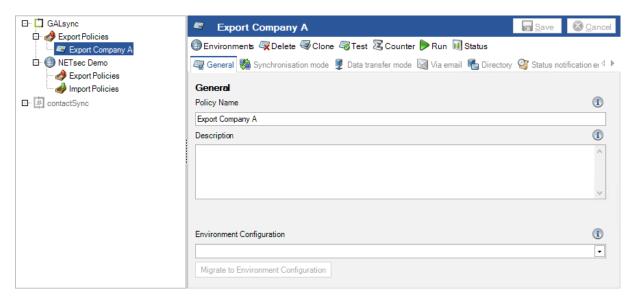
**6.** Please read the following chapters to understand the breaking changes of GALsync version 8, and how to handle it in your synchronization scenario.

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.

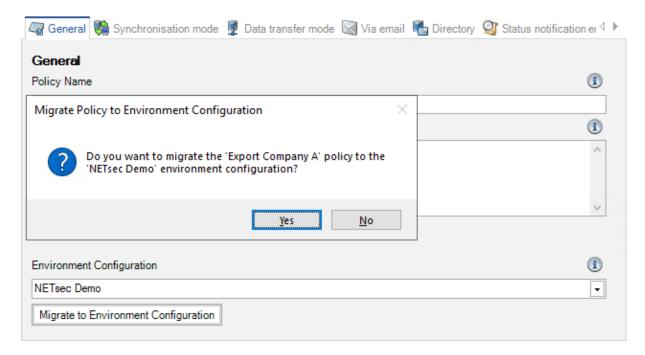
Please note that a policy can only migrate once.

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



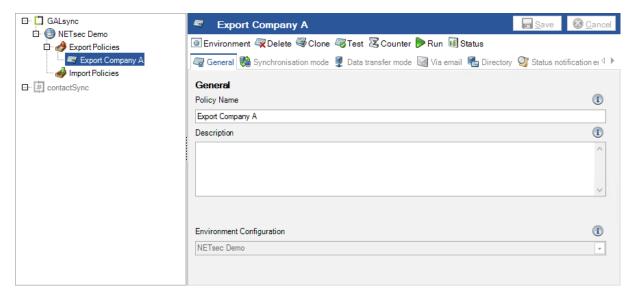
If you are sure, you have selected the correct **Environment Configuration** for the policy migration, click Yes to migrate the policy to the selected **Environment Configuration**.

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

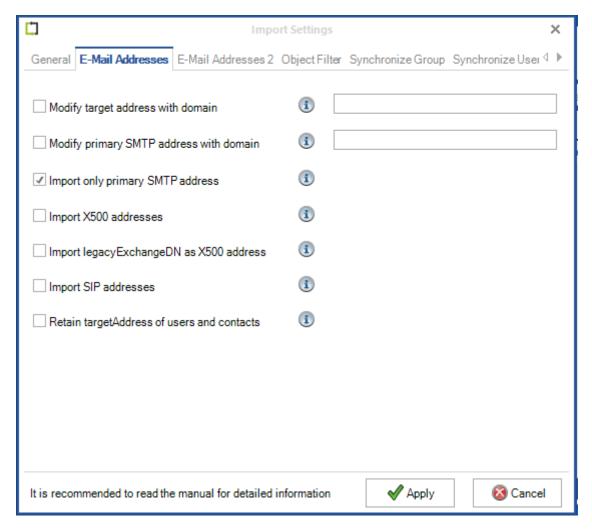
#### GALsync 7: Export from Exchange Online

When exporting from Exchange Online with GALsync version 7 or earlier, if a mailenabled 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.



# GALsync 8.3 Upgrade Instructions

## GALsync 8: Export from Exchange Online

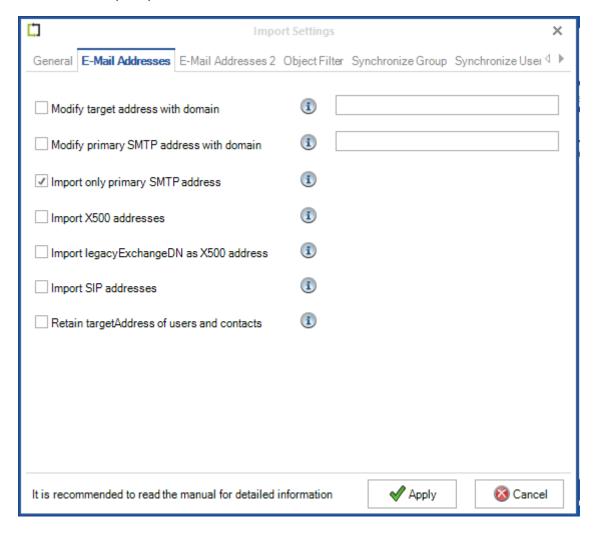
As of GALsync 8, the **primary SMTP address** will no longer change during an export from Exchange Online.

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.

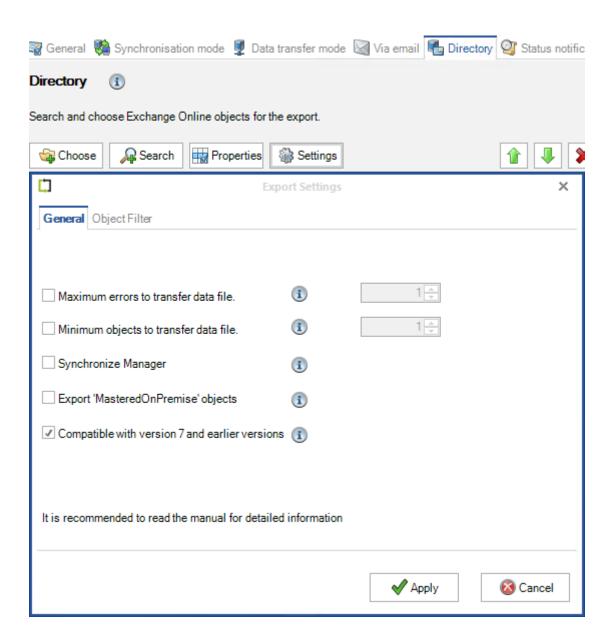


## Import issue after upgrade from GALsync 7 or earlier to GALsync 8

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.



# GALsync 8.3 Upgrade Instructions

#### 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		
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		
Compatible with version 7 and earlier versions		
option is enabled		
	Jahra Dan	
name	John_Doe	
nuova Adduoccoc	smtp:john.doe@partnerdemo.de	
proxyAddresses	SMTP:john.doe@contoso.com	
targetAddress	SMTP:john.doe@contoso.com	
targetAddress	Sintr.joint.doe@contoso.com	

#### 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

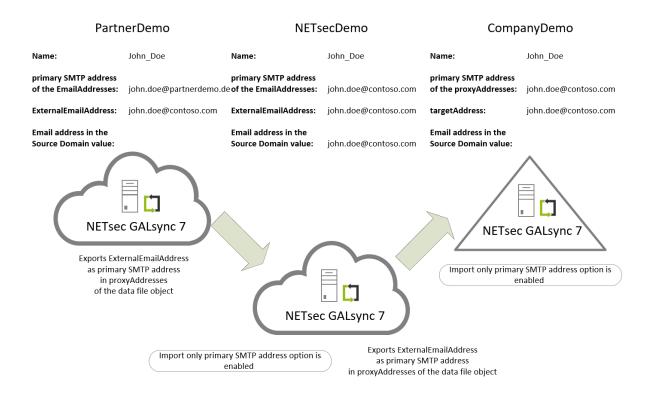
A synchronization with GALsync 7 between the three Exchange environments and the **John\_Doe** object is exported from Exchange Online of the PartnerDemo environment as before.

#### 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

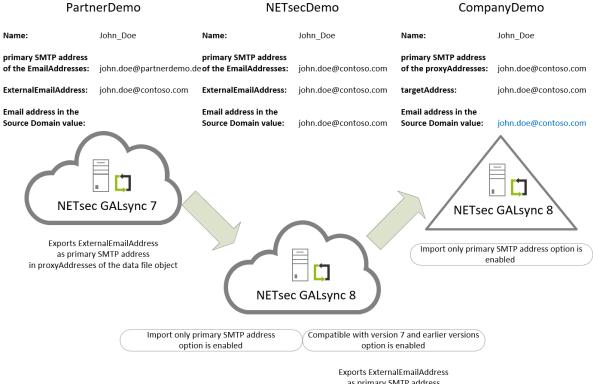
The **Import only primary SMTP address** option of the **Import Settings** is enabled, so that GALsync 7 will import the **john.doe@contoso.com** as primary SMTP address to the **proxyAddresses** and as **targetAddress**.

#### 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.



Exports ExternalEmailAddress as primary SMTP address in proxyAddresses of the data file 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 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.

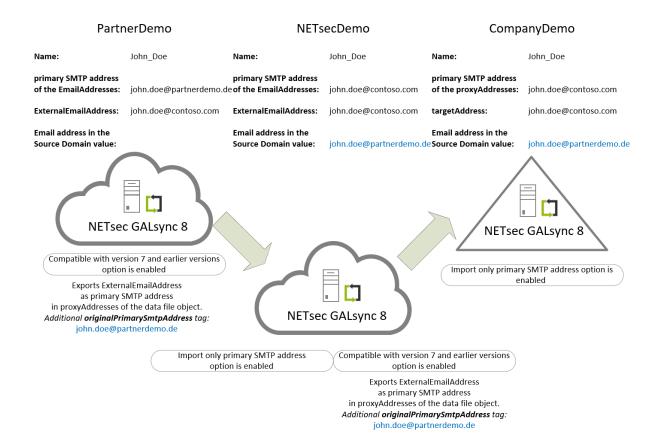
#### PartnerDemo environment

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.

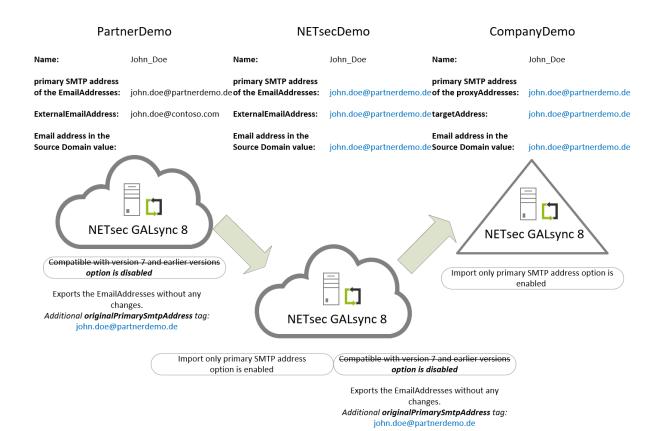
## Step 3: 'Compatible with version 7 and earlier versions' option can be disabled

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.

#### 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 **EmailAdresses** 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

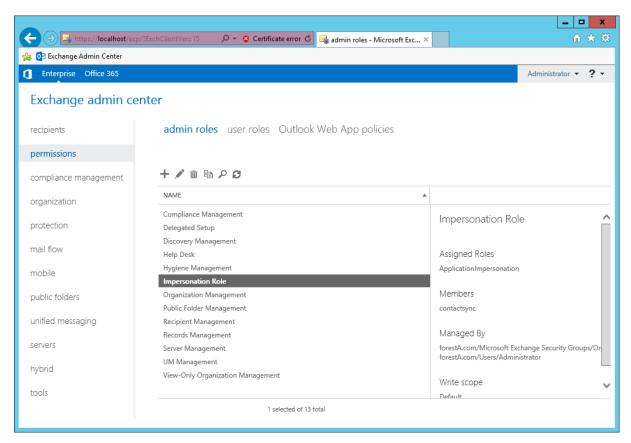
After the complete synchronization between all involved Exchange environments, everything will be updated and work like expected.

# **GALsync version 7.6 compared with GALsync 7.5.x**

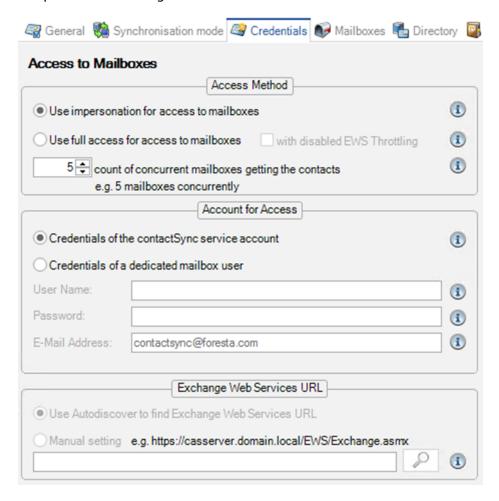
As of GALsync version 7.6, the default access method to the mailboxes has been changed to Exchange Impersonation on the **Access to mailboxes** Credentials tab of the **contactSync policy**.

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:

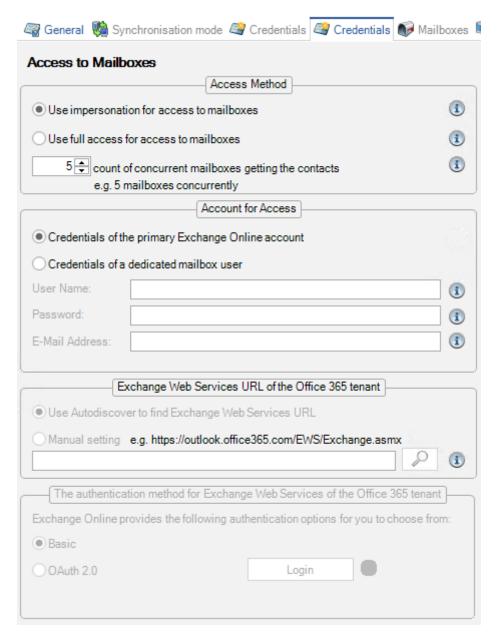


If **Exchange Application Impersonation** is configured, maximum 5 mailboxes concurrently are recommended.

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:



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 8.3 Upgrade Instructions

## **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.

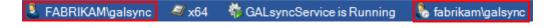


**2.** The GALsync service account of an Office 365 tenant needs access to its own mailbox. Therefore, Modern Authentication OAuth 2.0 for Exchange Web Services (EWS) must be configured.

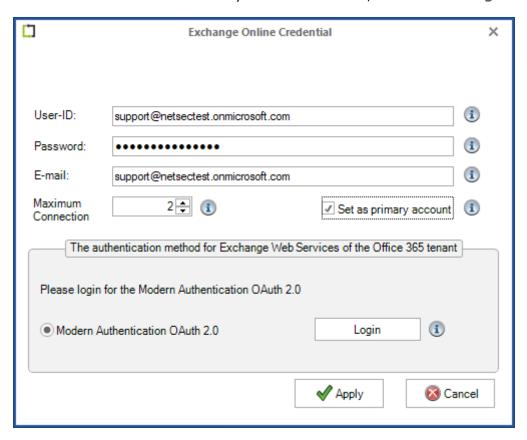
Please note, that Microsoft will stop supporting and fully decommission the Basic Authentication for Exchange Web Services (EWS) to access Exchange Online on 13th October 2020.

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.

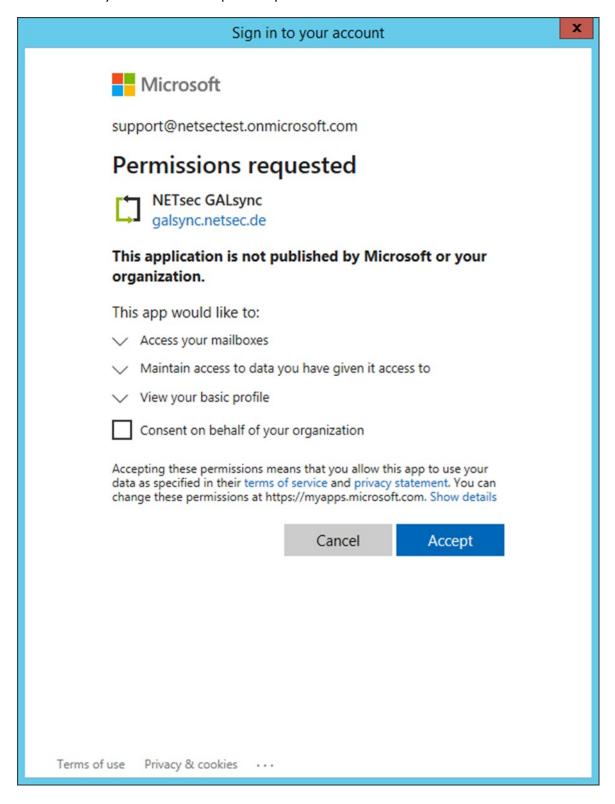


Enter the credentials of the GALsync service account, and click the **Login** button.

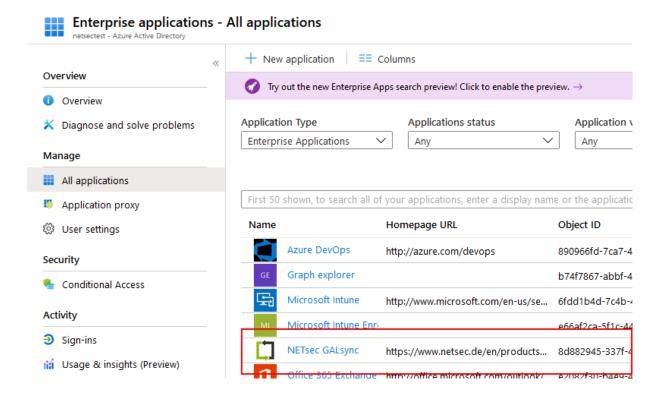


Please note, that the User-ID and the E-mail address can be different for an Exchange Online mailbox user. This depends on your Office 365 Exchange Online tenant.

NETsec GALsync needs the requested permissions.



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.



- 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.

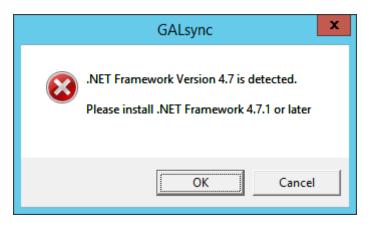
This may cause more objects being updated or assignment changes.

## **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

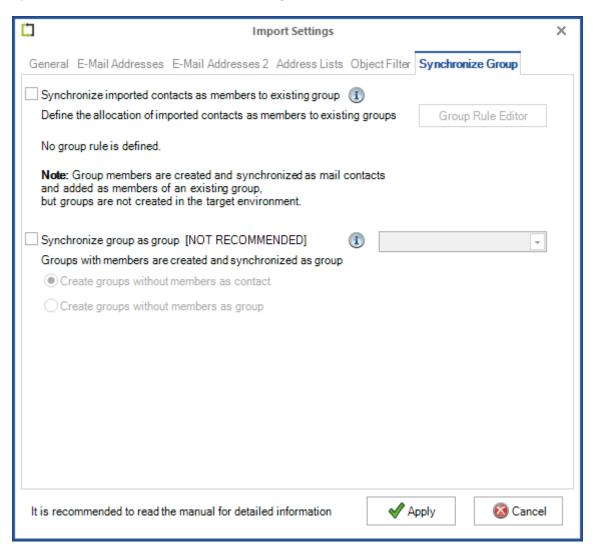
**2.** Please check all credentials for the Office 365 accounts, because on some occasions, credentials are unable to be upgraded to the new version.

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.

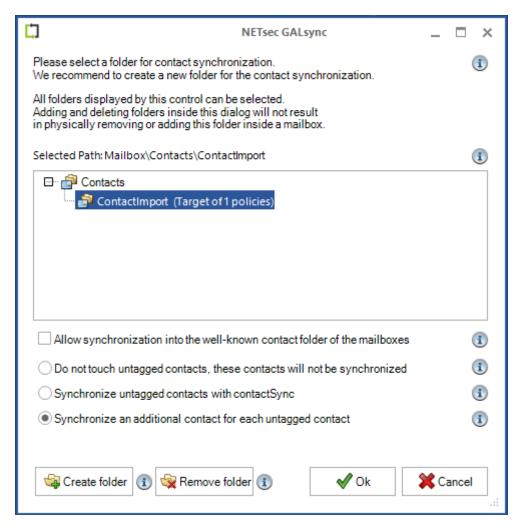
The old **Synchronize Group** option is renamed to **Synchronize group** as **group** option. This option is no longer recommended, because you cannot use the primary SMTP address of the source group for the imported group in an Office 365 tenant.

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



**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.

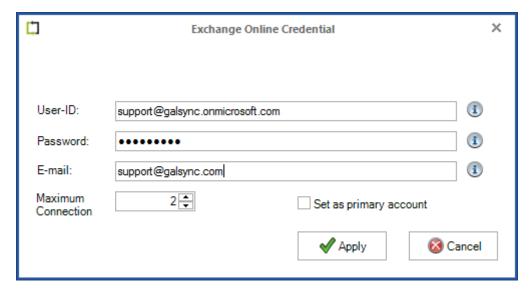
Note: If a PowerShell connection to the Office 365 tenant is broken, then GALsync will try to reconnect to the Office 365 tenant, but it may happen, that some data are not completely synchronized due to the broken connection.

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

In the worst case it can happened, 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.



**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.

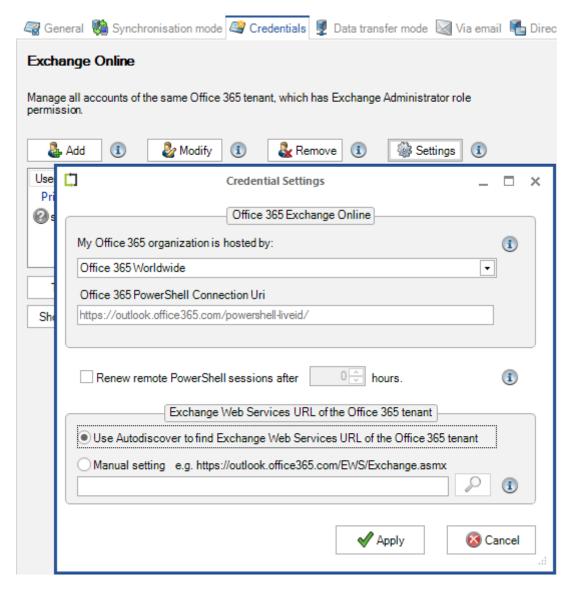
GALsync will try to complete it in the next synchronization run.

**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**

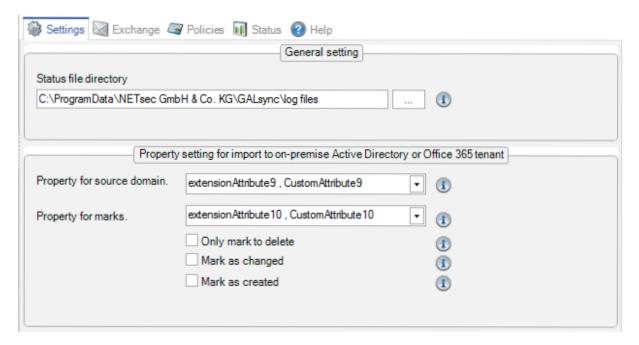
**1.** The GALsyncPolicyExecuter.exe has been renamed to NETsecPolicyExecuter.exe

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.



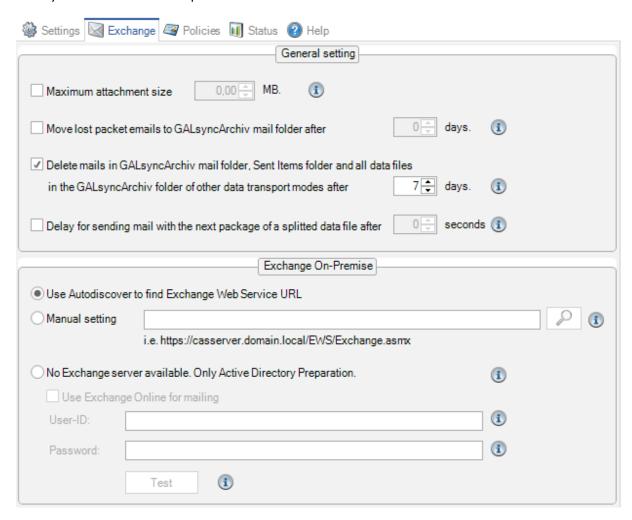
For importing data to a subfolder within a user's mailbox Contacts folder GALsync will create an **ExtendedProperty**, which is called **SourceDomain**. This feature is used to distinguish between objects being imported from multiple source organizations.

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.

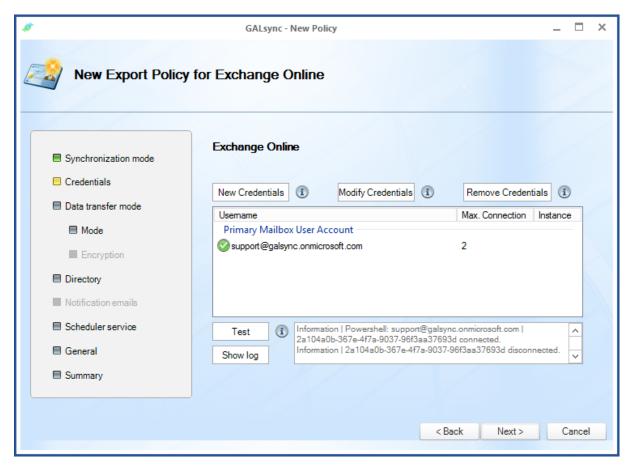
Please check this option, if you have upgraded and never set this option before, because GALsync will enable this option.



## **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.

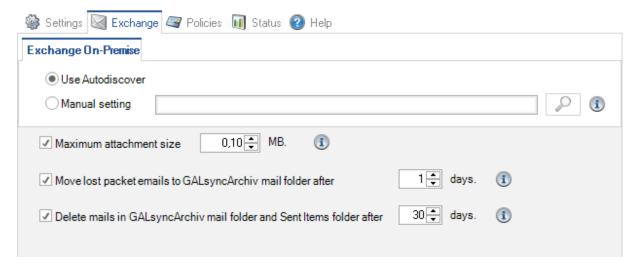
Please check that the order of the selected objects on the directory tab is correct, as the order has an impact on the quantity of objects, that will be exported.

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.



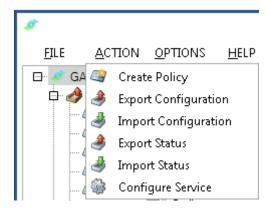
GALsync 5 will connect to the Exchange Mailbox using Exchange Web Services, and no longer uses any MAPI related library.

- **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.

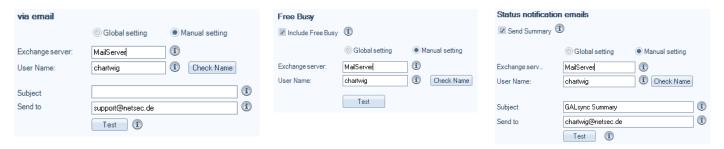
### GALsync version 4.3 compared with GALsync 4.2.x

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.

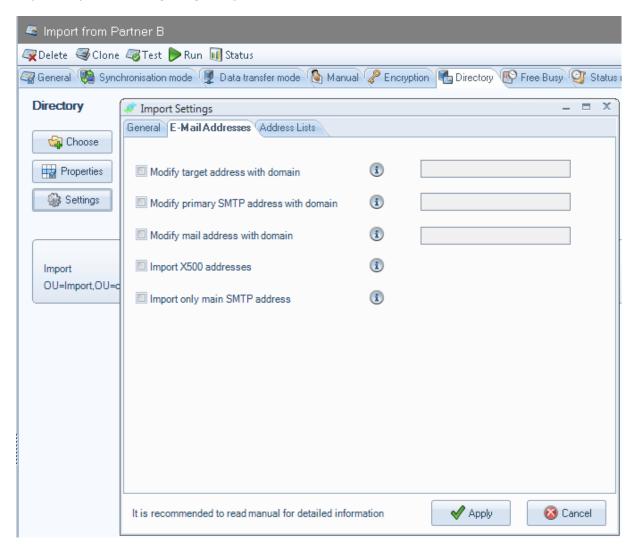
# **GALsync version 4.2 compared with GALsync 4.1.x**

**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**.



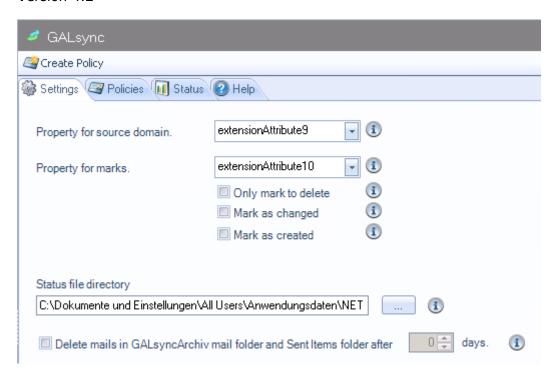
*Important: Incompatibility with versions (<= 4.1.x)* 

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.

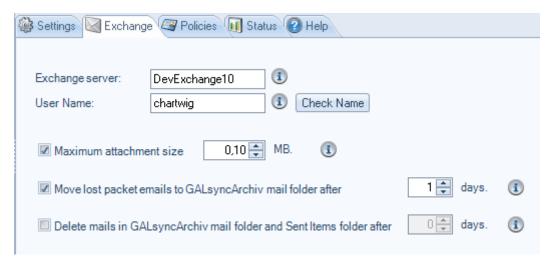
- **4.** The option Delete mails in GALsyncArchiv has been modified by adding and Sent Items folder. This means:
- **a.** GALsync removes all messages in Outlook folder GALsyncArchiv.
- **b.** GALsync removes all messages in Outlook folder Sent items, which have the keywords "GALsync data file" or "GALsync Summary of" in the body.

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

### Version 4.2



### Version 4.3



# **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 8.3 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 <a href="mailto:sales@netsec.de">sales@netsec.de</a>

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 <a href="mailto:support@netsec.de">support@netsec.de</a>