



## One Identity Manager 8.0

# Administration Guide for Connecting to Microsoft Exchange

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-  **WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.
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-  **IMPORTANT, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

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# Managing a Microsoft Exchange environment

The key aspects of managing a Microsoft Exchange environment with One Identity Manager include the mapping of mailboxes, email users, email contacts and the mail-enabled distribution group.

The system information for the Microsoft Exchange structure is loaded into the One Identity Manager database during data synchronization. It is not possible to customize this system information in One Identity Manager due to the complex dependencies and far-reaching effects of changes.

## Architecture overview

The following servers are used for managing a Microsoft Exchange environment in One Identity Manager:

- Microsoft Exchange server

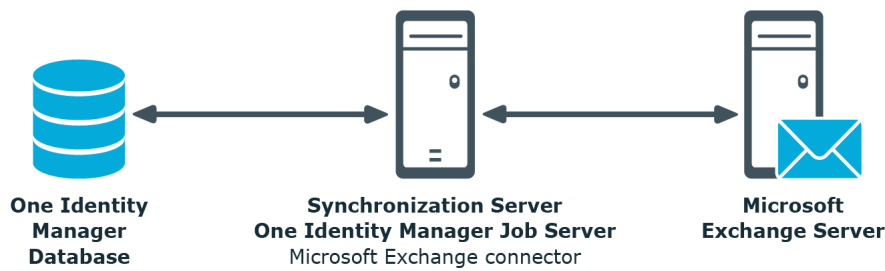
Microsoft Exchange server with which the synchronization of the Microsoft Exchange objects runs. The synchronization server connects to this server in order to access the Microsoft Exchange objects.

- Synchronization server

The synchronization server for synchronizing the One Identity Manager database with the Microsoft Exchange system. The One Identity Manager Service is installed on this server with the Microsoft Exchange connector. The synchronization server connects to the Microsoft Exchange server.

The One Identity Manager Microsoft Exchange connector uses Windows PowerShell to communicate with the Microsoft Exchange server.

**Figure 1: Architecture for synchronization**



## One Identity Manager users for managing a Microsoft Exchange environment

The following users are used for setting up and administration of a Microsoft Exchange environment.

**Table 1: Users**

Users	Task
Target system administrators	<p>Target system administrators must be assigned to the <b>Target systems   Administrators</b> application role.</p> <p>Users with this application role:</p> <ul style="list-style-type: none"> <li>• Administrate application roles for individual target systems types.</li> <li>• Specify the target system manager.</li> <li>• Set up other application roles for target system managers if required.</li> <li>• Specify which application roles for target system managers are mutually exclusive.</li> <li>• Authorize other employee to be target system administrators.</li> <li>• Do not assume any administrative tasks within the target system.</li> </ul>
Target system managers	<p>Target system managers must be assigned to the application role <b>Target systems   Exchange</b> or a sub application role.</p> <p>Users with this application role:</p> <ul style="list-style-type: none"> <li>• Assume administrative tasks for the target system.</li> </ul>



Users	Task
One Identity Manager administrators	<ul style="list-style-type: none"> <li>• Create, change or delete target system objects, like user accounts or groups.</li> <li>• Edit password policies for the target system.</li> <li>• Can add employees, who have an other identity than the <b>Primary identity</b>.</li> <li>• Configure synchronization in the Synchronization Editor and defines the mapping for comparing target systems and One Identity Manager.</li> <li>• Edit the synchronization's target system types and outstanding objects.</li> <li>• Authorize other employees within their area of responsibility as target system managers and create child application roles if required.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Create customized permissions groups for application roles for role-based login to administration tools in Designer as required.</li> <li>• Create system users and permissions groups for non-role-based login to administration tools in Designer as required.</li> <li>• Enable or disable additional configuration parameters in Designer as required.</li> <li>• Create custom processes in Designer as required.</li> <li>• Create and configures schedules as required.</li> <li>• Create and configure password policies as required.</li> </ul>

## Setting up Microsoft Exchange synchronization

One Identity Manager supports synchronization with Microsoft Exchange 2010 Service Pack 3 or later, Microsoft Exchange 2013 Service Pack 1 or later, Microsoft Exchange 2016 and Microsoft Exchange 2019 with Cumulative Update 1.

One Identity Manager is responsible for synchronizing data between the Microsoft Exchange database and the One Identity Manager Service. Synchronization prerequisites are:

- Synchronization of the Active Directory system is carried out regularly.
- The Active Directory forest is declared in One Identity Manager.
- Explicit Active Directory domain trusts are declared in One Identity Manager
- Implicit two-way trusts between domains in an Active Directory forest are declared in One Identity Manager
- User account with password and domain controller on the Active Directory client domain are entered to create linked mailboxes within a Microsoft Exchange resource forest topology

### ***To load Microsoft Exchange objects into the One Identity Manager database for the first time***

1. Prepare a user account with sufficient permissions for synchronization.
2. One Identity Manager parts for managing Microsoft Exchange systems are available if the configuration parameter **TargetSystem | ADS | Exchange2000** is set.
  - Check whether the configuration parameter is set in the Designer. Otherwise, set the configuration parameter and compile the database.
  - Other configuration parameters are installed when the module is installed. Check the configuration parameters and modify them as necessary to suit your requirements.
3. Install and configure a synchronization server and declare the server as Job server in One Identity Manager.
4. Check whether the domain trusts are entered correctly.

5. Enter the data for creating linked mailboxes within a resource forest.
6. Create a synchronization project with the Synchronization Editor.

### Detailed information about this topic

- [Users and permissions for synchronizing with Microsoft Exchange](#) on page 11
- [Setting up the synchronization server](#) on page 12
- [Configuring participating servers for remote access through Windows PowerShell](#) on page 16
- [Testing Active Directory domain trusts](#) on page 17
- [Extensions for creating linked mailboxes in a Microsoft Exchange resource forest](#) on page 18
- [Creating a synchronization project for initial synchronization of a Microsoft Exchange environment](#) on page 19
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- [Recommendations for synchronizing Microsoft Exchange environments](#) on page 27
- [Customizing synchronization configuration](#) on page 30
- [Appendix: Configuration parameters for managing Microsoft Exchange](#) on page 133
- [Default template for Microsoft Exchange 2010](#) on page 134
- [Default project template for Microsoft Exchange 2013, Microsoft Exchange 2016, and Microsoft Exchange 2019](#) on page 135

## Users and permissions for synchronizing with Microsoft Exchange

The following users are involved in synchronizing One Identity Manager with Microsoft Exchange.

**Table 2: Users for synchronization**

Users	Permissions
User for accessing Microsoft Exchange	<p>You must provide a user account with at least the following authorizations for full synchronization of Microsoft Exchange objects with the supplied One Identity Manager default configuration.</p> <ul style="list-style-type: none"> <li>• Member of role group <b>View-only organization management</b></li> <li>• Member of role group <b>Public folder management</b></li> <li>• Member of role group <b>Recipient management</b></li> </ul>

Users	Permissions
	<ul style="list-style-type: none"> <li>• Role <b>Security Group Creation and Membership</b> In Microsoft Exchange, create a new role group and assign the role and the user account to this role group.</li> </ul> <p>For more detailed information about managing permissions in Microsoft Exchange, see the Microsoft documentation.</p>
User for creating linked mailboxes	The user account is required for adding linked mailboxes. The user account requires read access in Active Directory.
One Identity Manager Service user account	<p>The user account for One Identity Manager Service requires rights to carry out operations at file level, for example, assigning user rights and creating and editing directories and files.</p> <p>The user account must belong to the <b>Domain users</b> group.</p> <p>The user account must have the <b>Login as a service</b> extended user right</p> <p>The user account requires access rights to the internal web service.</p> <p><b>NOTE:</b> If One Identity Manager Service runs under the network service (<b>NT Authority\NetworkService</b>), you can issue access rights for the internal web service with the following command line call:</p> <pre>netsh http add urlacl url=http://&lt;IP address&gt;:&lt;port number&gt;/ user="NT AUTHORITY\NETWORKSERVICE"</pre> <p>The user account needs full access to the One Identity Manager Service installation directory in order to automatically update the One Identity Manager.</p> <p>In the default installation the One Identity Manager is installed under:</p> <ul style="list-style-type: none"> <li>• %ProgramFiles(x86)%\One Identity (on 32-bit operating systems)</li> <li>• %ProgramFiles%\One Identity (on 64-bit operating systems)</li> </ul>
User for accessing the One Identity Manager database	The <b>Synchronization</b> default system user is provided for executing synchronization with an application server.

## Setting up the synchronization server

To set up synchronization with a Microsoft Exchange environment, a server must be available on which the following software is installed:

- Windows operating system

Following versions are supported:

- Windows Server 2019
  - Windows Server 2016
  - Windows Server 2012 R2
  - Windows Server 2012
  - Windows Server 2008 R2 (non-Itanium based 64-bit) Service Pack 1 or later
- Microsoft .NET Framework Version 4.7.2 or later

**NOTE:** Take the target system manufacturer's recommendations into account.

- Windows Management Framework 4.0
- One Identity Manager Service, Microsoft Exchange connector
  - Install One Identity Manager components with the installation wizard.
    1. Select **Select installation modules with existing database.**
    2. Select the machine role **Server | Job server | Microsoft Exchange.**

**IMPORTANT:** The Microsoft Exchange One Identity Manager connector uses Windows PowerShell to communicate with the Microsoft Exchange server. For communication, extra configuration is required on the synchronization server and the Microsoft Exchange server. For more information, see [Configuring participating servers for remote access through Windows PowerShell](#) on page 16.

All One Identity Manager Service actions are executed against the target system environment on the synchronization server. Data entries required for synchronization and administration with the One Identity Manager database are processed by the synchronization server. The synchronization server must be declared as a Job server in One Identity Manager.

**NOTE:** If several target system environments of the same type are synchronized under the same synchronization server, it is useful to set up a Job server for each target system on performance grounds. This avoids unnecessary swapping of connections to target systems because a Job server only has to process tasks of the same type (re-use of existing connections).

Use the One Identity Manager Service to install the Server Installer. The program executes the following steps:

- Setting up a Job server.
- Specifying machine roles and server function for the Job server.
- Remote installation of One Identity Manager Service components corresponding to the machine roles.
- Configuration of One Identity Manager Service.
- Starts the One Identity Manager Service.

- ① **NOTE:** The program executes remote installation of the One Identity Manager Service. Local installation of the service is not possible with this program. Remote installation is only supported within a domain or a trusted domain.

For remote installation of One Identity Manager Service, you require an administrative workstation on which the One Identity Manager components are installed. For detailed information about installing a workstation, see the *One Identity Manager Installation Guide*.

**To install and configure One Identity Manager Service remotely on a server**

1. Start the program Server Installer on your administrative workstation.
2. Enter the valid connection credentials for the One Identity Manager database on the **Database connection** page.
3. Specify the server on which you want to install One Identity Manager Service on the **Server properties** page.
  - a. Select a Job server from the **Server** menu.
    - OR -
    - To create a new Job server, click **Add**.
  - b. Enter the following data for the Job server.

**Table 3: Job server properties**

Property	Description
Server	Job server name.
Queue	Name of the queue to handle the process steps. Each One Identity Manager Service within the network must have a unique queue identifier. The process steps are requested by the job queue using exactly this queue name. The queue identifier is entered in the One Identity Manager Service configuration file.
Full server name	Full server name in accordance with DNS syntax. Example: <Name of servers>.<Fully qualified domain name>

- ① **NOTE:** You can use the **Extended** option to make changes to other properties for the Job server. You can also edit the properties later with Designer.

4. Select **Microsoft Exchange** on the **Machine roles** page.
5. Select **Microsoft Exchange connector** on the **Server functions** page.
6. Check the One Identity Manager Service configuration on the **Service settings** page.

**NOTE:** The initial service configuration is predefined already. If further changes need to be made to the configuration, you can do this later with the Designer. For detailed information about configuring the service, see the *One Identity Manager Configuration Guide*.

7. To configure remote installations, click **Next**.
8. Confirm the security prompt with **Yes**.
9. Select the directory with the install files on **Select installation source**.
10. Select the file with the private key on the page **Select private key file**.

**NOTE:** This page is only displayed when the database is encrypted.

11. Enter the service's installation data on the **Service access** page.

**Table 4: Installation data**

Data	Description
Computer	Server on which to install and start the service from. <b>To select a server</b> <ul style="list-style-type: none"> <li>• Enter a name for the server.</li> <li>- OR -</li> <li>• Select a entry from the list.</li> </ul>
Service account	User account data for the One Identity Manager Service. <b>To enter a user account for the One Identity Manager Service</b> <ul style="list-style-type: none"> <li>• Set the option <b>Local system account</b>. This starts the One Identity Manager Service under the <b>NT AUTHORITY\SYSTEM</b> account.</li> <li>- OR -</li> <li>• Enter user account, password and password confirmation.</li> </ul>
Installation account	Data for the administrative user account to install the service. <b>To enter an administrative user account for installation</b> <ul style="list-style-type: none"> <li>• Enable <b>Advanced</b>.</li> <li>• Enable <b>Current user</b>. This uses the user account of the current user.</li> <li>- OR -</li> <li>• Enter user account, password and password confirmation.</li> </ul>

12. Click **Next** to start installing the service.

Installation of the service occurs automatically and may take some time.

13. Click **Finish** on the last page of Server Installer.

**NOTE:** The service is entered with the name **One Identity Manager Service** in the server service management.

## Related topics

- [Configuring participating servers for remote access through Windows PowerShell](#) on page 16

# Configuring participating servers for remote access through Windows PowerShell

**NOTE:** Run the configuration steps on the Microsoft Exchange server and the synchronization server.

## *To configure a server for remote access using Windows PowerShell*

1. Run Windows PowerShell with administrator credentials from the context menu **Run as Administrator**.
2. Enter this command at the prompt:  
`winrm quickconfig`  
This command prepares for remote access usage.
3. Enter this command at the prompt:  
`Set-ExecutionPolicy RemoteSigned`  
This command permits the execution of Windows PowerShell commands (Cmdlets). The script must be signed by a trusted publishers.
4. Enter this command at the prompt:  
`Set-Item wsman:\localhost\client\trustedhosts * -Force`  
This command customizes the list of trusted hosts to activate authentication. The value `*` permits all connections. One Identity Manager uses the server's fully qualified domain name for the connection. You can limit the value.



### ***To test remote access through Windows PowerShell from the synchronization server to the Microsoft Exchange server (sync.)***

1. Run Windows PowerShell on the Microsoft Exchange synchronization server.
2. Enter this command at the prompt:

```
$creds = New-Object System.Management.Automation.PSCredential  
("<domain>\<user>", (ConvertTo-SecureString "<password>" -AsPlainText -Force))
```

- OR -

```
$creds = Get-Credential
```

This command finds the access data required for making the connection.

3. Enter this command at the prompt:

```
$session = New-PSSession -ConfigurationName Microsoft.Exchange -ConnectionUri  
http://<ServerName as FQDN>/powershell -Credential $creds -Authentication  
Kerberos
```

With command creates a remote session.

**NOTE:** The One Identity Manager establishes a connection to the fully qualified domain name of the Microsoft Exchange server. The server name must therefore be in the list configured with trusted hosts.

4. Enter this command at the prompt:

```
Import-PsSession $session
```

This command imports the remote session so that the connection can be accessed.

5. Test the functionality with any Microsoft Exchange command. For example, enter the following command at the prompt:

```
Get-Mailbox
```

## **Testing Active Directory domain trusts**

For synchronization with a Microsoft Exchange environment, Active Directory domain trusts must be declared in One Identity Manager. Users can access resources in other domains depending on the domain trusts.

- Explicit trusts are loaded into Active Directory by synchronizing with One Identity Manager. Domains which are trusted by the currently synchronized domains are found.
- To declare implicit two-way trusts between domains within an Active Directory forest in One Identity Manager, ensure that the parent domain is entered in all child domains.

### ***To enter the parent domain***

1. Select the **Active Directory | Domains** category in Manager.
2. Select the domain in the result list.
3. Select **Change master data**.
4. Enter the parent domain.
5. Save the changes.

Implicit trusts are created automatically.

### ***To test trusted domains***

1. Select the **Active Directory | Domains** category in Manager.
2. Select the domain in the result list.
3. Select **Specify trust relationships**.

This shows domains which trust the selected domain.

For more detailed information, see the *One Identity Manager Administration Guide for Connecting to Active Directory*.

## **Extensions for creating linked mailboxes in a Microsoft Exchange resource forest**

To create linked mailboxes in a Microsoft Exchange resource forest, you must declare the user account with which the linked mailboxes are going to be created as well as the Active Directory domain controller for each Active Directory client domain.

### ***To edit master data for a domain***

1. Select the **Active Directory | Domains** category in Manager.
2. Select the domain in the result list and run the task **Change master data**.

3. Enter the following information on the **Exchange** tab.

**Table 5: Domain master data for generating linked mailboxes**

Property	Description
User (linked mailboxes)	User account that is used to create linked mailboxes.
Password	Password for the user account.
Password retry	Repeat entry of the password for the user account.
DC (linked mailbox)	Active Directory Domain controller for creating linked mailboxes.

4. Save the changes.

### Related topics

- [Users and permissions for synchronizing with Microsoft Exchange](#) on page 11

## Creating a synchronization project for initial synchronization of a Microsoft Exchange environment

Use Synchronization Editor to configure synchronization between the One Identity Manager database and Microsoft Exchange. The following describes the steps for initial configuration of a synchronization project.

- 1 **NOTE:** When setting up the synchronization, note the recommendations described under [Recommendations for synchronizing Microsoft Exchange environments](#) on page 27.
- 1 **IMPORTANT:** Each Microsoft Exchange environment should have its own synchronization project.

After the initial configuration, you can customize and configure workflows within the synchronization project. Use the workflow wizard in the Synchronization Editor for this. The Synchronization Editor also provides different configuration options for a synchronization project.

- 1 **IMPORTANT:** It must be possible to reach Microsoft Exchange servers by DNS query for successful authentication. If the DNS cannot be resolved, the target system connection is refused.

## Prerequisites for setting up a synchronization project

- Synchronization of the Active Directory system is carried out regularly.
- The Active Directory forest is declared in One Identity Manager.
- Explicit Active Directory domain trusts are declared in One Identity Manager
- Implicit two-way trusts between domains in an Active Directory forest are declared in One Identity Manager
- User account with password and domain controller on the Active Directory client domain are entered to create linked mailboxes within a Microsoft Exchange resource forest topology

Have the following information available for setting up a synchronization project.

**Table 6: Information Required for Setting up a Synchronization Project**

Data	Explanation
Microsoft Exchange version	One Identity Manager supports synchronization with Microsoft Exchange 2010, Service Pack 3 or later, Microsoft Exchange 2013, Service Pack 1 or later and Microsoft Exchange 2016.
Server (fully qualified)	Fully qualified name (FQDN) of the Microsoft Exchange server to which the synchronization server connects to access Microsoft Exchange objects.  Example: <code>Server.Doku.Testlab.dd</code>
User account and password for logging in	Fully qualified name (FQDN) of the user account and password for logging in on the Microsoft Exchange.  Example: <code>user@domain.com</code> <code>domain.com\user</code>  Make a user account available with sufficient permissions. For more information, see <a href="#">Users and permissions for synchronizing with Microsoft Exchange</a> on page 11.
Synchronization server for Microsoft Exchange	The One Identity Manager Service with the Microsoft Exchange connector must be installed on the synchronization server.

**Table 7: Additional properties for the Job server**

Property	Value
Server function	Microsoft Exchange connector
Machine role	Server   Job server   Active Directory   Microsoft Exchange

Data	Explanation
	For more information, see <a href="#">Setting up the synchronization server</a> on page 12.
One Identity Manager database connection data	<ul style="list-style-type: none"> <li>• Database server</li> <li>• Database</li> <li>• SQL Server Login and password</li> <li>• Specifies whether integrated Windows authentication is used. This type of authentication is not recommended. If you decide to use it anyway, ensure that your environment supports Windows authentication.</li> </ul>
Remote connection server	<p>To configure synchronization with a target system, One Identity Manager must load the data from the target system. One Identity Manager communicates directly with target system to do this. Sometimes direct access from the workstation on which the Synchronization Editor is installed is not possible, because of the firewall configuration, for example, or because the workstation does not fulfill the necessary hardware and software requirements. If direct access to the workstation is not possible, you can set up a remote connection.</p> <p>The remote connection server and the workstation must be in the same Active Directory domain.</p> <p>Remote connection server configuration:</p> <ul style="list-style-type: none"> <li>• One Identity Manager Service is started</li> <li>• RemoteConnectPlugin is installed</li> <li>• Microsoft Exchange connector is installed</li> </ul> <p>The remote connection server must be declared as a Job server in One Identity Manager. The Job server name is required.</p> <p><b>TIP:</b> The remote connection server requires the same configuration as the synchronization server (with regard to the installed software and entitlements). Use the synchronization as remote connection server at the same time, by simply installing the RemoteConnectPlugin as well.</p> <p>For more detailed information about setting up a remote connection, see the <i>One Identity Manager Target System Synchronization Reference Guide</i>.</p>

**NOTE:** The following sequence describes how you configure a synchronization project if Synchronization Editor is both:

- executed in default mode, and
- started from the launchpad

If you execute the project wizard in expert mode or directly from Synchronization Editor, additional configuration settings can be made. Follow the project wizard instructions through these steps.

### **To set up initial synchronization project for Microsoft Exchange**

1. Start the Launchpad and log on to the One Identity Manager database.

**NOTE:** If synchronization is executed by an application server, connect the database through the application server.

2. Select **Target system type Microsoft Exchange** and click **Start**.

This starts the Synchronization Editor's project wizard.

3. Select the connector on the **Select target system** page.

- For synchronization of a Microsoft Exchange 2010 environment, choose **Microsoft Exchange 2010 Connector**.
- For synchronization of a Microsoft Exchange 2013 environment, choose **Microsoft Exchange 2013 Connector**.
- For synchronization of a Microsoft Exchange 2016 environment, choose **Microsoft Exchange 2016 Connector**.

4. On the **System access** page, specify how One Identity Manager can access the target system.

- If access is possible from the workstation on which you started Synchronization Editor, you do not need to make any settings.
- If access is not possible from the workstation on which you started Synchronization Editor, you can set up a remote connection.

Enable the **Connect using remote connection server** option and select the server to be used for the connection under **Job server**.

5. Enter the information about the Microsoft Exchange server on the **Select Microsoft Exchange server** page to which the synchronization server connects to access Microsoft Exchange objects.

a. Under **Server**, enter the fully qualified name (FQDN) of the Microsoft Exchange server. To check the data, click **DNS query**.

**NOTE:** If you only know the IP address of the server, enter the IP address in the **Server** input field and click **DNS query**. The server's fully qualified name is found and entered.

- b. Under **Max. concurrent connections**, enter the number of connections that can be used at the same time.

A maximum 4 simultaneous connection are recommended. Synchronization tries to use this many connections. The number may not always be reached depending on the load. Warnings are given respectively.

A default timeout is defined for connecting. The timeout is 5 minutes long for the first connection and 30 seconds for all following connections. The connections are closed if the connection is idle for the duration.

- c. To implement HTTPS for establishing the connection, activate **Use SSL**.

**NOTE:** Microsoft Exchange does not support this connection type by default. The support for HTTPS must be configured in the Microsoft Exchange environment.

6. Enter login data on the **Enter connection credentials** page to connect to Microsoft Exchange.

**Table 8: Connection data to the Microsoft Exchange**

Property	Description
User name (user@-domain)	Fully qualified name (FQDN) of the user account for log on. Example: user@domain.com domain.com\user
Password	Password for the user account.

7. Specify on the **Recipient scope** page whether the recipient of any domain or complete Microsoft Exchange organization should be taken into account.
  - To synchronize the recipients of the Microsoft Exchange organization, select the option **Entire organization** (recommended). As a prerequisite, the trusted domains of the Active Directory domains must be declared in the One Identity Manager.
  - Select the option **Only recipients of the following domain** to synchronize recipients with specific domains and select a domain. The target system domain is listed as a minimum.
8. On the **One Identity Manager Connection** tab, test the data for connecting to the One Identity Manager database. The data is loaded from the connected database. Reenter the password.

**NOTE:** If you use an unencrypted One Identity Manager database and have not yet saved any synchronization projects to the database, you need to enter all connection data again. This page is not shown if a synchronization project already exists.


9. The wizard loads the target system schema. This may take a few minutes depending on the type of target system access and the size of the target system.
10. On the **Restrict target system access** page, you specify how system access should work. You have the following options:

**Table 9: Specify target system access**

Option	Meaning
Read-only access to target system.	<p>Specifies whether a synchronization workflow is only to be set up for the initial loading of the target system into the One Identity Manager database.</p> <p>The synchronization workflow has the following characteristics:</p> <ul style="list-style-type: none"> <li>• Synchronization is in the direction of <b>One Identity Manager</b>.</li> <li>• Processing methods in the synchronization steps are only defined for synchronization in the direction of <b>One Identity Manager</b>.</li> </ul>
Read/write access to target system. Provisioning available.	<p>Specifies whether a provisioning workflow is to be set up in addition to the synchronization workflow for the initial loading of the target system.</p> <p>The provisioning workflow displays the following characteristics:</p> <ul style="list-style-type: none"> <li>• Synchronization is in the direction of the <b>Target system</b>.</li> <li>• Processing methods are only defined in the synchronization steps for synchronization in the direction of the <b>Target system</b>.</li> <li>• Synchronization steps are only created for such schema classes whose schema types have write access.</li> </ul>

11. Select the synchronization server to execute synchronization on the **Synchronization server** page.

If the synchronization server is not declared as a Job server in the One Identity Manager database yet, you can add a new Job server.

- a. Click  to add a new Job server.
- b. Enter a name for the Job server and the full server name conforming to DNS syntax.
- c. Click **OK**.

The synchronization server is declared as Job server for the target system in the One Identity Manager- database.



**NOTE:** After you save the synchronization project, ensure that this server is set up as a synchronization server.

12. To close the project wizard, click **Finish**.

This creates and allocates a default schedule for regular synchronization. Enable the schedule for regular synchronization.

The synchronization project is created, saved and enabled immediately.

**NOTE:** If you do not want the synchronization project to be activated immediately, disable the **Activate and save the new synchronization project automatically** option. In this case, save the synchronization project manually before closing the Synchronization Editor.

**NOTE:** The connection data for the target system is saved in a variable set and can be modified under **Configuration | Variables** in Synchronization Editor.

### ***To configure the content of the synchronization log***

1. Open the synchronization project in the Synchronization Editor.
2. To configure the synchronization log for target system connection, select the category **Configuration | Target system**.
3. To configure the synchronization log for the database connection, select **Configuration | One Identity Manager connection**.
4. Select the **General** view and click **Configure**.
5. Select the **Synchronization log** view and set **Create synchronization log**.
6. Enable the data to be logged.

**NOTE:** Some content generates a particularly large volume of log data. The synchronization log should only contain data required for troubleshooting and other analyses.

7. Click **OK**.

### ***To synchronize on a regular basis***

1. Open the synchronization project in the Synchronization Editor.
2. Select the category **Configuration | Start up configurations**.
3. Select a start up configuration in the document view and click **Edit schedule**.
4. Edit the schedule properties.
5. To enable the schedule, click **Activate**.
6. Click **OK**.

### ***To start initial synchronization manually***

1. Open the synchronization project in the Synchronization Editor.
2. Select the category **Configuration | Start up configurations**.

3. Select a start up configuration in the document view and click **Execute**.
4. Confirm the security prompt with **Yes**.


## Related topics

- [Setting up the synchronization server](#) on page 12
- [Users and permissions for synchronizing with Microsoft Exchange](#) on page 11
- [Testing Active Directory domain trusts](#) on page 17
- [Displaying synchronization results](#) on page 26
- [Recommendations for synchronizing Microsoft Exchange environments](#) on page 27
- [Customizing synchronization configuration](#) on page 30
- [Default template for Microsoft Exchange 2010](#) on page 134
- [Default project template for Microsoft Exchange 2013, Microsoft Exchange 2016, and Microsoft Exchange 2019](#) on page 135


# Displaying synchronization results

Synchronization results are summarized in the synchronization log. You can specify the extent of the synchronization log for each system connection individually. One Identity Manager provides several reports in which the synchronization results are organized under different criteria.

## ***To display a synchronization log***

1. Open the synchronization project in the Synchronization Editor.
2. Select **Logs**.
3. Click  in the navigation view toolbar.  
Logs for all completed synchronization runs are displayed in the navigation view.
4. Select a log by double-clicking on it.  
An analysis of the synchronization is shown as a report. You can save the report.

## ***To display a provisioning log.***

1. Open the synchronization project in the Synchronization Editor.
2. Select **Logs**.
3. Click  in the navigation view toolbar.  
Logs for all completed provisioning processes are displayed in the navigation view.
4. Select a log by double-clicking on it.  
An analysis of the provisioning is show as a report. You can save the report.

The log is marked in color in the navigation view. This mark shows you the execution status of the synchronization/provisioning.

Synchronization logs are stored for a fixed length of time.

### ***To modify the retention period for synchronization logs***

- In Designer, enable the **DPR | Journal | LifeTime** configuration parameter and enter the maximum retention period.

## **Recommendations for synchronizing Microsoft Exchange environments**

The following scenarios for synchronizing Microsoft Exchange are supported.

### **Scenario: synchronizing Microsoft Exchange infrastructure including all Microsoft Exchange organization recipients**

It is recommended on principal that you synchronize the Microsoft Exchange infrastructure including all Microsoft Exchange organization recipients.

The Microsoft Exchange infrastructure elements (server, address lists, policies, for example) and recipients (mailboxes, mail-enabled distribution groups, e-mail users, email contacts) of the entire Microsoft Exchange organization are synchronized.

- Set up a synchronization project and use the recipient scope **Complete organization**.

For more information, see [Creating a synchronization project for initial synchronization of a Microsoft Exchange environment](#) on page 19.

### **Scenario: synchronizing Microsoft Exchange infrastructure and recipients of a select Active Directory domain in the Microsoft Exchange organization.**

It is possible to synchronize Microsoft Exchange infrastructure and recipients separately if synchronization of the entire Microsoft Exchange organization is not possible due to the large number of recipients.

First the Microsoft Exchange infrastructure elements (server, address lists, policies, for example) are loaded. Then recipients (mailboxes, mail-enabled distribution groups, e-mail users, email contacts) are synchronized from the given Active Directory domain in the Microsoft Exchange organization.

The following synchronization project configuration is recommended in this case:

- **NOTE:** Use the Synchronization Editor expert mode for the following configurations.

1. Set up the synchronization project for synchronizing the entire Microsoft Exchange infrastructure.

- Select the recipient **Complete organization**.
- Customize the synchronization workflow.
  - Disable synchronization steps of all schema types representing recipients. These are:

Mailbox

MailContact

MailUser

DistributionList

DynamicDistributionList

MailPublicFolder

- Check that all schema types, not representing recipients, are synchronized. These are:

ActiveSyncMailboxPolicy

DatabaseAvailabilityGroup

MailboxDatabase

ManagedFolderMailboxPolicy (Microsoft Exchange 2010)

OfflineAddressBook

Organization

PublicFolder

PublicFolderDatabase (Microsoft Exchange 2010)

RetentionPolicy

RoleAssingmentPolicy

Server

SharingPolicy

AddressList

GlobalAddressList

2. Set up the synchronization project for synchronizing recipient of an Active Directory domain.

- Select the recipient scope **Only recipients of the following domain** and select a domain of the Microsoft Exchange organization.

- Customize the synchronization workflow.
  - Disable synchronization steps of all schema types that do not represent recipients. These are:

ActiveSyncMailboxPolicy

DatabaseAvailabilityGroup

MailboxDatabase

ManagedFolderMailboxPolicy (Microsoft Exchange 2010)

OfflineAddressBook

Organization

PublicFolder

PublicFolderDatabase (Microsoft Exchange 2010)

RetentionPolicy

RoleAssingmentPolicy

Server

SharingPolicy

AddressList

GlobalAddressList

- Check that all schema types not representing recipients are synchronized. These are:

Mailbox

MailContact

MailUser

DistributionList

DynamicDistributionList

MailPublicFolder

### 3. Specify more base objects for the remaining Active Directory domains.

- Open the first synchronization project for the synchronization of recipients in the Synchronization Editor.
- Create a new base object for every domain. Use the wizards to attach a base object.
  - In the wizard, select the Microsoft Exchange connector and enter the connection parameters. The connection parameters are saved in a

special variable set.

**NOTE:** When setting up the connection, note the following:

- If possible, select a Microsoft Exchange server that is in the domain.
- Select the recipient scope **Only recipients of the following domain**.

- Create a new start up configuration for each domain. In the start configuration, use the newly created variable sets.
- Run a consistency check.
- Activate the synchronization project.

4. Customize the synchronization schedule.

**IMPORTANT:** Set up the synchronization schedules such that the Microsoft Exchange infrastructure is synchronized before Microsoft Exchange recipients.

Several synchronization runs maybe necessary before all the data is synchronized depending on references between the Microsoft Exchange organization domains.

## Customizing synchronization configuration

You have used the Synchronization Editor to set up a synchronization project for initial synchronization with Microsoft Exchange. You can use this synchronization project to load Microsoft Exchange objects into the One Identity Manager database. When you manage mailboxes, email users, email contacts, and mail-enabled distribution groups with One Identity Manager, modifications are provisioned in the Microsoft Exchange system.

You must customize the synchronization configuration in order to compare the One Identity Manager database with the Microsoft Exchange regularly and to synchronize changes.

- You can use variables to create generally applicable synchronization configurations that contain the necessary information about the synchronization objects when synchronization starts. Variables can be implemented in base objects, schema classes, or processing method, for example.
- To specify which Microsoft Exchange objects and database object are included in synchronization, edit the scope of the target system connection and the One Identity Manager database connection. To prevent data inconsistencies, define the same scope in both systems. If no scope is defined, all objects will be synchronized.
- Update the schema in the synchronization project if the One Identity Manager schema or target system schema has changed. Then you can add the changes to the mapping.

**IMPORTANT:** As long as synchronization is running, you must not start another synchronization for the same target system. This applies especially, if the same synchronization objects would be processed.

- If another synchronization is started with the same start up configuration, this process is stop and is assigned the **Frozen** execution status. An error message is written to the One Identity Manager Service log file.
- If another synchronization is started with another start up configuration, that addresses same target system, it may lead to synchronization error or loss of data. Specify One Identity Manager behavior in this case, in the start up configuration.
  - Use the schedule to ensure that the start up configurations are executed in sequence.
  - Group start up configurations with the same start up behavior.

For detailed information about configuring synchronization, see the *One Identity Manager Target System Synchronization Reference Guide*.

### Detailed information about this topic

- [Configuring synchronization in Microsoft Exchange](#) on page 31
- [Updating schemas](#) on page 32

## Configuring synchronization in Microsoft Exchange

The synchronization project for initial synchronization provides a workflow for initial loading of target system objects (initial synchronization) and one for provisioning object modifications from the One Identity Manager database to the target system (provisioning). To use One Identity Manager as the master system during synchronization, you also require a workflow with synchronization in the direction of the **Target system**.

### **To create a synchronization configuration for synchronizing Microsoft Exchange**

1. Open the synchronization project in the Synchronization Editor.
2. Check whether existing mappings can be used for synchronizing the target system. Create new maps if required.
3. Create a new workflow with the workflow wizard.  
Creates a workflow with **Target system** as its synchronization direction.
4. Create a new start up configuration. Use the new workflow to do this.
5. Save the changes.
6. Run a consistency check.

# Updating schemas

All the schema data (schema types and schema properties) of the target system schema and the One Identity Manager schema are available when you are editing a synchronization project. Only a part of this data is really needed for configuring synchronization. If a synchronization project is finished, the schema is compressed to remove unnecessary data from the synchronization project. This can speed up loading the synchronization project. Deleted schema data can be added to the synchronization configuration again at a later point.

If the target system schema or the One Identity Manager schema has changed, these changes must also be added to the synchronization configuration. Then the changes can be added to the schema property mapping.

To include schema data that have been deleted through compressing and schema modifications in the synchronization project, update each schema in the synchronization project. This may be necessary if:

- A schema was changed by:
  - Changes to a target system schema
  - Customizations to the One Identity Manager schema
  - A One Identity Manager update migration
- A schema in the synchronization project was shrunk by:
  - enabling the synchronization project
  - saving the synchronization project for the first time
  - compressing a schema

## **To update a system connection schema**

1. Open the synchronization project in the Synchronization Editor.
2. Select **Configuration | Target system**.  
- OR -  
Select **Configuration | One Identity Manager Connection**.
3. Select the view **General** and click **Update schema**.
4. Confirm the security prompt with **Yes**.  
This reloads the schema data.

## **To edit a mapping**

1. Open the synchronization project in the Synchronization Editor.
2. Select the category **Mappings**.
3. Select a mapping in the navigation view.  
Opens the Mapping Editor. For more detailed information about mappings, see the *One Identity Manager Target System Synchronization Reference Guide*.



**NOTE:** The synchronization is deactivated if the schema of an activated synchronization project is updated. Reactivate the synchronization project to synchronize.

## Speeding up synchronization with revision filtering

When you start synchronization, all synchronization objects are loaded. Some of these objects have not be modified since the last synchronization and, therefore, must not be processed. Synchronization is accelerated by only loading those object pairs that have changed since the last synchronization. One Identity Manager uses revision filtering to accelerate synchronization.

Microsoft Exchange supports revision filtering for the schema types Mailbox, MailUser, MailContact, MailPublicFolder, DistributionGroup and DynamicDistributionGroup. The underlying Active Directory objects' date of last change is used as revision counter (whenChanged).

**IMPORTANT:** The revision algorithm can only be enabled in synchronization projects created with One Identity Manager version 8.0 or higher.

If revisioning was enabled in old 7.x synchronization projects, modifications made directly in Microsoft Exchange are also not identified. We recommend that you set up the synchronization project again using the synchronization project template implemented from version 8.0 onwards.

Determining the revision is done when synchronization starts. Objects changed after this point are included with the next synchronization.

Revision filtering can be applied to workflows and start up configuration.

### **To permit revision filtering on a workflow**

- Open the synchronization project in the Synchronization Editor.
- Edit the workflow properties. Select the entry **Use revision filter** from **Revision filtering**.

### **To permit revision filtering for a start up configuration**

- Open the synchronization project in the Synchronization Editor.
- Edit the start up configuration properties. Select the entry **Use revision filter** from **Revision filtering**.

**NOTE:** Specify whether revision filtering will be applied when you first set up initial synchronization in the project wizard.

For detailed information about revision filtering, see the *One Identity Manager Target System Synchronization Reference Guide*.

# Post-processing outstanding objects

Objects, which do not exist in the target system, can be marked as outstanding in One Identity Manager by synchronizing. This prevents objects being deleted because of an incorrect data situation or an incorrect synchronization configuration.

Outstanding objects

- Cannot be edited in One Identity Manager.
- Are ignored by subsequent synchronization.
- Are ignored by inheritance calculations.

This means, all memberships and assignments remain intact until the outstanding objects have been processed.

Start target system synchronization to do this.

## **To post-process outstanding objects**

1. In Manager, select the **Active Directory | Target system synchronization: Exchange** category.

All tables assigned to the target system type **Microsoft Exchange** as synchronization tables are displayed in the navigation view.

2. On the **Target system synchronization** form, in the **Table / object** column, open the node of the table for which you want to post-process outstanding objects.

All objects that are marked as outstanding are shown. The **Last log entry** and **Last method run** columns display the time at which the last entry was made in the synchronization log and which processing method was executed. The **No log available** entry can mean the following:

- The synchronization log has already been deleted.  
- OR -
- An assignment from a member list has been deleted in the target system.

The base object of the assignment has been updated during the synchronization. A corresponding entry appears in the synchronization log. The entry in the assignment table is marked as outstanding, but there is no entry in the synchronization log.

- An object that contains a member list has been deleted in the target system.

During synchronization, the object and all corresponding entries in assignment tables are marked as outstanding. However, an entry in the synchronization log appears only for the deleted object.




### **TIP:**

#### **To display object properties of an outstanding object**

- a. Select the object on the target system synchronization form.
- b. Open the context menu and click **Show object**.

3. Select the objects you want to rework. Multi-select is possible.
4. Click one of the following icons in the form toolbar to execute the respective method.

**Table 10: Methods for handling outstanding objects**

Icon	Method	Description
	Delete	The object is immediately deleted in the One Identity Manager database. Deferred deletion is not taken into account. The <b>Outstanding</b> label is removed for the object.  Indirect memberships cannot be deleted.
	Publish	The object is added in the target system. The <b>Outstanding</b> label is removed for the object.  The method triggers the HandleOutstanding event. This runs a target system specific process that triggers the provisioning process for the object.  Prerequisites: <ul style="list-style-type: none"> <li>• The table containing the object can be published.</li> <li>• The target system connector has write access to the target system.</li> </ul>
	Reset	The <b>Outstanding</b> label is removed for the object.

5. Confirm the security prompt with **Yes**.

**NOTE:** By default, the selected objects are processed in parallel, which speeds up execution of the selected method. If an error occurs during processing, the action is stopped and all changes are discarded.

Bulk processing of objects must be disabled if errors are to be localized, which means the objects are processed sequentially. Failed objects are named in the error message. All changes that were made up until the error occurred are saved.

**To disable bulk processing**

- Deactivate  in the form toolbar.

You must customize synchronization to synchronize custom tables.

**To add custom tables to the target system synchronization**

1. In Manager, select **Active Directory | Basic configuration data | Target system types**.
2. In the result list, select the target system type **Microsoft Exchange**.
3. Select **Assign synchronization tables**.
4. Assign custom tables whose outstanding objects you want to handle in **Add assignments**.
5. Save the changes.

6. Select **Configure tables for publishing**.
7. Select custom tables whose outstanding objects can be published in the target system and set **Publishable**.
8. Save the changes.

**i** **NOTE:** The target system connector must have write access to the target system in order to publish outstanding objects that are being post-processed. That means, the option **Connection is read only** must not be set for the target system connection.

## Membership provisioning configuration

Memberships, for example, user accounts in groups, are saved in assignment tables in the One Identity Manager database. During provisioning of modified memberships, changes made in the target system will probably be overwritten. This behavior can occur under the following conditions:

- Memberships are saved in the target system as an object property in list form (Example: List of mailboxes in the AcceptMessagesOnlyFrom property of a Microsoft Exchange mailbox).
- Memberships can be modified in either of the connected systems.
- A provisioning workflow and provisioning processes are set up.

If a membership in One Identity Manager changes, the complete list of members is transferred to the target system by default. Memberships, previously added to the target system are removed by this; previously deleted memberships are added again.

To prevent this, provisioning can be configured such that only the modified membership is provisioned in the target system. The corresponding behavior is configured separately for each assignment table.

### ***To allow separate provisioning of memberships***

1. In Manager, select **Active Directory | Basic configuration data | Target system types**.
2. Select **Microsoft Exchange** in the result list.
3. Select **Configure tables for publishing**.
4. Select the assignment tables for which you want to allow separate provisioning. Multi-select is possible.
  - This option can only be enabled for assignment tables that have a base table with XDateSubItem or CCC\_XDateSubItem column.
  - Assignment tables that are grouped together in a virtual schema property in the mapping must be marked identically.
5. Click **Enable merging**.
6. Save the changes.

For each assignment table labeled like this, the changes made in One Identity Manager are saved in a separate table. During modification provisioning, the members list in the target system is compared to the entries in this table. This means that only modified memberships are provisioned and the members list does not get entirely overwritten.

**NOTE:** The complete members list is updated by synchronization. During this process, objects with changes but incomplete provisioning are not handled. These objects are logged in the synchronization log.

For more detailed information about provisioning memberships, see the One Identity Manager Target System Synchronization Reference Guide.

## Help for the analysis of synchronization issues

You can generate a report for analyzing problems which occur during synchronization, for example, insufficient performance. The report contains information such as:

- Consistency check results
- Revision filter settings
- Scope applied
- Analysis of the synchronization buffer
- Object access times in the One Identity Manager database and in the target system

### **To generate a synchronization analysis report**

1. Open the synchronization project in the Synchronization Editor.
2. Select the menu **Help | Generate synchronization analysis report** and answer the security prompt with **Yes**.

The report may take a few minutes to generate. It is displayed in a separate window.

3. Print the report or save it in one of the available output formats.

## Deactivating synchronization

Regular synchronization cannot be started until the synchronization project and the schedule are active.

### **To prevent regular synchronization**

1. Open the synchronization project in the Synchronization Editor.
2. Select the start up configuration and deactivate the configured schedule.

Now you can only start synchronization manually.

An activated synchronization project can only be edited to a limited extent. The schema in the synchronization project must be updated if schema modifications are required. The synchronization project is deactivated in this case and can be edited again.

Furthermore, the synchronization project must be deactivated if synchronization should not be started by any means (not even manually).

### ***To deactivate the synchronization project***

1. Open the synchronization project in the Synchronization Editor.
2. Select **General** on the start page.
3. Click **Deactivate project**.

### **Related topics**

- [Creating a synchronization project for initial synchronization of a Microsoft Exchange environment](#) on page 19

## Basic data for managing a Microsoft Exchange environment

To manage a Microsoft Exchange environment in One Identity Manager, the following basic data is relevant.

- Configuration parameters

Use configuration parameters to configure the behavior of the system's basic settings. One Identity Manager provides default settings for different configuration parameters. Check the configuration parameters and modify them as necessary to suit your requirements.

Configuration parameters are defined in the One Identity Manager modules. Each One Identity Manager module can also install configuration parameters. You can find an overview of all configuration parameters in **Base data | General | Configuration parameters** in Designer.

For more information, see [Appendix: Configuration parameters for managing Microsoft Exchange](#) on page 133.

- Account definitions

One Identity Manager has account definitions for automatically allocating user accounts to employees during working hours. You can create account definitions for every target system. If an employee does not yet have a user account in a target system, a new user account is created. This is done by assigning account definitions to an employee.

For more information, see [Setting up account definitions](#) on page 40.

- Target system types

Target system types are required for configuring target system comparisons. Tables containing outstanding objects are maintained on target system types.

For more information, see [Post-processing outstanding objects](#) on page 34.

- Target system managers

A default application role exists for the target system manager in One Identity Manager. Assign the employees who are authorized to edit all Microsoft Exchange organizations in One Identity Manager to this application role.

ns for target system managers to individual farms.SharePoint Define additional application roles if you want to limit the edit permissions for target system managers to individual Microsoft Exchange organizations. The application roles must be added under the default application role.

For more information, see [Target system managers](#) on page 58.

## Setting up account definitions

One Identity Manager has account definitions for automatically allocating user accounts to employees during working hours. You can create account definitions for every target system. If an employee does not yet have a user account in a target system, a new user account is created. This is done by assigning account definitions to an employee.

The data for the user accounts in the respective target system comes from the basic employee data. The employee must own a user account. The assignment of the IT operating data to the employee's user account is controlled through the primary assignment of the employee to a location, a department, a cost center, or a business role (template processing). Processing is done through templates. There are predefined templates for determining the data required for user accounts included in the default installation. You can customize templates as required.


For detailed information about account definitions, see the *One Identity Manager Target System Base Module Administration Guide*.

The following steps are necessary to implement an account definition:

- [Creating an account definition](#)
- [Setting up manage levels](#)
- [Creating a mapping rule for IT operating data](#)
- [Determining IT operating data](#)
- [Assigning account definitions to employees](#)
- [Assigning account definitions to a target system](#)

## Creating an account definition

### ***To create a new account definition***

1. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.
2. Select an account definition in the result list. Select **Change master data**.  
-OR-  
Click  in the result list.



3. Enter the account definition's master data.
4. Save the changes.

### Detailed information about this topic

- [Master data for an account definition](#) on page 41

## Master data for an account definition

Enter the following data for an account definition:

**Table 11: Master data for an account definition**

Property	Description
Account definition	Account definition name.
User account table	Table in the One Identity Manager schema that maps user accounts.
Target system	Target system to which the account definition applies.
Required account definition	Required account definition. Define the dependencies between account definitions. When this account definition is requested or assigned, the required account definition is automatically requested or assigned with it. Enter the account definition of the associated Active Directory domain.
Description	Spare text box for additional explanation.
Manage level (initial)	Manage level to use by default when you add new user accounts.
Risk index	Value for evaluating the risk of account definition assignments to employees. Enter a value between 0 and 1. This input field is only visible if the configuration parameter <b>QER   CalculateRiskIndex</b> is activated.  For more detailed information, see the <i>One Identity Manager Risk Assessment Administration Guide</i> .
Service item	Service item through which you can request the account definition in the IT Shop. Assign an existing service item or add a new one.
IT Shop	Specifies whether the account definition can be requested through the IT Shop. The account definition can be ordered by an employee over the Web Portal and distributed using a defined approval process. The account definition can also be assigned directly to employees and roles outside of IT Shop.

Property	Description
Only for use in IT Shop	Specifies whether the account definition can only be requested through the IT Shop. The account definition can be ordered by an employee over the Web Portal and distributed using a defined approval process. This means, the account definition cannot be directly assigned to roles outside the IT Shop.
Automatic assignment to employees	<p>Specifies whether the account definition is assigned automatically to all internal employees. The account definition is assigned to every employee not marked as external, on saving. New employees automatically obtain this account definition as soon as they are added.</p> <p><b>i</b> <b>IMPORTANT:</b> Only set this option if you can ensure that all current internal employees in the database and all pending newly added internal employees obtain a user account in this target system.</p> <p>Disable this option to remove automatic assignment of the account definition to all employees. The account definition cannot be reassigned to employees from this point on. Existing account definition assignments remain intact.</p>
Retain account definition if permanently disabled	<p>Specifies the account definition assignment to permanently disabled employees.</p> <p>Option set: the account definition assignment remains in effect. The user account stays the same.</p> <p>Option not set: the account definition assignment is not in effect. The associated user account is deleted.</p>
Retain account definition if temporarily disabled	<p>Specifies the account definition assignment to temporarily disabled employees.</p> <p>Option set: the account definition assignment remains in effect. The user account stays the same.</p> <p>Option not set: the account definition assignment is not in effect. The associated user account is deleted.</p>
Retain account definition on deferred deletion	<p>Specifies the account definition assignment on deferred deletion of employees.</p> <p>Option set: the account definition assignment remains in effect. The user account stays the same.</p> <p>Option not set: the account definition assignment is not in effect. The associated user account is deleted.</p>
Retain account definition on security risk	<p>Specifies the account definition assignment to employees posing a security risk.</p> <p>Option set: the account definition assignment remains in effect. The user account stays the same.</p>

Property	Description
	Option not set: the account definition assignment is not in effect. The associated user account is deleted.
Resource type	Resource type for grouping account definitions.
Spare field 01 - spare field 10	Additional company specific information. Use Designer to customize display names, formats and templates for the input fields.

## Setting up manage levels

Specify the manage level for an account definition for managing user accounts. The user account's manage level specifies the extent of the employee's properties that are inherited by the user account. This allows an employee to have several user accounts in one target system, for example:

- Default user account that inherits all properties from the employee
- Administrative user account that is associated to an employee but should not inherit the properties from the employee.

One Identity Manager supplies a default configuration for manage levels:

- **Unmanaged:** User accounts with the **Unmanaged** manage level are linked to the employee but they do not inherit any further properties. When a new user account is added with this manage level and an employee is assigned, some of the employee's properties are transferred initially. If the employee properties are changed at a later date, the changes are not passed onto the user account.
- **Full managed:** User accounts with the **Full managed** manage level inherit defined properties of the assigned employee. When a new user account is created with this manage level and an employee is assigned, the employee's properties are transferred in an initial state. If the employee properties are changed at a later date, the changes are passed onto the user account.

**NOTE:** The **Full managed** and **Unmanaged** are analyzed in templates. You can customize the supplied templates in the Designer.

You can define other manage levels depending on your requirements. You need to amend the templates to include manage level approaches.

Specify the effect of temporarily or permanently disabling, deleting or the security risk of an employee on its user accounts and group memberships for each manage level. For detailed information about manage levels, see the *One Identity Manager Target System Base Module Administration Guide*.

- Employee user accounts can be locked when they are disabled, deleted or rated as a security risk so that permissions are immediately withdrawn. If the employee is

reinstated at a later date, the user accounts are also reactivated.


- You can also define group membership inheritance. Inheritance can be discontinued if desired when, for example, the employee's user accounts are disabled and therefore cannot be members in groups. During this time, no inheritance processes should be calculated for this employee. Existing group memberships are deleted!

### **To assign manage levels to an account definition**

1. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.
2. Select an account definition in the result list.
3. Select **Assign manage level**.
4. Assign the manage levels in **Add assignments**.  
- OR -  
Delete the manage levels in **Remove assignments**.
5. Save the changes.

**!** **IMPORTANT:** The **Unmanaged** manage level is assigned automatically when you create an account definition and it cannot be removed.

### **To edit a manage level**

1. Select **Active Directory | Basic configuration data | Account definitions | Manage levels**.
2. Select the manage level in the result list. Select **Change master data**.  
-OR-  
Click  in the result list.
3. Edit the manage level's master data.
4. Save the changes.

### **Related topics**

- [Master data for a manage level](#) on page 44

## **Master data for a manage level**

Enter the following data for a manage level.

**Table 12: Master data for manage levels**

<b>Property</b>	<b>Description</b>
Manage level	Name of the manage level.

Property	Description
Description	Spare text box for additional explanation.
IT operating data overwrites	Specifies whether user account data formatted from IT operating data is automatically updated. Permitted values are: <ul style="list-style-type: none"> <li>• <b>Never</b>: Data is not updated.</li> <li>• <b>Always</b>: Data is always updated.</li> <li>• <b>Only initially</b>: The data is only determined at the start.</li> </ul>
Retain groups if temporarily disabled	Specifies whether user accounts of temporarily disabled employees retain their group memberships.
Lock user accounts if temporarily disabled	Specifies whether user accounts of temporarily disabled employees are locked.
Retain groups if permanently disabled	Specifies whether user accounts of permanently disabled employees retain group memberships.
Lock user accounts if permanently disabled	Specifies whether user accounts of permanently disabled employees are locked.
Retain groups on deferred deletion	Specifies whether user accounts of employees marked for deletion retain their group memberships.
Lock user accounts if deletion is deferred	Specifies whether user accounts of employees marked for deletion are locked.
Retain groups on security risk	Specifies whether user accounts of employees posing a security risk retain their group memberships.
Lock user accounts if security is at risk	Specifies whether user accounts of employees posing a security risk are locked.
Retain groups if user account disabled	Specifies whether locked user accounts retain their group memberships.

## Creating a mapping rule for IT operating data

An account definition specifies which rules are used to form the IT operating data and which default values will be used if no IT operating data can be found through the employee's primary roles.

The following IT operating data is used in the One Identity Manager default configuration for automatic creating and modifying of user accounts for an employee in the target system.

- Microsoft Exchange mailbox database

### To create a mapping rule for IT operating data

1. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.
2. Select an account definition in the result list.
3. Select **Edit IT operating data mapping** and enter the following data.

**Table 13: Mapping rule for IT operating data**

Property	Description
Column	User account property for which the value is set. In the menu, you can select the columns that use the TSB_ITDataFromOrg script in their template. For detailed information, see the <i>One Identity Manager Target System Base Module Administration Guide</i> .
Source	Specifies which roles to use in order to find the user account properties. You have the following options: <ul style="list-style-type: none"><li>• Primary department</li><li>• Primary location</li><li>• Primary cost center</li><li>• Primary business roles</li></ul> <p><b>i</b>   <b>NOTE:</b> Only use the primary business role if the Business Roles Module is installed.</p> <ul style="list-style-type: none"><li>• Empty</li></ul> <p>If you select a role, you must specify a default value and set the option <b>Always use default value</b>.</p>
Default value	Default value of the property for an employee's user account if the value is not determined dynamically from the IT operating data.
Always use default value	Specifies whether user account properties are always filled with the default value. IT operating data is not determined dynamically from a role.
Notify when applying the standard	Specifies whether email notification to a defined mailbox is sent when the default value is used. The <b>Employee - new user account with default properties created</b> mail template is used. To change the mail template, adjust the <b>TargetSystem   ADS   Exchange2000   Accounts   MailTemplateDefaultValues</b> configuration parameter.

4. Save the changes.

### Related topics

- [Determining IT operating data](#) on page 47

# Determining IT operating data

To create user accounts with the **Full managed** manage level, the required IT operating data must be determined. The operating data required to automatically supply an employee with IT resources is shown in the business roles, departments, locations or cost centers. An employee is assigned a primary business role, primary location, primary department or primary cost center. The necessary IT operating data is ascertained from these assignments and used in creating the user accounts. Default values are used if valid IT operating data cannot be found over the primary roles.

You can also specify IT operating data directly for a specific account definition.

## Example

Normally, each employee in department A obtains a default user account in the domainA. In addition, certain employees in department A obtain administrative user accounts in the domainA.

Create an account definition A for the default user account of the domain A and an account definition B for the administrative user account of domain A. Specify the property "Department" in the IT operating data formatting rule for the account definitions A and B in order to determine the valid IT operating data.

Specify the effective IT operating data of department A for the domain A. This IT operating data is used for standard user accounts. In addition, specify the effective account definition B IT operating data for department A. This IT operating data is used for administrative user accounts.

## To define IT operating data

1. In Manager, select the role in the **Organizations** or **Business roles** category.
2. Select the **Edit IT operating data** task.

3. Click **Add** and enter the following data.

**Table 14: IT operating data**

Property	Description
Effects on	<p>IT operating data application scope. The IT operating data can be used for a target system or a defined account definition.</p> <p>To specify an application scope</p> <ol style="list-style-type: none"><li>a. Click → next to the text box.</li><li>b. Under <b>Table</b>, select the table that maps the target system for select the TSBAccountDef table for an account definition.</li><li>c. Select the specific target system or account definition under <b>Effects on</b>.</li><li>d. Click <b>OK</b>.</li></ol>
Column	<p>User account property for which the value is set.</p> <p>In the menu, you can select the columns that use the TSB_ITDataFromOrg script in their template. For detailed information, see the <i>One Identity Manager Target System Base Module Administration Guide</i>.</p>
Value	<p>Concrete value which is assigned to the user account property.</p>

4. Save the changes.

## Related topics

- [Creating a mapping rule for IT operating data](#) on page 45

# Modify IT operating data

If IT operating data changes, you must transfer these changes to the existing user accounts. To do this, templates must be rerun on the affected columns. Before you can run the templates, you can check what effect a change to the IT operating data has on the existing user accounts. You can decide whether the change is transferred to the One Identity Manager database in the case of each affected column in each affected database.

## Prerequisites

- The IT operating data of a department, cost center, business role, or a location was changed.
- OR -
- The default values in the IT operating data template were modified for an account definition.



- NOTE:** If the assignment of an employee to a primary department, cost center, business role or to a primary location changes, the templates are automatically executed.

### To execute the template

1. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.
2. Select an account definition in the result list.
3. Select **Execute templates** in the task view

This displays a list of all user account, which are created through the selected account definition and whose properties are changed by modifying the IT operating data.

Old value: Current value of the object property.

New value: Value that the object property would have following modification of the IT operating data.

Selection: Specifies whether the modification shall be adopted for the user account.

4. Mark all the object properties in the **selection** column that will be given the new value.
5. Click **Apply**.

The templates are applied to all selected user accounts and properties.

## Assigning account definitions to employees

Account definitions are assigned to company employees.

Indirect assignment is the default method for assigning account definitions to employees. Account definitions are assigned to departments, cost centers, locations or roles. The employees are categorized into these departments, cost centers, locations or roles depending on their function in the company and thus obtain their account definitions. To react quickly to special requests, you can assign individual account definitions directly to employees.

You can automatically assign special account definitions to all company employees. It is possible to assign account definitions to the IT Shop as requestable products. A department manager can then request user accounts from the Web Portal for his staff. It is also possible to add account definitions to system roles. These system roles can be assigned to employees through hierarchical roles or directly or added as products in the IT Shop.

In the One Identity Manager default installation, the processes are checked at the start to see if the employee already has a user account in the target system that has an account

definition. If no user account exists, a new user account is created with the account definition's default manage level.

- ① **NOTE:** If a user account already exists and is disabled, then it is re-enabled. You have to alter the user account manage level afterwards in this case.

## Prerequisites for indirect assignment of account definitions to employees

- Assignment of employees and account definitions is permitted for role classes (department, cost center, location or business role).

- ① **NOTE:** As long as an account definition for an employee is valid, the employee retains the user account that was created by it. If the assignment of an account definition is removed, the user account that was created from this account definition is deleted.

For detailed information about preparing role classes to be assigned, see the *One Identity Manager Identity Management Base Module Administration Guide*.

## Detailed information about this topic

- [Assigning account definitions to departments, cost centers, and locations](#) on page 50
- [Assigning account definitions to business roles](#) on page 51
- [Assigning account definitions to all employees](#) on page 52
- [Assigning account definitions directly to employees](#) on page 52
- [Assigning account definitions to a target system](#) on page 55

# Assigning account definitions to departments, cost centers, and locations

## *To add account definitions to hierarchical roles*

1. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.
2. Select an account definition in the result list.
3. Select **Assign organizations**.
4. Assign organizations in **Add assignments**.
  - Assign departments on the **Departments** tab.
  - Assign locations on the **Locations** tab.
  - Assign cost centers on the **Cost centers** tab.

**TIP:** In the **Remove assignments** area, you can remove the assignment of organizations.

**To remove an assignment**

- Select the organization and double click .

5. Save the changes.

## Related topics

- [Assigning account definitions to business roles](#) on page 51
- [Assigning account definitions to all employees](#) on page 52
- [Assigning account definitions directly to employees](#) on page 52

# Assigning account definitions to business roles


Installed modules: Business Roles Module

## To add account definitions to hierarchical roles

1. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.
2. Select an account definition in the result list.
3. Select **Assign business roles** in the task view.
4. Assign business roles in **Add assignments**.

**TIP:** In the **Remove assignments** area, you can remove the assignment of business roles.

**To remove an assignment**

- Select the business role and double click .

5. Save the changes.

## Related topics

- [Assigning account definitions to departments, cost centers, and locations](#) on page 50
- [Assigning account definitions to all employees](#) on page 52
- [Assigning account definitions directly to employees](#) on page 52

# Assigning account definitions to all employees

## *To assign an account definition to all employees*

1. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.
2. Select an account definition in the result list.
3. Select **Change master data**.
4. Set **Automatic assignment to employees on General**.

**!** **IMPORTANT:** Only set this option if you can ensure that all current internal employees in the database and all pending newly added internal employees obtain a user account in this target system.

5. Save the changes.

The account definition is assigned to every employee that is not marked as external. New employees automatically obtain this account definition as soon as they are added. The assignment is calculated by the DBQueue Processor.

**!** **NOTE:** Disable **Automatic assignment to employees** to remove automatic assignment of the account definition to all employees. The account definition cannot be reassigned to employees from this point on. Existing assignments remain intact.

## **Related topics**

- [Assigning account definitions to departments, cost centers, and locations](#) on page 50
- [Assigning account definitions to business roles](#) on page 51
- [Assigning account definitions directly to employees](#) on page 52

# Assigning account definitions directly to employees

## *To assign an account definition directly to employees*

1. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.
2. Select an account definition in the result list.
3. Select **Assign to employees** in the task view.

4. Assign employees in **Add assignments**.

**TIP:** In the **Remove assignments** area, you can remove the assignment of employees.

**To remove an assignment**

- Select the employee and double-click .

5. Save the changes.

## Related topics

- [Assigning account definitions to departments, cost centers, and locations](#) on page 50
- [Assigning account definitions to business roles](#) on page 51
- [Assigning account definitions to all employees](#) on page 52

## Assigning account definitions to system roles

Installed modules: System Roles Module


**NOTE:** Account definitions with **Only use in IT Shop** can only be assigned to system roles that also have this option set.

### To add account definitions to a system role

1. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.
2. Select an account definition in the result list.
3. Select **Assign system roles in the task view**.
4. Assign system roles in **Add assignments**.

**TIP:** In the **Remove assignments** area, you can remove the assignment of system roles.

**To remove an assignment**

- Select the system role and double click .

5. Save the changes.

## Adding account definitions in the IT Shop

A account definition can be requested by shop customers when it is assigned to an IT Shop shelf. To ensure it can be requested, further prerequisites need to be guaranteed.

- The account definition must be labeled with the **IT Shop** option.
- The account definition must be assigned to a service item.
  - ① **TIP:** In Web Portal, all products that can be requested are grouped together by service category. To make the account definition easier to find in Web Portal, assign a service category to the service item.
- If the account definition is only assigned to employees using IT Shop assignments, you must also set **Only for use in IT Shop**. Direct assignment to hierarchical roles may not be possible.
- ① **NOTE:** IT Shop administrators can assign account definitions to IT Shop shelves if login is role-based. Target system administrators are not authorized to add account definitions in the IT Shop.

### ***To add an account definition to the IT Shop***

1. In Manager select **Active Directory | Basic configuration data | Account definitions | Account definitions** (non-role-based login).
  - OR -
  - In Manager, select **Entitlements | Account definitions** (role-based login).
2. Select an account definition in the result list.
3. Select **Add to IT Shop**.
4. Assign the account definitions to the IT Shop shelves in **Add assignments**.
5. Save the changes.

### ***To remove an account definition from individual IT Shop shelves***

1. In Manager select **Active Directory | Basic configuration data | Account definitions | Account definitions** (non-role-based login).
  - OR -
  - In Manager, select **Entitlements | Account definitions** (role-based login).
2. Select an account definition in the result list.
3. Select **Add to IT Shop**.
4. Remove the account definitions from the IT Shop shelves in **Remove assignments**.
5. Save the changes.

### ***To remove an account definition from all IT Shop shelves***

1. In Manager select **Active Directory | Basic configuration data | Account definitions | Account definitions** (non-role-based login).
  - OR -
  - In Manager, select **Entitlements | Account definitions** (role-based login).
2. Select an account definition in the result list.
3. Select **Remove from all shelves (IT Shop)**.

4. Confirm the security prompt with **Yes**.
5. Click **OK**.

The account definition is removed from all shelves by One Identity Manager Service. All requests and assignment requests with this account definition are canceled in the process.

For more detailed information about request from company resources through the IT Shop, see the *One Identity Manager IT Shop Administration Guide*.

## Related topics

- [Master data for an account definition](#) on page 41
- [Assigning account definitions to departments, cost centers, and locations](#) on page 50
- [Assigning account definitions to business roles](#) on page 51
- [Assigning account definitions directly to employees](#) on page 52
- [Assigning account definitions to system roles](#) on page 53

# Assigning account definitions to a target system

The following prerequisites must be fulfilled if you implement automatic assignment of user accounts and employees resulting in administered user accounts (state **Linked configured**):

- The account definition is assigned to the target system.
- The account definition has the default manage level.

User accounts are only linked to the employee (**Linked**) if no account definition is given. This is the case on initial synchronization, for example.

## **To assign the account definition to a target system**

1. In Manager, select the domain in **Active Directory | Domains**.
2. Select **Change master data**.
3. Enter the account definition on the **Exchange** tab.
  - a. Select the account definitions for user mailboxes from **Mailbox definition (initial)**.
  - b. Select the account definition for email contacts from **E-mail contact definition (initial)**.
  - c. Select the account definition for email users from **E-mail user definition (initial)**.
4. Save the changes.

## Related topics

- [Assigning account definitions to employees](#) on page 49

# Deleting an account definition

You can delete account definitions if they are not assigned to target systems, employees, hierarchical roles or any other account definitions.

### *To delete an account definition*

1. Remove automatic assignments of the account definition from all employees.
  - a. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.
  - b. Select an account definition in the result list.
  - c. Select **Change master data**.
  - d. Disable **Automatic assignment to employees** on the **General** tab.
  - e. Save the changes.
2. Remove direct assignments of the account definition to employees.
  - a. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.
  - b. Select an account definition in the result list.
  - c. Select **Assign to employees** in the task view.
  - d. Remove employees from **Remove assignments**.
  - e. Save the changes.
3. Remove the account definition's assignments to departments, cost centers and locations.
  - a. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.
  - b. Select an account definition in the result list.
  - c. Select **Assign organizations**.
  - d. In **Remove assignments**, remove the relevant departments, cost centers, and locations.
  - e. Save the changes.
4. Remove the account definition's assignments to business roles.
  - a. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.
  - b. Select an account definition in the result list.




- c. Select **Assign business roles**.
    - Remove the business roles in **Remove assignments**.
  - d. Save the changes.
5. If the account definition was requested through the IT Shop, it must be canceled and removed from all IT Shop shelves.

For more detailed information about unsubscribing requests, see the *One Identity Manager Web Portal User Guide*.

**To remove an account definition from all IT Shop shelves**

- a. In Manager select **Active Directory | Basic configuration data | Account definitions | Account definitions** (non-role-based login).
    - OR -
    - In Manager, select **Entitlements | Account definitions** (role-based login).
  - b. Select an account definition in the result list.
  - c. Select **Remove from all shelves (IT Shop)**.
  - d. Confirm the security prompt with **Yes**.
  - e. Click **OK**.
 

The account definition is removed from all shelves by One Identity Manager Service. All requests and assignment requests with this account definition are canceled in the process.
6. Remove the account definition assignment as required account definition for another account definition. As long as the account definition is required for another account definition, it cannot be deleted. Check all the account definitions.
- a. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.
  - b. Select an account definition in the result list.
  - c. Select **Change master data**.
  - d. Remove the account definition in the **Required account definition** menu.
  - e. Save the changes.
7. Remove the account definition's assignments to target systems.
- a. In Manager, select the domain in **Active Directory | Domains**.
  - b. Select **Change master data**.
  - c. Remove the assigned account definitions on the **General** tab.
  - d. Save the changes.
8. Delete the account definition.
- a. In Manager, select **Active Directory | Basic configuration data | Account definitions | Account definitions**.

- b. Select an account definition in the result list.
- c. Click  to delete an account definition.

## Target system managers

A default application role exists for the target system manager in One Identity Manager. Assign the employees who are authorized to edit all Microsoft Exchange organizations in One Identity Manager to this application role.

ns for target system managers to individual farms.SharePoint Define additional application roles if you want to limit the edit permissions for target system managers to individual Microsoft Exchange organizations. The application roles must be added under the default application role.

For detailed information about implementing and editing application roles, see the *One Identity Manager Authorization and Authentication Guide*.

### Implementing application roles for target system managers

1. The One Identity Manager administrator assigns employees to be target system managers.
2. These target system managers add employees to the default application role for target system managers.  
Target system managers with the default application role are authorized to edit all Microsoft Exchange organizations in One Identity Manager.
3. Target system managers can authorize other employees within their area of responsibility as target system managers and if necessary, create additional child application roles and assign these to individual Microsoft Exchange organizations.

**Table 15: Default Application Roles for Target System Managers**

User	Tasks
Target system managers	<p>Target system managers must be assigned to the application role <b>Target systems   Exchange</b> or a sub application role.</p> <p>Users with this application role:</p> <ul style="list-style-type: none"> <li>• Assume administrative tasks for the target system.</li> <li>• Create, change or delete target system objects, like user accounts or groups.</li> <li>• Edit password policies for the target system.</li> <li>• Can add employees, who have an other identity than the <b>Primary identity</b>.</li> <li>• Configure synchronization in the Synchronization Editor and defines</li> </ul>

User	Tasks
	<p>the mapping for comparing target systems and One Identity Manager.</p> <ul style="list-style-type: none"> <li>• Edit the synchronization's target system types and outstanding objects.</li> <li>• Authorize other employees within their area of responsibility as target system managers and create child application roles if required.</li> </ul>

***To initially specify employees to be target system administrators***

1. Log in to One Identity Manager as Manager administrator (**Base role | Administrators**)
2. Select **One Identity Manager Administration | Target systems | Administrators**.
3. Select **Assign employees**.
4. Assign the employee you want and save the changes.

***To add the first employees to the default application as target system managers.***

1. Log yourself into Manager as target system administrator (**Target systems | Administrators**).
2. Select **One Identity Manager Administration | Target systems | Exchange**.
3. Select **Assign employees** in the task view.
4. Assign the employees you want and save the changes.

***To authorize other employees as target system managers when you are a target system manager***

1. Login to Manager as target system manager.
2. Select the application role in Active Directory | **Basic configuration data | Target system managers**.
3. Select **Assign employees**.
4. Assign the employees you want and save the changes.

***To specify target system managers for individual Microsoft Exchange organizations***

1. Log in to Manager as target system manager.
2. Select **Active Directory | Exchange system administration**.
3. Select **Change master data**.
4. On the **General** tab, select the application role in the **Target system manager**

menu.

- OR -

Next to the **Target system manager** menu, click  to create a new application role.

- a. Enter the application role name and assign the **Target systems | Exchange** parent application role.
- b. Click **OK** to add the new application role.

5. Save the changes.

## Related topics

- [One Identity Manager users for managing a Microsoft Exchange environment on page 8](#)
- [Microsoft Exchange organizations on page 62](#)

## Microsoft Exchange structure

Structure elements in Microsoft Exchange that are not server dependent are matched by each Microsoft Exchange Server. This affects the organization, global address lists, offline address lists, and folders. Double entries are avoided by running a check routine immediately before entry in the One Identity Manager database. Microsoft Exchange structure objects below server level are only matched by the respective server itself. This affects mailbox databases and public folder databases.

The names and frequency of the structure objects listed below can vary depending on the version of the Microsoft Exchange server in use.

- i** **NOTE:** The system information for the Microsoft Exchange structure is loaded into the One Identity Manager database during data synchronization. It is not possible to customize this system information in One Identity Manager due to the complex dependencies and far reaching effects of changes.

### Detailed information about this topic

- [Microsoft Exchange organizations](#) on page 62
- [Microsoft Exchange mailbox databases](#) on page 63
- [Microsoft Exchange address lists](#) on page 65
- [Microsoft Exchange public folders](#) on page 67
- [Microsoft Exchange mailbox server](#) on page 68
- [Microsoft Exchange data availability groups](#) on page 69
- [Share Policies](#) on page 69
- [Retention policies](#) on page 70
- [Policies for mobile email queries](#) on page 71
- [Folder administration policies](#) on page 73
- [Role assignment policies](#) on page 74
- [Outlook Web App mailbox policy](#) on page 75


# Microsoft Exchange organizations

A Microsoft Exchange organization is specified during installation of the Microsoft Exchange server. The global settings for message delivery are not made in the One Identity Manager.

## **To edit organization master data**

1. In Manager, select **Active Directory | Exchange system administration**.
2. Select the organization from the result list.
3. Select **Change master data**.
4. Save the changes.

**Table 16: Organization master data**

<b>Property</b>	<b>Description</b>
Name	Name of the organization.
Distinguished name	Distinguished name of the organization.
Canonical name	Canonical of the organization.
Administrative description	An administrative description about the organization.
LDAP Path	Path to the organization in LDAP notation.
Exchange version	Version of Microsoft Exchange implemented.
Forest	The name of the forest to which the domain belongs.
Organization in mixed mode	Specifies whether the organization works in mixed or single mode.
Target system manager	<p>Application role in which target system managers are specified for the organization. Target system managers only edit the organization objects assigned to them. Therefore, each organization can have a different target system manager assigned to it.</p> <p>Select the One Identity Manager application role whose members are responsible for administration of this organization. Use the  button to add a new application role.</p>
Synchronized by	Type of synchronization through which the data is synchronized between the organization and One Identity Manager. You can no longer change the synchronization type once objects for this organization are present in One Identity Manager.

Property	Description
	When you create an organization with the Synchronization Editor, <b>One Identity Manager</b> is used.

**Table 17: Permitted values**

Value	Synchronization by	Provisioned by
One Identity Manager	Microsoft Exchange connector	Microsoft Exchange connector
No synchronization	none	none

**NOTE:** If you select **No synchronization**, you can define custom processes to exchange data between One Identity Manager and the organization.

### Related topics

- [Target system managers](#) on page 58

## Microsoft Exchange mailbox databases

Mailbox data is stored in the mailbox database (messages received, attachments, folders, documents).

### *To display mailbox database master data*

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Organization configuration | Mailbox databases**.
2. Select a mailbox database in the result list.
3. Select **Change master data**.

### *To display the mailbox server of a mailbox database master data*

1. In Manager, select **Active Directory | Exchange system administration | <Organization> | Organization configuration | Mailbox databases**.
2. Select a mailbox database in the result list.
3. Select **Change master data**.

**Table 18: Mailbox database master data**

<b>Property</b>	<b>Description</b>
Exchange organization	Name of the organization.
Name	Name of the mailbox database.
Administrative description	Administrative description of the mailbox database.
Master	Specifies where to find the mailbox database master. A server or a database availability group can be entered.
Master type	Type of mailbox database master.
Exchange database	Storage location of the server.
Store	Name of the storage group.
Public folder database	Name of the public folder database.
offline address list	Name of the default offline address list.
Store deleted mailboxes [days]	Number of days the deleted mailboxes stay on the server before they are finally removed.
Store deleted objects [days]	Number of days the deleted objects (email message for example) remain on the server before being removed.
Warn at [KB]	Global setting for the maximum size of mailboxes in KB. If this size is exceeded the user is sent a warning that messages must be deleted in the archive mailbox.
Prohibit send at [KB]	Global setting for the size of mailboxes in KB above which, sending messages is prohibited. If this size is exceeded the user is sent a message that messages must be deleted in the archive mailbox. The user is not able to send more messages until the size of the mailbox has been reduced.
Prohibit transfer at [KB]	Global setting for the size of mailboxes in KB above which, sending and receiving messages is prohibited.
Warning interval	Interval for warnings for mailbox databases.
Do not delete permanently	Specifies whether objects are allowed to be deleted after a final backup is run.



Property	Description
before a backup is made	
Journal recipient	All messages sent using the mailbox database are logged in this mailbox or distribution group.
Maintenance schedule	Maintenance schedule for the database.
Mounted	Status of the database. Specifies whether the database is linked in or not.
Circular logging	Specifies whether the log data are reused or new.
Recovery	Specifies whether the database is a recovery database.

## Microsoft Exchange address lists

Microsoft Exchange offers you the possibility to manage address lists for your Microsoft Exchange organization. Members in address lists can be mailboxes, email users, email contacts or email enabled distribution groups and email enabled public folders. Offline address lists allow a mailbox user to get the address list data and work with it offline.

### *To display address list master data*

1. In Manager, select **Active Directory | Exchange system administration | <Organization> | Organization configuration | Address lists**.
2. Select the address list in the result list.
3. Select **Change master data**.

**Table 19: Address list master data**

Property	Description
Exchange organization	Name of the organization.
Name	Address list name.
Parent address list	Name of the parent address list.
Display name	Display name of the address list. This name is used to display the address lists in clients, for example, Outlook.
Administrative description	Administrative description of the mailbox database.

Property	Description
Container	Container for the address list.
Condition	Additional condition for the filter rule.
Filter rules	Filter rules for finding members in the address list.
Global address list	Specifies whether the list is global.
All recipient types	Specifies whether all recipient types are permitted in the address list.
User mailboxes	Specifies whether user mailboxes are permitted in the address list.
Email users	Specifies whether email users are permitted in the address list.
Email contacts	Specifies whether email contacts are permitted in the address list.
Mail-enabled distribution groups	Specifies whether mail-enabled distribution groups are permitted in the address list.
Resource mailboxes	Specifies whether resource mailboxes are permitted in the address list.
None	Specifies whether any recipients are permitted in the address list.

### ***To display master data of an offline address list***

1. In Manager, select **Active Directory | Exchange system administration | <Organization> | Organization configuration | Offline address lists**.
2. Select the offline address list in the result list.
3. Select **Change master data**.

**Table 20: Offline address list master data**

Property	Description
Exchange organization	Name of the organization.
Name	Name of the offline address list.
Administrative description	Administrative description of the offline address list.
Default offline address list	Labels this as a default offline address list.
Server	Microsoft Exchange server where the offline address list is stored.
Supports Outlook	Information about which Outlook versions are supported.
Schedule	Update interval for the offline address list.

# Microsoft Exchange public folders

Public folders are used to allow employees shared access to information. Public folders can be structured hierarchically and are connection with a public folder database.

## **To display public folder master data**

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Organization configuration | Public folders**.
2. Select the public folder in the result list.
3. Select **Change master data**.

**Table 21: Public folder master data**

<b>Property</b>	<b>Description</b>
Exchange organization	Name of the organization.
Name	Name of the public folder.
Parent public folder	Name of the parent public folder.
Path	Path to the public folder.
Read state per user	Specifies whether users can show information about read and unread messages.

## **To display master data for a public folder**

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Organization configuration | Public folder database**.
2. Select the public folder database in the result list.
3. Select **Change master data**.

**Table 22: Master data for a public folder database**

<b>Property</b>	<b>Description</b>
Exchange organization	Name of the organization.
Name	Name of the database.
Administrative description	Administrative description of the database.
Store	Name of the storage group.
Master server	If this is a copy of the database, the server on which the original copy is to be found is entered here.

Property	Description
Mounted	Status of the database. Specifies whether the database is linked in or not.
Replication interval [min]	Interval for replication the database in minutes.
Max. send size [KB]	Maximum size for replicated messages in KB.
Max. element size [KB]	Maximum size of elements in KB.
Warn at [KB]	Setting for the maximum size of the database in KB. A warning is sent if this size is exceeded.
Provisioning prohibited at [KB]	Setting for the size of messages in KB. Messages that exceed this size cannot be published.
Database path	Storage location of the server.
Folders expire after [days]	Expiry data for folders in this public folder store in days.
Store deleted objects [days]	Number of days the deleted objects (messages, for example) remain on the server before being removed.
Do not delete permanently before a backup is made	Specifies whether objects are allowed to be deleted after a final backup is run.
Distinguished name	Old style distinguished name of the database.
Circular logging	Specifies whether the log data are reused or new.

## Microsoft Exchange mailbox server

The mailbox server is responsible for client processing. There is a copy of the mailbox database on the mailbox server.

### ***To display server master data***

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Server configuration**.
2. Select the server in the result list.
3. Select **Change master data**.

### ***To display a mailbox server's mailbox database.***

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Server configuration**.
2. Select the server in the result list.
3. Select **Display mailbox database** in the task view.

**Table 23: Server master data**

<b>Property</b>	<b>Description</b>
Exchange organization	Name of the organization.
Active Directory computer	Computer on which the Microsoft Exchange server is installed.
Server	Name of the server.
Distinguished name	Distinguished name of the server.
Function	Exchange server roles of the server.
Exchange version	Installed version of the Microsoft Exchange server.

## Microsoft Exchange data availability groups

Database availability groups (DAG) were implemented for increased availability and site resilience.

### *To display a database availability group*

1. In Manager, select **Active Directory | Exchange system administration | <Organization> | Organization configuration | Database availability groups**.
2. Select the database availability group in the result list.
3. Select **Change master data**.

**Table 24: Database availability group master data**

<b>Property</b>	<b>Description</b>
Exchange organization	Name of the organization.
Database availability group	Name of the database availability group.
Administrative description	Administrative description of the mailbox database.

## Share Policies

Sharing policies are implement to make calendar and contact data available to external users. Assigning a sharing policy to a mailbox regulates how calendar and contact data can be shared with user accounts outside the Microsoft Exchange organization.

### **To assign policies to mailboxes**

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Policies | Share policies**.
2. Select the policy in the result list.
3. Select **Assign mailboxes** in the task view.
4. Assign mailboxes in **Add assignments**.

**TIP:** you can remove the assignment of mailboxes in the **Remove assignments** area.

#### **To remove an assignment**

- Select the mailbox and double click .

5. Save the changes.

### **To display master data for a sharing policy**

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Policies | Share policies**.
2. Select the policy in the result list.
3. Select **Change master data**.

**Table 25: Sharing policy master data**

<b>Property</b>	<b>Description</b>
Exchange organization	Name of the organization.
Name	Name of the policy.
Domain share	Domain and action which apply for this sharing policy.
Enabled	Specifies whether the policy is enabled. The calendar and contact data is shared for user accounts in the given domains.
Default	Specifies whether this is the default policy.

## **Retention policies**

Retention policies have been implemented to group settings for retaining folders and email messages and to apply these to mailboxes.

### ***To assign policies to mailboxes***

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Policies | Retention policies**.
2. Select the policy in the result list.
3. Select **Assign mailboxes** in the task view.
4. Assign mailboxes in **Add assignments**.

**TIP:** you can remove the assignment of mailboxes in the **Remove assignments** area.

#### ***To remove an assignment***

- Select the mailbox and double click .

5. Save the changes.

### ***To display master data for a retention policy***

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Policies | Retention policies**.
2. Select the policy in the result list.
3. Select **Change master data**.

**Table 26: Retention policy master data**

<b>Property</b>	<b>Description</b>
Exchange organization	Name of the organization.
Name	Name of the policy.
Administrative description	Administrative description of the policy.

## **Policies for mobile email queries**

Mailbox policies for mobile email queries contain settings that come into effect when data is accessed in the Microsoft Exchange organization with mobile devices through the synchronization protocol Exchange ActiveSync. The settings include, for example, password requirements, specifications for email attachments, device encryption data and access rules for shares.

### ***To assign policies to mailboxes***

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Policies | Email policies**.
2. Select the policy in the result list.
3. Select **Assign mailboxes** in the task view.

4. Assign mailboxes in **Add assignments**.

**TIP:** you can remove the assignment of mailboxes in the **Remove assignments** area.

**To remove an assignment**

- Select the mailbox and double click .

5. Save the changes.

**To display policy master data for a mobile email query**

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Policies | Email policies**.
2. Select the policy in the result list.
3. Select **Change master data**.

**Table 27: Email policy master data**

Property	Description
Exchange organization	Name of the organization.
Name	Name of the policy.
Devices permitted without a full policy	Specifies whether older devices can connect to the Microsoft Exchange server using Exchange ActiveSync.
File sharing	Specifies whether file sharing is permitted.
SharePoint services	Specifies whether access to SharePoint service files is permitted.
Password required	Specifies whether a device password is required.
Encrypt password	Specifies whether device encryption is required.
Simple passwords allowed	Specifies whether a simple password is allowed.
Min. password length	Minimum length of the password. Minimum number of characters the password must have.
Password cycle	Number of new passwords that a user has to use before an 'old' one can be reused.
Password expiry period	Length of time a password can be used before it expires.
Password restorable	Specifies whether a restore password is generated that can be used to unlock the device.
Requires alphanumeric characters	Specifies whether alphanumeric characters are expected in the password.



Property	Description
Failed logins	Number of incorrect password attempts. If the user has reached this number the user account is blocked.
Lock if inactive for [min]	Number of minutes without activity before the device is locked.
Attachments download permitted	Specifies whether attachments are automatically downloaded.
Max. mail attachment size	Maximum size of mail attachment that can be automatically downloaded.
Default	Specifies whether this is the default policy.

## Folder administration policies

Mailbox policies for folder management are used to group managed folders together. Managed folders are available in mailboxes when a policy is assigned to a Microsoft Exchange Organization mailbox.

### *To assign policies to mailboxes*

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Policies | Folder management policies**.
2. Select the policy in the result list.
3. Select **Assign mailboxes** in the task view.
4. Assign mailboxes in **Add assignments**.

**TIP:** you can remove the assignment of mailboxes in the **Remove assignments** area.

#### **To remove an assignment**

- Select the mailbox and double click .

5. Save the changes.

### *To display master data for a folder management policy*

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Policies | Folder management policies**.
2. Select the policy in the result list.
3. Select **Change master data**.

**Table 28: Master data for a folder management policy**

Property	Description
Exchange organization	Name of the organization.
Name	Name of the policy.

## Role assignment policies


Policies for role assignments have been implemented to provide users with functions and tasks for managing their mailboxes.

### *To assign policies to mailboxes*

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Policies | Role assignment policies**.
2. Select the policy in the result list.
3. Select **Assign mailboxes** in the task view.
4. Assign mailboxes in **Add assignments**.

**TIP:** you can remove the assignment of mailboxes in the **Remove assignments** area.

#### *To remove an assignment*

- Select the mailbox and double click .
5. Save the changes.

### *To display master data for a role assignment policy*

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Policies | Role assignment policies**.
2. Select the policy in the result list.
3. Select **Change master data**.

**Table 29: Role assignment policy master data**

Property	Description
Exchange organization	Name of the organization.
Name	Name of the policy.
Administrative description	Administrative description of the policy.
Description	Detail description of the policy.
Default policy	Specifies whether the policy is the default.

# Outlook Web App mailbox policy

Outlook Web App mailbox policies are implemented for managing access to functions in Outlook Web App.

## ***To assign policies to mailboxes***

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Policies | Outlook Web App mailbox policies**.
2. Select the policy in the result list.
3. Select **Assign mailboxes** in the task view.
4. Assign mailboxes in **Add assignments**.

**TIP:** you can remove the assignment of mailboxes in the **Remove assignments** area.

### ***To remove an assignment***

- Select the mailbox and double click .

5. Save the changes.

## ***To display master data for a role assignment policy***

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Policies | Outlook Web App mailbox policies**.
2. Select the policy in the result list.
3. Select **Change master data**.

## Microsoft Exchange mailboxes

Mailbox-enabled recipients can send, receive and save messages. Microsoft Exchange recognizes several mailbox types. The mailbox types listed below are supported in One Identity Manager.

**Table 30: Supported mailbox types**

<b>Mailbox type</b>	<b>Description</b>
User mailbox	User mailboxes are assigned to Active Directory user accounts in a Microsoft Exchange organization.
Equipment mailbox	Equipment mailboxes are resource mailboxes used for planning resources, such as computers or laptops. This mailbox type can only be created for disabled user accounts.
Room mailbox	Room mailboxes are resource mailboxes used for planning meeting locations.
Linked mailbox	Linked mailboxes are assigned to Active Directory user accounts in a trusted domain. This makes the Microsoft Exchange organization available within a domain. Active Directory user accounts in a trusted domain without an Exchange structure can obtain a linked mailbox in this Microsoft Exchange organization. This mailbox type can only be created for disabled user accounts.
Shared mailbox	Shared mailboxes are mailboxes that are used by several users. This mailbox type can only be created for disabled user accounts.
Legacy mailbox	Legacy mailboxes are mailboxes from previous versions of Microsoft Exchange. These mailboxes are loaded into One Identity Manager by synchronization and cannot be edited.
Discovery mailbox	As from Microsoft Exchange Server 2013 onwards, a discovery mail, which is used as target mailbox for searches through eDiscovery in Microsoft Exchange, is created by default. These mailboxes are loaded into One Identity Manager by synchronization and cannot be edited.
Linked	Linked room mailbox are used for planning meetings, for example, for

Mailbox type	Description
room mailbox	conference rooms in Skype for Business. This mailbox type can only be created for disabled user accounts.

### Detailed information about this topic

- [Creating mailboxes](#) on page 77
- [Editing master data for mailboxes](#) on page 79
- [Receive restrictions for mailboxes](#) on page 89
- [Send permission for mailboxes](#) on page 90
- [Deactivating mailboxes](#) on page 90
- [Deleting and restoring mailboxes](#) on page 92

## Creating mailboxes


You always create mailboxes for Active Directory user accounts. An Active Directory user account can either have a mailbox or an email user. If a user account already has an email user, you must delete the email user before a mailbox can be set up for the user account.

**NOTE:** Equipment mailboxes, shared mailboxes and linked mailboxes can only be created for disabled user accounts.

**NOTE:** It is recommended to use account definitions to set up mailboxes for company employees.

- In order to create mailboxes through account definitions, the employee must have a central user account and obtain the IT operating data through assignment to a primary department, primary location, or a primary cost center.
- In this case, some of the master data described in the following is mapped through templates from employee master data.

### To create a mailbox

1. In Manager, select **Active Directory | Mailboxes**.
2. Click  in the result list.
3. On the master data form, enter the master data for the mailbox.
4. Save the changes.

### **To create a mailbox for an Active Directory user account, manually**

1. In Manager, select **Active Directory | User accounts**.
2. In the result list, select the user account and choose **Change master data**.
3. Select **Create mailbox** in the task view.
4. Enter the following information:
  - **Active Directory user account:** the user account is already selected.
  - **Exchange organization:** the exchange organization is already selected. Check the setting.
  - (Optional) **Mailbox database:** Name of the mailbox database. If empty, Microsoft Exchange decides which mailbox database is used.
  - **Alias:** Unique alias for further identification of the mailbox.
5. Save the changes.

**NOTE:** Names and occurrences of the listed data and tasks can vary depending on which version of the Microsoft Exchange server is implemented and the type of Microsoft Exchange mailbox.

### **Detailed information about this topic**

- [Mailbox general master data](#) on page 79
- [Calendar settings for mailboxes](#) on page 82
- [Limits for a mailbox](#) on page 83
- [Mailbox archive](#) on page 85
- [Mailbox retention](#) on page 85
- [Mailbox functions](#) on page 86
- [Booking resources](#) on page 87

### **Related topics**

- [Editing master data for mailboxes](#) on page 79
- [Setting up account definitions](#) on page 40
- [Deactivating mailboxes](#) on page 90
- [Deleting and restoring mailboxes](#) on page 92
- [Deleting and restoring e-mail users](#) on page 97

# Editing master data for mailboxes

## To edit a mailbox

1. In Manager, select **Active Directory | Mailboxes**.
2. Select the mailbox in the result list and run **Change master data**.
3. Edit the mailbox's master data.
4. Save the changes.

**NOTE:** Names and occurrences of the listed data and tasks can vary depending on which version of the Microsoft Exchange server is implemented and the type of Microsoft Exchange mailbox.

## Detailed information about this topic

- [Mailbox general master data](#) on page 79
- [Calendar settings for mailboxes](#) on page 82
- [Limits for a mailbox](#) on page 83
- [Mailbox archive](#) on page 85
- [Mailbox retention](#) on page 85
- [Mailbox functions](#) on page 86
- [Booking resources](#) on page 87

## Related topics

- [Setting up account definitions](#) on page 40
- [Deactivating mailboxes](#) on page 90
- [Deleting and restoring mailboxes](#) on page 92

# Mailbox general master data


Enter the following data on **General**:

**Table 31: Mailbox general master data**

Property	Description
Employee	Employee using the mailbox. An employee is already entered if the mailbox was generated by an account definition. If you create the mailbox manually, you can select an employee in the menu.

Property	Description
Account definition	<p>Account definition through which the mailbox was created.</p> <p>Use the account definition to automatically populate mailbox master data and to specify a manage level for the mailbox. One Identity Manager finds the IT operating data of the assigned employee and uses it to populate the corresponding fields in the mailbox.</p> <p><b>NOTE:</b> The account definition cannot be changed once the mailbox has been saved.</p>
Manage level	<p>Manage level with which the mailbox is created. Select a manage level from the menu. You can only specify the manage level can if you have also entered an account definition. All manage levels of the selected account definition are available in the menu.</p>
Active Directory user account	<p>Active Directory user account for which this mailbox is created.</p>
Linked mailbox	<p>External Active Directory user account that has access to the Exchange organization through this mailbox. A linked mailbox is only permitted for mailboxes with mailbox type <b>linked mailbox</b>. The linked mailbox itself is disabled. Disabling in Active Directory is done by the One Identity Manager Service. After the next synchronization, the linked mailbox is also disabled in the One Identity Manager database.</p>
Exchange organization	<p>Name of the Microsoft Exchange organization.</p>
Canonical name	<p>Mailbox's canonical name. The canonical name is generated automatically.</p>
Mailbox type	<p>Type of mailbox. Available mailbox types are: <b>User, Room, Equipment, Linked, Legacy, Shared, Discovery, and Linked room.</b></p>
Alias	<p>Unique alias for further identification of the mailbox.</p>
Mailbox database	<p>Name of the mailbox database. Mailbox data is stored in the mailbox database (messages received, attachments, folders, documents). The mailbox database for user mailboxes is determined from the current IT operating data for the assigned employee depending on the mailbox manage level.</p> <p>This data is optional. If empty, Microsoft Exchange decides which mailbox database is used.</p>
Automatically update based on recipient policy	<p>Specifies whether changes to recipient's email addresses are automatically updated based on incoming settings.</p>



Property	Description
Proxy addresses	<p>Email addresses for the mailbox. You can also add other mail connectors (for example, CCMail, MS) in addition to the standard address type (SMTP, X400).</p> <p>Use the following syntax to set up other proxy addresses:</p> <p>Address type: new email address</p>
Sender authentication required	Specifies whether authentication data is requested from senders. Set this option to prevent anonymous senders mailing to the mailbox.
Max. number of recipients	Maximum number of recipients to which the mailbox user can send messages. If there is no limit, the global setting for Microsoft Exchange organization message delivery in the Microsoft Exchange system manager.
Send and forward	Specifies whether to send and forward messages. Set this option to send messages to alternative recipients and mailbox owners.
Alternative recipient	<p>Alternative recipient to which messages from this mailbox are forwarded. You can either enter an alternative recipient, a recipient group or a receive folder.</p> <p><b>To specify an alternative recipient</b></p> <ol style="list-style-type: none"> <li>1. Click  next to the text box.</li> <li>2. Select the table under <b>Table</b> which maps the recipient.</li> <li>3. Select the recipient under <b>Alternative recipient</b>.</li> <li>4. Click <b>OK</b>.</li> </ol>
Simple display name	Simple display name for systems that cannot interpret all the characters of normal display names.
Folder policy	Mailbox policy for folder administration.
Role assignment policy	Role assignment policy which applies for this mailbox.
Sharing policy	Sharing policy which applies for this mailbox.
Outlook Web App mailbox policy	Outlook Web App mailbox policy, which applies to this mailbox.
Mailbox is locked	Specifies whether the mail box is locked.
Do not display in address list	Specifies whether the mailbox is visible in address books. Set this option if you want to prevent the mailbox from being displayed in address books. This option applies to all address books.

Property	Description
Distinguished name	Active Directory user account's distinguished name.
Distinguished Exchange name	Mailbox's distinguished name.

### Related topics

- [Setting up account definitions](#) on page 40
- [Share Policies](#) on page 69
- [Folder administration policies](#) on page 73
- [Role assignment policies](#) on page 74
- [Deactivating mailboxes](#) on page 90

## Calendar settings for mailboxes

You can enable the Calendar Attendant to automatically update changes to meeting data, such as meeting times or responses from attendees in the calendar.

Enter the following data on the **Calendar** tab.

**Table 32: Mailbox calendar settings**

Property	Description
Enable Calendar Attendant	<p>Specifies whether the Calendar Attendant is enabled for mailboxes. Other settings become available once the Calendar Attendant is enabled.</p> <p>Permitted values are:</p> <ul style="list-style-type: none"> <li>• <b>Calendar attendant disabled:</b> the calendar attendant is not activated.</li> <li>• <b>Calendar attendant enabled:</b> the calendar attendant is activated.</li> <li>• <b>Resource booking attendant enabled:</b> The resource booking attendant is automatically enabled for mailboxes of type <b>Room</b>.</li> </ul>
New meeting requests are marked with the status "tentative".	Specifies whether meeting requests are automatically entered in the calendar with <b>Tentative</b> status.

Property	Description
Permit meeting requests from external senders	Specifies whether meeting requests from external senders are entered in the calendar.
Delete expired meeting requests	Specifies whether to automatically delete old meeting requests from the calendar.
Delete expired meeting requests	Specifies whether to automatically delete messages to other attendees about forwarded meetings. These messages are moved to the <b>Deleted items</b> folder.

## Related topics

- [Booking resources](#) on page 87

# Limits for a mailbox

Enter the following master data on the **Limits** tab.

**Table 33: Limits for a Mailbox**

Property	Description
Number of saved messages	Number of saved messages. This data is determined through synchronization and cannot be edited manually.
Used disk space [KB]	Used disk space in KB. This data is determined through synchronization and cannot be edited manually.
Max. send size [KB]	Maximum size for message in KB that a mailbox can send. The Microsoft Exchange organization global settings in the Microsoft Exchange System Manager come into effect for message delivery if there are no limitations.
Max. receiving size [KB]	Maximum size for message in KB that a mailbox can receive. The Microsoft Exchange organization global settings in the Microsoft Exchange System Manager come into effect for message delivery if there are no limitations.
Use default database values	Specifies whether the mailbox database limits are used. Option set: Mailbox database limits are in use. Option not set: Mailbox database limits are not in use.
Prohibit transfer at [KB]	Size of mailboxes in KB above which, sending and receiving messages is prohibited.

Property	Description
Prohibit send at [KB]	Size of mailboxes in KB above which, sending messages is prohibited. If this size is exceeded the user is sent a message that messages must be deleted in the archive mailbox. The user is not able to send more messages until the size of the mailbox has been reduced.
Warn at [KB]	Maximum size in MB of the mailbox. If this size is exceeded the user is sent a warning that messages must be deleted in the archive mailbox.
Use default retention settings	Specifies whether to use the mailbox's default retention settings. Option set: Mailbox database default settings are in use. Option not set: Mailbox database default settings are not in use.
Store deleted objects [days]	Number of days the deleted objects (email message for example) remain on the server before being removed.
Do not delete permanently before a backup is made	Specifies whether objects are allowed to be deleted after a final backup is run.
Max. number subfolders	Maximum number of subfolders allowed in a mailbox. This property is available from Microsoft Exchange Server 2013 or later.
Warn at [subfolder]	Number of subfolders which can be created in a mailbox before the user is sent a warning. This property is available from Microsoft Exchange Server 2013 or later.
Max. folder levels	Maximum number of levels in the mailbox folder structure. This property is available from Microsoft Exchange Server 2013 or later.
Warn at [folder levels]	Number of folder levels which can be created before the user is sent a warning. This property is available from Microsoft Exchange Server 2013 or later.
Max. recoverable items	Maximum number of messages allowed in a folder in the <b>Recoverable items</b> folder. This property is available from Microsoft Exchange Server 2013 or later.
Warn at [recoverable items]	Number of items a folder in the <b>Recoverable items</b> folder can contain before a warning is sent to the user. This property is available from Microsoft Exchange Server 2013 or later.

## Related topics

- [Microsoft Exchange mailbox databases](#) on page 63

# Mailbox archive

You can configure personal archives with which users can save messages in an archive mailbox.

Enter the following master data on the **Archive** tab.

**Table 34: Archiving a mailbox**

Property	Description
Archiving enabled	Specifies whether a personal archive is created for this mailbox. Set this option if you want to set up a personal archive for this mailbox.
Archive mailbox database	Name of the archive mailbox database.
Archive name	Name of the archive.
Max. size of archive [MB]	Maximum size in MB that the personal archive of a mailbox may reach.
Archive warning from [MB]	Maximum size in MB of the archive mailbox. If this size is exceeded, the user is sent a warning that messages must be deleted in the archive mailbox.

# Mailbox retention

Enter the following data on the **Retention** tab.

**Table 35: Mailbox retention master data**

Property	Description
Retention policy	Retention policy applying to this mailbox.
Retention hold during this period	Specifies whether retention is temporarily stopped during this period. Set this option if the policy for retention hold needs to be temporarily deferred, for example, during vacation. Specify the time period using <b>Start date</b> and <b>End date</b> .
Start date	Start date on which to stop retention actions.
End date	Date on which to end retention actions.

Property	Description
Litigation hold	Specifies whether mailbox retention is mandatory.
Website for litigation hold	Website or document with more information to keep the user informed, when the option <b>Litigation hold</b> is set. This data is displayed to the user in Outlook.
Comment for litigation hold	Additional comment with more information to keep the user informed, when the option <b>Litigation hold</b> is set. This data is displayed to the user in Outlook.

## Related topics

- [Retention policies](#) on page 70

# Mailbox functions

Enter the following master data on the **Functions** tab.

**Table 36: Mailbox Functions**

Property	Description
Outlook Web Access enabled	Specifies whether the function for Microsoft Office Outlook Web App is enabled. Office Outlook Web App allows mailbox access over the web browser.
Mobile access	Specifies whether mobile devices can access the mailbox.
Email policy	Mailbox policy for mobile email queries. Mailbox policies for mobile email queries contain settings that come into effect when data is accessed in the Microsoft Exchange organization with mobile devices through the synchronization protocol Exchange ActiveSync.
MAPI enabled	Specifies whether the function for MAPI access is enabled. MAPI allows mailbox access through a MAPI client, like Outlook.
POP3 enabled	Specifies whether the function for POP3 access is enabled.
IMAP4 enabled	Specifies whether the function for IMAP4 access is enabled.

## Related topics

- [Policies for mobile email queries](#) on page 71

# Booking resources

You can configure booking and planning of resources for equipment and room mailboxes. Enter the following master data on the **Resources** tab.

**Table 37: Master data for booking resources**

Property	Description
Enable Calendar Attendant	<p>Specifies whether the Resource Booking Attendant is enabled for device mailboxes and room mailboxes so that booking requests can be processed automatically.</p> <p>Permitted values are:</p> <ul style="list-style-type: none"><li>• <b>Calendar attendant disabled:</b> the calendar attendant is not activated.</li><li>• <b>Calendar attendant enabled:</b> the calendar attendant is activated.</li><li>• <b>Resource booking attendant enabled:</b> The resource booking attendant is automatically enabled for mailboxes of type <b>Room</b>.</li></ul>
Reject repeated meeting after max. planning period	<p>Specifies whether booking series can be set up beyond the planning period.</p>
Forward meeting requests	<p>Specifies whether meeting requests are forwarded to the resource mailbox deputy managers. The deputy decides about the meeting request.</p>
Max. booking window [days]	<p>Maximum planning period for meeting request in days.</p>
Max. duration [min]	<p>Maximum time allowed booking the resource.</p>
Max. conflicting instances	<p>Maximum conflicts permitted for meeting series which overlap with other meetings. If the value is exceeded, the series request is denied.</p>
Max. series conflicts [%]	<p>Threshold in percent for the permitted conflicts of meetings series that overlap with other meetings. If this value is exceeded, the series request is denied.</p>
Remove attachments from meeting requests	<p>Specifies whether attachments are deleted from meeting requests.</p>
Remove	<p>Specifies whether message text is deleted from meeting requests.</p>

Property	Description
comments from meeting requests	
Remove subject from meeting requests	Specifies whether the subject is deleted from meeting requests.
Only retain calendar meetings	Specifies whether elements that do not belong to the calendar are deleted.
Add organizer's name to subject	Specifies whether the organizer's name is given in the meeting request subject field.
Remove "private" flag from accepted meeting	Specifies whether the <b>Private</b> status is deleted from meeting requests.
Mark meeting requests as "Tentative"	Specifies whether meeting requests are marked with <b>Tentative</b> status in the calendar. If this option is disabled, meeting requests are marked with the <b>Free</b> status.
Inform organizer about declined meeting request	Specifies whether the organizer is sent information when a meeting request is declined because of conflicts.
Send additional information about rejected request	Specifies whether additional information is sent in response to a meeting request. Enter the additional information in the <b>Additional information</b> input field.
Additional data	Additional information for responding to meeting requests.
Booking permissions for everyone	<p>Specifies whether meeting requests conforming to policy are automatically approved for all users.</p> <p>If this option is not set, use <b>Assign booking permissions</b> to specify individual users who can send requests conforming to policy, which are automatically approved.</p>
Out-of-policy request permissions for everyone	<p>Specifies whether all user can send meeting requests that do not conform to policy. These requests are decided by the mailbox deputy.</p> <p>If this option is not set, use <b>Assign out-of-policy meeting request permission</b> to specify individual users who can send requests which are policy non-conform.</p>
Booking permissions for everyone	<p>Specifies whether all users can send booking requests that conform to policy. These requests are decided by the mailbox delegate unless <b>Booking permissions for everyone</b> is set.</p> <p>If this option is not set, use <b>Assign in-policy meeting request permissions</b> to specify individual users who can send requests</p>



Property	Description
	which are policy non-conform.
Allow conflicts	Specifies whether conflicting meeting requests are allowed.
Allow reoccurring requests	Specifies whether a series of meetings is allowed.
Request only possible during working hours	Specifies whether the resource can be booked during working hours or outside them, as well.
Resource capacity	Resource capacity, for example, the number of seats in a meeting room.

## Related topics

- [Send permission for mailboxes](#) on page 90

# Receive restrictions for mailboxes

**NOTE:** Assignments **Assign mail acceptance** and **Assign mail rejection** are mutually exclusive. You can either specify from whom messages are accepted or you can specify from whom they are rejected.

## To customize mail acceptance for mailboxes

1. In Manager, select **Active Directory | Mailboxes**.
2. Select a mailbox in the result list.
3. Select **Assign mail acceptance** to define which recipients can accept messages.  
- OR -  
Select **Assign mail rejection** to define which recipients can reject messages.
4. Select the table containing the recipient from the menu at the top of the form. You have the following options:
  - Mail-enabled distribution groups
  - Dynamic Distribution Group
  - Mailboxes
  - Email users
  - Email contacts

5. Assign recipients in **Add assignments**.

**TIP:** you can remove the assignment of recipients in the **Remove assignments** area.

**To remove an assignment**

- Select the recipient and double click ✓.

6. Save the changes.

## Send permission for mailboxes

You use the **Send on behalf of** send permission to specify which users can send messages on behalf of the mailbox owner.

### *To customize send permission for mailboxes*

1. In Manager, select **Active Directory | Mailboxes**.
2. Select a mailbox in the result list.
3. Select **Assign send authorizations** in the task view.
4. Select the table which contains the user from the menu at the top of the form. You have the following options:
  - Mail-enabled distribution groups
  - Mailboxes
  - Email users
5. Assign users in **Add assignments**.

**TIP:** You can remove the assignment of users in the **Remove assignments** area.

**To remove an assignment**

- Select the user and double click ✓.

6. Save the changes.

## Deactivating mailboxes

How you deactivate mailboxes depends on the type of mailbox administration. When you deactivate a mailbox, **Do not display in address list** is enabled and the mailbox is no longer shown in address books.

## Scenario:

- Mailboxes are managed through account definitions.

Mailboxes managed through account definitions are disabled when the employee is temporarily or permanently disabled. The behavior depends on the mailbox's manage level. Mailboxes with the **Full managed** manage level are deactivated depending on the account definition settings. Use `EXOMailbox.IsLocked` to configure the behavior for mailboxes with another manage level.

## Scenario:

- Mailboxes are not managed through account definitions.

The behavior depends on the **QER | Person | TemporaryDeactivation** configuration parameter

- If the configuration parameter is set, mailboxes for an employee are disabled if the employee is temporarily or permanently disabled.
- If the configuration parameter is not set, the employee data does not have any effect on the linked mailboxes.

### ***To lock a mailbox when the configuration parameter is not set***

1. In Manager, select **Active Directory | Mailboxes**.
2. Select a mailbox in the result list.
3. Select **Change master data**.
4. Set **Mailbox is disabled** on the **General** tab.
5. Save the changes.

## Scenario:

- Mailboxes not linked to employees.

### ***To lock a mailbox, which is not linked to an employee***

1. In Manager, select **Active Directory | Mailboxes**.
2. Select a mailbox in the result list.
3. Select **Change master data**.
4. Set **Mailbox is disabled** on the **General** tab.
5. Save the changes.


## Related topics

- [Creating an account definition](#) on page 40
- [Setting up manage levels](#) on page 43
- [Deleting and restoring mailboxes](#) on page 92


# Deleting and restoring mailboxes

- NOTE:** As long as an account definition for an employee is valid, the employee retains the mailbox that was created by it. If the account definition assignment is removed, the mailbox created through this account definition, is deleted.

## To delete a mailbox

1. In Manager, select **Active Directory | Mailboxes**.
2. Select a mailbox in the result list.
3. Click  to delete the mailbox.
4. Confirm the security prompt with **Yes**.

## To restore a mailbox

1. In Manager, select **Active Directory | Mailboxes**.
2. Select a mailbox in the result list.
3. Click  in the result list toolbar.

When you delete a mailbox, **Do not display in address lists** is enabled and the mailbox is no longer shown in address books. In addition, the settings **Use default database values**, **Max. send size [KB]**, **Max. receiving size [KB]**, **Prohibit transfer above [KB]** and **Prohibit send at [KB]** are reset, so that no email messages can be sent or received with this mailbox.

## Configuring deferred deletion

By default, mailboxes are finally deleted from the database after 30 days. During this period you have the option to reactivate the mailboxes. A restore is not possible once the delete delay has expired. You can configure an alternative deletion delay in the table EXMailBox in the Designer.

## Related topics

- [Deactivating mailboxes](#) on page 90

## Email users and email contacts

Mail-enabled recipients obtain data about users from outside the Microsoft Exchange organization. There is at least one email address defined for a mail recipient. Notification is automatically forwarded to this email address. You can manage mail-enabled Active Directory user accounts (email users) and mail-enabled Active Directory contacts (e-mail contacts) in One Identity Manager.

### Detailed information about this topic

- [Creating e-mail users](#) on page 93
- [Editing master data for e-mail users](#) on page 95
- [Receive restrictions for email users](#) on page 97
- [Deleting and restoring e-mail users](#) on page 97
- [Creating e-mail contacts](#) on page 98
- [Editing master data for email contacts](#) on page 99
- [Master data for e-mail contacts](#) on page 100
- [Receive restrictions for email contacts](#) on page 101
- [Deleting and restoring e-mail contacts](#) on page 102


## Creating e-mail users

Enter email users for Active Directory user accounts. Active Directory user accounts can either have a mailbox or be mail-enabled. If a user account already has a mailbox, you must delete the mailbox before you set up an email user for this user account.

**NOTE:** It is recommended to use account definitions to set up e-mail users for company employees.

- In order to create email users through account definitions, employees must have a central user account and obtain the IT operating data through assignment to a primary department, primary location, or a primary cost center.
- In this case, some of the master data described in the following is mapped through templates from employee master data.

### **To create an e-mail user**

1. In Manager, select **Active Directory | E-mail user**.
2. Click  in the result list.
3. On the master data form, enter the master data for the user.
4. Save the changes.

### **To create an email user for an Active Directory user account manually**

1. In Manager, select **Active Directory | User accounts**.
2. In the result list, select the user account and choose **Change master data**.
3. Select **Create mail user**.
4. Enter the following information:
  - **Active Directory user account:** the user account is already selected.
  - **Exchange organization:** the exchange organization is already selected. Check the setting.
  - **Destination address type:** Target address type of the email address.
  - **Destination address:** E-mail address to which the messages should be forwarded.
  - **Alias:** Unique alias for further identification of the e-mail user.
5. Save the changes.

### **Related topics**

- [Master data for e-mail users](#) on page 95
- [Editing master data for e-mail users](#) on page 95
- [Setting up account definitions](#) on page 40
- [Deleting and restoring e-mail users](#) on page 97
- [Deleting and restoring mailboxes](#) on page 92

# Editing master data for e-mail users

## To edit an email user.

1. In Manager, select **Active Directory | E-mail user**.
2. Select the email user in the result list and run the task **Change master data**.
3. Edit the email user's master data.
4. Save the changes.

## Related topics

- [Master data for e-mail users](#) on page 95
- [Setting up account definitions](#) on page 40
- [Deleting and restoring e-mail users](#) on page 97

# Master data for e-mail users

Table 38: General data of an email user

Property	Description
Employee	Employee to use the email user. An employee is already entered if the email user was generated by an account definition. If you create the email user manually, you can select an employee in the menu.
Account definition	Account definition through which the email user was created. Use the account definition to automatically populate email user master data and to specify a manage level for the email user. The One Identity Manager finds the IT operating data of the assigned employee and uses it to populate the corresponding fields in the email user. <b>NOTE:</b> The account definition cannot be changed once the email user has been saved.
Manage level	Manage level with which the email user is created. Select a manage level from the menu. You can only specify the manage level can if you have also entered an account definition. All manage levels of the selected account definition are available in the menu.
Active Directory account	Active Directory user account for which the email user is created.
Exchange organization	Name of the organization.

Property	Description
Canonical name	Canonical name of the email user. The canonical name is generated automatically.
Destination address	Email address for forwarding messages.
Destination address type	Target address type of the email address. You can also add other mail connectors (e.g. CCMail, MS) apart from the standard destination address type (SMTP, X400).
Alias	Unique alias for further identification of the email user.
Automatically update based on recipient policy	Specifies whether changes to recipient's email addresses are automatically updated based on incoming settings.
Proxy addresses	Other email addresses for the email user. You can also add other mail connectors (for example, CCMail, MS) in addition to the standard address type (SMTP, X400).  Use the following syntax to set up other proxy addresses:  Address type: new email address
Max. send size [KB]	Maximum size for message in KB that an email user can send. The Microsoft Exchange organization global settings in the Microsoft Exchange System Manager come into effect for message delivery if there are no limitations.
Max. receiving size [KB]	Maximum size for message in KB that an email user can receive. The Microsoft Exchange organization global settings in the Microsoft Exchange System Manager come into effect for message delivery if there are no limitations.
Do not display in address list	Specifies whether the email user is visible in address books. Set this option if you want to prevent the email user from being displayed in address books. This option applies to all address books.
Use MAPI-RTF	Specifies whether the e-mail user can receive messages in MAPI format. Available options are <b>Never</b> , <b>Always</b> and <b>Use default settings</b> .
Sender authentication required	Specifies whether authentication data is requested from senders. Set this option to prevent anonymous senders mailing the email user.
Simple display	Simple display name for systems that cannot interpret all the characters of normal display names.
Distinguished name	Email user's distinguished name.



## Related topics

- [Setting up account definitions](#) on page 40

# Receive restrictions for email users

- i** **NOTE:** Assignments **Assign mail acceptance** and **Assign mail rejection** are mutually exclusive. You can either specify from whom messages are accepted or you can specify from whom they are rejected.

### *To customize mail acceptance for email users*

1. In Manager, select **Active Directory | E-mail user**.
2. Select the email user in the result list.
3. Select **Assign mail acceptance** to define which recipients can accept messages.  
- OR -

Select **Assign mail rejection** to define which recipients can reject messages.

4. Select the table containing the recipient from the menu at the top of the form. You have the following options:
  - Mail-enabled distribution groups
  - Dynamic Distribution Group
  - Mailboxes
  - Email users
  - Email contacts
5. Assign recipients in **Add assignments**.

- i** **TIP:** you can remove the assignment of recipients in the **Remove assignments** area.

#### **To remove an assignment**


- Select the recipient and double click .

6. Save the changes.


# Deleting and restoring e-mail users

- i** **NOTE:** As long as an account definition for an employee is valid, the employee retains the email user that was created by it. If the account definition assignment is removed, the email user created through this account definition, is deleted.

### **To delete an email user**

1. In Manager, select **Active Directory | E-mail user**.
2. Select the email user in the result list.
3. Click  to delete the e-mail user.
4. Confirm the security prompt with **Yes**.

### **To restore an email user**

1. In Manager, select **Active Directory | E-mail user**.
2. Select the email user in the result list.
3. Click  in the result list toolbar.


When you delete an email user, **Do not display in address lists** is enabled and the email user is no longer shown in address books.

### **Configuring deferred deletion**


By default, email users are finally deleted from the database after 30 days. During this period you have the option to reactivate the email users. A restore is not possible once the delete delay has expired. You can configure an alternative deletion delay in the table EX0MailUser in the Designer.

## **Creating e-mail contacts**

Enter email contacts for Active Directory contacts.

-  **NOTE:** It is recommended to use account definitions to set up email contacts for company employees.
- In order to create email contacts through account definitions, employees must have a default email address and obtain their company IT data through assignment to a primary department, primary location or a primary cost center.
  - In this case, some of the master data described in the following is mapped through templates from employee master data.

### **To create an e-mail contact**

1. In Manager, select **Active Directory | E-mail contacts**.
2. Click  in the result list.
3. On the master data form, enter the master data for the contact.
4. Save the changes.

### ***To create an email contact for an Active Directory contact manually***

1. In Manager, select **Active Directory | Contacts**.
2. In the result list, select the contact and select **Change master data**.
3. Select **Create mail contact**.
4. Enter the following information:
  - **Active Directory contact:** the contact is already selected.
  - **Exchange organization:** the exchange organization is already selected. Check the setting.
  - **Destination address type:** Target address type of the email address.
  - **Destination address:** E-mail address to which the messages should be forwarded.
  - **Alias:** Unique alias for further identification of the e-mail contact.
5. Save the changes.

### **Related topics**

- [Editing master data for email contacts](#) on page 99
- [Master data for e-mail contacts](#) on page 100
- [Deleting and restoring e-mail contacts](#) on page 102

## **Editing master data for email contacts**

### ***To edit an email contact***

1. In Manager, select **Active Directory | E-mail contacts**.
2. Select the email contact in the result list and run **Change master data**.
3. Edit the email contact's master data.
4. Save the changes.

### **Related topics**

- [Creating e-mail contacts](#) on page 98
- [Master data for e-mail contacts](#) on page 100
- [Deleting and restoring e-mail contacts](#) on page 102

# Master data for e-mail contacts

**Table 39: General data of an email contact**

Property	Description
Employee	Employee to use the email contact. An employee is already entered if the e-mail contact was generated by an account definition. If you create the email contact manually, you can select an employee in the menu.
Account definition	<p>Account definition through which the email contact was created.</p> <p>Use the account definition to automatically populate email contact master data and to specify a manage level for the email contact. One Identity Manager finds the IT operating data of the assigned employee and uses it to populate the corresponding fields in the email contact.</p> <p><b>NOTE:</b> The account definition cannot be changed once the email contact has been saved.</p>
Manage level	Manage level with which the email contact is created. Select a manage level from the menu. You can only specify the manage level can if you have also entered an account definition. All manage levels of the selected account definition are available in the menu.
Active Directory contact	Active Directory contact for whom the email is created.
Exchange organization	Name of the organization.
Canonical name	Canonical name of the email contact. The canonical name is generated automatically.
Destination address	Email address for forwarding messages.
Destination address type	Target address type of the email address. You can also add other mail connectors (e.g. CCMail, MS) apart from the standard destination address type (SMTP, X400).
Alias	Unique alias for further identification of the email contact.
Automatically update based on recipient policy	Specifies whether changes to recipient's email addresses are automatically updated based on incoming settings.
Proxy addresses	Other email addresses for the email contact. You can also add other mail connectors (for example, CCMail, MS) in addition to the standard address type (SMTP, X400).

Property	Description
	Use the following syntax to set up other proxy addresses: Address type: new email address
Max. send size [KB]	Maximum size for message in KB that an email contact can send. The Microsoft Exchange organization global settings in the Microsoft Exchange System Manager come into effect for message delivery if there are no limitations.
Max. receiving size [KB]	Maximum size for message in KB that an email contact can receive. The Microsoft Exchange organization global settings in the Microsoft Exchange System Manager come into effect for message delivery if there are no limitations.
Do not display in address list	Specifies whether the email contact is visible in address books. Set this option if you want to prevent the email contact from being displayed in address books. This option applies to all address books.
Use MAPI-RTF	Specifies whether the e-mail contact can receive messages in MAPI format. Available options are <b>Never</b> , <b>Always</b> and <b>Use default settings</b> .
Sender authentication required	Specifies whether authentication data is requested from senders. Set this option to prevent anonymous senders mailing the email contact.
Simple display	Simple display name for systems that cannot interpret all the characters of normal display names.
Distinguished name	Email contact's distinguished name.

## Related topics


- [Setting up account definitions](#) on page 40

# Receive restrictions for email contacts

**NOTE:** Assignments **Assign mail acceptance** and **Assign mail rejection** are mutually exclusive. You can either specify from whom messages are accepted or you can specify from whom they are rejected.

## To customize mail acceptance for e-mail contacts


1. In Manager, select **Active Directory | E-mail contacts**.
2. Select the email contact in the result list.

3. Select **Assign mail acceptance** to define which recipients can accept messages.  
- OR -  
Select **Assign mail rejection** to define which recipients can reject messages.
4. Select the table containing the recipient from the menu at the top of the form. You have the following options:
  - Mail-enabled distribution groups
  - Dynamic Distribution Group
  - Mailboxes
  - Email users
  - Email contacts
5. Assign recipients in **Add assignments**.
  - TIP:** you can remove the assignment of recipients in the **Remove assignments** area.  
**To remove an assignment**
    - Select the recipient and double click .
6. Save the changes.

## Deleting and restoring e-mail contacts

- NOTE:** As long as an account definition for an employee is valid, the employee retains the e-mail contact that was created by it. If the account definition assignment is removed, the e-mail contact created through this account definition, is deleted.

### **To delete an e-mail contact**

1. In Manager, select the **Active Directory | E-mail contact** category.
2. Select the email contact in the result list.
3. Delete the email contact with .
4. Confirm the security prompt with **Yes**.

### **To restore an email contact**

1. In Manager, select the **Active Directory | E-mail contact** category.
2. Select the email contact in the result list.
3. Click **Undo delete** in the result list toolbar.

When you delete an email contact, **Do not display in address lists** is enabled and the email contact is no longer shown in address books.

## Configuring deferred deletion

By default, email contacts are finally deleted from the database after 30 days. During this period you have the option to reactivate the e-mail contacts. A restore is not possible once the delete delay has expired. You can configure an alternative deletion delay in the table EX0MailContact in the Designer.

## Mail-enabled distribution groups

You can email-enable universal security groups and universal distribution groups to distribute messages to a group of recipients.


### Detailed information about this topic

- [Creating mail-enabled distribution groups](#) on page 104
- [Editing master data for mail-enabled distribution groups](#) on page 105
- [Receive restrictions for mail-enabled distribution groups](#) on page 108
- [Send permission for mail-enabled distribution groups](#) on page 108
- [Assigning administrators for mail-enabled distribution groups](#) on page 109
- [Adding dynamic distribution groups to a mail-enabled distribution group](#) on page 110
- [Extensions for moderated distribution groups](#) on page 110
- [Deleting mail-enabled distribution groups](#) on page 111

## Creating mail-enabled distribution groups

Set up mail-enabled distribution groups for universal security groups and universal distribution groups.

### *To create a mail-enabled distribution group*

1. In Manager, select **Active Directory | Mail-enabled distribution groups**.
2. Click  in the result list.
3. On the master data form, enter the master data for the group.
4. Save the changes.



### ***To create a mail-enabled distribution list for an Active Directory group***

1. In Manager, select **Active Directory | Groups | Universal groups**.
2. In the result list, select the group and select **Change master data**.
3. Select **Create mail-enabled distribution list**.
4. Enter the following information:
  - **Active Directory group:** the group is already selected.
  - **Exchange organization:** the exchange organization is already selected. Check the setting.
  - **Alias:** Unique alias for further identification of the mail-enabled distribution group.
5. Save the changes.

### **Related topics**

- [Editing master data for mail-enabled distribution groups](#) on page 105
- [Master data for mail-enabled distribution groups](#) on page 106

## **Editing master data for mail-enabled distribution groups**

### ***To edit a mail-enabled distribution group***

1. In Manager, select **Active Directory | Mail-enabled distribution groups**.
2. Select the mail-enabled distribution group in the result list and run **Change master data** in the task view.
3. Edit the mail-enabled distribution group's master data.
4. Save the changes.

### **Related topics**

- [Master data for mail-enabled distribution groups](#) on page 106

# Master data for mail-enabled distribution groups

**Table 40: Mail-enabled distribution group master data**

Property	Description
Active Directory group	Active Directory group for which the mail-enabled distribution group is created.
Exchange organization	Name of the organization.
Alias	Unique alias for further identification of the mail-enabled distribution group.
Simple display	Simple display name for systems that cannot interpret all the characters of normal display names.
Expansion server	Server on to which to expand the mail-enabled distribution group.
Proxy addresses	Email addresses for the mail-enabled distribution group. You can also add other mail connectors (for example, CCMail, MS) in addition to the standard address type (SMTP, X400).  Use the following syntax to set up other proxy addresses:  Address type: new email address
Do not display in address list	Specifies whether the mail-enabled distribution group is visible in address books. Set this option if you want to prevent the mail-enabled distribution group from being displayed in address books. This option applies to all address books.
Max. send size [KB]	Maximum size of message in KB that a mail-enabled distribution group can send. The Microsoft Exchange organization global settings in the Microsoft Exchange System Manager come into effect for message delivery if there are no limitations.
Max. receiving size [KB]	Maximum size of message in KB that a mail-enabled distribution group can receive. The Microsoft Exchange organization global settings in the Microsoft Exchange System Manager come into effect for message delivery if there are no limitations.
Report to sender	Specifies whether the delivery reports are sent to the message sender.
Report to owner	Specifies whether the delivery reports are sent to the message owner.
Automatically	Specifies whether changes to recipient's email addresses are automat-

Property	Description
update based on recipient policy	ically updated based on incoming settings.
Only limit messages from authenticated users	Specifies whether authentication data is requested from senders. Set this option if only messages from authenticated users are permitted.
Out-of-office message to sender	Set this option if the message sender should receive out-of-office messages.
Add to group	<p>Specifies how members can join the mail-enabled distribution group. Permitted values are:</p> <ul style="list-style-type: none"> <li>• <b>Open:</b> Members can be added to the group without approval.</li> <li>• <b>Closed:</b> Only mail-enabled distribution group administrators can add members to the group. Requests to be added to the group are automatically denied.</li> <li>• <b>Owner approval:</b> Requests to be added to the group can be made and are approved by the mail-enabled distribution group administrators.</li> </ul>
Leave group	<p>Use this option to specify how members can leave the distribution group. Permitted values are:</p> <ul style="list-style-type: none"> <li>• <b>Open:</b> Members can leave the group without approval.</li> <li>• <b>Closed:</b> Members can only leave the group with administrator approval. Requests to leave the group are automatically denied.</li> </ul>
Distribution group moderation	Specifies whether the mail-enabled distribution group is moderated. Set this option if the distribution group should be moderated. Use the task <b>Assign moderators</b> to specify moderators.
Sending message to	<p>Specifies how senders are notified when they send messages to moderated distribution groups. Permitted values are:</p> <ul style="list-style-type: none"> <li>• <b>Do not notify:</b> the sender is not notified.</li> <li>• <b>Only notify senders in your exchange organization:</b> Only internal senders receive a notification.</li> <li>• <b>Notify all senders:</b> Internal and external senders receive notification.</li> </ul>

# Receive restrictions for mail-enabled distribution groups

- NOTE:** Assignments **Assign mail acceptance** and **Assign mail rejection** are mutually exclusive. You can either specify from whom messages are accepted or you can specify from whom they are rejected.

## *To modify mail acceptance for mail-enabled distribution groups*

1. In Manager, select **Active Directory | Mail-enabled distribution groups**.
2. Select the mail-enabled distribution group in the result list.
3. Select **Assign mail acceptance** to define which recipients can accept messages.  
- OR -

Select **Assign mail rejection** to define which recipients can reject messages.

4. Select the table containing the recipient from the menu at the top of the form. You have the following options:
  - Mail-enabled distribution groups
  - Dynamic Distribution Group
  - Mailboxes
  - Email users
  - Email contacts
5. Assign recipients in **Add assignments**.

- TIP:** you can remove the assignment of recipients in the **Remove assignments** area.

### *To remove an assignment*

- Select the recipient and double click .

6. Save the changes.

# Send permission for mail-enabled distribution groups


Use the **Send on behalf of** send permission to specify which users can send messages on behalf of the distribution group.

### ***To modify the send permission for mail-enabled distribution groups***

1. In Manager, select **Active Directory | Mail-enabled distribution groups**.
2. Select the mail-enabled distribution group in the result list.
3. Select **Assign send authorizations** in the task view.
4. Select the table which contains the user from the menu at the top of the form. You have the following options:
  - Mail-enabled distribution groups
  - Mailboxes
  - Email users
5. Assign users in **Add assignments**.

**TIP:** You can remove the assignment of users in the **Remove assignments** area.

#### ***To remove an assignment***

- Select the user and double click .
6. Save the changes.

## **Assigning administrators for mail-enabled distribution groups**

Membership in mail-enabled distribution groups can be applied for and approved. Specify which users manage the mail-enabled distribution group and therefore can grant approval for membership in the group.

### ***To specify a mail-enabled distribution group***

1. In Manager, select **Active Directory | Mail-enabled distribution groups**.
2. Select the mail-enabled distribution group in the result list.
3. Select **Assign administrators** in the task view.
4. Select the table which contains the administrators from the menu at the top of the form. You have the following options:
  - Active Directory User accounts
  - Active Directory Groups
5. Assign administrator roles in **Add assignments**.  
- OR -  
Remove administrator roles in **Remove assignments**.
6. Save the changes.

# Adding dynamic distribution groups to a mail-enabled distribution group

Use this task to add dynamic distribution groups to mail-enabled distribution groups.

## **To add dynamic distribution groups to a mail-enabled distribution group**

1. In Manager, select **Active Directory | Mail-enabled distribution groups**.
2. Select the mail-enabled distribution group in the result list and run **Assign dynamic distribution groups** in the task view.
3. Assign dynamic distribution groups in **Add assignments**.  
- OR -  
Remove dynamic distribution lists from **Remove assignments**.
4. Save the changes.

## **Related topics**

- [Adding a dynamic distribution group to mail-enabled distribution groups](#) on page 116

# Extensions for moderated distribution groups

Moderated distribution groups let a moderator approve or deny messages sent to a mail-enabled distribution group. Only after a message has been approved by a moderator can it be forwarded to members of the mail-enabled distribution group.

Define the moderators of a mail-enabled distribution group. Furthermore, you can specify users whose messages to the moderated distribution group are excluded from moderation.

Read the documentation from your Microsoft Exchange server on the concept of moderated distribution groups.

## **To specify moderators for mail-enabled distribution groups**

1. In Manager, select **Active Directory | Mail-enabled distribution groups**.
2. Select the mail-enabled distribution group in the result list.
3. Select **Assign moderators** in the task view.
4. Select the table which contains the user from the menu at the top of the form. You have the following options:
  - Mailboxes
  - Email contacts

- Email users
5. Assign moderators in **Add assignments**.
- OR -
- Remove moderators in **Remove assignments**.
6. Save the changes.


### ***To exclude users from moderation***

1. In Manager, select **Active Directory | Mail-enabled distribution groups**.
2. Select the mail-enabled distribution group in the result list.
3. Select **Exclude from moderation** in the task view.
4. Select the table which contains the user from the menu at the top of the form. You have the following options:
  - Mail-enabled distribution groups
  - Dynamic Distribution Group
  - Mailboxes
  - Email users
  - Email contacts

5. Assign users in **Add assignments**.

**TIP:** You can remove the assignment of users in the **Remove assignments** area.


#### ***To remove an assignment***

- Select the user and double click .

6. Save the changes.

## **Deleting mail-enabled distribution groups**

### ***To delete a mail-enabled distribution group***

1. In Manager, select **Active Directory | Mail-enabled distribution groups**.
2. Select the mail-enabled distribution group in the result list.
3. Delete the mail-enabled distribution group using .
4. Confirm the security prompt with **Yes**.

The mail-enabled distribution group is entirely deleted from the One Identity Manager database and Microsoft Exchange system.

## Dynamic distribution groups

The members of a dynamic distribution group are not fixed but are determined using a filter criteria. Dynamic distribution groups are loaded into One Identity Manager through synchronization and can only be edited to a limited extent in One Identity Manager.

### Detailed information about this topic

- [Master data for dynamic distribution groups](#) on page 112
- [Receive restrictions for dynamic distribution groups](#) on page 114
- [Send permissions for dynamic distribution groups](#) on page 115
- [Adding a dynamic distribution group to mail-enabled distribution groups](#) on page 116

## Master data for dynamic distribution groups

### To display a dynamic distribution group

1. In Manager, select **Active Directory | Exchange system administration | <Organization> | Recipient configuration | Dynamic distribution groups**.
2. Select the dynamic distribution list in the result list.
3. Select **Change master data**.

**Table 41: Dynamic distribution list master data**

Property	Description
Exchange organization	Name of the organization.
Expansion server	Server on to which to expand the dynamic distribution group.



<b>Property</b>	<b>Description</b>
Name	Name of the dynamic distribution group.
Alias	Unique alias for further identification of the dynamic distribution group.
Display name	Display name of the dynamic distribution group.
Proxy addresses	Other email addresses for the dynamic distribution group.
Email address	Email addresses of the dynamic distribution group.
Simple display	Simple display name for systems that cannot interpret all the characters of normal display names.
Do not display in address list	Specifies whether the dynamic distribution group is visible in address books. Set this option if you want to prevent the dynamic distribution group from being displayed in address books. This option applies to all address books.
Max. receiving size [KB]	Maximum size of message in KB that a dynamic distribution group can receive. The Microsoft Exchange organization global settings in the Exchange System Manager come into effect for message delivery if there are no limitations.
Container	Active Directory container of the dynamic distribution group.
Domain	Active Directory domain of the dynamic distribution group.
Recipient container	Recipient's root container. The condition for finding distribution group members is applied to the selected recipient container and its sub containers.
All recipient types	Specifies whether all recipient types are permitted in the dynamic distribution group.
User mailboxes	Specifies whether user mailboxes are permitted in the dynamic distribution group.
Email users	Specifies whether e-mail users are permitted in the dynamic distribution group.
Email contacts	Specifies whether e-mail contacts are permitted in the dynamic distribution group.
Mail-enabled distribution groups	Specifies whether mail-enabled distribution groups are permitted in the dynamic distribution group.
Resource mailboxes	Specifies whether resource mailboxes are permitted in the dynamic distribution group.
None	Specifies whether any recipients are permitted in the dynamic distribution group.

Property	Description
	bution group.
Condition	Condition with extra filter criteria, which is used to determine the members of the dynamic distribution group
Filter rules	Filter rules for finding members in the dynamic distribution group.
Report to sender	Specifies whether the delivery reports are sent to the message sender.
Report to owner	Specifies whether the delivery reports are sent to the message owner.
Automatically update based on recipient policy	Specifies whether changes to recipient's email addresses are automatically updated based on incoming settings.
Only limit messages from authenticated users	Specifies whether authentication data is requested from senders.
Out-of-office message to sender	Specifies whether the message sender should receive out-of-office messages.

## Receive restrictions for dynamic distribution groups

- NOTE:** Assignments **Assign mail acceptance** and **Assign mail rejection** are mutually exclusive. You can either specify from whom messages are accepted or you can specify from whom they are rejected.

### To modify mail acceptance for dynamic distribution groups

1. In Manager, select **Active Directory | Exchange system administration | <Organization> | Recipient configuration | Dynamic distribution groups**.
2. Select the dynamic distribution list in the result list.
3. Select **Assign mail acceptance** to define which recipients can accept messages.  
- OR -  
Select **Assign mail rejection** to define which recipients can reject messages.
4. Select the table containing the recipient from the menu at the top of the form. You have the following options:

- Mail-enabled distribution groups
  - Dynamic Distribution Group
  - Mailboxes
  - Email users
  - Email contacts
5. Assign recipients in **Add assignments**.

**TIP:** you can remove the assignment of recipients in the **Remove assignments** area.

**To remove an assignment**

- Select the recipient and double click .

6. Save the changes.

## Send permissions for dynamic distribution groups

Use the **Send on behalf of** send permission to specify which users can send messages on behalf of the distribution group.

### **To modify the send permission for dynamic distribution groups**

1. In Manager, select **Active Directory | Exchange system administration | <Organization> | Recipient configuration | Dynamic distribution groups**.
2. Select the dynamic distribution list in the result list.
3. Select **Assign send authorizations** in the task view.
4. Select the table which contains the user from the menu at the top of the form. You have the following options:
  - Mail-enabled distribution groups
  - Mailboxes
  - Email users
5. Assign users in **Add assignments**.

**TIP:** You can remove the assignment of users in the **Remove assignments** area.

**To remove an assignment**

- Select the user and double click .

6. Save the changes.

# Adding a dynamic distribution group to mail-enabled distribution groups

As from Microsoft Exchange Server 2010, you can add dynamic distribution groups to mail-enabled distribution groups.

## *To add a dynamic distribution groups to mail-enabled distribution groups*

1. In Manager, select **Active Directory | Exchange system administration | <Organization> | Recipient configuration | Dynamic distribution groups**.
2. Select the dynamic distribution group in the result list and run **Assign distribution groups** in the task view.
3. Assign the dynamic distribution group to mail-enabled distribution groups in **Add assignments**.  
- OR -  
Remove the dynamic distribution group assignments from mail-enabled distribution groups in **Remove assignments**.
4. Save the changes.

## Related topics

- [Adding dynamic distribution groups to a mail-enabled distribution group](#) on page 110

## Mail-enabled public folders

Mail-enabled public folders are loaded into the One Identity Manager database by synchronization and cannot be edited in One Identity Manager.

### *To display mail-enabled public folders*

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Recipient configuration | Mail-enabled public folders**.
2. Select the mail-enabled distribution group in the result list.
3. Select **Change master data**.

### *To display mail acceptance for mail-enabled public folders*

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Recipient configuration | Mail-enabled public folders**.
2. Select the mail-enabled distribution group in the result list.
3. Select **Assign mail acceptance** to display which recipients can accept messages.  
- OR -  
Select **Assign mail rejection** to display which recipients can reject messages.

### *To display the sent permission for a mail-enabled public folder*

1. In Manager, select **Active Directory | Exchange system administration | <organization> | Recipient configuration | Mail-enabled public folders**.
2. Select the mail-enabled distribution group in the result list.
3. Select **Assign send authorizations** in the task view.

**Table 42: Mail-enabled public folder master data**

Property	Description
Exchange organization	Name of the organization.
Public Folder	Connected public folder.

<b>Property</b>	<b>Description</b>
Name	Name of the mail-enabled public folder.
Alias	Unique alias for further identification of the mail-enabled public folder.
Display name	Display name of the mail-enabled public folder.
Simple display	Simple display name for systems that cannot interpret all the characters of normal display names.
Domain	Active Directory domain of the mail-enabled public folder.
Container	Active Directory container of the mail-enabled public folder.
Proxy addresses	Other email addresses for the mail-enabled public folder.
Email address	Email address of the mail-enabled public folder.
Alternative recipient	Alternative recipient to which messages from this mail-enabled public folder are forwarded.
Do not display in address list	Specifies whether the mail-enabled public folder is visible in address books. Set this option if you want to prevent the mail-enabled public folder from being displayed in address books. This option applies to all address books.
Max. send size [KB]	Maximum size of message in KB that a mail-enabled public folder can send. The Microsoft Exchange organization global settings in the Exchange System Manager come into effect for message delivery if there are no limitations.
Max. send size [KB]	Maximum size of message in KB that a mail-enabled public folder can receive. The Microsoft Exchange organization global settings in the Exchange System Manager come into effect for message delivery if there are no limitations.
Send and forward	Specifies whether to send and forward messages. If this option is set, messages are sent to alternative recipients and mailbox owners.

## Extensions for supporting Exchange hybrid environments

### NOTE:

This function is only available if the module Exchange hybrid is installed.

- Active Directory Module
- Microsoft Exchange Module
- Azure Active Directory Module
- Exchange Online Module
- Exchange Hybrid Module

### NOTE:

You cannot move mailboxes between local Microsoft Exchange and Exchange Online with One Identity Manager. Microsoft offers migration scenarios for moving mailboxes. For detailed information, see your Microsoft documentation.

One Identity Manager support creating, editing and deleting of remote mailboxes in Exchange hybrid. Remote mailboxes are mailboxes that are declared in the local Microsoft Exchange environment but were added in an Exchange Online environment.

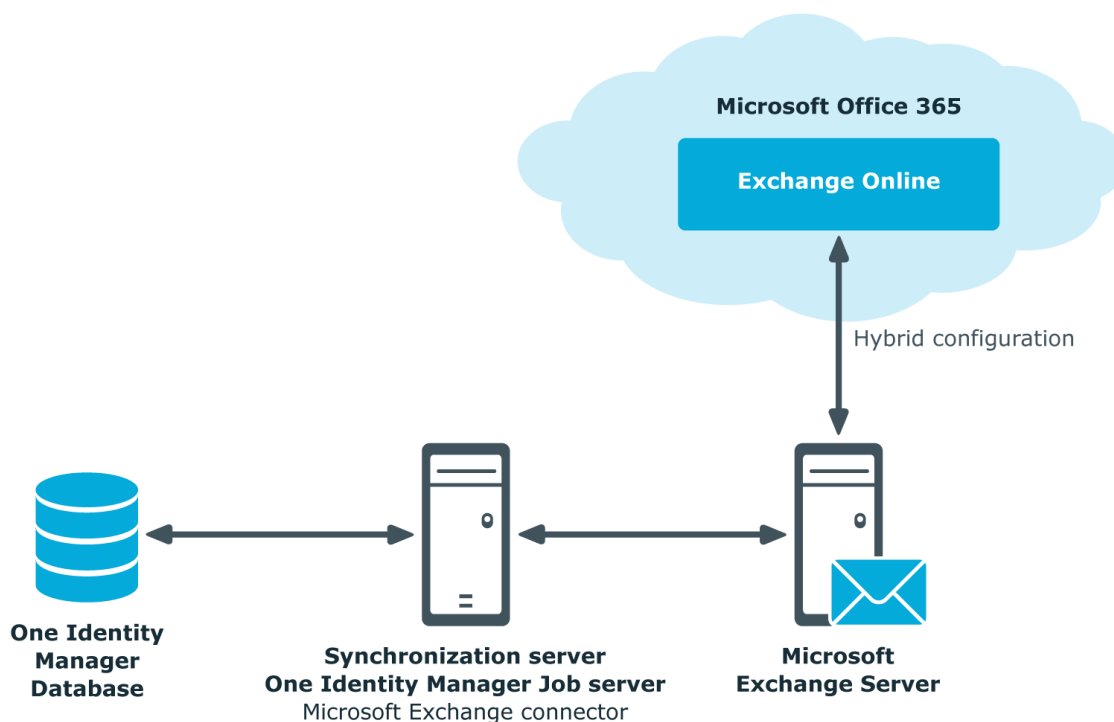
There are the following different types of remote mailboxes:

- Remote mailbox
- Remote room mailbox
- Remote equipment mailbox

These mailboxes can be added to distribution lists or be given sending limits in the local Microsoft Exchange environment, for example.

The synchronization server running the Microsoft Exchange connector is responsible for synchronizing remote mailboxes. The other target system involved (Active Directory, Microsoft Exchange, Azure Active Directory and Exchange Online) must be synchronized in order to access remote mailboxes.

**Figure 2: Architecture for synchronization**



### Detailed information about this topic

- [Advice for synchronizing remote mailboxes](#) on page 120
- [Advice for migrating mailboxes](#) on page 121
- [Editing remote mailboxes](#) on page 125

## Advice for synchronizing remote mailboxes

Take the following into account when synchronizing Exchange hybrid remote mailboxes:

- The mapping for remote mailboxes is part of the Microsoft Exchange project template. Remote mailboxes are synchronized using the Microsoft Exchange connector.
- If an Exchange hybrid environment already exists but there is no Exchange hybrid module installed, a warning appears when you synchronize. Install the Exchange hybrid module and create a new synchronization project.



- The following order for is recommended for synchronizing the target systems.
  1. Azure Active Directory
  2. Local Active Directory (in parallel with Azure Active Directory possible)
  3. Exchange Online
  4. Local Microsoft Exchange (if possible, according to Exchange Online)
- In One Identity Manager, the connection between the local Exchange Organization (EX00organization) and the corresponding Azure Active Directory client (AADOrganization) must be defined.

This connection is normally created automatically when the synchronization project is created for local Microsoft Exchange. This assumes that Azure Active Directory was already loaded in to the One Identity Manager at the time. You can establish this link manually at any time.

***To declare the Azure Active Directory client in a Microsoft Exchange organization***

1. In Manager, select **Active Directory | Exchange system administration**.
2. Select the organization from the result list.
3. Select **Change master data**.
4. On the **Hybrid configuration** tab, under **Azure Active Directory Client**, select the Azure Active Directory client to which your local Microsoft Exchange is connected.
5. Save the changes.

**Related topics**

- [Creating a synchronization project for initial synchronization of a Microsoft Exchange environment on page 19](#)
- [Appendix: Default Project Template for Microsoft Exchange on page 134](#)

## Advice for migrating mailboxes

You cannot move mailboxes between local Microsoft Exchange and Exchange Online with One Identity Manager. Microsoft offers migration scenarios for moving mailboxes. For detailed information, see your Microsoft documentation.

Synchronizing Microsoft Exchange after moving a mailbox from local Microsoft Exchange to Exchange Online in One Identity Manager results in:

- A remote mailbox being created
- The local mailbox being marked as **outstanding**

After successful migration, delete outstanding mailboxes in One Identity Manager.

1. Check whether the mailbox was migrated and whether the Active Directory user account is connected with the local mailbox and a remote mailbox.

Migrated mailboxes are displayed in Manager in the **Active Directory | Troubleshooting | Mailboxes migrated to Exchange Online** category.

- Select the mailbox and switch to the Active Directory user account overview. Here you can see whether the user account is connected with a local mailbox and a remote mailbox.

2. Delete the outstanding mailbox.

- In Manager, in the **Active DirectoryTarget system synchronization: Exchange** category, select the mailbox in the table EX0Mailbox and execute the **Delete** method for the mailbox.

For more information, see [Post-processing outstanding objects](#) on page 34.

If you apply an account definition to local mailboxes, create a new account definition for remote mailboxes.

- If the mailbox account definition currently in use, expects an account definition for Active Directory user accounts, enter this account definition as prerequisite for the remote mailbox account definition.

**!** **IMPORTANT:** The remote mailbox account definition may not be distributed automatically to everybody. Otherwise One Identity Manager creates new remote mailboxes.

## Example of exchanging account definitions for migrated mailboxes

The following is an example explaining how you can replace account definitions with migrated mailboxes

**!** **NOTE:** The workflows described here are only for orientation. Always take your customized workflows into account while replacing.

You always required a custom migration scenario if the account definitions are requested through the IT Shop.

### Example 1

Local mailboxes are managed through an account definition. This account definition requires an account definition for Active Directory user accounts.

The account definition is directly assigned to employees.

After migration, remote mailboxes are also managed through account definitions.

1. Create an account definition for remote mailboxes. Enter the Active Directory user account's account definition as prerequisite.

2. After migrating a local mailbox.
  - a. Ensure that the remote mailbox exists in One Identity Manager and is connected to the Active Directory user account.
  - b. Delete the outstanding local mailbox in One Identity Manager.
  - c. Assign the account definition for remote mailboxes to the employee.
  - d. Delete the account definition for local mailboxes belonging to the employee.

## Example 2

Local mailboxes are managed through an account definition. This account definition requires an account definition for Active Directory user accounts.

The account definition is inherited by the employees through its department relation.

After migration, remote mailboxes are also managed through account definitions.

1. Create a parallel structure to the department and assign the account definition for local mailboxes to this parallel structure.

The purpose of this parallel structure is to retain the local mailboxes' account definition assignment to an employee until the mailbox has been successfully migrated.

- Configure a dynamic role for this parallel structure, to include all employees who:
  - Belong to the department and do not have a remote mailbox.
  - or
  - Belong to the department and own a remote mailbox and an outstanding local mailbox.


2. After completing DBQueue Processor processing, you can remove the account definition for local mailboxes from the department.
3. Create an account definition for remote mailboxes. Enter the Active Directory user account's account definition as prerequisite.
4. Create another parallel structure and assign the account definition for remote mailboxes to it..

The purpose of this parallel structure is to assign the remote mailboxes' account definition to employees after mailbox migration and to retain the assignment of the required account definition for Active Directory.

- Configure a dynamic role for this parallel structure, to include all employees who:
  - Belong to the department and own a remote mailbox.
- 5. Delete the outstanding mailbox after migrating the local mailbox successfully.
- 6. After migrating all the department's local mailboxes, you can:
  - a. Assign a department to the remote mailboxes' account definition.
  - b. Remove the parallel structure.

## Creating remote mailboxes

### *To create a remote mailbox*

1. In Manager, select **Active Directory | Remote mailboxes**.
2. Click  in the result list.
3. On the master data form, enter the master data for the mailbox.
4. Save the changes.

### *To create a mailbox for an Active Directory user account manually*

1. In Manager, select **Active Directory | User accounts**.
2. In the result list, select the user account and choose **Change master data**.
3. Select **Create remote mailbox** in the task view.
4. Enter the following information:
  - **Active Directory user account:** the user account is already selected.
  - **Exchange organization:** the exchange organization is already selected. Check the setting.
  - **Alias:** Unique alias for further identification of the mailbox.
5. Click **OK**.

**i** **NOTE:** After creation of a new remote mailbox, it takes until the next synchronization of your Azure Active Directory client in Azure Active Directory Connect until a corresponding mailbox is created in the Exchange Online environment. Up to this point, the mailbox is acknowledged in the local Microsoft Exchange environment but is not yet available for use.

- NOTE:** After new remote mailboxes of type **Remote user** have been created by Azure Active Directory or Exchange Online internal processes, an appropriate Exchange license must be assigned for the resulting Azure Active Directory user account.

**To display remote mailboxes without Exchange licenses**

- In Manager Select **Active Directory | Exchange system administration | <organization> | Recipient configuration | Remote mailboxes | Remote user | Without assigned licenses.**

## Related topics

- [Editing remote mailboxes](#) on page 125
- [General master data of a remote mailbox](#) on page 126
- [Information about remote configuration](#) on page 127
- [Information about cloud-based archive mailboxes](#) on page 127
- [Receive restrictions for remote mailboxes](#) on page 128
- [Extensions for moderated remote mailboxes](#) on page 129

# Editing remote mailboxes

## To edit a mailbox

1. In Manager in the category **Active Directory | Remote mailboxes.**
2. Select the remote mailbox in the result list and run **Change master data.**
3. Edit the remote mailbox's master data.
4. Save the changes.

## Related topics

- [General master data of a remote mailbox](#) on page 126
- [Information about remote configuration](#) on page 127
- [Information about cloud-based archive mailboxes](#) on page 127
- [Receive restrictions for remote mailboxes](#) on page 128
- [Extensions for moderated remote mailboxes](#) on page 129

# General master data of a remote mailbox

Enter the following data on **General**:

**Table 43: General master data of a remote mailbox**

Property	Description
Employee	Employee using the mailbox. An employee is already entered if the mailbox was generated by an account definition. If you create the mailbox manually, you can select an employee in the menu.
Account definition	<p>Account definition through which the mailbox was created.</p> <p>Use the account definition to automatically populate mailbox master data and to specify a manage level for the mailbox. One Identity Manager finds the IT operating data of the assigned employee and uses it to populate the corresponding fields in the mailbox.</p> <p><b>NOTE:</b> The account definition cannot be changed once the mailbox has been saved.</p>
Manage level	Manage level with which the mailbox is created. Select a manage level from the menu. You can only specify the manage level can if you have also entered an account definition. All manage levels of the selected account definition are available in the menu.
Active Directory user account	Active Directory user account for which this mailbox is created.
Exchange organization	Name of the Microsoft Exchange organization.
Canonical name	Mailbox's canonical name. The canonical name is generated automatically.
Recipient type (detail)	Type of recipient. The mailbox type is specified when a mailbox is added and cannot be changed afterward. You can choose from the following options: <b>Remote user</b> , <b>Remote room</b> , <b>Remote equipment</b> and <b>Remote shared</b> .
Alias	Unique alias for further identification of the mailbox.
User login name	User account login name. The user's login name is made up of the alias and the domain. User login names that are formatted like this correspond to the User Principal Name (UPN) in Active Directory.
Do not display in address list	Specifies whether the mailbox is visible in address books. Set this option if you want to prevent the mailbox from being displayed in address

Property	Description
	books. This option applies to all address books.
Moderation enabled	Specifies whether the mailbox is moderated. Enable this option if the mailbox is meant to be moderated. Use the task <b>Assign moderators</b> to specify moderators.
Sender authentication required	Specifies whether authentication data is requested from senders. Set this option to prevent anonymous senders mailing to the mailbox.
Sending message to	Specifies how senders are notified when they send messages to moderated mailbox. Permitted values are: <ul style="list-style-type: none"> <li>• <b>Do not notify</b>: the sender is not notified.</li> <li>• <b>Only notify senders in your exchange organization</b>: Only internal senders receive a notification.</li> <li>• <b>Notify all senders</b>: Internal and external senders receive notification.</li> </ul>
Distinguished name	Mailbox's distinguished name.

## Information about remote configuration

The following information about remote configuration is mapped on the **Remote** tab.

Property	Description
Azure Active Directory user account	Azure Active Directory user account identifier.
Exchange Online mailbox	Exchange Online mailbox identifier.
Recipient type	Type of recipient.
SMTP address	SMTP address of the mailbox assigned to this user.

## Information about cloud-based archive mailboxes

The following master data about a cloud-based archive mailbox is mapped on the **Archive** tab.

**Table 44: Archiving a mailbox**

<b>Property</b>	<b>Description</b>
Archiving enabled	Specifies whether a personal archive is created for this mailbox. Set this option if you want to set up a personal archive for this mailbox.
Archive name	Name of the archive.
Archive state	Status of the archive mailbox. This property is available from Microsoft Exchange Server 2013 or later.

## Receive restrictions for remote mailboxes

**NOTE:** Assignments **Assign mail acceptance** and **Assign mail rejection** are mutually exclusive. You can either specify from whom messages are accepted or you can specify from whom they are rejected.

### *To customize mail acceptance for mailboxes*

1. In Manager, select **Active Directory | Remote mailboxes**.
2. Select a mailbox in the result list.
3. Select **Assign mail acceptance** to define which recipients can accept messages.  
- OR -  
Select **Assign mail rejection** to define which recipients can reject messages.
4. Select the table containing the recipient from the menu at the top of the form. You have the following options:
  - Mail-enabled distribution groups
  - Dynamic Distribution Group
  - Mailboxes
  - Email users
  - Email contacts
  - remote mailbox



# Extensions for moderated remote mailboxes

Moderated mailboxes are implemented to allow messages sent to a mailbox to be approved or denied by a moderator. The message is not sent on until it has been approved by the moderator.

Define a mailbox's moderator. Furthermore, you can specify users whose messages to the moderated mailbox are excluded from moderation.

## ***To specify moderators for a mailbox***

1. In Manager, select **Active Directory | Remote mailboxes**.
2. Select a mailbox in the result list.
3. Select **Assign moderators** in the task view.
4. Select the table which contains the user from the menu at the top of the form. You have the following options:
  - Mailboxes
  - remote mailbox
  - Email contacts
  - Email users
5. Assign moderators in **Add assignments**.  
- OR -  
Remove moderators in **Remove assignments**.
6. Save the changes.


## ***To exclude users from moderation***

1. In Manager, select **Active Directory | Remote mailboxes**.
2. Select a mailbox in the result list.
3. Select **Exclude from moderation** in the task view.
4. Select the table which contains the user from the menu at the top of the form. You have the following options:
  - Mail-enabled distribution groups
  - Dynamic Distribution Group
  - Mailboxes
  - remote mailbox
  - Email users
  - Email contacts

5. Assign users in **Add assignments**.

**TIP:** You can remove the assignment of users in the **Remove assignments** area.

***To remove an assignment***

- Select the user and double click .

6. Save the changes.

## Error handling

### Possible errors when synchronizing an Exchange hybrid environment

#### Problem

A warning is displayed while setting up a new synchronization project for an Exchange hybrid environment:

The given Exchange Organization has an Office 365 Hybrid Configuration. The Exchange Hybrid Module (EXH) It is recommended you install the Exchange Hybrid Module first.

#### Cause

The schema extensions for synchronizing Exchange hybrid are not declare in the One Identity Manager database yet.

#### Solution

Update the One Identity Manager and select the Exchange Hybrid Module as an additional module. For more information about updating One Identity Manager, see the *One Identity Manager Installation Guide*.

#### Problem

The following error message appears when synchronizing Exchange hybrid memberships with an existing synchronization project.

The schema type (RemoteMailbox) does not exist in schema (...).

#### Cause

The Microsoft Exchange Module has already been updated. Therefore, the Microsoft Exchange connector recognizes the extensions for synchronizing Exchange hybrid. The

Exchange Hybrid Module was not installed.

## Solution

If you want to synchronize Exchange hybrid

- Update the One Identity Manager and select the Exchange Hybrid Module as an additional module. For more information about updating One Identity Manager, see the *One Identity Manager Installation Guide*.
- Create a new synchronization project. For more information, see [Creating a synchronization project for initial synchronization of a Microsoft Exchange environment](#) on page 19.

If you do not want to synchronize Exchange hybrid:

- Apply the patch with the patch ID VPR#28904 to the synchronization project. This patch modifies the member filter's excluded lists.

For more detailed information about updating synchronization projects, see the *One Identity Manager Target System Synchronization Reference Guide*.

## Appendix: Configuration parameters for managing Microsoft Exchange

The following configuration parameters are additionally available in One Identity Manager after the module has been installed.

**Table 45: Configuration parameters for managing a Microsoft Exchange environment**

Configuration parameter	Meaning
TargetSystem   ADS   Exchange2000	Preprocessor relevant configuration parameter for controlling the database model components for the administration of the target system Microsoft Exchange. If the parameter is set, the target system components are available. Changes to the parameter require recompiling the database.
TargetSystem   ADS   Exchange2000   Accounts	This configuration parameter permits configuration of recipient data.
TargetSystem   ADS   Exchange2000   Accounts   MailTemplateDefaultValues	This configuration parameter contains the mail template used to send notifications if default IT operating data mapping values are used for automatically creating a user account. The <b>Employee - new user account with default properties created</b> mail template is used.
TargetSystem   ADS   Exchange2000   DefaultAddress	The configuration parameter contains the recipient's default email address for sending notifications about actions in the target system.

## Appendix: Default Project Template for Microsoft Exchange

A default project template ensures that all required information is added in One Identity Manager. This includes mappings, workflows and the synchronization base object. If you do not use a default project template you must declare the synchronization base object in One Identity Manager yourself.

Use a default project template for initially setting up the synchronization project. For custom implementations, you can extend the synchronization project with the Synchronization Editor.

### Detailed information about this topic

- [Default template for Microsoft Exchange 2010](#) on page 134
- [Default project template for Microsoft Exchange 2013, Microsoft Exchange 2016, and Microsoft Exchange 2019](#) on page 135

## Default template for Microsoft Exchange 2010

The template uses mappings for the following schema types.

**Table 46: Mapping Microsoft Exchange 2010 schema types to tables in the One Identity Manager schema.**


Schema type in Microsoft Exchange	Table in the One Identity Manager Schema
ActiveSyncMailboxPolicy	EX0ActiveSyncMBPolicy
CalendarProcessing	EX0Mailbox
DatabaseAvailabilityGroup	EX0DAG

Schema type in Microsoft Exchange	Table in the One Identity Manager Schema
DistributionGroup	EX0DL
DynamicDistributionGroup	EX0DynDL
ExchangeServer	EX0Server
GlobalAddressList	EX0AddrList
LocalAddressList	EX0AddrList
Mailbox	EX0Mailbox
MailboxDatabase	EX0MailboxDatabase
Mailboxstatistics	EX0Mailbox
MailContact	EX0MailContact
MailPublicFolder	EX0MailPublicFolder
MailUser	EX0MailUser
ManagedFolderMailboxPolicy	EX0ManagedFolderPolicy
OfflineAddressBook	EX0OfflAddrBook
Organization	EX0Organization
OwaMailboxPolicy	EX0OwaMailboxPolicy
PublicFolder	EX0PublicFolder
PublicFolderDatabase	EX0PublicFolderDatabase
RemoteMailbox	EXHRemoteMailbox
	 <b>NOTE:</b> This table only exists if the Exchange Hybrid Module is installed.
RetentionPolicy	EX0RetentionPolicy
RoleAssignmentPolicy	EX0RoleAssignPolicy
SharingPolicy	EX0SharingPolicy

## Default project template for Microsoft Exchange 2013, Microsoft Exchange 2016, and Microsoft Exchange 2019

The template uses mappings for the following schema types.

**Table 47: Mapping Microsoft Exchange 2013, Microsoft Exchange 2016, and Microsoft Exchange 2019 schema types to tables in the One Identity Manager schema.**

<b>Schema type in Microsoft Exchange</b>	<b>Table in the One Identity Manager Schema</b>
CalendarProcessing	EX0Mailbox
DatabaseAvailabilityGroup	EX0DAG
DistributionGroup	EX0DL
DynamicDistributionGroup	EX0DynDL
ExchangeServer	EX0Server
GlobalAddressList	EX0AddrList
LocalAddressList	EX0AddrList
Mailbox	EX0Mailbox
MailboxDatabase	EX0MailboxDatabase
Mailboxstatistics	EX0Mailbox
MailContact	EX0MailContact
MailPublicFolder	EX0MailPublicFolder
MailUser	EX0MailUser
MobileDeviceMailboxPolicy	EX0ActiveSyncMBPolicy
OfflineAddressBook	EX0OfflAddrBook
Organization	EX0Organization
OwaMailboxPolicy	EX0OwaMailboxPolicy
PublicFolder	EX0PublicFolder
PublicFolderDatabase	EX0PublicFolderDatabase
RemoteMailbox	EXHRemoteMailbox
	 <b>NOTE:</b> This table only exists if the Exchange Hybrid Module is installed.
RetentionPolicy	EX0RetentionPolicy
RoleAssignmentPolicy	EX0RoleAssignPolicy
SharingPolicy	EX0SharingPolicy



One Identity solutions eliminate the complexities and time-consuming processes often required to govern identities, manage privileged accounts and control access. Our solutions enhance business agility while addressing your IAM challenges with on-premises, cloud and hybrid environments.

## Contacting us

For sales or other inquiries, visit <https://www.oneidentity.com/company/contact-us.aspx> or call +1-800-306-9329.

## Technical support resources

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

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

- Submit and manage a Service Request
- View Knowledge Base articles
- Sign up for product notifications
- Download software and technical documentation
- View how-to-videos at [www.YouTube.com/OneIdentity](http://www.YouTube.com/OneIdentity)
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product

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