ELO Sync

Installation

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> **Information**
>
> We recommend installing ELO Sync using the ELO Server Setup.

Make sure that all requirements are met before installing ELO Sync.

OAuth must have been set up.

Setting up OAuth

To set up OAuth, refer to the following sections:

- Configuration of ELO Auth (ELO 23.6 or lower)
- Configuration of ELO Modern Authentication (Auth2) (ELO 23.6 or higher)

Windows

The following requirements must be met to install ELO Sync on Microsoft Windows:

- Microsoft Windows 10 version 1607 or higher
- Min. 1 GB RAM
- x64 processor with at least two kernels
- 1 GB hard drive space
- Access to a database server with one of the supported DBMS
- Access to an ELO repository. The account must have administrator rights.

See also:

- .NET 8 - Supported OS versions

Linux

The following requirements must be met to install ELO Sync on Linux:

- glibc 2.17+ or musl 1.2.2+
- OpenSSL 1.x or 3.x
- Min. 1 GB RAM
- x64 processor with at least two kernels
- 1 GB hard drive space
- Access to a database server with one of the supported DBMS
- Access to an ELO repository. The account must have administrator rights.

See also:

- .NET 8 - Supported OS versions
- .NET Support and Compatibility for Linux Distributions

> **Information**
>
> The requirements only indicate what ELO Sync itself requires.
>
> The requirements for the operating system and all other services running on the same system also have to be aligned.

Method

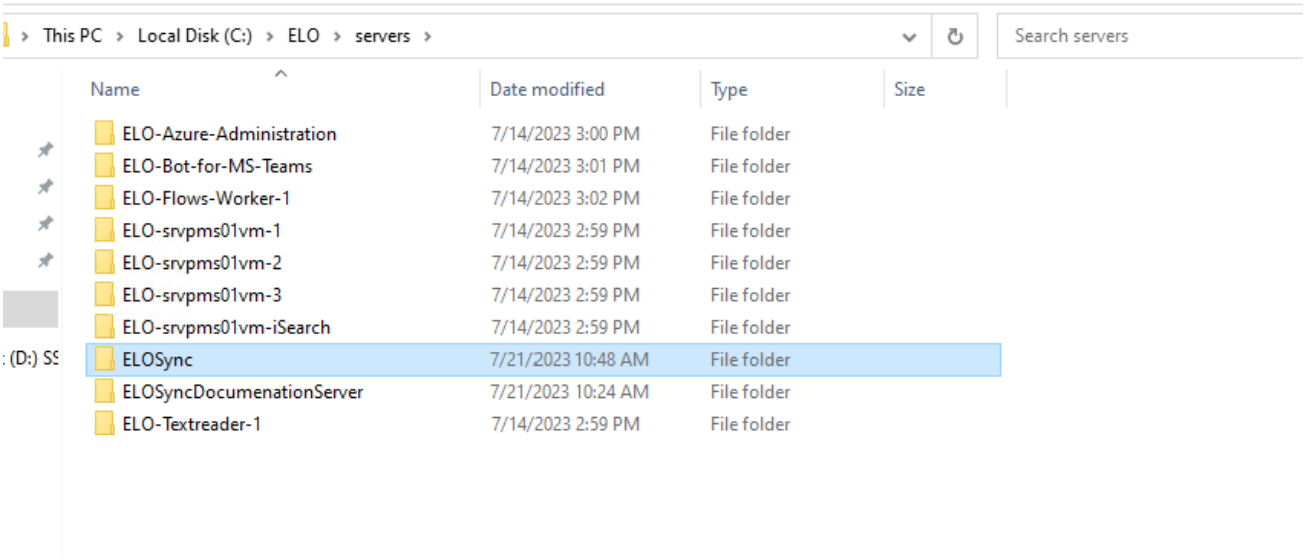
> We recommend you use the ELO Server Setup to install ELO Sync, rather than performing a manual installation.

Make sure that all requirements are met before installing ELO Sync.

ELO Sync can be installed on the following operating systems:

- Windows
- Linux

Windows



1. Create the target directory on your system and extract the files from ELO Sync.
2. Follow the guide on Registering ELO Sync in Azure and note the application information.
3. Copy the *appsettings.json* file as *appsettings.Production.json*.

   This ensures that your configuration is not overwritten by future updates.
4. Open the configuration file in a text editor of your choice.
   1. Use the information from step 2 to change the following configuration section.

```
"AzureAd": {
 "Instance": "https://login.microsoftonline.com/",
 "Domain": "example.onmicrosoft.com",
 "ClientId": "00000000-0000-0000-0000-000000000000",
 "TenantId": "11111111-2222-3333-4444-555555555555",
```

```
 "ClientSecret": "TheClientSecretFromAzurePortal",
 "CallbackPath": "/signin-oidc-custom"
},
```

Some of these terms have changed over time. Below is a short list of alternative names for each setting:

- ClientId: AppID, Application client ID
- TenantId: Directory ID

1. Enter the PublicUrl path if ELO Sync should be called from a domain other than the internal one, e.g. via a proxy.

```
"PublicUrl": "https://domain:port/path/to/elosync",
```

1. Change the logon information for the service user that will be used to connected to the ELO repository:

```
"ServiceUser": {
"UserName": "ELO Service",
"Password": "ThePasswordForTheServiceUser"
}
```

1. Configure the ELO repositories to be accessed via ELO Sync:

```
"Repositories": [
{
  "name": "Display Name for Repository",
    "key": "TechnicalKeyForRepository",
    "url": "https://elo-example-server.com:9093/ix-Repository/ix",
    "webclienturl": "https://elo-example-server.com:9093/ix-Repository/plugin/de.elo.
    "oauthcallbackurl": "https://elo-example-server.com:9093/ix-Repository"
}
]
```

The technical key for the repository can be any character except a space (' '). We recommend using the repository name unless this name is not unique on all servers.

1. If necessary, change the profile key for the ELOauth plug-in. This is used if the user logs on to the ELO Sync web interface.

```
"OAuth": {
"ConfigId": "elo_sync_oauth"
}
```

1. Enter the database type and the connection string.

```
"Database": "Postgres",
"ConnectionStrings": {
"Sqlite": "Data Source=elosync.db",
"Postgres": "User ID=dbuser;Password=dbpassword;Server=dbserver;Port=5432;Database=elo
"Oracle": "Data Source=elosyncdb;User Id=dbuser;Password=dbpassword;Integrated Securi
"MsSql": "Server=dbserver,1433;Database=elosyncdb;User Id=dbuser;Password=dbpassword;
},
```

1. Configure the web server endpoints:

```
"Kestrel": {
  "Endpoints": {
    "Https": {
    "Url": "https://elo-sync-server",
    "Certificate": {
    "Path": "C:\\Path\\To\\Certificate.pfx",
    "Password": "PasswordForCertificate"
    }
    }
  },
},
```

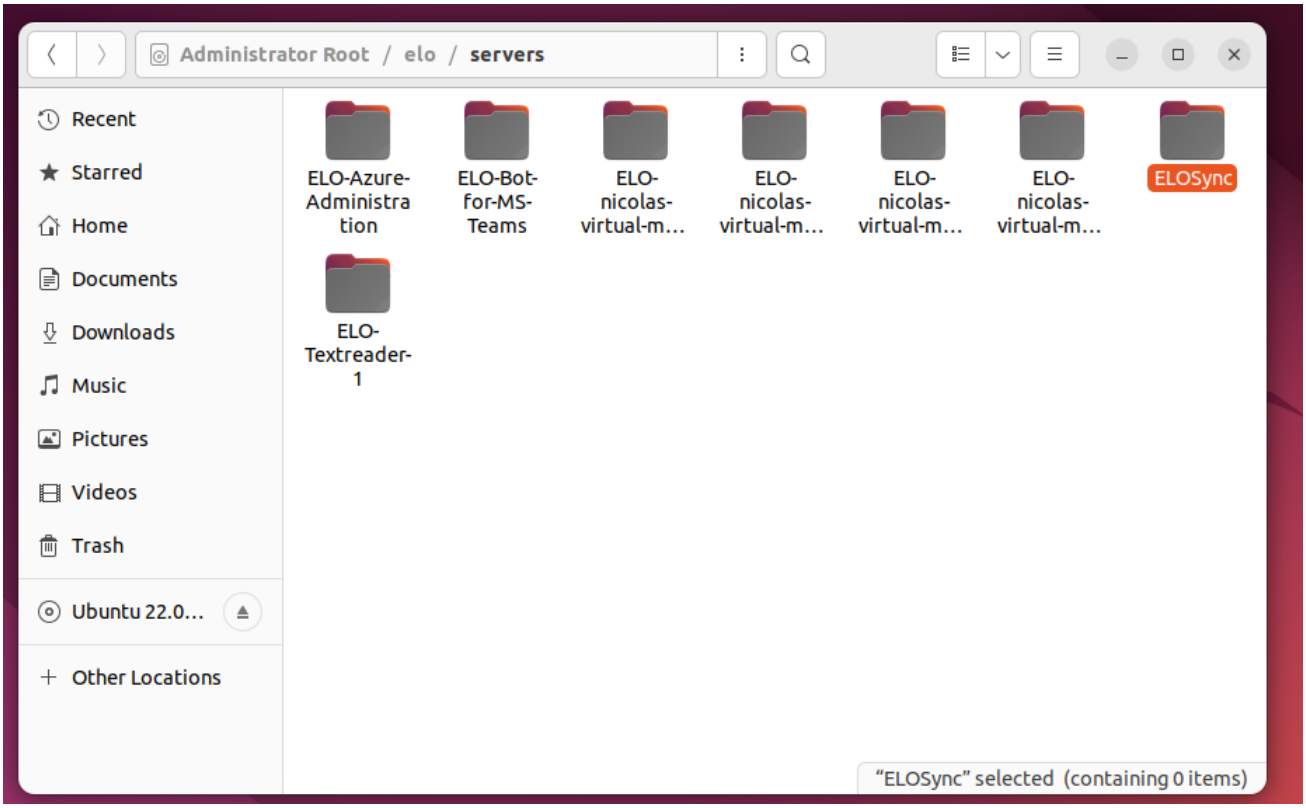
ELO Sync is now installed and fully configured.

To test ELO Sync, open a terminal in the ELO Sync installation directory and execute the following command:

```
.\Elo.Sync.Main.exe
```

You can find more details about configuration in the *appsettings.json* (or *appsettings.Production.json*) file in the Configuration section.

Linux



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 "ClientSecret": "TheClientSecretFromAzurePortal",
 "CallbackPath": "/signin-oidc-custom"
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```

   Some of these terms have changed over time. Below is a short list of alternative names for each setting:

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ClientId: AppID, Application client ID
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1. Change the logon information for the service user that will be used to connected to the ELO repository:

```
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1. Configure the ELO repositories to be accessed via ELO Sync:

```
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{
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    "key": "TechnicalKeyForRepository",
    "url": "https://elo-example-server.com:9093/ix-Repository/ix",
    "webclienturl": "https://elo-example-server.com:9093/ix-Repository/plugin/de.elo.
    "oauthcallbackurl": "https://elo-example-server.com:9093/ix-Repository"
}
]
```

The technical key for the repository can be any character except a space (' '). We recommend using the repository name unless this name is not unique on all servers.

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}
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"ConnectionStrings": {
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"Postgres": "User ID=dbuser;Password=dbpassword;Server=dbserver;Port=5432;Database=elo
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"MsSql": "Server=dbserver,1433;Database=elosyncdb;User Id=dbuser;Password=dbpassword;
},
```

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```
"Kestrel": {
  "Endpoints": {
    "Https": {
    "Url": "https://elo-sync-server",
    "Certificate": {
        "Path": "/path/to/certificate.pem",
        "Password": "PasswordForCertificate"
    }
    }
},
},
```

ELO Sync is now installed and fully configured.

To test ELO Sync, open a terminal in the ELO Sync installation directory and execute the following command:

```
./Elo.Sync.Main
```

You can find more details about configuration in the *appsettings.json* (or *appsettings.Production.json*) file in the Configuration section.

Configuration of ELO Auth (ELO 23.6 or lower)

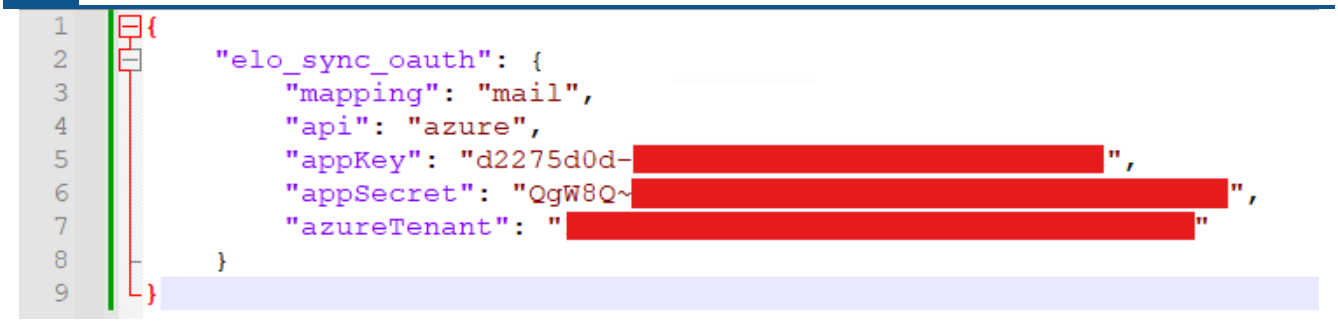
To use ELO Auth (Auth 1), an OAuth profile must be created. *The appsettings.json* file must be adjusted as follows: The `"loginmode"` variable must be incorporated into the "Repositories" node, if it does not already exist. The value `"ELOauth"` must be entered for ELO Auth.

```
36   "Repositories": [
37     {
38       "name": "Repository Name",
39       "key": "",
40       "url": "",
41       "webclienturl": "",
42       "oauthcallbackurl": "",
43       "loginmode": "ELOauth"
44     }
45   ],
```

If you already have an OAuth profile, an additional configuration node *"elo_sync_oauth"* must be added to the file *de.elo.ix.plugin.auth.json*. This file is located under `<InstallDir>\<ELOInstallFolder>\config\ix-<repository name>\ELO-<server name>-1\de.elo.ix.plugin.auth.json`.

```
1  {
2      "azuread": {
3          "mapping": "mail",
4          "api": "azure",
5          "appKey": "cb359113-[redacted]",
6          "appSecret": "f3f8Q[redacted]",
7          "azureTenant": "[redacted]"
8      },
9      "elo_sync_oauth": {
10         "mapping": "mail",
11         "api": "azure",
12         "appKey": "d2275d0d-[redacted]",
13         "appSecret": "QgW8Q~[redacted]",
14         "azureTenant": "[redacted]"
15     }
16 }
```

If you do not have an OAuth profile, you must create the file *de.elo.ix.plugin.auth.json* and insert the configuration node *"elo_sync_oauth"*.



Please note

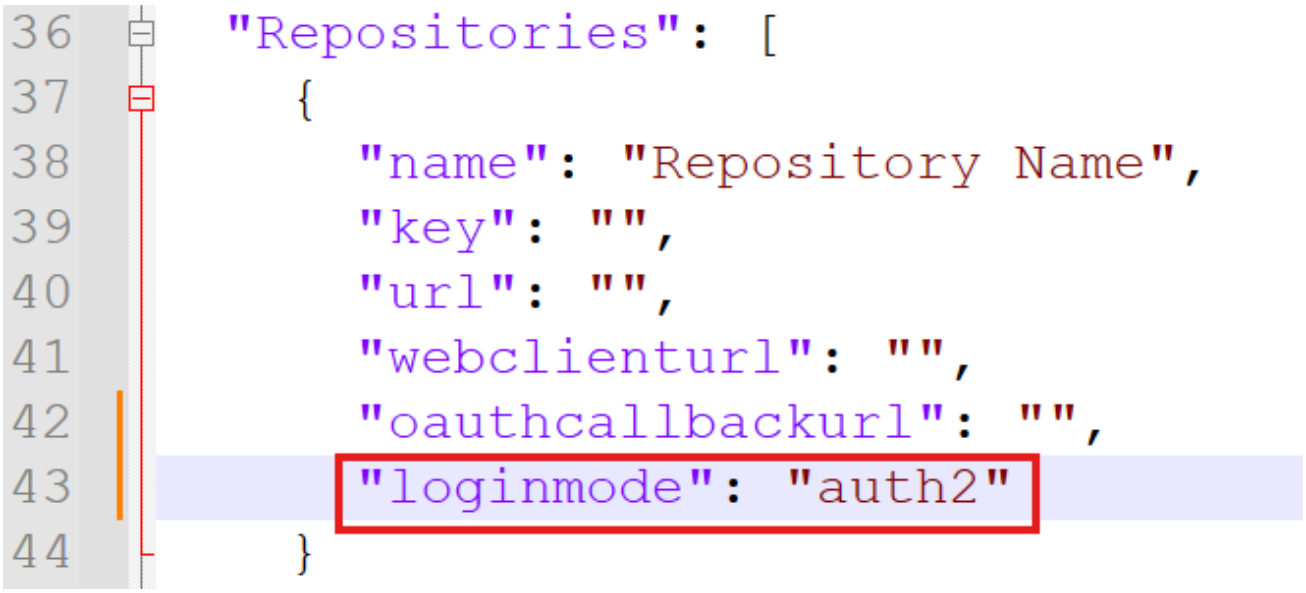
The following data must be taken from the ELO Sync *appsettings.json* (*ClientId*, *TenantId* and *ClientSecret*):

- "ClientId" -> "appKey"
- "TenantId" -> "azureTenant"
- "ClientSecret" -> "appSecret"

The *ConfigID* name in the ELO Sync *appsettings.json* under the *OAuth* node must be identical to the node name in the configuration file for OAuth (Example: "elo_sync_oauth").

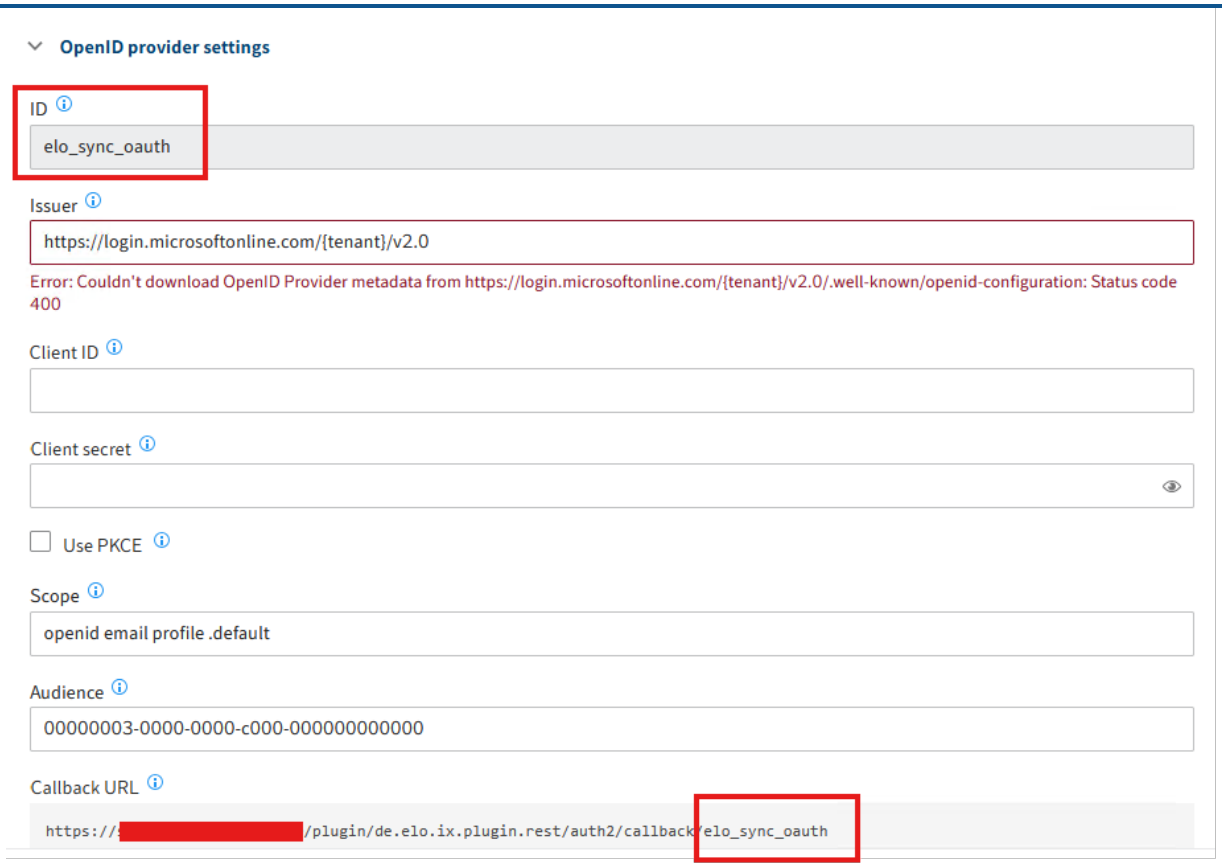
Configuration of ELO Modern Authentication (Auth2) (ELO 23.6 or higher)

To use ELO Modern Authentication (Auth 2), an OAuth profile must be created. *The appsettings.json* file must be adjusted as follows: The `"loginmode"` variable must be incorporated into the "Repositories" node, if it does not already exist. The value `"auth2"` must be entered for ELO Modern Authentication (Auth2).



A new OpenID provider must be added for ELO Sync. Refer to the Add OpenID provider documentation for more information.

1. Select *Microsoft* from the drop-down menu.
2. Enter the name **elo_sync_oauth*.



The interface may look different depending on the version, but you can find the ConfigID using the callback URL. In our example, it is *elo_sync_oauth*.

3. Enter the values from the ELO Sync *appsettings.json* in this dialog box:
   - "ClientId" -> Client ID
   - "TenantId" -> {Tenant}
   - "ClientSecret" -> Client secret
4. In the *Audience* field, enter the value `00000003-0000-0000-c000-000000000000` (Information: This value is the GUID for the Graph API).

Service registration

After you have installed ELO Sync, you can register it as a system service, so that it starts automatically with the operating system.

Windows

To register ELO Sync as a Windows service, execute the following command in PowerShell as an administrator:

```
New-Service -Name ELOSync -DisplayName "ELO Sync" -Description "ELO Sync provides synchroni
```

> **Information**
>
> This command runs the ELO Sync service under the SYSTEM account of the Windows installation.

Linux

Create an *elosync.service* systemd unit file for the ELO Sync service with the following content:

```
[Unit]
Description=ELO Sync provides synchronization between ELO repositories and third-party syst

[Service]
WorkingDirectory=/path/to/elosync/
ExecStart=/path/to/elosync/Elo.Sync.Main

# Always restart if the service exits
Restart=always
RestartSec=5

KillSignal=SIGINT
Environment=ASPNETCORE_ENVIRONMENT=Production
```

> **Information**
>
> The ELO Sync service is then executed as *root* with these instructions.
>
> This is not recommended, but setting up and configuring a service user account is not part of this guide.
>
> You can find information on this in the documentation for your Linux distribution.

Open a terminal in the directory where you created the *elosync.service* file and execute the following commands:

```
sudo cp elosync.service /etc/systemd/system/elosync.service
sudo systemctl daemon-reload
sudo systemctl start elosync.service

# If you want to enable auto start execute the following
sudo systemctl enable elosync.service
```