

e-AS2 8.6

Setup Manual

Esker EDI Services

e-AS2 8.6

© Esker EDI Services
Calor-Emag-Straße 3 · 40878 Ratingen
Phone: 02102/479-0 · Fax: 02102/479-109

Document history

Vers.	Date	Auth.	Comment
1.0	04.08.2020	JK	First English language version. Translated from German and completely updated to cover the latest software release.
1.1	11.01.2022	JK	Updated according to the latest changes in the software.

Table of Contents

1	Introduction	7
1.1	Java	7
1.1.1	MS Windows	7
1.1.2	macOS	7
1.1.3	Linux	7
1.1.4	Unix	7
1.1.5	Automatic OS detection	7
1.2	User permissions	7
1.2.1	MS Windows	7
1.2.2	Linux / macOS	8
1.3	Firewall configuration	8
1.4	Graphical user interface	8
1.4.1	MS Windows / macOS	8
1.4.2	Linux	9
1.4.3	Mixed installations	9
1.4.4	Console setup for Linux	9
2	Installation	11
2.1	MS Windows	11
2.2	macOS	17
2.3	Linux	24
3	Additional information	31
3.1	Update installations	31
3.1.1	Stop e-AS2 server	31
3.1.2	Make a backup	31
3.1.3	Perform the installation	31
3.1.4	Start e-AS2 and check database	32
3.2	License model	32
3.3	Tanuki Service Wrapper	33

1 Introduction

This chapter documents the technical requirements for the operation of e-AS2 at operating system level.

1.1 Java

e-AS2 requires Java 11. The next sections contain information on the various supported operating systems.

1.1.1 MS Windows

Generally the e-AS2 software will run on all operating systems that are currently supported by Microsoft. At the time of this writing this means Windows 10 or Windows 11, if you intend to run it on a desktop OS. As for server OS's this means Windows Server 2012 R2 or higher.

The e-AS2 installation for MS Windows comes with its own copy of Java. If you are performing an installation on Windows, you can skip the following sections. Read on at Section 1.2 (*User permissions*).

1.1.2 macOS

The e-AS2 software will run on all operating systems that are currently supported by Apple. This usually means one of the three last released macOS versions. At the time of this writing these are macOS 10.15 (Catalina), macOS 11 (Big Sur) and macOS 12 (Monterey).

The e-AS2 installation for macOS comes with its own copy of Java. If you are performing an installation on macOS, you can skip the following sections. Read on at Section 1.2 (*User permissions*).

1.1.3 Linux

The e-AS2 software will run on all reasonably current Linux distributions. You are not bound to a specific distribution. The only requirement is the availability of Java 11 for the distribution in question. You will have to install Java 11 yourself before setting up e-AS2.

1.1.4 Unix

As of version 8.0 support running e-AS2 on non-Linux Unix flavors is being discontinued.

1.1.5 Automatic OS detection

The setup routine of e-AS2 automatically detects existing Java installations on your system and selects the most suitable installation. If no suitable Java Runtime is found, you will receive an error message.

1.2 User permissions

1.2.1 MS Windows

To install e-AS2 as a Windows service, you must run the e-AS2 installation as Administrator. You also need the appropriate permissions to start and stop the service during operation. For GUI-only installations, however, no Administrator permissions are required.

The setup routine determines during the installation whether Administrator permissions are required. If necessary, the installation program is then elevated accordingly. The User Account

Control (UAC) of MS Windows draws attention to the elevation of permissions and asks for confirmation. Click on “Yes” to continue with the installation.

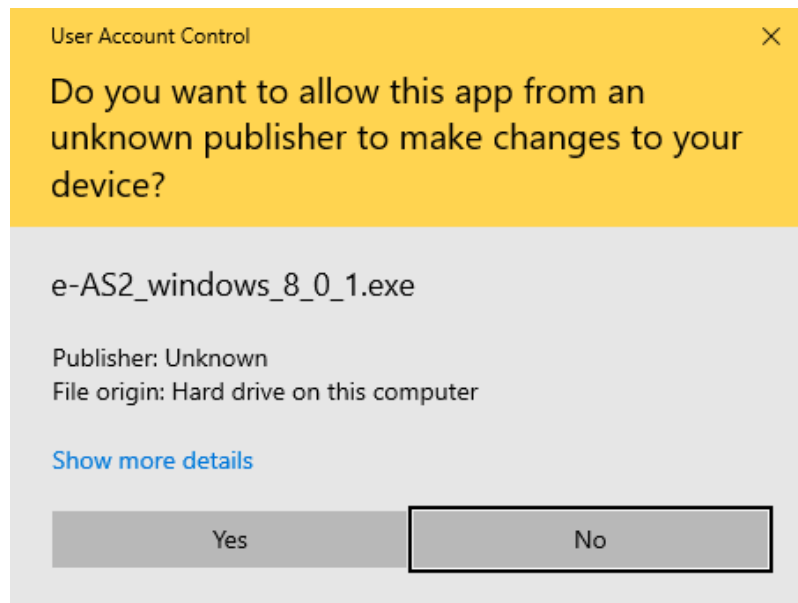


Figure 1.1. UAC on Windows 10

1.2.2 Linux / macOS

On Linux and macOS e-AS2 runs without problems with limited user permissions. We strongly recommend not to install and run the software in the user `root` or any other privileged account. The best thing to do is to set up a new operating system user that you will only use for e-AS2. However, it is also possible to run it in an existing account.

For an automatic start of e-AS2 at boot time the software must be integrated into the usual start mechanisms of the respective operating system. The call via `eas2s.srv` is intended as an interface for this integration. Read more about this in the user manual. Please contact your system administrator to implement this requirement.

1.3 Firewall configuration

Communication with e-AS2 only works if the firewall configuration is correct. A separate chapter in the user manual is dedicated to this important topic. Read it there!

1.4 Graphical user interface

The installation of the software requires a graphical operating system interface (desktop). A graphical user interface is also required later for the configuration of e-AS2. The communication core (e-AS2 server) runs as a background process without a graphical user interface. This results in some implications for the different operating systems.

1.4.1 MS Windows / macOS

MS Windows and Mac OS X come equipped with a proprietary graphical operating system interface as standard. You need physical access to the computer in question to use it. This is not necessarily the case for server machines. This can be remedied by techniques for deploying remote desktops such as RDP or VNC for Windows or screen sharing for Mac.

For server machines, it is recommended that you only install the software at the console or via remote desktop. The configuration client (e-AS2 GUI) can be run separately on a normal workstation computer.

1.4.2 Linux

For Linux there are different desktop versions. Most of them are based on the X Window System (X11). This ensures extensive interoperability.

Prerequisite for the installation of e-AS2 and the operation of the e-AS2 GUI is the access to an X server for the display of the graphical dialogs. You can easily test the availability of X11 by starting a standard X11 program from the shell, such as `xterm`. If the call is successful, the necessary prerequisites are met. Otherwise, contact your system administrator to solve the problem.

Due to the client/server principle of the X Window System, the installation of e-AS2 on remote machines is basically possible without further action, provided that the involved graphics systems are configured correctly and work properly.

1.4.3 Mixed installations

Mixed installations, i.e. running e-AS2-server under one operating system and e-AS2-GUI-client under another operating system, are basically possible in any combination.

1.4.4 Console setup for Linux

If for some reason it is not possible for you to install the software using an X11 desktop, a console setup is also available as an emergency solution. Make sure that the environment variable `DISPLAY` is not set. Then start the installation routine. Since no display is defined, it will automatically switch to console mode.

2 Installation

Guide to the installation of e-AS2.

2.1 MS Windows

Run `e-AS2_windows_8_0_2.exe` (or in general the most recent installer available) by double-clicking or from the command line to start the installation. First you select the language and confirm with OK.

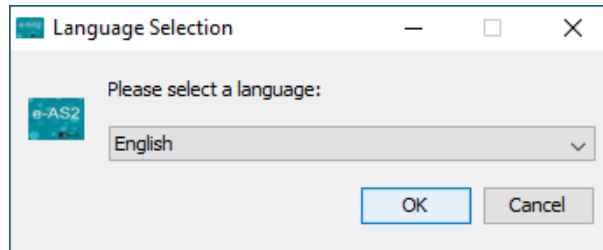


Figure 2.1. Language selection

There is a German and an English version of the installer available. On startup the language is pre-set according to the operating system language, if possible. The selection at this point changes both the UI language during installation and the language for the e-AS2 GUI. (The latter can, however, be changed again later.) For the further presentation we assume that you have selected English.

The welcome dialog in the language you have chosen follows.

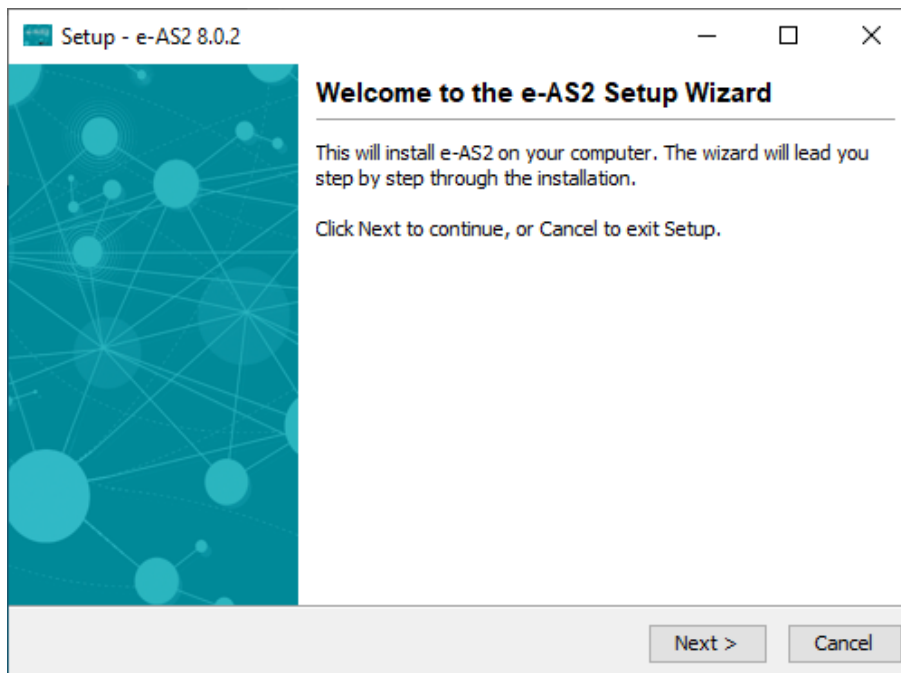


Figure 2.2. Welcome

Click on "Next" to proceed with the installation.

In the next dialog the license conditions are displayed. Please read them carefully before you accept. Then click on “Next”.

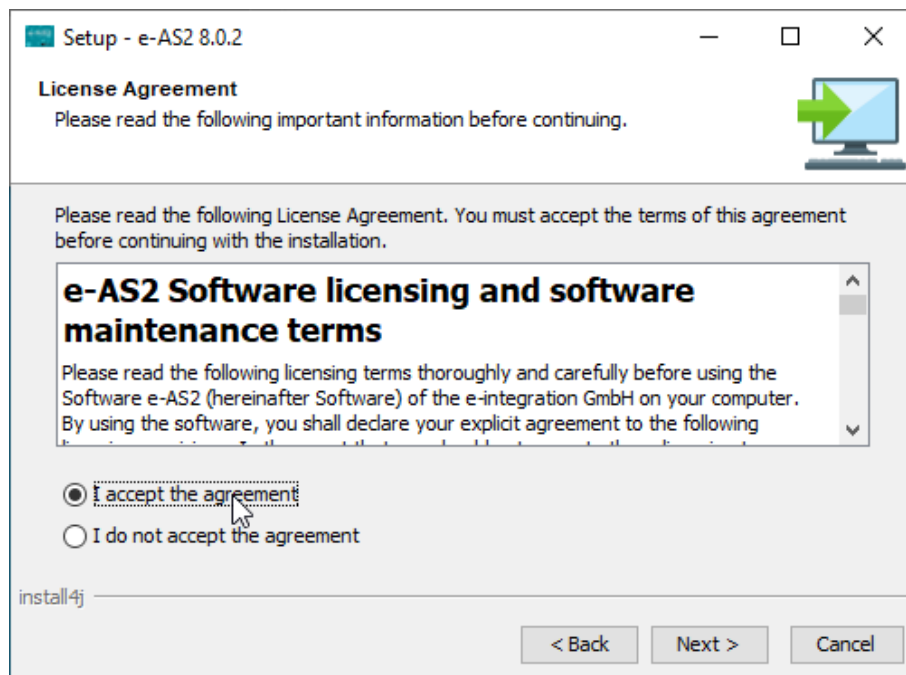


Figure 2.3. License agreement

In the next dialog, you have the option of selecting an installation path that differs from the standard path.

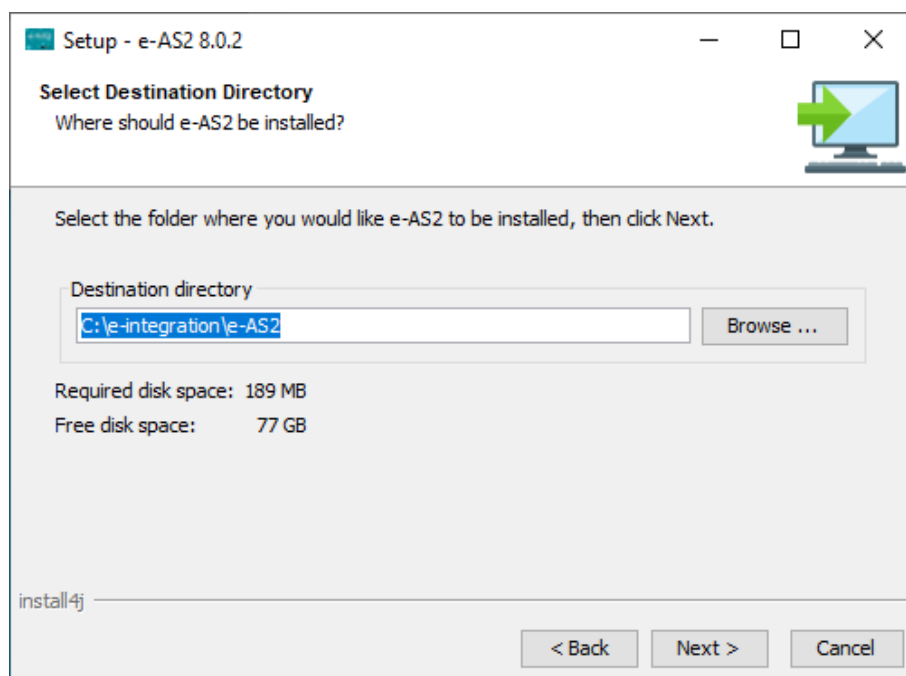


Figure 2.4. Select destination directory

We recommend that the default value be kept unless there are strong reasons against it. But e-AS2 also runs without problems from any other location. Note, however, that you need write

permission for the selected directory. Be sure to install on a local hard disk partition. Network installations are not supported. Click on “Next” to proceed with the installation.

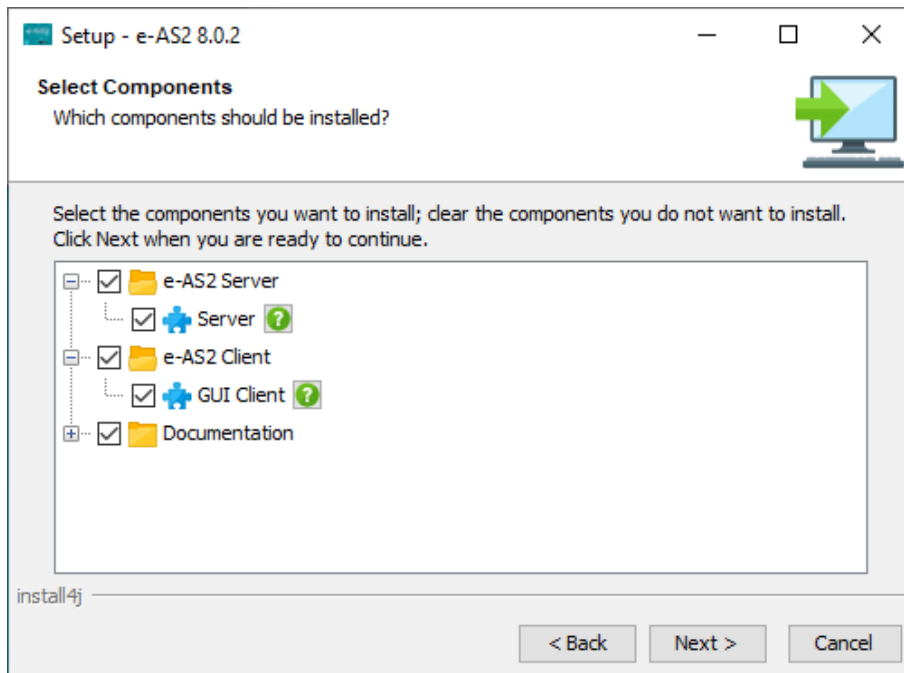


Figure 2.5. Select components

The dialog for selecting the components follows. If you want to perform a GUI-only installation, deactivate the server components here. Conversely, server-only installations without GUI are also possible.

In the next dialog you specify the license type. This means that you decide which version of e-AS2 you want to install. Select “e-AS2 Connect” to install the restricted version for connecting to a provider. Select “e-AS2 Enterprise” to install the full version.

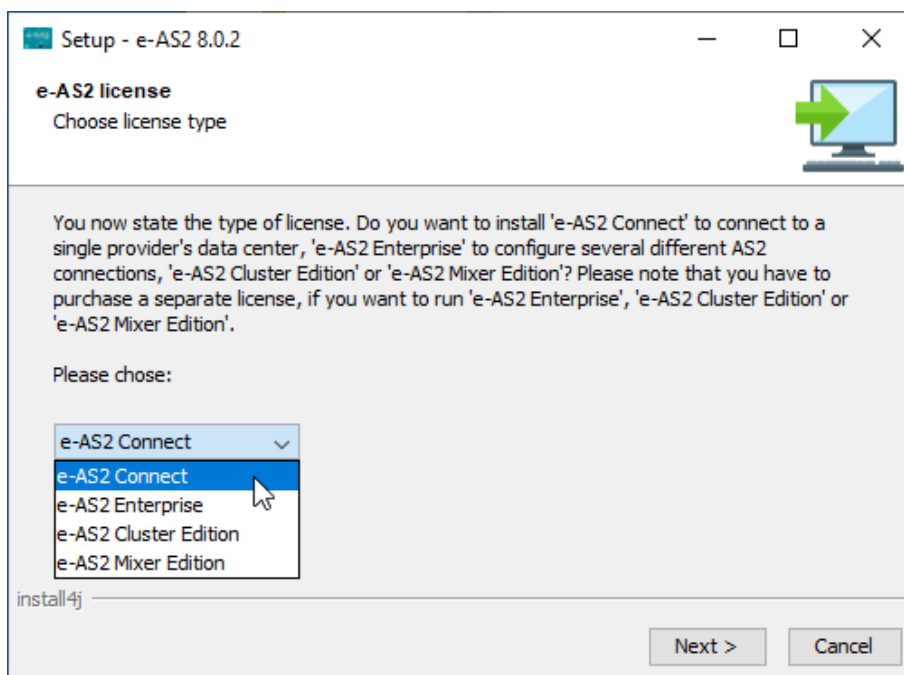


Figure 2.6. Choose license type

Attention! If you install the Enterprise version, you will need a license file to unlock the features you have licensed to run the software. (The same applies to the two other license types, that are presented in the drop-down list.)

Click on “Next” to proceed to the next dialog.

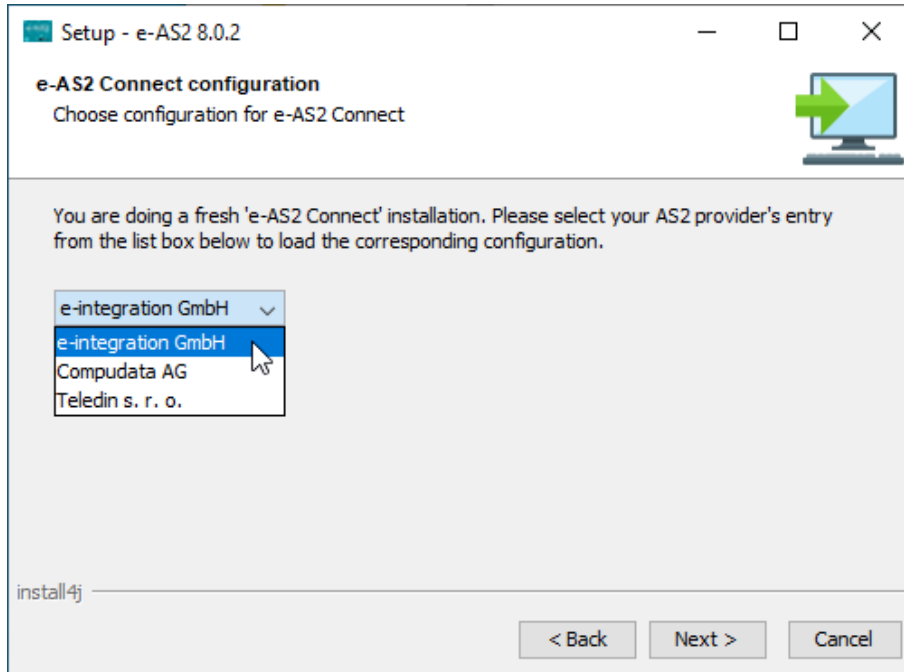


Figure 2.7. Choose provider

If you have chosen e-AS2 Connect, the next step is to choose your AS2 provider.

Important! Based on this selection, an automatic pre-configuration of e-AS2 Connect for access to your provider takes place. This can not be changed afterwards. If you are not sure at this point, cancel the installation at this point and consult with your software supplier.

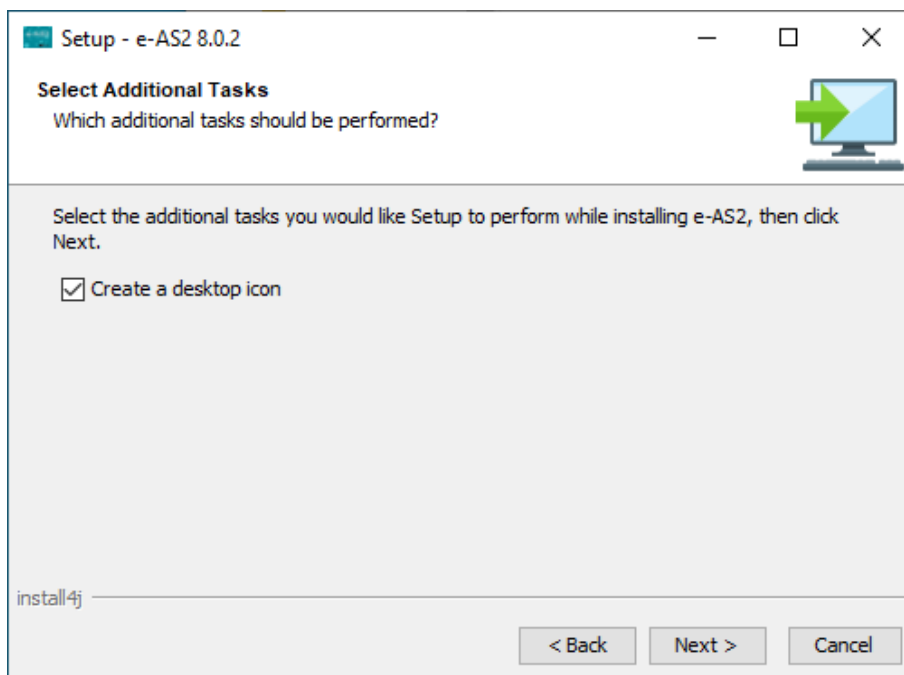


Figure 2.8. Create a desktop icon

Then you decide whether you want desktop icons for the GUI programs.

A dialog for entering the central communication parameters follows. The meaning of these parameters is explained in detail in the user manual. We recommend that you keep the default values at first. Changes can be made at any time, even at a later date. Click on “Next” to proceed with the installation.

In a server installation, parameters are queried as shown in the following figure. Use the scroll bar to access all input fields.

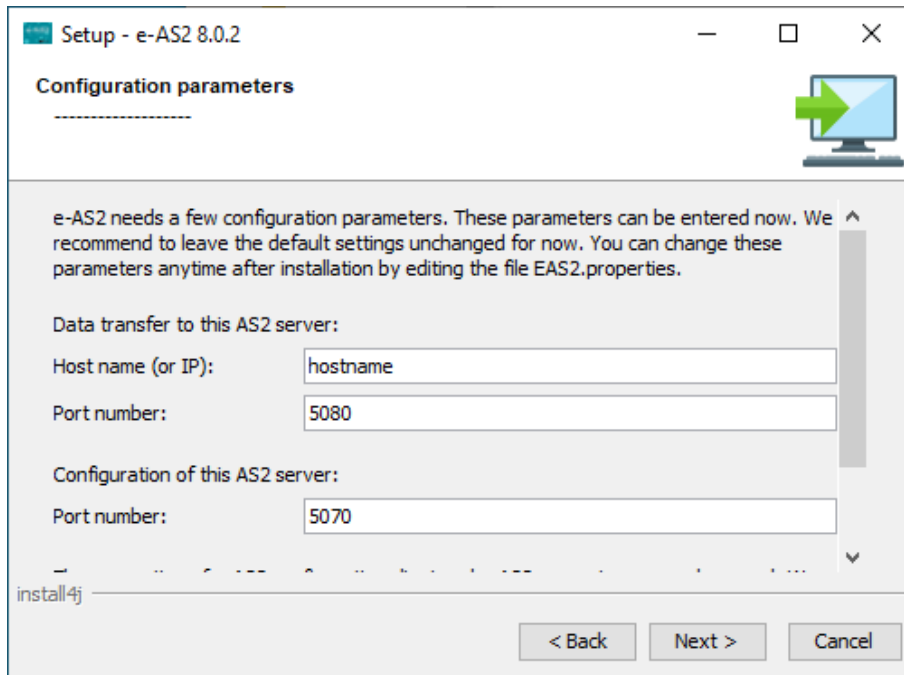


Figure 2.9. Configuration Parameters for Server Installation

With a GUI-only installation, however, the following parameters are queried.

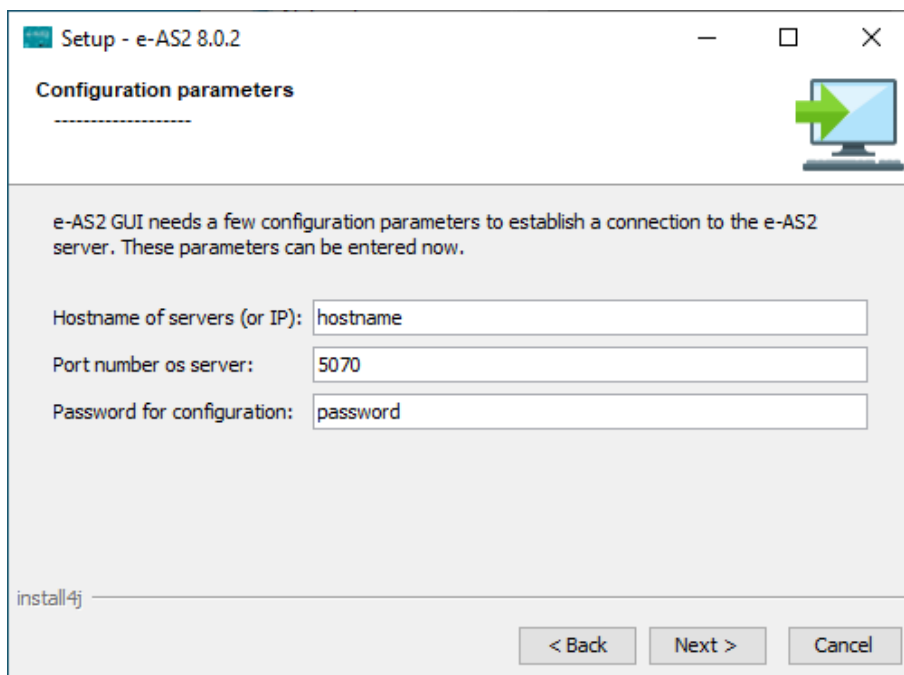


Figure 2.10. Configuration Parameters for GUI Installation

Click on “Next” to proceed with the installation.

In the next dialog you can make settings for the start menu entries.

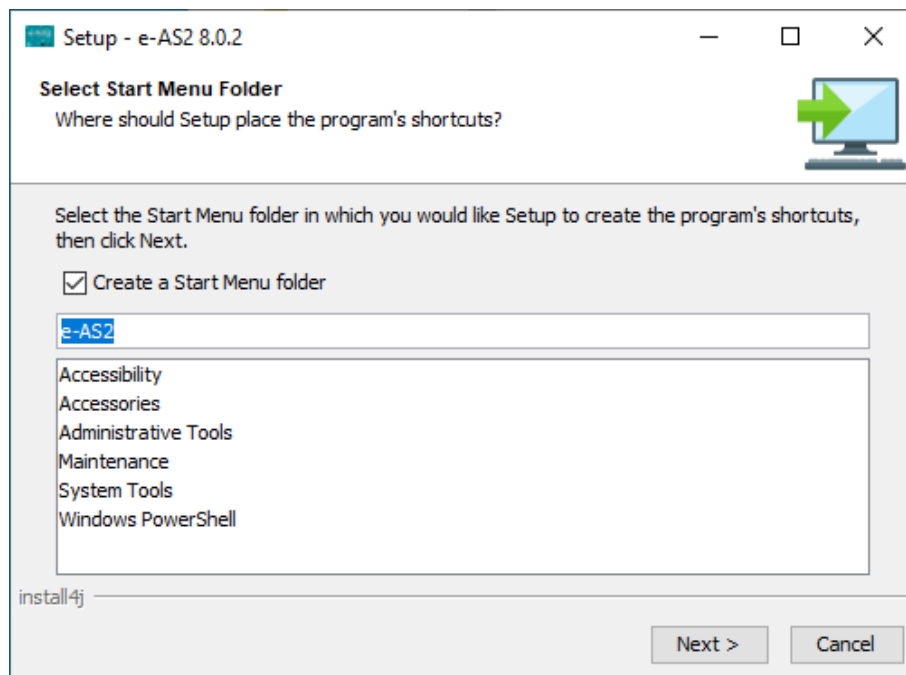


Figure 2.11. Select Start Menu Folder - Server Installation

In the case of a GUI installation, a Start Menu folder is proposed that contains information about the server to which this GUI instance will connect. We recommend that you keep this, especially if you plan to install several GUI instances on a Windows computer.

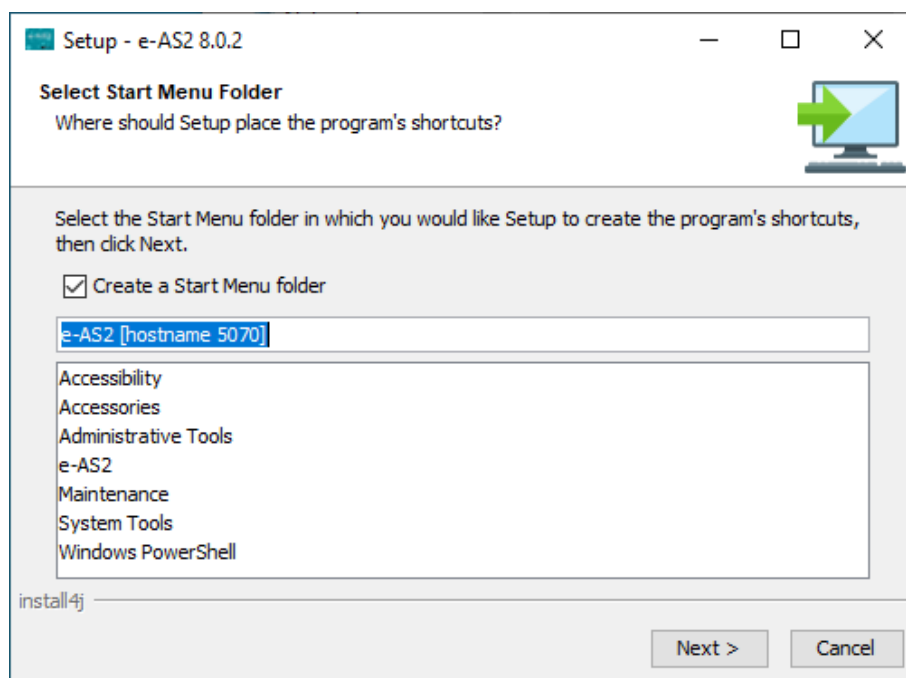


Figure 2.12. Select Start Menu Folder - GUI Installation

The installation of the selected components follows. A progress bar informs you about the status of the installation.

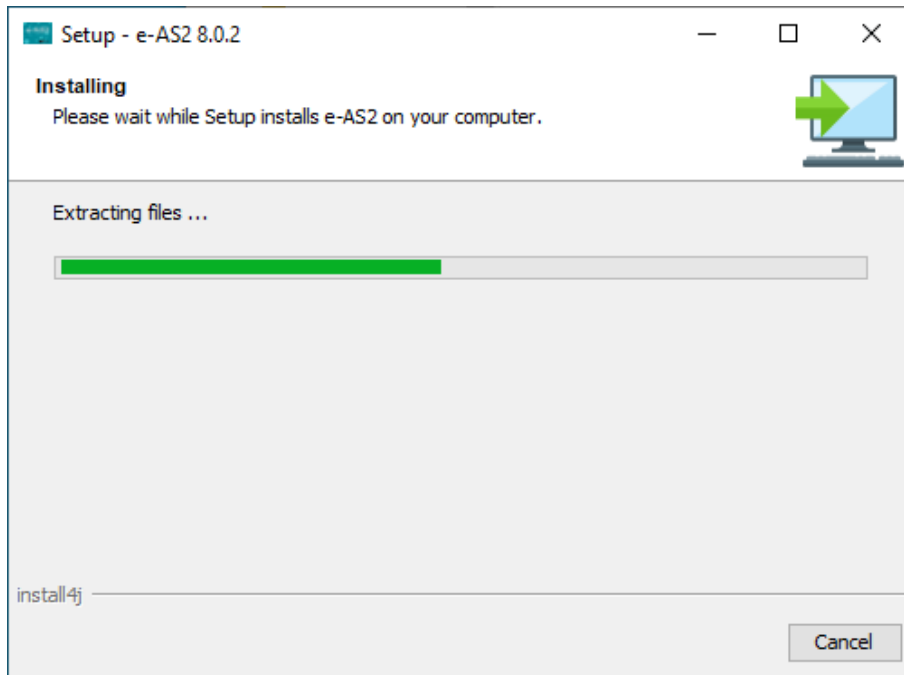


Figure 2.13. Installation - Progress bar

When all installation activities are done, a completion message appears as follows.

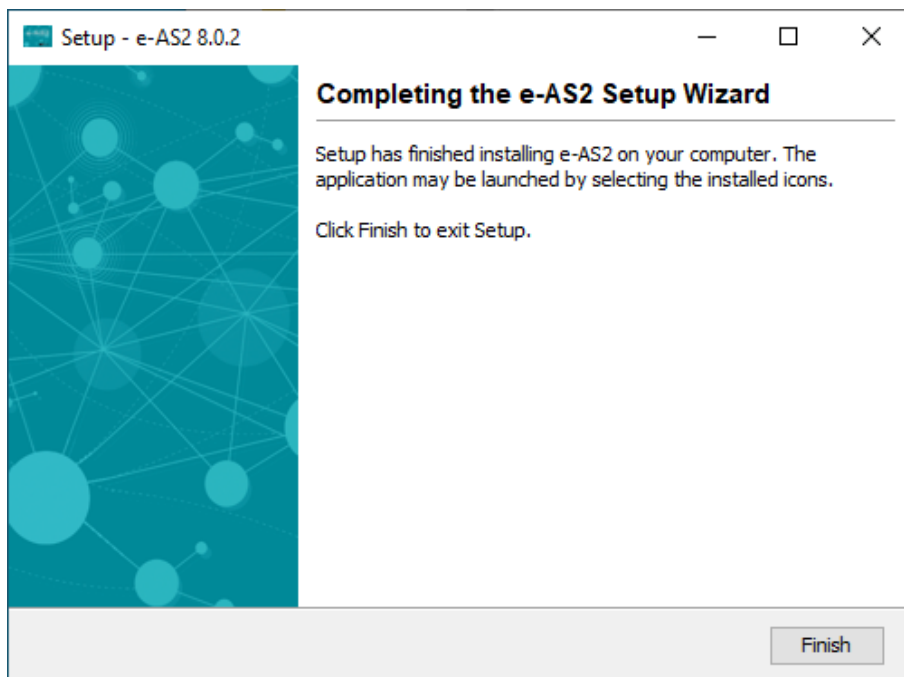


Figure 2.14. Completion message

Click "Finish" to complete the installation.

2.2 macOS

Double-click the file `e-AS2_macos_8_0_2.dmg` (or in general the most recent installer available) to open the e-AS2 Disk Image. Then double-click the e-AS2 Installer Icon to start the installation process.

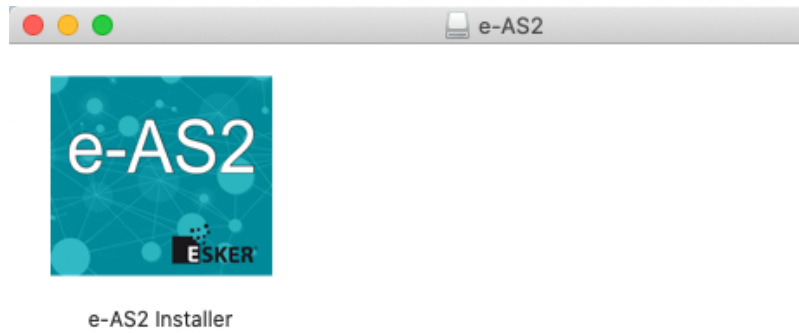


Figure 2.15. Open disk image

First you select the language and confirm with OK.

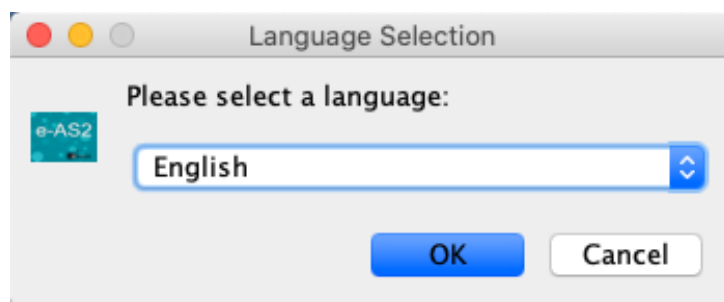


Figure 2.16. Language selection

There is a German and an English version of the installer available. On startup the language is pre-set according to the operating system language, if possible. The selection at this point changes both the UI language during installation and the language for the e-AS2 GUI. (The latter can, however, be changed again later.) For the further presentation we assume that you have selected English. The welcome dialog in the language you have chosen follows.

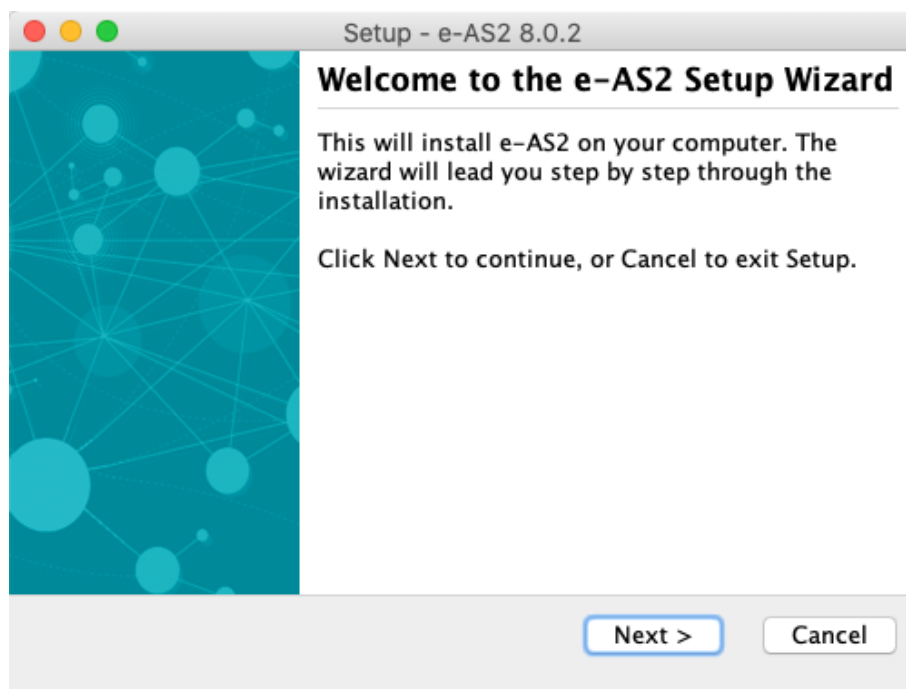


Figure 2.17. Welcome

Click on “Next” to proceed with the installation.

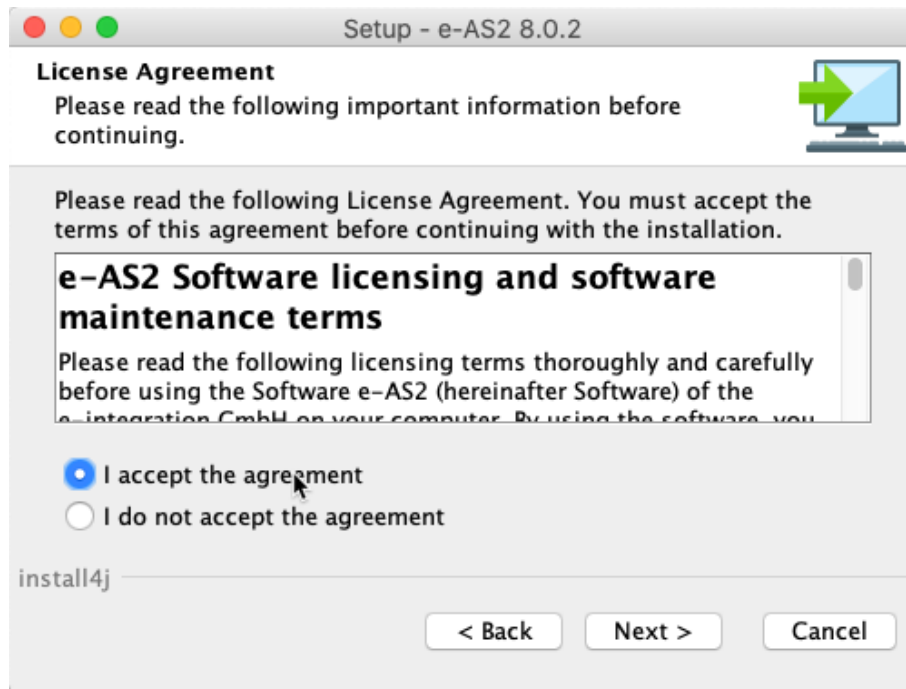


Figure 2.18. License agreement

In the next dialog the license conditions are displayed. Please read them carefully before you accept. Then click on “Next”.

In the next dialog, you have the option of selecting an installation path that differs from the standard path.

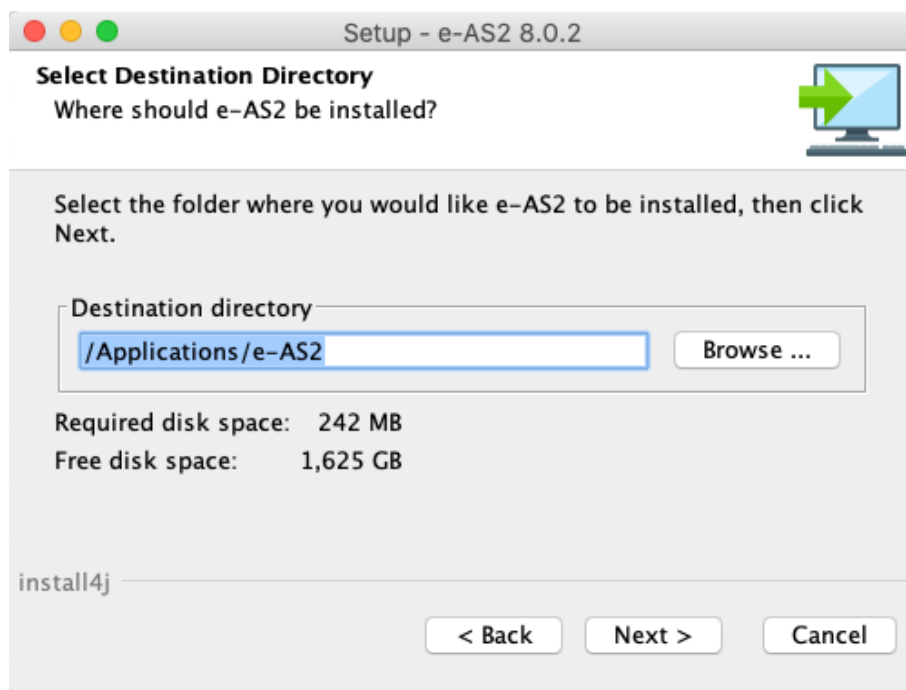


Figure 2.19. Select destination directory

It is required to choose a directory on a local hard disk. Note that you need write permission for this directory to be able to perform the installation. Click on “Next” to proceed with the installation.

The dialog for selecting the components follows. If you want to perform a GUI-only installation, deactivate the server components here. Conversely, server-only installations without GUI are also possible.

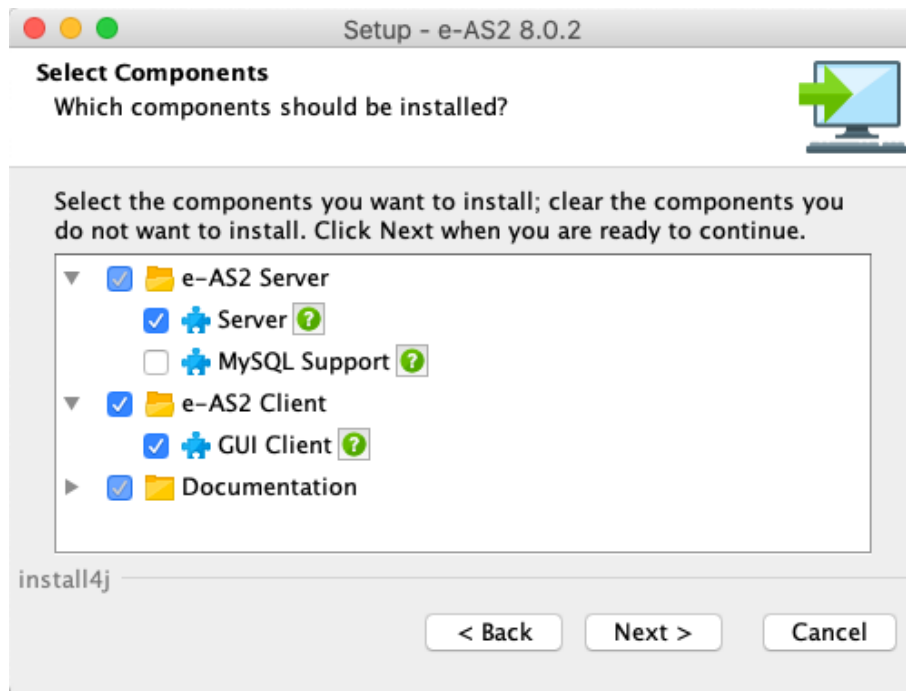


Figure 2.20. Select components

Select “MySQL support” if you plan to use MySQL as database for e-AS2 instead of the default HyperSQL. Attention! Only work with MySQL if you know a lot about databases. Your software supplier most probably wont support you on MySQL issues.

Don't select “MySQL support”, if you intend to install e-AS2 Connect. MySQL can only be used with e-AS2 Enterprise, Cluster Edition or Mixer Edition.

In the next dialog you specify the license type. This means that you decide which version of e-AS2 you want to install. Select “e-AS2 Connect” to install the restricted version for connecting to a provider. Select “e-AS2 Enterprise” to install the full version.

Attention! If you install the Enterprise version, you will need a license file to unlock the features you have licensed to run the software. (The same applies to the two other license types, that are presented in the drop-down list.)

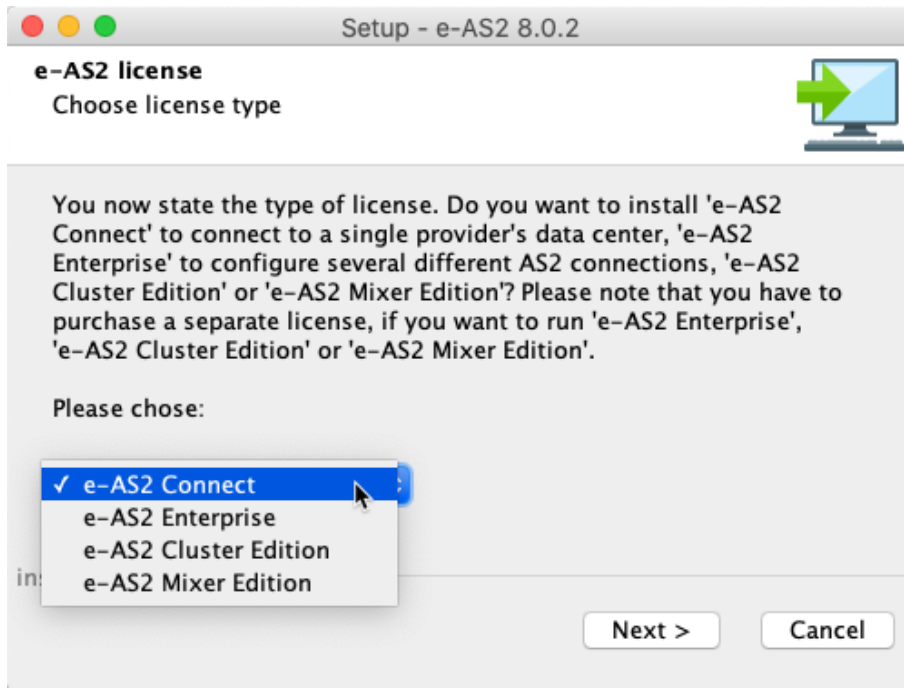


Figure 2.21. Choose license type

Click on "Next" to proceed to the next dialog.

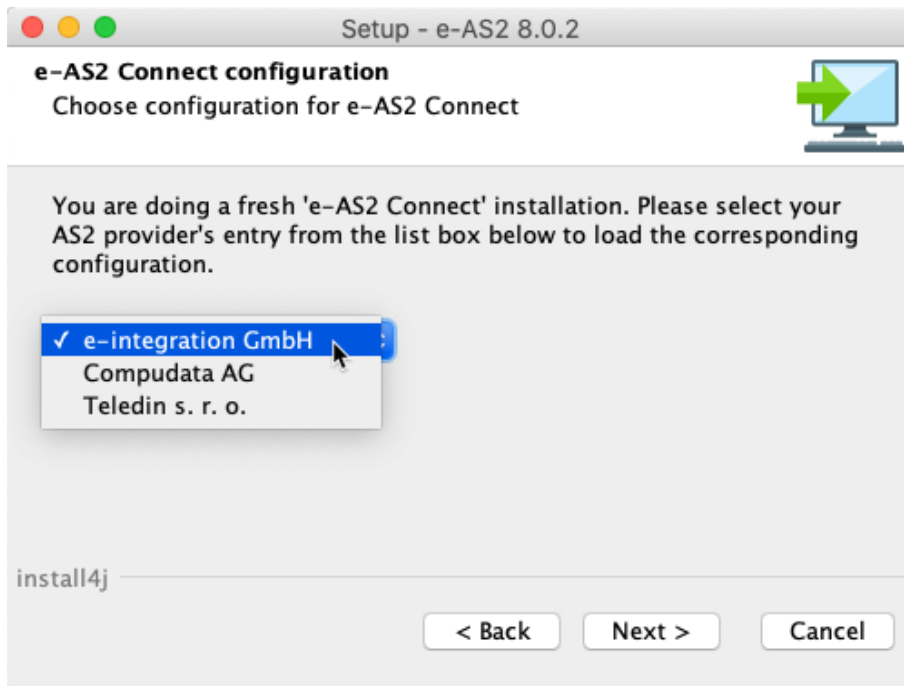


Figure 2.22. Choose provider

If you have chosen e-AS2 Connect, the next step is to choose your AS2 provider.

Important! Based on this selection, an automatic pre-configuration of e-AS2 Connect for access to your provider takes place. This can not be changed afterwards. If you are not sure at this point, cancel the installation at this point and consult with your software supplier.

Then you decide whether you want desktop icons for the GUI programs.

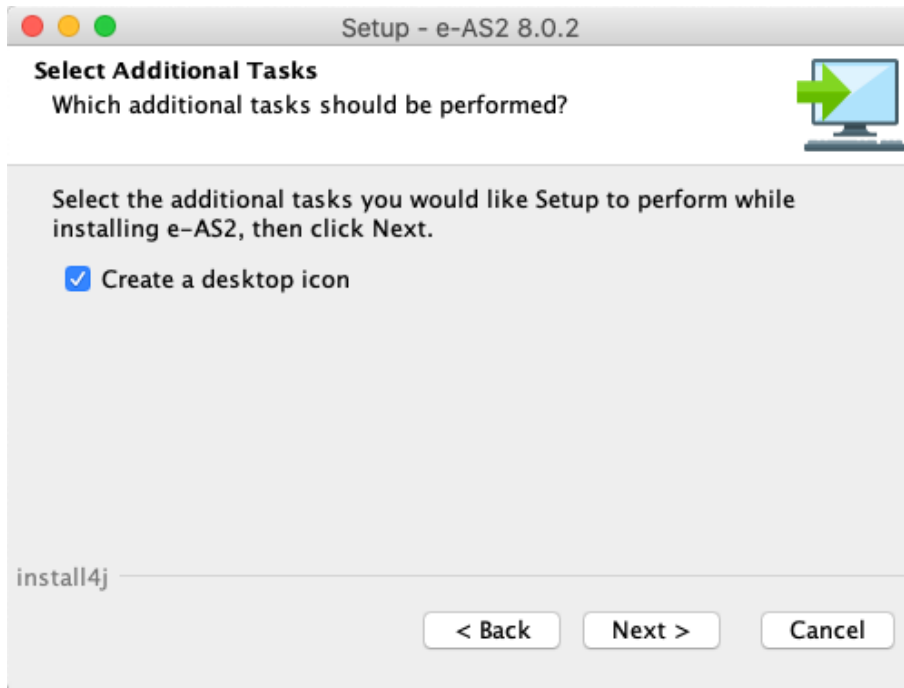


Figure 2.23. Create a desktop icon

A dialog for entering the central communication parameters follows. The meaning of these parameters is explained in detail in the user manual. We recommend that you keep the default values at first. Changes can be made at any time, even at a later date. Click on “Next” to proceed with the installation.

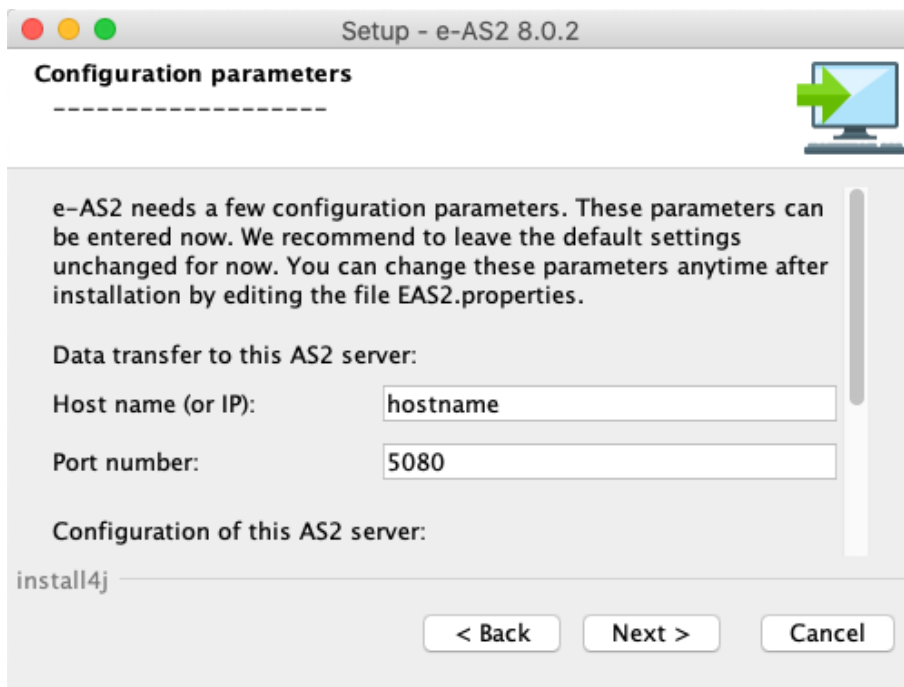


Figure 2.24. Configuration Parameters for Server Installation

In a server installation, parameters are queried as shown in the following figure. Use the scroll bar to access all input fields.

With a GUI-only installation, however, the following parameters are queried.

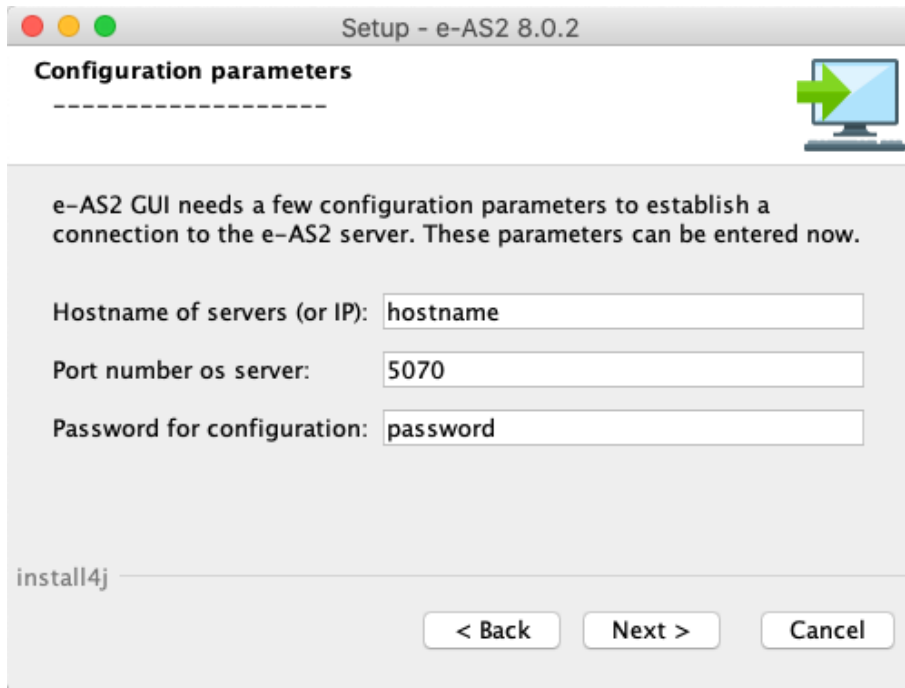


Figure 2.25. Configuration Parameters for GUI Installation

Click on "Next" to proceed with the installation.

The installation of the selected components follows. A progress bar informs you about the status of the installation.

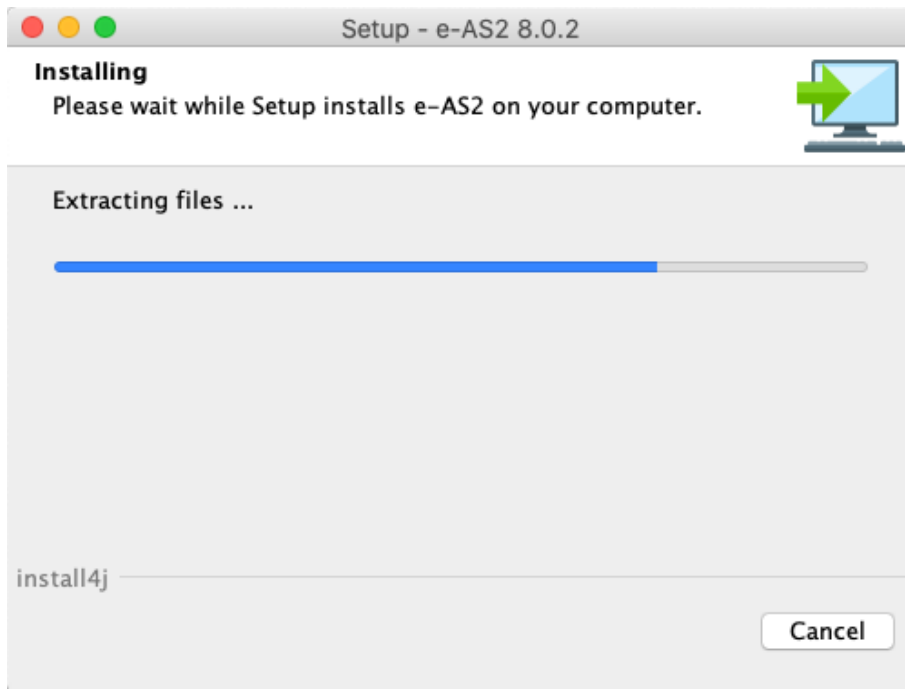


Figure 2.26. Installation - Progress bar

When all installation activities are done, a completion message appears as follows.

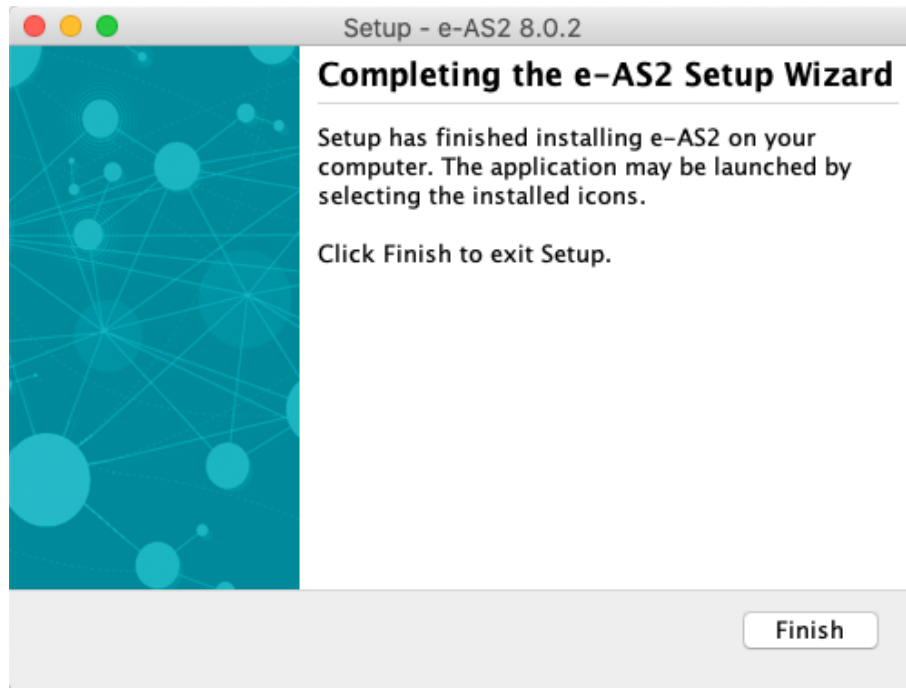


Figure 2.27. Completion message

Click “Finish” to complete the installation.

2.3 Linux

Start a login shell on the system on which the installation is to take place. Then run the program `e-AS2_linux_8_0_2.sh` (or in general the most recent installer available) to start the installation. (It may be necessary to make the program executable with `chmod +x` before.)

Note! The installation with graphical user interface requires X11. If the connection to the X server cannot be established, the setup automatically falls back to console mode. In console mode, basically the same steps are performed as in graphical mode. However, the user interface is very minimalistic in this case. Please read the instructions on the screen for operating the setup carefully. In the following we describe the installation with graphical user interface.

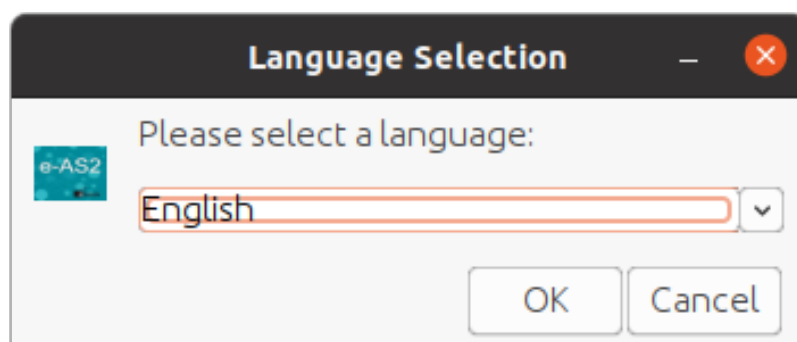


Figure 2.28. Language selection

There is a German and an English version of the installer available. On startup the language is pre-set according to the operating system language, if possible. The selection at this point changes both the UI language during installation and the language for the e-AS2 GUI. (The

latter can, however, be changed again later.) For the further presentation we assume that you have selected English. The welcome dialog in the language you have chosen follows.

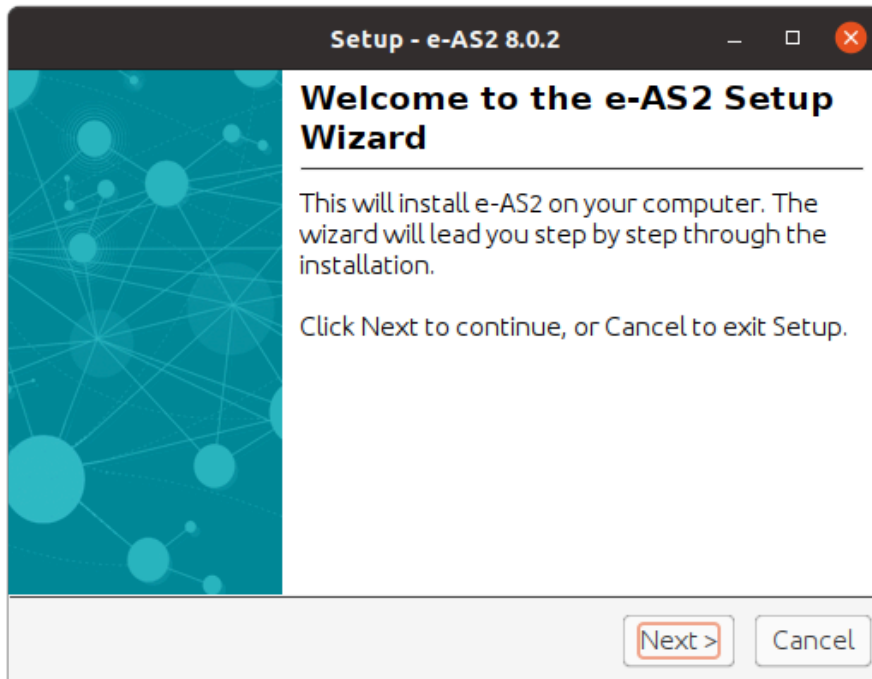


Figure 2.29. Welcome

Click on “Next” to proceed with the installation.

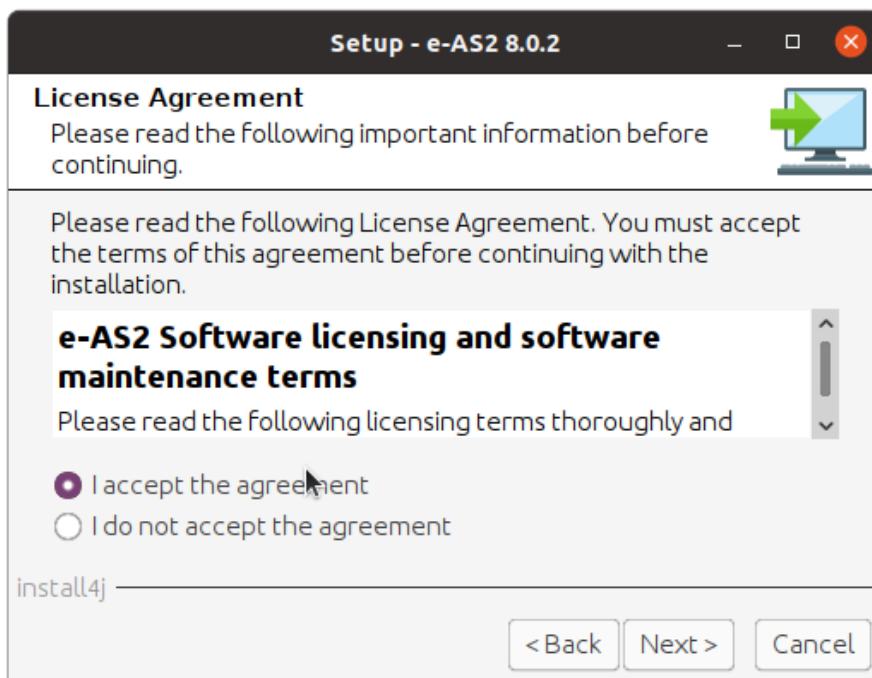


Figure 2.30. License agreement

In the next dialog the license conditions are displayed. Please read them carefully before you accept. Then click on “Next”.

In the next dialog, you have the option of selecting an installation path that differs from the standard path.

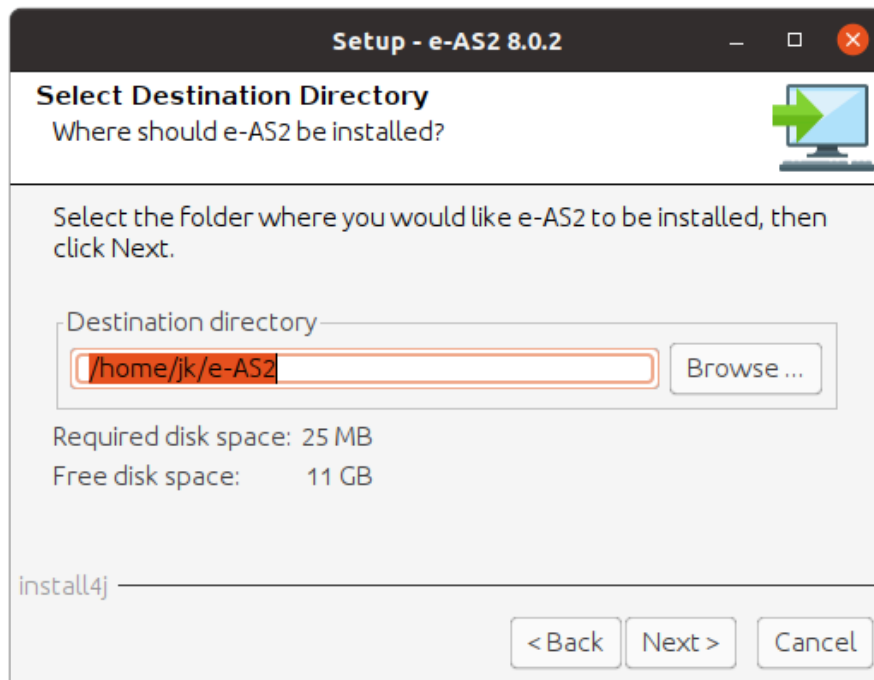


Figure 2.31. Select destination directory

It is required to choose a directory on a local hard disk. Note that you need write permission for this directory to be able to perform the installation. Click on “Next” to proceed with the installation.

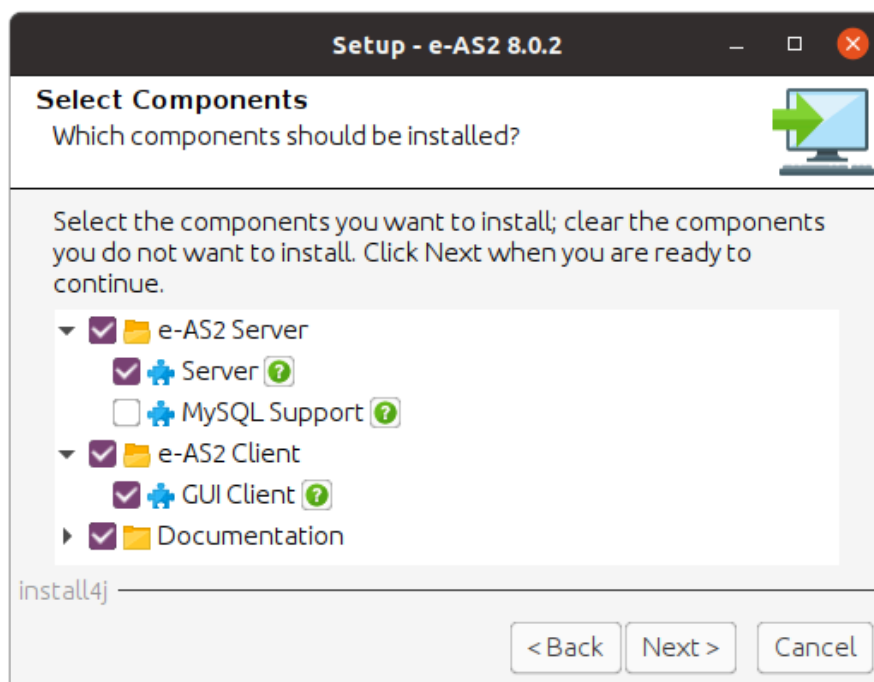


Figure 2.32. Select components

The dialog for selecting the components follows. If you want to perform a GUI-only installation, deactivate the server components here. Conversely, server-only installations without GUI are also possible.

Select “MySQL support” if you plan to use MySQL as database for e-AS2 instead of the default HyperSQL. Attention! Only work with MySQL if you know a lot about databases. Your software supplier most probably won't support you on MySQL issues.

Don't select “MySQL support”, if you intend to install e-AS2 Connect. MySQL can only be used with e-AS2 Enterprise, Cluster Edition or Mixer Edition.

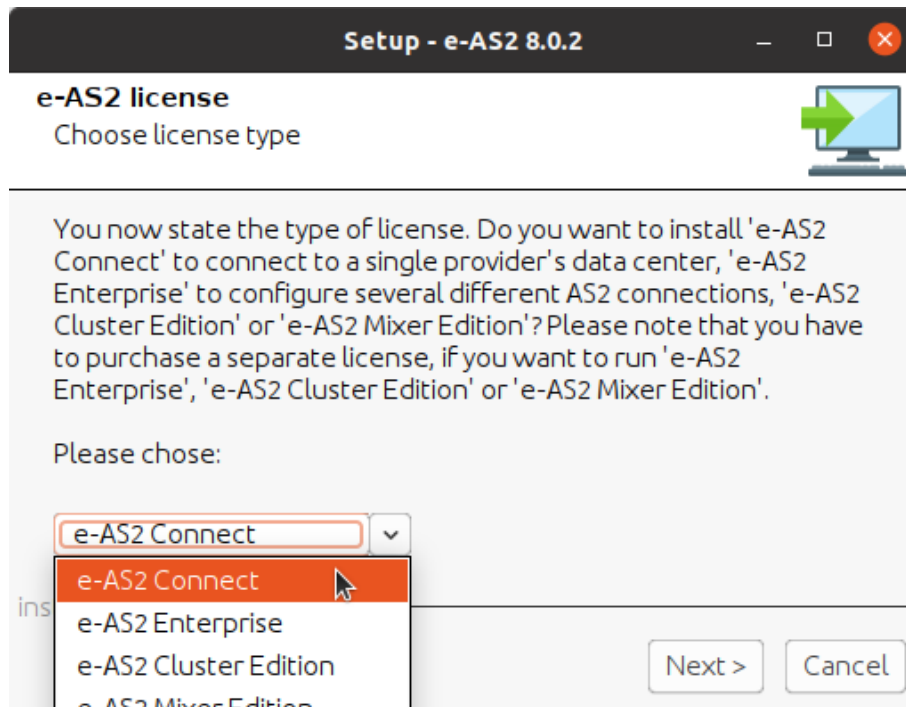


Figure 2.33. Choose license type

In the next dialog you specify the license type. This means that you decide which version of e-AS2 you want to install. Select “e-AS2 Connect” to install the restricted version for connecting to a provider. Select “e-AS2 Enterprise” to install the full version.

Attention! If you install the Enterprise version, you will need a license file to unlock the features you have licensed to run the software. (The same applies to the two other license types, that are presented in the drop-down list.)

Click on “Next” to proceed to the next dialog.

If you have chosen e-AS2 Connect, the next step is to choose your AS2 provider.

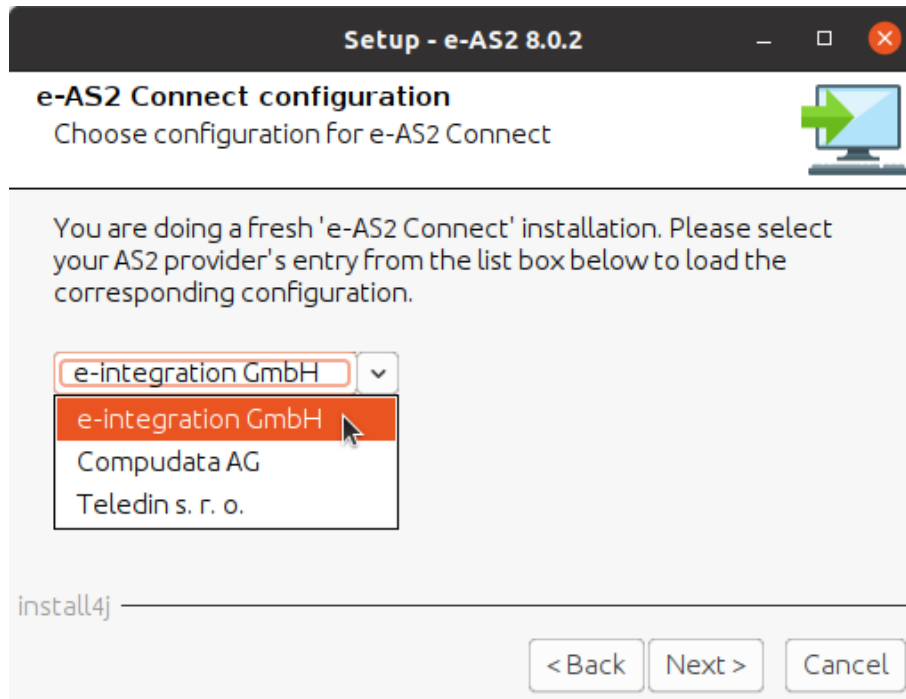


Figure 2.34. Choose provider

Important! Based on this selection, an automatic pre-configuration of e-AS2 Connect for access to your provider takes place. This can not be changed afterwards. If you are not sure at this point, cancel the installation at this point and consult with your software supplier.

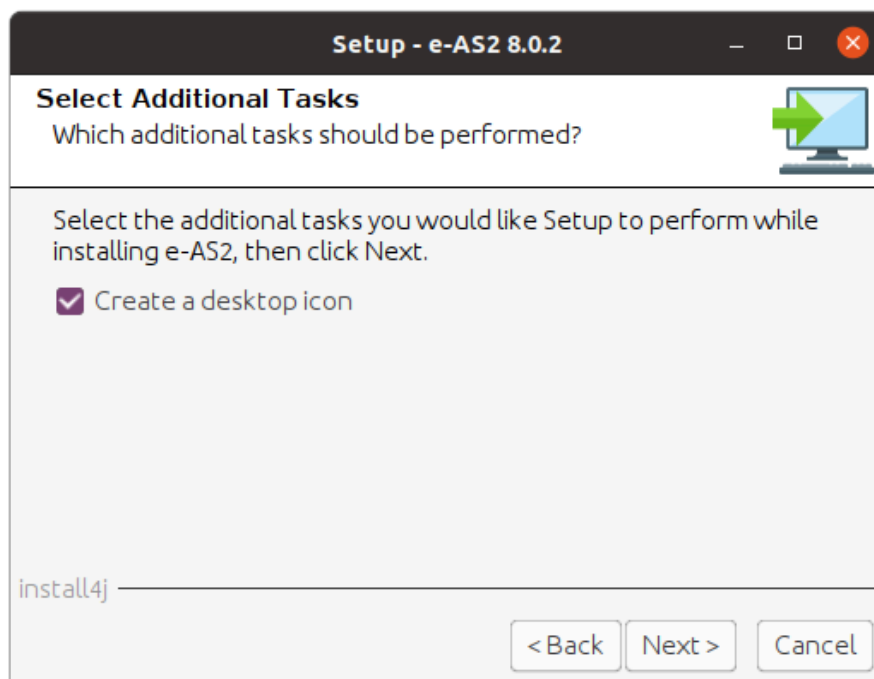


Figure 2.35. Create a desktop icon

Then you decide whether you want desktop icons for the GUI programs.

A dialog for entering the central communication parameters follows. The meaning of these parameters is explained in detail in the user manual. We recommend that you keep the default

values at first. Changes can be made at any time, even at a later date. Click on “Next” to proceed with the installation.

In a server installation, parameters are queried as shown in the following figure. Use the scroll bar to access all input fields.

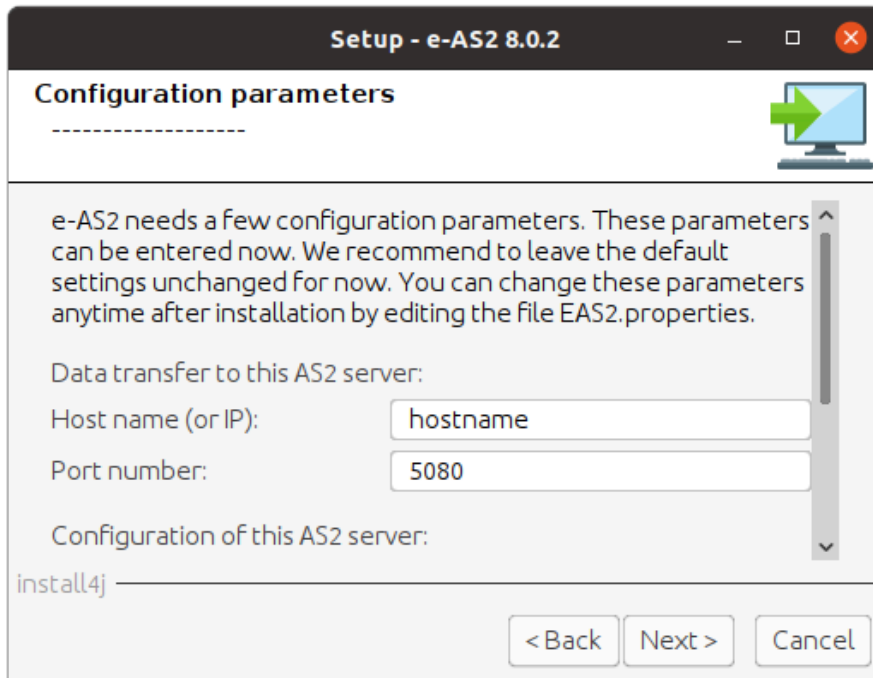


Figure 2.36. Configuration Parameters for Server Installation

With a GUI-only installation, however, the following parameters are queried.

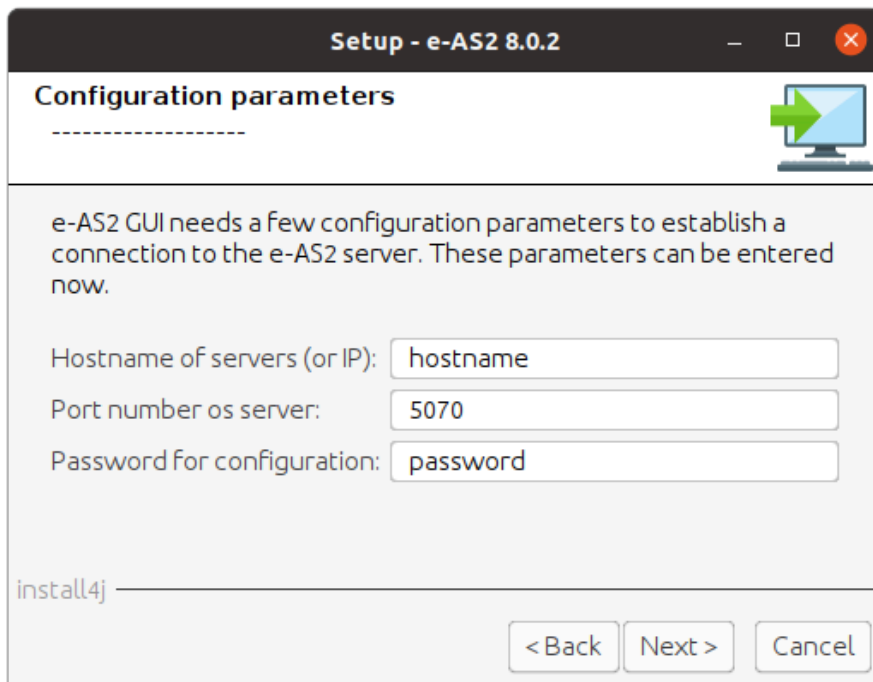


Figure 2.37. Configuration Parameters for GUI Installation

Installation

Click on “Next” to proceed with the installation.

The installation of the selected components follows. A progress bar informs you about the status of the installation.

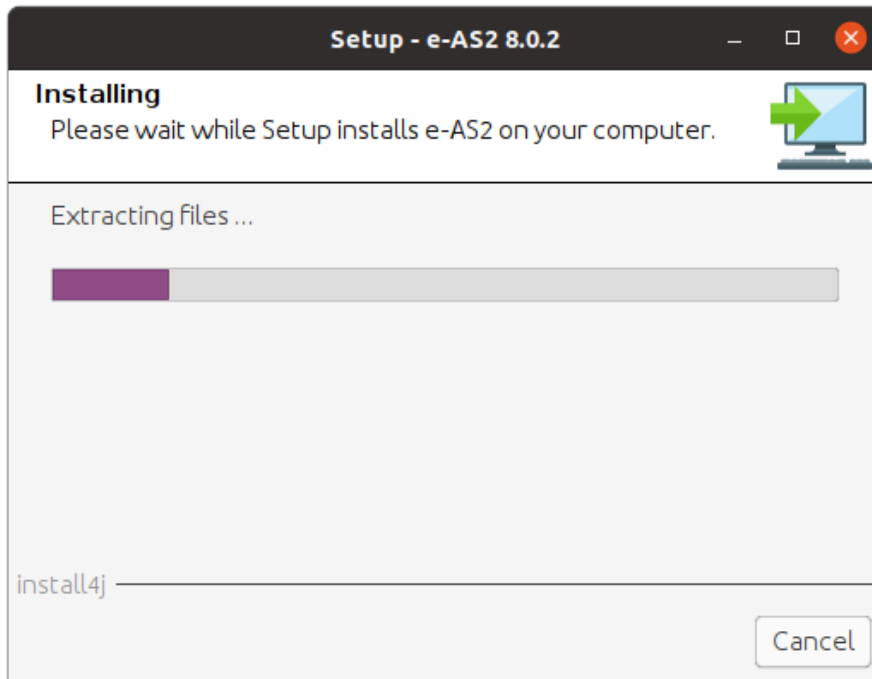


Figure 2.38. Installation - Progress bar

When all installation activities are done, a completion message appears as follows.

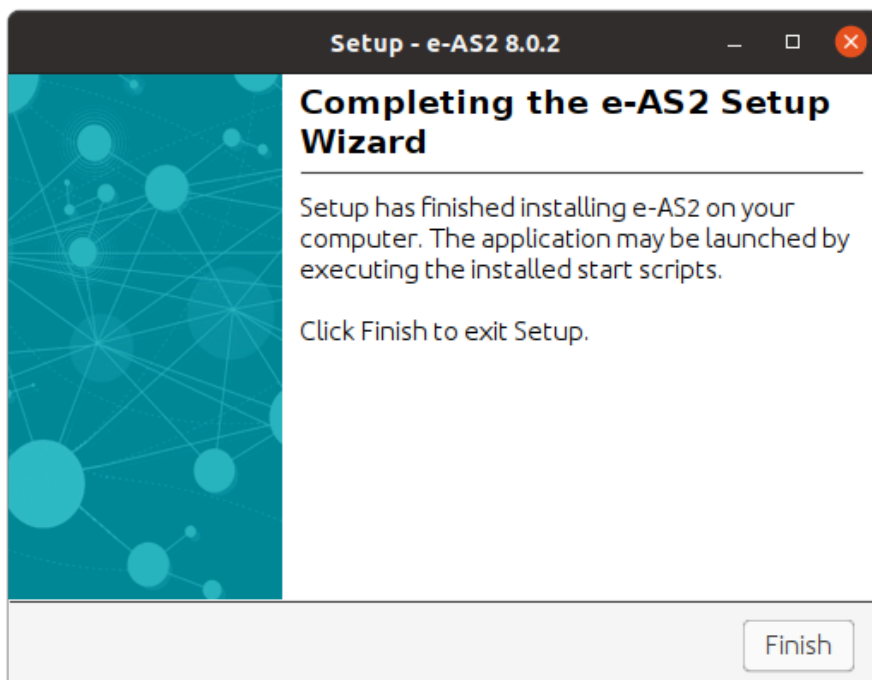


Figure 2.39. Completion message

Click “Finish” to complete the installation.

3 Additional information

Additional information on certain aspects of the installation of e-AS2.

3.1 Update installations

The installation of e-AS2 is generally updateable. In most cases, even very old versions can be updated to the latest version in one step. If this is not the case, this is explicitly mentioned in the release notes. If you have already installed e-AS2 and want to install a new version of the software as an update, proceed as follows.

3.1.1 Stop e-AS2 server

Stop the e-AS2 server with the method of your choice. The different ways to stop the server are described in the user manual.

It is extremely important to stop the server, as it has exclusive access to the e-AS2 database. The software update may need to update the database schema and requires appropriate access. This is not given as long as the e-AS2 server process is running.

However, should you fail to stop the server before performing the update, then the installer will do that for you.

3.1.2 Make a backup

Make a backup copy of the e-AS2 installation directory. If you are using MySQL, also make a backup copy of the current dataset. Use a backup solution that not only backs up the plain data records, but also the database schema. If, contrary to expectations, problems occur during the update, you can use these backup copies to return to the old status.

3.1.3 Perform the installation

Execute the installation as described in Chapter 2 (*Installation*). Choose the existing directory of your current e-AS2-installation as installation directory. The installation routine automatically detects that an older version of e-AS2 is already installed there and performs an update.

If the e-AS2-server was started with the command `eas2s.srv` as recommended for productive use, a possibly still running server is detected by the setup and automatically terminated.

During the update the complete content of your e-AS2-database (partner profiles and transaction log) is exported to a text file. Afterwards a new, empty database is created, which corresponds to the new database schema. Afterwards the previously exported data will be imported into the new database. In this way, an update of the database schema is achieved without data loss.

Please note that this process may take a while depending on your computer speed and the amount of data in the database.

MySQL

If you have switched your e-AS2 installation to the MySQL database, the setup will detect this and skip the export/import of the database contents. You will receive a corresponding message in a separate info dialog of the setup. If you need to update the schema of your MySQL database, you can do this manually outside the installation routine. You find separate README files and tools in the MySQL directory that support you doing that.

Fast Update

If the differences to the previously installed version are so small that replacing the file `jar/eas2.jar` is sufficient for the update, the installation routine automatically offers a so-called fast update.

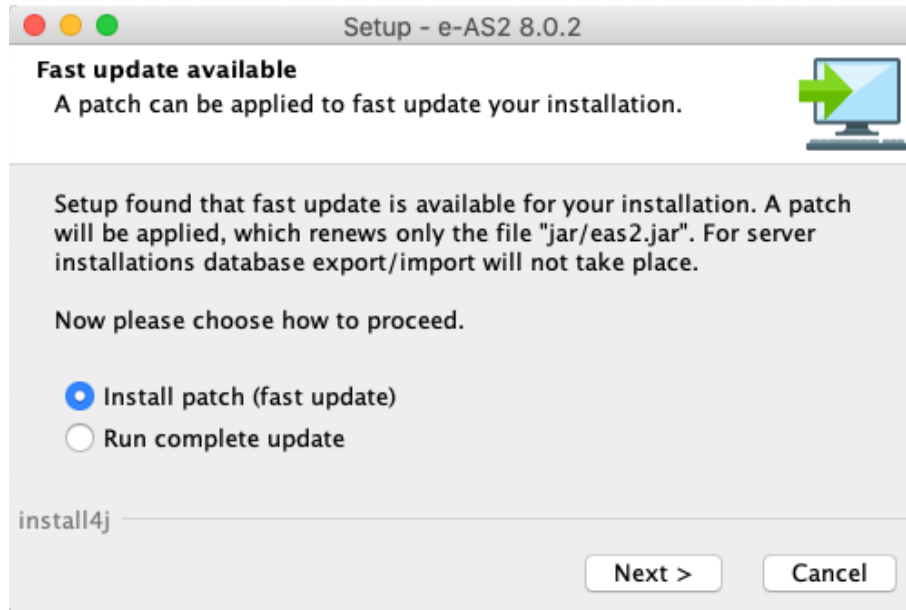


Figure 3.1. Fast Update

The quick update only updates said Jar file. There is no export/import of the database contents. It is generally useful to retain this default setting. If for some reason you prefer a complete update including a new creation of the database, then change the selection accordingly.

3.1.4 Start e-AS2 and check database

Now start e-AS2 at first in config-only mode. On Linux and macOS this is done with the following command:

```
./eas2s.srv console config-only
```

Under Windows start e-AS2 in config-only mode via the corresponding menu item in the Start menu. In this case the software is not started as a service, but runs in a console window. If you close the console window, you also close the e-AS2 server.

Then start the GUI client and check the dataset. You should find all partner profiles and transaction data as before the update. If this is not the case, exit the software and delete the e-AS2-installation directory. Then restore your backup copy to return to the status before the update. If you are working with MySQL, restore the database backup that matches this version. Contact your software supplier for support!

Once you are satisfied that the database is OK, exit e-AS2 and restart it in normal operating mode.

3.2 License model

The product e-AS2 can be operated in four versions. The limited version e-AS2 Connect is used for the simple coupling of your system with the e-integration Clearing Centre¹ using the AS2

¹Or with the clearing center of another supported AS2 provider.

protocol. The full version e-AS2 Enterprise provides you with all possibilities of communication with any partner.

The version e-AS2 Cluster Edition (short: CE) is feature-wise identical to e-AS2 Enterprise, but offers additional functionality to run in clustered environments. Also in CE various REST APIs are available to enable operation of e-AS2 on separated hosts or VMs.

The fourth option e-AS2 Mixer Edition (short: ME) is a very special incarnation of e-AS2 that connects to [Isode M-Switch MIXER](https://www.isode.com/products/m-switch-mixer.html) [https://www.isode.com/products/m-switch-mixer.html] and thus enables e-AS2 to be used as a means to send and receive X.400 messages.

All versions of e-AS2 are installed with the same installation routine. During the installation, you choose whether you want to install the Connect version, the Enterprise version, or one of the other two versions. After completing a new installation, e-AS2 Connect can be used immediately with the selected provider. To operate e-AS2 Enterprise or one of the other two versions you need a separate licence file which you can obtain from e-integration. The essential licence parameters are stored in this file. These are the following parameters in detail:

- e-AS2 license type
- IP address
- HTTP port
- License duration
- Maximum number of partner profiles

You will receive the license file (`eas2.lic`) in a ZIP archive. Unpack that archive and copy the license file into the e-AS2-installation directory. Then restart the software. After that e-AS2 Enterprise (or CE or ME, depending on the license file you got) is ready for use.²

The e-AS2 Enterprise licenses are bound to specific IP addresses and ports. You must therefore inform e-integration in advance which IP address the computer on which the e-AS2 server is to run has and which port you have selected for receiving data. (There are no restrictions on the operation of the GUI clients). The same applies to CE and ME licenses.

You may have purchased a temporary test license. If so, the agreed test period is encoded in the license file.

The licenses of e-AS2 Enterprise (or CE or ME) are available in the configuration staggered according to the maximum number of partner profiles. The maximum allowed number of partner profiles is encoded in the license file.

All license parameters are displayed in the GUI client in the Administration tab.

3.3 Tanuki Service Wrapper

Unlike the core software that is implemented in Java, the Tanuki Service Wrapper is platform dependent. Therefore a version of the Service Wrapper is being installed that matches the operating system an architecture in place. The following table lists the currently supported platforms.

Vendor	Operating System	Architecture	Comment
Apple	macOS 10.15 or higher	64-bit	Dedicated macOS installer. (64-bit JRE is bundled)

²As long as the license file is not in place, the e-AS2 server will not start any communication threads. In the GUI, only the "Administration" tab is displayed and the issue is pointed out.

Additional information

Vendor	Operating System	Architecture	Comment
Microsoft	Windows 10, Windows 11, Server 2012 R2 or higher	32-bit	Dedicated 32-bit installer. (32-bit JRE is bundled)
Microsoft	Windows 10, Windows 11, Server 2012 R2 or higher	64-bit	Dedicated 64-bit installer. (64-bit JRE is bundled)
–	Linux	32-bit	Universal installer. Architecture is being detected during installation.
–	Linux	64-bit	Universal installer. Architecture is being detected during installation.

When starting the software you should find the following messages in the file `wrapper.log`:

```
STATUS | wrapper | 2020/08/07 11:29:09 | --> Wrapper Started as Console
STATUS | wrapper | | Java Service Wrapper Standard Edition 64-bit 3.5.45
STATUS | wrapper | | Copyright (C) 1999-2021 Tanuki Software, Ltd. All Rights Reserved.
STATUS | wrapper | | http://wrapper.tanukisoftware.com
STATUS | wrapper | | Licensed to e-integration GmbH for e-AS2
STATUS | wrapper | |
STATUS | wrapper | | Launching a JVM...
```

If you find deviating or additional messages, especially warnings about version conflicts or architecture conflicts, you should not use the service wrapper productively, even if the startup of the software seems to succeed. If in doubt, contact e-integration support.