KUARIO

Versie 3.0.24 geproduceerd op: 2023 in Nieuw-Vennep.

Inhoudsopgave

Introduction

➡️ Introduction

KUARIO Gateway is a solution to give a known third-party application access to the KUARIO payment service. It acts as a KUARIO Order Terminal, and sits between the third-party solution and the KUARIO Cloud Payment service. Third-party solutions can request payment transactions via the KUARIO Gateway.

This manual explains what the KUARIO Gateway solution offers. It will also help you to install and configure the KUARIO Gateway in combination with the Uniflow solution.

📧 Usage

Registered users of the Uniflow solution are required to pay for their print products. Without the KUARIO Gateway, there is a pre-paid balance stored in Uniflow. When a user prints using the Uniflow solution, an amount will be removed from the Uniflow balance. The downside to this, is that the users can not use these funds outside of the Uniflow solution.

The KUARIO Gateway enables users to use their KUARIO funds in the Uniflow print solution environment, as well as in all other KUARIO enabled pay points. The KUARIO Gateway is authorized to view a users funds within KUARIO and to make a transaction from a users KUARIO balance to the KUARIO Gateway's Merchant. Users that want to use their funds within the Uniflow solution have to accept an agreement with this Merchant via a KUARIO Membership.

When a user has accepted the Membership, the user's KUARIO funds are linked to the KUARIO Site where the Gateway is registered. The last known amount of KUARIO funds is visible in Uniflow credit as an external balance. These funds can now be used to pay for jobs in Uniflow. The balance will be transferred from the KUARIO Account of the user to the KUARIO Merchant.

ℹ️ **Note: It is not possible to add credit to a KUARIO Account directly from Uniflow.**

ℹ️ **Note: It is not possible to 'see' your KUARIO funds accurately in Uniflow as the user's KUARIO transactions on other sites cannot be monitored. The KUARIO Funds are shown as known the last time a user was 'seen' by the system.**

Architectural overview

The payment architecture consists of the following parts:
- The KUARIO Gateway
- UniFlow User DB
- KUARIO Cloud Payment service, with KUARIO users.
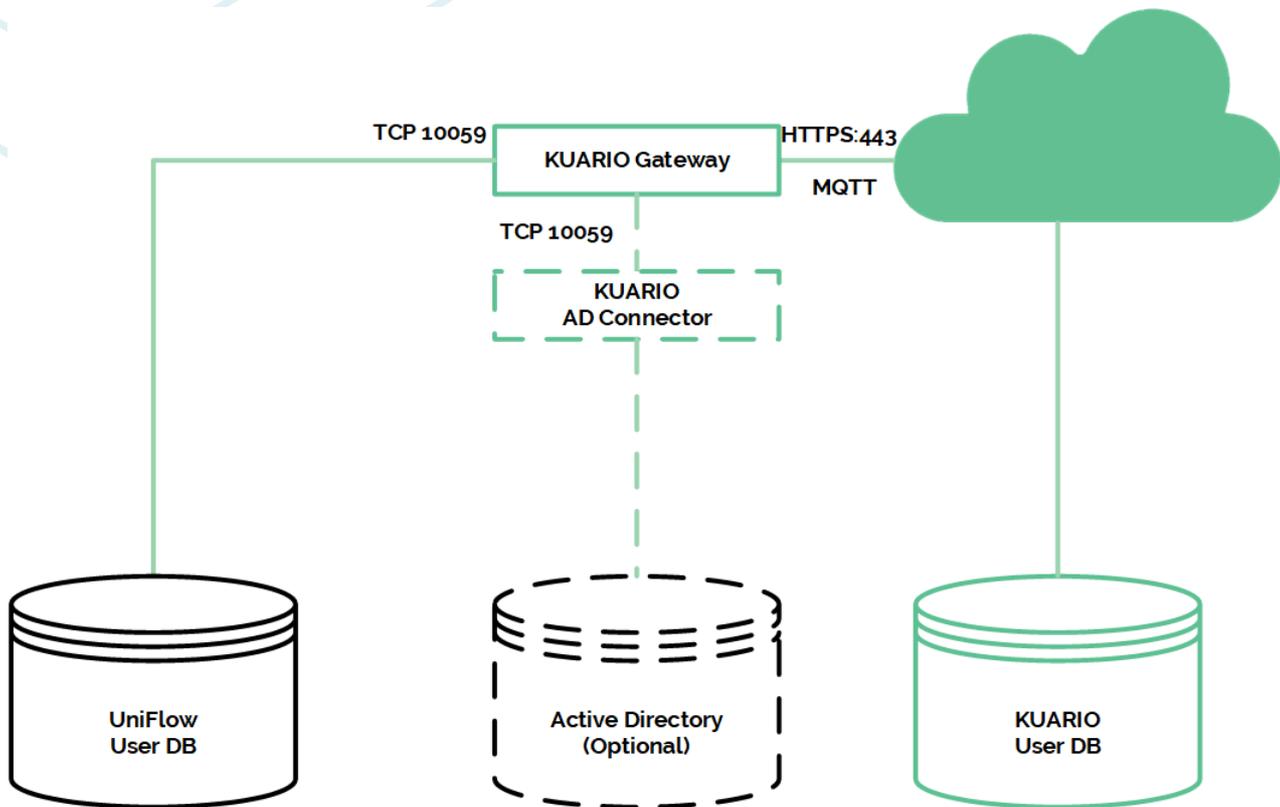
Installation

▶ Acquiring the software

The KUARIO Gateway software is available. Please contact KUARIO Support (support@KUARIO.com) to receive a copy of the software.

▶ KUARIO Gateway

The KUARIO Gateway is the link between the KUARIO plug-in and the KUARIO Cloud Payment service.
To use the KUARIO Gateway plug-in, the KUARIO Gateway should be running.
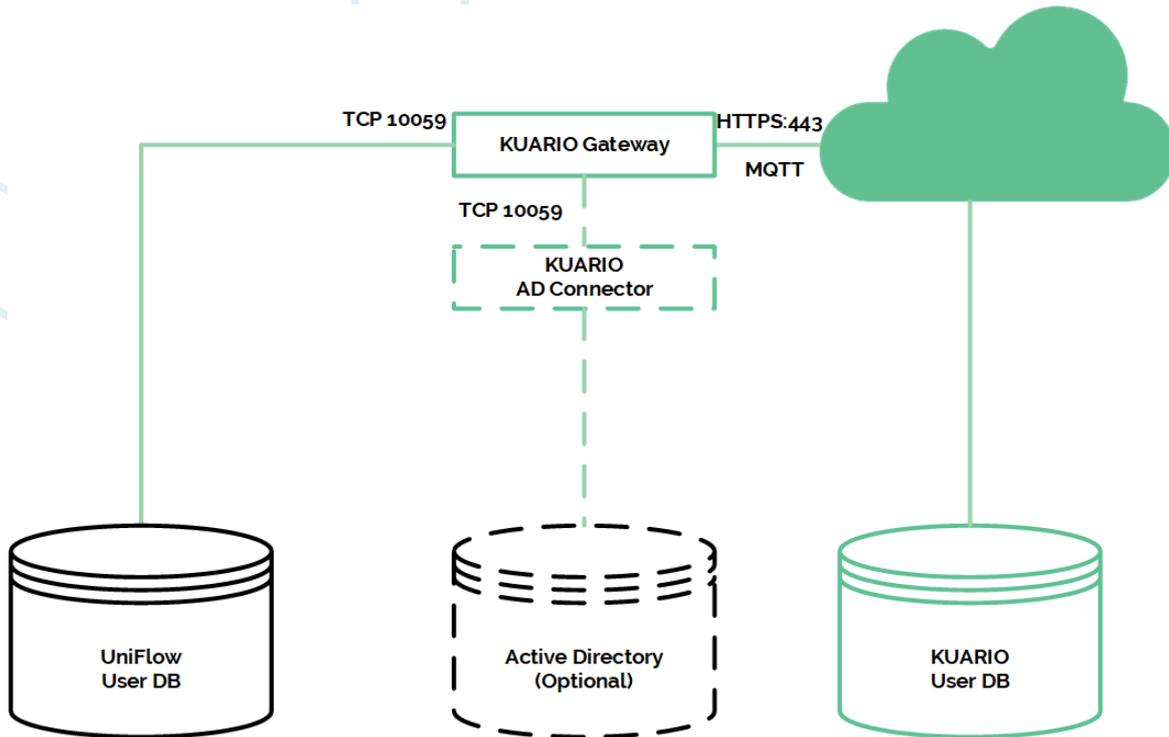
▶ Installing the KUARIO Gateway

The KUARIO Gateway is installed by following these instructions:
1. Start the KUARIO Gateway Setup executable (double-click the KUARIOGatewaySetup-<version>.exe).
2. Follow the Setup instructions. Please remember the installation path (usually at C:\Program Files\KUARIO\Gateway), as this is required in one of the following steps.
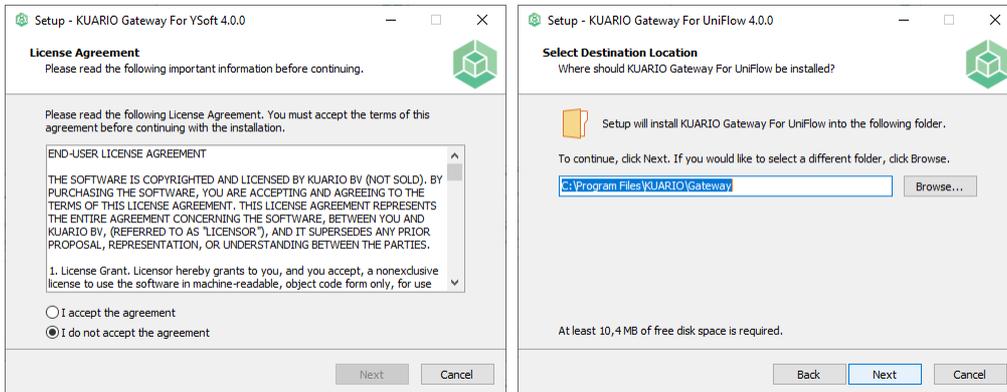
At this step it is possible to enable a link between the gateway and MS Active Directory. Enable this if you need to put information in the AD (Active Directory) or if you need information from the AD.

Tick the box at KUARIO AD Connector Service, if you need a connection between AD and KUARIO Gateway.
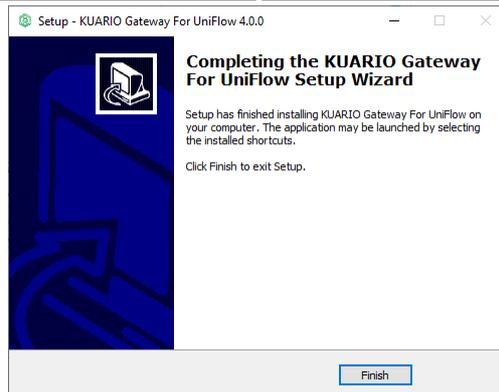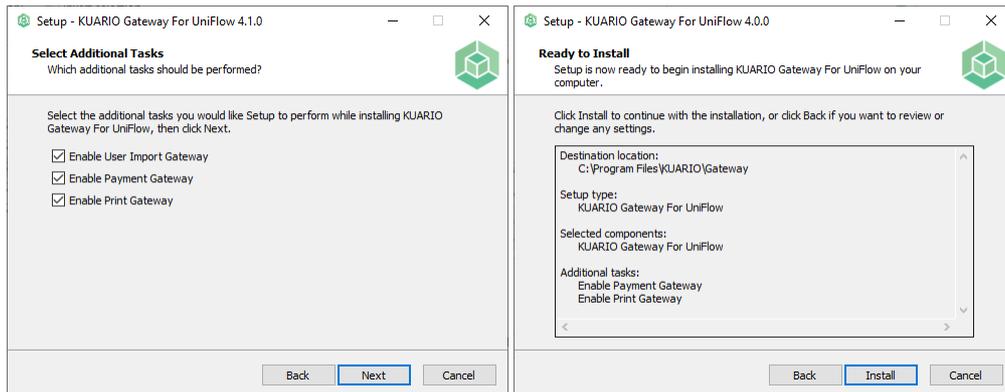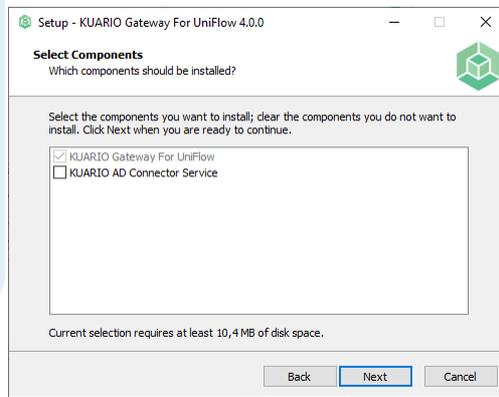
3. After finishing the Setup, please verify that the Gateway is running. There should be a KUARIO icon in the system tray of Windows.

▶ Install on a separate machine

For a more resilient solution and a faster user experience, it is recommended to install the KUARIO Gateway on the same machine as the external system.

▶ NTWare UniFlow

NTWare UniFlow can be directly connected to the gateway, you just need to configure it correctly.

We just need to import the correct certificates into "Trusted Root Certification Authorities certificate store".

Installing the trusted root certificates

1. Go to the KUARIO Gateway folder (C:\Program Files\KUARIO\Gateway)
2. Find the certificates 'KUARIO.crt' and KUARIORootCA.crt. Follow the rest of the procedure for both these files.

Program Files > KUARIO > Gateway			
Name	Date modified	Type	Size
documentation	04-Feb-22 14:43	File folder	
locale	04-Feb-22 14:43	File folder	
logs	04-Feb-22 14:43	File folder	
CAStore.pem	08-Jul-19 17:08	PEM File	221 KB
KUARIO.crt	06-Aug-19 10:37	Security Certificate	2 KB
KUARIO.pem	06-Aug-19 10:37	PEM File	2 KB
KUARIOGateway.exe	13-Sep-19 15:05	Application	15.235 KB
KUARIOGatewayGUI.exe	13-Sep-19 15:05	Application	9.160 KB
KUARIORootCA.crt	06-Aug-19 10:37	Security Certificate	3 KB
libeay32.dll	13-Sep-19 15:05	Application exten...	2.229 KB
ssleay32.dll	13-Sep-19 15:05	Application exten...	391 KB
unins000.dat	04-Feb-22 14:43	DAT	6 KB
unins000.exe	04-Feb-22 14:43	Application	910 KB

3. Double-click the *.crt file.
4. When the certificate window opens, choose Install Certificate.... The Certificate Import wizard appears.
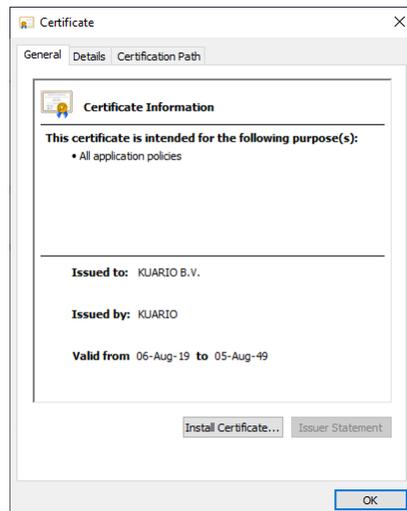
5. In the wizard, choose Next.
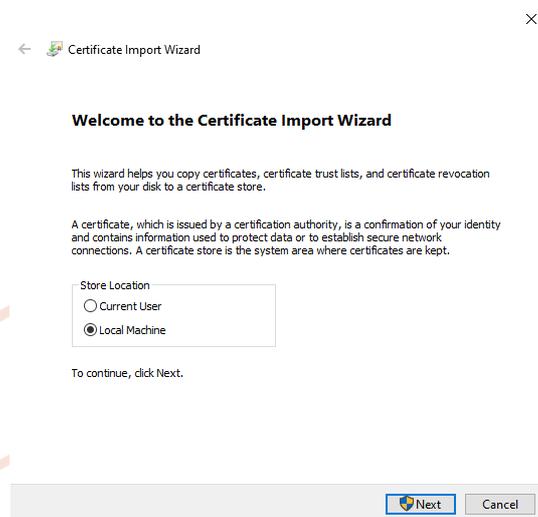
6. Confirm the UAC dialog of Rundll32 with Yes.
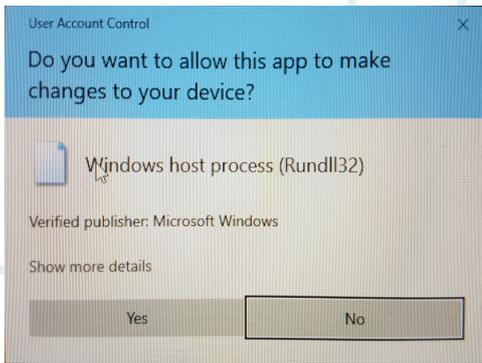
7. Then, when you are prompted for the Certificate Store, choose Place all certificates in the following store. Select the Trusted Root Certification Authorities store.
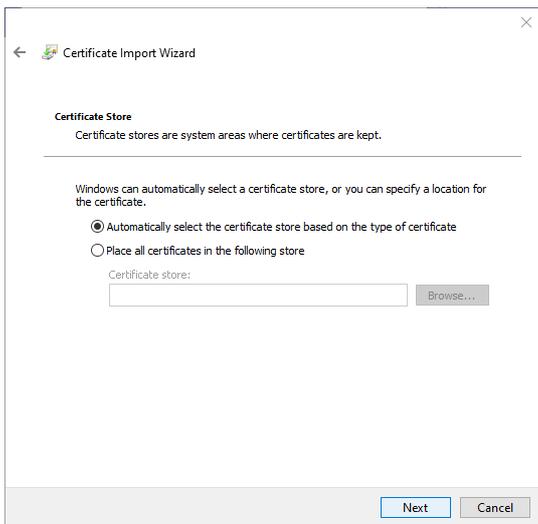
8. Complete the remaining steps of the wizard and click Finish.
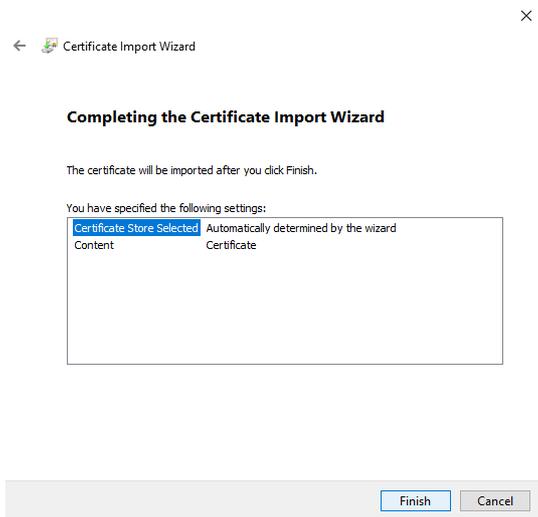
9. Confirm the success message.
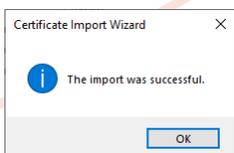
10. Upon completing the wizard, you next want to add the certificate snap-ins using the Microsoft Management Console (MMC).

Adding certificate snap-ins

1. Launch MMC (mmc.exe).
2. Choose File > Add/Remove Snap-ins.
3. Choose Certificates, then choose Add.
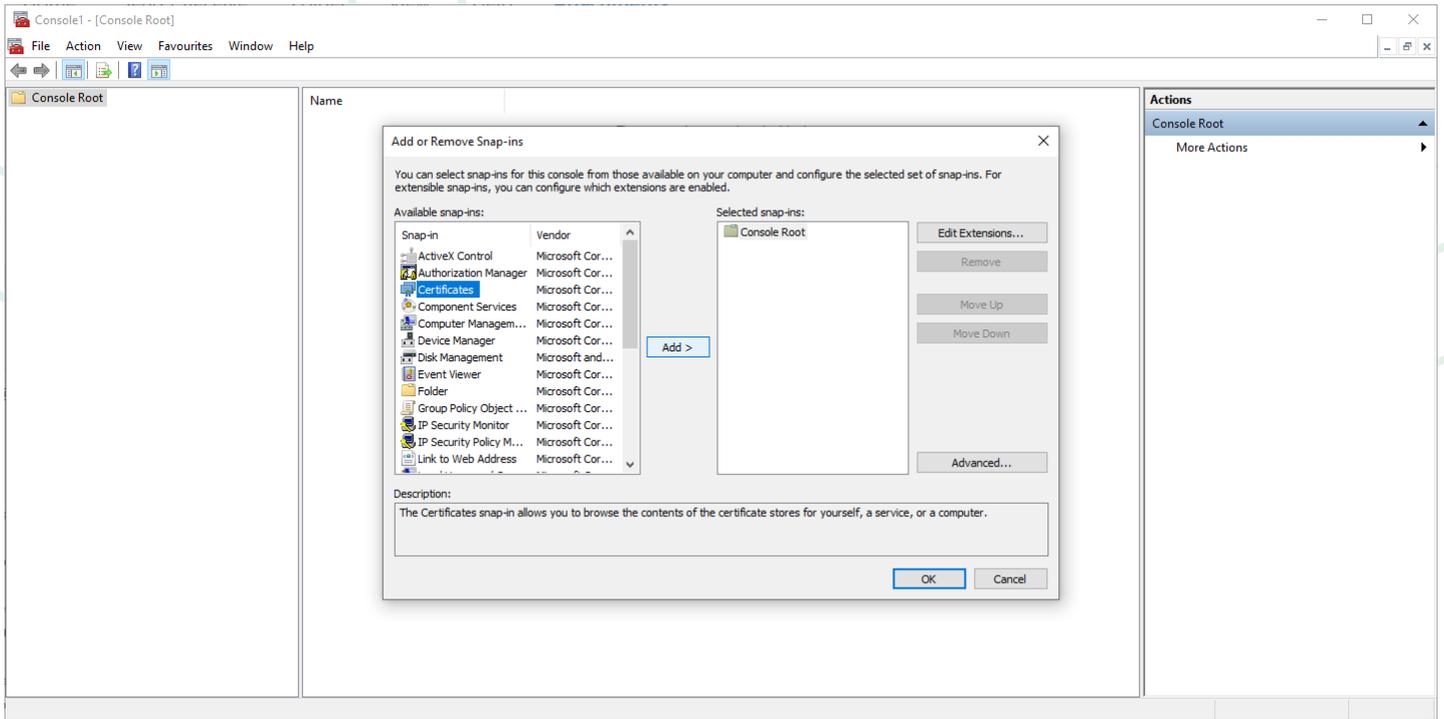
4. Choose My user account.
5. Click 'Finish'.
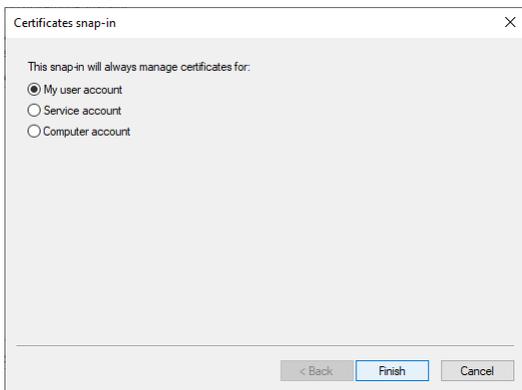
6. Choose Add again and this time select Computer Account.
7. Click 'Finish'.
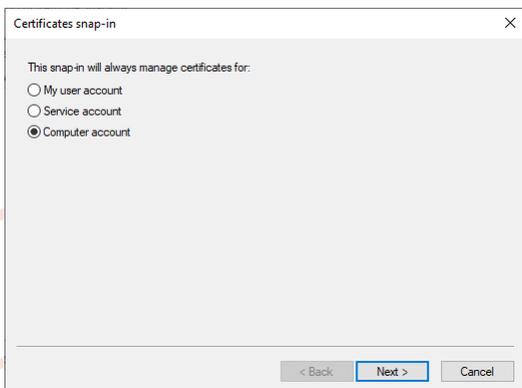
8. Move the new certificates from the Certificates-Current User > Trusted Root Certification Authorities into Certificates (Local Computer) > Trusted Root Certification Authorities.
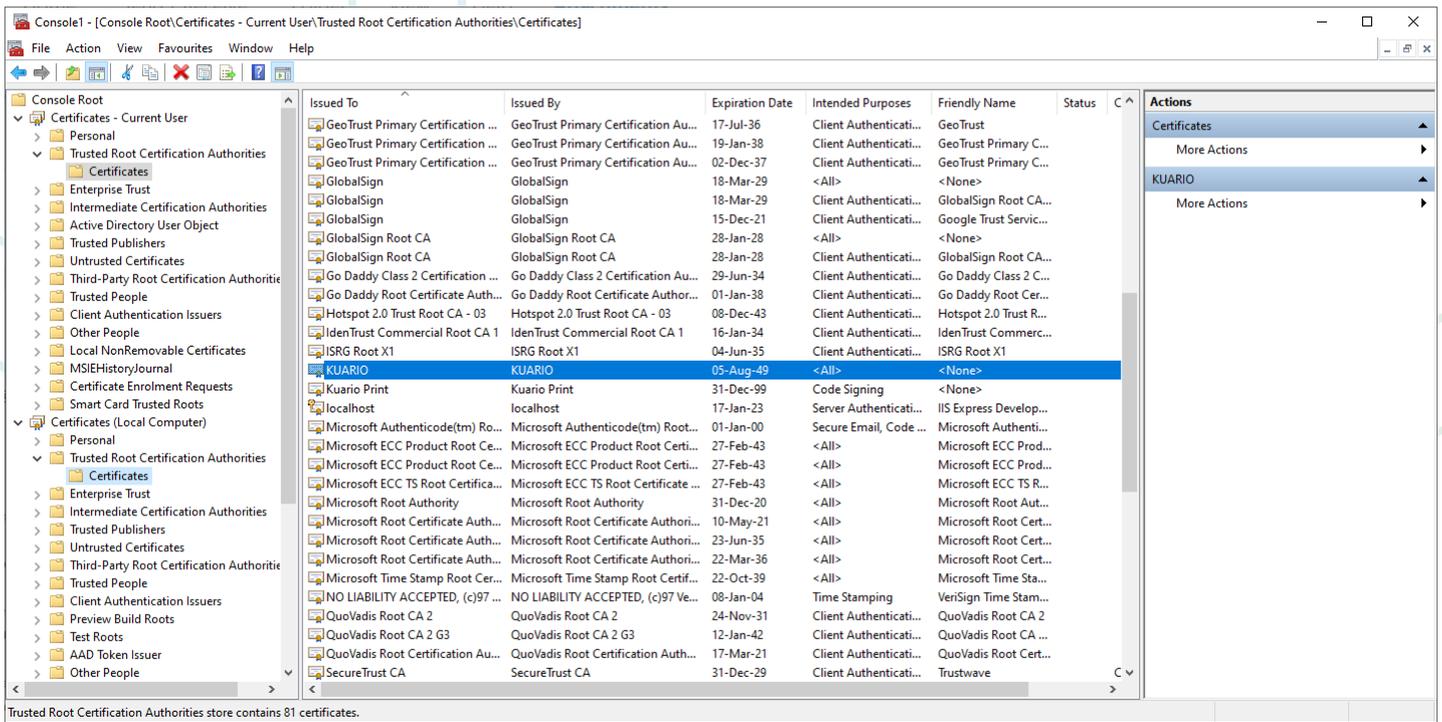
Now to continue, please refer to Configuration - NTWare UniFlow.

⏵ Active Directory

Install Active Directory by selecting the 'KUARIO AD Connector Service' component in the KUARIO Gateway set up. The AD Connector connects your **A**ctive **D**irectory to the gateway, you just need to configure it. Please refer to 'Configuration - Active Directory' 28.

Gateway Modules

🧩 Gateway Modules

The KUARIO Gateway has 3 modules, User Import, Payment and Print. The User Import module, the Payment and Print modules are separate modules and will cost you an separate fee.

👤⁺ User Import

The User Import module enables you to export Users to KUARIO. This is done via *.CSV files. (See [Appendix B] 36). If you enabled the KUARIO AD Connector Service in the set-up, you can also export your Users from your Active Directory. (See [Active Directory GUI] 28). To Import a user you must have an ID that enables your application to identify the user (we call that the 'externalIdentifier'), an email address (this is what KUARIO uses as an identifier)

The *.CSV file can be imported in a Membership in the KUARIO manager. (Memberships are groups that a user can be a member of and that may give that user extra rights or options. See [Appendix D on how to create a Membership] 40).

⚠ This is an separate module for which an separate fee is required!

🧩 Payment

The Payment module can execute payments using KUARIO on the basis of the KUARIO membership and external identifier of the user.

⚠ This is an separate module for which an separate fee is required!

🧩 Print

The Print module will send every print jobs send by a KUARIO user that is a member of a certain membership to a pre-defined external print-queue. That job will have an attached user name that is equal to the external identifier.

⚠ This is an separate module for which an separate fee is required!

Configuration

⚙ Link the Gateway in KUARIO

The KUARIO Gateway must be set up in KUARIO before it can be used. The KUARIO Gateway must become a part of a KUARIO Outlet under a KUARIO Site.

⚙ Preparation

To manage a KUARIO Site you need to be a Merchant that has Site Management rights.
As a KUARIO Merchant, you can link the Gateway to your Site using the Manager at https://manager.kuario.com/ or by linking the Site using the service module in the KUARIO App. For more information about creating a KUARIO Site and /or a KUARIO Outlet, please refer to our KUARIO Manager and KUARIO App manuals and Visual Help guides respectively at our site.

To become a KUARIO Merchant, please contact us via info@KUARIO.com.

We can help you with linking your Gateway to a KUARIO Site. Please contact: support@KUARIO.com. You should include the terminal ID, the preferred language and the preferred currency in your email. Optionally if you have an existing account, you could also let us know the preferred KUARIO Outlet and your account info.

⚙ Put the Gateway in KUARIO

1. Click on the KUARIO Gateway GUI (it should display "ONLINE"). Copy the terminal ID (MAC-address) if you do not want to use the service module in the KUARIO App. Or scan the QR code using the service module in the KUARIO app.
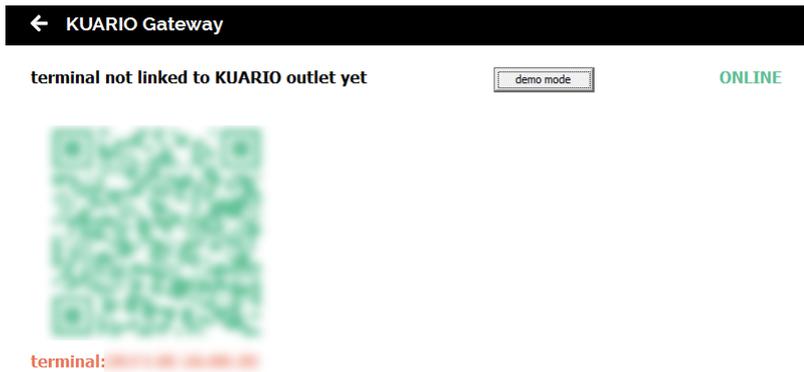
2. You can start a demo of the software or continue to set up a fully functional, unlimited production version. Click the 'demo mode' button for the demo mode and continue with step 3. Or, for the production version, go to step 6.
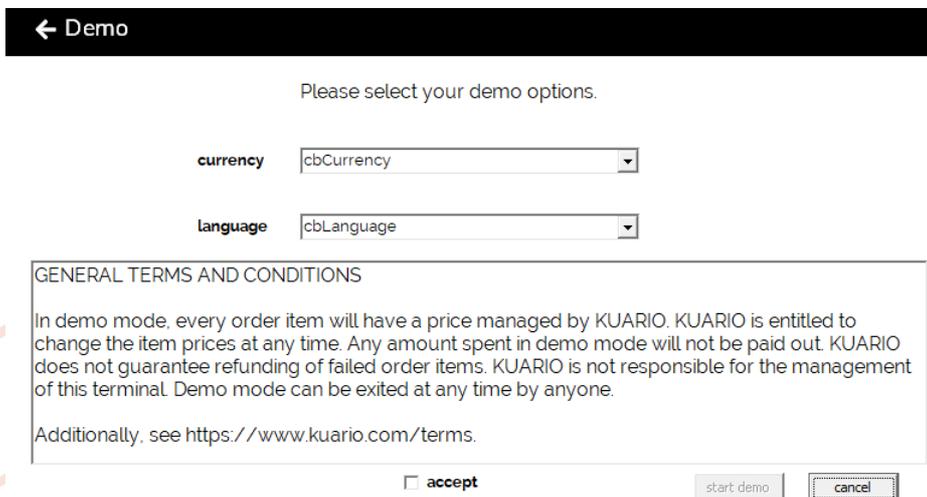
3. Select the preferred currency for this demo and the preferred language. Click 'accept' to accept the terms and conditions.

Please select your demo options.

currency [British Pound (GBP, £) ▼]

language [English (United Kingdom) ▼]

GENERAL TERMS AND CONDITIONS

In demo mode, every order item will have a price managed by KUARIO. KUARIO is entitled to change the item prices at any time. Any amount spent in demo mode will not be paid out. KUARIO does not guarantee refunding of failed order items. KUARIO is not responsible for the management of this terminal. Demo mode can be exited at any time by anyone.

Additionally, see https://www.kuario.com/terms.

☑ accept   [start demo]   [cancel]

4. Click 'start demo'.

← KUARIO Gateway

linked to outlet: ▓▓▓▓▓▓▓▓▓▓▓▓▓   ONLINE
terminal: ▓▓▓▓▓▓▓▓   [leave demo]   DEMO MODE

5. From this moment on, your KUARIO Gateway can be used to make demo KUARIO payments. You are finished, ignore the other steps below.

The demo version is limited on user import, only the first 5 users will be imported from a CSV file or from the AD import service.
At any point you can end the demo mode by clicking 'leave demo'. You should then continue with step 6 to finish the configuration.

⚙ Link the Gateway in KUARIO

6. Please either scan the terminal ID QR with the service module of the KUARIO App, or copy it on paper to link the Gateway in the KUARIO Manager (The terminal ID can be found trailing behind 'terminal:' at the bottom of the screen, See example at the bottom of this page).

The KUARIO Gateway will be linked as a terminal to a KUARIO Outlet,

7. Open KUARIO Manager and add an Outlet. The Outlet should have type 'Gateway'. **Which is not to be confused with 'Device Gateway'!**

Info › Terminals › Extra

Outlet name

🏷   My KUARIO Gateway Outlet   ⊗

⏻   Is this outlet active?   ☑

CASH REGISTER	**MFP**	**VENDING MACHINE**	**PAY POINT**
LINK TERMINAL	**TIMER**	**COINVALIDATOR**	**GATEWAY** ✔
SLIM PDQ	**ACCESS**	**ENERGY**	**LOCKERS**
DEVICE GATEWAY			**MULTI CONNECTIVITY**

👥🔒   Is this outlet for members only?   ☰ ☐

▦   KUARIO Direct   ☐

⊘ CANCEL   NEXT →
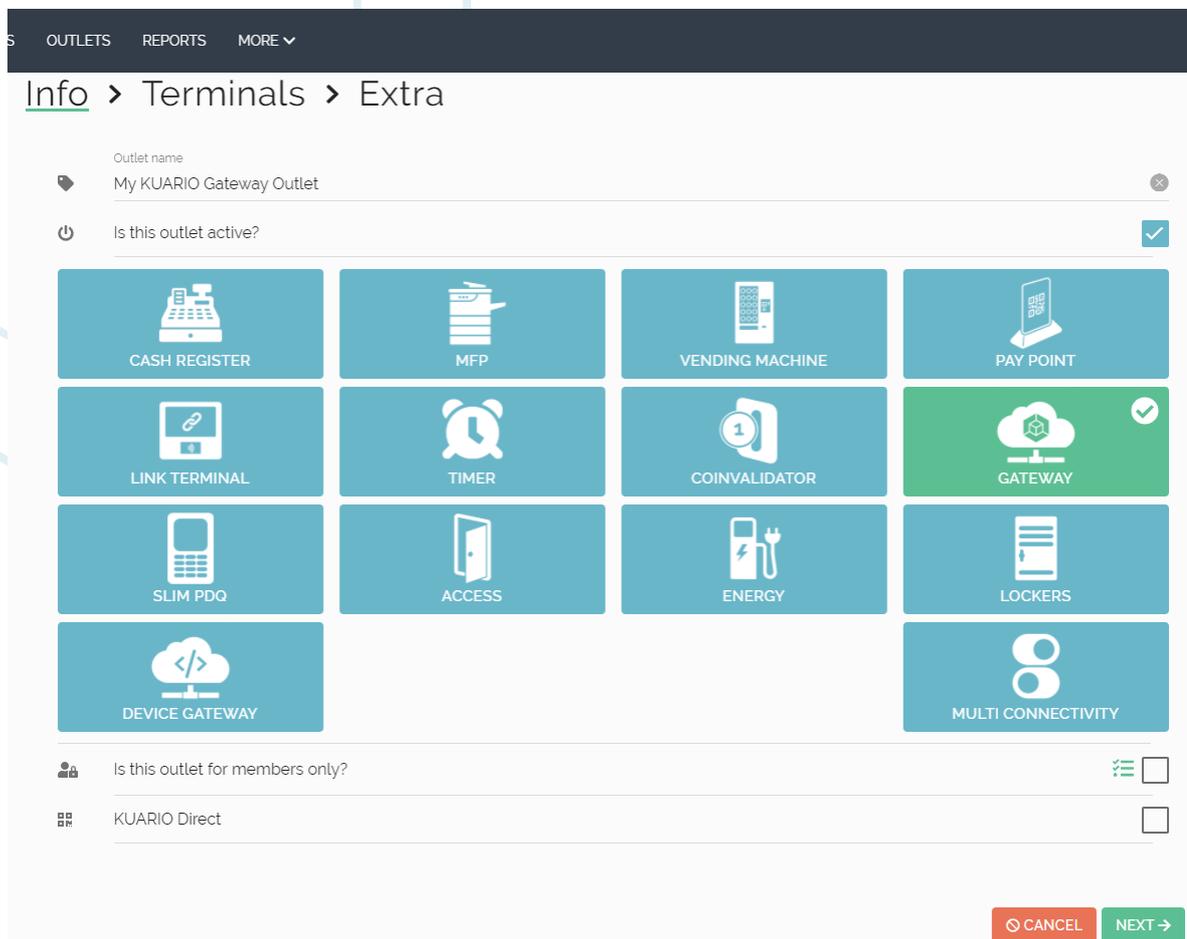
8. Give the Outlet a recognisable name. Click 'Next'.

✔ Info › Terminals › Extra

My KUARIO Gateway Outlet

☑ Order terminal

Device address

⊗

Device name

My KUARIO Gateway Terminal   ⊗
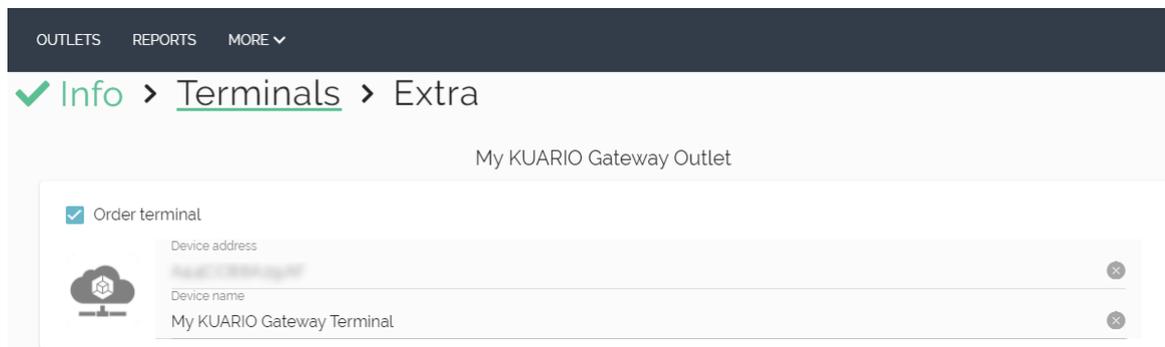
9. Tick 'Order terminal'.

10. At 'Device address' put the terminal address (aka MAC-address) you copied at step 1. Make sure to use the delimiter token ':' (colon) between each segment (example AA:BB:CC:DD:EE:FF) and upper case letters.

11. At 'Device name' enter a recognisable name for the computer running this app. Click 'Next'.

✔ Info › ✔ Terminals › Extra

My KUARIO Gateway Outlet

Select the template for this outlet.

^ MFP Template   ▾   **CREATE NEW ✚**

Select the priceline for this outlet.

^ Default Prijzen   ▾   **CREATE NEW ✚**

Outlet notes (Optional)

⊘ CANCEL   ← BACK   ✔ SAVE

12. Click 'Save'.

From this moment on, your KUARIO Gateway can be used to make KUARIO payments.

Your KUARIO Gateway GUI should look like this (both Online and linked to an Outlet):

← **KUARIO Gateway**

linked to outlet: My KUARIO Gateway Outlet   **ONLINE**
terminal:

KUARIO Gateway GUI - Linked / Ready to use

⚙ Configure the KUARIO Outlet

1. Go to the Outlet settings of your KUARIO Gateway Outlet.
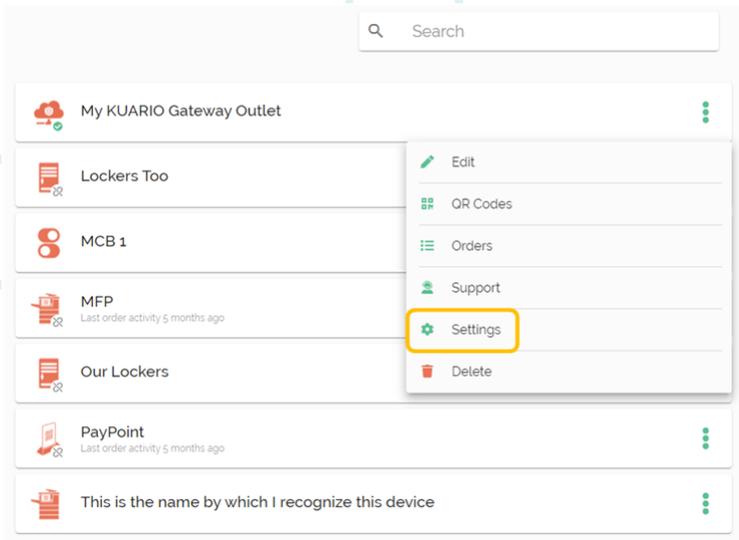
My KUARIO Gateway Outlet > Settings
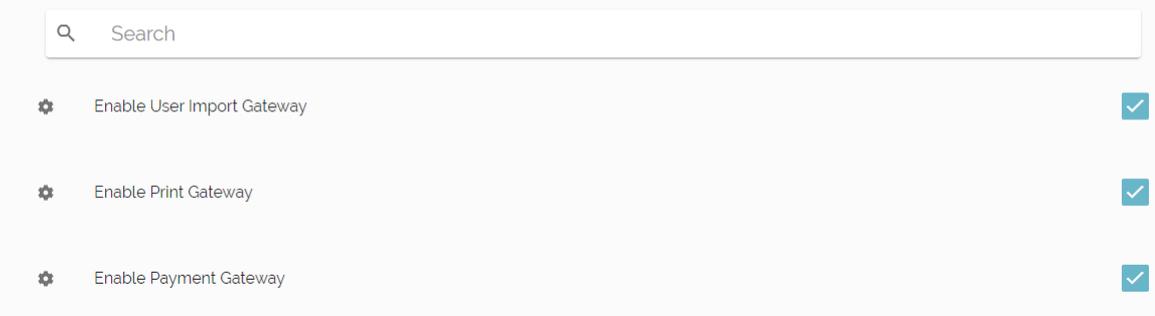
2. Select User Import Gateway if you want to be able to import users..

3. Select Print Gateway when your Users should be able to print to a designated print queue.

4. Select Payment Gateway when they should be able to pay with KUARIO.

Be aware that enabling each of these options will increase your monthly fee.

If you have enabled Print Gateway, you should enter the exact name of the Windows Print queue. If you also need to restrict the memberships that are allowed to print, you should list only the memberships here that are allowed to print.

⚠ **Note: To restrict printing to a group of Memberships, you must list these Memberships (separated with a semi-colon ';') here!**

5. Enter the exact print queue name.

6. If printing to this queue must be restricted list the exact names of the Membership(s) (**separated with a semi-colon ';'**) that are allowed to print to this queue (and now must use it).

⚙	DestinationQueue	✔ ENABLED
⚙	PrintMemberships	✔ ENABLED
		⊘ CANCEL ✔ SAVE

7. Click 'Save' to store the settings.

✿ Add / Remove Users

Users must be known by KUARIO for them to make payments with the help of KUARIO Gateway. A user in UniFlow is linked to a user in KUARIO via a Membership. When you invite users for this Membership, an email will be sent to the user on a given email address. The user has to accept this Membership to use their KUARIO funds from .
A Membership can have an external identifier. For each user that needs to be able to use their KUARIO funds in UniFlow, a Membership with the user's ID as external identifier is required.

To import users from UniFlow to KUARIO (which will automatically invite them) either an Excel *.csv must be used, that is a * .csv file with not comma, but semicolon ';' separated values, this request can then be mailed or placed in the csv directory where it will upload the user information automatically. Alternatively the users could be added manually directly in the KUARIO manager.
In UniFlow, you can set up the ID in UniFlow.

When the Membership of this user is removed, the link between UniFlow and KUARIO is removed. From that moment on the user can no longer see or use their KUARIO funds in UniFlow.
A user can decide to remove this Membership via the KUARIO app.

✿ Import Process
With the import process you will generate an invitation for each user in the import to be a member of the KUARIO Gateway membership at your Site.
By joining that membership you will be able to pay with the UniFlow solution. To create a membership invitation an email address of the user is needed and the related .

The user data; and User's email address must be made into a *.csv file. That file is imported into the Gateway by the KUARIO Plug-in and the invitation mails are sent.
Either the invitation email address is known as a KUARIO user and you can accept the invite directly, or the email address is not recognized as a KUARIO user and you can register as a KUARIO User with the email address to which the invitation was sent or if you are an existing user under another email address you can log using that email address as a KUARIO User and accept the invite in that way. See the flow chart below:

ⓘ Note: At the end of the process the registered KUARIO membership (accepted or not) will consist of the invitation Email Address (A) and the , even when the user already has a KUARIO user account that is linked to a different email address (B) then the invitation Email Address (A).

✿ Import Method
Choose an Import Method. If you need to import many users, you can either import via local CSV or import a CSV file in the KUARIO Manager. If you only need to add a couple of users you can input those directly using the KUARIO Manager.
1. Choose the import method; 'Import via local CSV or CSV file via the manager' -> Go to 'Prepare CSV 22', 'Direct Import using the manager' -> Go to 'Import using the KUARIO Manager 23'.

⚙ Prepare CSV

For bulk user imports you must use the 'Automatic Import' or the 'Import Request By Email' methods, these require an Excel *.csv file. We will help you to prepare such a file here.

ℹ **Note: If you do not have MS Excel or do not wish to use it, you can create and edit a standard text file with the .csv extension yourself, just make sure the file is semicolon separated.**

2. Preferably use your existing system that holds the information of your users to export the user information into a *.csv. If you have that option, create the *.csv file and continue with 'Name the CSV File 23'.
3. If you do not, create a new text file in notepad.exe
4. Type the text: "externalIdentifier;email;externalIdentifierDescription;addExternalIdentifier;mutation;startDateTime;endDateTime;status" These will be the column headers of your file. Each line below is a new row (or record) with member values.

*Untitled - Notepad

File Edit Format View Help

externalIdentifier;email;externalIdentifierDescription;addExternalIdentifier;mutation;startDateTime;endDateTime;status

	A	B	C	D	E	F	G	H
1	email	externalIdentifier	externalIdentifierDescription	addExternalIdentifier	mutation	startDateTime	endDateTime	status
2	joe@example.com	10091971	<= Joe's ID in the external application	1	add	2022-10-15T00:00	2025-10-15T00:00	active

In this example the external ID is 10091971, joe@example.com is the email address to which the KUARIO Membership invitation is sent, the description is irrelevant for the system, but we will use "<= Joe's ID in the external application" as a description, and the next column addExternalIdentifier must be set to 1 as it means you are using a Gateway. Mutation should be 'add' as you are adding members, although when you use the csv file locally, this field is ignored, it is only used in the CSV upload method in the KUARIO manager 23. Joe will be a member from 10/15/2022 at 00:00 through 10/10/2025 at 00:00. The format is: yyyy-mm-ddThh:mm, so startDateTime will be '2022-10-15T00:00' and endDateTime '2025-10-15T00:00', Note that the letter "T" must be between the date and time. Finally status should be 'active' to make sure the new member is set to active.

5. Add users, in this format (using the example data above, we will provide the line you would add. You must use your own data): "joe@example.com;10091971;<= Joe's ID in the external application;1;add;2022-10-15T00:00;2025-10-15T00:00;active"

Your notepad file should look like this if you followed the example:

File Edit Format View Help

email;externalIdentifier;externalIdentifierDescription;addExternalIdentifier;mutation;startDateTime;endDateTime;status
joe@example.com;10091971;<= Joe's ID in the external application;1;add;2022-10-15T00:00;2025-10-15T00:00;active
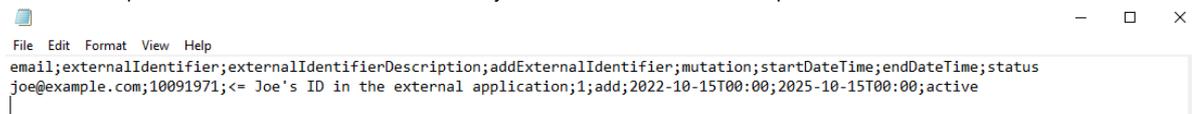
Please change the data to your own data when importing the csv into the KUARIO manager.

6. Go to 'File->SaveAs' and set 'SaveAsType' to 'All Files (*.*)'.
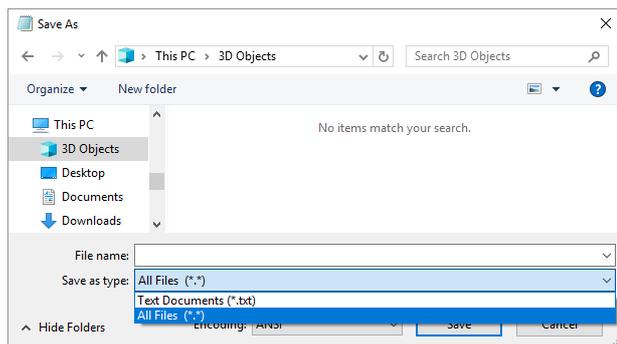
⚙ Name the CSV file

7. Give the file a name, that has meaning for this import, in this example a meaningless generic name "MembershipImport.csv" is used. Make sure to use '.csv' as extension.

8. Optionally you can edit the *.csv file, adding or editing the user information in MS Excel. To see how to do this refer to Appendix A: <u>Edit CSV file in MS Excel</u> 36 .

If you want to import the CSV file in the KUARIO Manager, please continue to: '<u>Import using the KUARIO Manager: Inserting users via a *.CSV file</u> 25 '.
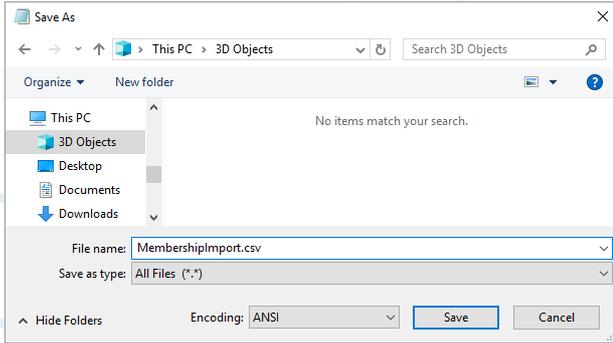
ℹ **Note: To export or delete users a 'csv' folder exist in %ProgramData%\KUARIO beside the 'ini' and 'log' folders. In this 'csv' folder you will find two sub-folders: 'delete' and 'update'.**

ℹ **Note: These directories are checked every minute while the Gateway is running. When a file is read, the Gateway tries to send the data to KUARIO. When this succeeds, the CSV file is deleted. When this fails, you can find the reason in the Gateway log file: C\ProgramData\KUARIO\log\KUARIOGateway.log .**

⚙ Import via local CSV

If this is your first time importing users via a CSV file, we recommend you to import just one (test) user before importing a bulk of users.
If you made an error, and user data was imported incorrectly, please use the same CSV and follow '<u>Delete via CSV</u> 23 '.

9. To add or update the users, copy the CSV file to the update folder C:\ProgramData\KUARIO\csv\update .
10. After a while the CSV file should have been deleted, then the operation was a success. If not, please email the *.csv file to <u>support@KUARIO.com</u>. KUARIO Support will help you finish the import task.
11. All members in this file will be added, the mutation field is ignored.
12. You have finished the import task.

⚙ Delete via local CSV

13. To remove this list of users, place the CSV file (with those users) in the delete folder C:\ProgramData\KUARIO\csv\ delete.
14. All members in this file will be removed, the mutation field is ignored.
15. You have finished the remove users task.

Import using the KUARIO Manager

Memberships are groups that a user can be a member of and that may give that user extra rights or options.

Memberships can be used to grant exclusive access to an Outlet, provide a deduction of the product price or make it possible for the members to use KUARIO as payment source, or lastly to use invoices in stead of direct payments.
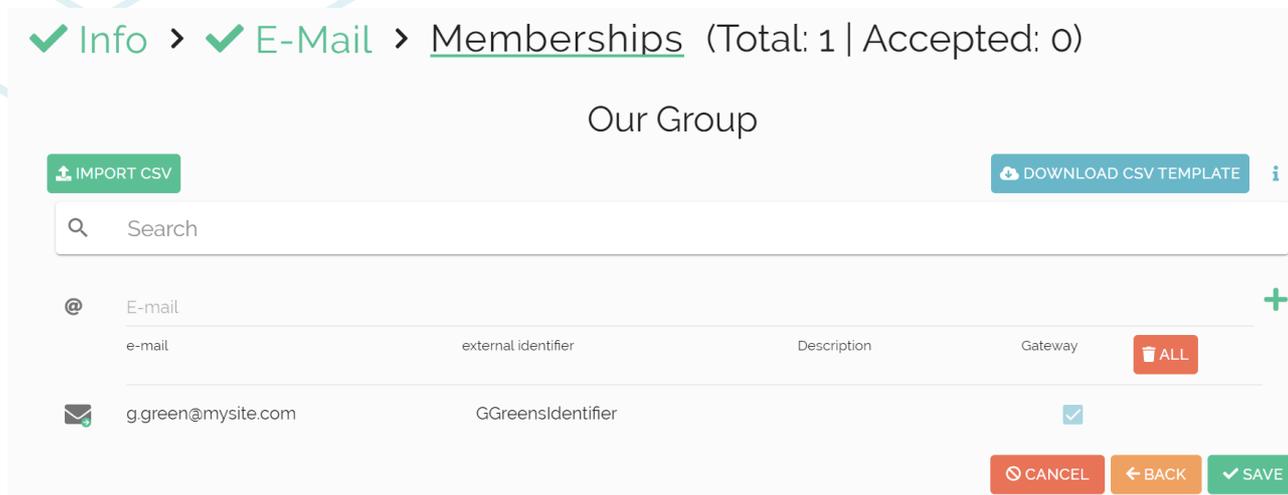They are also commonly used in combination with KUARIO gateways as (in most cases) they link to the external user account via the Membership's 'External Identifier'.

You need to have Site management rights to import users from the KUARIO Manager.

As a Merchant, you can invite users to become a Member of your Site via the KUARIO Manager.

1. Browse to https://manager.kuario.com
2. Log in with your KUARIO Merchant credentials.
3. Navigate to the Memberships tab
4. Select a Membership, or create one if none exist. (See Appendix D: Create a KUARIO Membership[40])
5. Click on next until you find the members list.

⚙ Inserting one or more users directly

6. Add members to your membership by adding the email address that they also use for their KUARIO Account. Confirm with the '✚' Plus or 'Add item' button

✔ Info ❯ ✔ E-Mail ❯ Memberships (Total: 1 | Accepted: 0)

Our Group

⬆ IMPORT CSV				☁ DOWNLOAD CSV TEMPLATE	ℹ

🔍 Search

@ E-mail ✚

e-mail	external identifier	Description	Gateway	🗑 ALL
✉ g.green@mysite.com	GGreensIdentifier		☑	

⊘ CANCEL   ← BACK   ✔ SAVE

7. In the newly added row, edit the External identifier to represent the identifier of the external program. Make sure to check the 'Gateway' box.
8. Repeat this for every user and click the 'save'-button when done.

⚙ Inserting users via a *.CSV file

9. Another method to insert members is the *.csv import method.
10. Click the 'Import CSV' button.

✔ Info ❯ ✔ E-Mail ❯ Memberships (Total: 1 | Accepted: 0)

Our Group

⬆ IMPORT CSV   ☁ DOWNLOAD CSV TEMPLATE   ℹ

🔍 Search

@   E-mail   +
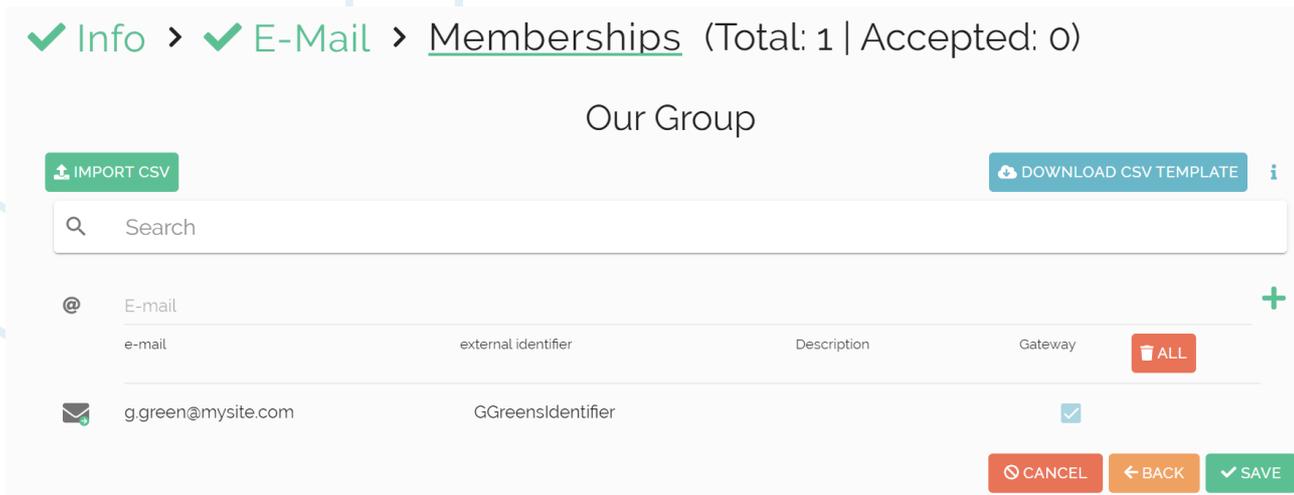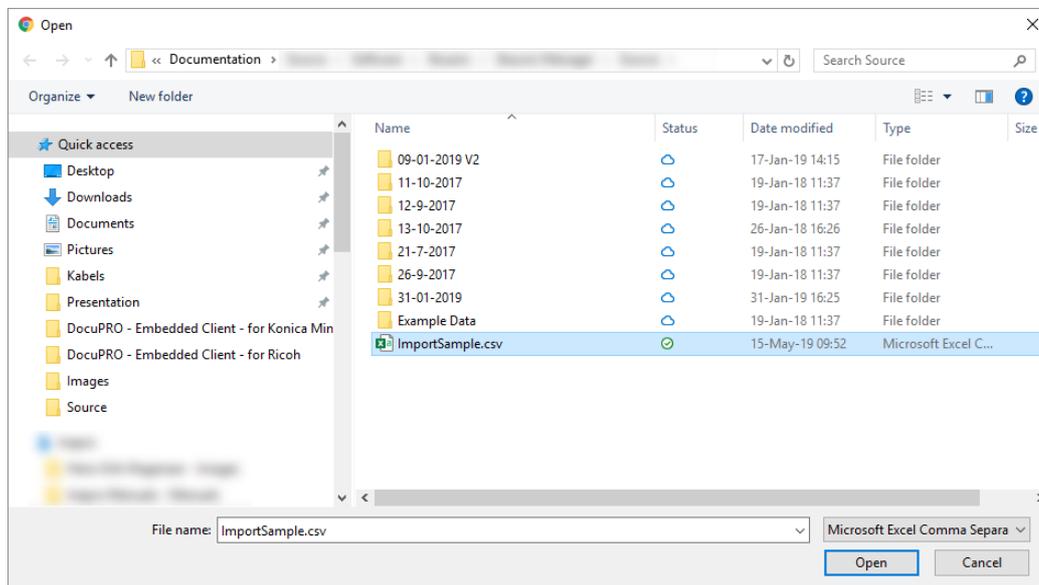
e-mail   external identifier   Description   Gateway   🗑 ALL

✉   g.green@mysite.com   GGreensIdentifier   ☑

🚫 CANCEL   ← BACK   ✔ SAVE

11. Select your CSV file and click 'Open'.

12. You have finished the import task.

ℹ **Note: For more information about the import via the KUARIO manager refer to Appendix D in this manual 40 or contact KUARIO support.**

⚙ NTWare UniFlow

⚙ Required before installation
- MS SQL Server Management Studio
- uniFLOW + RPS | 2020 LTS SR4 installation or higher with functioning IIS website
- The instructions of the 'Installation Notes Generic Budget Connector' uniFLOW manual) should be executed from chapter 2 through paragraph 2.3.4.
- uniFLOW Generic Budget Connector (v2.2.0.0 or higher) license
- KUARIO Gateway (v2.0.6 or higher)
- Both KUARIO certificates should be imported from the KUARIO Gateway directory into the "Trusted Root Certification Authorities certificate store".

⚙ Configuration

In the uniFLOW software the setting at the 'Budget mgmt. system' page must be configured as followed:

1. Start the uniFLOW server configuration on the uniFLOW server using this URL: http://localhost/pwserver.
2. Click the 'Server Config.' menu-item.
3. Click the 'Interface' item.
4. Click the 'Budget mgmt. system' page.

The following options should already be preselected at their respective fields:
- Budget Management System= Universal Budget Manager
- Default Budget Plug-in= uniFLOW Generic Budget Connector
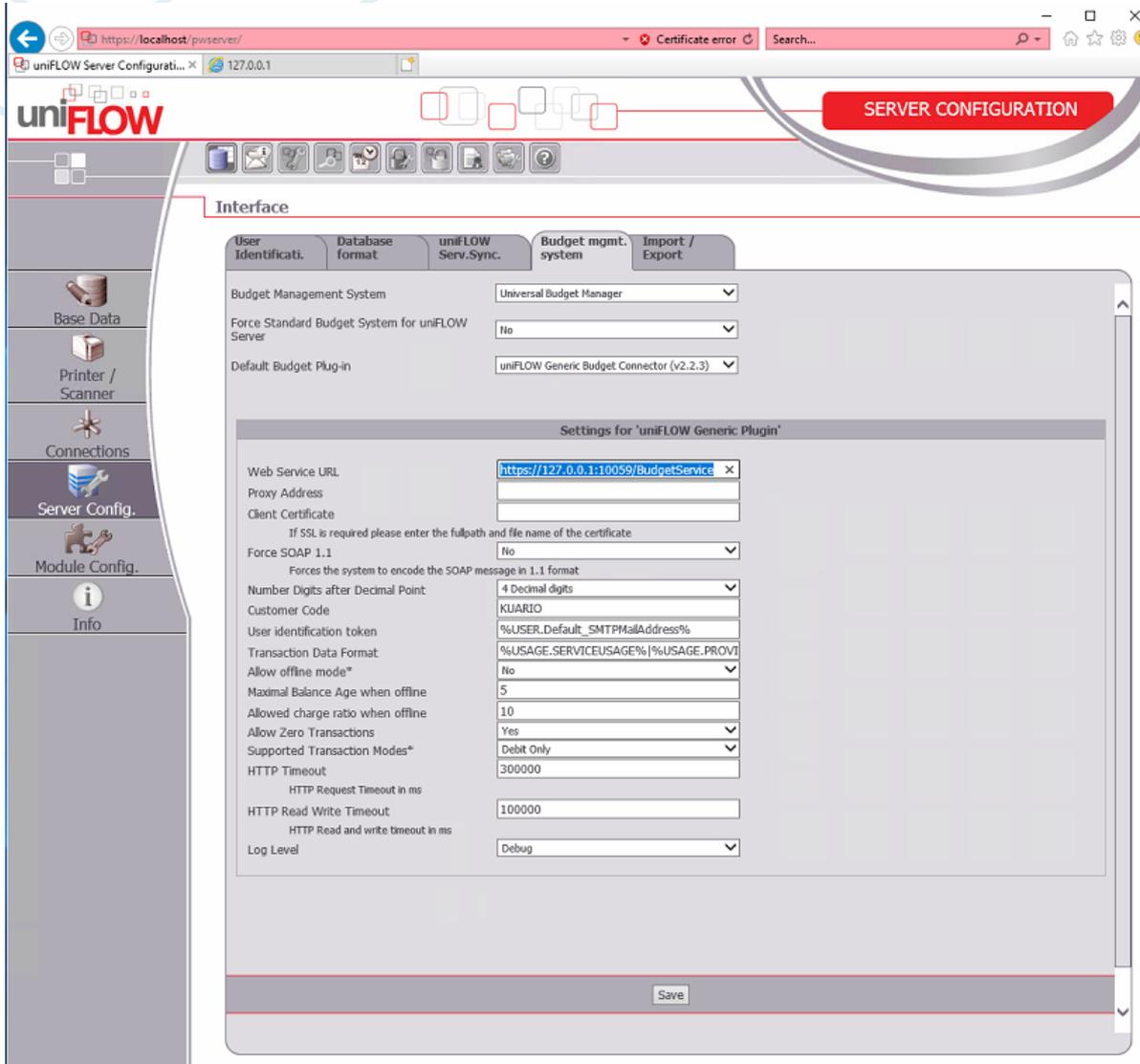
5. Insert at the 'Web Service URL' field, the IP address of the KUARIO Gateway server, the port number 10059 and '/BudgetService': This should be:

    https://127.0.0.1**:**10059/BudgetService

6. The retry time at 'Pending Transaction retry time' should be set to 5.
7. Insert '%USER.Default_CardNumber%' at the 'User identification token' field.
8. Insert 'KUARIO' at the 'Customer Code' field.
9. Select the option 'ERROR' at the 'Log Level' field.
10. Click the 'Save' button.

⚙ Active Directory GUI

⚠ **Note: Before continuing with this section please make sure that your KUARIO Gateway is now <u>online</u> and <u>linked</u>! <u>(See Appendix C)</u>** 39 .

Look for the 'KUARIO AD Connector' link in the start menu under your KUARIO Gateway entry.
Start the 'KUARIO AD Connector', a window named 'KUARIO AD Connector service' will now open.

1.
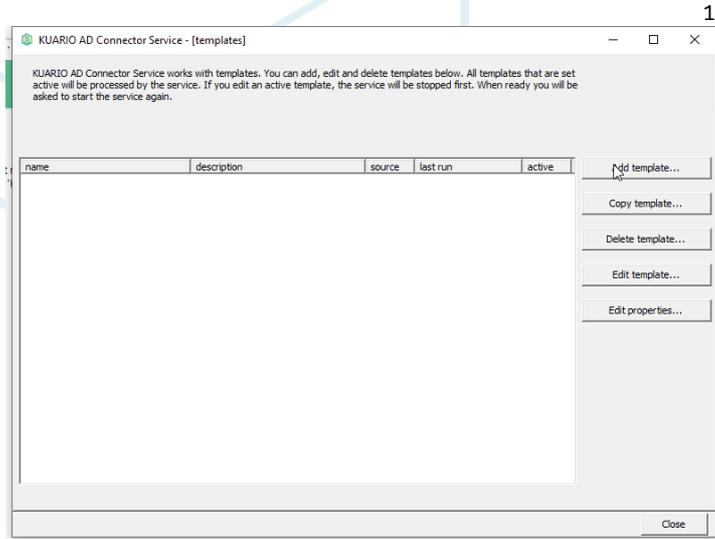
1. Click Add Template...
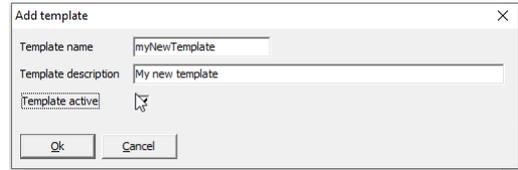
2. Enter the template's name and description, click OK
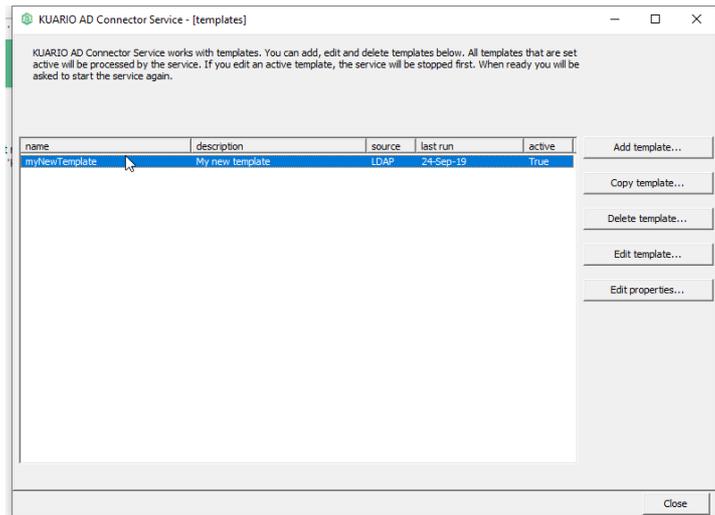
3. Select your template.
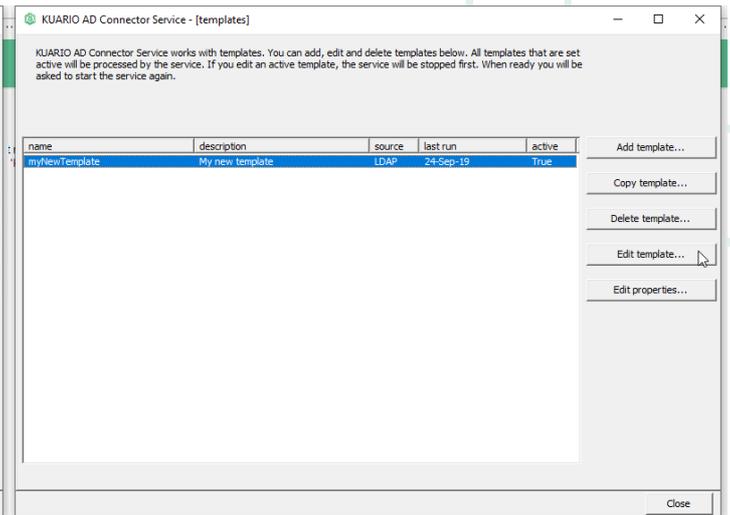
4. Click 'Edit Template'.
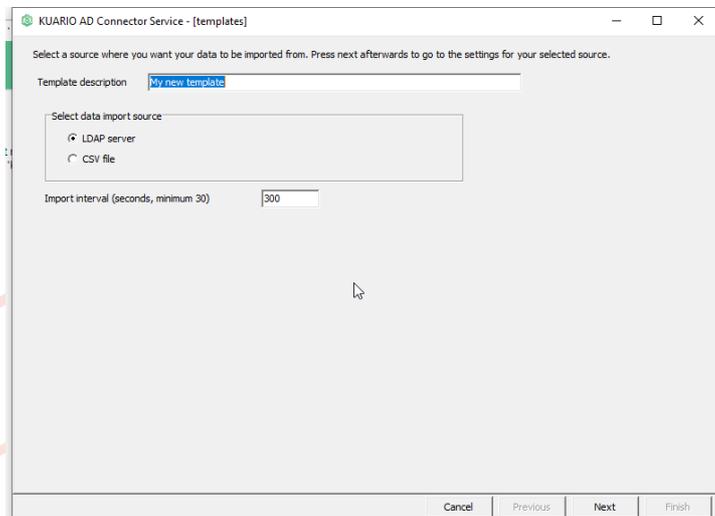
5. Confirm or edit the template's description, click Next.
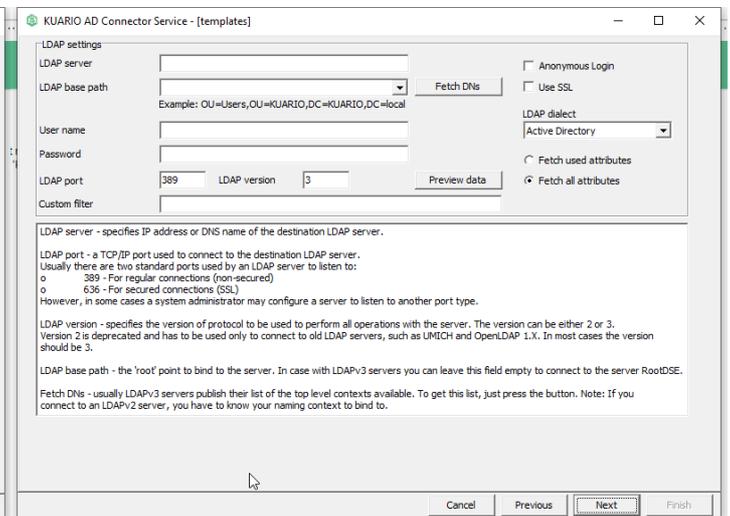
6. Fetch the DN's, and enter the user name and password.

Version 3.0.24   -   28
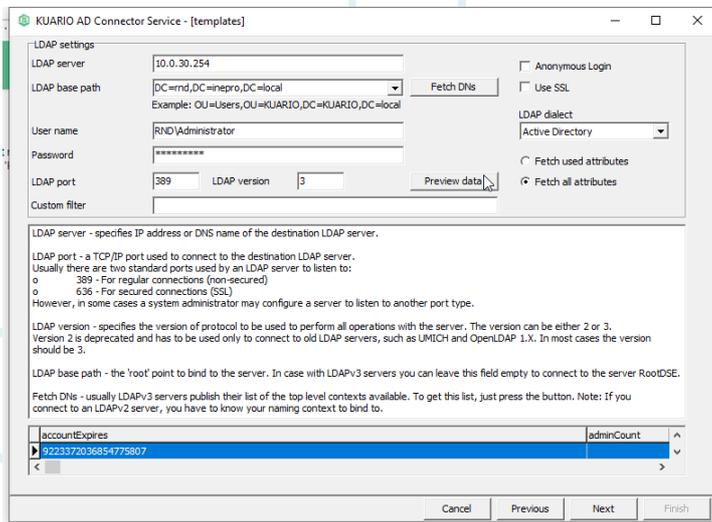
7. Click 'Preview' to preview a sample of the data.
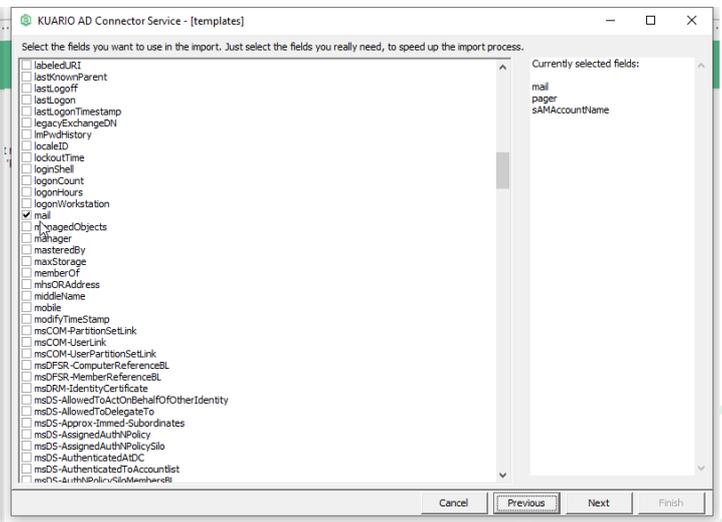
8. Select the fields with the email, membership and External Identifier data. You will need these at the next step.

At 'Subscription' a KUARIO Membership is chosen. Make sure the 'Fixed KUARIO Value' box is ticked.
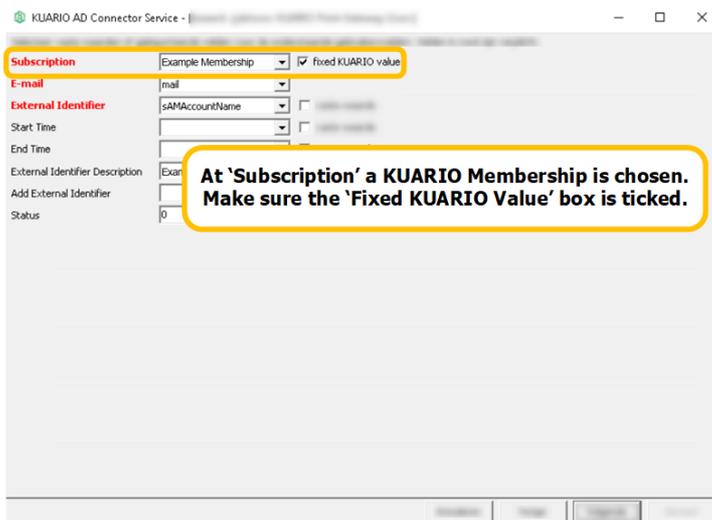
⚠ **Note: Make sure that before this step your KUARIO Gateway is now <u>online</u> and <u>linked</u>!**

9. Set up the link fields. Make sure to use a fixed KUARIO value. Refer to 'Appendix A: Using fixed KUARIO values' 34 **for more information.**
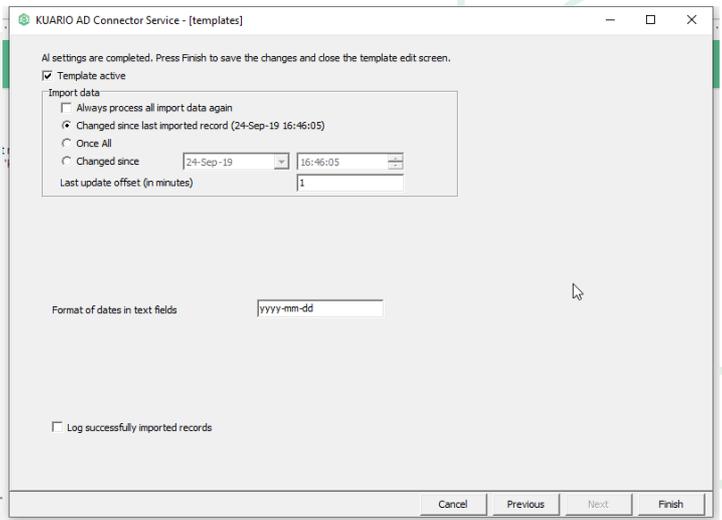
10. Make sure the template is set to 'Active' and select the way how the import data should be handled. Click 'Finish'.
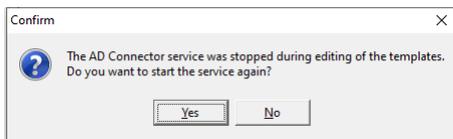
11. Reboot the service

Testing

🧪✏️ Testing the configuration

⚙️ Check the log files
Make sure to check the log files for error messages.

Useful log files:

Application	File	Description
KUARIO Gateway	%ProgramData%\KUARIO\log\KUARIOGateway.log	The KUARIO Gateway is the link between the KUARIO plug-in and the KUARIO Cloud Payment service. In this log you will find all the relevant process messages.

Troubleshooting

⊕ Troubleshooting

Sometimes things do not work out as expected, if so please read through this section before contacting your service organisation or dealer. Chances are you are able to solve the issue yourself.
The section is set up in a Symptom - Prognosis - Resolution format, that is; first the symptom is given, then the possible causes and then the resolution for those causes.

More information about why a process might have gone wrong can be found in the log files, scroll to the end of this section to learn more.

🎧 Prognosis: There is no (reliable) connection from the KUARIO Gateway to KUARIO
≔ Resolution:
A - Check if the KUARIO Gateway Service can connect to KUARIO.
1)   Browse to 'https://kuario.com/' on the same machine to make sure requests to KUARIO are not blocked.
   a) If you can't, the connection is blocked.
   b) Check your firewall and security settings to see if KUARIO is blocked or try to solve this issue with your network manager.

🎧 Prognosis: The KUARIO Gateway is not (yet) linked to a KUARIO Outlet
≔ Resolution:
B - Check if the Gateway is linked to an Outlet
1)   If the terminal is not yet linked, please follow this section of the manual to link the terminal 15

🎧 Prognosis: The KUARIO User is not a part of the Membership
≔ Resolution:
C - Make sure the Membership process has been concluded successfully.
1)   The KUARIO User is not yet invited for the Membership.
   a) Invite the KUARIO User for the Membership.
2)   The KUARIO User has not (yet) excepted the Membership.
   a) Remember the KUARIO User to accept the Membership.
   b) Log in as the user in the KUARIO App or on the KUARIO website.
   c) Navigate to Settings -> Account -> Memberships
   d) Check if there are any Unapproved Memberships
   e) Confirm that the KUARIO User has accepted the Membership. If not remind him again.
3)   If the process cannot be completed successfully, ask for help with the Membership request with KUARIO Support.

🎧 Prognosis: The KUARIO User is invited for a Membership under the wrong KUARIO Site.
≔ Resolution:
D - The KUARIO User is invited for a Membership under the wrong KUARIO Site.
1)   Make sure the invitation is sent from the correct KUARIO Site.

🔍 Symptom(s): I had a import configuration error, that I resolved but now the users are still not imported
🎧 Prognosis: Users that failed to be imported will not be tried in future runs
✅ Resolution:

E - Set the import date back before any failed tries

1) Set the import date to a date prior to the imports that failed because of the faulty configuration. Select 'Changed since' and set the date.
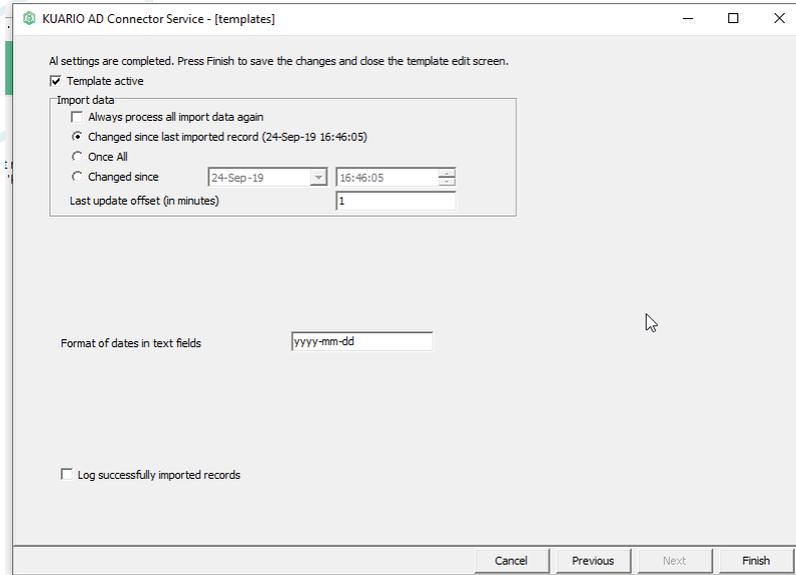
2) Start the import process again.

🔍 Symptom(s): Other issues
🎧 Prognosis: This issue cannot be solved without external help
✅ Resolution:

F - Please open the log files.

1) If after carefully examining these files, the issue cannot be resolves by you or your team, please contact KUARIO support (support@KUARIO.com) to help you further on your way.

Log files

If you run into trouble please examine these files carefully as they should contain very useful information.

Useful log files:

Application	File	Description
KUARIO Gateway	%ProgramData%\KUARIO\log\KUARIOGateway.log	The KUARIO Gateway is the link between the KUARIO plug-in and the KUARIO Cloud Payment service. In this log you will find all the relevant process messages.

Appendix A: Using fixed KUARIO values

📖 Appendix A: Using fixed KUARIO values

⚠️ **Warning: Before continuing with this section please make sure that your KUARIO Gateway is now <u>online</u> and <u>linked</u>! (See Appendix C)** [39]

In the KUARIO Active Directory Connector you should leave the 'fixed KUARIO value' box ticked.

At 'Subscription' a KUARIO Membership is chosen. Make sure the 'Fixed KUARIO Value' box is ticked.
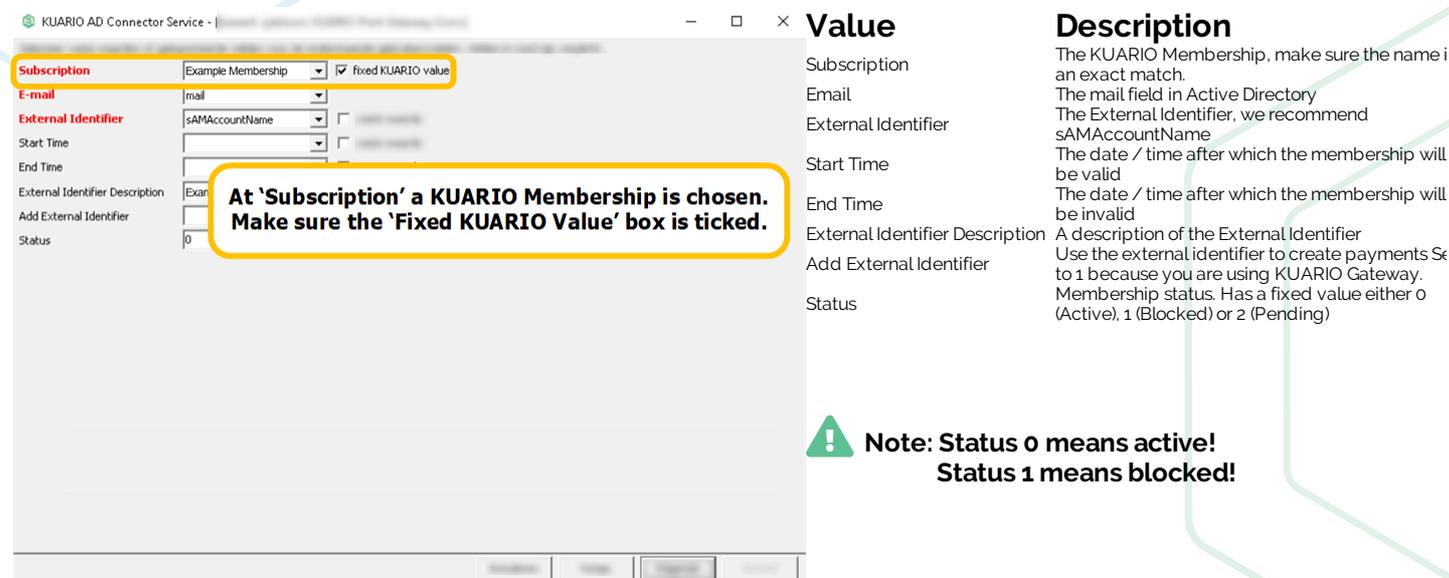
Value	Description
Subscription	The KUARIO Membership, make sure the name i an exact match.
Email	The mail field in Active Directory
External Identifier	The External Identifier, we recommend sAMAccountName
Start Time	The date / time after which the membership will be valid
End Time	The date / time after which the membership will be invalid
External Identifier Description	A description of the External Identifier
Add External Identifier	Use the external identifier to create payments Se to 1 because you are using KUARIO Gateway.
Status	Membership status. Has a fixed value either 0 (Active), 1 (Blocked) or 2 (Pending)

⚠️ **Note: Status 0 means active!
         Status 1 means blocked!**

The 'Subscription' refers to KUARIO memberships. KUARIO Memberships are part of their site. When you connect KUARIO Gateway to a site, you have access to the memberships of that site.

Memberships

Memberships are groups that a user can be a member of and that may give that user extra rights or options.

Memberships can be used to grant exclusive access to an Outlet, provide a deduction of the product price or make it possible for the members to use KUARIO as payment source, or lastly to use invoices in stead of direct payments.
They are also commonly used in combination with KUARIO gateways as (in most cases) they link to the external user account via the Membership's 'External Identifier'.

1. Select a membership from the 'Subscription combo box'.
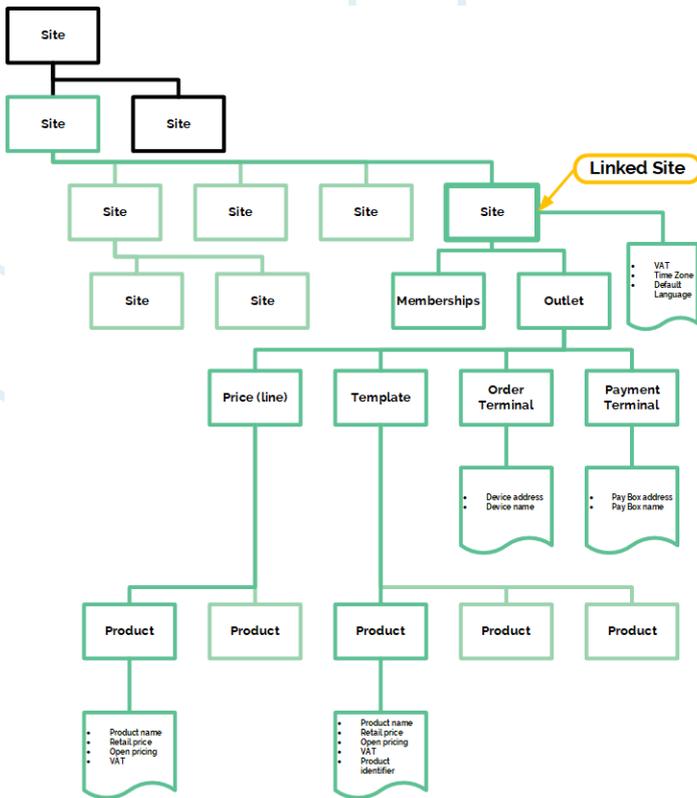
2. At 'Email' select the Active Directory field that holds the user's email address.
3. At 'External Identifier' enter the External Identifier (an unique non-KUARIO identifier for the user. We recommend using 'sAMAccountName' (This is the user's log-on name for older Windows OS's).

Membership period

'startDateTime' and 'endDateTime' are DateTime stamps (by default?) in the 'yyyy-mm-ddThh:mm' format, that indicate for what period this user is a member of this membership. Before or after this date this user will not be a member of this membership. This is useful working with users that arrive and/or leave your organisation at a time known beforehand. Like a student with a membership that grants him access to rooms in his school or university.

4. The 'start time' and 'end time' can be left empty, this means that the membership is forever (or until it is revoked).
5. At the 'External Identifier Description' A description of the sort of identifier for clarity. Like 'Student number' if the identifier is a student number.

The user's should be in the 'externalIdentifier' column). 'addExternalIdentifier' should be 1, indicating that you are using a KUARIO gateway.

6. Set 'Add External identifier' to '1' as you are using the KUARIO Gateway.

Status

The last field 'status' allows you to let the member have a non-active status, a member can be active. An active member can normally use the perks of it's membership. A blocked member cannot use it's membership. The status 'Pending' is used for specific application for the period that the application is evaluating if the user's membership is granted/revoked. The status 'Pending' is a system status and should not be imported as a value! This field should have the value 'active' (or 0) unless instructed otherwise.

7. Set the status to 0. This means that the membership is active.

Appendix B: Edit CSV file in MS Excel

📖 Appendix B: Edit CSV file in MS Excel

1. Open the created *.csv file.
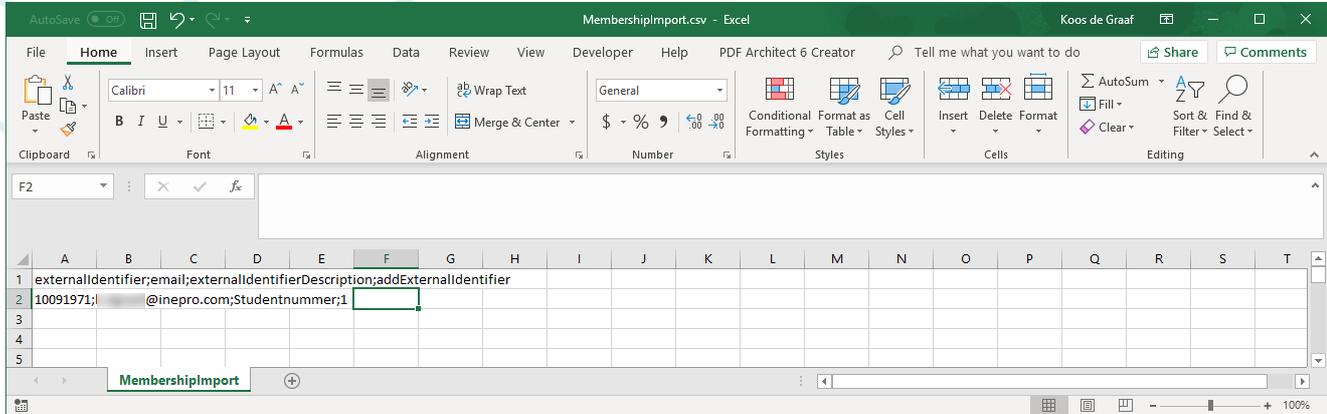
2. Like in Notepad headers and values are separated by semicolons. But to comfortably work with these files in Excel we will take the next steps.
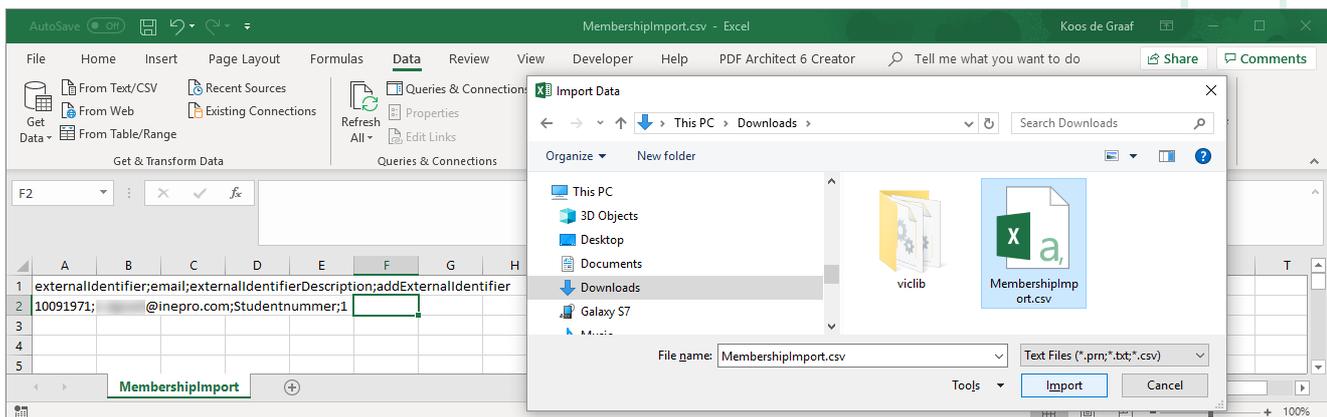
3. Open Excel.
4. Go to the 'Data' tab.
5. Click 'From Text/CSV'.
6. Browse to the created * .csv file.

7. Excel will automatically detect the format and settings, please check if these are correct and click 'Load'.

	A	B	C	D	E	F	G	H
1	email	externalIdentifier	externalIdentifierDescription	addExternalIdentifier	mutation	startDateTime	endDateTime	status
2	example@kuario.com	identifier	description	1 or 0	add or del	yyyy-mm-ddThh:mm	yyyy-mm-ddThh:mm	active or pending or blocked
3	aarcher@bestmailclient.com	150	Alberto Archer is a male from Livingston.	0				
4								
5								

8. The document will now be opened in a way that is easy to scroll trough and to edit.
9. Make sure you only have eight headers and that they are named according to the table above. They should be in this order and match with the corresponding user data (email should be the user's email address as used in his KUARIO account. The user's should be in the 'externalIdentifier' column). 'addExternalIdentifier' should be 1, indicating that you are using a KUARIO gateway.

Mutation
The mutation field is ignored when using the local import via CSV. It is used when importing CSV files via the KUARIO Manager. It should be set to 'add' when you want the member to be added, and to 'delete' when you want an existing user to be deleted. The last three fields ('startDateTime', 'endDateTime' and 'Status') are optional.

Membership period
'startDateTime' and 'endDateTime' are DateTime stamps (by default?) in the 'yyyy-mm-ddThh:mm' format, that indicate for what period this user is a member of this membership. Before or after this date this user will not be a member of this membership. This is useful working with users that arrive and/or leave your organisation at a time known beforehand. Like a student with a membership that grants him access to rooms in his school or university.
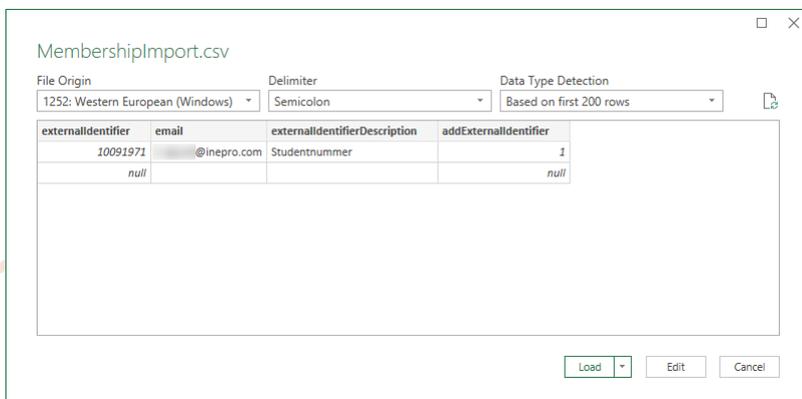
Status

The last field 'status' allows you to let the member have a non-active status, a member can be active. An active member can normally use the perks of it's membership. A blocked member cannot use it's membership. The status 'Pending' is used for specific application for the period that the application is evaluating if the user's membership is granted/revoked. The status 'Pending' is a system status and should not be imported as a value! This field should have the value 'active' (or 0) unless instructed otherwise.

ℹ️ **Note: The first row (with the headers) is ignored by the import functionality, so this should not contain (user) import information.**

ℹ️ **Note: Rows with the email address 'example@kuario.com' are ignored by the import functionality, so these should not contain (user) import information.**

⚠️ **Warning: The status 'Pending should not be entered in the *.csv file!**

Header Name	Description	Allowed Values
email	The email address of the KUARIO User	A valid email address.
externalIdentifier	The external identifier is used by an external system via the KUARIO Gateway to identify a user or a group f users	The value must be unique if it is a personal identifier. In this case the field 'addExternalIdentifier' must be set to '1'. Group identifiers do not need to be unique as multiple persons can be members of a group or membership. All identifiers may contain the full range of alphanumeric values.
externalIdentifierDescription	A description of the sort of identifier for clarity. Like 'Student number' if the identifier is a student number.	A text description of the identifier.
addExternalIdentifier	Internal KUARIO value, must be set to 1 to use KUARIO Gateway	1 or 0
mutation	Add or Delete this member	'add' or 'del'
startDateTime	The start of a membership period	DateTime in format 'yyyy-mm-ddThh:mm'
endDateTime	The end of a membership period	DateTime in format 'yyyy-mm-ddThh:mm'
status	The membership status. It can be Active, Pending or Blocked. 'Pending' is a reserved system status, do not use it.	'active' or 'blocked'

10. Now add you can add/edit users and check if everything is correctly listed.
11. Remember that the file will become the membership name in KUARIO. So if you need to add to an existing membership, make sure the name is the exact same.
12. If the document is satisfactory, we can now export it to KUARIO.

Appendix C: My terminal status

📖 Appendix C: My terminal status

■ Status 1: Terminal is not linked to a KUARIO Outlet and is not Online:

← KUARIO Gateway	
terminal not linked to KUARIO outlet yet	OFFLINE

■ Status 2: Terminal is not linked to a KUARIO but it is online:

← KUARIO Gateway		
terminal not linked to KUARIO outlet yet	demo mode	ONLINE
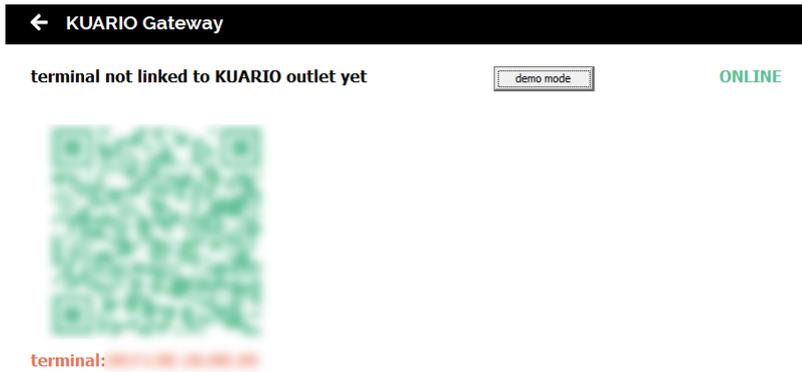
terminal:

■ Status 3: Terminal is online and linked to a KUARIO Outlet:

← KUARIO Gateway		
linked to outlet:		ONLINE
terminal:	leave demo	DEMO MODE

Appendix D: Create a KUARIO Membership

📖 Appendix D: Create a KUARIO Membership

⚙️ Add Membership

1. Open the KUARIO Manager.
2. Go to Main Menu -> Memberships.
3. Add a Membership, click [+ ADD] ('+ Add').

Memberships

[+ ADD]　[🪪 INVITE LINKED ID'S]　　　　　　　　🔍 Search

4. Name the Membership.
5. Check the box if you want to allow invoicing (by default it should remain unchecked as you would not) want to allow invoicing).

ⓘ **Note: With invoicing your users will to not pay directly, rather their transactions are stored and the Merchant will be responsible to charge these costs to the user.**

6. If the members may enjoy a generic (over all available products) deduction you can enter the deduction percentage here.
7. Click 'NEXT →'.

8. KUARIO Email message, select the language for our default message. Or create your custom message yourself.
9. Click 'NEXT →'.

10. Add members to your membership by adding the email address that they also use for their KUARIO Account. Confirm with the '➕' Plus or 'Add item' button

✔ Info › ✔ E-Mail › Memberships (Total: 1 | Accepted: 0)

Our Group

⬆ IMPORT CSV   ☁ DOWNLOAD CSV TEMPLATE   i

🔍 Search

@   E-mail   ✚

e-mail	external identifier	Description	Gateway	🗑 ALL
g.green@mysite.com	GGreensIdentifier		✔	

⊘ CANCEL   ← BACK   ✔ SAVE

11. Another method to insert members is the *.csv import method, explained in the next section.

Import via CSV

12. Click the 'Import CSV' button.

✔ Info ❯ ✔ E-Mail ❯ <u>Memberships</u> (Total: 1 | Accepted: 0)

Our Group

⬆ IMPORT CSV   ☁ DOWNLOAD CSV TEMPLATE   ⓘ

🔍 Search

@ E-mail   ➕

e-mail	external identifier	Description	Gateway	🗑 ALL
✉ g.green@mysite.com	GGreensIdentifier		☑	

⊘ CANCEL   ← BACK   ✔ SAVE

To Import a CSV file via the manager it should be formatted like this:

```
externalIdentifier;email;externalIdentifierDescription;addExternalIdentifier;mutation;
        startDateTime(yyyy-mm-ddThh:mm);endDateTime(yyyy-mm-ddThh:mm);status
Gerald Green;g.green@mysite.com;name;0;add;2021-05-01T00:01;2025-05-01T00:01;active
```
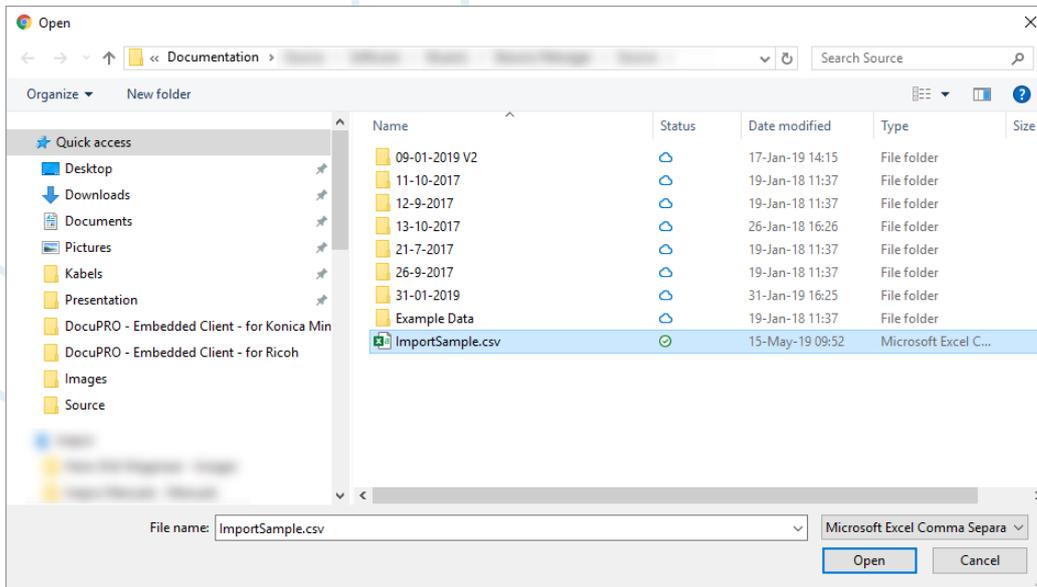
	email	externalIdentifier	externalIdentifierDescription	addExternalIdentifier	mutation	startDateTime	endDateTime	status
1	email	externalIdentifier	externalIdentifierDescription	addExternalIdentifier	mutation	startDateTime	endDateTime	status
2	example@kuario.com	identifier	description	1 or 0	add or del	yyyy-mm-ddThh:mm	yyyy-mm-ddThh:mm	active or pending or blocked
3	aarcher@bestmailclient.com	AlAr002002	Alberto Archer is a male from Livingston.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
4	bbailey@bestmailclient.com	BeBa002003	Beryl Bailey is a female from West Bromwich.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
5	ccarter@bestmailclient.com	ChCa002004	Chris Carter is a male from Crewe.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
6	dcarver@bestmailclient.com	DeCa002005	Debby Carver is a female from Morecambe.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
7	echaplin@bestmailclient.com	ErCh002006	Ernesto Chaplin is a male from Fochabers.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
8	fchandler@bestmailclient.com	FlCh002007	Florence Chandler is a female from Kingswinford.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
9	gcooper@bestmailclient.com	GoCo002008	Gordon Cooper is a male from Londen.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
10	hfletcher@bestmailclient.com	HeFl002009	Helene Fletcher is a female from Wellingborough.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
11	ifrobisher@bestmailclient.com	IsFr002010	Isaac Frobisher is a male from Manchester.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
12	jgardner@bestmailclient.com	JoGa002011	Joyce Gardner is a female from Aberdare.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
13	khooper@bestmailclient.com	KiHo002012	Kirk Hooper is a male from Stoke-on-Trent.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
14	lkellogg@bestmailclient.com	LeKe002013	Leslie Kellogg is a female from Swansea.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
15	mleach@bestmailclient.com	MiLe002014	Michael Leach is a male from Boston.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
16	nmachin@bestmailclient.com	NaMa002015	Nadine Machin is a female from Chesterfield.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
17	onaylor@bestmailclient.com	OsNa002016	Oscar Naylor is a male from Sheffield.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
18	pproctor@bestmailclient.com	PaPr002017	Patty Proctor is a female from Huddersfield.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
19	rredman@bestmailclient.com	RaRe002018	Rafael Redman is a male from Leicester.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
20	ssawyer@bestmailclient.com	SaSa002019	Sandy Sawyer is a female from Colyton.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
21	ttrinder@bestmailclient.com	ToTr002020	Tony Trinder is a male from Belfast.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
22	vward@bestmailclient.com	VaWa002021	Valerie Ward is a female from Londen.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
23	wfielder@bestmailclient.com	WiFi002022	William Fielder is a male from Chesterfield.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
24	afisher@bestmailclient.com	AnFi002023	Andrea Fisher is a female from Bolton.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
25	bforester@bestmailclient.com	BaFo002024	Barry Forester is a male from Chesterfield.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
26	cgravenor@bestmailclient.com	ChGr002025	Chantal Gravenor is a female from St Albans.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
27	dlocksmith@bestmailclient.com	DeLo002026	Dean Locksmith is a male from Mallaig.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
28	epaige@bestmailclient.com	ErPa002027	Erin Paige is a female from Burry Port.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
29	fpiper@bestmailclient.com	FePi002028	Felix Piper is a male from Oldbury.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
30	gquilter@bestmailclient.com	GaQu002029	Gabrielle Quilter is a female from Bourne End.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
31	hskinner@bestmailclient.com	HuSk002030	Humberto Skinner is a male from Coventry.	1	add	2021-05-01T00:01	2025-05-01T00:01	active
32	iwaxman@bestmailclient.com	InWa002031	Ingrid Waxman is a female from Brentwood.	1	add	2021-05-01T00:01	2025-05-01T00:01	active

The example above creates a member identified with email address 'g.green@mysite.com', with an external identifier 'Gerald Green', a description 'name'. The external Identifier will be added in the member information, even though 'addExternalIdentifier' is set to false! The member is not allowed to use KUARIO Gateway, because 'addExternalIdentifier' is set to 0. Normally 'addExternalIdentifier' will be set to '1' so the member can use KUARIO Gateway.

ⓘ **Note: If 'addExternalIdentifier' is set to 0 the 'externalIdentifier' string will still be added to the member information. However the member is not allowed to use KUARIO Gateway. That means that user can not use KUARIO as an external payment system, (because it must be linked via his 'externalIdentifier'), through a third party application, using KUARIO Gateway.**

ⓘ **Note: Refer to the KUARIO Gateway manual for more information about this.**

13. Select your CSV file and click 'Open'.

The members should now be added to your membership.

Completing creating a new Membership

When you have added the members, it is possible to also add external identifier. An external identifier can be used to create a subgroup of users in you membership. In the example below two groups are created one has the external ID '50', the other group has the ID '150'. These ID's combined with the membership ID may be exported to external administrative systems, showing the usage of certain groups without showing their email addresses, thus complying to privacy concerns.

When a *.csv is imported using the startDateTime(yyyy-mm-ddThh:mm), endDateTime(yyyy-mm-ddThh:mm) or status field, then these fields can also be edited for other members..

14. Tick the check box if you are using KUARIO Gateway, in this case the external identifier must be exactly the same as the user's ID in the external system connected with KUARIO Gateway.

✔ Info ❯ ✔ E-Mail ❯ Memberships (Total: 31 | Accepted: 0)

Our Group

⬆ IMPORT CSV   ☁ DOWNLOAD CSV TEMPLATE   i

🔍 Search

@   E-mail   ✚

	e-mail	external identifier	Description	Gateway	Valid from	Valid till	status	🗑 ALL
👤+	k.dgraaf@inepro.com	KoosHisExternalId	Description	✔	-	-	Active ▾	
👤+	aarcher@bestmailclient...	AlAr002002	Alberto Archer is a	✔	01-05-2021 00:01	01-05-2025 00:01	Active ▾	
👤+	bbailey@bestmailclient...	BeBa002003	Beryl Bailey is a fe	✔	01-05-2021 00:01	01-05-2025 00:01	Active ▾	
👤+	ccarter@bestmailclient...	ChCa002004	Chris Carter is a m	✔	01-05-2021 00:01	01-05-2025 00:01	Active ▾	
👤+	dcarver@bestmailclient...	DeCa002005	Debby Carver is a	✔	01-05-2021 00:01	01-05-2025 00:01	Active ▾	
👤+	echaplin@bestmailclien...	ErCh002006	Ernesto Chaplin is	✔	01-05-2021 00:01	01-05-2025 00:01	Active ▾	
👤+	fchandler@bestmailclie...	FlCh002007	Florence Chandler	✔	01-05-2021 00:01	01-05-2025 00:01	Active ▾	
👤+	gcooper@bestmailclien...	GoCo002008	Gordon Cooper is	✔	01-05-2021 00:01	01-05-2025 00:01	Active ▾	
👤+	hfletcher@bestmailclie...	HeFl002009	Helene Fletcher is	✔	01-05-2021 00:01	01-05-2025 00:01	Active ▾	

🚫 CANCEL   ← BACK   ✔ SAVE

15. When you need to edit the member period, the member period dialogue will show. Here the start and end of a period can be determined.

Change member times   close

E-mail

aarcher@bestmailclient.com

From date

📅 01-May-202   📅   00:01   DISABLE START TIME

Till date

📅)1-May-2025 📅   00:00   DISABLE END TIME

CANCEL   **UPDATE**

16. Click '✓ SAVE' to save the Membership.

KUARIO   DASHBOARD   PRODUCTS   OUTLETS   TEMPLATES   PRICES   REPORTS   MEMBERSHIPS   Main Square 👤

Info > Terminals > Extra

Outlet name

Canteen - Snack Corner - 1   ⊗

Please fill out this field

Is this outlet active?   ✓

CASH REGISTER   MFP   VENDING MACHINE   PAY POINT

LINK TERMINAL   TIMER   COINVALIDATOR   GATEWAY

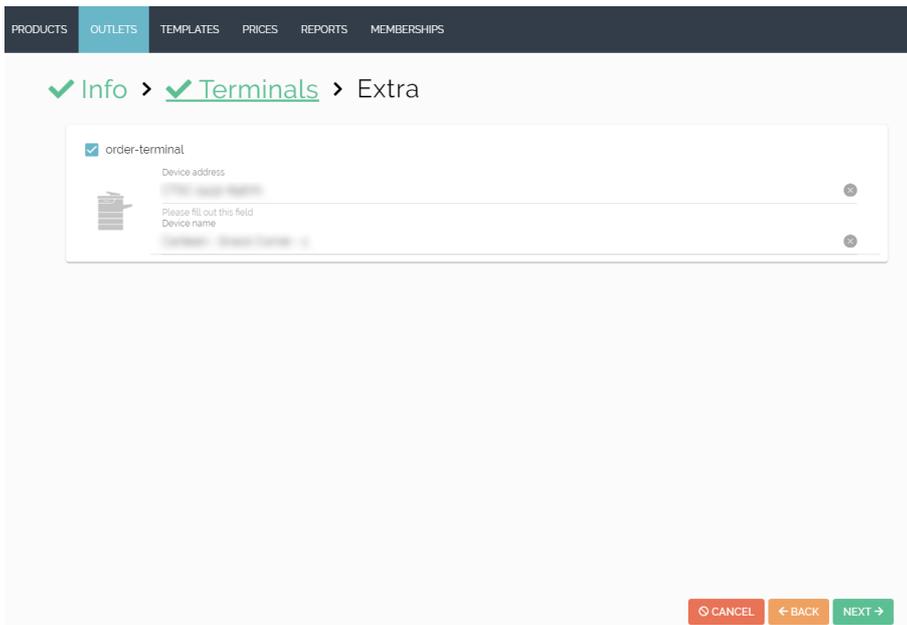OPERATED PAYPOINT   ACCESS

Is this outlet private?   ⋮≡ ☐

⊘ CANCEL   NEXT →
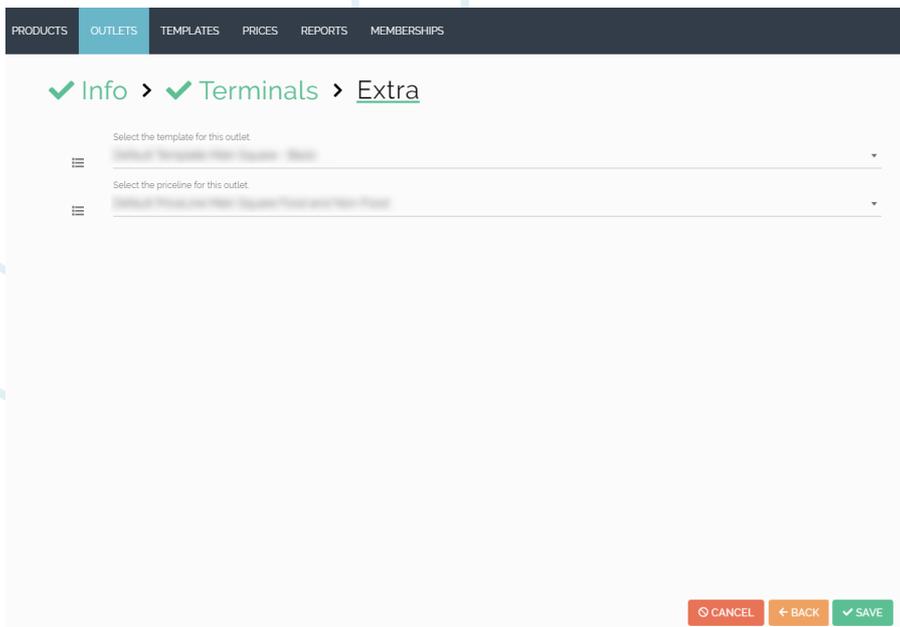
Set exclusive access to an Outlet

17. Go to Outlets.
18. Select an Outlet that you want the Membership to have exclusive access to.
19. Tick the box 'Is this Outlet private?'. A pop-up selection list will appear.
20. Select the appropriate Membership(s) from that list.
21. Make sure the box is checked, click 'NEXT →'.
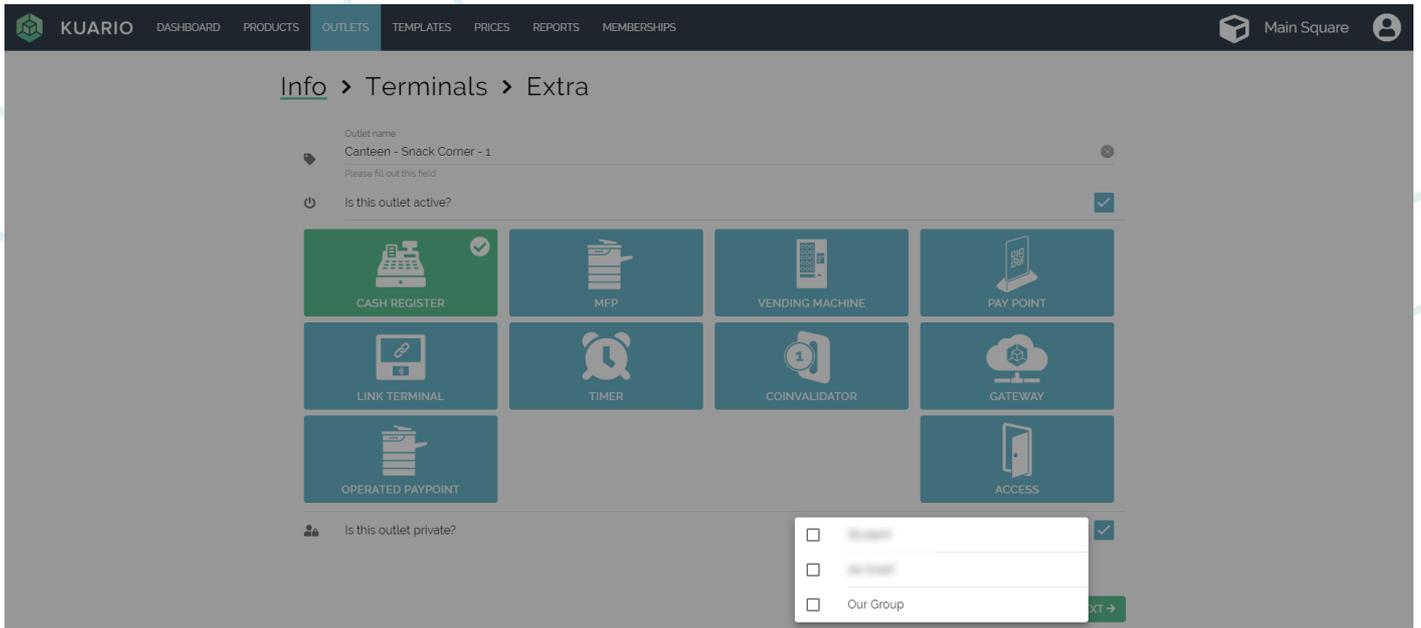
22. Click 'NEXT →'.

23. Click ' ' to save the Outlet Settings.

24. The Outlet can now only be used by members of the Membership(s) you selected for it. Other users cannot use it.