KUARIO

KUARIO Smart Connector

Installation Manual - EN

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Introduction

Introduction

The Smart Connector is a powerful solution that replaces any electronic coin- or banknote validator and manage any unattended self-service machine.

Due to its flexible interface and multiple supported communication protocols, your device will be transformed into a cloud enabled self-service machine accepting mobile payments.

You can optimise your operation, become more cost efficient and have real time insight in the performance and availability of all your machines in the field.

Our Smart Connector is a smart box that can be placed on the inside of the self-service machine without affecting the exterior. The Smart Connector can be linked and configured in an instance via our service module in the KUARIO App. Our Service app is a specifically developed application for your field service engineers to easily configure self-service machines in the field.
Smart Connectors are cloud connected and software is updated automatically.

The Smart Connector seamlessly integrates with telemetry of your vending machine.
It provides cashless clearance, monitoring, management and Business Intelligence.

Via our Cloud Management Platform you have real time insight on all aspects of your operation i.e. turnover, inventory, financial overview, machine monitoring, status alerts and reports.

Our Smart Connector enables mobile payments on your vending machines via scanning a QR-code.

As an extra option, you can add our RFID readers to accept transactions from all sorts of RFID badges like company-, campus- or school cards.
These can be linked to the users mobile payment account.

This manual will assist you in installing and configuring the KUARIO Smart connector and the vending machine to create a powerful KUARIO solution that we hope you will enjoy for a long time.

Kind regards,

KUARIO

Terminology

? Terminology

In this KUARIO manual words and compound words or multi-word expressions are used that might need some explaining or a more strictly defined definition than the term might otherwise suggest.
Those terms are defined here.

- KUARIO app

The KUARIO App is the app for end users. The app is to be recognized by the green KUARIO logo. (https://www.kuario.com/the-app/)

- KUARIO Service module in the KUARIO app

Trough the Service module KUARIO app a field service engineer is able to connect the automated self-service machines and link the KUARIO Pay Boxes in a quick & easy way.

- KUARIO account

The KUARIO account is your registration to the KUARIO platform of services. You can register your account via the KUARIO app (green logo).

- KUARIO site

A KUARIO site can be a location/environment or any group of KUARIO outlets. Sites can have a parent-child relationship.

- KUARIO product

A KUARIO product is a service or an item that can be delivered by a KUARIO outlet. This could be a service like printing an A4 document, or a pure physical item like a candy bar.

- Devices

An automated self-service machine (like a vending machine) that is connected to a KUARIO site.

- KUARIO outlet

A KUARIO outlet is synonymous to an automated self-service machine. This could be a combination of a device and a KUARIO Pay Box. The outlet delivers the products to the end-user and if configured as such, might handle payment for that product.

- KUARIO site manager

A KUARIO site manager is the person that is responsible for managing a KUARIO Site. The site manager can change prices and add products. The site manager is also the person that assigns field service engineers.

- Field service engineer

The field service engineer is the person who connects devices to KUARIO sites and configures them (turning these devices into KUARIO Outlets).

Requirements

Requirements

Before you begin with the installation, please make sure you are able to meet all of the requirements listed below.

Physical Products:

SKP.200700 - KUARIO Smart Connector (product box)

SKP.200703 - KUARIO Smart Connector VMC Cable

Other requirements:

- A valid KUARIO Manager account.
- The KUARIO User App (https://www.kuario.com/the-app/).
- Access rights for the service module in the KUARIO App.
- Internet Access.
- Access to the interior of the vending machine.
- A list of possible products and prices for the vending machine.
- These products must be available the KUARIO Manager. (To add new products, refer to your KUARIO Manager manual).
- Knowledge to which product goes on which position in the vending machine.

Box Content

Box Content

You require two KUARIO articles. In this section we define what should be in each article's package or box.

SKP.200700 - KUARIO Smart Connector (product box)

Contains

- SKP.200700 - KUARIO Smart Connector
- P551550 - Serial number sticker
- P257681 - Network cable 5m, Black
- P551590 - Download Instructions KUARIO Manuals
- P120663 - KUARIO QR Foils
- Adhesive Velcro pads

SKP.200703 - KUARIO Smart Connector VMC Cable

Contains

- SKP.200703 - KUARIO Smart Connector VMC Cable

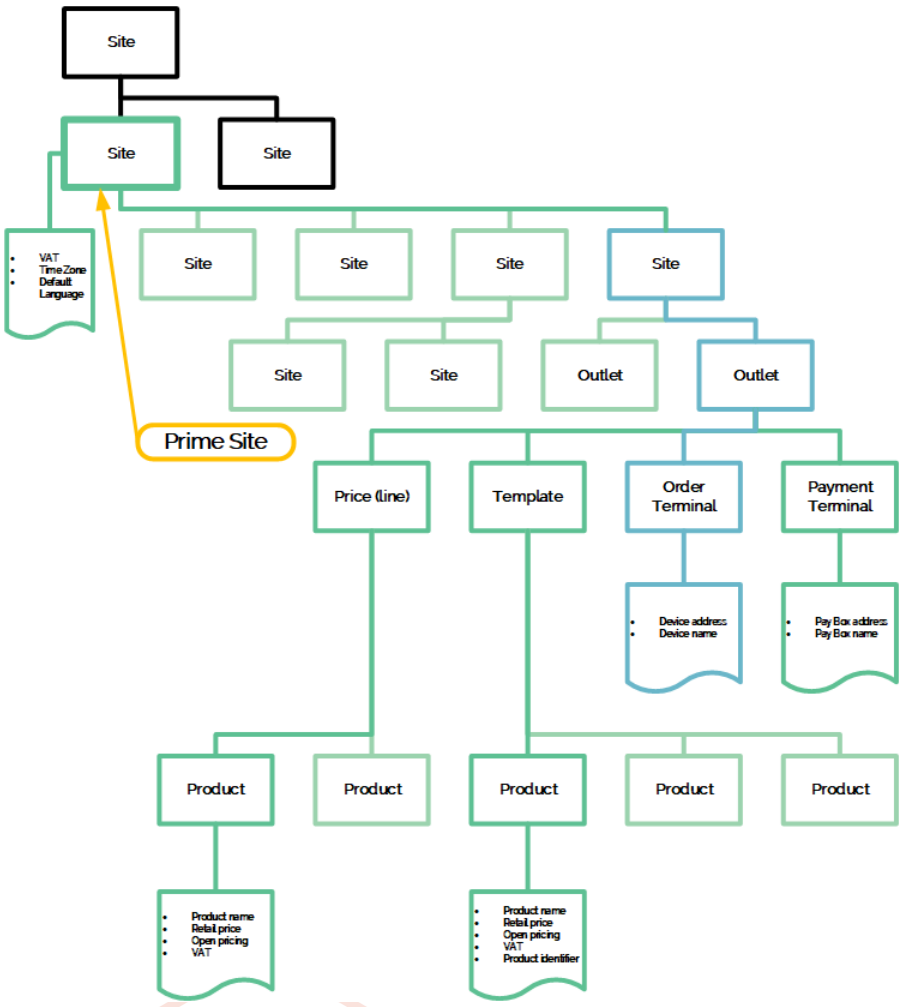
Architecture

Architecture

This is the KUARIO structure. It starts with a Site, this Site is always a child of another Site. The root Site is owned by KUARIO. The black Sites in the diagram are parent or sister Sites, in other words Sites you do not have access to. In order to better understand it, explore the structure using the KUARIO Manager.

Note: You do not have access to Sites above or on the same level as your 'Prime Site', the highest Site you have access to.

You do have access to every Site that is created as a child of you Site. In this manual we will act as if we are doing an installation on the blue site in the diagram.
Each Site can have an Outlet, each Outlet can have Price Lines, Templates, Order Terminals and Payment terminals. Lastly both a Price Line and a Template can have Products.



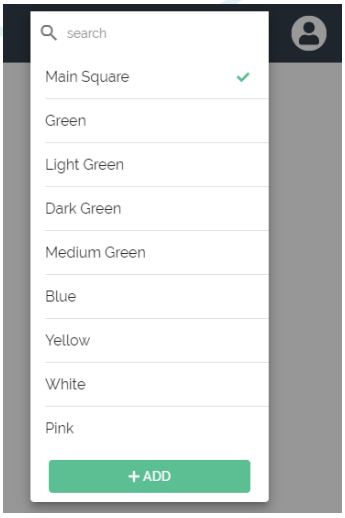
Installation

Installation

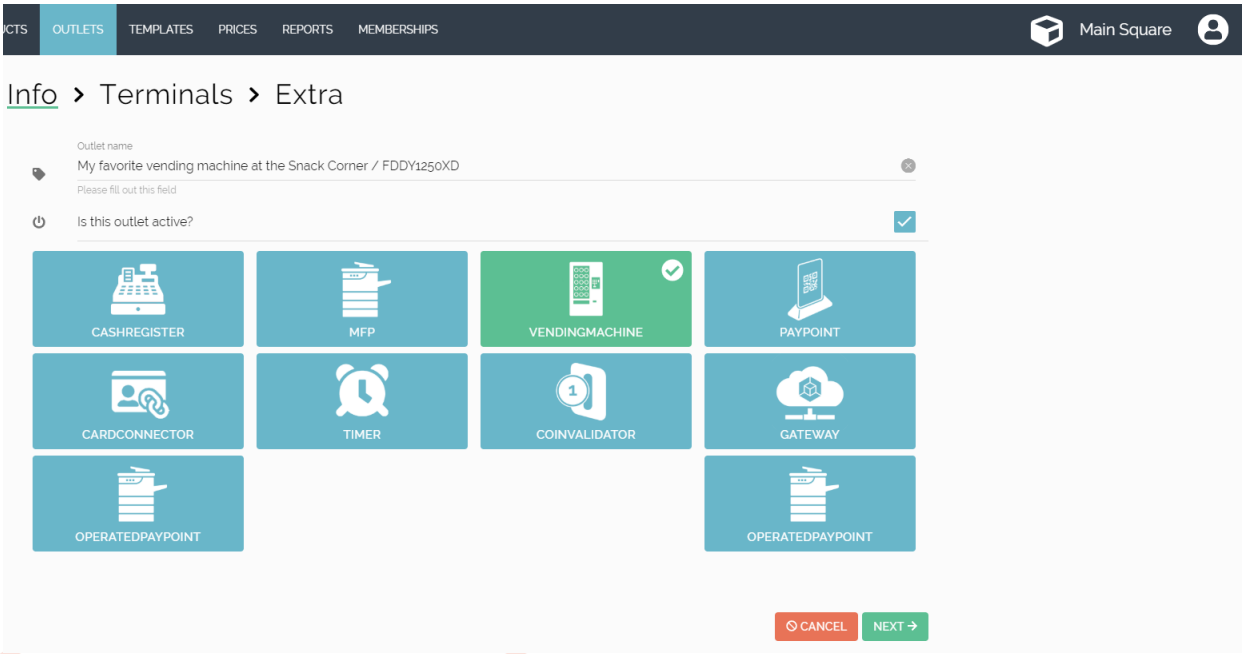
To install the KUARIO Smart Connector it must be able to connect to a KUARIO Outlet. An Outlet is the virtual version of the vending machine and a communication part

Create an Outlet in the KUARIO Manager (https://manager.kuario.com/).

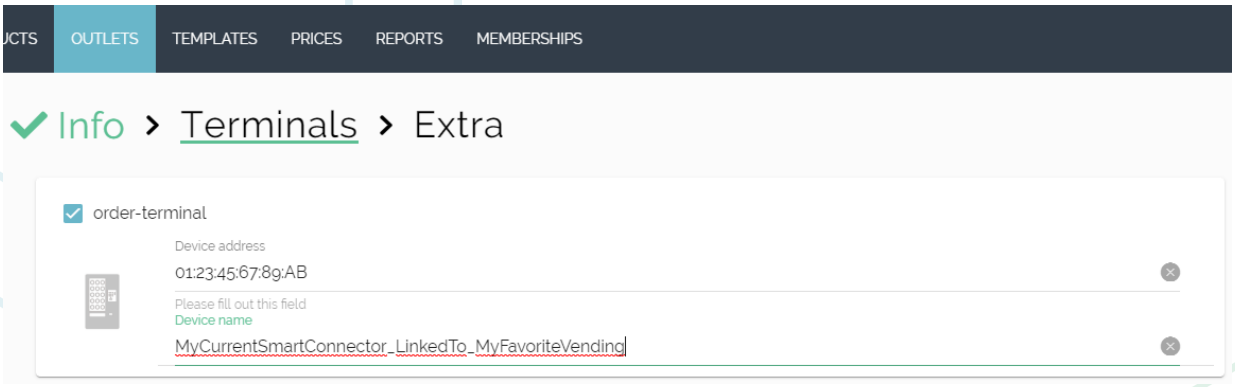
1. Select the KUARIO Site that has the vending machine on it's location.



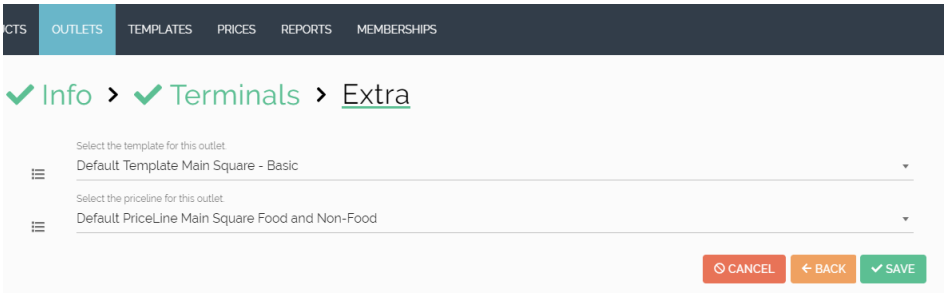
2. Name the KUARIO Outlet and click on the vending machine Icon.
3. Click NEXT → 'Next'.



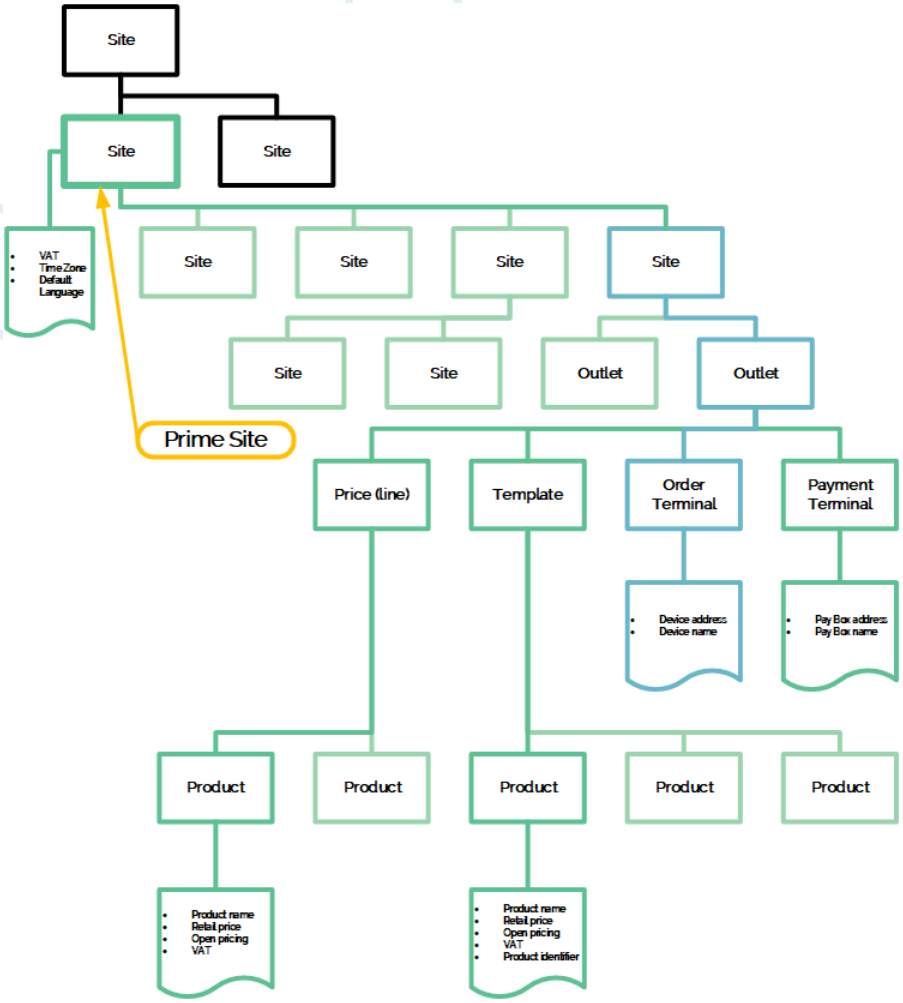
4. Check the box 'Order terminal'.
5. Fill out the MAC-address (It can be found on the sticker on the KUARIO Smart Connector. See: Where to find the MAC-address on page: 20)
6. Click NEXT → 'Next'.



7. At the 'Extra' settings a template or price line can be selected. Leave this to the default at this moment, and click ✓ SAVE 'Save'.

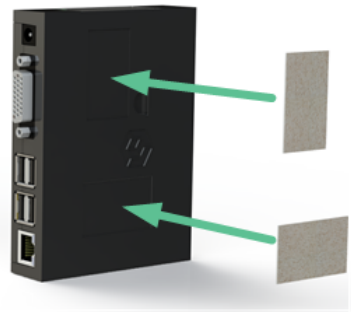


We have now linked the vending machine (an Order Terminal) to our KUARIO Site in the KUARIO Manager, as shown in blue in the image below:
Now we can make the physical connection.

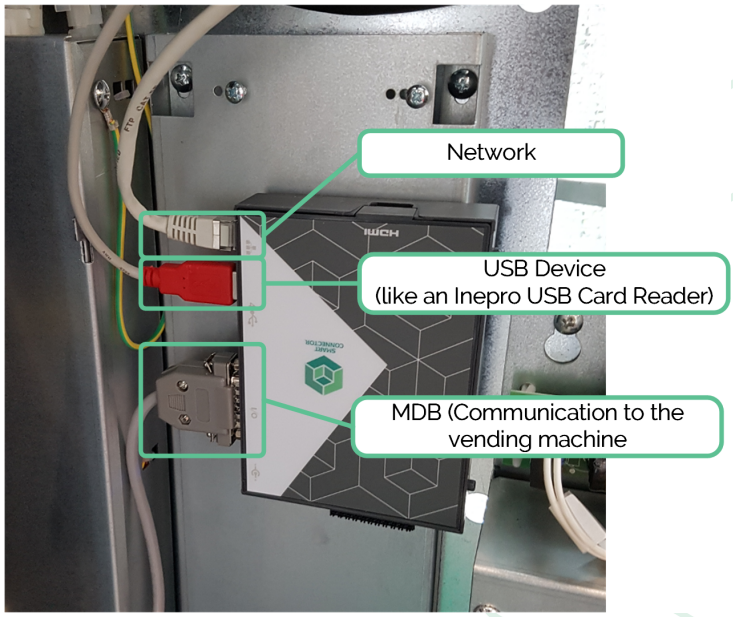


Physically connecting the KUARIO Smart Connector to the vending machine.

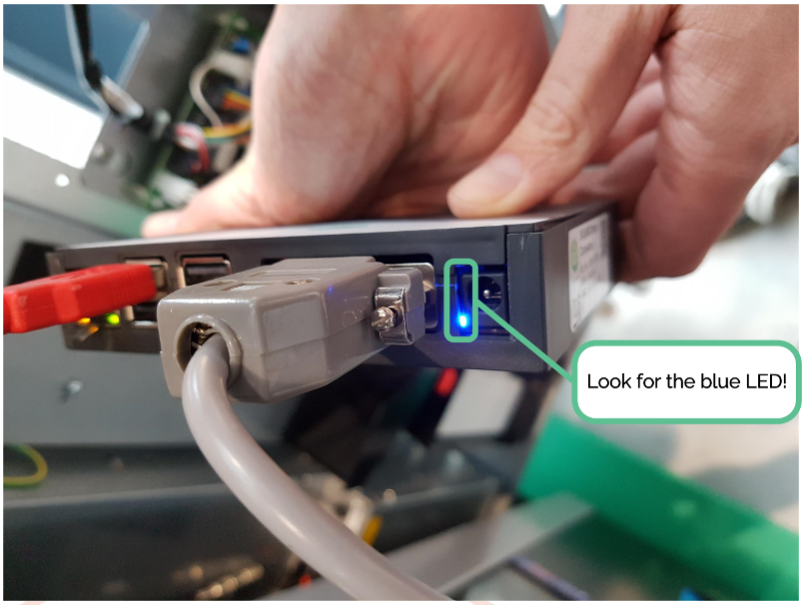
8. Attach the same KUARIO Smart Connector that you just linked in the manager, in the physical vending machine. Position it anyway you like (as can be seen in the images below), but the preferred alignment is that the text is readable, so with the HDMI connection at the bottom. Use the adhesive pads to attach the KUARIO Smart Connector to the interior of the vending machine.
   a. Connect the MDB Cable to the KUARIO Smart Connector and the vending machine.
   b. Connect the network cable in the same way.
   c. (Optionally) Connect attach and connect an Inepro USB Card reader, or any other Inepro USB Identification device (like a biometric reader).



Attach the adhesive Velcro to the KUARIO Smart Connector when mounting it.



If everything goes well you should hear two sounds after the start-up sequence, the start-up beep and a different beep. A blue LED will also be lit and can be seen through the slit near the power cable connector. This indicates that the KUARIO Smart connector is now connected to the vending machine.



Applying and linking the QR code Foils (Stickers) to the KUARIO Outlet

We will now link the terminal (the vending machine) with the KUARIO Outlet, using the QR foil as a KUARIO Terminal identifier.

9. Take the foils (P120663) out of the box, It has two small QR foils, 1 Medium and 1 Large.

The QR on these foils will be the identifier of this vending machine. With it KUARIO can know at which device your are trying to make a purchase.

Place the small QR on the KUARIO Smart Connector, to indicate that it is linked to this vending machine. This QR will be referred to as the KUARIO Outlet QR.	Place the large QR on the vending machine, it is used by the end-user to make a purchase.		The medium-sized QR is meant for the front plate. If a front plate is not used in your situation, you may also use it as a smaller size QR to place on your vending machine.

10. Open the service module in the KUARIO App. See 'Requirements 6'.
11. Scan the KUARIO Smart Connector QR code or lookup the KUARIO Outlet in the Outlet list.
12. Click 'Add KUARIO QR', and then scan the KUARIO Outlet QR code (any of the ones you just placed).

Note: If you are confused to which QR code is referred in the manual, please do not take a gamble, but refer to 'Which QR is what?'
to make sure you have the correct one.

Note: If an error message appears please retry first before referring to 'Troubleshooting' or contacting info@KUARIO.com.

Define product selection layout

1. Open the service module in the KUARIO App.
2. Scan de KUARIO Smart Connector QR code on KUARIO Smart Connector or select the KUARIO Outlet from the outlet list.
3. Go to 'Vending Machine Info'.

Note: If you do this for the first time, and your vending machine type is not known by KUARIO, a button is visible to define the product selection. If you do not see this button, your type is known and the product selection layout will be created for your vending machine automatically.

4. If a single button is visible, click this button. If that button is not visible, skip this process, your vending machine's type is already known..
5. Here the product selection layout can be defined. Define the maximum layout (like 10 columns x 5 rows) in which products can be selected.
6. Click Start.

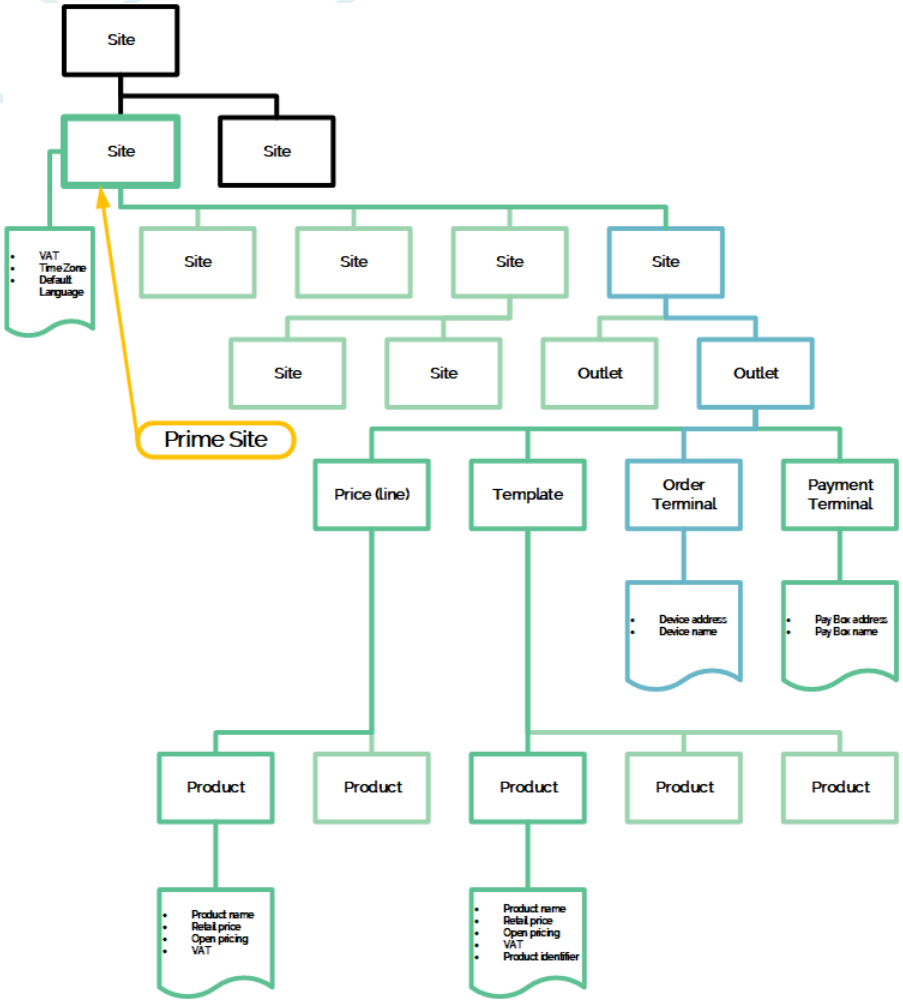
Note: De KUARIO app will now connect with the KUARIO Smart Connector and €10.- is send to the 'display'.

7. Check the vending machine to see if you have credit to spend, if not refer to 'Troubleshooting 18'.
8. Make a selection on the vending machine, start at the top-left.
9. Repeat the last step until all the possible product selection choices have been exhausted.

Configuration

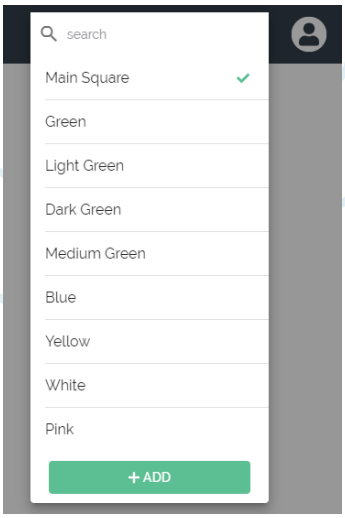
Configuration

Now that the vending machine is linked with the KUARIO Smart Connector, forming a KUARIO Outlet we need to setup the products and their prices. We need to let KUARIO know where these products are located in the vending machine.To do this we use KUARIO templates.

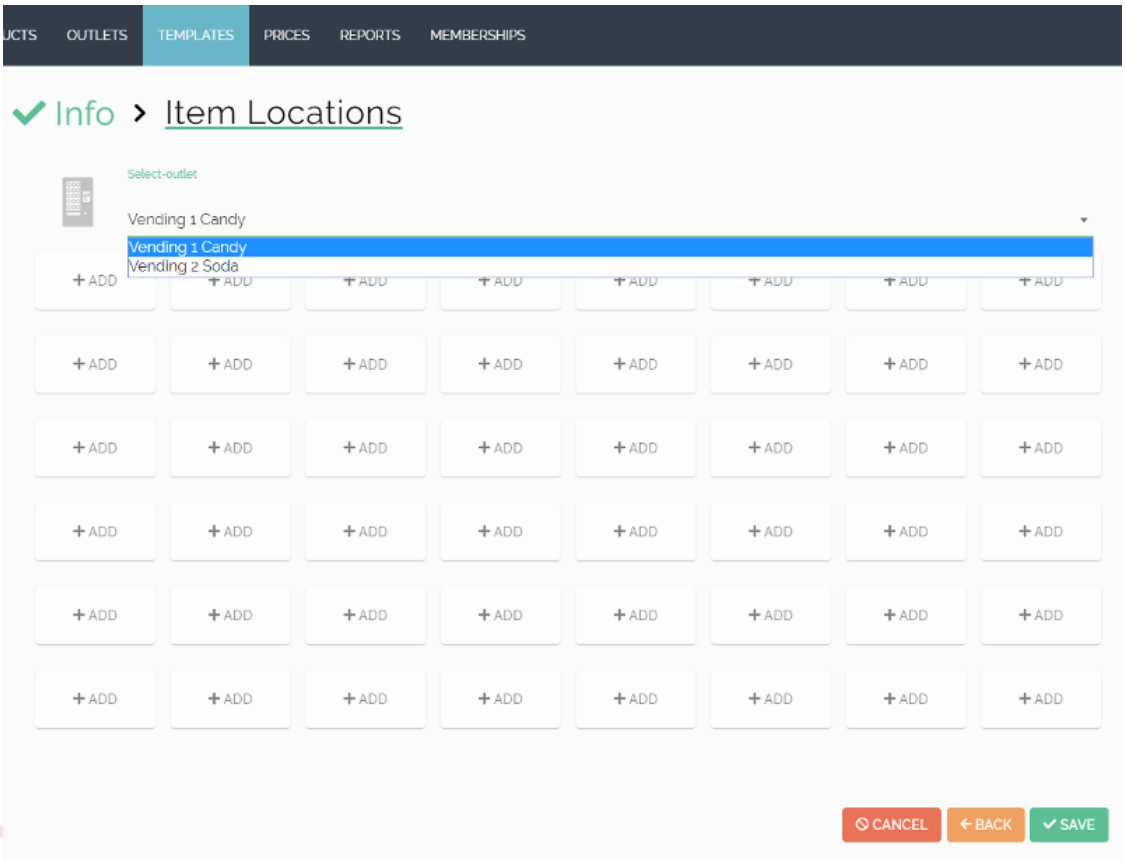


Create the KUARIO Template

1. Open the KUARIO Manager (https://manager.kuario.com/)
2. Select the KUARIO Site that has the KUARIO Outlet to which the vending machine is connected as KUARIO Terminal.

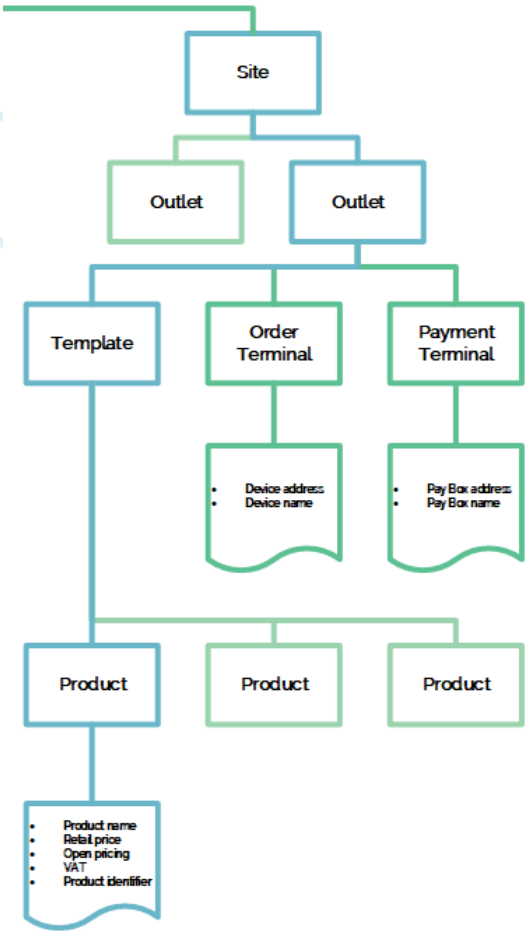


3. Click on 'Templates'.
4. Click 'Add'.
5. Give the 'KUARIO Template' a recognizable name, click the vending machine icon, and click NEXT → 'Next'.
6. Select the applicable KUARIO Outlet and fill the product layout with the correct products and prices.
7. Click 'Save'.

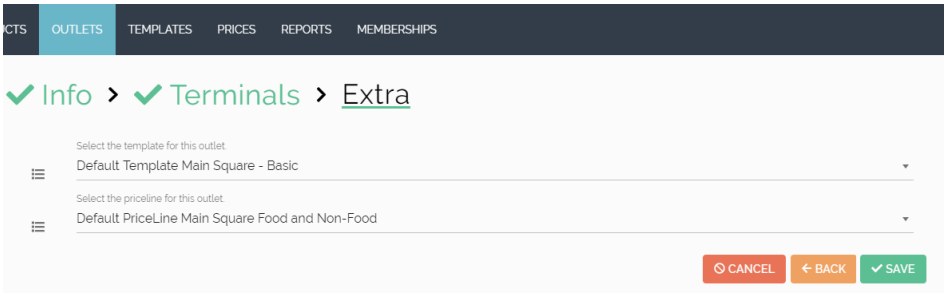


Link the KUARIO Template to the KUARIO Outlet

8. If it's not already open, open the KUARIO Manager (https://manager.kuario.com/
9. Select the KUARIO Site that has the KUARIO Outlet to which the vending machine is connected as KUARIO Terminal.
10. Go the KUARIO Outlet to which the vending machine is connected as KUARIO Terminal.



11. Click 'Next' twice, to enter the 'Extra' settings.
12. Select the KUARIO Template that you have created.



13. (Optionally) select a different price line for this KUARIO Outlet.

Testing

Testing

To make sure the installation was a success, please test it with a test purchase.

Make a test purchase

1. Open the KUARIO App and scan the KUARIO Outlet QR code of the vending machine.
2. Select a product and pay.
3. If the test was unsuccessful and the purchase could not be made, please refer to the 'Troubleshooting 18' section.

Troubleshooting

Troubleshooting

Sometimes things do not work out as expected, if so please read through this section before contacting your service organisation or dealer. Changes 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.

Symptom(s): I cannot pay with KUARIO at any KUARIO Outlet
Scope: All Devices
Prognosis: Devices have no power
Resolution: Restore power to the devices

A - Check if the site has power in the area(s) where the devices are located.
1) Check if the displays of the devices are lit.
B - Display of the vending machine is not lit.
1) Check if the power cables of the vending machine are connected and are are undamaged.
2) Check if the power outlet has power.

Prognosis: vending machines have no Internet access
Resolution: Restore communication to the vending machines

C - Check if there is Internet access on the site.
1) Check if the network cable is still connected.
2) Check if the network outlet has Internet access.

Symptom(s): I cannot pay with KUARIO at this KUARIO Outlet
Scope: One vending machine
Prognosis: vending machines have no power
Resolution: Restore power to the vending machines

D - Display of the vending machine is not lit.
1) Check if the power cables of the vending machine are connected and are are undamaged.
2) Check if the power outlet has power.

Prognosis: vending machine has no Internet access
Resolution: Restore communication to the vending machine

E - Check for connection issues.
1) Check if the network cable is still connected.
2) Check if the network outlet has Internet access.

Symptom(s): KUARIO Smart Connector beeps 2 times, every minute
Prognosis: No KUARIO access
Resolution: Restore communication to the KUARIO Smart Connector

F - Check if there is Internet access on the site.
1) Check if the network cable is still connected.
2) Check if the network outlet has Internet access.

G - Check if the switch might be defect
1) Circumvent the switch by either directly connecting or (temporarily) replace the switch.

H - Make sure MQTT traffic can contact KUARIO.
1) Make sure port 443 is open and free for KUARIO's MQTT messages.

Symptom(s): I have issue that is not addressed in this manual
Scope: All Devices
Prognosis: The issue cannot be solved without KUARIO Support
Resolution: Contact KUARIO Support

I - Gather the device ID's.
1) Write down the MAC-address(es) on the KUARIO('s) that have the issue. See 'Where to find the MAC-address 20' to find the MAC-address.

J - Mail KUARIO Support for help.
1) Send an email to support@KUARIO.com, include the MAC-address and a short report of the issue, what does work, what does not work or work differently than expected.

Appendix A: Where to find the MAC address?

Where to find the MAC address?

The MAC-address can be found on the serial sticker at the small upper side of the KUARIO Smart Connector, (See image below for the orientation and location details).

Appendix B: Which QR is what?

Which QR is what?

As there are two QR codes on the KUARIO Smart Connector, one might be confused. This section is to make sure, you know which is which.

This QR is the KUARIO Outlet QR

This QR is the KUARIO Smart Connector QR

Notes

Notes

This area is meant for the reader's notes: