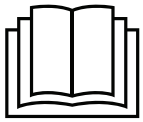
Installation manual

OnE Connected platform — Wi-Fi solution

Provisioning / For the owner of a Self Service Laundromat



Electrolux PROFESSIONAL

438917976AA/GB, IE
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Original instructions

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The manufacturer reserves the right to make changes to design and component specifications.

1 Network overview

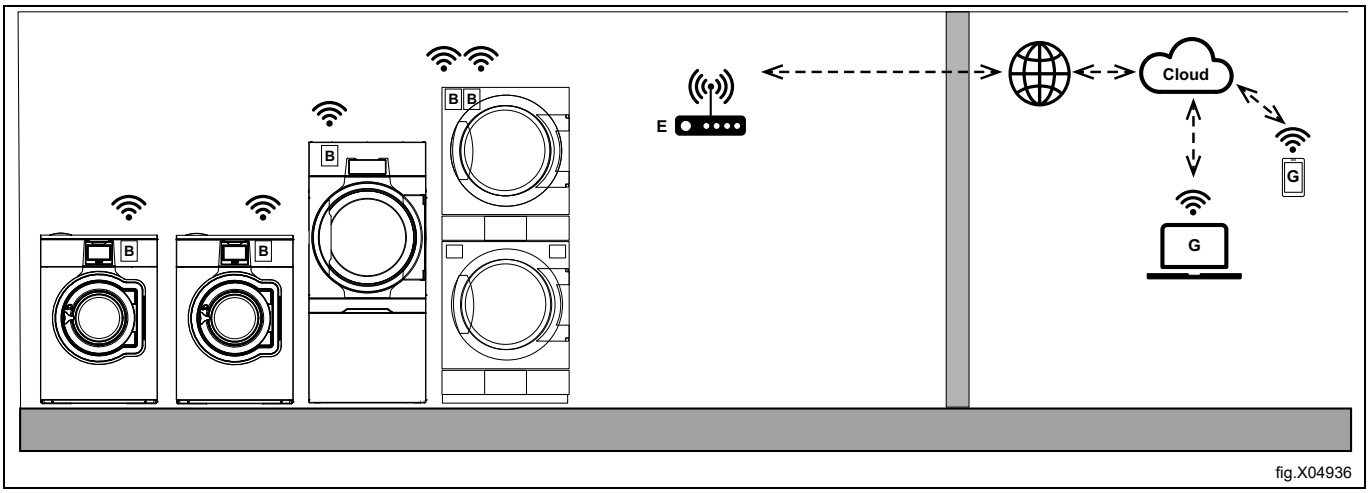
To be able to use Electrolux Professional provided Connectivity and Management Software Tools, ELS network should be established.

The Machine wireless board is a part of ELS Network, it should be installed on each machine with Compass Pro/Clarus Vibe control system or Vibe interface and it shall be connected to the CPU RS232 port via a quick connection port behind or on top of the machine.

The Machine wireless board is designed to be connected to Wi-Fi.

Network details:

- Machine wireless board on each machine (B)
- A Wi-Fi router/or an access point 2.4GHz (E)
  Reference to Appendix section for the example of configuration with UniFi AP.
- Web application (G)



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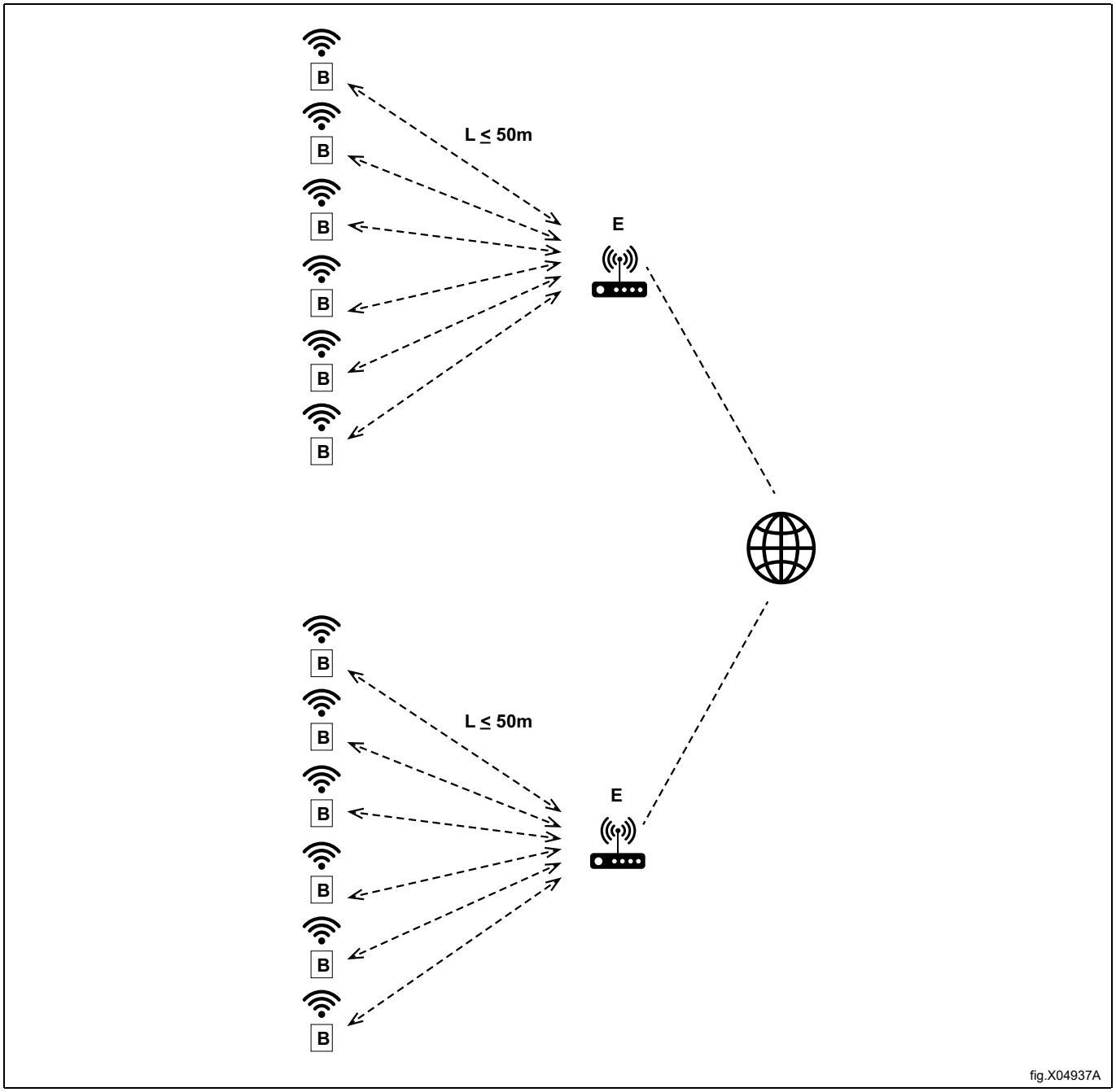
1.1 Wi-Fi network

- A Wi-Fi router/or an access point 2.4GHz (E)
- Machine wireless board on each machine (B)



Note!

Generally, a standard Wi-Fi router can cover/distance (L) an indoor range of approximately 30 to 50 meters (about 100 to 165 feet).

In open outdoor or open hall environments, the communication range might be longer, but the actual distance can vary depending on the specific performance of the Wi-Fi module being used.

These values are theoretical and depend on the room layout, the presence of walls or other kind of obstacles interfering with the radio signal. For a better access point positioning in more complicated layouts it is better to use radio propagation simulation tools.

2 User roles and portal features

The following table maps the OnE Connected portal features according to each predefined user role available on the platform.

The predefined user roles and the “Hierarchy level" are the following:

- Customer care, only for EPR users = **20**
- Support = **30**
- Tech Service Engineer = **40**
- FW engineer = **50**
- Distributor = **60**
- Fleet manager = **70**
- Site manager = **80a**
- Store owner = **80b**
- Basic user = **90**

Cloud name	Feature description	20	30	40	50	60	70	80a	80b	90
PortalAccess	Login to the portal	x	x	x	x	x	x	x	x	x
ViewSites	Access to the site overview page	x	x	x	x	x	x	x	x	x
ViewAlerts	View & manage alerts and download alert log	x	x	x	x	x	x	x	x	x
GatewayTroubleshooting	Manage IoT boards (firmware update of wireless board)	x	-	x	-	-	-	-	-	-
RecipeManagement	Manage recipes and programs	x	x	-	-	-	x	x	-	x
DeviceManagement	Access to the machine overview page	x	x	x	x	x	x	x	x	x
ViewAnalytics	View site analytics	x	x	-	-	x	x	x	x	x
ViewAdministration	Access administration page	x	x	-	x	x	x	x	x	-
UserManagement	Able to manage the list of the user and role	x	x	-	-	x	x	x	x	-
OrganizationTreeManage-ment	Able to manage the list of organization tree	x	-	-	-	x	-	-	-	-
LaundrySiteCreation	Able to create a laundry OPL site	x	-	-	-	x	-	-	-	-
SitemapEditing	Site map management	x	-	-	-	x	x	x	x	-
AddManageAppliances	Add and manage appliances	x	-	-	-	x	-	-	-	-
LaundryCoinCreation	Able to create a laundry coin site	x	-	-	-	x	-	-	-	-
ManageOrganizationVisibility	Able to change the visibility of an org/site	-	-	-	-	x	-	-	-	-
ViewCoinReport	Access to coin report	x	x	x	x	x	x	x	x	x
Migration	Possibility to Upload and Delete Report files coming from the old connectivity system	x	-	-	-	-	-	-	-	-

- x = Yes, this feature is available for the predefined user role.
- - = No, this feature is not available for the predefined user role.

The "Hierarchy level" meant as capability of that role to invite other users. For example, a site manager (hierarchy value = 80) should not be able to invite a Customer care hierarchy value = 20) s a new user. The site manager can invite a Basic user (hierarchy value = 90).

3 System requirements

- Min. requirements for commercial router:
  - Alt. 1: Wi-Fi router access point 2.4GHz, it is recommended to avoid having both 2.4Ghz and 5Ghz sharing the same SSID.
- Min. requirements for internet connection with indication of port used:
  - Internet connection for Cloud connection.
  - up to 50 devices: 10 Mbps
    51 to 100: 40 Mbps
    101 to 200: 70-100 Mbps
    200+: 100+ Mbps
  - Network Firewall
    The Internet connection must be allowed outbound traffic on port
    - 8883 (MQTTS, tcp): `mqtt.eprlc.com`, `*.azure-devices.net`
    - 443 (HTTPS, tcp): `ipapi.co`, `portal.eprlc.com`, `*. azure-devices.net`, `api.iot.epr-apps.com`, `*.blob.core.windows.net`
    - 123 (NTP, udp): `pool.ntp.org`

    These ports used to send the data to the cloud. Be sure to properly setup your Network Firewall or protection system in your network if necessary

- Dedicated Network: A unique SSID (network name) and password must be created exclusively for the IoT solution.
- SSID Visibility: The SSID should be hidden (not broadcast) to prevent unauthorized connection attempts.
- Wi-Fi Channel: Use channel 6 or 11. Channels 1, 6, and 11 are non-overlapping, but channel 1 is often congested by other devices (e.g., PCs, phones, cameras).
- DHCP Service: The network's DHCP server must be configured to automatically assign IP addresses. The available IP address pool must be large enough to support the total number of installed devices.
- Signal Coverage: A good (min -65 dBm) and consistent Wi-Fi signal must be available throughout the entire installation area.

4 Installation and provisioning

4.1 Login

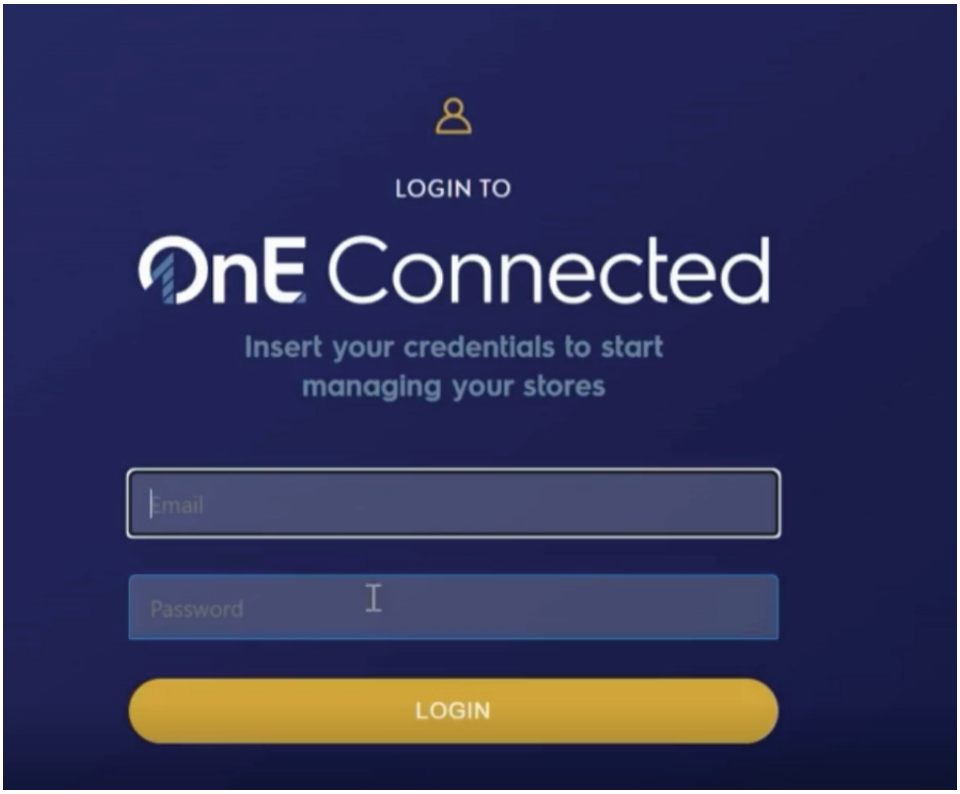
4.1.1 How to log in as an external user

Make sure you have got an invitation to OnE Connected platform in your e-mail.

- Open the e-mail and click on “Accept invitation”.
- You will now be asked to set up a password. Make sure to set a password matching the rules.
- When the password is set make sure to accept the terms and conditions by ticking in the box.
- Click on “Register”.

You will now be directed to the OnE Connected log in page.

- Log in with your e-mail ID and the set password.



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- Next time you shall log in you can use the URL-addres: **https://oneconnected.epr-apps.com**

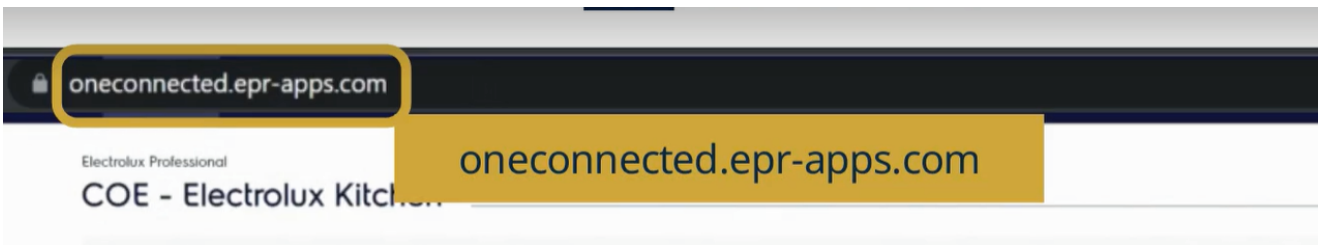


fig.X03165

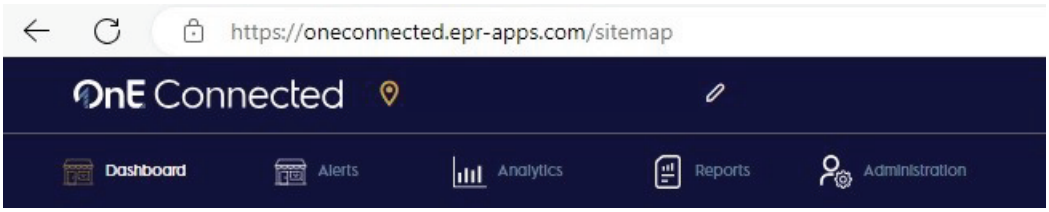
4.1.2 How to log in as an internal user

Here the definition of “internal user” is a user that already have an Electrolux Professional account and use this account to login on his laptop.

Thanks to this login and the Single-Sign-On feature, the OnE Connected platform is able to authenticate this user without asking for a new password.

Make sure you have got an invitation to OnE Connected platform in your e-mail.

- Open the e-mail and click on the provided link.
- You will now be directed to the OnE Connected platform.
- Select location from the list on the screen.
- Next time you shall log in you can use the URL-addres: **https://oneconnected.epr-apps.com/epr**



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4.2 Administration

4.2.1 Organization tree

The organization tree is a logical representation of the organization hierarchy, with suppliers (dealer, distributor or service partners), customers, groups and sites.

The tree creation is controlled by a hierarchy that defines which type of level you can add, based on the level where you are.

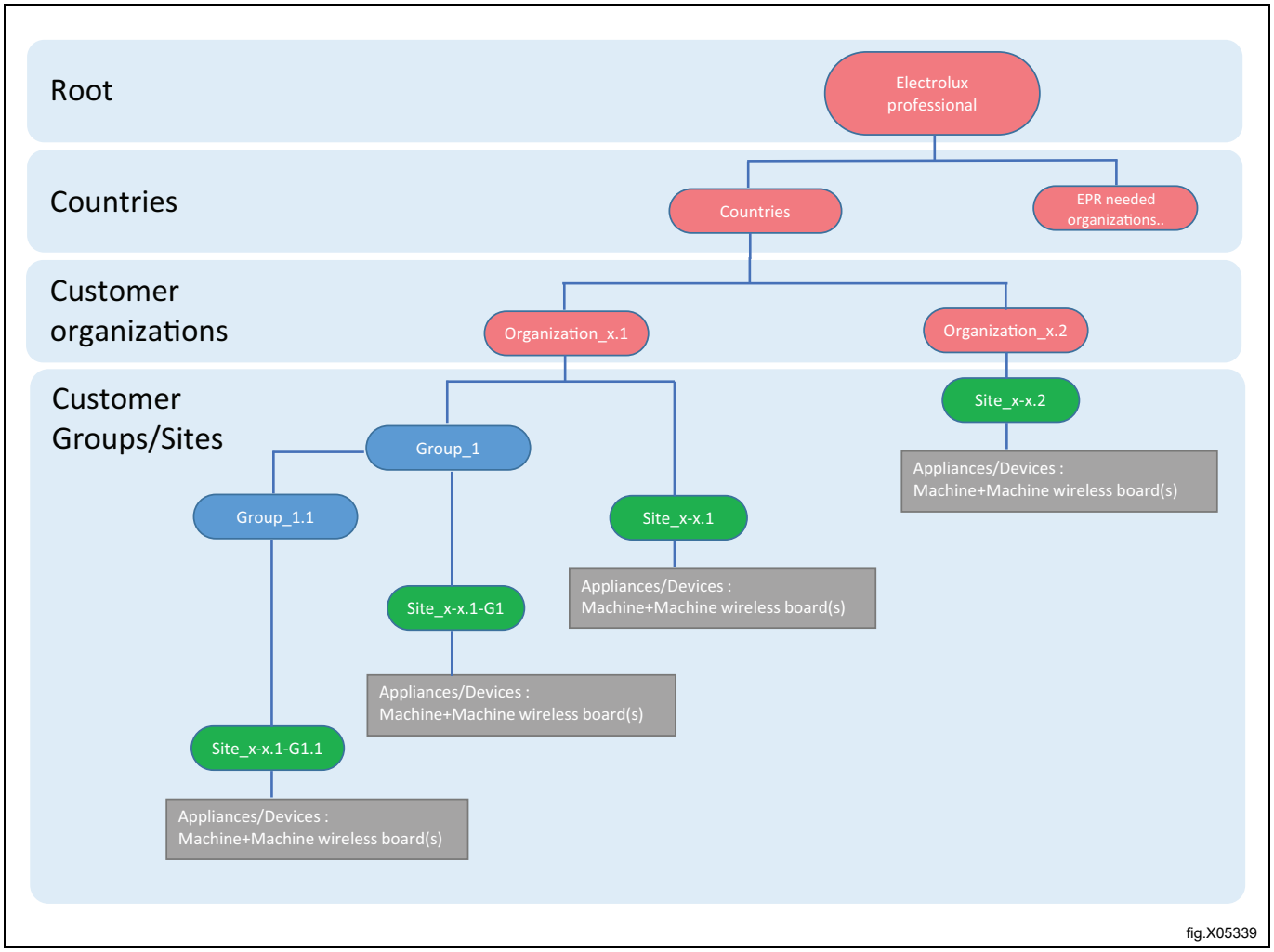
Rules for tree creation

1. The root is Electrolux Professional and this is fixed by the administrator.
2. The first level of organizations refer to a specific country or to EPR needs.
3. The second level of organizations contains the customers organization.
4. The third level of organizations contains customer groups or sites.

Under Group, if you want to create another level, you can only add other Groups or Sites (not Organizations). Appliances cannot be provisioned to groups.

The Appliances/Devices can only be added to Site.

The following illustration shows an example of an organization tree:



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Creation of the Organization is the first step of creating the organization tree.

The process to create the Organization is explained in the section: Create and manage the Organization. The organization tree is created after creating the Organization.

4.2.1.1 Create and manage the Organization

To create an Organization, you must have permission to create and manage the organization tree in that Organization.

When you shall add a new Organization, you must do the following steps:

- Click on the Organization you want to create a sub organization under (1).
- Click on the Organization tree in the Administration tab (2).
- Click on the 3 dots and click on "Add new level". (You will be redirected to the “Create new” page) (3).

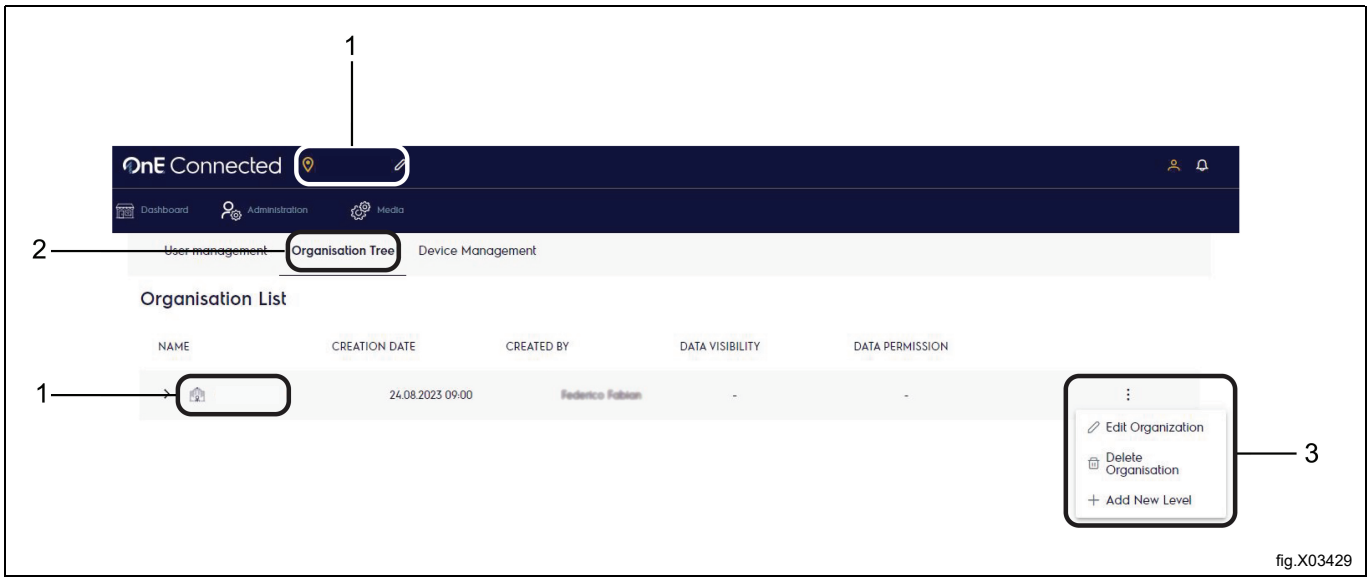


fig.X03429

- In the type drop-down, click on "Organization" (4).
- Continue to fill in the fields and note that the mandatory fields marked with "*" must be filled in (5).
- Click on “Save and add level” (6).

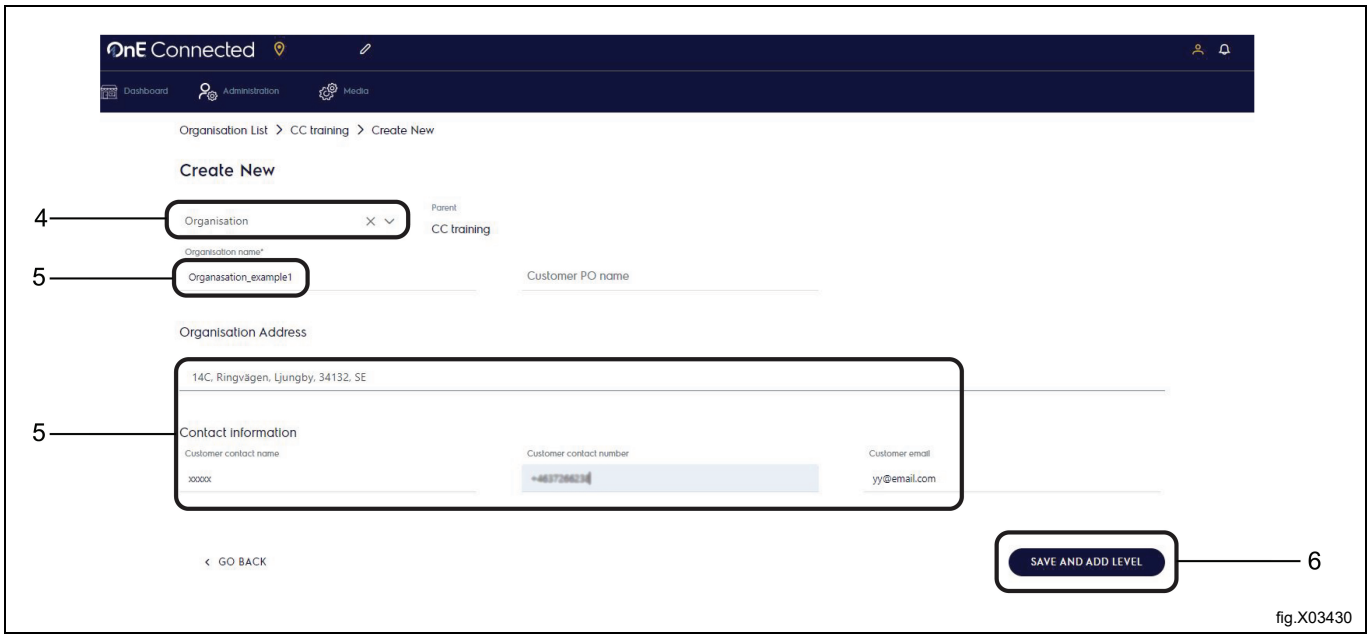


fig.X03430

- The created Organization can be edited, deleted or added a new level by clicking at the 3 dots in the Administration/Organization tab.

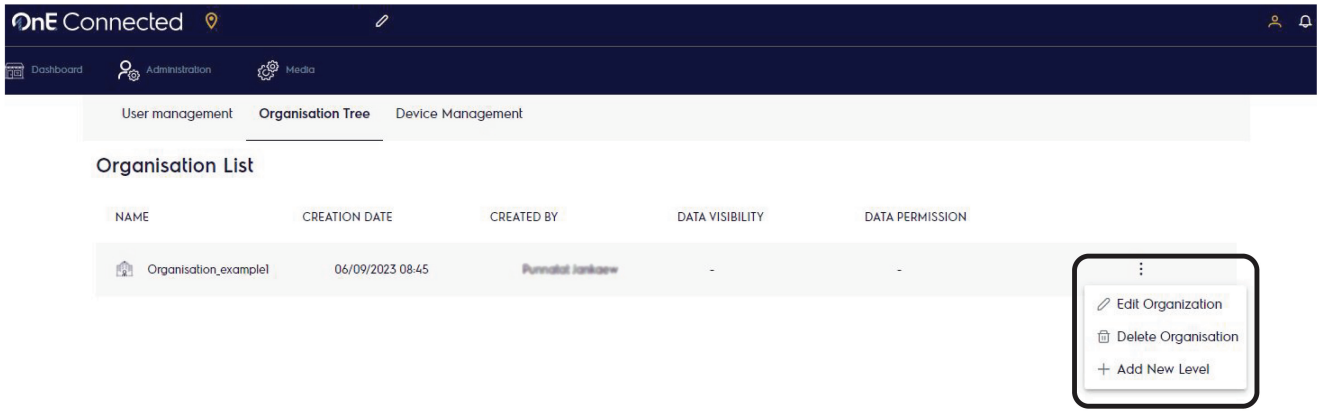


fig.X03431

4.2.1.2 Create and manage the Group

Groups are sub-levels associated with the parent group and can be used by customers who wish to build a hierarchy system. They are an optional entity in the organization tree. Any number of groups can be added to an organization. A Group can be associated only to 1 Organization or Group. When you add a Group, you are required to fill in some information. To see a list of all attributes associated with "Group". Once the Group is created, you should be able to view and edit the group information or delete the Group at anytime. Groups can for example be; name of countries, regions, cities, etc.

To create a Group, you must have the permission to create and manage the organization tree in that Organization.

When you shall add a new Group, you must do the following steps:

- Click on the Organization you want to create a Group under (1).
- Click on the Organization tree in the Administration tab (2).
- Click on the 3 dots and click on "Add new level". (You will be redirected to the “Create new” page) (3).

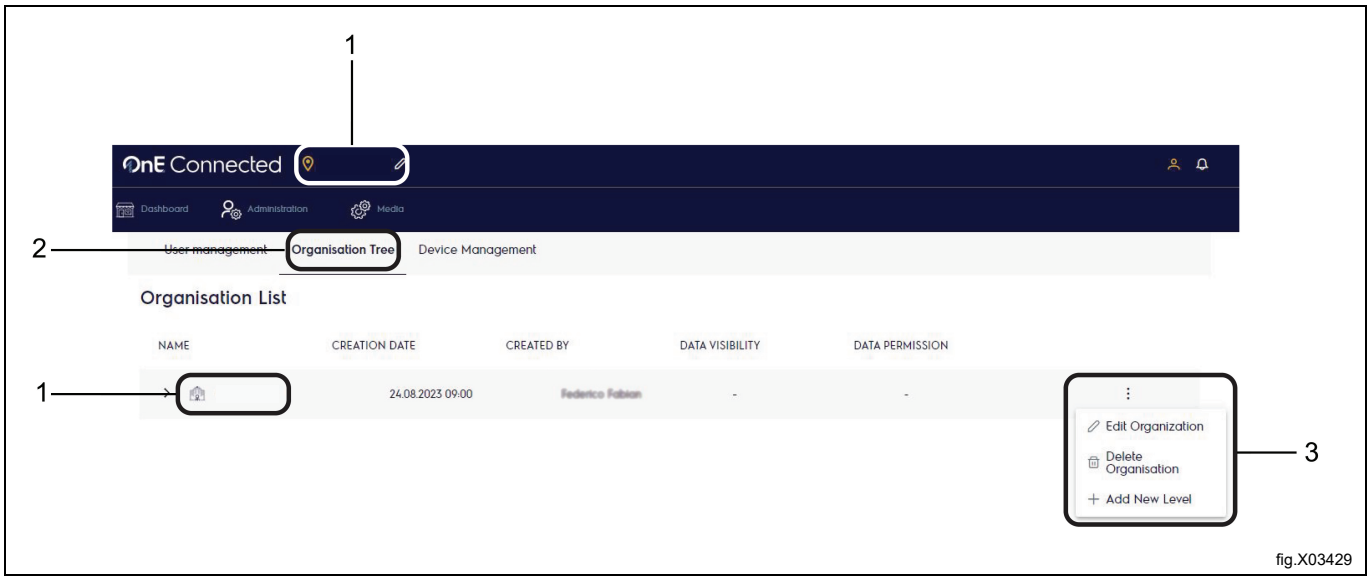


fig.X03429

- In the type drop-down, click on "Group" (4).
- Continue to fill in the fields and note that the mandatory fields marked with "*" must be filled in (5).
- Click on “Save and add level” (6).

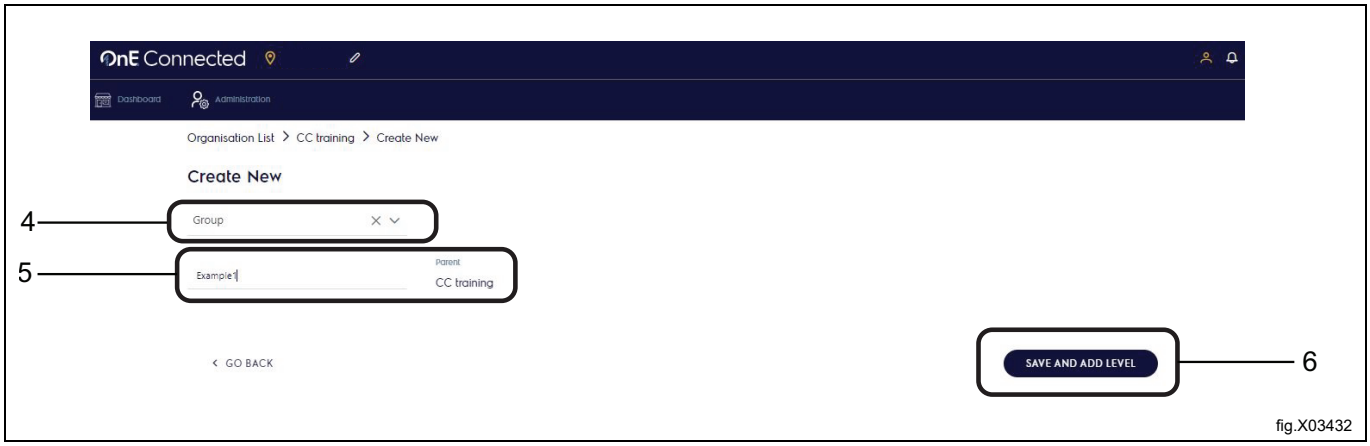


fig.X03432

- The created Group can be deleted or added a new level by clicking at the 3 dots in the Administration/Organization tab.

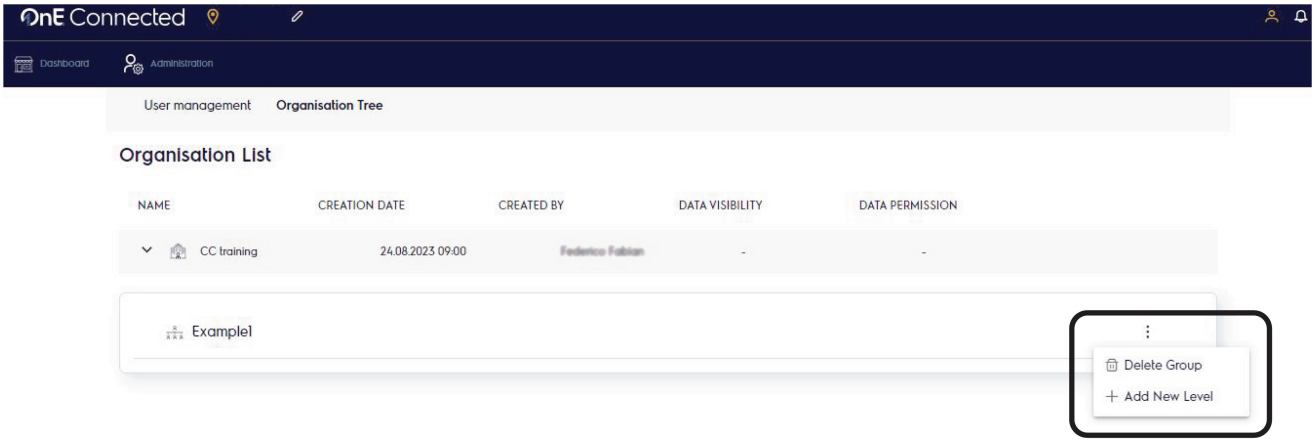


fig.X03433

4.2.1.3 Create and manage the Site

A Site can be added under a Group or under an Organization tree.
The devices can only be added to the site.
When you shall add a new Site, you must do the following steps:

- Click on the Organization you want to create a Site under (1).
- Click on the Organization tree in the Administration tab (2).
- Click on the 3 dots and click on "Add new level". (You will be redirected to the “Create new” page) (3).

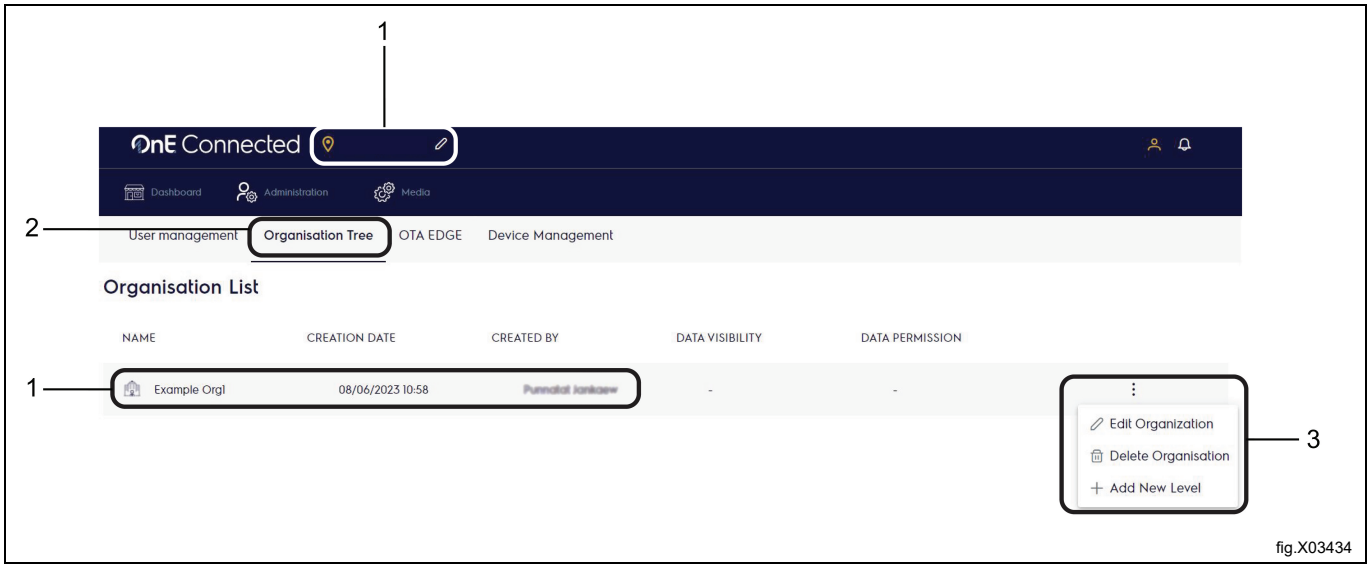


fig.X03434

- In the first drop-down menu, select “Site” and then select the “Laundry site” type (4).
- In the Installation type, select the "Wireless installation" (5).
- In the Laundry type, select the "Coin Operated Laundry" type (6).
- Continue to fill in the fields and note that the mandatory fields marked with "*" must be filled in (7).

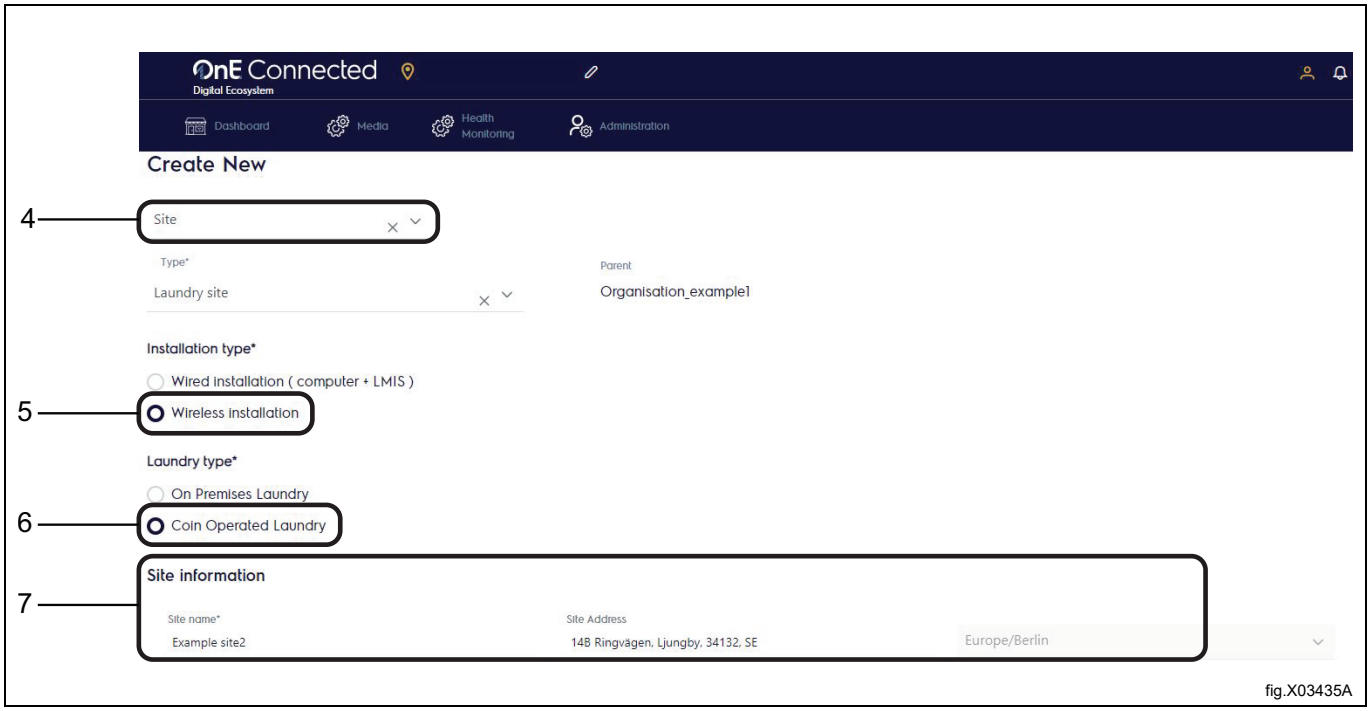


fig.X03435A

- Regarding the “Business hours”, select or fill in a customized business or open hours (8).

  Note!
  It is not possible to mark “Open 24h” / “Closed” and then fill in a customize business time. If a customize business time is to be set, those boxes need to be kept unmarked.
- Click on “CREATE” (9).

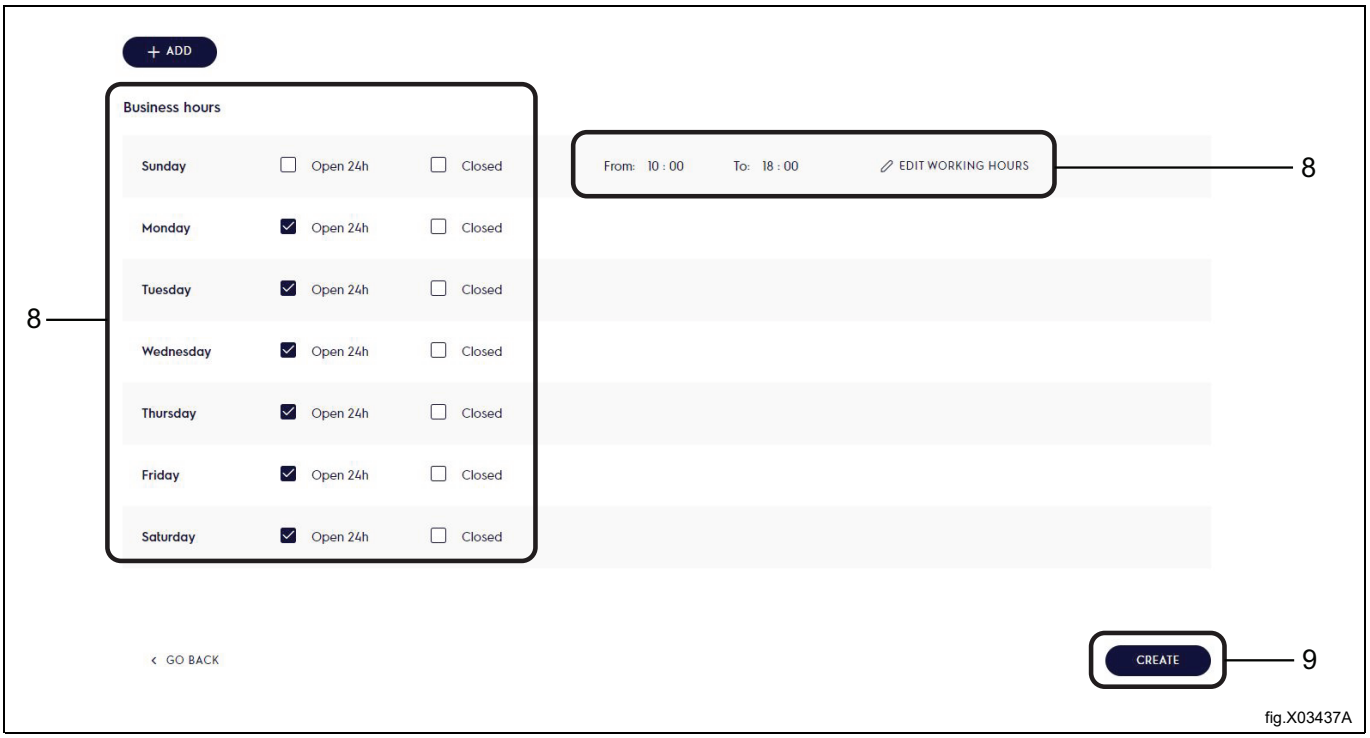


fig.X03437A

- The created Site can be edited or deleted by clicking at the 3 dots in the Administration/Organization tab (10).

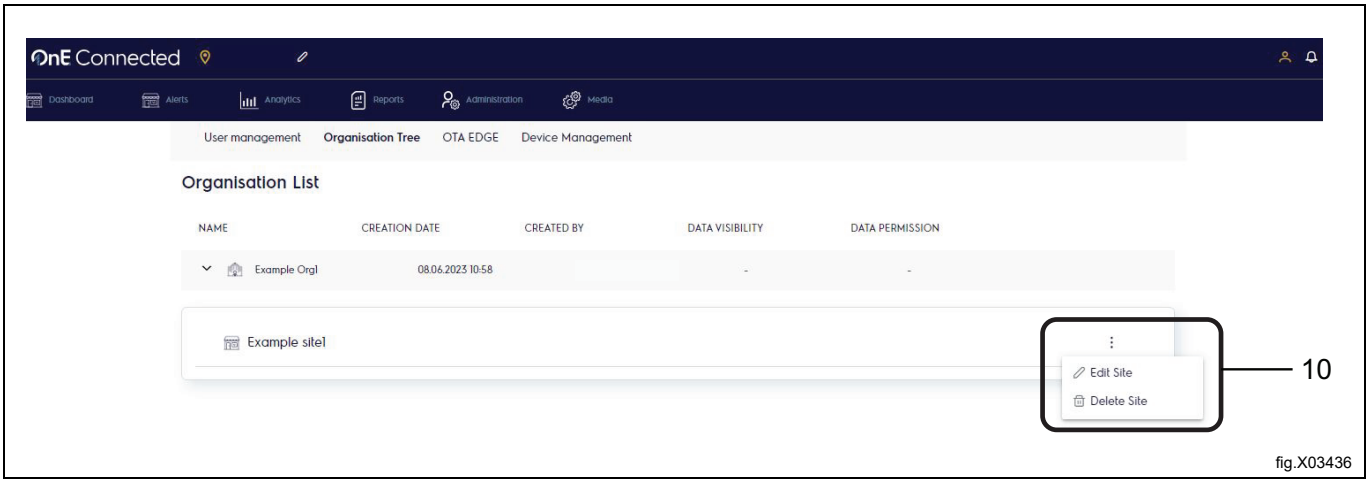


fig.X03436

4.2.2 Invitation process / add a new user

Make sure you have opened the OnE Connected platform.

Click on the location icon and choose a location where the new user should be added to (1).

- Click on the Administration tab (2).
- Click on the User management tab (3).
- Click on “ADD USER” to start the invitation process (4).

The following illustrations in the following instructions are just examples.

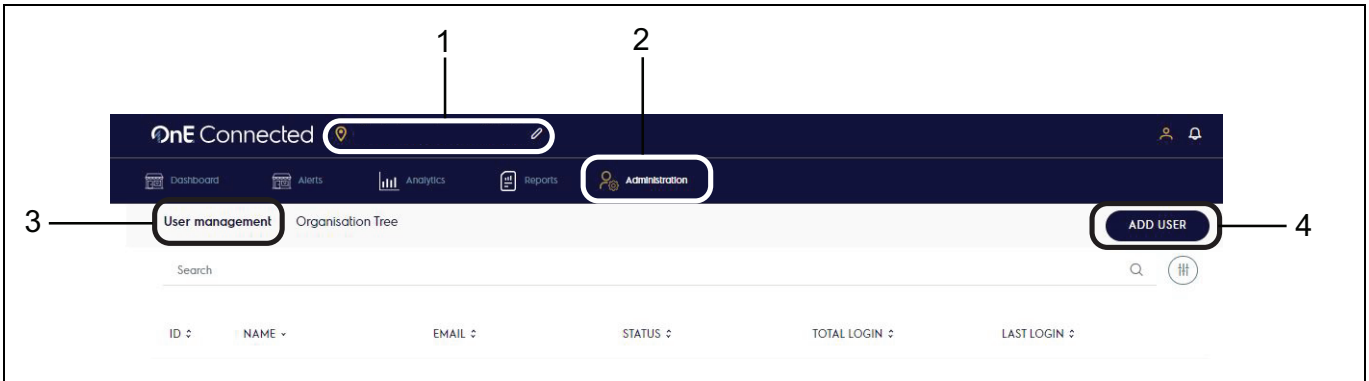


fig.X03427

- Fill in the fields and note that the mandatory fields marked with “*” must be filled in. It is also possible to select in which language the invitation shall be send.
- If the user shall have more than one role you can simply add more by clicking Add role and select from the drop down list. (For more information about the roles, please refer to the section: “User roles and portal features”.
- When ready, click on “SEND INVITATION”.

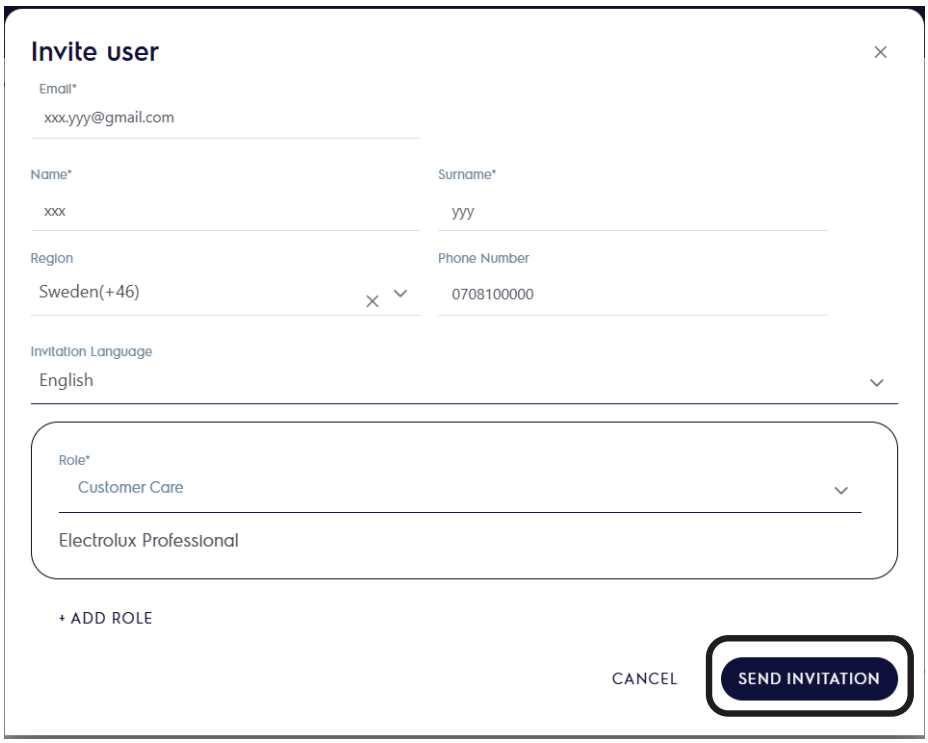


fig.X03163A

- The invitation to OnE Connected platform has now been send to the specified user who will receive an automatic e-mail and can log in to your system.

4.3 Provisioning

In order to be provisioned the MWB must be connected to the local Wi-Fi.

By default, the MWB tries to connect to the Wi-Fi using the default Electrolux Professional's Network name (SSID): **EluxDefaultIoT** with password **Ed123!@#** when the MWB has been connected with the appliance and has powered on.

Also by default, the MWB has the BLE on before it has been provisioned.

There are two options to have the MWB which is connected to the appliance online.

1. **Provisioning via OnE Connected App.**
   Using this method, the provisioner connects to each appliance via MWB (while its BLE is on) one by one and Set-up the appliance connectivity using the OnE Connected app.
   Using this option means changing the Network name (SSID) & password of the MWB to be the same as the Network name (SSID) & password of the access point or the router via the BLE one by one.

   Note!
   To be able to do this, the OnE Connected app must be installed on the mobile and the log-in user as the provisioner(e-mail) must have been registered as a Technician user in the OnE Connected app database.
   See more detail in **OnE Connected app** section.
2. **Temporarily change the Network name (SSID) & Password of the router/access point then provisioning via the OnE Connected web portal.**
   With large installations with more than several machines, it is quicker to use this option because it avoids connecting via the BLE to each machine that's time consuming.
   This method will temporarily change the **Network name (SSID) & Password** of the router/access point to be the same as the default Electrolux Professional's SSID: **EluxDefaultIoT** with password **Ed123!@#**, after a batch of all appliances are automatically connected via Wi-Fi or online, then after the provisioning of all those machines have been done, a batch of MWB their **Network name (SSID) & Password** can be changed to be the default **Network name (SSID) & Password** of the router from the web portal. then **Network name (SSID) & Password** of the router/access point can be changed back to its default to get whole appliances are online again.

   Note!
   To be able to temporarily change the Network name (SSID) & Password of the router/access point of a laundry site, the IT administer of the laundry site may be required or the agreement has been approved/ allowed.
   If any appliances are being connected to the router/access point, those appliances will be temporary disconnected during you temporarily change the Network name (SSID) & Password.
   Those appliances will reconnect after you change back the Network name (SSID) & Password as its default.

4.3.1 Provisioning via OnE Connected App

Using this method, the provisioner connects to each appliance via MWB (while its BLE is on) one by one and Setup the appliance connectivity using the OnE Connected app.

Using this option means changing the SSID & password of the MWB to be the same as the SSID & password of the access point or the router via the BLE one by one.

Note!

To be able to do this, the OnE Connected app must be installed on the mobile and the log-in user as the provisioner(e-mail) must have been registered as a Technician user in the OnE Connected app database. See more detail in OnE Connected app section.

Note!

By default, the MWB has the BLE on before it has been provisioned.

Make sure the BLE is on otherwise a short press on the service button of the MWB is required.

- Open and Log-in the **OnE Connected** app on your mobile (1).
- Click on the "OnE Connected Sites" menu (2).

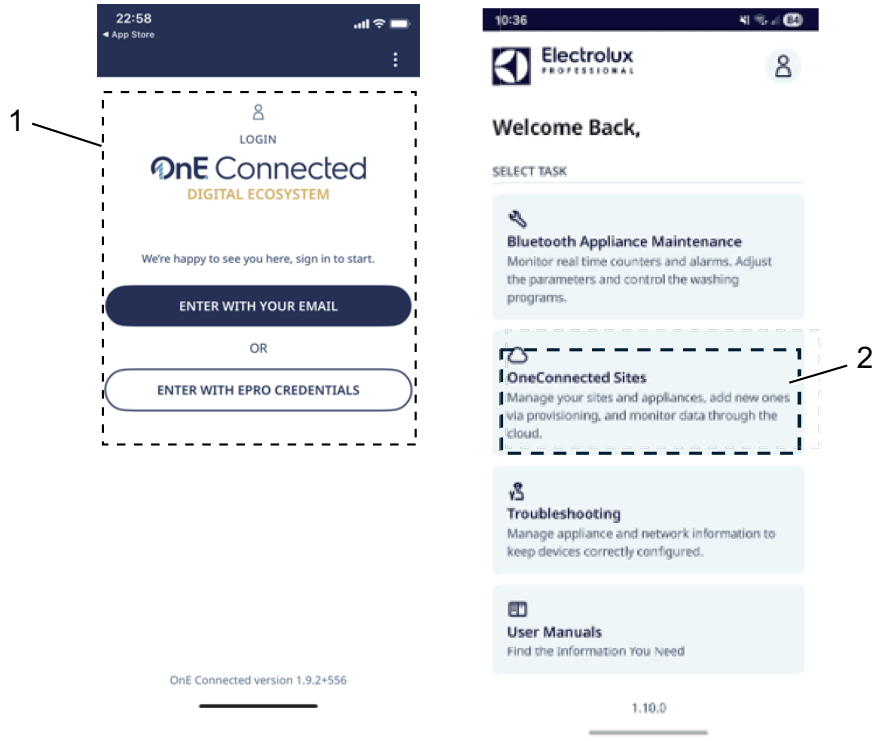


fig.X05249

- You can use the “Search menu” to find out and then select your dedicated laundry site.

  Note!

  Your user (e-mail) must has been invited/added into that laundry site (or that organization).
- Select the dedicated laundry site (3).

  The following illustrations in the following instructions are just examples.

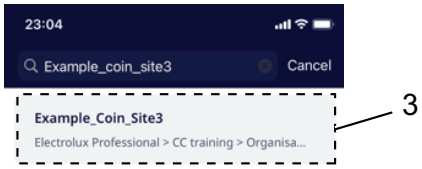


fig.X05250

- Select "APPLIANCES” (4).
- Select "ADD APPLIANCE” (5).

fig.X05251

- Identify the appliance by scan the appliane's QR code or by manually insert its PNC and Serial Number (6). The right screen is an example by manually insert the PNC and Serial Number.
- Click on “Continue” and follow the instructions on the screen.

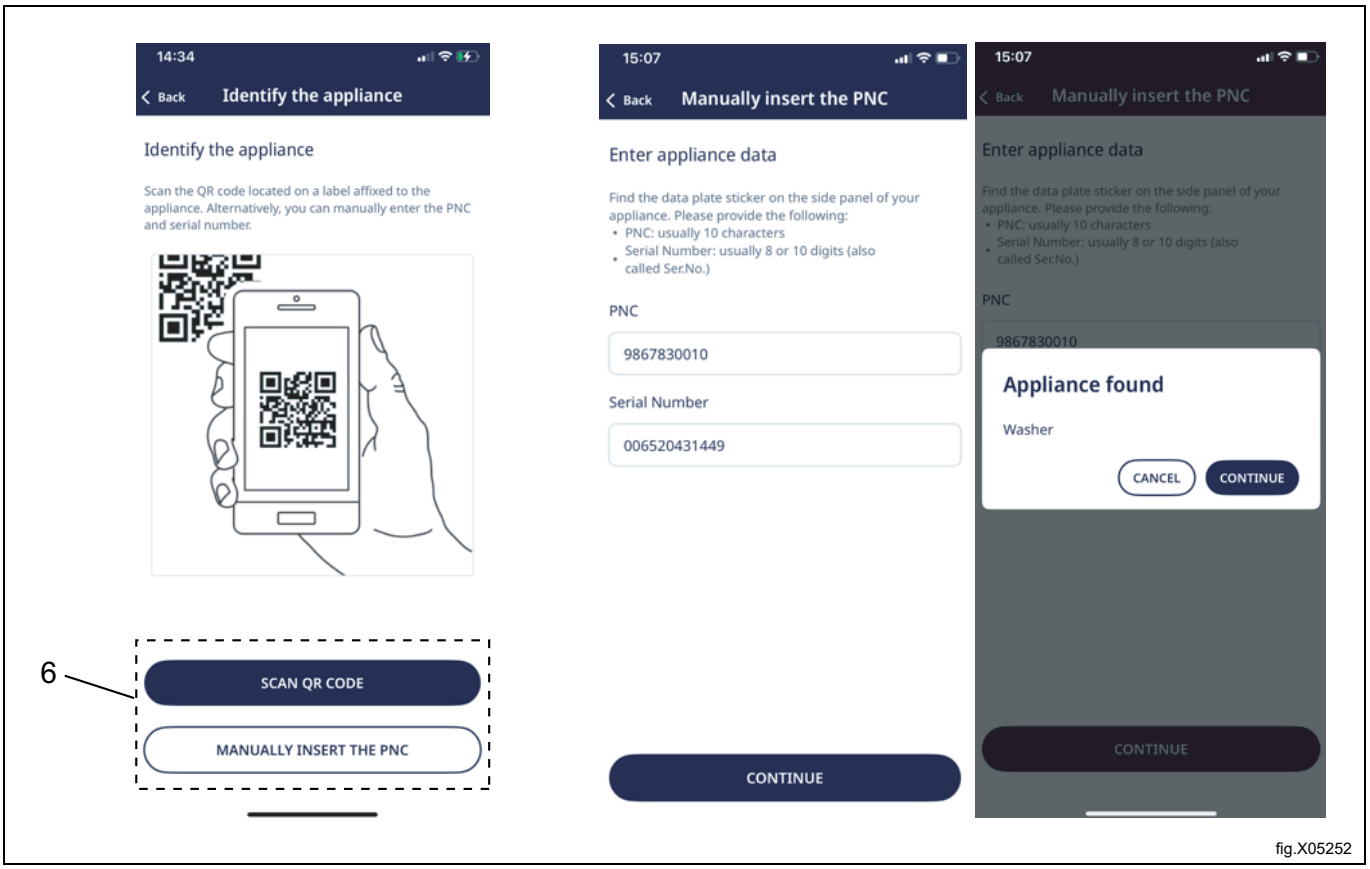


fig.X05252

- Click "start" to connect the appliance via Bluetooth (7).
- When the appliance is connected via Bluetooth, click on “Continue” (8).

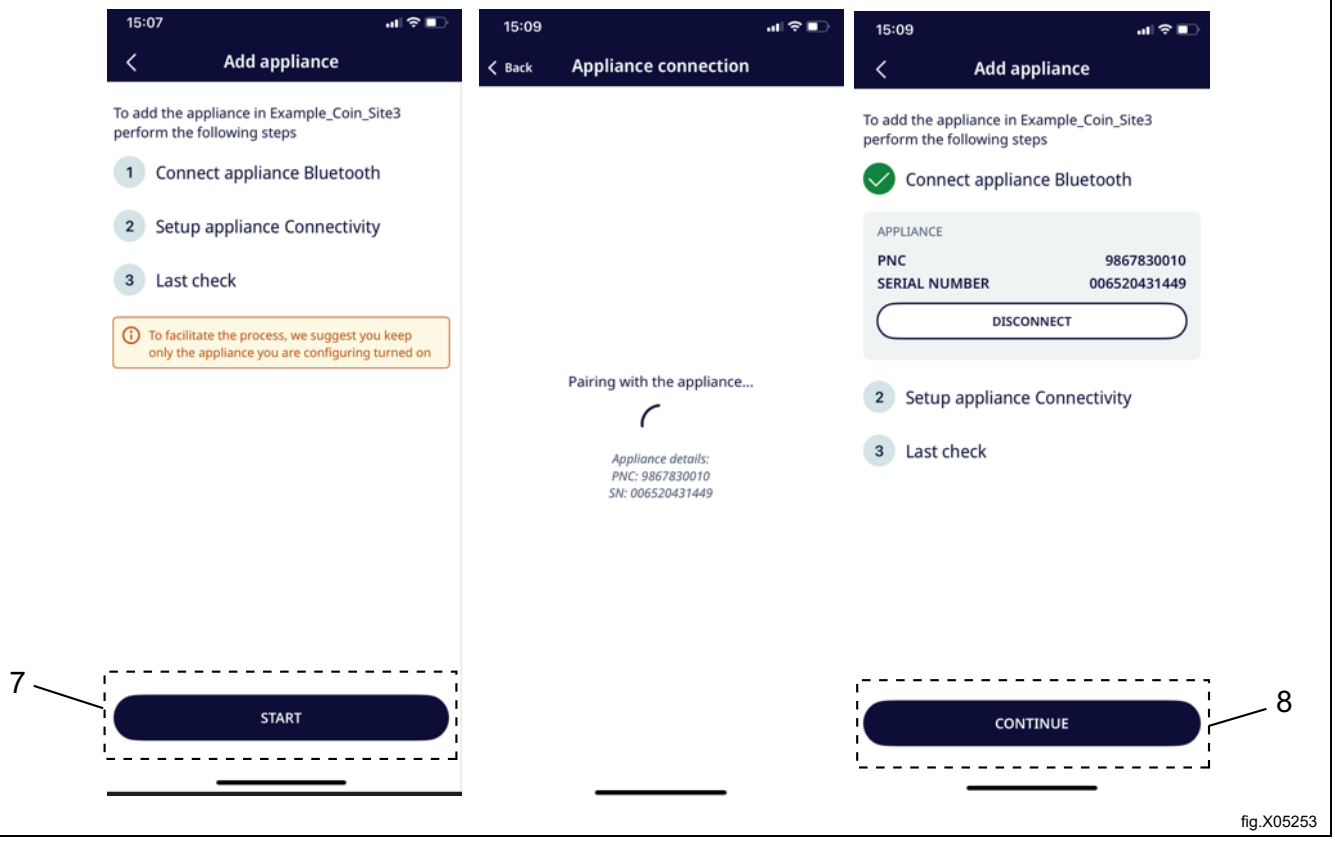


fig.X05253

- Configure Wi-Fi connection / Enter Wi-Fi credentials:
  Fill-in the Network name and Password taking codes from the router (or access point) or scan the QR code on the router. Then click on "CONNECT" (9).
  Tip! If the QR code is not available + many appliance must be provisioned, and you prefer to do the provisioning via the OnE Conneceted app. Using a QR code generator app (download from App store) to create a QR code of your router/access point and then scan the QR code will be faster (9a).

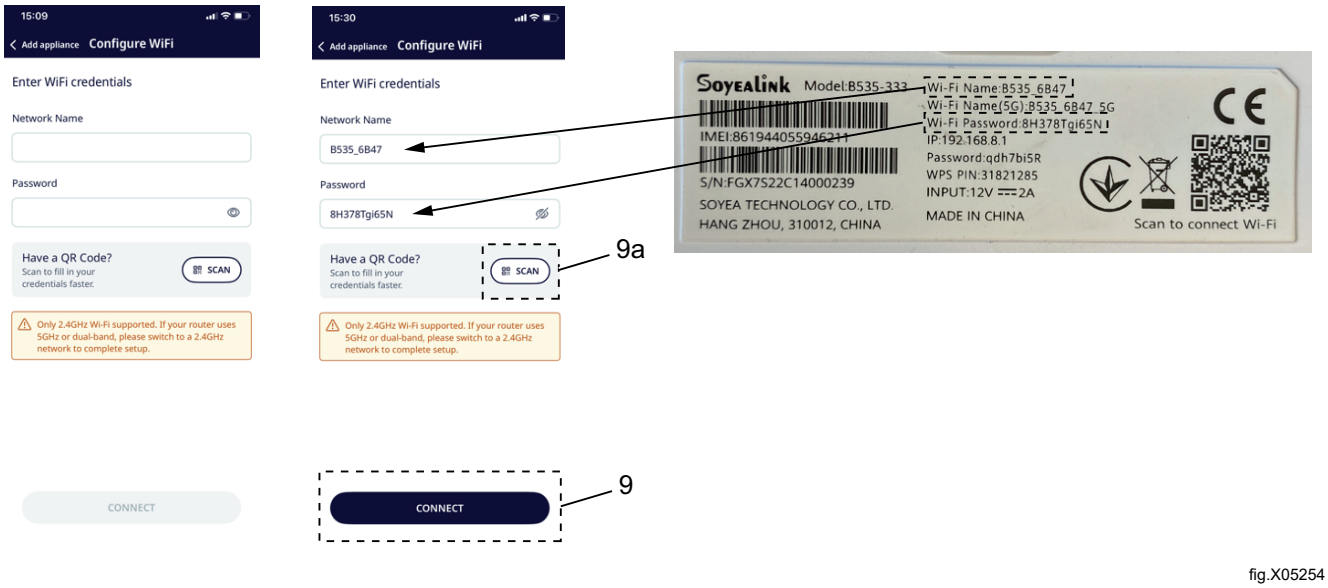


fig.X05254

- Click on "FINALIZE PROVISIONING" (10).
- Click on "DONE". Now the appliance is online (11).

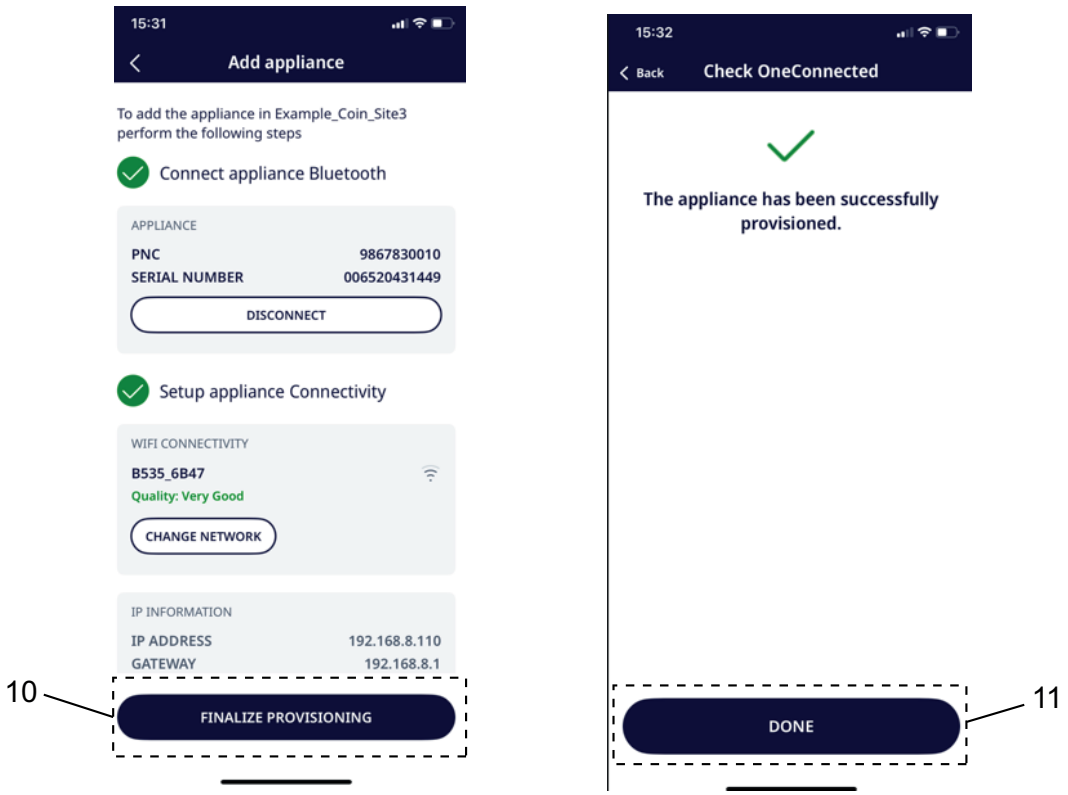


fig.X05255

- Log-in to the OnE Connected platform and select your dedicated site (12).
- Click on the “Dashboad tab” (13).

Note!
Provisioning the appliance(s) by the the OnE Connected app creates automatically a small appliance icon in the centre of the dashboard (A), if more than one appliance they will stack on each other.

- Click on the “Edit (pencil) icon” (14).

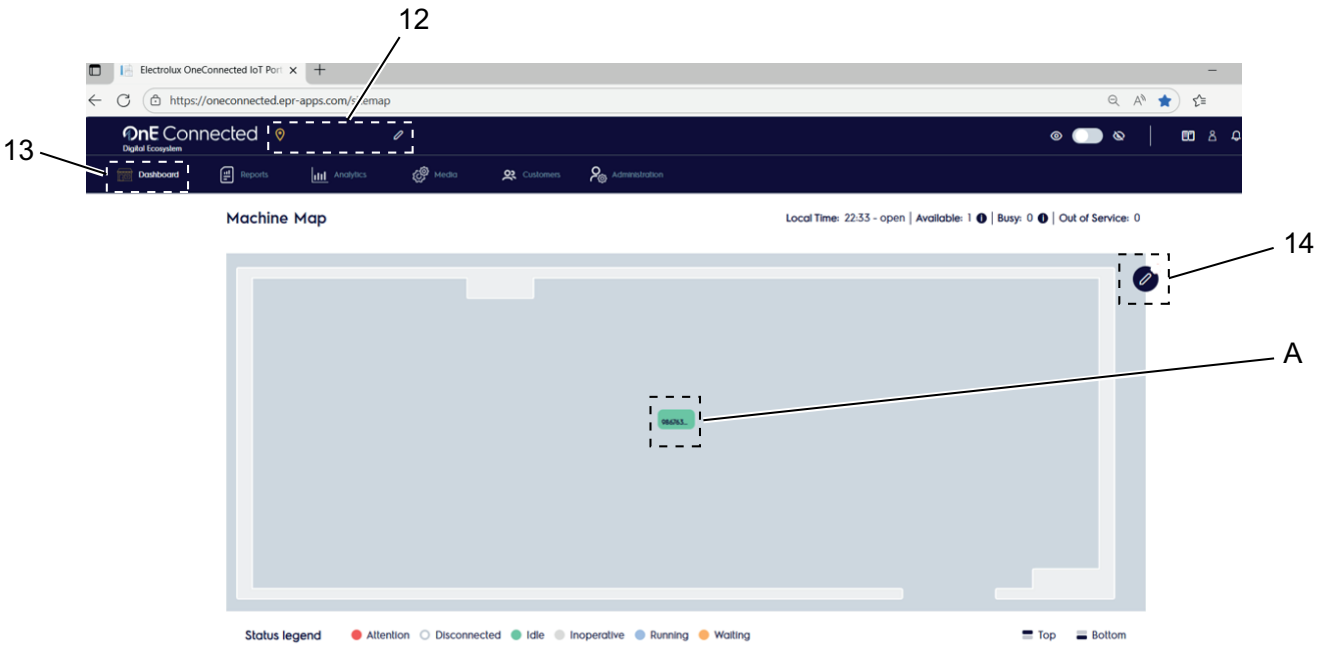


fig.X05256A

- Arrange the position, size etc. of the appliance/appliances and the Dashboard as you prefer (15).
- Click on "Save changes" when ready (16).

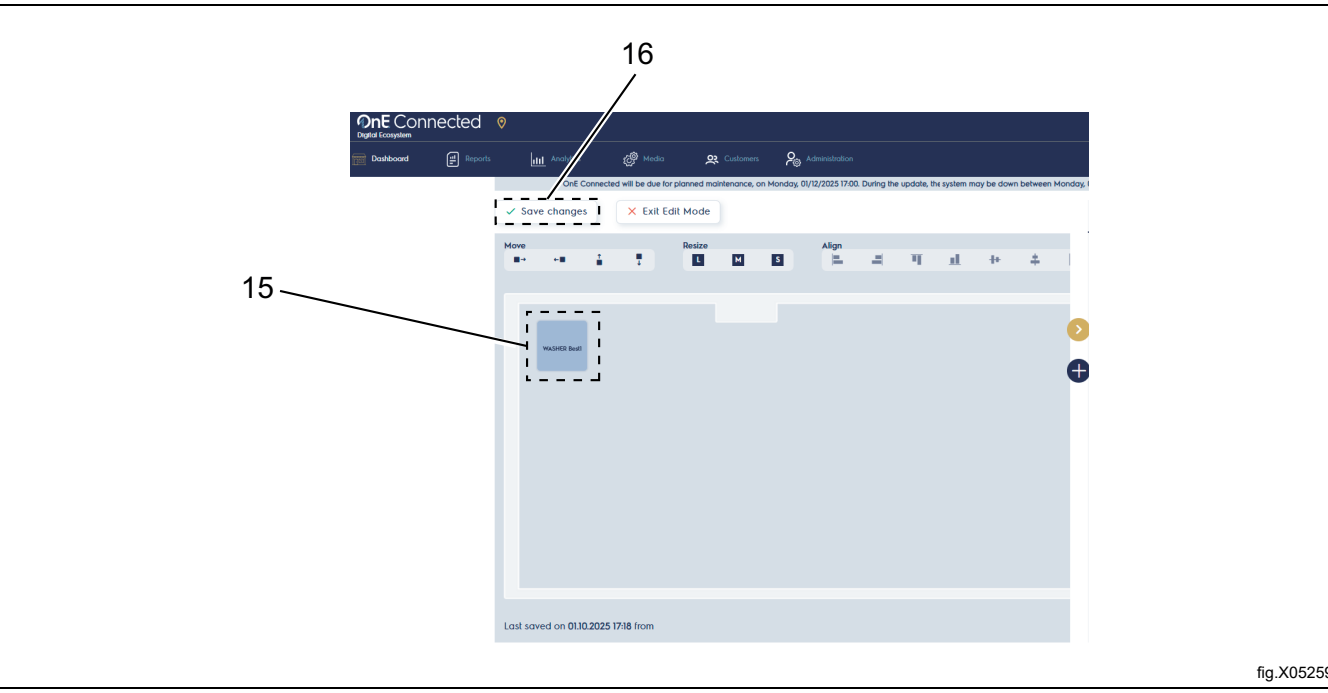


fig.X05259

- The provisioning is now completed.

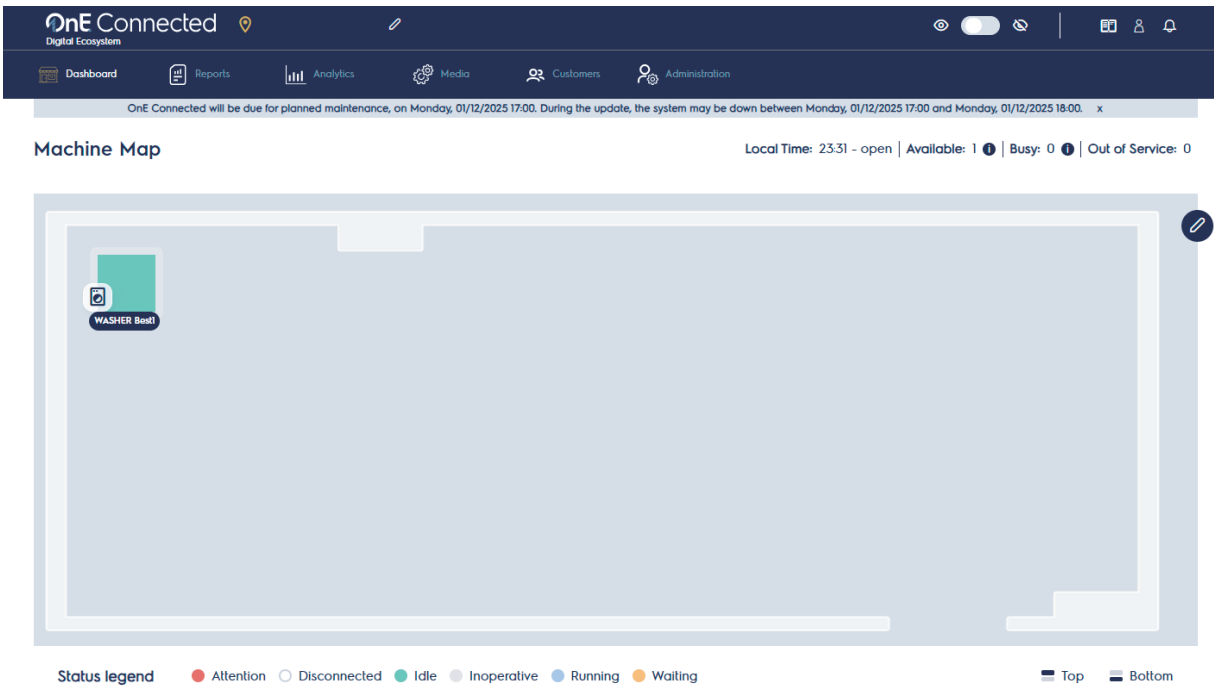


fig.X05260

Read the Operating manual for the menus and functions details. For example:

- Administration
- Payment setting
- Wallet containers setting
- Configurations
- Kiosks setting
- Payment app setting

4.3.2 Temporarily change the Network name (SSID) & Password of the router/access point then provisioning via the OnE Connected web portal

With large installations with more than several machines, it is quicker to use this option because it avoids connecting via the BLE to each machine that's time consuming.

This method will temporarily change the **Network name (SSID) & Password** of the router/access point to be the same as the default Electrolux Professional's SSID: **EluxDefaultIoT** with password **Ed123!@#** , after a batch of all appliances are automatically connected via Wi-Fi or online**,** then after the provisioning of all those machines have been done, a bacth of MWB their **Network name (SSID) & Password** can be changed to be the default **Network name (SSID) & Password** of the router from the web portal. Then **Network name(SSID) & Password** of the router/ access point can be changed back to its default to get whole appliances are online again.

Note!

To be able to temporarily change the Network name (SSID) & Password of the router/access point of a laundry site, the IT administer of the laundry site may be required or the agreement has been approved/allowed.
If any appliances are being connected to the router/access point, those appliances will be temporary disconnected during you temporarily change the Network name (SSID) & Password .
Those appliances will reconnect after you change back the Network name (SSID) & Password as its default.

4.3.2.1 To temporarily change your router's Network name (SSID) and password to be the same as the default Electrolux Professional's Network name (SSID) and password

Note!

The following instruction is just an example, you must use your router data/your access point data.

Reference to Appendix section for the example of configuration with UniFi AP.

Step 1: Access your router's settings:

- **Connect to the network:** Use a computer connected to **your router, or your access point**. (Exactly the one you need to change its Network name (SSID) & Password).
- **Find your router's IP address:** Look for a sticker on the router itself, or check your computer's network settings for the "default gateway" address, which is often 192.168.x.x (1). The illustration shows an example.

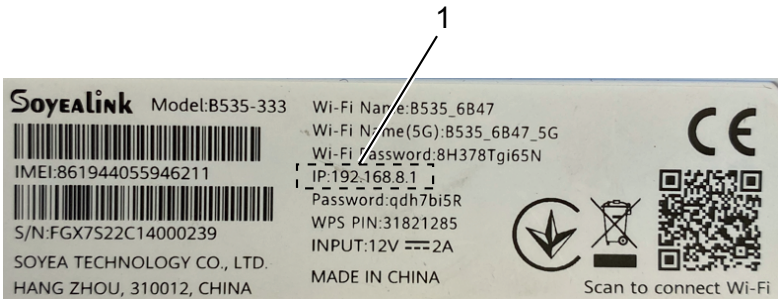


fig.X05245

- **Open a web browser:** Type the IP address into the address bar of your browser and press Enter.

Step 2: Log in to the admin panel:

- **Enter credentials:** Use the router's administrator username and password. These are often printed on the router itself if you haven't changed them before.

  Note!
  This is different from your current Wi-Fi password.

The illustration shows an example: In this case the IP is **192.168.8.1** and its Password is **qdh7bi5R** (2).

fig.X05246

Note!
The previous and the following screens on the web browser may be different depending on which brand and type of router you have.

Step 3: Change the SSID and password:

- **Navigate to wireless settings:** Look for a section labelled "Wireless," "Wireless Settings," "Wi-Fi," or similar. It may be under an "Advanced" or "Network" tab.

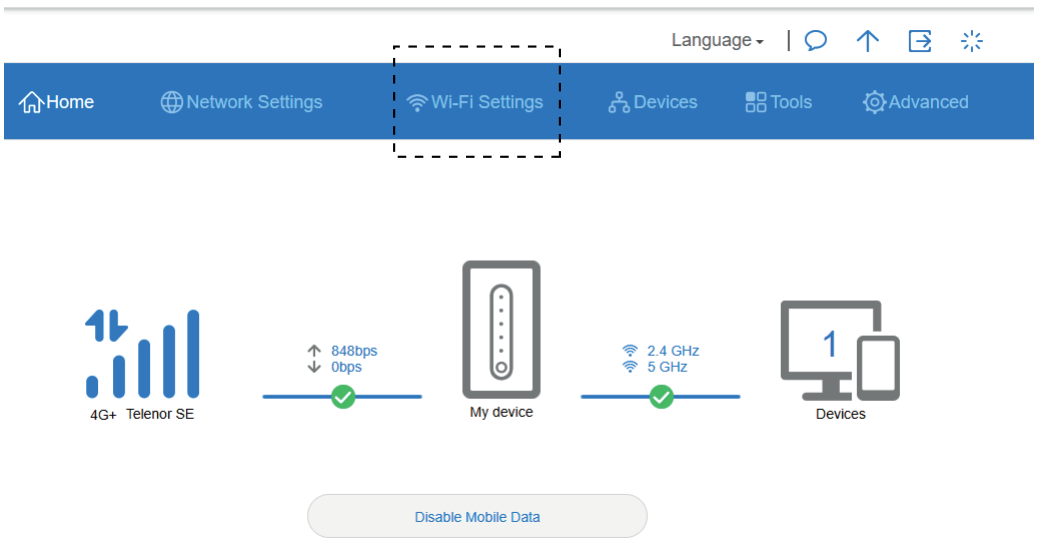


fig.X05247

- **Find network name (SSID):** Locate the field for the network name (SSID) and fill-in: **EluxDefaultIoT**
- **Change the password:** Find the password or pass phrase field and fill-in: **Ed123!@#**
- Click on "Save" (Your computer will be offline after clicking "Save" or WiFi SSID and its Password is changed).

The illustration shows an example:

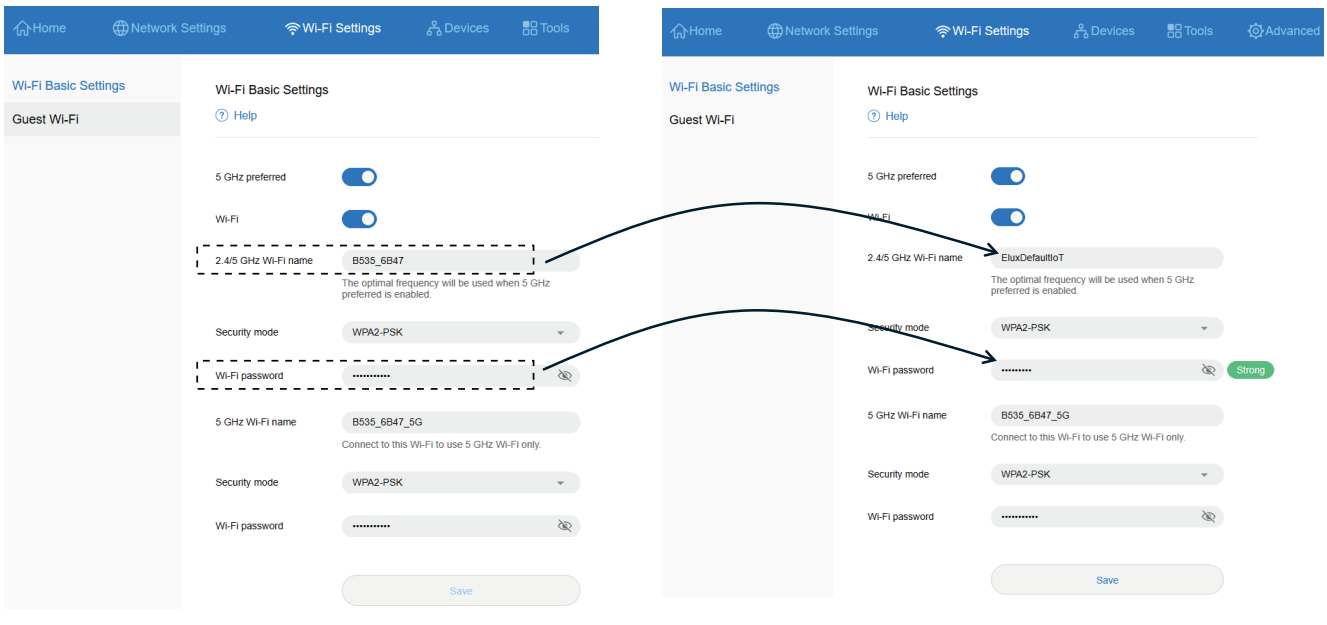


fig.X05248

- Your computer connection is old and offline.
- Restart the router and reconnect your computer using **Network name (SSID)**: **EluxDefaultIoT** with password **Ed123!@#**

4.3.2.2 Provisioning after temporarily changing your router's Network name (SSID) using: EluxDefaultIoT and password using: Ed123!@#

When the router/access point have been set using the default Electrolux Professional's SSID: **EluxDefaultIoT** with password **Ed123!@#** , all MWB/appliances are tried and automatically connected via Wi-Fi or online.

To be able to do the provisioning, the user (e-mail) must be invited/added into the selected laundry site (or that organization) and the user has Distributor or Customer Care role.

- Log-in to the OnE Connected platform and select your dedicated site (1).
- Click on the “Dashboad tab” (2).
- Click on the “Edit (pencil) icon” (3).

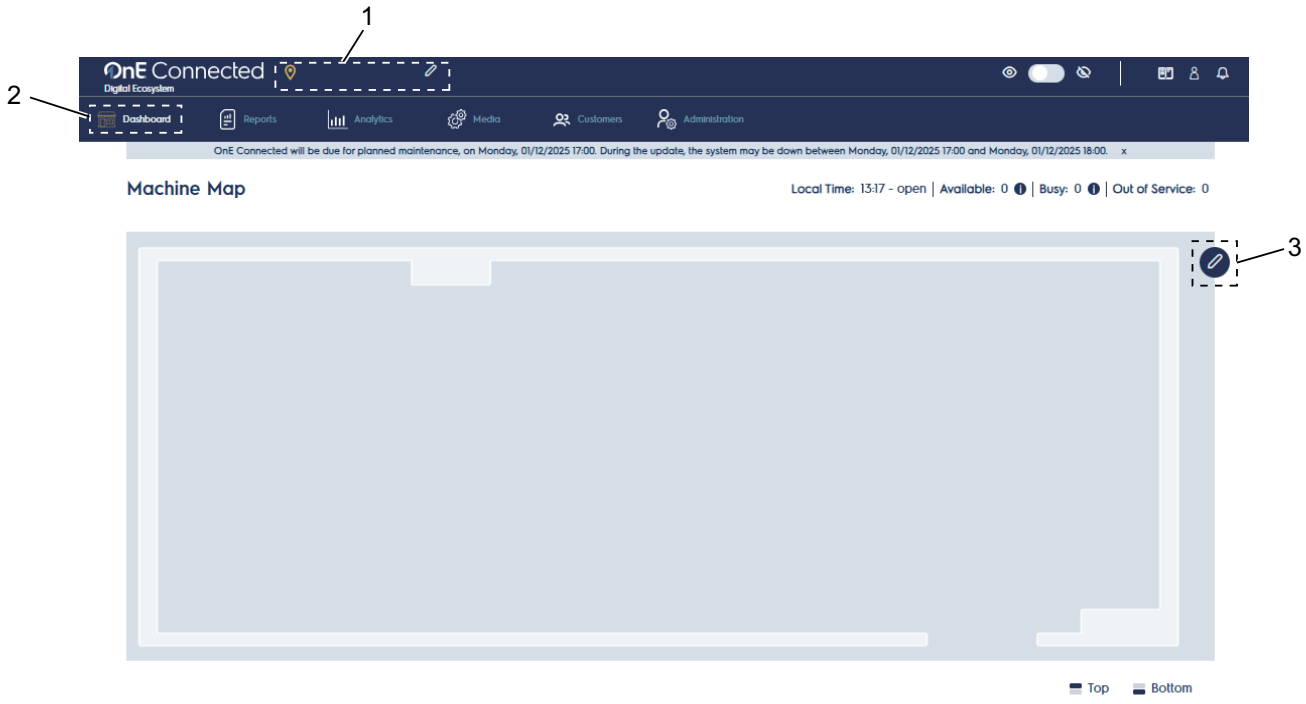


fig.X05261

- Click on the "Plus icon" (4).

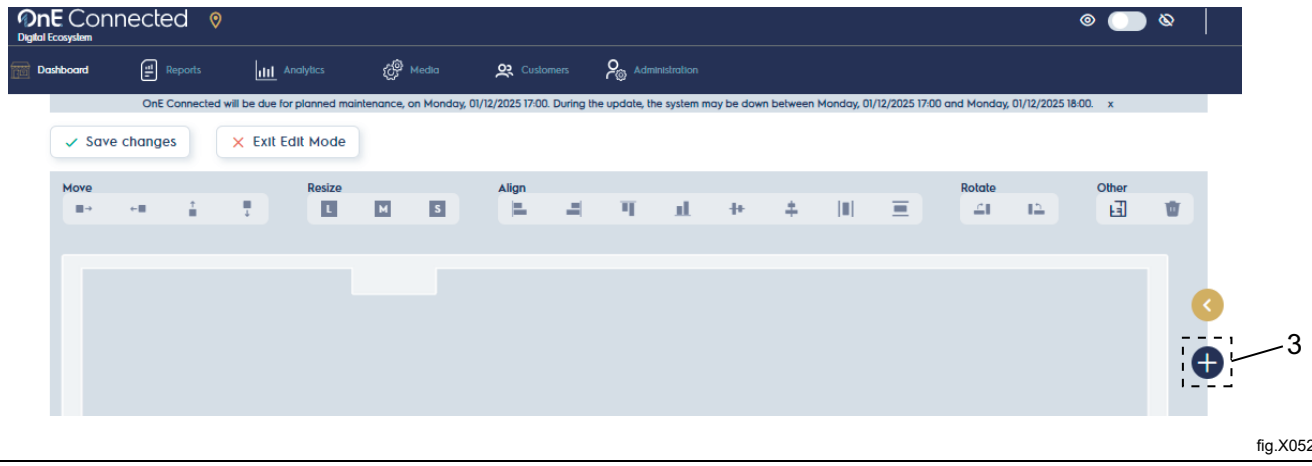


fig.X05262

- Select "Machine" and then click on "CONTINUE" (5).

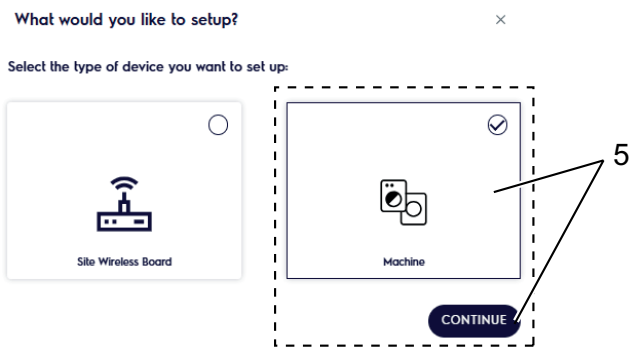


fig.X05111A

- Add appliance's PNC and Serial number (SN) and then click on "CONFIRM" (6).
  The following illustration is just showing an example of PNC and SN.

fig.X05263

- Click on "ADD TO LIST" (7).

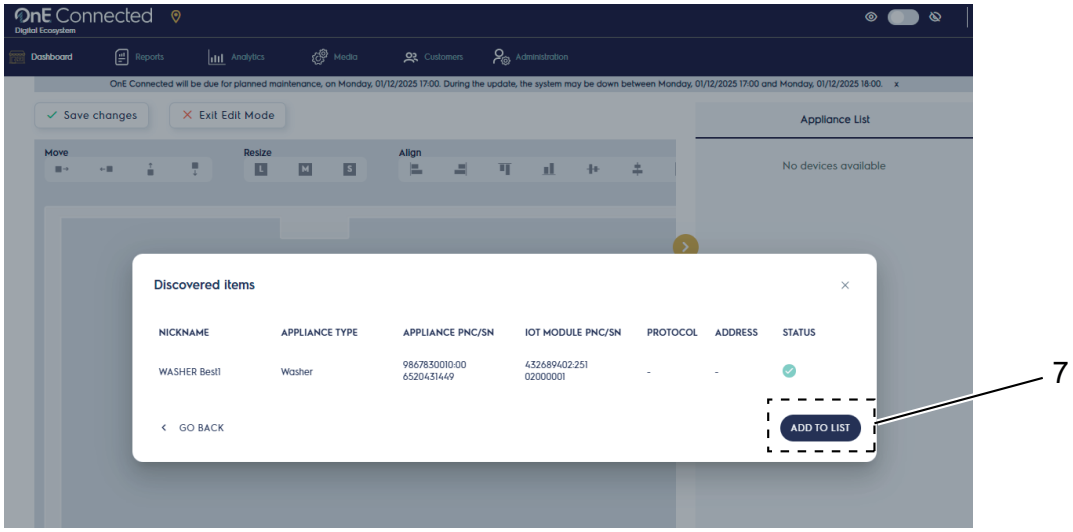


fig.X05264

- Click on the "Plus icon" on the appliance to add it to the Dashboard (8).

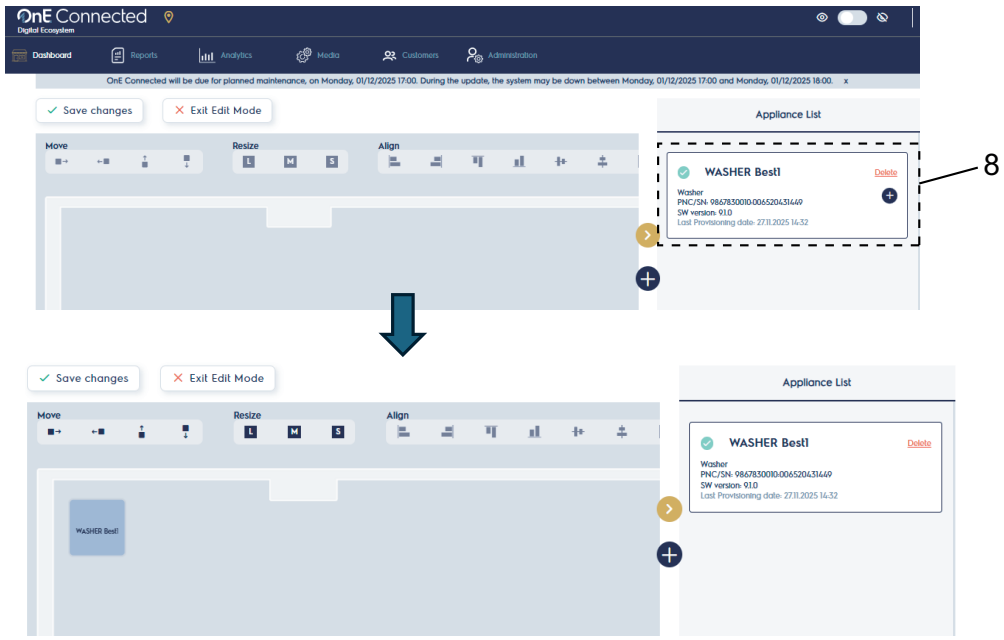


fig.X05265

- If there is more than one appliance shall be provisioned, do the same step 5-8 for all appliances (8).
- When all needed appliances have been added and positioned on the Dashboard, click on "Save changes" (9).

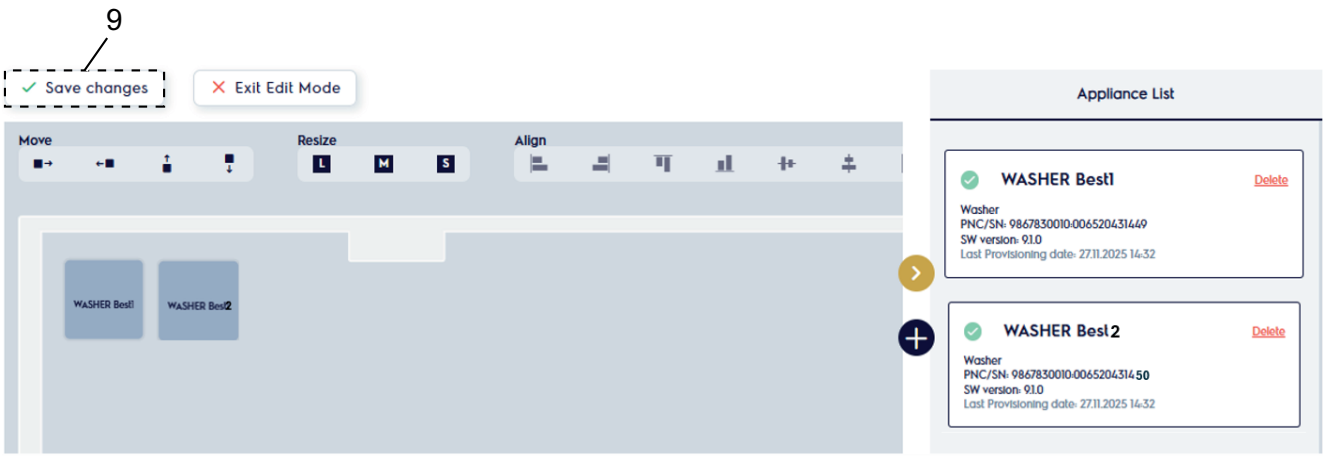


fig.X05266

- The following illustration is an example when the provisioning has been done and 2 machines are on the idle.

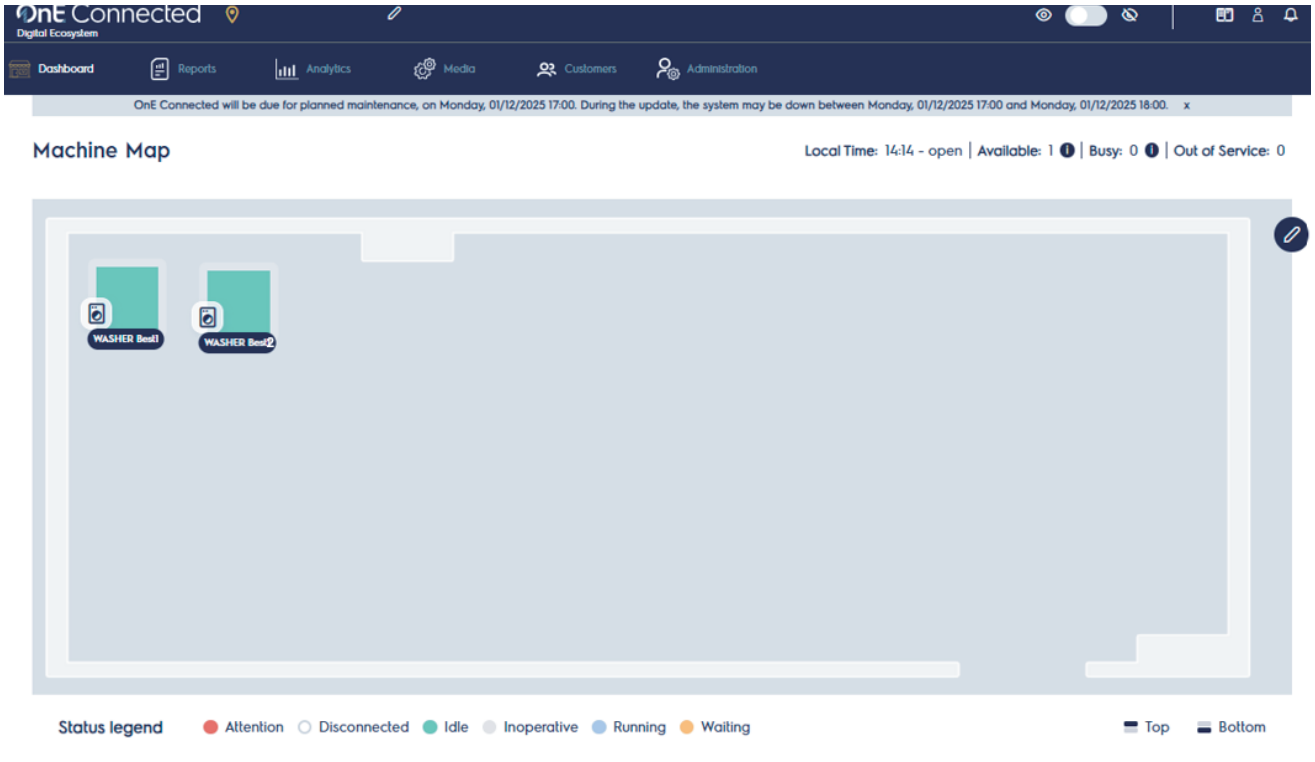


fig.X05267

4.3.2.3 Change a/or a batch of MWB their Network name (SSID) & Password to be the default Network name (SSID) & Password of the router from the web portal

- Click on an appliance on the Dashboard and then GO TO DETAIL PAGE.
- Click on “Machine settings” (1).
- Click on “Connectivity” (2).
- Click on "CHANGE CONNECTIVITY" (3).

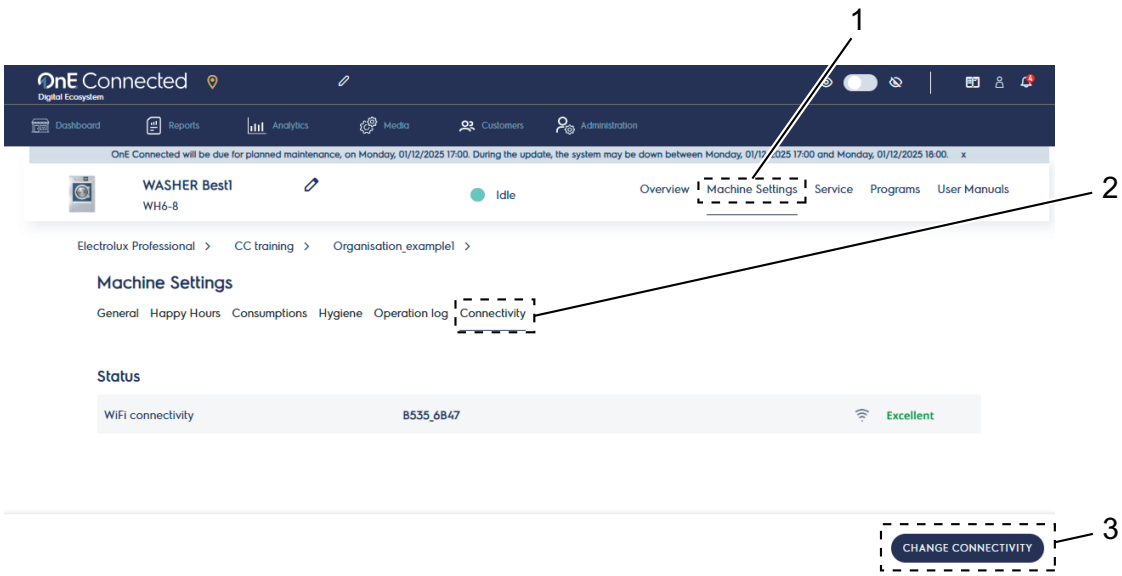


fig.X05238A

- Select security type "WPA2" (4).
- Fill-in the “Network name (SSID) & Password” using the default Network name (SSID) & Password of a your router/access point (5).
- Click on "LAUNCH ON OTHER MACHINES” (6).

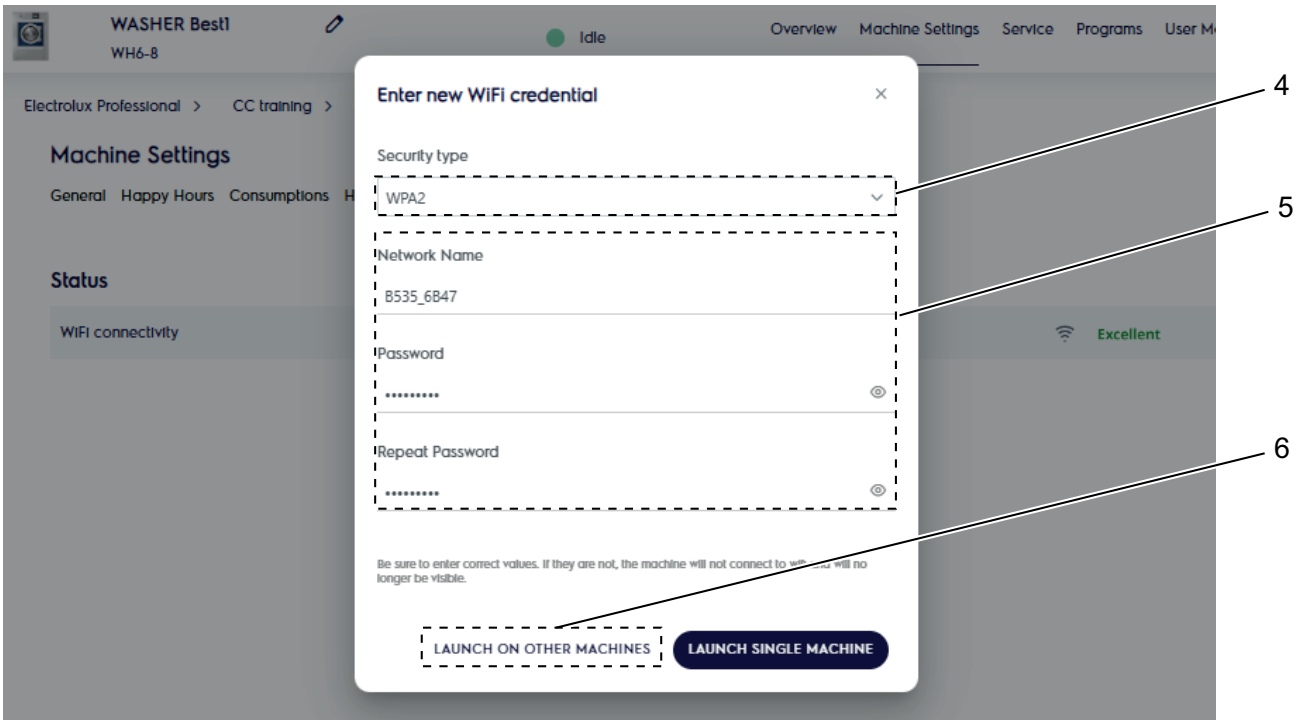


fig.X05268

- Click on "APPLY" and follow the instructions on the screen.

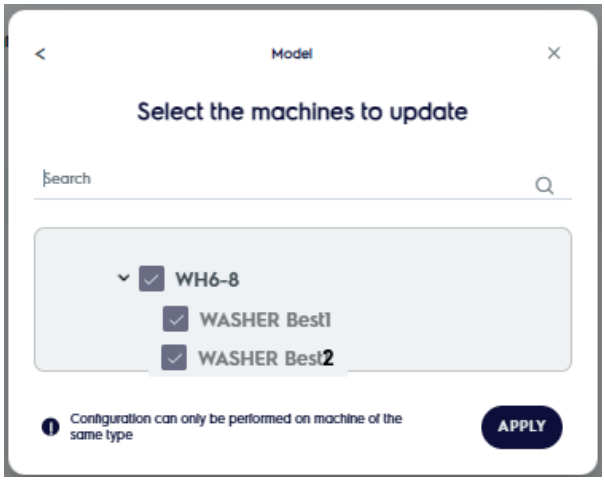


fig.X05269

Note!
After clicking on "Apply", the MWB/appliances will be offline because their Network name (SSID) & Password are not matched to the Network name (SSID) & Password of the router/access point.

4.3.2.4 Change back the Network name (SSID) & Password of the router/access point as its default

Note!

The following instruction is just an example, you must use your router data/your access point data.

Step 1: Access your router's settings:

Connect to the network: Use a computer connected to **your router, or your access point** (Exactly the one you need to change its Network name (SSID) & Password).

Find your router's IP address: Look for a sticker on the router itself, or check your computer's network settings for the "default gateway" address, which is often 192.168.x.x (1).

The illustration shows an example.

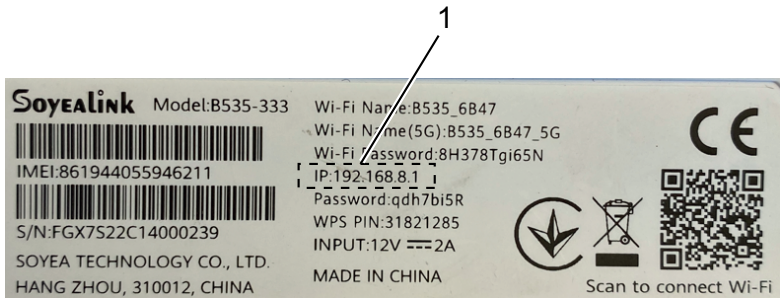


fig.X05245

Open a web browser: Type the IP address into the address bar of your browser and press Enter.

Step 2: Log in to the admin panel:

Enter credentials: Use the router's administrator username and password. These are often printed on the router itself if you haven't changed them before.

Note!

This is different from your current Wi-Fi password.

Example: In this case the IP is **192.168.8.1** and its Password is **qdh7bi5R** (2).

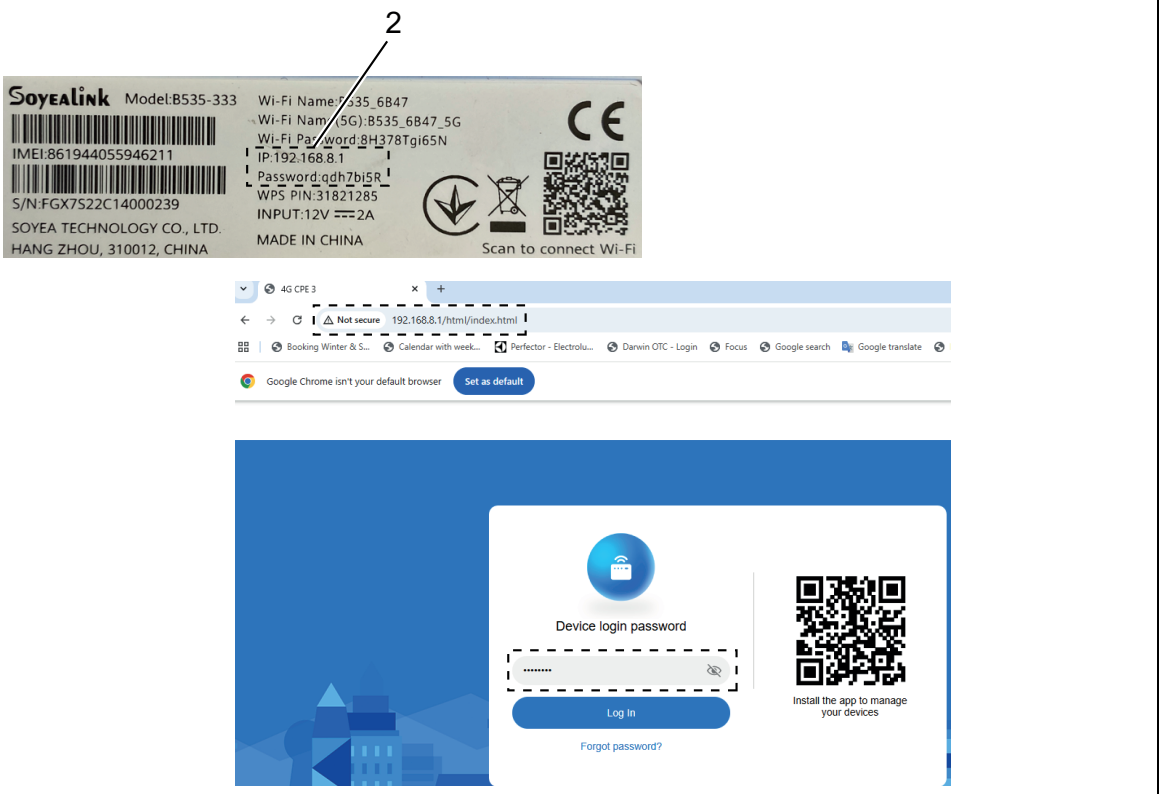


fig.X05246

Note!

The previous and the following screens on the web browser may be different depending on which brand and type of router you have.

Step 3: Change the SSID and password:

Navigate to wireless settings: Look for a section labelled "Wireless", "Wireless Settings", "Wi-Fi" or similar. It may be under an "Advanced" or "Network" tab.

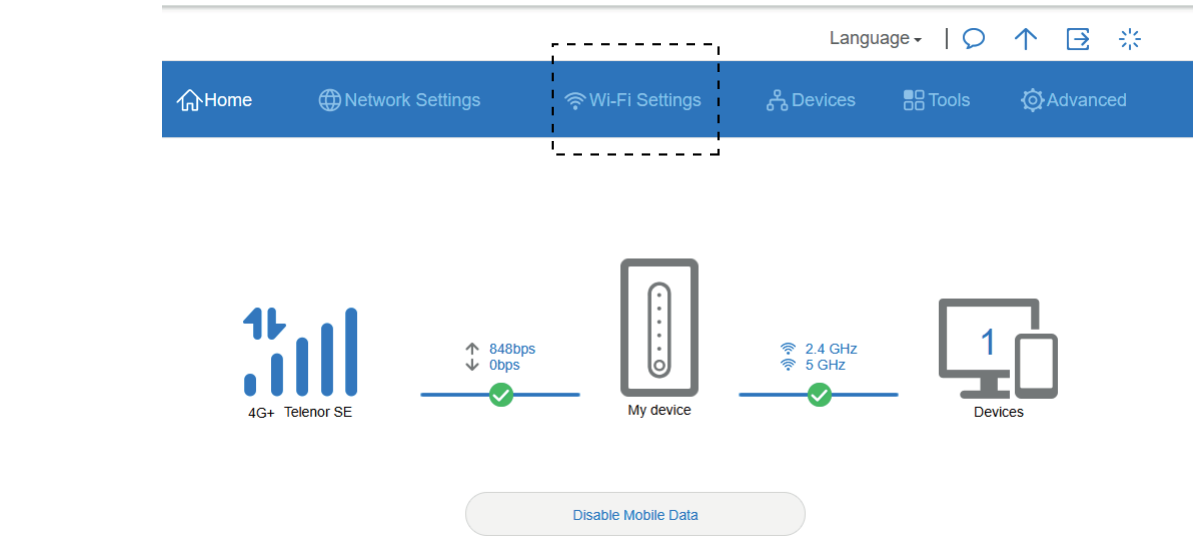


fig.X05247

Find network name (SSID): Locate the field for the network name (SSID) and fill-in: **its default Network name (SSID).**

Change the password: Find the password or passphrase field and fill-in: **the default Password.**

Then click on "Save". (Your computer will be offline after clicking on "Save" or WiFi SSID and its Password is changed back).

The illustration shows an example:

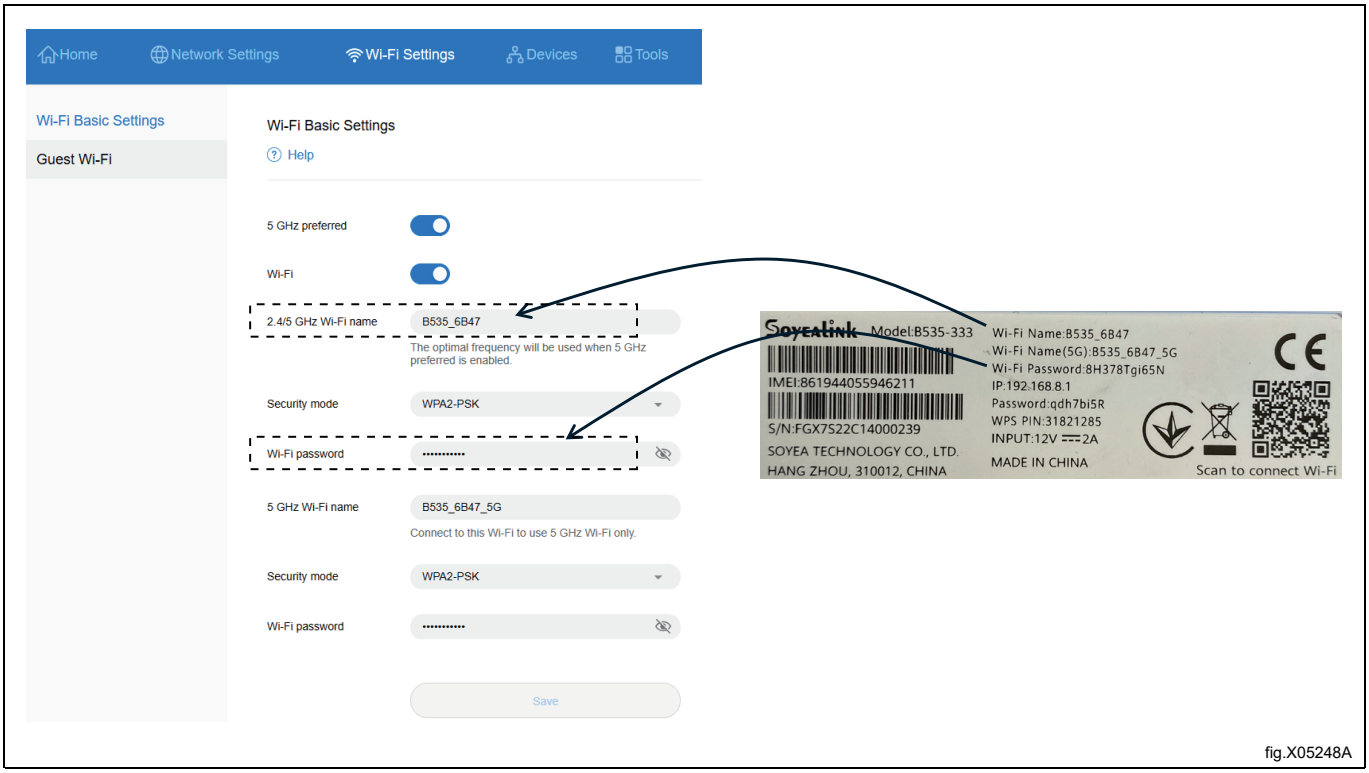


fig.X05248A

- Your computer connection is old and offline again.
- Restart the router and reconnect your computer using **its default Network name (SSID) & Password.**
- All appliances are being re-connected to the router/access point as usual including all machines (MWB), those appliances will be re-connected approximately within 4-5 minutes.

- Log-in to the OnE Connected platform and select your dedicated site again and check that all appliances are online or connected properly.
- Done!

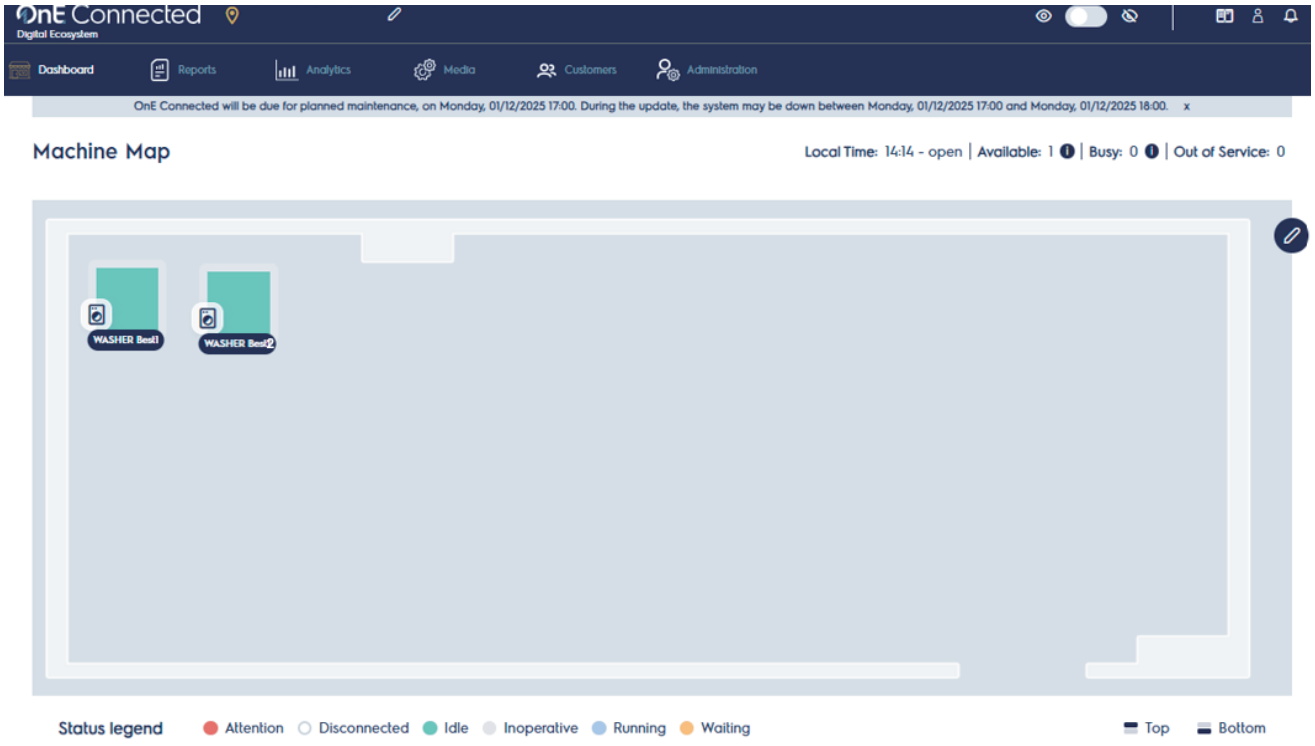


fig.X05267

Read the Operating manual for more details about the menus and functions. For example:

- Administration
- Payment setting
- Wallet containers setting
- Configurations
- Kiosks setting
- Payment app "OnE Connected Link" setting

5 Firmware update of Machine wireless board(s)

To do the MWB firmware update:

- Click on "Administration" (1).
- Click on **OTA Deployment Center > OTA IoT module** menu (2).
- Click on **Firmware Update > LAUNCH UPDATE** (3).

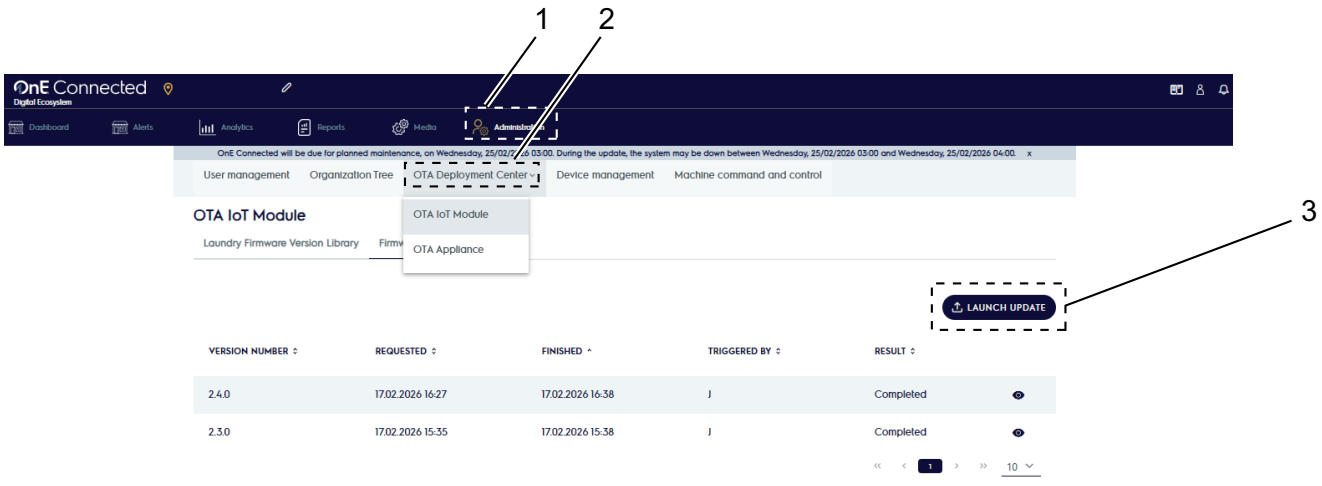


fig.X05228

- Select the firmware track "Production" (4).
- Select the latest version (5).
- Click on "SELECT THE NODES" (6).

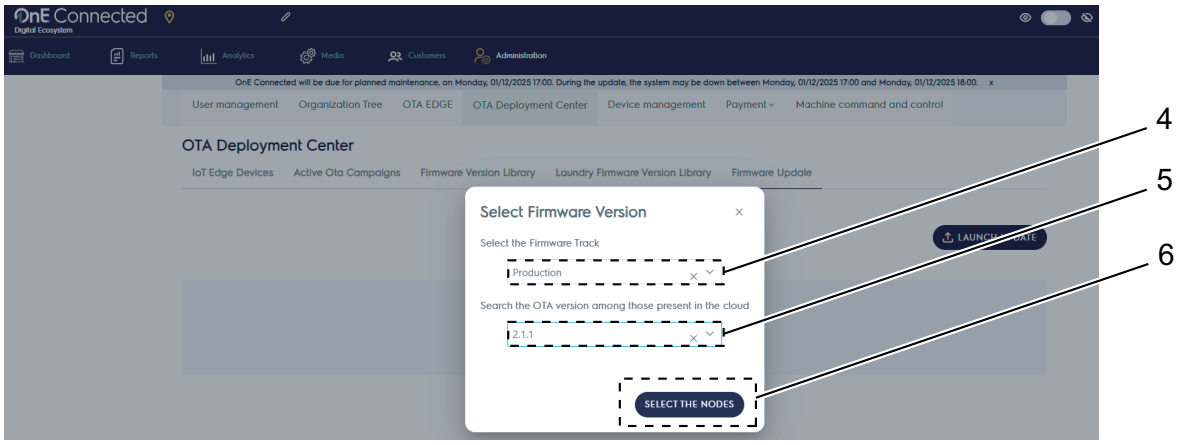


fig.X05229

- Select which machine that shall be updated its MWB or click "Select all" (7).
- Click on "START OTA UPDATE" (8).

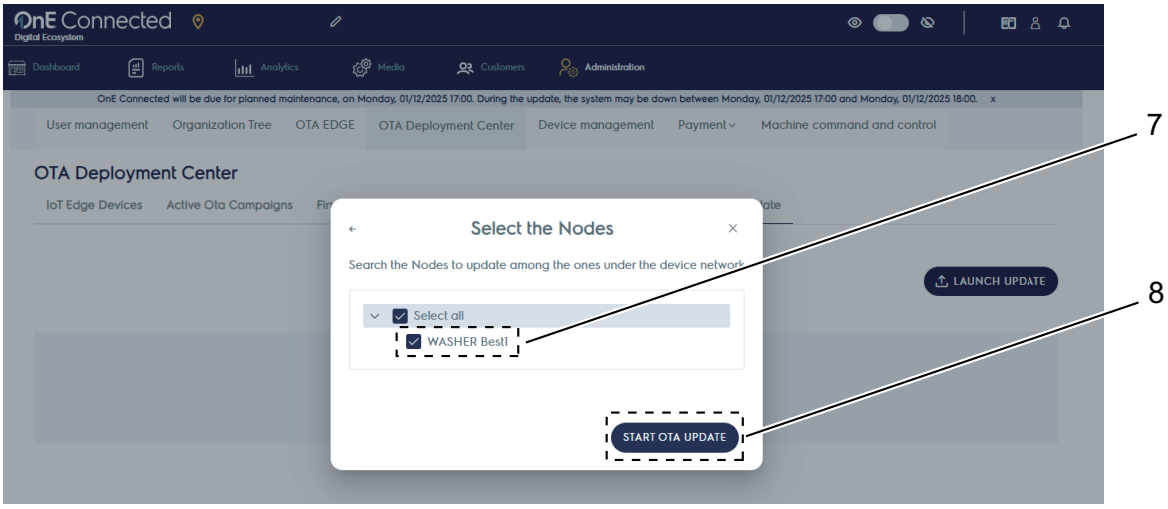


fig.X05230

- Click on the “view icon” (9) to view the progress.

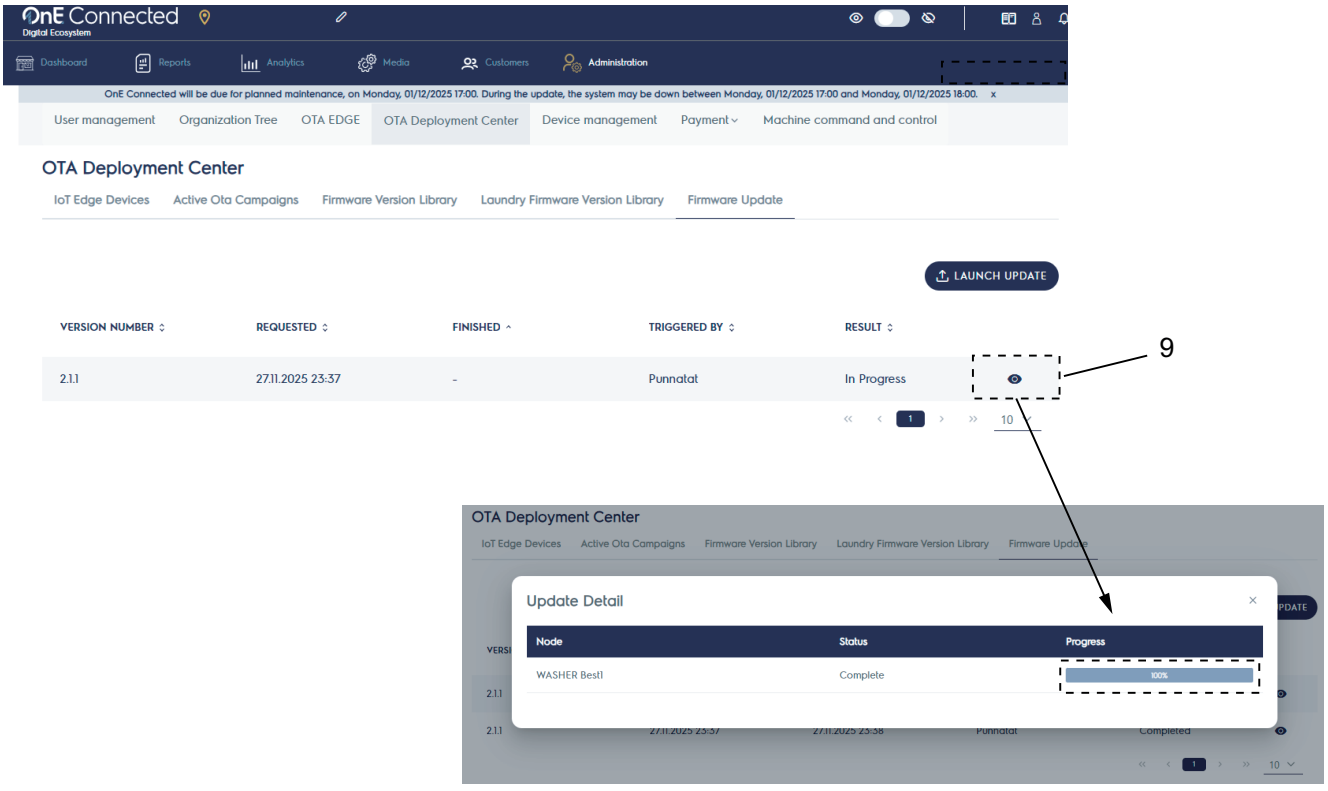


fig.X05231

6 Machine command and control

In this menu you can view all machines that are listed in the selected site, status of all machines and update monitoring details.

You can also use this menu to reach each machine overview, machine settings, program settings including pricing, service and user manuals etc.

- Click on "Administration" (1).
- Click on "Machine command and control" (2).

The following illustration is shown as an example:

- All machines in the selected site are shown in the list: when "**All machines**" is selected.
- All update logs are shown in the list: when "**Update monitoring**" is selected.

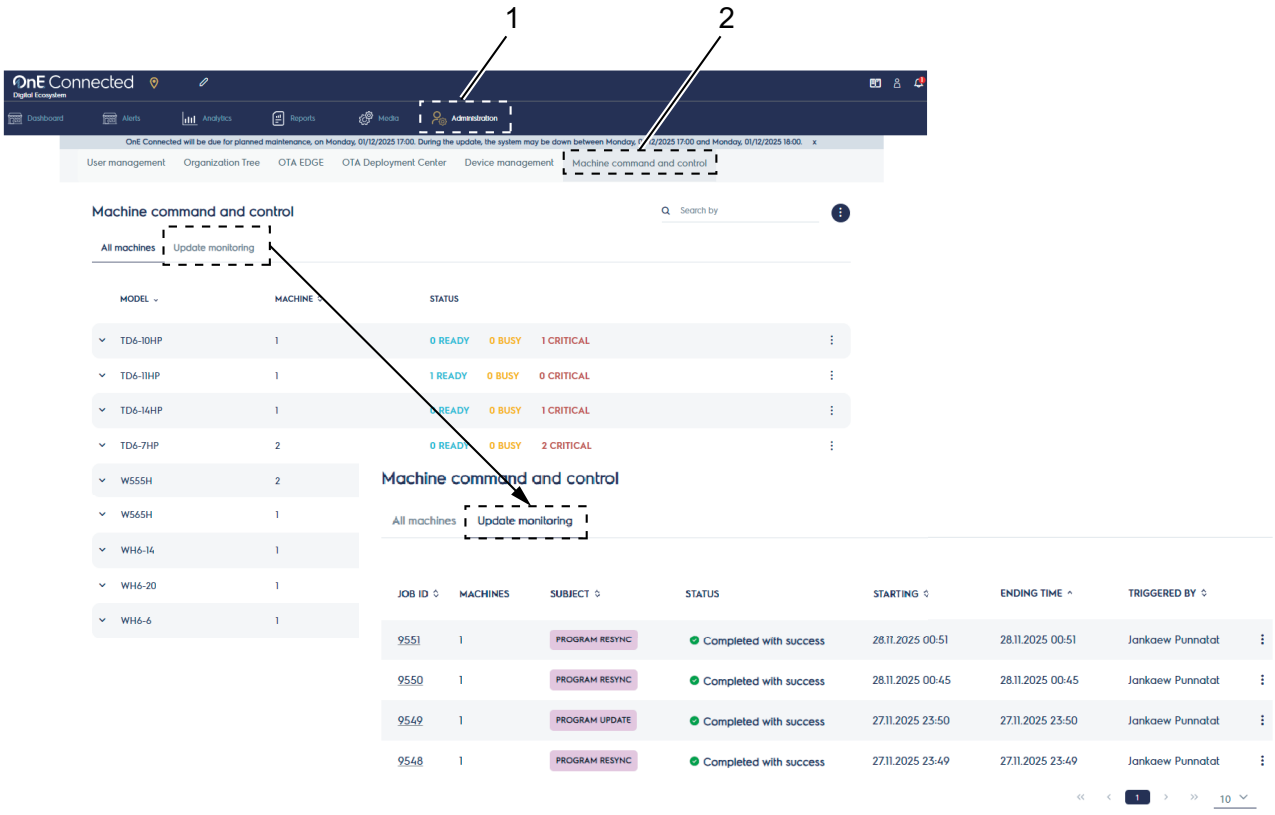


fig.X05232

- To reach each machine overview, machine settings, program settings including pricing, service and user manuals etc, click on the “drop down icon” (3).
- Click on each machine you need (4).

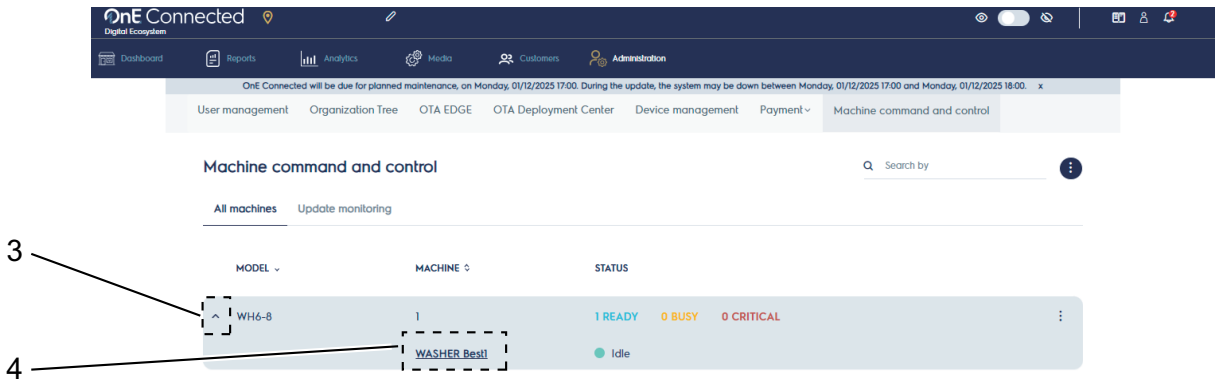


fig.X05233

- In the “machine's detail page” you can reach the machine overview, machine settings, program settings including pricing, service and user manuals etc.
  Also in the overview tab, you can view and reach "Machine wireless board" by clicking on the icon (A).

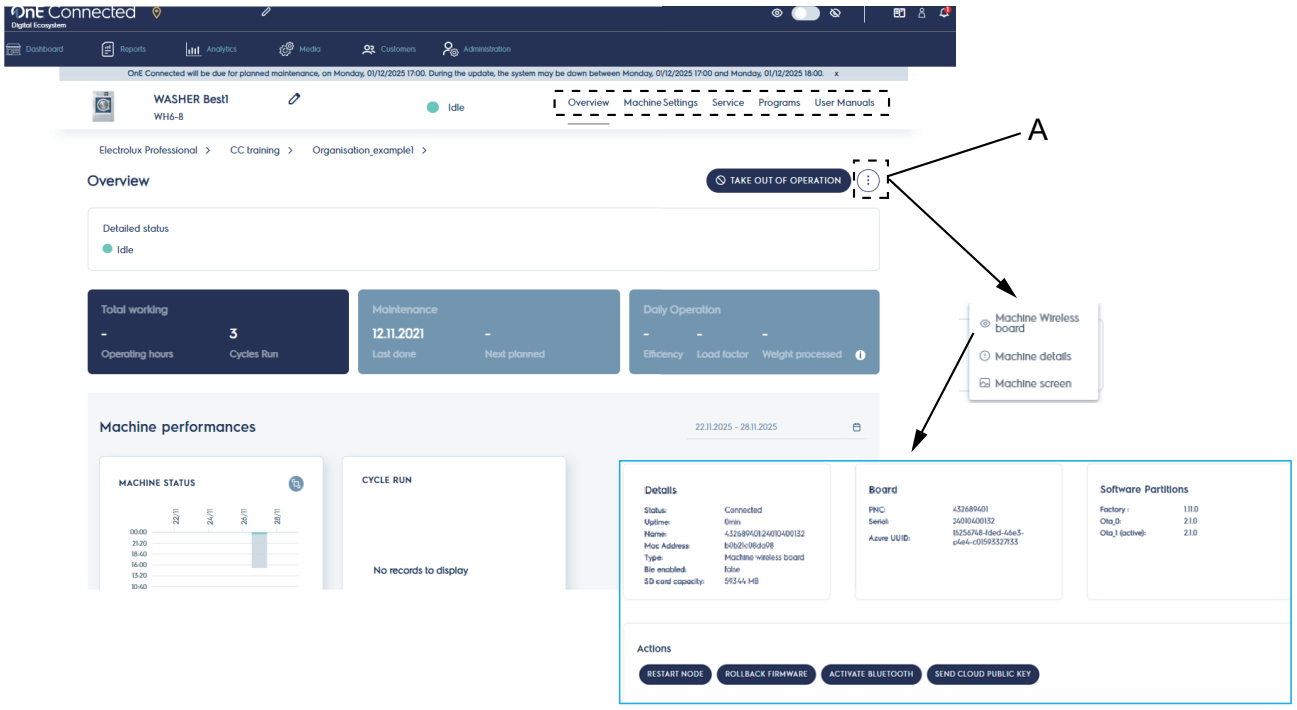


fig.X05234

The “machine's detail page” can also be reached by clicking on the machine icon on the Dashboad:

- Click on the appliance you need on the Dashboard (1).
- Click on "GO TO DETAIL PAGE" (2).

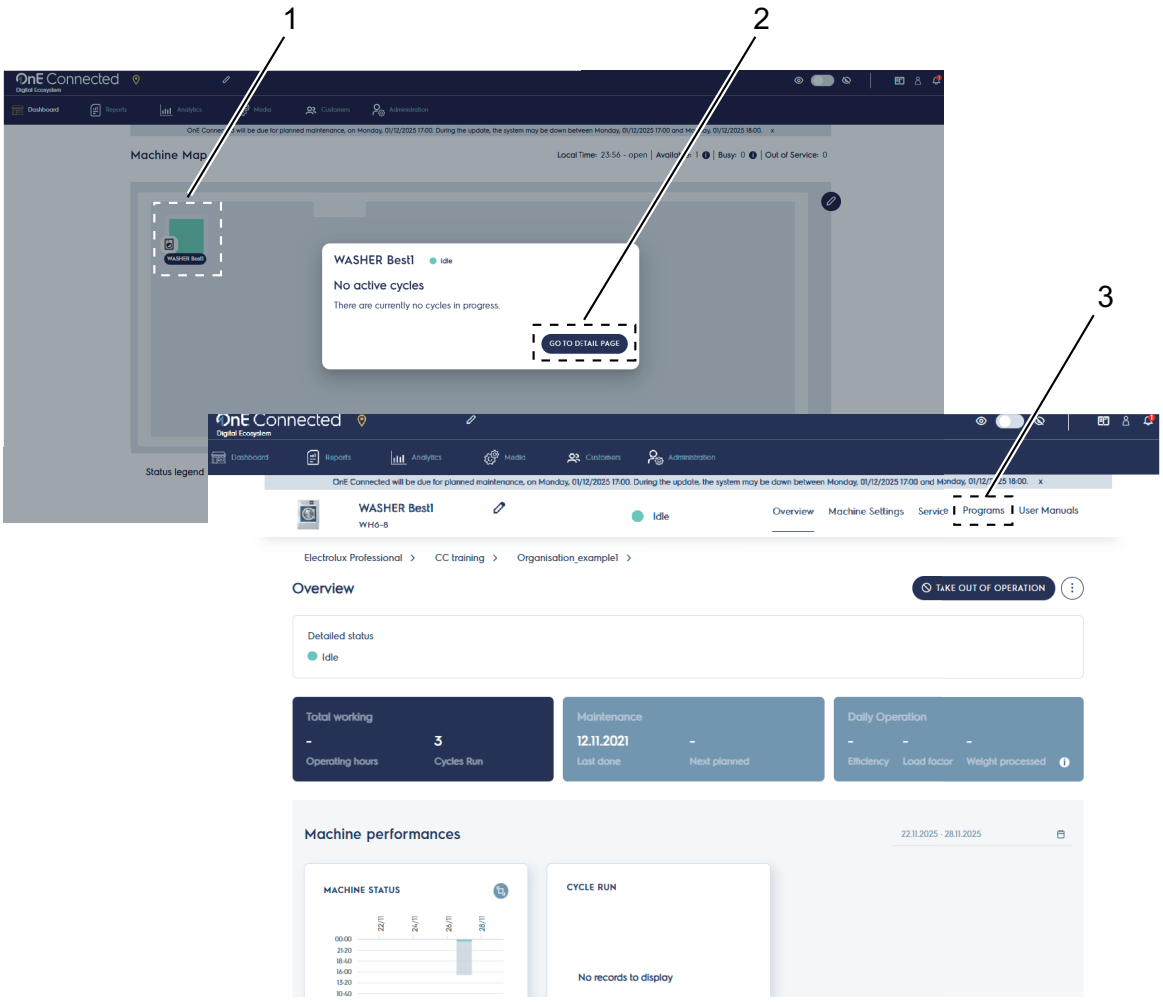


fig.X05235

6.1 Machine settings

As an example all parameters shown on the screen can be set or customized.
For example, the machine's nickname can be changed by clicking on the pencil icon (A).

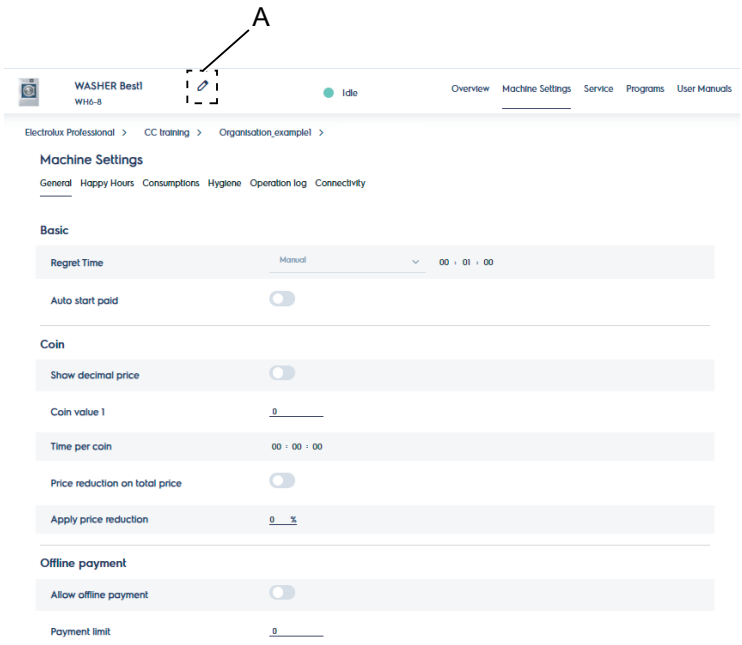


fig.X05236

6.2 Program settings including pricing

As an example all parameters shown on the screen can be set or customized.

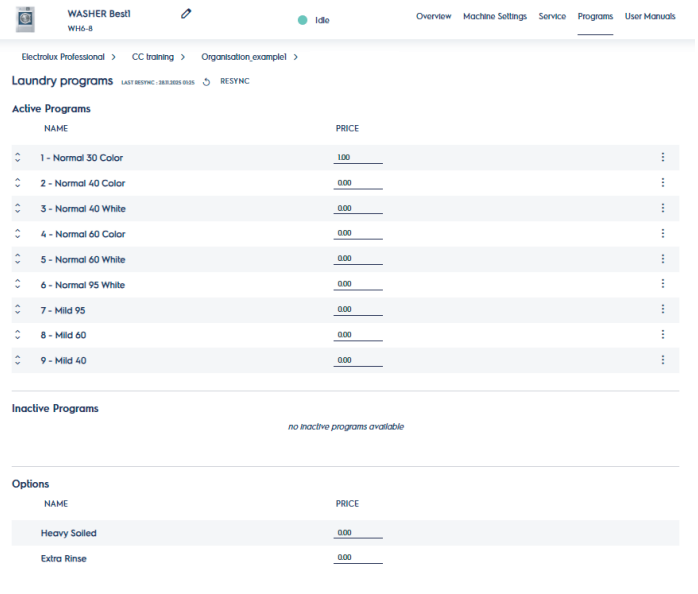
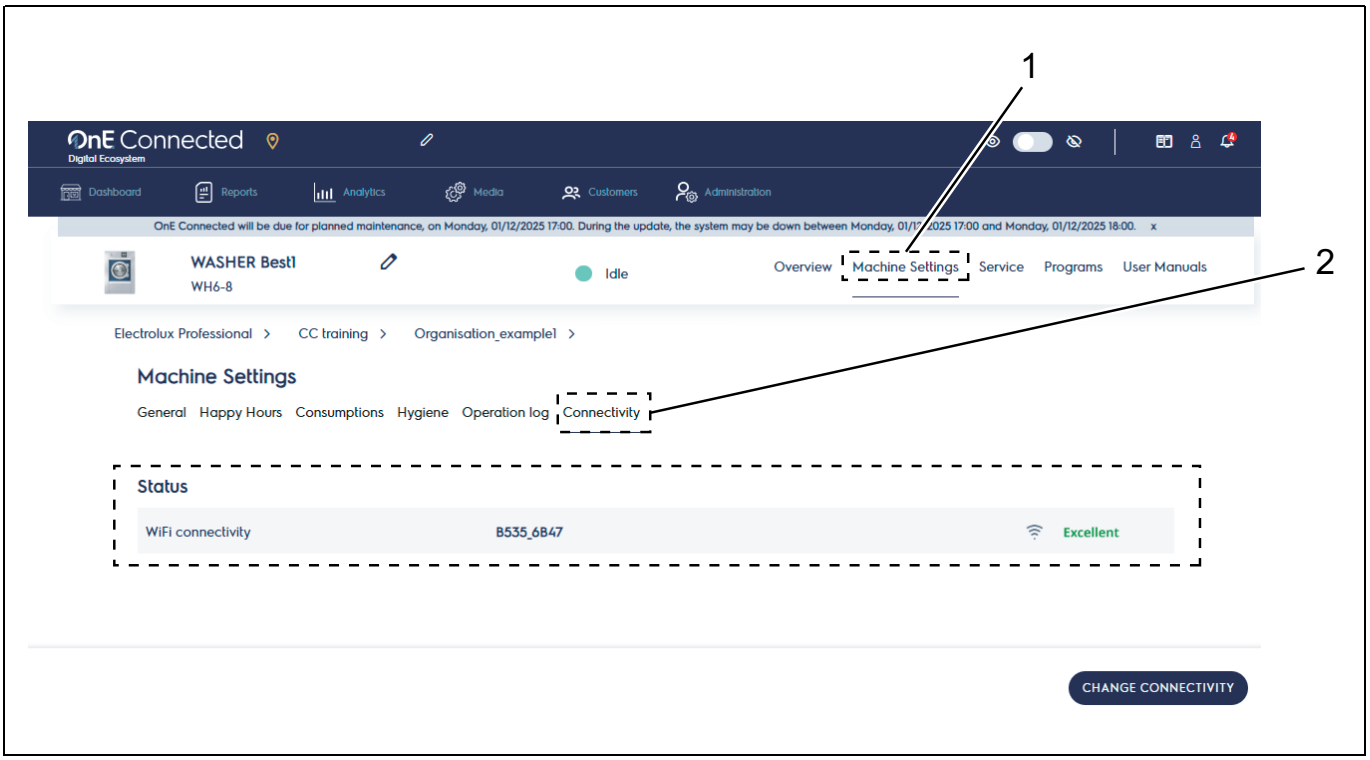


fig.X05237

7 Connectivity of a machine

7.1 View Wi-Fi strength of a machine

- Click on an appliance on the Dashboard and then GO TO DETAIL PAGE.
- Click on “Machine settings” (1).
- Click on “Connectivity” (2), then you can see the Wi-Fi strength.



7.2 Change connectivity after provisioned (Change Network name (SSID) & Password)

In some case the connectivity must be changed from one to another one e.g. you need to switch the present connection from an **old router/old access poin**t to the new **router/new access point**.

To change Network name (SSID) & Password from the web portal when the appliance is already provisioned:

- Click on an appliance on the Dashboard and then GO TO DETAIL PAGE.
- Click on “Machine settings” (1).
- Click on “Connectivity” (2).
- Click on "CHANGE CONNECTIVITY" (3).

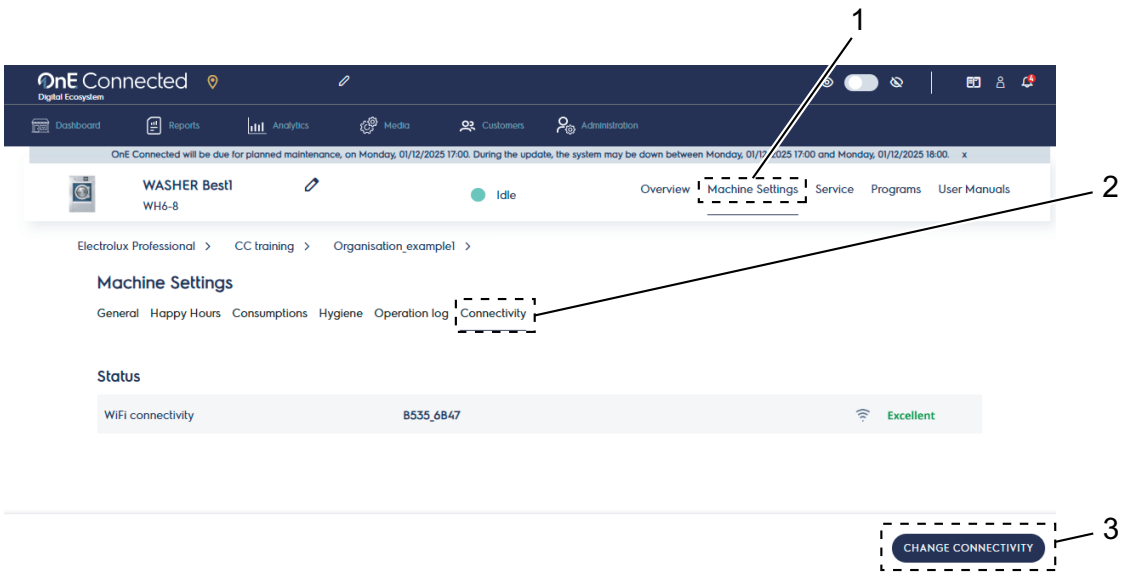


fig.X05238A

- Fill-in the “Network name” and “Password” (SSID & password of the MWB) as you want. e.g.change to be the same SSID and password of a new router/access point.
  The following illustration is showing an example to reset the SSID and password of the MWB to be default from the factory.
- If the user clicks on “LAUNCH ON OTHER MACHINES" (a) to make a batch change or select all of them.

Note!
The MWB/appliance will be offline if the SSID & password is not matched to the SSID & password of the router/access point.

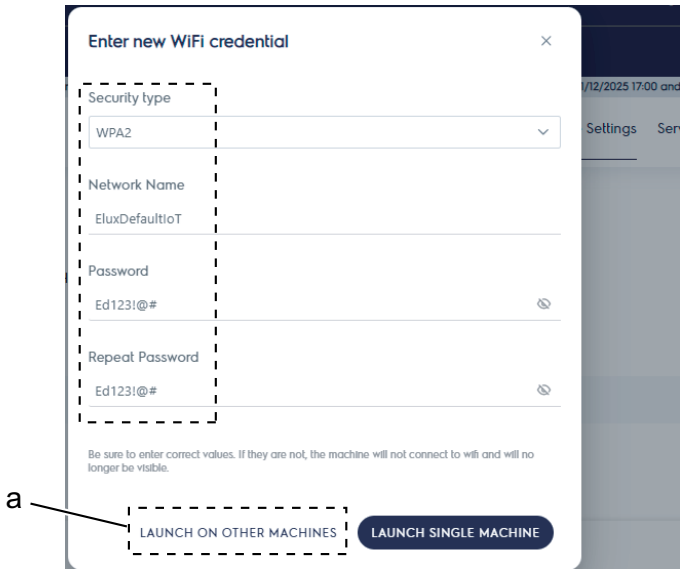


fig.X05239

- Click on "APPLY" and follow the instructions on the screen.

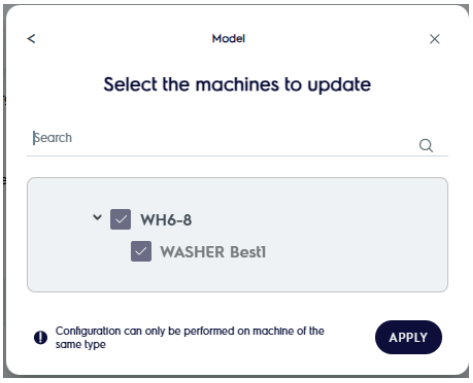


fig.X05240

8 Button & LEDs for Machine wireless board

A short press (< 1.5s) on the button is toggling the BLE on/off.

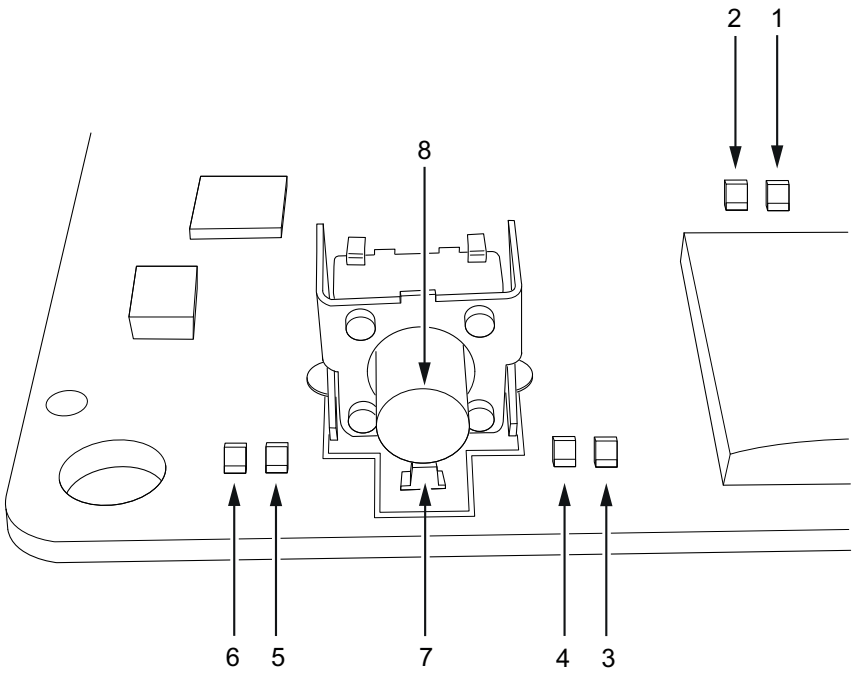


fig.X03252

1	DL1: Yellow color / communication
2	DL2: Red color / communication
3	DL3: Green color / OTA
4	DL4: Green color / Wi-Fi
5	DL5: Green color / Cloud (Server)
6	DL6: Green color / BLE (Bluetooth Low Energy)
7	DL7: Green color / Power
8	Button

Description for LED

Note!

Period time is 1 second for all LED's which is blinking.

DL1 and DL2 indicates communication on RS232 to the appliance.

DL1 indicates transmission to the control system.

DL2 indicates reception from the control system.

DL3 / OTA: Over The Air firmware update (Remote update of the wireless boards).

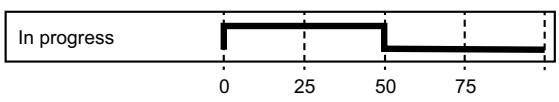


fig.X03251B

DL4: Wi-Fi

- Off: not connected
- Blinking: connecting
- On: connected

DL5: Cloud

- Off: not connected
- Blinking fast: renewing certificates
- Blinking slow: connecting
- On: connected

DL6 / BLE:

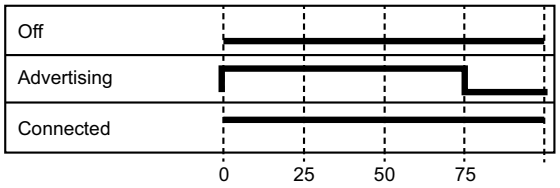


fig.X03251D

- Off: disabled
- Blinking: enabled, with advertising, but not connected
- On: connected

DL7 / Power

- Off: Board is not powered (or broken)
- On: Board is powered

9 The OnE Connected app

The OnE Connected app is a digital tool to make your life easier and allows you to :

- Access the user manuals of appliances.
- For laundry who have a technician role:
  - able to manage your sites and appliances within your site(s) or your organization(s), add new ones via provising, and monitor data throungh the cloud.
  - able to manage your appliances via Blutooth connectivitiy.

9.1 Installing the OnE Connected app

Download the free **OnE Connected** app on the App-store.

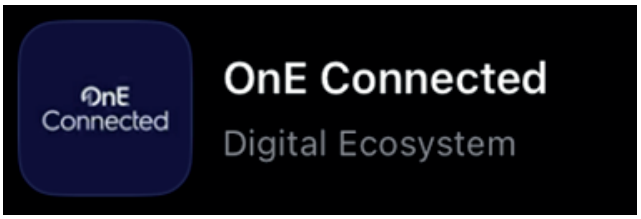


fig.X05222

Click on “Install” and follow the instructions on the screen.

Login using your e-mail account or EPRO credentials.

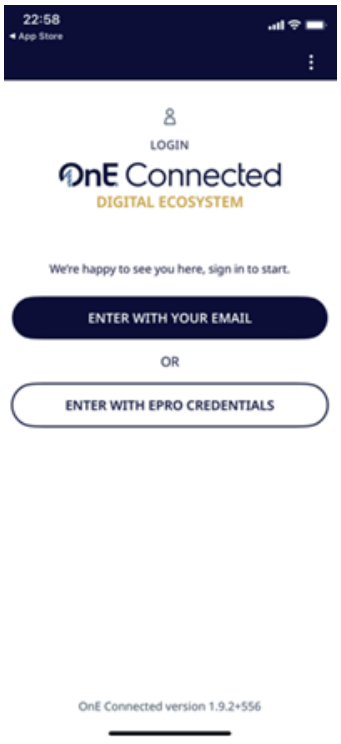


fig.X05223

When all is set up the home page will look according to the example in the figure.

The “OnE Connected Sites” menu can be accessed if your user (e-mail) has been registered as a technical user (A) in the OnE Connected app database. Your role can be seen in the user profile.

If you don't have a Technician user. You can request by clicking on "Request technician access" (B).

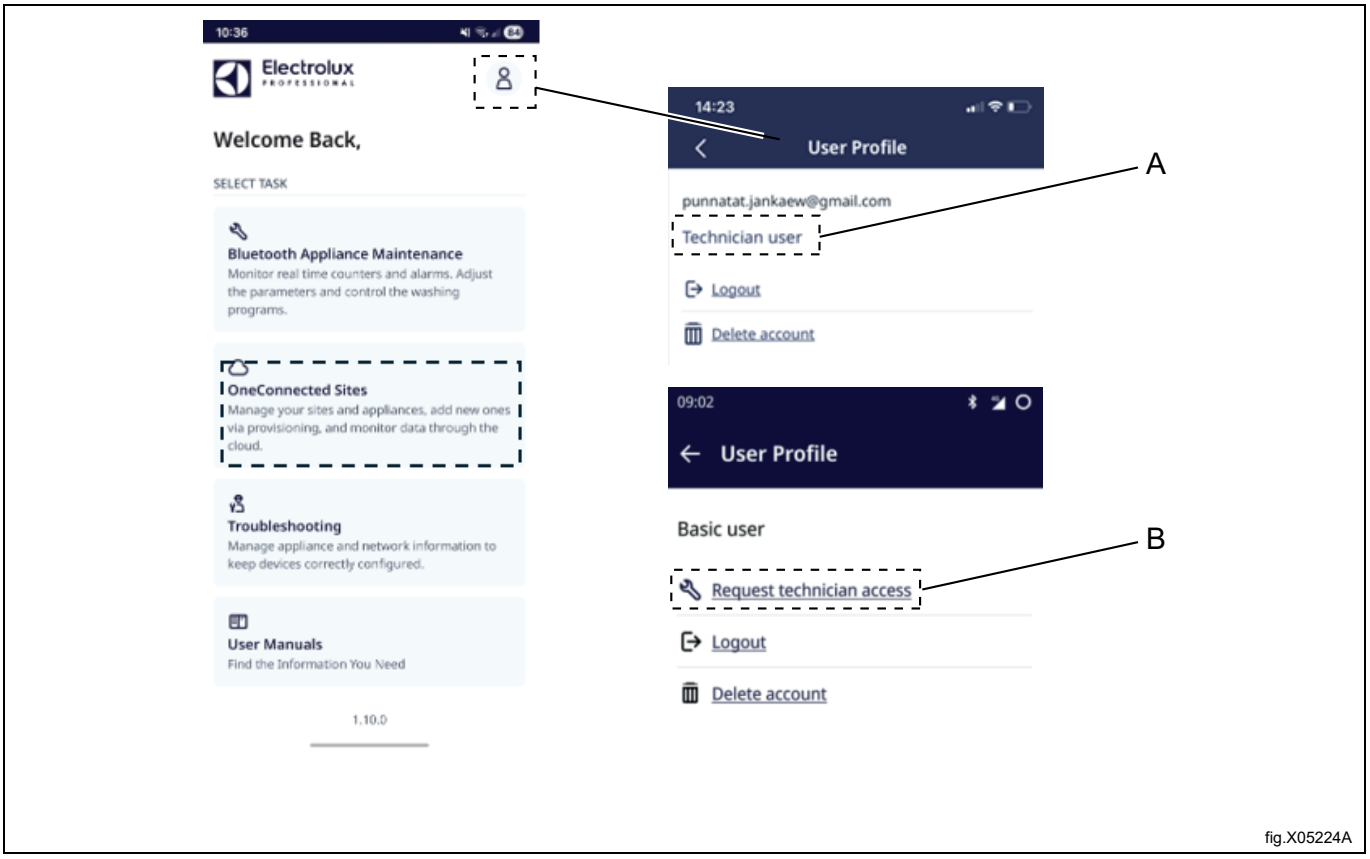


fig.X05224A

9.2 OnE Connected app / OnE Connected Sites

Click on the “OnE Connected Sites” menu.

For laundry who has Technician role this menu allows you to:

- Manage your sites and appliances within your site(s) or your organization(s), add new ones via provisioning, and monitor data through the cloud.
- Manage your appliances via Blutooth connectivity.

You can use the Search (1) menu to find out and then select your dedicated laundry site.

Note!

Your user (e-mail) must has been invited/added into that laundry site (or that organization).

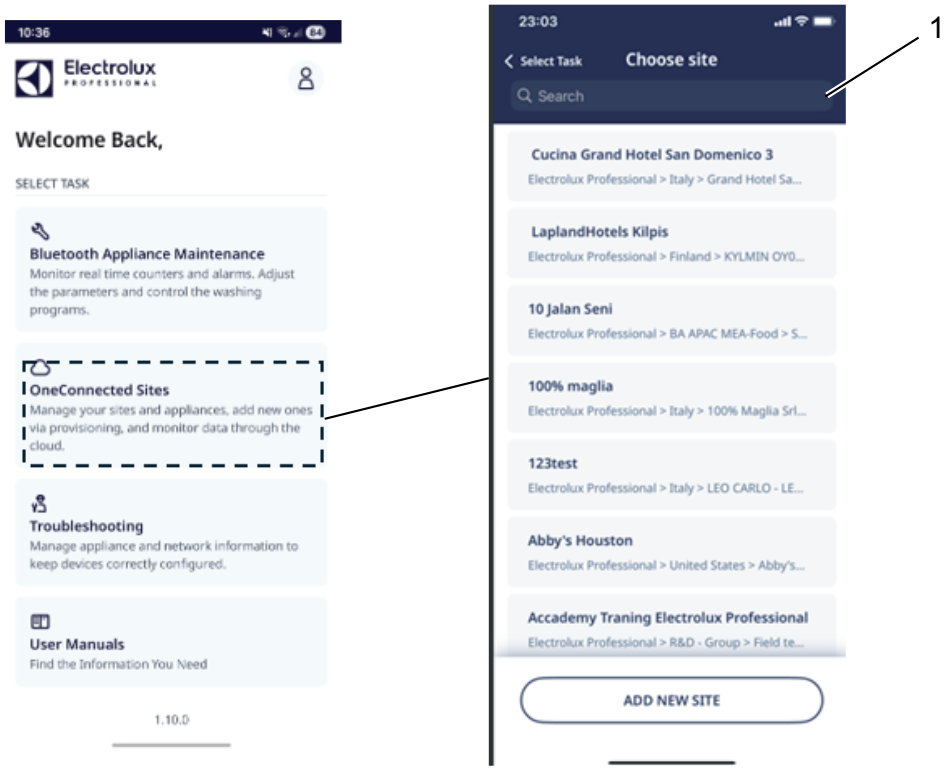


fig.X05225

9.2.1 OnE Connected app / OnE Connected Sites / ADD NEW SITE

Click on the “OnE Connected Sites” menu and then “ADD NEW SITE” (2).

Note!

Your user (e-mail) must has been invited/added into that organization.

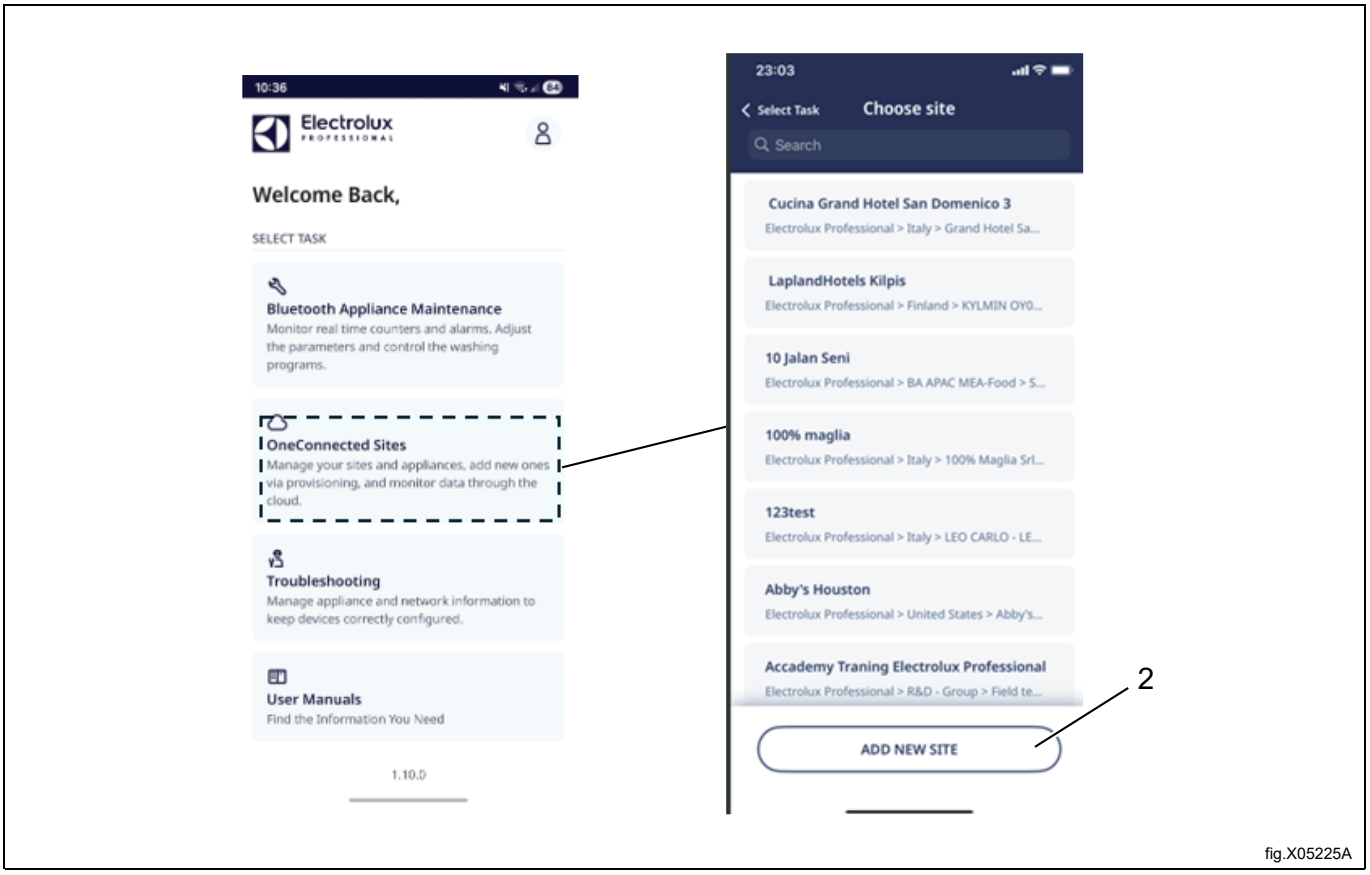


fig.X05225A

The “ADD NEW SITE” menu allows you to create laundry sites in your organization.
Fill-in all required detail and then click “Save”.
The illustration shows an example.

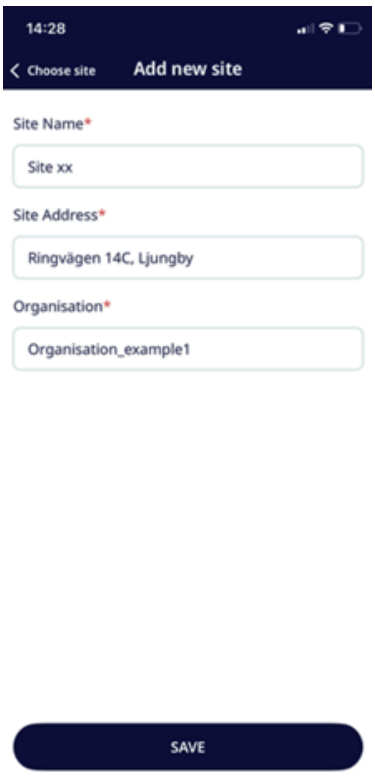


fig.X05226

When a laundry site has been created:

- You can add users into the site by clicking on “USERS” (3), then following the instructions on the screen.
- You can add appliances into the site by clicking on “APPLIANCES” (4), then following the instructions on the screen. (The MWB must already be connected with Wi-Fi).

fig.X05227

9.3 OnE Connected app / Troubleshooting (Test on the customer's Wi-Fi network)

This guide explains how to run a test on the customer's network to troubleshoot our IOT solution.

Step 1: Connect to customer's Wi-Fi

Before starting, make sure your phone is connected to the **Wi-Fi network you want to troubleshoot**.

Important

- The network **must be 2.4 GHz** to work with our IoT devices.
- Troubleshooting **does not work on mobile data**. Ensure you are connected to the customer's Wi-Fi network which will be tested.

Step 2: Open Troubleshooting menu

- Launch the OnE Connected app.
- On the **Select Task** screen, select **Troubleshooting** (A).
- Select **Run a Speed Test** (B).

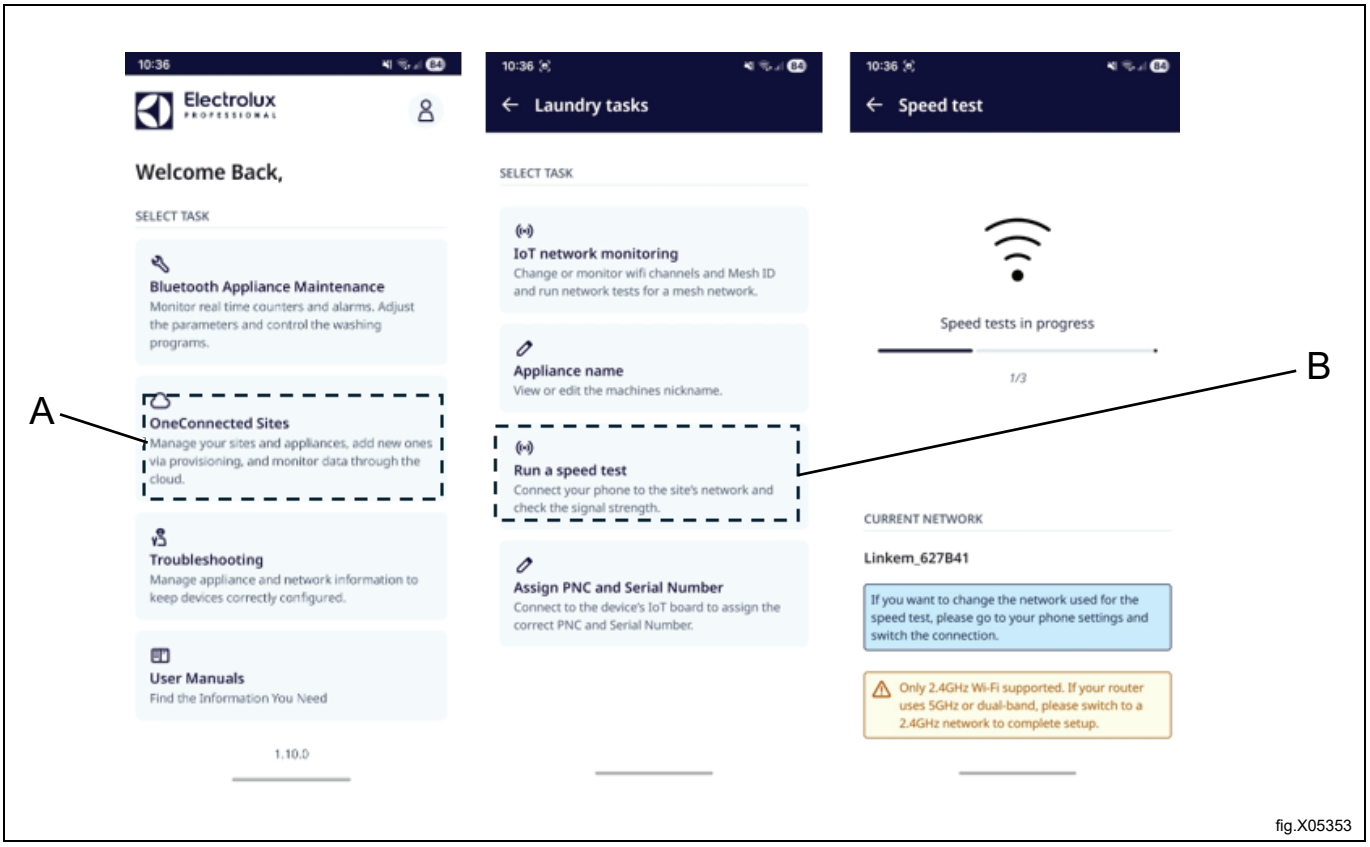


fig.X05353

During running a speed test, the app will perform:

- Download speed test
- Upload speed test
- Ping test

These tests measure the **quality of the network** by connecting to our cloud.

Step 3: View speed test results

- After the test completes, you'll see:
  - **Download speed**
  - **Upload speed**
  - **Ping**
  - **Network Status**

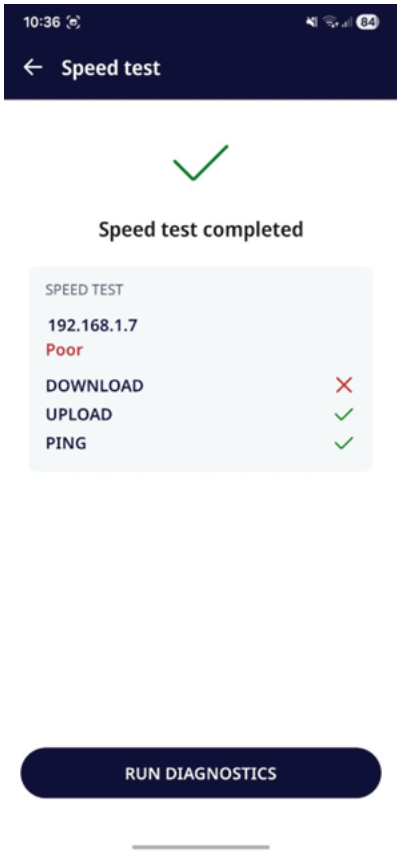


fig.X05356

Step 4: Run diagnostic

- Tap **Run Diagnostic** to continue (C).
- This will check if the network can reach our cloud services and verify required ports.
- A diagnostic report will be displayed with the results.

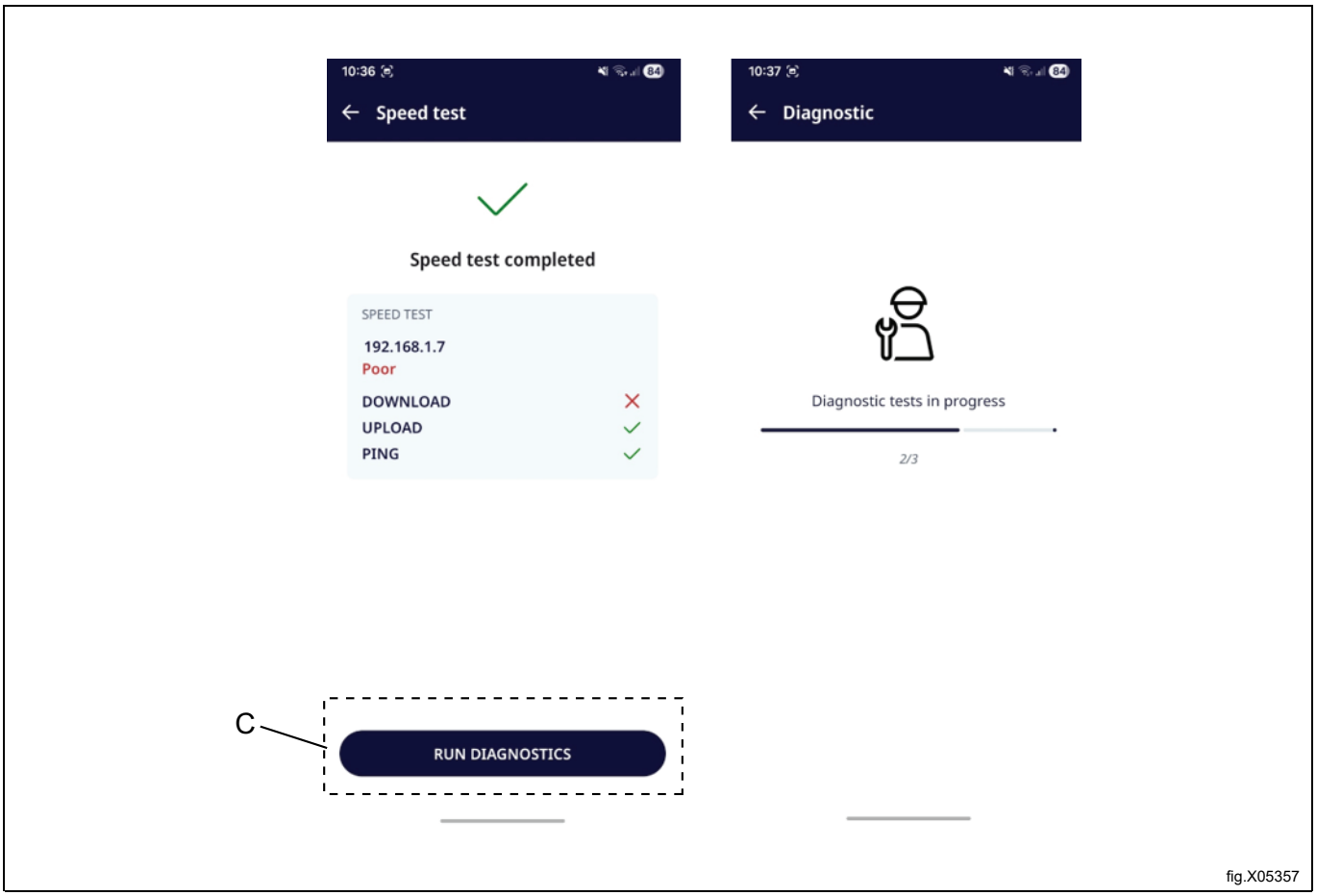


fig.X05357

Diagnostic Results:

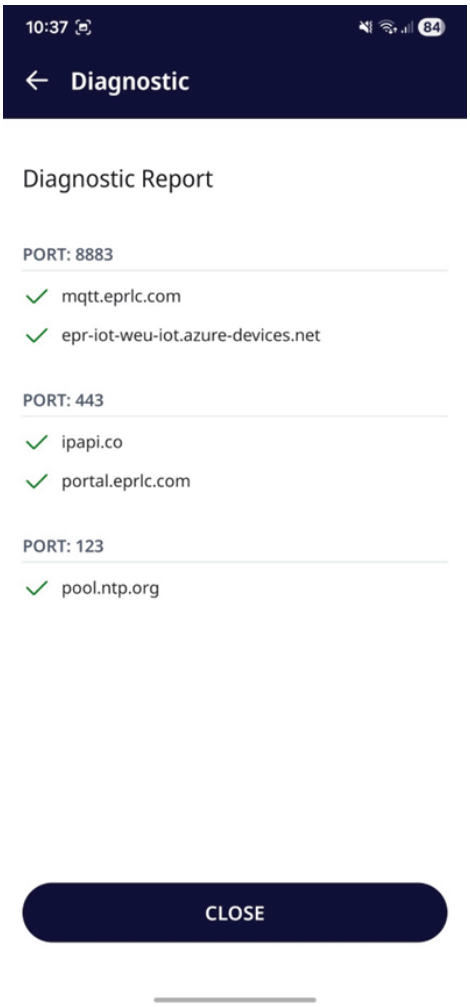


fig.X05358

Summary

- **Speed Test** = Checks network quality.
- **Diagnostic** = Confirms connectivity to our cloud and required ports.

10 Appendix

10.1 Introduction

This section serves as a guide for configuring Wi-Fi network for installation with high number of connected machines (> 50). This guide refers to the Ubiquiti/Unifi products brand Ubiquiti - Rethinking IT - Ubiquiti.

Recommended setup:

- GATEWAY: UCG Ultra : UniFi Cloud Gateway Ultra - Tech Specs
- POE SWITCH: USW Pro 8 PoE (UniFi Pro 8 PoE - Tech Specs) or USW-Lite-8-PoE (UniFi Lite 8 PoE - Tech Specs)
- ACCESS POINT: U6 Enterprise AP (UniFi U6 Enterprise - Tech Specs) → one or more according shop dimensions and total number of machines

10.2 How to define the right number of needed APs

The maximum number of machines (clients) that can be connected to a single U6 AP is 128 : this limitation is consistent across UniFi APs using similar chipsets and firmware architecture. The internal lookup table used to track client MAC addresses and session states is fixed in size, and Ubiquiti has chosen 128 as the safe upper bound for 2.4 GHz to ensure stability.

In any case, according shop layout and dimensions 2 APs may be needed to guarantee stability and suitable performances even with less than 128 clients.

This can be defined in advance knowing the floor-map of the shop and leveraging this utility (Get Started - UniFi Design Center).

As a guideline for the signal strength in the installation (read from AP):

- optimal: all devices receive signal > -65 dBm (good)
- good: few (around 10) devices receive signal in the range [-70 dBM, -65 dBm] (week) while the other devices receive a better signal
- not good: more than one device with signal < -70 dBm (poor or very poor)

The pictures below reports a real situation of a stress test environment with 112 machines connected to one single AP sending/receiving data from cloud still with good performances even if some clients reports signal in the range [-70 dBm, -65 dBm]

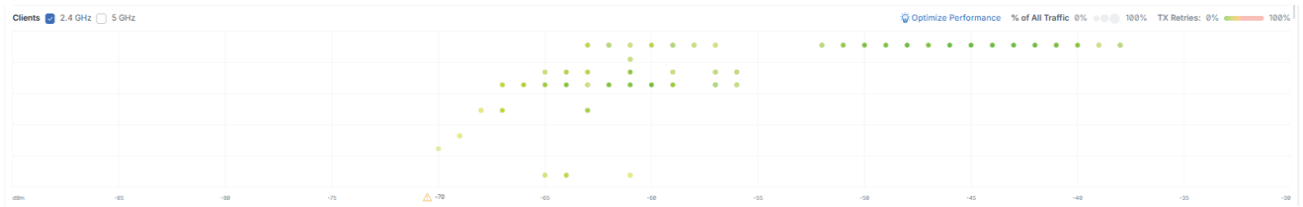


fig.X05385

10.3 Configuration with a single AP

10.3.1 Step 1: creation of Wi-Fi speed limit

On the setting page select “Overview” tab.
Go to Wi-Fi Speed Limit and click on “Create New”.

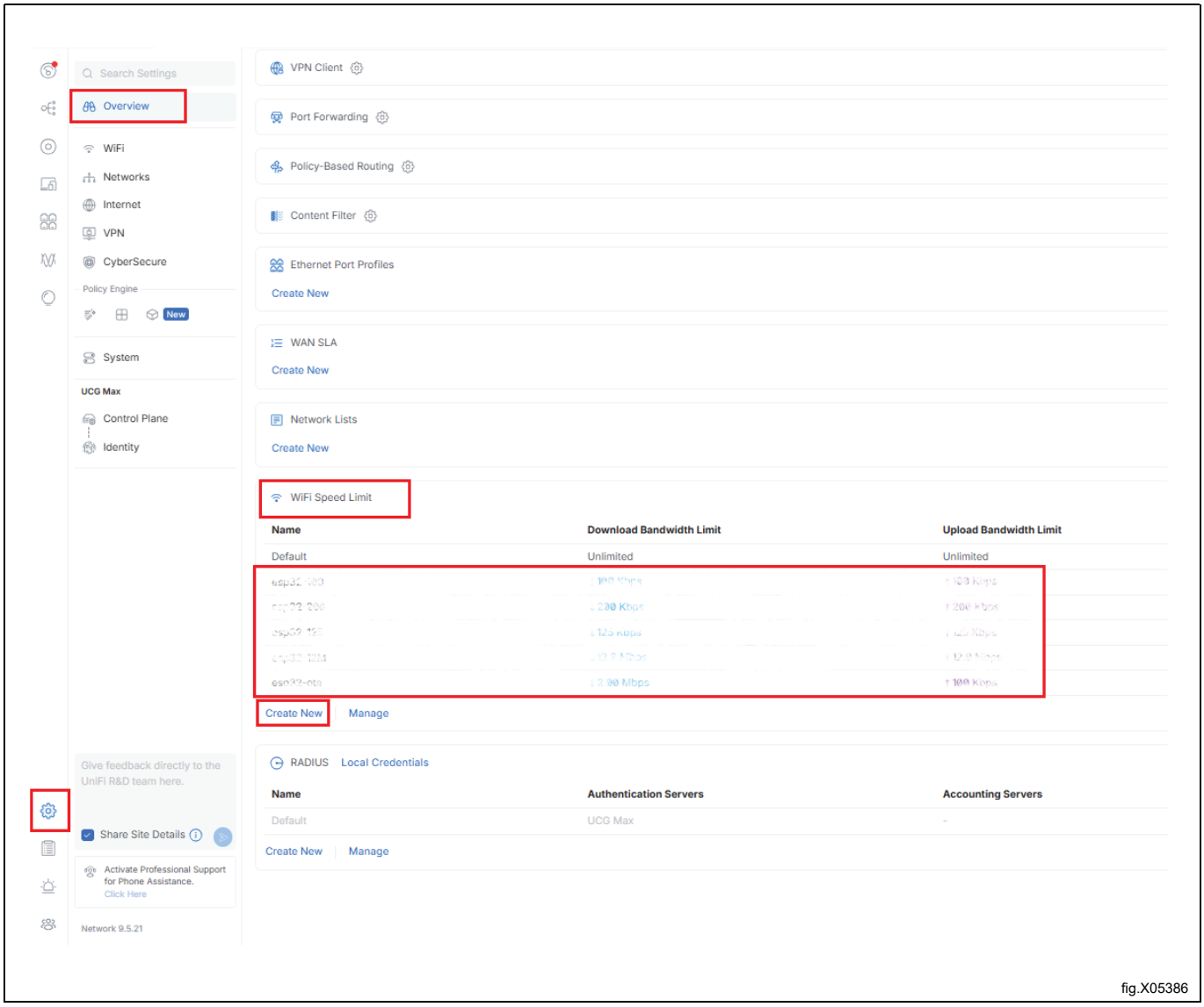


fig.X05386

Create a dedicated profile with the following settings:

- name: esp32-ota
- Download Bandwith Limit : 2.00 Mbps
- Upload Bandwith Limit: 0.1 Mbps

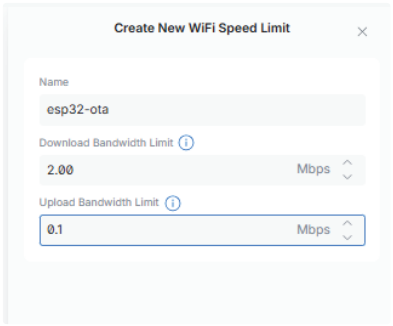


fig.X05387

10.3.2 Step 2: creation of Wi-Fi network

On the setting page select “Wi-Fi” tab and click on “Create New”.

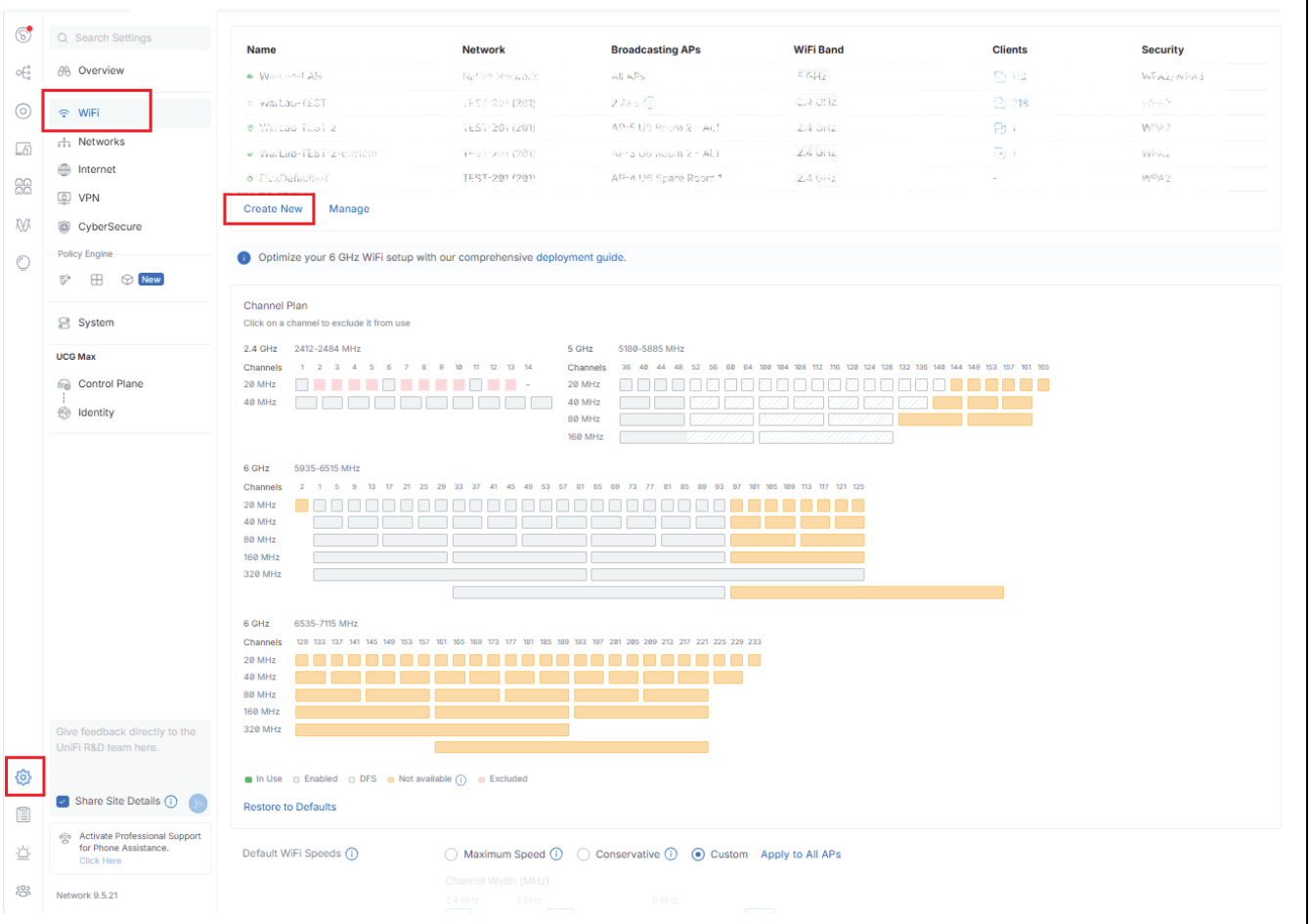


fig.X05388

On the creation page:

- Name: EluxDefaultIoT
- Password : Ed123!@#

Note!

These credentials are the default to be used to connect the boards at the first Installation. After the first successful connection to cloud, it is strongly recommended to change SSID name and Password. See change SSID name and password.

- Select the AP that will broadcast this Wi-Fi network (in this scenarion the only one available).
- Flag “Enhanced IoT Connectivity”.
- Flag “Hide Wi-Fi Name”.
- Set “Wi-Fi Speed limit” to the profile created before (esp32-ota).
- Leave all the other option as in the picture below (default value).

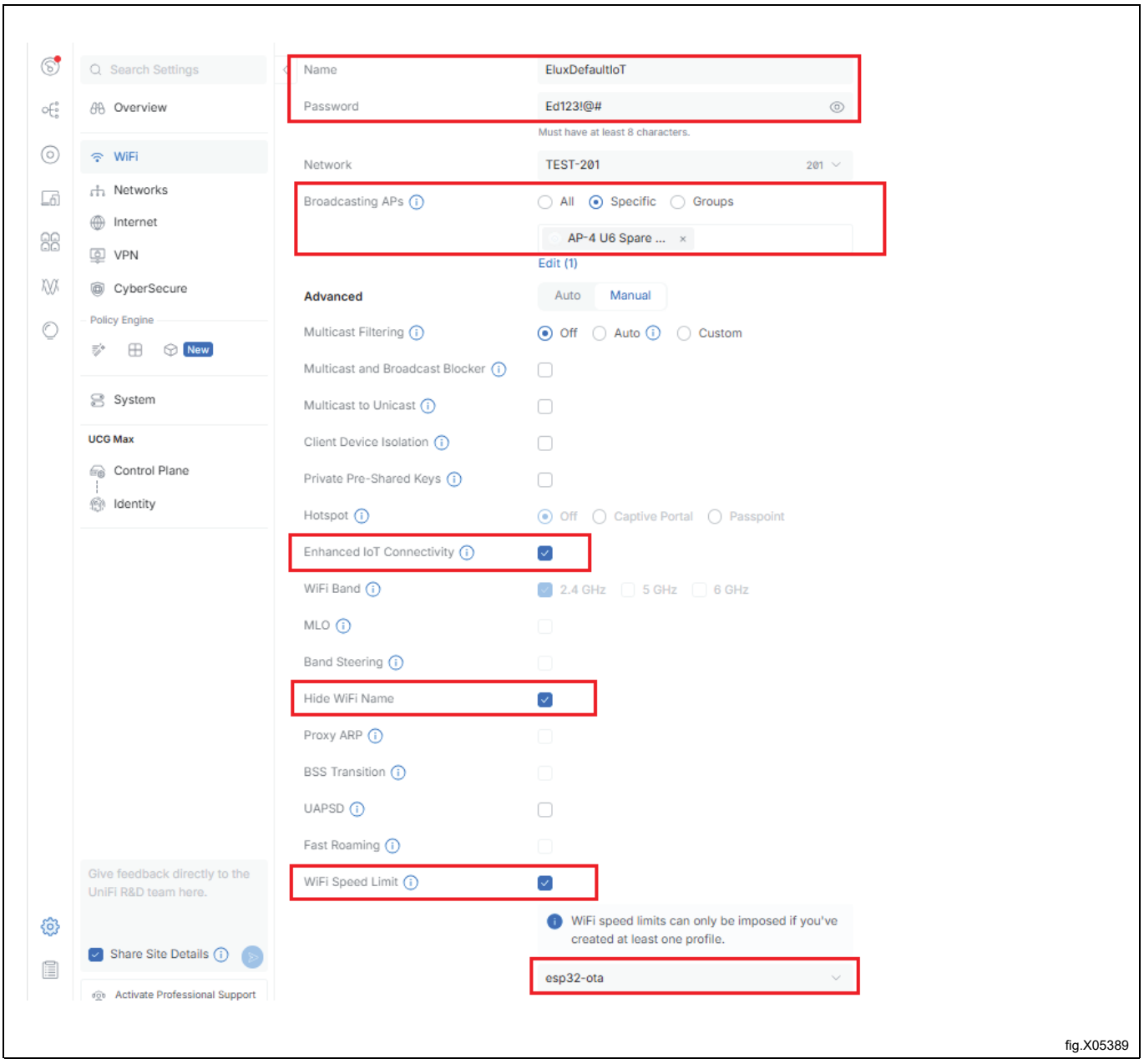


fig.X05389

10.3.3 Step 3: AP settings

On the AP settings:

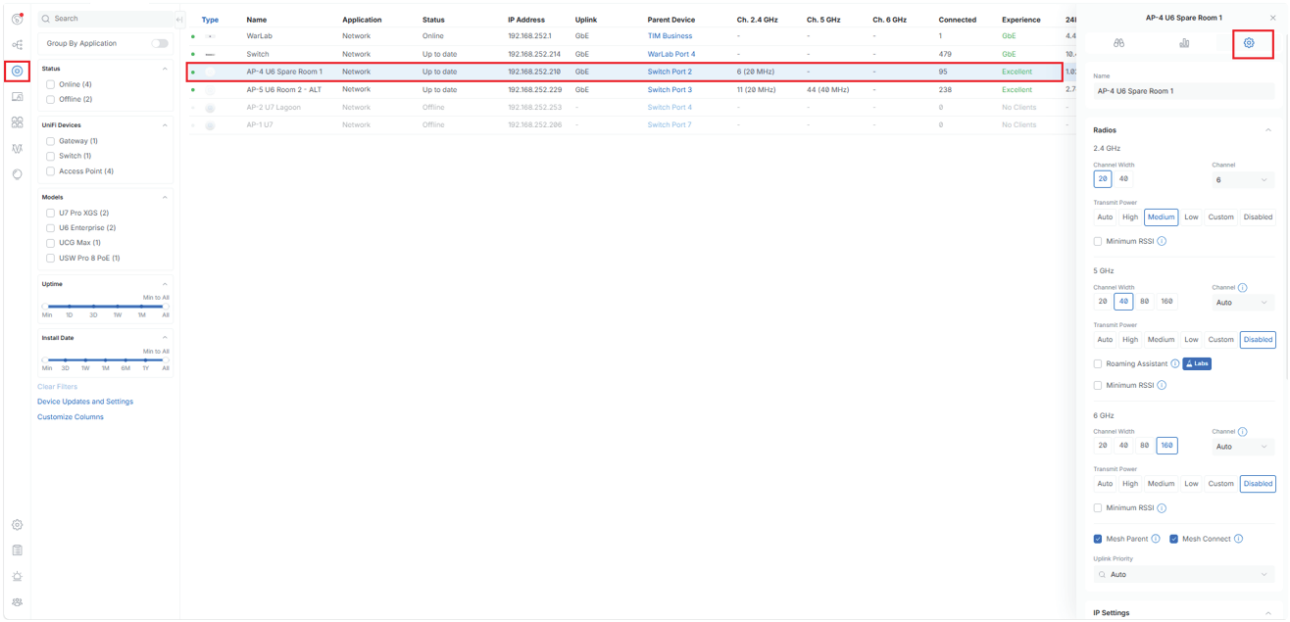


fig.X05390

10.3.3.1 2.4 Ghz settings

- Channel with: 20
- Channel: Consider to use as a fixed channel one among 1 , 6 or 11 . Preferred is 6
- Transmit Power: Medium

10.3.4 Step 4: DNS settings

Select manual settings for the DNS and specify the values reported in the illustration below.

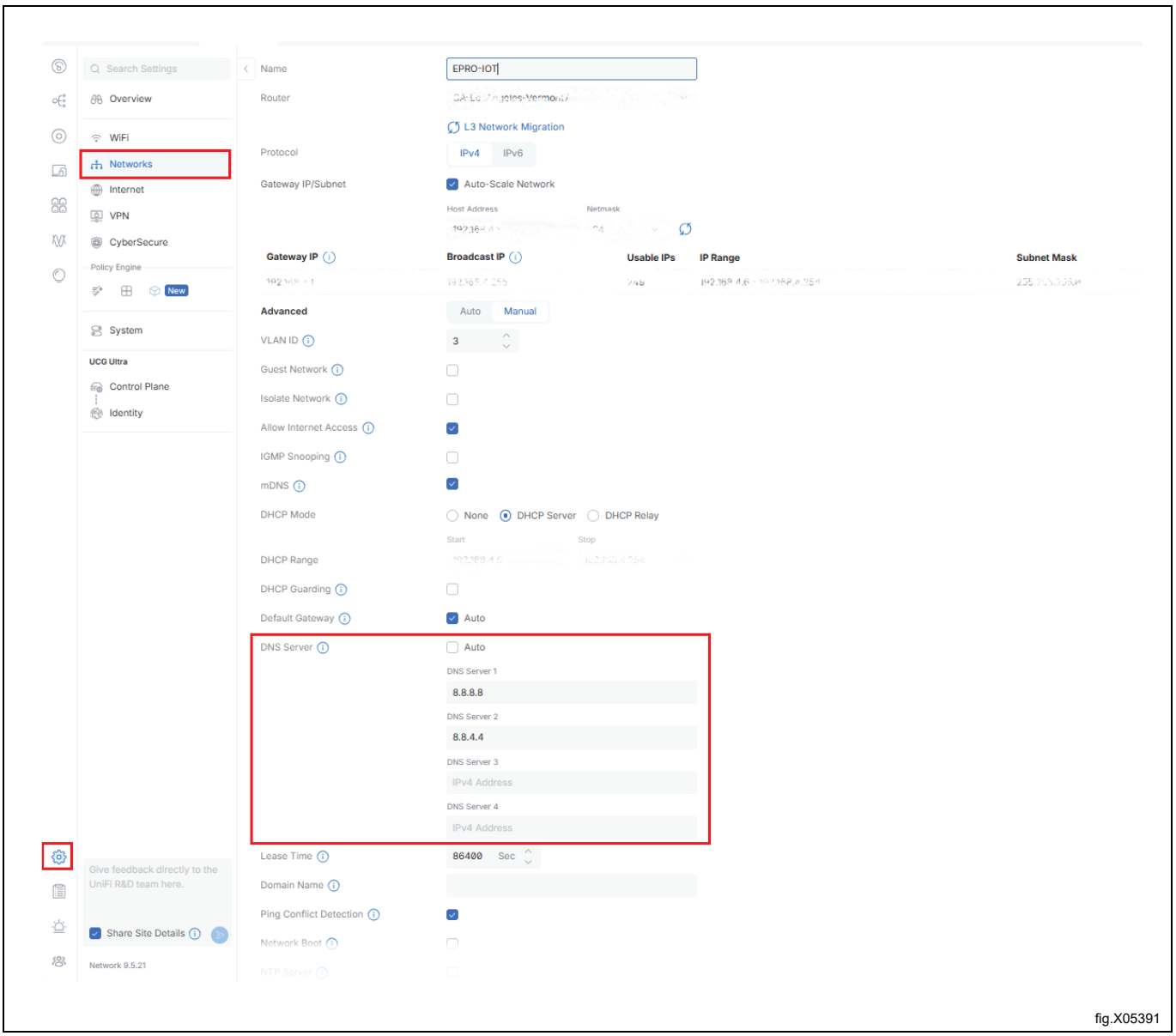


fig.X05391

10.4 Configuration with a multiple APs

After the connection of additional AP, the easiest set up is to add it in the broadcasting field for the WiFi network.

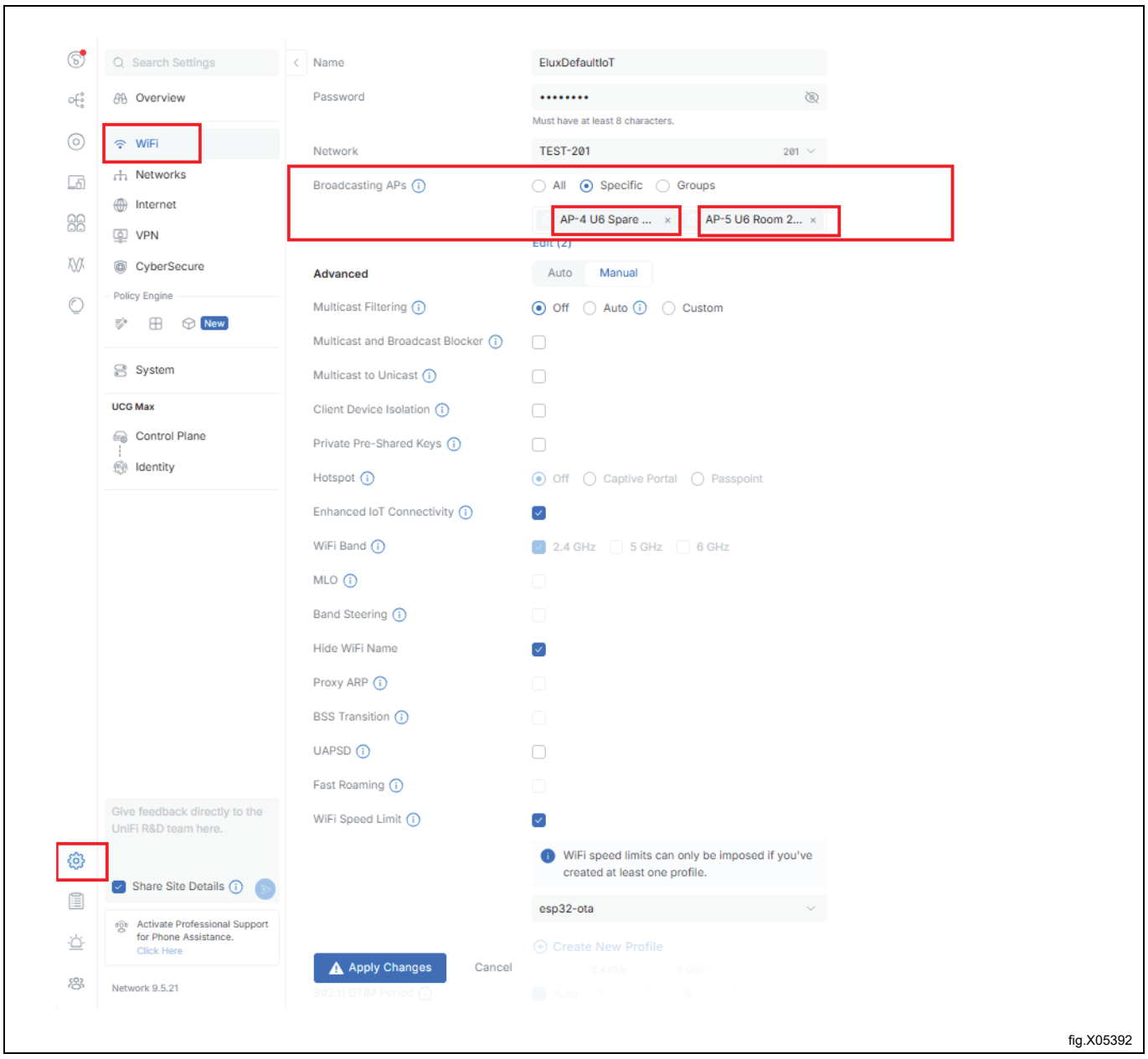


fig.X05392

then, on the AP setting page configure:

10.4.1 Ghz settings

- Channel with: 20
- Channel: select a fixed channel different for the other already selected (remember between 1, 6, 11). In this case 11 is the preferred as channel for the second AP
- Transmit Power: Medium
- Enable both “Mesh parent” and “Mesh Connect” in all the APs

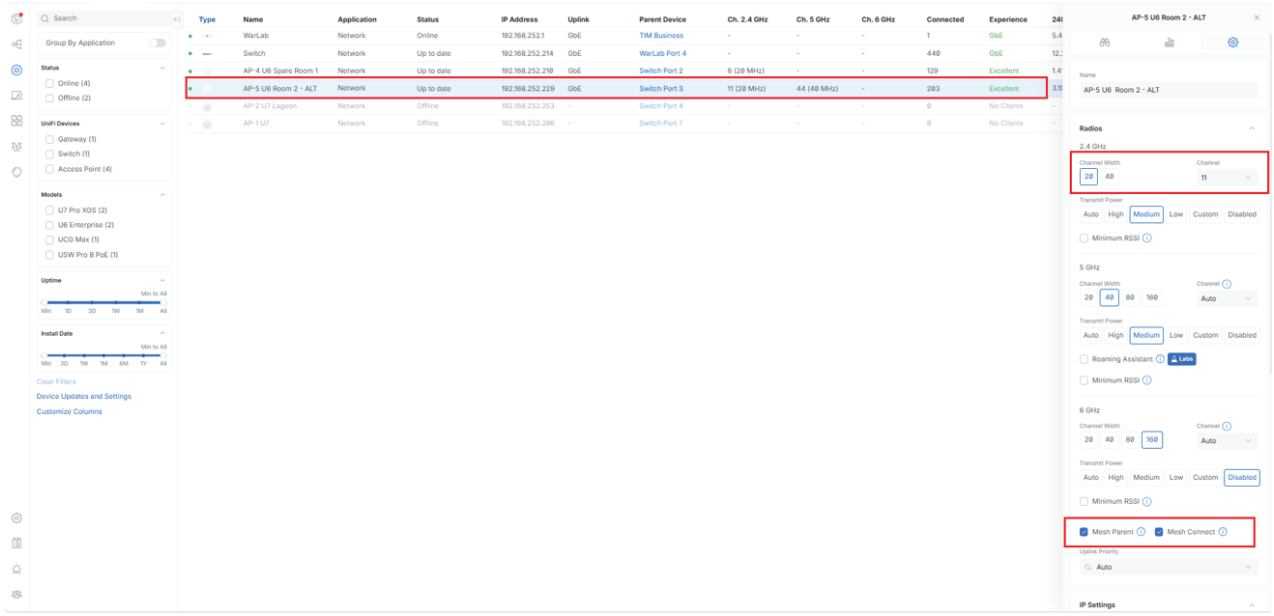


fig.X05393

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