Swegon Connect

TBSC Manual

03/05/2022

1. General

Swegon Connect is a communication unit that enables stable and remote access via mobile connectivity to intelligent climate products and systems, which can facilitate monitoring, configuration, trouble shooting, service and maintenance. Remote access occurs via the built-in router's mobile connectivity, to a cloud-based customer portal.

Examples of products that can be connected to Swegon Connect are: GOLD (from version B), SuperWISE, COMPACT as well as other Swegon products with an integrated web server (e.g. refrigerant units and heat pumps). Swegon's refrigerant units and heat pumps without an integrated web server can be accessed via SMART Link in GOLD.

2. Function

Swegon Connect (TBSC) is supplied preconfigured from the factory to use a fixed IP address. As standard, the product is equipped with two Ethernet ports and if there is a need of more connections Swegon Connect can be supplemented with a switch.

2.1 Subscription for mobile connection

A 24 or 60 month mobile subscription M2M-subscription for mobile connection is included. The SIM card is fitted on delivery.

Swegon Connect can be configured to send an SMS alarm should the mobile connection go down. This function must be activated by Swegon.

Swegon

3. Settings in Swegon Connect

A computer with a web browser is required for managing and operating Swegon Connect. In addition, a computer with support for Java applications may be required to configure connected Swegon products.

Swegon Connect uses a mobile connection for remote connection. The climate system is connected to Swegon Connect via Ethernet for additional access to each product's website.

Figure 1. Swegonconnect.com.

3.1 New users

New Swegon Connect users must register to access this service. Visit swegonconnect.com and click on "Sign up" (Figure 1).

In the following step, you will be asked to enter your details in a form (Figure 2).
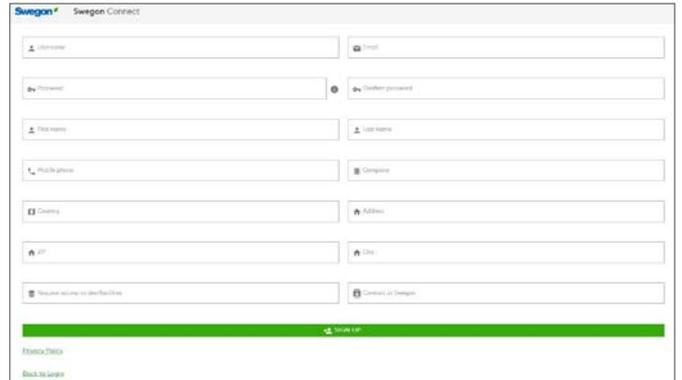
Figure 2. Registration form for new users.

3.2 Router registration

To register a router, you must first be logged into the Swegon Connect customer portal. Now click on the house symbol and "+" in the top right corner (Figure 3).

Enter details in the form about the current router and then click "Register" (Figure 4). An e-mail is sent to Swegon, which activates the router and assigns it to the correct user.
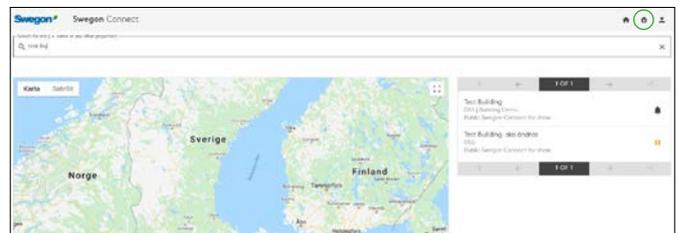

Figure 3. Register router, step 1.

Figure 4. Register router, step 2.

3.3   Configuring

On delivery, the device is configured with an array of IP addresses to be used for connected products.

3.3.1   IP settings

Configuration of IP settings should not be done in Swegon Connect, but preferably on the connected products. Each product must be configured for a fixed IP address and thus use one of the IP addresses in the range obtained from Swegon Connect.
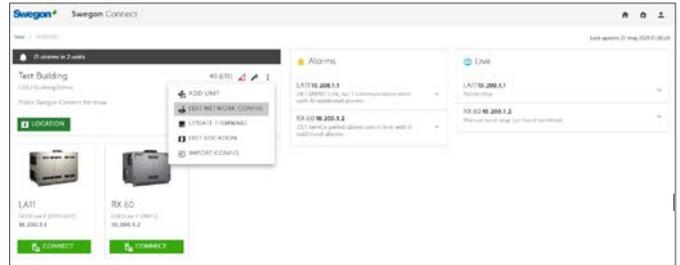
Figure 5. Settings for Network and SMS numbers.

3.3.1.1 Change IP settings in Swegon Connect

In some cases it may be necessary to change the IP settings in Swegon Connect. This may be the case, for example, if there is a BMS network with locked IP series.

Click on the three dots at the top right. Now select "Edit network Config" in the header of the current project (Figure 5) and enter the required value for "Internal IP". This setting then applies to all products connected to Swegon Connect.

Each individual product has its own unique IP address, known as a "port". Enter these details for all products and then click on the "Save" button (Figure 6).

The settings are now forwarded to Swegon Connect's router, and it can take up to 10 minutes before everything is activated. The system will restart during the process. Verify the settings by clicking on "Edit Network" and checking that everything is correct.
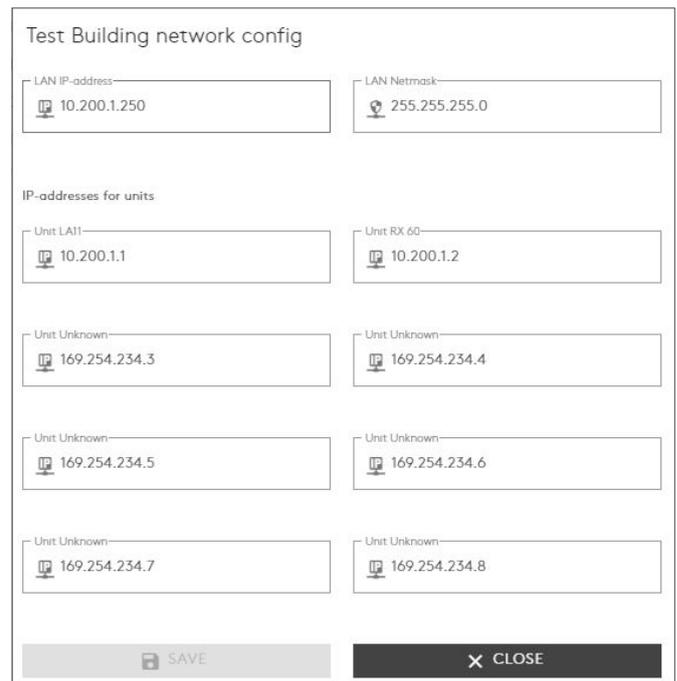
Figure 6. IP settings in Swegon Connect.

3.3.1.2 Increased security

It's possible to further increase the security of the system by enabling/disabling the router's data traffic via SMS commands. These commands can only be sent from pre-approved phone numbers.

Click on the pen in the top right corner (Figure 5) and specify up to two telephone numbers for control of the data traffic (Figure 7). Save the settings by clicking on the "Save" button.

Contact Swegon for information on telephone numbers from where SMS commands can be sent.

SMS commands

Function	SMS commands
Disable data traffic	set profile alt 2
Enable data traffic	set profile alt 1
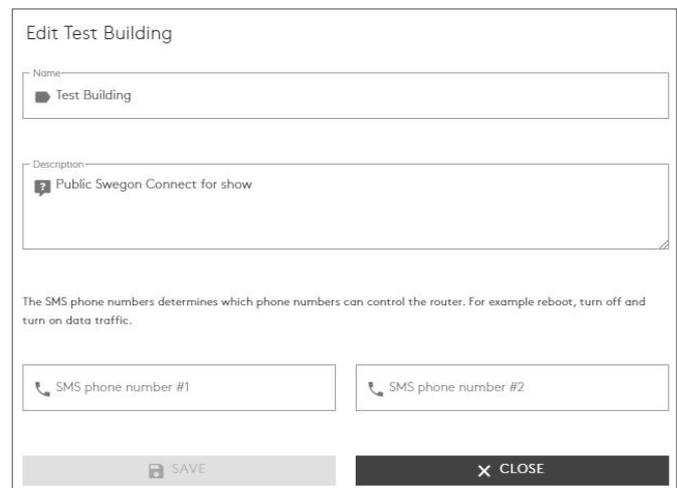
Figure 7. Specify phone numbers for SMS commands.

4. Information and settings

|	
4G (LTE)	Which mobile technology is used for data transfer
◢	The strength of the mobile signal
✎	Change the product name, enter a description and SMS function for increased security to control the data traffic
⋮	Add a product, change the network, update router software, add or correct the location
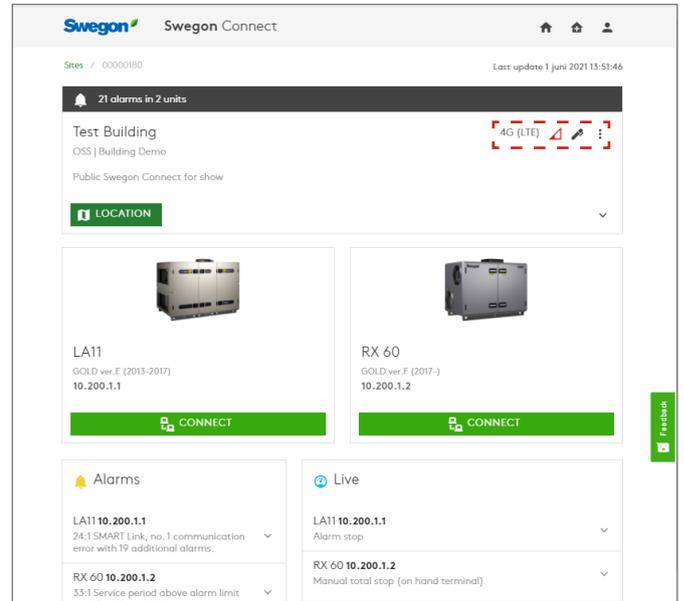
Figure 8. Information and settings.

4.1 Update software

The Swegon Connect router has software installed that is unique to Swegon. The software makes various functions available. Sometimes new versions of the software become available with e.g. improvements, new features or bug fixes.

For version 3.0 or later, it's possible to update the software yourself. For older versions you need to contact Swegon.

The IP addresses of the products must be re-entered the first time the software is updated to version 4.0 or later. This can be done using the Import Config feature, which is automatically downloaded to the user's computer during the update process. The Config file must then be imported, this only needs to be done once. When updating from version 4.0 to a newer version, this import is not needed.

Click on the three dots in the top right corner and select "Update Firmware" to update the software yourself (Figure 9).
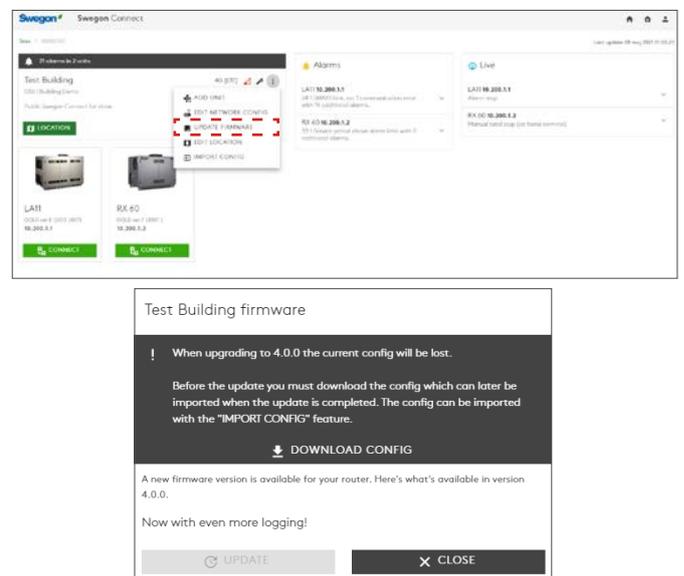

Figure 9. Update software.

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4.2   Location

After logging on to Swegon Connect, a map of where your Swegon Connect is positioned is displayed. This position must be entered manually for Swegon Connect with router software 3.02 or older. This is done by clicking in the upper right corner on "Edit Location". The location is entered either by clicking on the map, or by entering the address.

For Swegon Connect with router software 4.0 or later an approximate location will be stated where the mobile mast's cell id is used. This position can be corrected with "Edit Location" (figure 11), to give a more accurate placement.

Older versions of Swegon Connect that do not have a specified location will not be shown on the map but are only shown in the Site list to the right. However, it's possible to add a location afterwards.
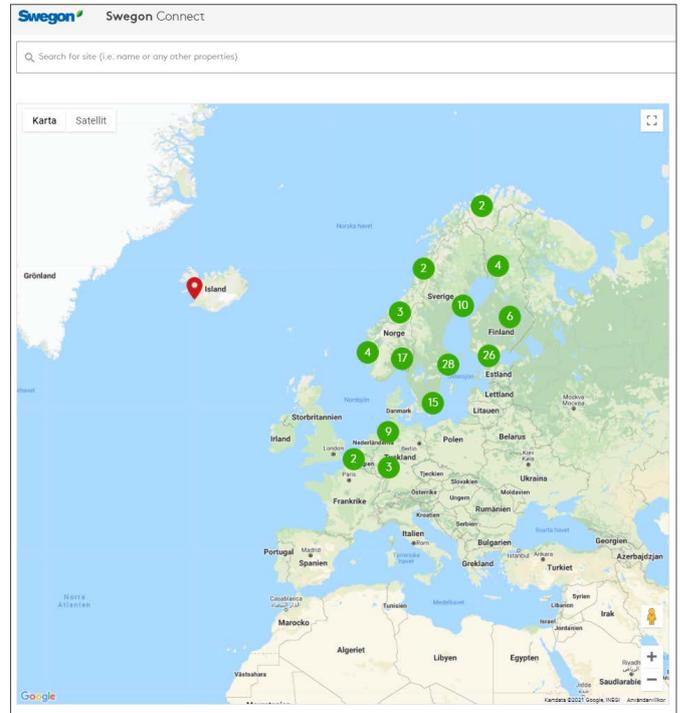

Figure 10. Swegon Connect placement map.
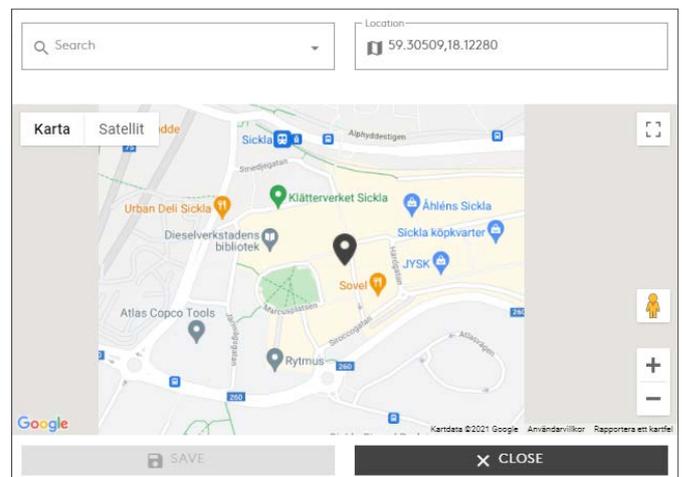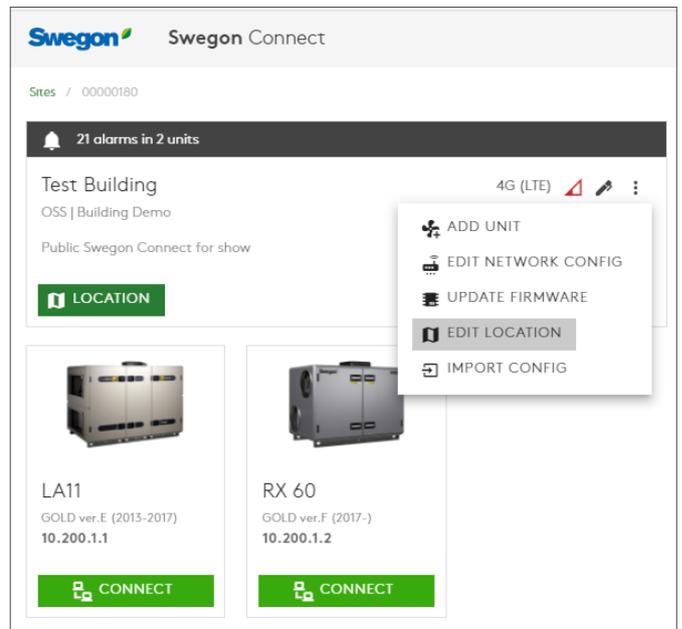
Figure 11. Correction of Swegon Connect's placement on the map.

Swegon Connect

4.3 Live data

For some Swegon products, it's possible to see live data without connecting to the product. This is made possible by Swegon Connect continually uploading some data to Swegon Connect's cloud service. Current data and status are shown by clicking on the product name in the "Live" dialogue window. It's also possible to see live data by clicking on the product.
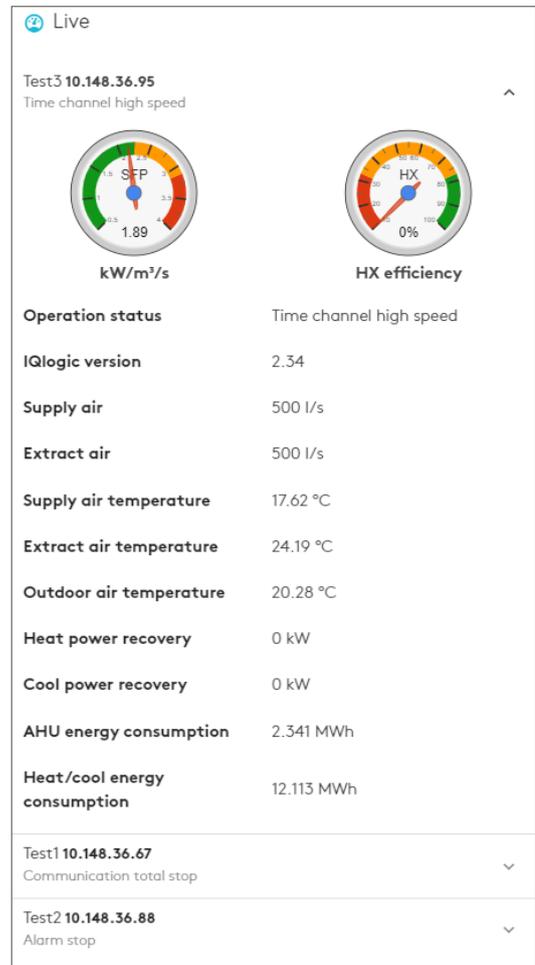
Figure 12. Live data.

4.3.1 History

For router software version 4.0 or later, it's also possible to view historical logged data for many parameters. Click on the product and then on "History" to see this.

The fields can also be used to set the period for which logged data will be displayed, as well as the frequency of the intervals to be displayed.

Current values and times are shown by moving the cursor over the different points of the diagram (Figure 13).
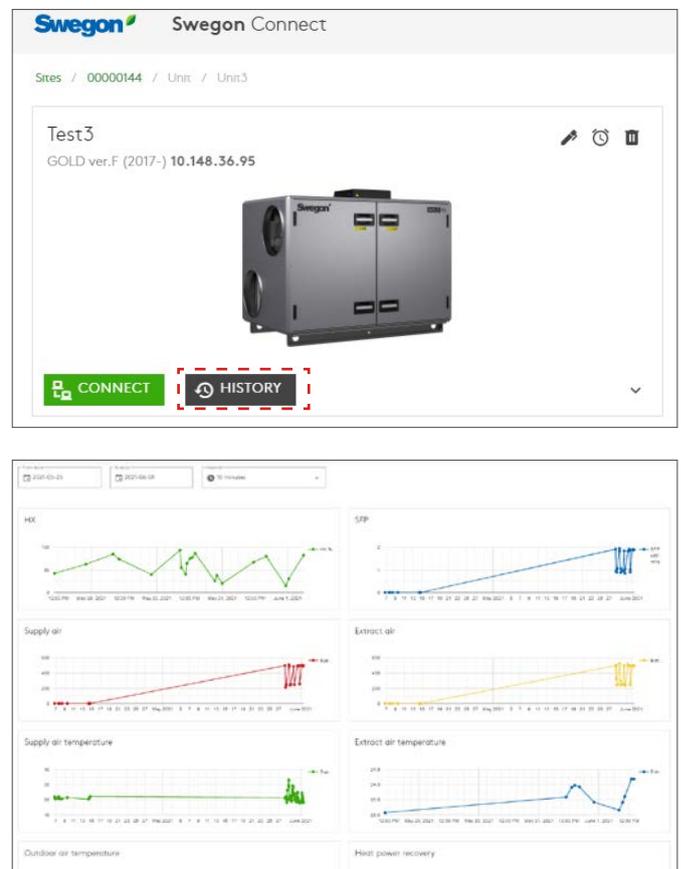
Figure 13. History.

4.4 Alarms

For some of Swegon's products, you can receive alarms via SMS or e-mail. A clock symbol is shown after clicking on the product. Using this icon, you can then set which types of alarm, you wish to receive via checkboxes. A-, B and Info alarms (Figure 13). It's only possible to set alarms for the user you're logged in as.
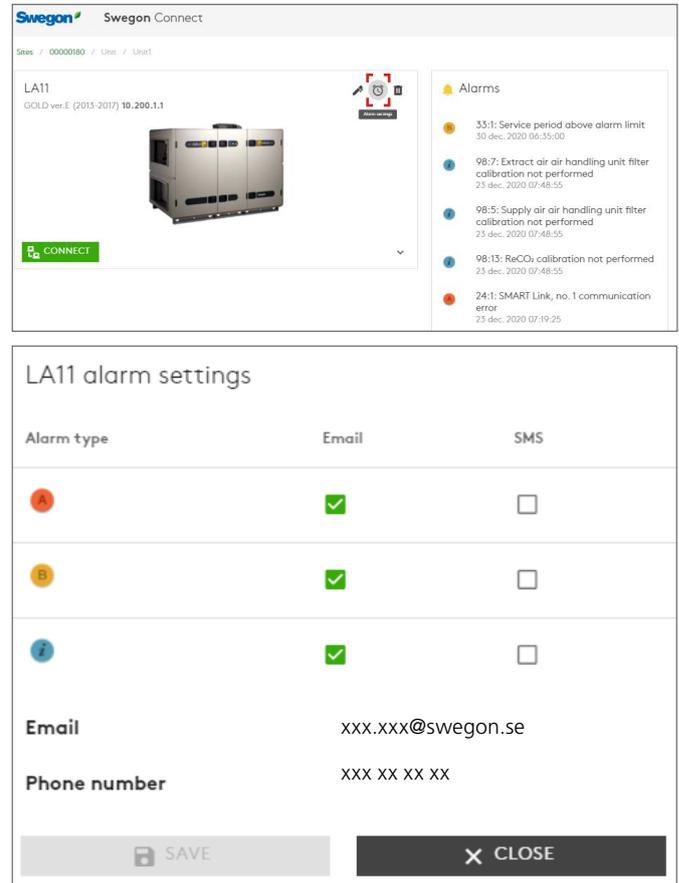
Figure 14. Alarm.

4.5 Feedback function

The "Feedback" function makes it possible to leave opinions and feature requests about Swegon Connect. Clicking on the green button allows you to submit ratings and comments as well as an e-mail address if feedback about your comment is desired.
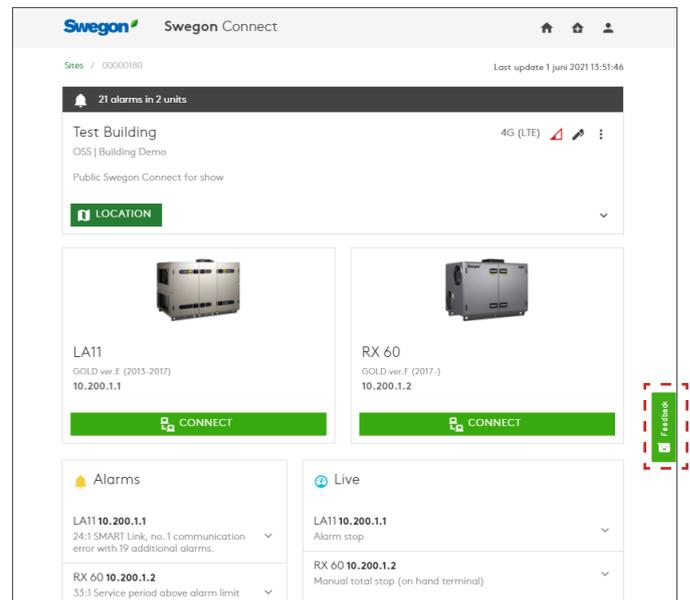
Figure 15. Feedback function.

5. Connect to Swegon Connect

5.1 Connect 1-2 products
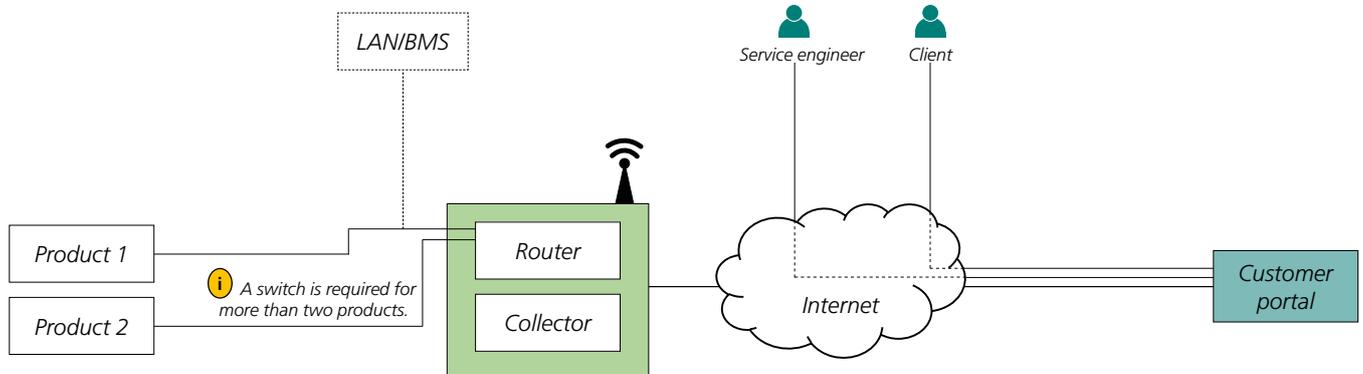
Figure 16. System overview and connections, 1-2 products.

5.2 Connect 3-8 products
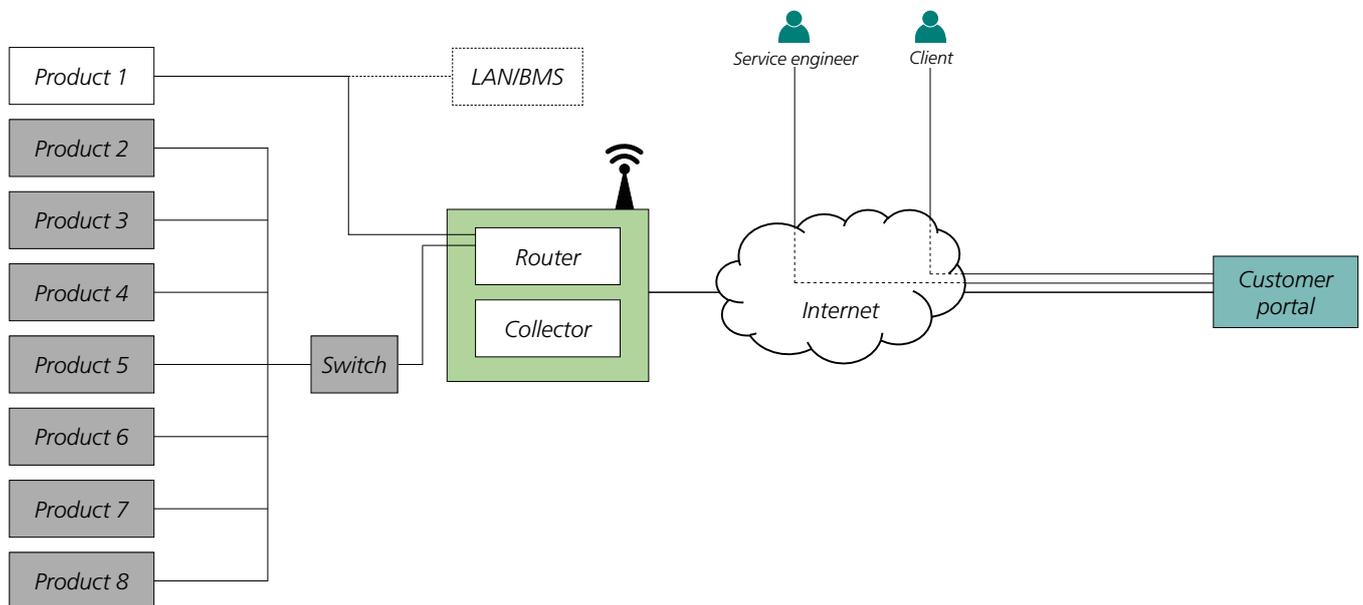
Figure 17. System overview and connections, up to 8 products.

5.3   Connect and configure products

Connection between Swegon Connect and products such as GOLD and SuperWISE may vary depending on version and design. External products and networks are additional factors to consider.

5.3.1   GOLD version E or later

Connect the cable from Swegon Connect to one of the Ethernet ports on the air handling unit's control card. Select port A if no other networks or air handling units are present, otherwise port B (Figure 18).

The cable should be connected to one of the Ethernet ports (ETH0/ETH1) on Swegon Connect or to the switch when used.

For further information, see the Operating and Maintenance Instructions for GOLD or the Swegon Connect Installation instructions.

5.3.1.1   Connect an air handling unit with network settings from the factory

Air handling units whose factory settings have not been changed appear directly in the list of available devices when the Ethernet cable is connected to port A. Click in the upper right corner on the dots. Select "Add Unit". Name the air handling unit, select product type and choose the IP address from the list. If the IP address, you want to use is not listed, go to "Edit Network" and change to the correct IP address. It will then be selectable under "Add unit IP address" (Figure 19).

If the air handling unit is not displayed automatically, the "Default Gateway" may need to be configured.

Port A is used if no other networks or air handling units are connected, otherwise Port B
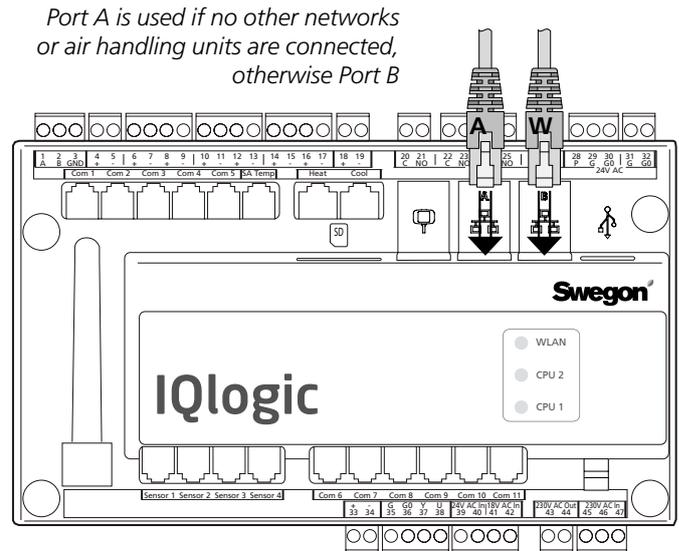

Figure 18. Ethernet cable from Swegon Connect to GOLD IQlogic control card.
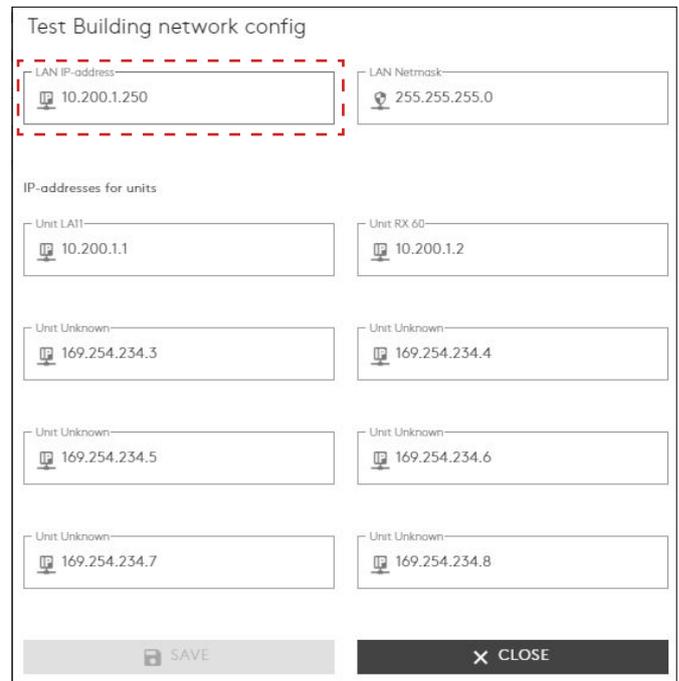
Figure 19. IP settings in Swegon Connect.

Figure 20. It's also possible to remove added products by clicking on the trash can at the top of the dialogue box.

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5.3.1.2 Several air handling units with changed network settings

When connecting two or more GOLD air handling units, the first air handling unit may have maintained its network settings, while the IP addresses of the subsequent air handling units must be corrected to avoid a conflict. The default gateway must be the same for all products connected to Swegon Connect (Figures 21-23).

This example shows the connection of 3 GOLD air handling units.

Click on "Network" in the header for the current project (Figure 5) and set the IP addresses according to Figure 19 and Figures 21-23.

Set the "IP address" and "Default Gateway" in the GOLD air handling unit, via its handheld terminal or web page. These values should be the same as for "Internal IP" and "port1-3" in Swegon Connect (Figure 19 and Figures 21-23).

Go back to the first page of the project in Swegon Connects customer portal (Figure 20). Click on "Add" for the current air handling unit and name it as desired.
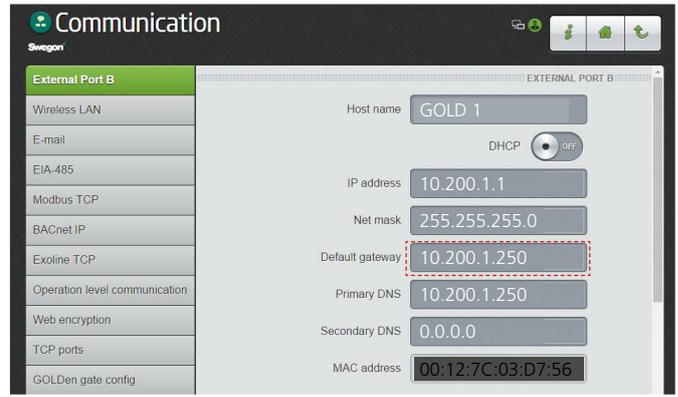
Figure 21. Network settings in GOLD AHU 1.
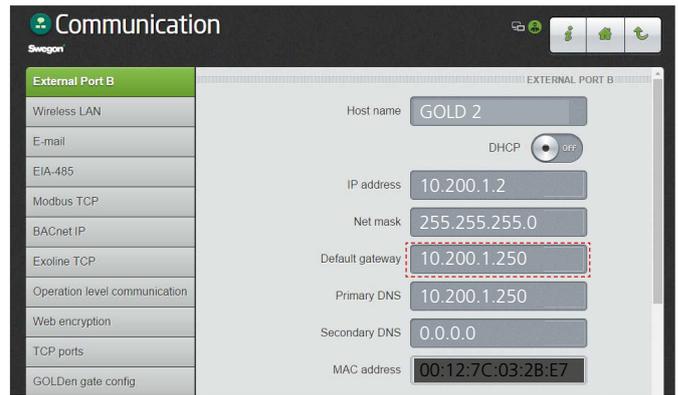
Figure 22. Network settings in GOLD AHU 2.
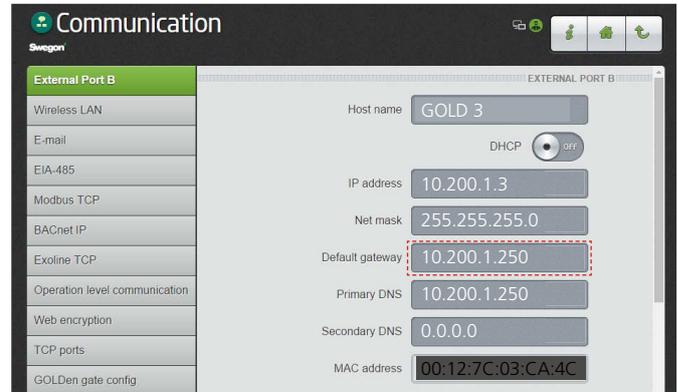
Figure 23. Network settings in GOLD AHU 3.

5.3.2 GOLD version C or D

The air handling unit settings must be adapted prior to connecting to Swegon Connect. This requires you to log in at installation level or service level.

Set the "IP ADDRESS" and GATEWAY" in the GOLD air handling unit, via its handheld terminal or web page. The settings are found under SETTINGS, COMMUNICATION and ETHERNET (Figure 24). These values should be the same as for "Internal IP" and "port1" in Swegon Connect (Figure 19).

Connect the cable from Swegon Connect to the Ethernet port on the air handling unit's control card (Figure 25).

The cable should be connected to one of the Ethernet ports (ETH0/ETH1) on Swegon Connect or to the switch when used.

Click on "Network" in the header for the current project (Figure 5) and adapt the network settings (Figure 19) so that they correspond to those of the air handling unit.

Go back to the first page of the project in Swegon Connects customer portal (Figure 20). Click on "Add" for the current air handling unit and name it as desired.

For further information, see the *Operating and Maintenance Instructions for GOLD* or the *Swegon Connect Installation instructions*.

```
* GOLD *            FRI 08:20
STOP?
MAN/AUTO. OPERATION
SETTINGS
```

```
COMMUNICATION
```

```
* COMMUNICATION *
EIA232
EIA485
ETHERNET
```

```
* ETHERNET *
MAC ID
DHCP-SERVER
IP ADDRESS
```

```
* IP ADDRESS *
010.200.001.001
```

```
DHCP-SERVER
IP ADDRESS
SUBNET MASK
GATEWAY
```

```
* GATEWAY *
000.000.000.000
```
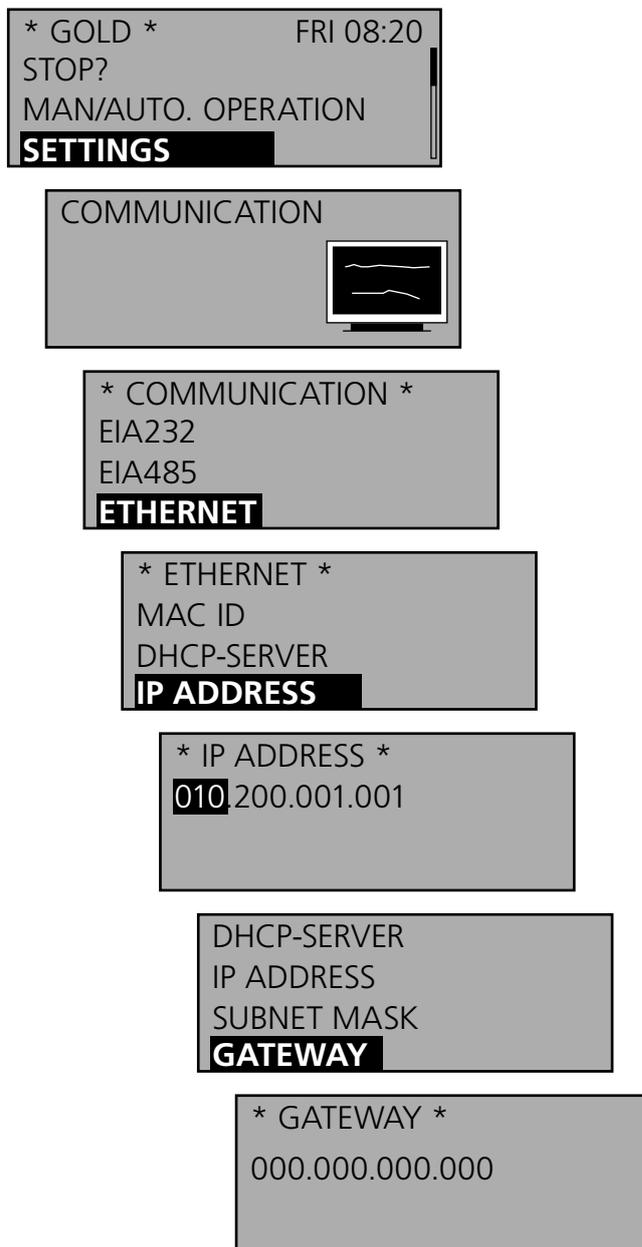
Figure 24. Network settings in GOLD AHU, version C or D.
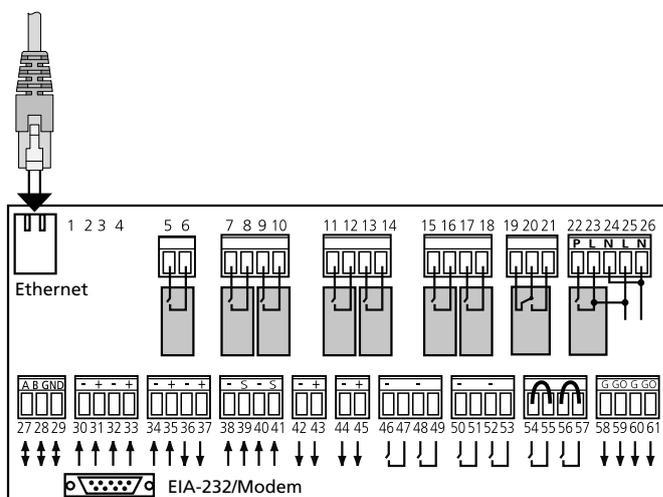
Figure 25. Ethernet cable from Swegon Connect to GOLD IQnomic control card.