EasyConnect EC250 Starter kit

Get Started with EasyConnect

1. Checklist of Contents

☐ Netbiter EC250

☐ Netbiter IOX-DAIO

☐ Power Supply

☐ Power cables, UK, US and EU

☐ Cable kit (Temp. sensor, RS-485, Power)

☐ 5m extension antenna, magnetic foot
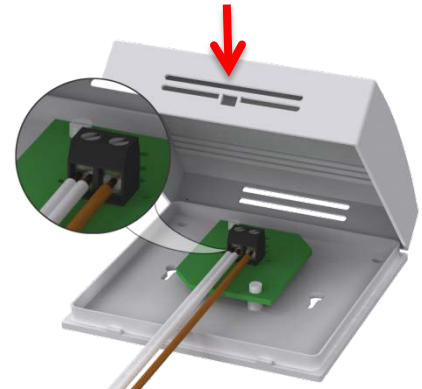
☐ Netbiter SIM card

☐ Temperature sensor

2. Hardware installation

2.1 Connect the Temperature Sensor

1) Open the housing of the temperature sensor by pushing in the plastic tab, as indicated by the arrow below.

2) Connect **both** white wires to terminal 1 *(both to the same).*

3) Connect the brown wire to terminal 2.

The other ends of the wires should be connected to the Netbiter IOX-DAIO.

4) Connect one white wire to terminal 1a (pin 1)

5) Connect the other white wire to terminal 1b (pin 2).

6) Connect the brown wire to terminal C (pin 5).

7) Check that the jumper switches on the IOX-DAIO are in the correct positions. The first switch should be in the upper position, and the rest in the lower position.
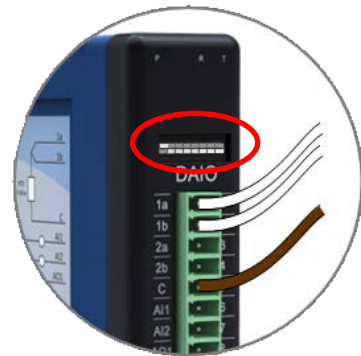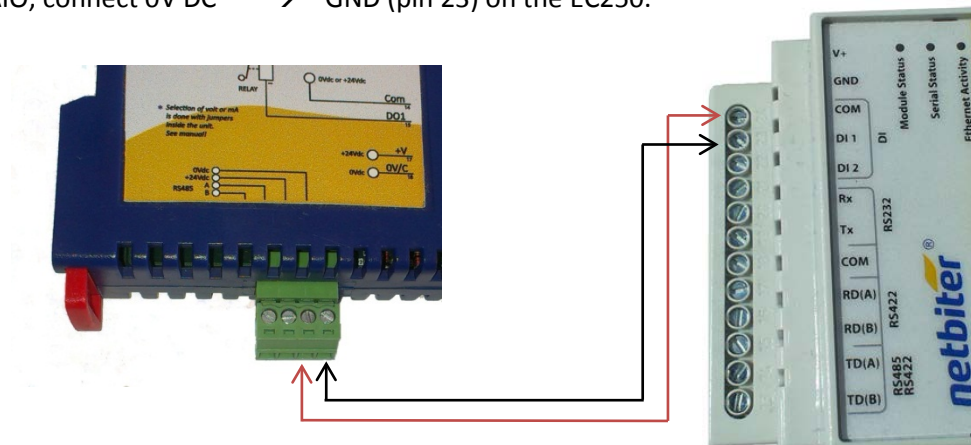
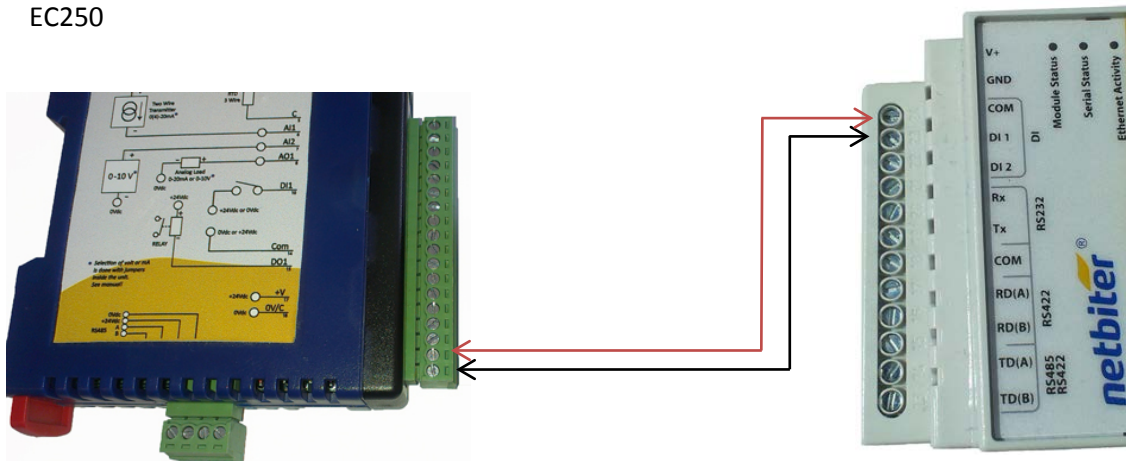## 2.2 Connect the Netbiter IOX-DAIO to Netbiter EC250

1) On IOX-DAIO, connect Pin A → Pin TD(A) (pin 14) on the EC250.
2) On IOX-DAIO, connect Pin B → Pin TD(B) (pin 13) on the EC250.
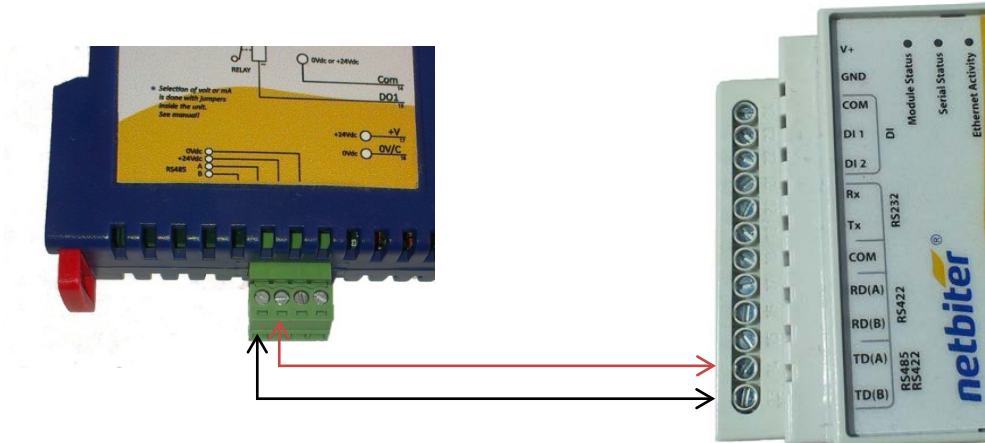
3) On IOX-DAIO, connect +24V DC → V+ (pin 24) on the EC250.
4) On IOX-DAIO, connect 0V DC → GND (pin 23) on the EC250.

5) On IOX-DAIO, connect +V (pin 17) → V+ (pin 24) on the EC250
6) On IOX-DAIO, connect 0V/C (pin 18) → GND (pin 23) on the
   EC250

2.3 Connect Ethernet cable

⚠ **NB!** If using a SIM card to connect via a cellular phone network, this step should be omitted.

1) Insert an Ethernet cable with an RJ-45 plug into the Netbiter EC250.

2) Connect to a network with Internet access.

2.4 Insert SIM Card

⚠ **NB!** If connecting via an Ethernet network, this step should be omitted.

1) Open the SIM card holder by pushing the small yellow button next to the SIM card holder on the left of the EC250.

2) Insert the SIM card, with the gold-colored connection area facing as shown in the illustration.

3) Re-insert the SIM card holder.

2.5 Connect the Antenna

⚠ **NB!** If connecting via an Ethernet network, this step is not required.

Connect either the angled antenna or the magnetic foot antenna to the antenna screw connector on the top of the Netbiter EC250 unit.
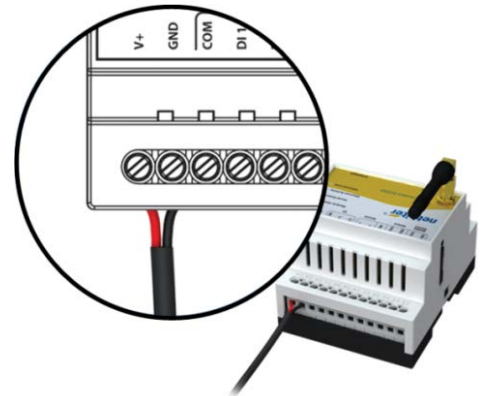
2.6 Connect the Power Supply

Connect the cables of the power supply to the Netbiter EC250, as shown in the illustration.

- Connect the red wire to the V+ terminal (pin 24)
- Connect the black wire to GND terminal (pin 23)

Note that as there are already 2 wires connected to each power terminal, it may be convenient to use an extra terminal block.

2.7 Check LED Indicators

Check the **Module Status** indicator LED for the status of the Netbiter EC250. The **Module Status** LED indicates both the **Signal strength** and **System** messages. These indications are displayed in 4-second cycles, in which the signal strength is shown for 2 seconds (green), followed by System messages for 2 seconds (red).
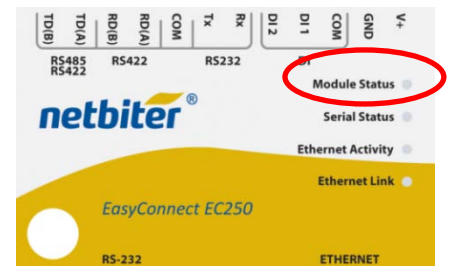
System Messages when Connected via Ethernet

Two red flashes:
Check that

- If set to DCHP – check that there is a DHCP server on the network.
- If set to static IP address, make sure that the IP address, gateway and DNS are correct.

Three red flashes:
Check that port 443, 80 or 5222 is open in the firewall.

System Messages when Connected to Cellular/GSM Network

Two or three red flashes:
This is correct behaviour when connecting to a mobile network and is due to the fact that the Netbiter EC250 does not yet have any APN settings. This is configured at Netbiter Argos and will be transmitted to the Netbiter EC250.

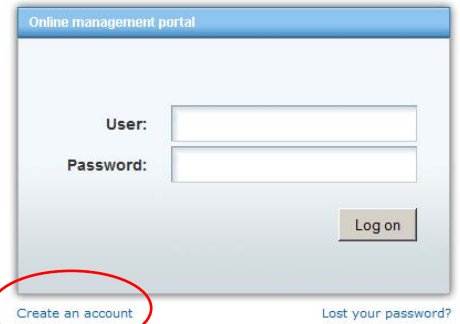## Signal Strength Indications for Cellular/GSM Networks

The strength of the mobile network signal is indicated as shown in the table below.

GSM signal		
	Low signal	One (1) flash indicates a poor signal. The gateway might be able to connect to the GSM network, but the connection it probably not be stable or reliable. • Make sure the antenna is correctly mounted and points upwards. • Improve antenna reception by trying a different antenna placement. • If possible, use another external antenna
	Medium signal	Two (2) flashes indicate an acceptable, although not optimal signal. Improve antenna reception by trying a different antenna placement.
	Good signal	Three (3) flashes indicate a good and stable signal on the GSM network.

3. Create a Netbiter Argos Account

All configuration and management of the Netbiter EC250 unit is done online at the Netbiter Argos website. This section goes through the steps to create and activate an account on Netbiter Argos, as well as the procedure for getting the first system up and running.

1. Open a web browser and navigate to https://www.netbiter.net.

2. Click the **Create an account** link.

3. Fill in the account information in the form. Make a note of your account name and password, as these will be used when accessing the account.

   Fields marked with a red asterisk (*) are required for creating the account.

The System ID and Activation Code are provided on the printed Netbiter Argos information sheet supplied with the Netbiter gateway.
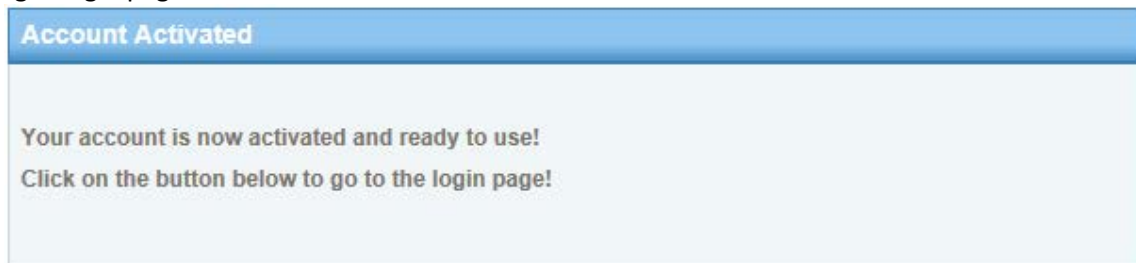
4. Accept the terms and conditions, by checking the box provided.

5. Click the **Register** button.

6. The account is created and an e-mail containing an activation link will be sent to the e-mail address provided.

Check Your E-mail

Your account has been created.

However, Netbiter Argos requires account activation.
An activation link has been sent to the e-mail address you provided.
You cannot use this account until you visit the link provided in the e-mail.

Please check your e-mail for further information!

(Make sure you add the domain netbiter.net in the white list of your spam server if you shouldn't receive the email!)

go to login

7. Open the e-mail from Netbiter Argos in your e-mail client and click on the activation link.

8. It is now possible to log in to the account. Press the **go to login** button to return to the Netbiter Argos login page.

Account Activated

Your account is now activated and ready to use!
Click on the button below to go to the login page!

go to login

9. Navigate to the Netbiter Argos login page at https://www.netbiter.net Enter the **User** and **Password** for the account and then click the **Log on** button.

Online management portal

User:
Password:

Log on
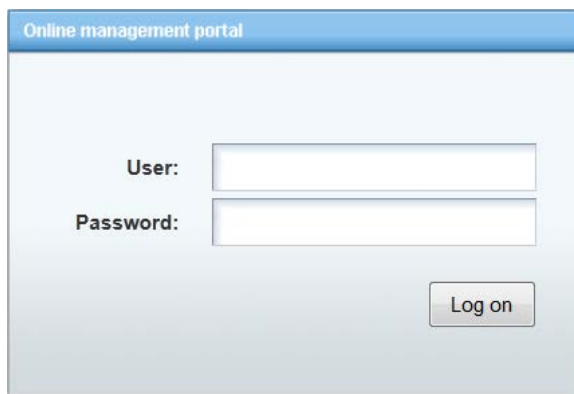
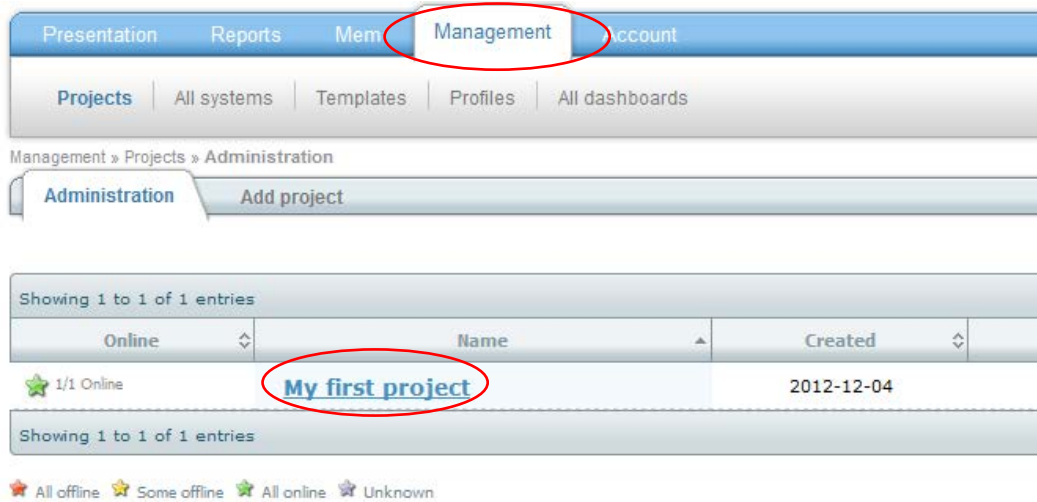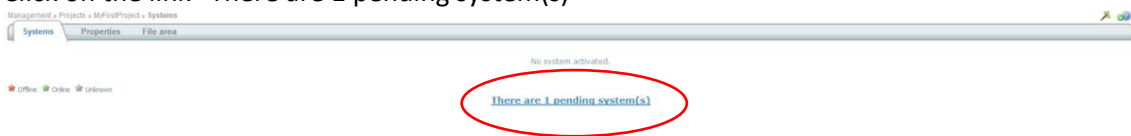Create an account   Lost your password?

4. Activate the Netbiter EC250

When the account was registered, the Netbiter gateway used for the process was added to an automatically created project, called "**MyFirstProject**". This can be found under the Management tab.
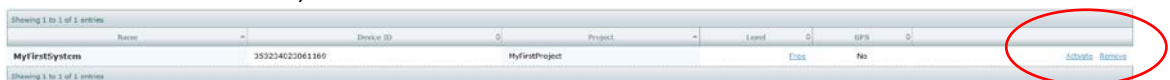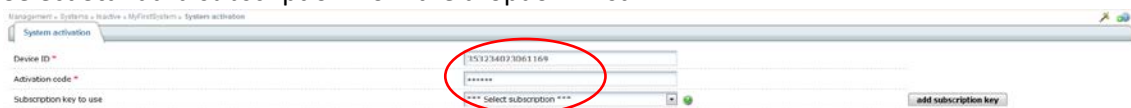
1. Click on the link to "**MyFirstProject**".

2. Click on the link "There are 1 pending system(s)"

3. Click on the **Activate** link, to activate the Netbiter EC250.


4. Select **Standard** subscription from the dropdown list.

5. Click the **activate** button to activate the Netbiter EC250 on Netbiter Argos.

   If the Netbiter EC250 is connecting to a LAN network via an Ethernet cable, then the activation is complete. To connect to a mobile network, continue to the next step.

6. In the Management menu, go to **Management → MyFirstProject → Netbiter System**

7. Click on the tab for **Mobile network**.
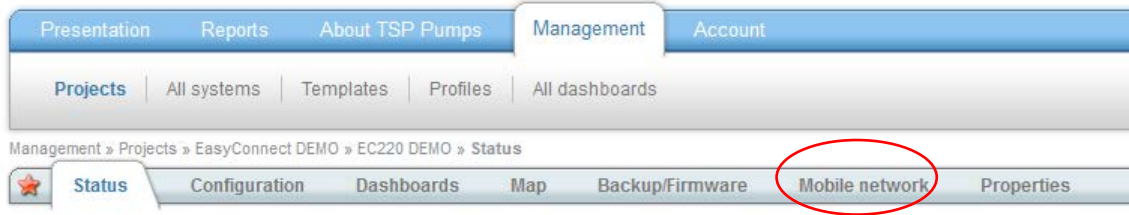
8. Enter the **phone number** for the Netbiter SIM that was provided in the SIM card envelope.
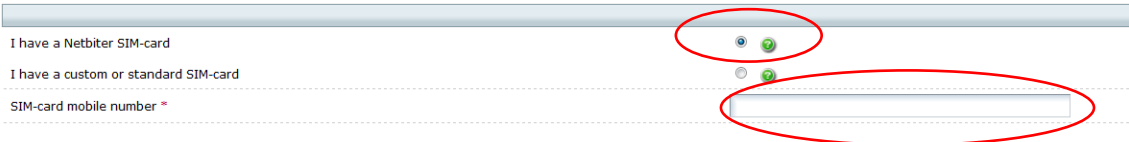

9. Click the **Send** button at the bottom of the page. This will send a configuration SMS to the Netbiter EC250, which will process the configuration, reboot and then reconnect to Netbiter Argos. This may take a few minutes.

5. Configure the Netbiter EC250

1. Go to the Netbiter System via the menu **Management → MyFirstProject → [System name]**

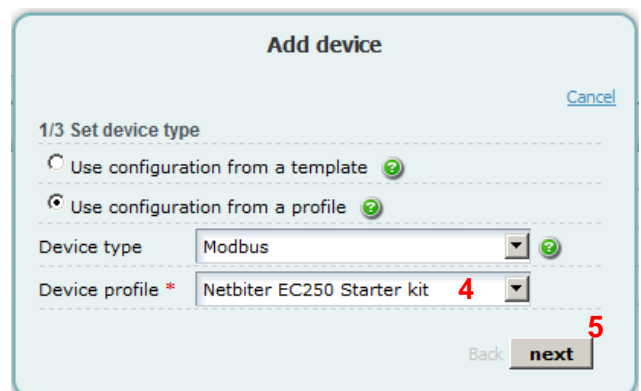2. Click on the **Configuration** tab.
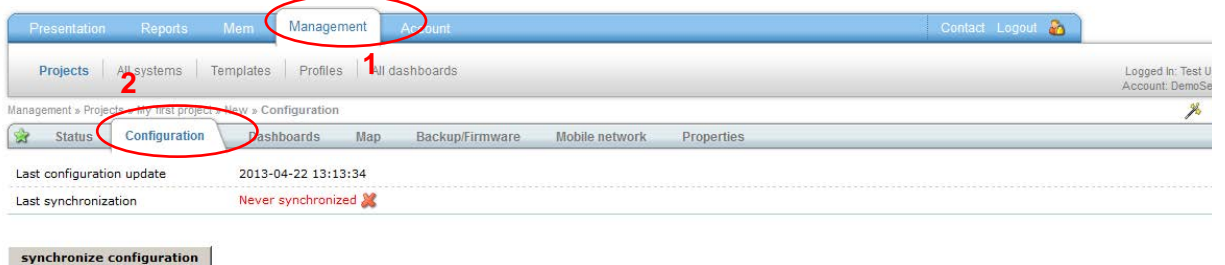
3. On the Device configuration tab that appears by default, click the **Add device** button.
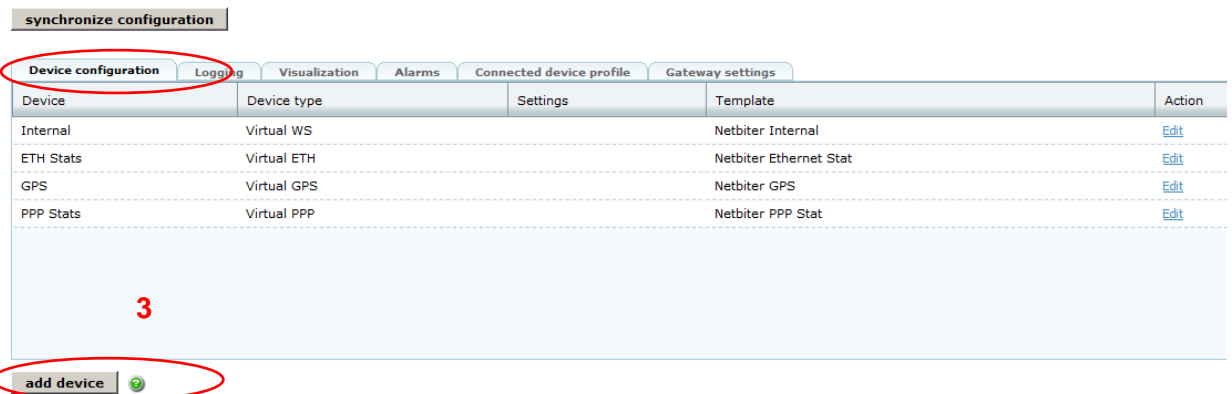
4. In the dialog that opens, select the radio button **Use configuration from a profile**, and in the dropdown list for **Device profile** - select **Netbiter EC250 Starter Kit**.

   Leave the device type as **Modbus**.

5. Click the **Next** button.

6. In this dialog, unless you have special requirements on the Modbus settings, leave these as they are and click **Next**.

7. The final step is to synchronize the configuration, i.e. Netbiter Argos will transmit the configuration to the Netbiter EC250. Click the button **Synchronize configuration**.

The device will reboot and reconnect to Netbiter Argos automatically, which may take a few minutes.
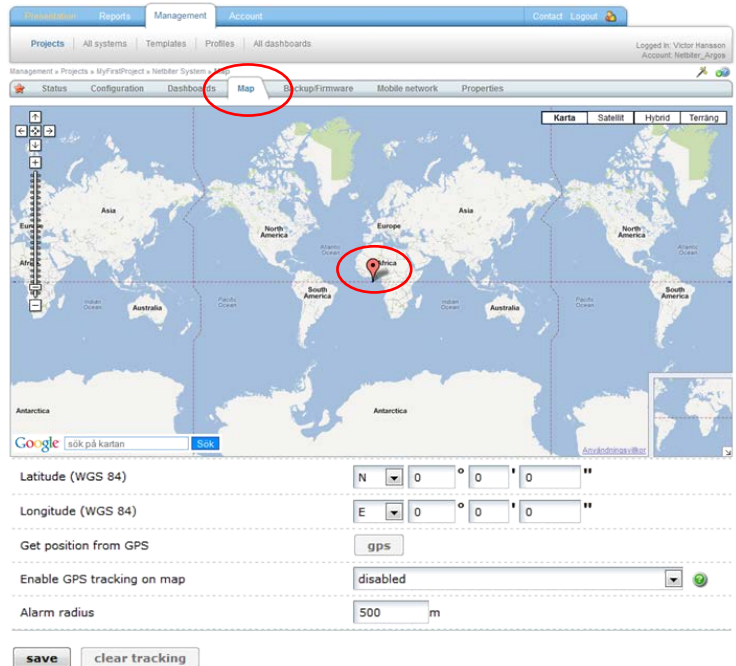
5.1 Position the Netbiter EC250

1. Click on the **Map** tab.

2. Zoom in on the map and click with the right mouse button on the installation's location.

3. Click the **save** button to store the postion on the map
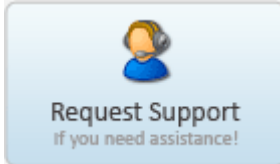
5.2 View the Project

Now that you have added your first field system to your first project, it can now be viewed at Netbiter Argos. Click on the **Presentation** menu to access the project containing the Netbiter EC250.

6. Support

Support is accessed from the Netbiter Support web page at www.support.netbiter.com.

1. Click on the **Request Support** button.

2. Fill in as much information you can about your problem.

   Fields marked with a red asterisk (*) are required.

3. Click the **Submit** button.